

Ball Corporation NYSE:BLL

Management Briefing

2018 Investor Field Trip

Westminster, Colorado

Tuesday, October 02, 2018 9:00 am – 12:00 pm MDT

Document includes important disclaimers at the conclusion of the transcribed comments

Table of Contents

Call Participants	3
Presentation	4
Question and Answer	25

Call Participants

EXECUTIVES

Ann T. Scott

Vice President, Investor Relations

Anthony Barnett

*President of Beverage Packaging
Africa, Middle East & Asia*

Carlos Medeiros

*President of Beverage Packaging
North and Central America*

Carlos Eduardo Pires

*President of Beverage Packaging
South America*

Colin J. Gillis

*President of Beverage Packaging
Europe*

Daniel William Fisher

*Senior VP & COO of Global Metal
Beverage Packaging*

Gihan Atapattu

*President of Beverage Packaging
Asia*

John A. Hayes

Chairman, President & CEO

Scott C. Morrison

Senior VP & CFO

Stan Platek

*VP & Managing Director, Aerosol
Packaging*

Rob Strain

*Senior VP & President, Ball
Aerospace*

ANALYSTS

Adam Jesse Josephson

*KeyBanc Capital Markets Inc.,
Research Division*

Anthony James Pettinari

Citigroup Inc, Research Division

Arun Shankar Viswanathan

*RBC Capital Markets, LLC, Research
Division*

Brian P. Maguire

*Goldman Sachs Group Inc., Research
Division*

Edlain S. Rodriguez

*UBS Investment Bank, Research
Division*

Gabrial Shane Hajde

*Wells Fargo Securities, LLC,
Research Division*

George Leon Staphos

BofA Merrill Lynch, Research Division

Ghansham Panjabi

*Robert W. Baird & Co. Incorporated,
Research Division*

Scott Louis Gaffner

*Barclays Bank PLC, Research
Division*

Steven Mark Wilson

Lapides Asset Management, LLC

Tyler J. Langton

*JP Morgan Chase & Co, Research
Division*

Satish Athavale

Green Arrow

Presentation

John A. Hayes

Chairman, President & CEO

All right. Good morning, everyone. And again, thank you for a very fun evening last night. For those of you here in the room and for those of you joining on the webcast, welcome.

Last night, we had a chance, I talked about a bunch of different things, and you all have the slide deck now. I'm not going to go through the first 12 pages or so, but just for the benefit of people that weren't here tonight, I just want to talk very briefly about what we discussed, and we talked a lot about culture, we talked a lot about history, we talked a lot about our people. We talked about Ball being 138 years young. And for its first 100 years, being owned and operated by a family and really what inspired, that was about the values that we have and hold dear at our company, whether it's about uncompromising integrity, about being close to the customer, behaving like owners, which is a critical part of who we are, the attention to detail or about being innovative in all of that we do.

We also talked about our Drive for 10 journey, which began in 2010, about broadening our geographic reach and focusing on new customers, new products and new markets. We talked about sustainability, which we're going to talk a lot more about today. We also talked about the progress we've made here at Ball Corporation since 2010, and we talked about the goals that we've set out for ourselves at that time.

In terms of doubling the amount of EVA dollars, 10 years, hence by 2020. And we also talked about our goal of having \$10 per share of earnings before the split. Now I remind everyone that we split our stock twice since then. I also pointed out that through the second quarter on an LTM basis of 2018. Since 2010 our revenues have gone up by approximately 50% and our EBIT has gone up by 75%.

I talked about the headwinds that we have experienced over that journey. Nothing ever goes from the lower left to the upper right exactly how you think about it. And we talked about the China pricing, some of the things in the food can business and why we ultimately got out of the food can business. But it's all good, and the thing I want to leave with you before I kind of jump into this is that we really only have just begun. I think what we're going to try to do today is peel away the onion a little bit more based on the discussion last night, excuse me. And so I'm going to kind of give it an overall arching view of each of our 3 businesses and why we truly believe that we have a once-in-a-lifetime opportunity in front of us in each and every one of those businesses. Then Dan Fisher, our Chief Operating Officer of Global Beverage is going to talk away -- come up and talk, and he's going to peel away the onion even a little bit more from what I'm talking about. And then Rob Strain is going to get up, talk a little bit more context and perspective about aerospace, and then Scott Morrison will get up and give a financial perspective of this. We'll then take a break and then we'll come back and we're going to have a 1-hour Q&A session with the various presidents of our regional businesses. So that's the agenda for today.

What I will ask everyone to do on the webcast is we're going to move ahead, here's the forward-looking statement, I'm obviously not going to read it, but it's in your materials. I'm going to quickly hop ahead to Page 13 because the pages prior to that is what I effectively just covered and what we talked little bit about last night -- excuse me, Page 16 [Slide 16], and talk about a once-in-a-lifetime opportunity. That truly is what gets us excited. And I'll go into the beverage can. We've made some great progress over the last couple of years as part of the Rexam acquisition against our integration plans, whether it be sourcing, whether it be G&A. And the move to GBS, and I will talk a little bit about that. We talked a lot about our footprint. Last night and even today, and you all are well familiar with it. Just last week, a bunch of us were in Spain officially starting up our new plant there, 2-line plant, everything just looks terrific there. We also, at the same time this summer, started up 4 lines in our Goodyear, Arizona plant, and Dutch where everything is going very well there. We're in the process of taking down the 3 plants that we talked about. So a lot moving in terms of footprint and it's all good news. Part of our deliver plans starting in -- upon the close back in June 2016. So let me talk about now more

importantly, where we're going and taking our franchise, otherwise known as our beverage can business, our aerosol business as well as our aerospace business and taking out for a spin. So I'll go into the beverage side of the business.

Let me just start by saying, plastic is polluting our planet and there's no other way to say it, it's as simple as that. Our world is shifted to a much more sustainable world, focused on this whole sustainability issue, and we're on the right side of this equation. It's a once-in-a-lifetime opportunity to take advantage of it. And when the can wins we win. And I was pointing out last night, I didn't go into great detail, but we've been in 46 different business over our lifetime. We're in 3 now, so by definition we're out of 43 of them. 3 different times in our history we've entered in the plastic business, and we got out last time in 2010 because we saw the tsunami of plastic polluting our world. We knew at that time it was uneconomic to recycle plastic and that issue still holds today.

Now I want to point out that many people don't know this but 75% of all aluminum ever produced in the history of mankind is still in use today, while 90% of plastics has never been recycled just once, think of that. And so you think about how the plastic is polluting our world, that's obviously the reason why. There's 8 billion tons of virgin plastic produced in the history of mankind and only 9%, as I mentioned, has only been recycled. 12% has been incinerated and 79% is being thrown in our landfill or otherwise throw at the side of the road or in our oceans. I'm not making this up at all. We are truly drowning in plastic. Last year, around the world, 480 billion units of plastic packaging for the beverage side was sold globally. And some scientists believe that by the year 2050 there'll be more tons of plastic in our ocean than aquatic life, think about that. More tons of plastic in our oceans than aquatic life. And if you don't believe me, we're here in Colorado, but if you don't believe me go to any beach on any ocean anywhere and look down when you see where the water comes up to the sand and you'll see plastic shards down there at your feet. They weren't dropped there, they came from somewhere, and they've been washed up from our oceans. And if that's what's on the shore just imagine what's in the water and what's in the aquatic life. And so you want to talk about sustainable, is that? I doubt that. On the other hand, as I mentioned, cans are infinitely recyclable. Most people don't realize this but when cans are recycled there's no loss of yield of the aluminum, that's why 75% of aluminum is still in use today.

What little plastic is recycled, it's actually not recycled, it's -- most of it is down cycled. And so it breaks down as time goes on. So it goes from a plastic bottle, goes in the fibers that make carpets and clothing and other things like that and ultimately, it loses its ability to be recycled. The other thing that most people don't realize is while others substrates talk about recycling, they're -- what they're really talking about is collection. When -- as I mentioned, when you have 79% of all plastic bottles being thrown either in the landfill or in our oceans they're not being recycled. Yes, they're being collected 45% around the world but they're not being recycled. And I think the world is quickly catching on to this phenomenon. And you have to ask yourself, why? 1% of all collected waste stream is aluminum but yet it's 17% of the value, why is that? It's real simple, it's economics. There's an economic case for recycling aluminum. At current rates, just to give you context, at current rates you can buy a ton of recycled aluminum for approximately \$1,300, I haven't checked in the last week or so but it's usually in and around that. Whereas plastic is probably between a \$100 and \$200 per ton, and glass sometimes has negative value. In fact, here in the United States, approximately 1/3 of all the municipal reclamation centers don't even accept glass anymore. So when you talk about living in a sustainable world, I ask you a real simple question, what is sustainable? Cans are the most sustainable package in the world.

Back in 2010, when we started on this Drive for 10 journey, we always focused from a sustainability perspective on what we internally at Ball call the Big 6, I have it up there now and we've made very good progress on it, starting with safety. We've had a 41% improvement in our safety record of already world-class levels since 2010. We've done a truly awesome job, and we still have ways to go because our goal is to have zero accidents in our facilities.

Electricity and natural gas is down 9%, 19%, respectively. Water down 11%. And our new plant in Spain, we're hoping to get an 80% reduction in the water that we use. It's truly phenomenal.

From a waste perspective, we're recycling and we're reusing more, but we're -- we also are sending more to landfill as well, so we have some work to do there. But overall, I think a very good job in that and the progress is terrific.

But today, sustainability is far more than that. The Big 6 is just a precondition, a license to operate, if you will, in today's environment. I know Dan Fisher after me is going to get up and come and talk a bit about a ton of the work that we've done, led by him as well as Kathleen Pitre, who heads up our sustainability efforts, to truly develop a strategy around how to commercialize this sustainability agenda and how to do it -- do well by doing good. And it -- let me tell you why because I think it's really important. Let me just begin by saying, as I mentioned, we're in a different place around the world. And when an NGO called 8, 10 years ago, we would hide, we would demure, we would not -- we would avoid the contact with them because there is really no upside in engaging in the conversation because honestly, we truly didn't have our sustainability act together, at least an act that was not ready for the outside scrutiny. And this time it's different. This past March, we were the lead sponsor in the World Ocean Summit, hosted by the *Economist* down in Mexico. And it was quite an eye-opener for all of us. During that time, we had a series of half hour meeting with a bunch of NGOs, world-class NGOs, Tier 1 NGOs. And at the meetings -- the meetings generally went like this. For the first couple of minutes they'd ask us about our greenhouse gas strategy. Check we're able to talk about exactly what we're doing, not only as Ball Corporation but also as an industry to try and push recycling. Then we talk about -- couple of minutes talking and answering questions about our BPA-NI strategy. As many of you know we've been on this migration and within next couple of years, largely due to shortness of supply of the material, we'll be fully out of BPA materials. But then the next 25 minutes or so were spent on discussions about how we with these NGOs could partner with them to eliminate plastic, and it was truly an eye-opener for all of us. And we recognized that we can't position the can, Ball Corporation cannot position the can as the most sustainable package by ourselves. We need partners. And that's a big eye-opener for us in trying to engage the world and using the army of armies, as we like to call it, to really bring this issue about sustainability to the forefront.

So how do we address this to make this successful? In the past, we talked to our customers, makes a lot of sense. But they're not the only ones with skin in the game, it's a whole different supply -- a new supply chain. We've got customers, we've got consumers, we've got retailers, we've got NGOs, we've got governments. For years, we've been doing this in every region, we've been engaging with them. But not at the level we need to. And if you want to be brutally honest with ourselves, we're hard pressed I think of a proactive win, we've had across the entire supply chain. We've been a little bit more reactive in the past. Our industry has been a little bit more reactive in the past. Keep your head down and plough ahead. I think what you're hearing from us is we've woken up, but as an industry leader you have to take this responsibility very seriously. And so we are going to be engaging with the whole supply chain beyond just our customers. Yes, we are going to be talking to our customers about how to utilize a wide variety of can formats to help them position their brands and make it more profitable for them. And I'll go into that a little bit later on because we indeed are on the right side of the debate here and they can get on the right side of the debate. But it's also with consumers, by leveraging this vast and free social media that we have to take advantage of the younger generations who'd fundamentally get this. They grew up on Red Bull, they grew up on Craft Beer and increasingly, they're growing up on sparkling water. They understand the difference between a #1 bottle, a #2 bottle, a #3 bottle and #7 bottle. Far greater than certainly our generation does. And so we are going to be take this out because they ultimately are the cans greatest advocate and that's what we're seeing right now.

We're going to be focused on the retailers to clear all the plastic from our isles because that's what their consumers want these days, and we're starting to see that happen in the U.K. And we've had discussions elsewhere around the world about how to make plastic-free zones in many of these retailers in which we -- our products are sold at. But also, as I mentioned before, with the NGOs to build a marching friends-of-friends, if you want to call it that, army to work with the retailers through legislative and non-legislative means. But not only the retailers, also working with our customers and our consumers and also the governments. And then lastly, speaking of governments and working with the legislators to rethink conventional wisdom. I recognize what I'm about to say is a bit provocative but we have to be provocative. Should we have deposits when the playing field is level? I know given the economics of what I talked about scrap value. Retailers would love to have their hands on used aluminum as opposed to the used plastic or used glass. Should there be a producer responsibility tax? Where each substrate should stand on its own based on its own economics. I'll take my chances with the can in this environment because the economics of recycling favor of the can, but we have to do it right. And so we're being very methodical about trying to figure out what to do as we go forward there.

As I start -- as I mentioned, it all starts with the consumer. We got some third parties to help us look at some Google searches on plastic awareness, both in the U.K. as well as here in the U.S. And look at these charts and look what

happened late last year. There's a huge spike in awareness. 5 to 6x increase in the awareness of how plastic is bad, and how it's creating a health concern for the world in which we live. But at the same time, the question is how do we take advantage of it because you also see relative to aluminum there wasn't much movement there. So people are very much focused on the problems of plastic but they haven't quite recognized the advantages, and we have a solution to the plastic problem it's called aluminum. So we're putting a lot of work in there. As I mentioned, Dan is going to talk a little bit more about that.

Now to be fair, we, Ball Corporation, and the can, in particular, are not perfect either. In fact recycling, we would be in trouble. There's huge amounts of energy required to make aluminum. And that's why Hydro and other forms of cheap electricity are so important for this smelting process. That's why you find a lot of smelters in Iceland and Canada and Brazil and the Tennessee Valley, in Saudi Arabia and Russia, because that's where cheap electricity and cheap energy comes from.

We do have a good story from an aluminum perspective, more than 75% of all aluminum, as I mentioned, is currently recycled right now. It's just not a great story. So what we've been focusing on is how to accelerate our efforts about recycling. Whether it's the things we're doing with the various associations, whether it's working with Every Can Counts in Europe, with the recycling partnership here in the United States, the Re-Circus waste picker program in South America or a myriad other initiatives and programs in each and every region. The question is not how good the recycling is right now. How you get it globally to 80% to 85% and 90%, because given the economics sustainability of the can, if we can get the -- if we can get the recycling rates even higher it's going to just further distance the can relative to plastic and glass. But at the same time, we also can't ignore the economics of our customer. And 20 years ago, the can was pedestrian and plastic was cool. If you all remember that back in the '80s when plastic was first really rolling out, it was the "it" package. It was reclosable. And honestly, it was also the most profitable for our customers. And so to highlight this, a few weeks ago I went on walmart.com and I looked at the price points. And on the website, this was, now just to give you context, I went on and said, what could I buy as a consumer if I bought it online and then went to Walmart to pick it up. And I looked at 6 different products, a standard 12-ounce can of multipacks, 7.5-ounce can of multipacks, the sleek 12-ounce can in multipacks. I looked at 16-ounce sold in cans. I also looked at the retail price per ounce for each container and indexed at the standard 12-ounce can. And I also looked at PET, and I looked at the single-serve PET, the 20-ounce PET. And I looked at another format, which I'll show in a second. But what you see here is plastic, the single-serve PET bottle is 3x the retail price per ounce than a standard 12-ounce can. And so my point in saying this, we can talk all we want about the environmental sustainable attributes of the can, but when you have a 3x profit differential relative to plastic, that's a tough pill to swallow for our customers. And so what we've tried to do is over the past couple of years using our specialty capabilities, and I know Dan is going to talk more about this, we've helped our customers increase the revenue per ounce anywhere from 225% to 300% by using different formats and different channels and be able to reposition their products relative to the standard 12-ounce can. And we've been able to improve in anywhere from 225% to 300% relative to the standard can. Pretty good, yes, but not good enough.

When looking at PET, we've made up a meaningful ground but still have more work to do. In order for our customers to embrace the conversion from PET to glass, we have to think about how to close the profitability gap for them between cans and PET.

You heard us over the last year talk about profit pools of our customer, this is exactly what I'm talking about. Customers want to do good but we have to give them the economic reasons to embrace this tide. Otherwise, as I mentioned before, we're going to be beating our heads up against a wall. So we need to continue to focus on our -- leveraging our specialty portfolio to create greater profit pools for our customers to use cans. And if we're successful, we've engaged some outside help to help us think through and to mention the size of the prize if you will of this. And so the numbers I'm about to show you are representative of each and every region in which Ball Corporation operates today. It's not Africa, it's not parts of Southeast Asia, where we currently don't operate. But what we looked at is, for every 1 percentage point increase in the share of cans relative to plastic and other substrates, there is a 24 -- 23 billion can opportunity. Now that sounds huge and I recognize that, we're not going to capture all of it. But I'm talking about 1 percentage point change. I'm talking about going from 50% to 51%. That's the size of the prize, it's huge. And just to walk you through some numbers, on the soft drink side, there is a 5 billion incremental can opportunity just in carbonated soft drink. It's broken out approximately 1.1 billion of that opportunity for every 1 percentage point increase.

In North America, why? 57% of all CSD in the United States currently is sold in PET. There's another 1.1 billion can opportunity because 83% of all CSD in Europe today is packed in PET. There's a 0.5 billion in China, the CSD market is not nearly as big. There's 400 million opportunities in Southeast Asia, and there's 900 million can opportunity in EMEA. And again remember, that's just a 1 percentage point shift, I'm not talking 10 percentage point shift, 1 percentage point shift. And beer, there's a 6 billion incremental can opportunity for every one percentage point share shift to cans. Over 700 million in North America seems a little bit low, why? The can is currently winning over the past decade, we've gone from 50% of all beer packaged in cans to 57%, 58%. We're winning right now and we still have a long way to go.

In Europe, 1.5 billion can opportunity because 63% of all beer is packaged in glass and another 15% -- largely driven by Eastern Europe, but 15% of beer is packaged in plastic. So in total 78% of all beer in Europe is currently not in a can.

In South America, there's a 600 million opportunity because 71% of all beer is in glass. In China, a 2.3 billion can opportunity because 79% is still in glass.

Southeast Asia, 300 million can opportunity because 77% is in glass. In EMEA, where beer consumption is low, there's even a 500 million can opportunity because only 5% of the beer packaged in EMEA is in cans.

When you go -- and now the real opportunity is a 13.2 billion incremental can opportunity in still products. And again, remember, that's just a 1 percentage point shift.

2.4 billion in North America because 92% of all still products, when I say still, I'm talking water, teas, juices, et cetera. 92% North America are currently packaged in PET or cartons. There's a 2.8 billion opportunity in Europe, why? Just 1% of still production in Europe are packaged in cans. Just 1% right now. There's 1 billion can opportunity in South America because only 1% is packaged in cans. 1.2 billion in Southeast Asia, 3.4 billion in China. 7% in China is packaged in cans. So think about teas, tea is a very big part of it. So it's a huge opportunity.

In AMEA, 2.3 billion can opportunities for still products because only 2% of all still products in AMEA are packaged in cans.

Now I know, how do I -- how do we compete at the price points with PET and still water, where bottles are literally the consistency of saran wrap at times. Let me tell you, we're not going to shift it all. But I'm just talking of 1 percentage point change. But the addressable opportunity probably is not nearly as big as this, and I know Dan Fisher is going to go into practically how we're attacking this and what is the short-term opportunity. But again, I mentioned to you, when you think about the opportunity that we have, and this is just a 1 percentage point shift and there's over 24 billion cans in the regions we currently operate today, that's the opportunity for us. Is it going to happen overnight? No. But the question is how do we get 2, 4, 6 percentage points shift going? Because that number will multiply accordingly and that's the opportunity for us.

So let me just quickly summarize the beverage can. Our world has shifted to a much more sustainably focused world, and we're on the right side of this argument. We do have a once-in-a-lifetime opportunity to take advantage of it. And when the can wins, given our size and scale, Ball Corporation wins.

Now from a footprint perspective and how specialty plays in with this. When we're -- we have more than twice the size of our nearest competition in general. And while that's great, it's our footprint that differentiates us. I could go around the world whether it's in Europe, whether it's in South America, whether it's in United States. But when you think about -- let's just focus here in the United States, we have -- we make over 32 different can sizes in the United States alone, and we can make them in California, we can make them in Arizona. We can make them in Texas and here in Colorado. We can make them in the Midwest, we can make them in the Southeast, we can make them in Florida, we can make them

in the mid-Atlantic, and we can make them in New England. Our nearest competitor can only do it in 2 or 3 different areas and almost all of those are east of the Mississippi. So we have a once-in-a-lifetime opportunity to leverage the footprint we have.

Thirdly, and I think Dan will talk a little bit about this more. From a commercial perspective, our contracts in this industry, generally speaking, were designed in the 1980s. And we have a once-in-a-lifetime opportunity to change that.

Historically, what has happened when we've renegotiated with our customers, we've more or less changed the numbers in the contract but rolled it over.

When you think about the 1980s when we sold very few specialty containers in the retail world it was quite different. It made a lot of sense to have the contracts back then. And made it because they -- we were able to accept orders from our customers with, for example, 72-hour turnaround time. Well today, our customers changed our orders of 1.5x in 24 hours before there shipped. And as I said, when you're making 32 different sizes and the proliferation of labels that you're seeing, and we're operating in an environment from the 1980s. When we talk about commercial, I know a lot of people talk about, what's the value over volume and all the things, but it's about the efficiency of that. And so what we've been embarking on for the last 2-plus years is looking and white boarding what we need to do from a commercial perspective to make our business much more flexible.

If our customers want to buy cans with 72-hour call offs, terrific, we're more than happy to do that. But if they want to do it with 36 hours, terrific, we'll do that too. But there's a different price for that. If you want to do it in 12 hours, terrific, but there's cost associated with that, that we need to recover. So that's part and parcel of what we're doing from a commercial perspective to try and get value for the -- for what we deliver to our customers.

Lastly, I want to just show, this is a good example because we're going to continue to push this sustainability agenda and the differentiation and the specialty agenda to make sure the can is front and center with our customers because it's going to help them improve their profitability. Just to give example of that. Here in North America, we looked in -- year-to-date, 56% of all new beverage SKUs on the retail shelf today are in cans. In 2015, that was 35%. That is a huge change. And this is a good proof point of what we've been trying to do by leveraging our specialty to get it front and center with our customers to allow them to reposition the profit pools for themselves. The question is, how do we accelerate this? And Dan is going to talk a little bit more about this because it really does get into this 2019 and more importantly, and beyond. Yes, it's about sustainability but it's also about footprint. And so when you think about it, think footprint, think sustainability, think specialty, and think about improving the economics for both our customers and for the can.

So in closing, the Ball is in our court. Our Drive for 10 journey has been about greater sense of urgency and about being proactive. We've got the footprint now. We've got the specialty capability. We have the leadership and the ability to bend the demand curve for aluminum relative to other substrates, and we have a chance to use all 3 of these tools to transform our commercial strategy. So that is what is "beyond" -- these tools, sustainability, specialty, redesigning the profit pools for our customers, that's how we're going to generate EVA dollars as we go forward.

So what I'd like to do now is quickly transition to our global aerosol business and talk a little bit about the opportunity in there. When we think about our aerosol business, let me point out a couple of things. I mentioned last night that we divested the tinplate [steel food and steel aerosol] business in North America. It was a difficult thing to do but it was the right thing to do. Particularly, on the food can side of the business, it was a structurally declining business. There's a void of leadership in the industry and as #3 and #4 industry, it is very difficult for us to provide that leadership.

And in fact, it was a good lesson for us about -- talking about being market leaders and what you should do and what you should not do, and we're taken that very seriously on the beverage can side. But the industry does need some restructuring, and we were just not in a position to do it. And we couldn't do it on our own. So why do I mention this? I

mentioned this because the aerosol business, particularly the aluminum aerosol business is very different than that. It's growing, it's fragmented, and it has a global customer base that's yearning for leadership and they need a go-to partner. And then -- and we have that opportunity to create in the aerosol business, largely what we've done in the beverage can business. Which -- so instead of Coke and AVI and Pepsi and Heineken and Molson Coors, think Procter & Gamble and Unilever and L'Oréal and Beiersdorf. We're the only supplier on 2 continents. We have the opportunity to create a supplier that can be anything, anytime, anywhere to this global and regional customer base.

Now I will tell you, it's not a particularly large business right now, it's a little under \$400 million in revenue, but it's a terrific business and the management team there is doing a great job. And I'm going to very quickly walk you through the opportunities that we see in that business.

First, let me go through the growth of that. First, it's a growth market with demand growing 6% on the global basis over the past couple of years. India, which we opened a new greenfield plant in 2015 and subsequently have added more capacity there, continues to grow very quickly and is only going to accelerate as the middle-class continues to rise and the large multinationals begin to enter that in a big way, and we're starting to see that right now.

South America, particularly, Brazil, is another strong market, where not only increased use of aerosol packages are occurring but the migration from Argentina to Brazil filling is occurring, due to the growth in Brazil as well as Argentina's economic woes.

Other regions including North America are exhibiting good growth to a low share of aluminum aerosol packaging. While Europe, a bit more of a mature market still has pockets of growth that we're seeing.

However, one of the key opportunities related to all this is further consolidation. This is just a quick snapshot of the various -- where we're positioned and where many of our other competitors are positioned. What you will see there is this industry is fragmented with no global competitors.

In fact other than Exal, which operates in North and South America, there are no competitors that can be that one-stop shop to the multinationals. There's no competitors other than Ball that operate in more than 2 continents. We operate in 3 in fact. North America, Europe and India, and there's a great opportunity to become that one-stop shop and further distance ourselves from the competition due to our capabilities in global reach.

We have greenfield opportunities, I mentioned, in certain of these regions, particularly South America. We have further consolidation in other regions particularly in Europe. And what's most exciting about that is the customer base. Unlike the beverage industry, there are global customers with truly global brands that are marketed globally as well. So when Unilever or Beiersdorf rolls out a new product, they're not just doing it regionally they're doing it truly globally. And currently as they were to rule out, for example, a new body spray, just imagine how complicated their supply chains are. They need an innovation partner to help develop the new package. Then they need to either contract with multiple suppliers on each geographic continent in multiple regions or consider filling the product and shipping it globally. In any event -- it really is a nightmare and our experience with many of these customers has proven to us that we indeed can create this one-stop shop, where we can be their innovation partner and then roll it out on a truly global basis.

They have shown ability and willingness to pay for the innovation, the quality of the service. And most importantly, is the consistency they can get on a global basis. And this is not just in theory, this is reality and it's our reality, due to the creativity of our people and customer focus where it already recognizes the innovation partner to many of our customers. You saw the display we had last night. And we won numerous awards over the last 12 months, the Can of the Year, the aerosol package of the year and other awards that highlight that: 1) it is valued by our customers; number 2) we can create more stickiness with our customers through innovation; and 3) we have the geographic growth opportunities if we can further scale this business out.

And at the same time, we also have sustainability on our side. Similar to the beverage can part of the business, we have a huge opportunity to create incremental demand through leveraging our sustainable position in the aluminum aerosol can.

What you see behind me is a good example of this. This is the global deodorant market. It's a big segment, but certainly not all that we do. In fact, it's well less than half of what we do in the markets that we serve. But what you can see is the aluminum aerosol can is underrepresented relative to the roll-on deodorants and other forms of packaging.

And not to mention, the aluminum aerosol can is a premium part of this category, where our customers enjoy much higher margins due to the retail shelf space of the package. A 1 percentage point increase in the regions we currently operate from other forms of packaging to aluminum aerosol represent 80 million cans. Now that doesn't -- in the beverage world, certainly, that doesn't sound like a lot. Let me point out that, that is, 1) 2 full lines; and 2) that would be 10% of our global output currently. And that's just a 1 percentage point change. So there's huge opportunity for us on the aluminum aerosol as well, and we have a once-in-a-lifetime opportunity.

So as I summarize in the beverage can side, it's the same message. The ball is in our court. Drive for 10 is about being proactive with a much greater sense of urgency, and now is our time and now is our moment.

Last but not least, I want to go through our aerospace business. It's our little gem. As many of you saw here in the room last night, we went up to Boulder. And it's perhaps the single greatest opportunity for growth on a percentage basis across our portfolio.

Our aerospace folks have done a great job positioning this business over the past decade or so. Most people don't appreciate this, but throughout the 1990s, we were primarily known as a ragtag group of NASA engineers. And we did exquisite things for NASA. But basically, to the other parts of the government, we were just selling components. We were what was known as a Tier 3 supplier. And starting in the late 1990s and early 2000s, we started moving up that food chain, and we moved from a Tier 3 supplier to a Tier 2 supplier. And we were selling not only components, but we started selling sensors. And what has happened since then is we've actually been moving up into the Tier 1. And so the difference between the three is the Tier 1 is really you are the mission partner. You are in charge of the whole mission. Tier 2, you're providing sensors or satellite buses, as they're known. And Tier 3, you're selling components to it. We've been able to move from Tier 3 to Tier 2 to Tier 1.

And the reason for -- Dave Kaufman mentioned it last night. But for the benefit of everyone, it was really about 10 years ago that something fundamentally changed, profoundly changed.

Coming out of the financial crisis and faced with government budgets that were flat at best, the world, in terms of its needs around intelligence, surveillance and reconnaissance, was booming. We're in several different wars. The technology was changing very quickly. And the government woke up and realized that the way isn't as it were for 40 years, building exquisite systems for very high prices through the traditional industrial complex, so think of the primes, it was no longer sustainable.

So the leaders of the government began to change their thinking. They solicited outside and more diverse thoughts and ideas, and they invited us to the table. And then we took advantage. Having a seat at the table and not being tethered to the past, we were asked to join design teams, who we never thought imaginable. We won a number of study contracts back then, which were a bit like strategic planning consultants winning work, that they actually get to help plan the future. And so we had a seat at the table. And it was really a lot of fun because the government was listening to what we had to recommend.

So you fast forward 8 years later, and we've been the great recipient, candidly, of this change of thought. And we've been growing not only on the sensor side, this Tier 2, but also on the mission side, this Tier 1.

And in today's world of highly resilient distributed systems that are cost-effective, we are perfectly placed to take advantage of this once-in-a-lifetime opportunity.

And let me give you some examples of exactly what I'm talking about and how it's played out. This is a chart of our backlog, which means contracted wins that have been funded. So it's won and funded, contracted backlog. And then also something that we don't talk a lot, or at least historically have not talked a lot about, which is "won not booked". What that means is we won a variety of contracts. But due to the government funding mechanisms, they haven't officially been funded. So we've won the contracts, but we haven't booked it in the funded backlog. Because as we describe it, it's not money good. Now when you look over the past, 80% to 90% of the won not booked ultimately gets funded. So not all of this will get funded. But we have high confidence that what we've been doing has been working. And a lot of it has to do with these study contracts. So when you go from a study contracts, and then you get a seat at the table, then you can help design the future. And then you win that, and then ultimately it gets funded. That's what we're talking about here.

So I want you to take a look. Back in 2011, our won not booked began to decline as the government took a fresh look at what they did. The budgets were relatively flat, and a lot of the proms in-sourced a lot of the Tier 2 work that we have been doing. And you can see our won not booked in 2011. 2010 began to decline a little bit.

That typically translates a year to 2 years later into the funded backlog side of it. And you can see it right there, that 18 months to 24 months later, we start to see a decline in our funded backlog.

Now a few years later, our won not booked began to pick up. And follow that out to 1 or 2 years later on the funded backlog side, it's the same story. The slope of the line is about the same.

Now look at what happened over the past year. Yes, our backlog is at record highs, but that's not the interesting thing. What's more interesting is our won not booked has spiked meaningfully. Why? It's those study contracts that we've won over the last 8 years or so. Those are the acorns that are turning into the oaks. And they're not just components, they're not just sensors, they're full missions. And now granted some of these are not going to move forward, but if we're so excited about where our backlog is right now, let's dream and look ahead of what might be happening over the next couple of years.

I don't want to be a prognosticator and do it. But you can see the scope of the line, and you can see the won-not-booked. This is why we're so excited about aerospace prospects, and why I said it probably has the single greatest percentage increase opportunity ahead of itself of all of the businesses in our portfolio. So what do we need to do to enable that? We need to execute. We need to grow the development of our people. As we mentioned last night, over the past 18 months, we've hired over 1,200 people in this business. That represents approximately 40% of the people working at Ball Aerospace today. Now imagine the hiring process of that. Imagine the onboarding process, how to get them computers and phones and cubicles, not to mention how do we get the right skill of staff in the right programs.

I give our aerospace folks a tremendous amount of credit for stepping up to this insurmountable task. But at the same time, we've only just begun. But how do you integrate them? How do you instill the values of Ball, while allowing the diversity of creativity and thought? That's one of the things that keeps me up at night. But this is where all of us, old and new at Ball Corporation, need to act as one and look to building the best people and culture.

And so we have a variety of programs within our aerospace business to make sure that the 60% of the people that have been around for a long time are the greatest advocates and the greatest mentors for those 40% of the people that are coming onboard.

We also need to scale our facilities for tomorrow, our manufacturing areas, our engineering areas, our support areas.

This is the primary reason why our corporate folks actually moved out of our corporate headquarters to free up space and room for our aerospace people. I often joke with Rob Strain each day. I want to look out in the parking lot and see a bunch of trailers pull up that are going to be mobile offices. And while that's a joke, it really isn't. That's how quickly we're growing.

But at the same time, that's why we're spending over \$100 million on our facility expansion in aerospace. And we need to make sure that that's on time and on budget, and so far so good. Thirdly, we need to leverage our technology. It's what's gotten to the table -- have gotten us to the table and where we are right now. But at the same time, all eyes are on us. And we recognize that our customers, our competitors, our teaming partners, with these great wins come great responsibility, and we need to execute. It's a once-in-a-lifetime opportunity to prove to these customers that we have the capability and know-how and we can do it. And rest assured, we are on it and we are going to execute on this technology. But at the same time, we're not taking our foot off the gas. We're still winning those study contracts for they are the backlog 6 or 8 years from now.

And with the excess -- we are experiencing -- while the success or experience is terrific and tremendous, we've got to live in the moment, execute today and, at the same time, plan for tomorrow.

So let me just quickly wrap up. The last couple of years, when you take a step back, they're both extremely rewarding and, at the same time, challenging.

Challenging from the perspective that when we embarked upon our Drive for 10 journey, there were many who thought that the best days of Ball Corporation were behind us, that our aerospace business was too small to be a mission partner; that our aerosol business could not grow; and that the benefits of the Rexam acquisition were candidly unrealistic; that we couldn't generate the cost synergies that we said we could; and that our customers had too much power, that the effects of truly creating a market leader with real organic growth would be watered down; and that our vision of leveraging our footprint, our size, our sustainability attributes and our people to position the can as the most sustainable package in the supply chain were simply unrealistic.

And you know what I say? Watch what we do, not what we say. We believe in ourselves. We believe in our culture. We believe that we've done it before, and we believe we're going to do it again. And so we're going to let others think it's unachievable. We're going to let others question our passion and our work ethic and our team and our character. We're going to show others that with our humility, with our grit, with our perseverance that we can make these dreams come true. There's an old saying that I've always held dear that when your memories exceed your dreams, the end is near. So while we're very mindful of our past, and we're very respectful of our past, and in some ways a reflection of our past, our dreams of being the most sustainable beverage can in the whole supply chain, of being the go to partner with aerospace customers and of being anything for anyone at any time in our aerosol business, those things are in our control. And so there's a lot of people think that their best day's behind this, and we'll let them. I can tell you, at Ball Corporation, we don't think that way. And we're not going to think that way because we have a once-in-a-lifetime opportunity in each of our businesses. And that is the basis of '19 and beyond. So with that, I'll turn it over to Dan and Rob and Scott to begin to peel away the onion just a little bit more and show you why we have conviction around the "and beyond". Dan?

Dan Fisher

Senior VP & COO of Global Metal Beverage Packaging

Thank you, John, and I thank all of you for being here at our -- coming to Denver, Colorado for our Biennial Investor Day. I know our folks out in Golden are really excited to have all of you come by this afternoon. I think one consistent theme you'll find, when talking to any of the Ball employees, that the most energy we ever get is when we get to go out to the shop floor and work with our folks and see all the incredible empathy and energy and excitement they have for doing some really herculean things on a daily basis. Today, my goal is to help you understand how Ball is playing offense in the global beverage can industry and leveraging our global scale following the June 2016 Rexam acquisition.

On a side note, if you ask my college basketball coach, he will tell you, "I'm uniquely positioned to talk about offense." But I'm not the person you want talking about defense whatsoever. I don't have much of an appetite for that. The opportunities for growth are numerous, as John pointed out. So let's dig in.

Slide 43 represents a high level summary of our global beverage can business at the end of 2017. And as John pointed out, and we've talked to numerous times on calls, we can truly serve our customers anywhere, anytime with any size, shape of aluminum beverage container to help them grow their profit pools. Scale matters. It does in the biggest markets, for sure. And in 2016, we broadened that global scale.

When we embarked on the journey to acquire Rexam, John had the vision and the team support to get through the complicated Rexam regulatory process: lay out a 3.5-year synergy capture plan, integrate a very large and complex global business and optimize our plant network to ensure significant EVA returns for our shareholders. And throughout the balance of my presentation, I'll paint a picture of how we capitalize on our pillars for growth beyond 2019.

Back in December 2016, I was new in my role and had the pleasure of meeting most of you from my very first investor day. I think I was in the role for 48 hours. I was new in my role, and all of you were full of questions about what initiatives Ball would undertake to achieve the aggressive synergy case that we have laid out.

This slide is the exact slide I spoke to back in December 2016 to help all of you understand the areas we would leverage to extract cost savings, value and position our global business for long-term growth.

In the spirit of time, I'll touch on and highlight the operations and footprint sections to speak to commercial in a few coming slides.

For those of you who attended the product showcase last night and learned about lightweighting, and specifically the Star Can, Ball is moving to a global sub 9.5-gram can.

You saw the time lapse of the Goodyear, Arizona facility [construction] and how we were able to install and start up 4 beverage can lines in one year. You saw how we can use technology for training and executing line simulations to ramp up new specialty lines quicker than ever before. And by using that simulation software, we can deploy capital with the most efficient view.

When it comes to optimizing our plant network or footprint, though very difficult, supply-demand for standard containers, both across the U.S. and our Europe network, is in much better shape than at the time of the acquisition.

Reidsville, North Carolina, Recklinghausen, Germany both closed in mid-2017. And the Birmingham, Longview and Chatsworth plants have now all ceased production in the U.S. per the schedule laid out last year.

One note to help reframe some of our comments in a little bit more detail. If I look at the U.S. in particular from a footprint standpoint, we removed 8 lines. We added back in 5 lines. Of the 8 lines, 4 were 12-ounce lines. Of the 5 added, 1.5 were 12-ounce lines. So it's a net reduction of roughly 1.5 billion to 2 billion units. My good friend, Carlos Medeiros, the President of North America, and his teams have been challenged to increase efficiencies and reduce spoilage in an attempt to gain back that volume to secure contracts going forward.

In South America, we have completed the closure of our Cuiabá facility and look forward to completing construction of our new Paraguay plant in late 2019, which will complement our Southern Cone plant network and serve contracted customer growth. At the time we laid out our value capture initiatives, many people outside of the walls of Ball said it was too aggressive.

One thing our investors should always remember, our teams are owners, too. All the way down to the plant floor, we're aligned, and we appreciate the sacrifice our colleagues have made to execute and position us for future growth by focusing on supply-demand, embracing new technologies and embracing challenging projects to bring product innovation and capabilities to our customers and growing beverage categories.

John referenced last night the global beverage can business is well positioned through the medium and long term to grow to 2% to 3% clip. This identifies a number of the volume projections that we see -- that we've experienced here recently and we believe will continue.

In short, the beverage can business is alive and well, and we're going to talk about how we're uniquely positioned to capture and win in these markets.

When we look at Slide 47, I've summarized how we are uniquely positioned to grow. Whether it's our well-capitalized and flexible specialty footprint that we've continued to invest in, and we indicated that at the outset of the Rexam acquisition.

Our improved supply-demand balance, commercial opportunities that are continuing to present themselves in the term of long-term contracts that will continue to open up over the next 2 to 3 years.

New category growth, we'll go into that in more detail. Sustainability has been a really dramatic shift. I think as most recently in the CCE public release they talked about how there's been a big transition. And John referenced, we were over in Europe last week, conversation with some of our bigger customers last year were all predicated on the elimination of sugar and the avoidance of sugar taxes.

It is absolutely moved in a very steep way, in a very sharp away, in a very dramatic way toward how they prevent the onslaught of the negative press associated with plastic contamination.

All of these levers, including supply chain investments to help us manage the increased complexity that faces us, as we shift into providing what our customers want, when they want, where they want it, are all going to be catalyst for us moving forward.

When you look at our specialty portfolio here on Slide 48, this highlights 2 things. Number one, this is a sample of over -- the over 30 can sizes that we manufacture in our European business. I know John's already highlighted that we're north of 32 can sizes now in the U.S.

But that system of product offerings has allowed us to, on a pro forma basis, from 2015, if you look at our pro forma Rexam acquisition, we've grown our specialty container volumes by 40%.

We have also got a product portfolio now that has specialty at 40%. So that 40% number is a big deal since we've embarked on this journey.

A couple of examples I highlighted, one already relative to Goodyear. But Cabanillas and Goodyear were also significant investments that were contemplated as we went through the due diligence process of the acquisition.

These 2 facilities combined are \$350 million worth of capital investments. I know Scott's highlighted them previously and will probably talk about them again.

We believe that we've got outsized returns above our cost of capital, and we've provided a much more flexible footprint from a specialty container perspective.

We're also preparing -- not highlighted on this slide, but we're also preparing, obviously, for the construction and startup of our new plant in Paraguay, which will come online at the end of 2019.

And in addition, specialty can line conversions are occurring at multiple plants as I speak. A big thank you to all of our teams. Their execution has been phenomenal, another side benefit of our ownership culture at Ball.

So why would we invest? We continue to capitalize on commercial opportunities and position ourselves to be the supplier of choice to our customers.

Our customers also have a mandate to grow, and they need partners like Ball that can embrace the complexity necessary for years to come.

With complexity comes opportunity. We're actively in the process of garnering this value. We negotiate with our customers in private, not on investor webcasts, no, with 15% to 20% of our commercial contract volumes being negotiated by the end of 2019.

The opportunity is now, and we have the product portfolio and global footprint required by our customers. It's a good place to be. This is a snapshot of our North America business and how we're evaluating and looking at that over the next 3 years. This is something that we do in each of our regions as we build up our strat plan 3-year cycle.

North America, we believe, is expected to grow just ahead of 1.5% between now and 2021, largely due to new categories in the can being the package of choice for new product introductions. John mentioned this earlier with the SKU proliferation and new levels -- labels coming online at a higher clip than they have historically.

Sustainability, we're in the early innings of that. A lot of that upside's not necessarily built in here. But how you -- if you were to walk through this, I'm sorry, I can't step away from the microphone, but we very much understand that the U.S. domestic beer market is declining.

What is not underlying there is what products and what brands are growing and/or decreasing. So there's another set of information that we've invested heavily in from a marketing and a business development standpoint that goes into our evaluation of who are going to be the winning customers and who we win with. There's a lot. When you see the Mexican domestic bars, we continue to see expect outsized growth there.

FABs are where your spiked seltzers are and domestic U.S. Craft continues to be a great growth story for the can. On -- down the wine, we're very bullish on wine. I'll talk to that here in a second. And then you shift over into CSD. Yes, there'll be a continued decline in certain categories within both the large CSD providers. But they're also winning in sparkling waters, in teas and juices. And I think the substrate penetration that is available to us from a plastic-to-can substrate shift could move these numbers north. I just wanted to give you an indication in how we look at things, in how we prioritize our resources and why we're excited. Even in markets where we think domestic beer and CSD are challenges, we still think there's macro growth there. And as a market leader, it's incumbent on us to make sure that these categories and these new products have a home, and we can facilitate that growth.

The story of wine is quite exciting. I mean, since the last time we were together, a couple of years ago, there's a time sequence up here. But wine in cans is happening in the U.S., referenced PET not being accepted and MRFs [material recycling facility] across the U.S. Glass is having a challenge as well. And so some of the big wine consortiums are all

looking for a home for price points of certain wine. They're looking at the can. They understand the sustainability attributes of the can. And we have made filling investments that will be coming online in North America.

And we've cultivated through a lot of the business development folks that some of you saw last night. Great relationships in the early stages out on the West Coast. We've invested in our Fairfield facility to make sure we have the appropriate can sizes, to make sure that we're in line for the legislation in and around alcohol.

The sequence here, if you look back in 2002, is essentially Coppola was the customer. And our most recent IRI data shows that there's over 68 -- almost 69 brands now, new customers. And we have a really good head start. A lot of the innovation required in and around this is very different than other categories. You need food scientists. You need a sophisticated technology center and lab. All of these wines require a different coating and a different interface with the metal. They're all living breathing organisms. So you have to make the appropriate investments. You have to work with a supply base that you can to have an effective job from a leverage standpoint to pull them into these innovation pipelines and customer discussions.

I was asked what I thought the size and scale of this opportunity was. It's pretty early to call. I would reference similar patterns to craft beer. And if it's half the size, I think we'll really like that 5 years from now.

But we've seen this opportunity. We've been engaged in this opportunity. And I think with some of the investments and some of the capabilities we've put in place, we should start to see those benefits here in the not-too-distant future.

I could talk about LaCroix and water and a countless others. But I think that one's the newest and one of the most aggressive opportunities that we've been pursuing. And it's probably not highlighted in a lot of your thought process.

Again, John's talked about the sustainability message. And it's interesting, in talking with a number of you last night, it's still a challenge. I was talking to Scott. There's just so much misinformation out there about what plastic really is and what you can do with it, and I think John dispelled some of those rumors in a pretty dramatic and compelling way. But there's an education process. And whether it's social media, advertising, I've gotten a lot of really good recommendations from all of you here. But it's definitely going to take a layering effect. It's going to take NGOs that want to partner with us that value one-way packaging. It's going to take retailers that we can help to convince that putting cans and plastic-free isles is a way for you to margin up your business. Profit pools to our customers, we've got a pretty good idea on how to innovate and how to talk to them on that. But there's countless layers that have to be involved in this because, candidly, the misinformation is so real and so evident that we've got to -- we need an army of folks to kind of overcome that. And we are clearly focused on making that happen and engaging with people in a way to make sure that, that message gets out.

The pockets of opportunity, the real tangible markets, we are not going after this. John is very passionate about this subject and can evoke a lot of emotions. And then the 24 billion, I have to tell they might not show up in the budget next year. But I think there's some markets where we can go after in pretty short order. Our colleagues in Europe have kind of been on the front lines in the U.K. But we've done a lot of work to kind of right-size or size the opportunity. And when you talk about the U.S., Mexico, Brazil, obviously, the U.K. and Spain, the substrate penetration in and around CSD and other, that's really where the sweet spot is for us to move cans into.

And those would be the targets -- and those would be the markets that we target. And the reason why we would target those markets is all in and or around what John highlighted relative to social media and what we can glean from the sentiment scores that are out there. We understand who is serious about talking about plastic as a polluter in the environment. And then you have to look at per capita GDP and things of this nature to know who may be willing to pay for this transition and who may be willing to demand that transition.

And so we've built our case and our target based off those countries, largely based on where the activity is on social

media in and around this topic.

We've achieved some significant short-term wins in and around places that 2 years ago, I would've said would have been far more challenging than they are today. Our colleagues in Europe and U.K. have really benefited. You continue to see this customer CanO Water in the U.K. They've done a wonderful job facilitating this. This is a can of water that I believe currently is filled in Austria. And they're growing by leaps and bounds. They -- you'd be able to see them in Tesco value meals, where they've transitioned out plastic bottles in lieu of this can. So it's happening, and it's happening real time. Our Ball water, still water business is up nearly 20% in Europe year-to-date. And we have far more opportunities than I would have anticipated even a year ago. So kudos to the team for a lot of the progress they are making there. This slide, I think, you could find from probably any major consulting firm talking about 4.0 digital manufacturing. I think you saw, Ball takes a very pragmatic approach to this in the areas, whether it's working on automation or how to get better use out of -- by using data and sensors, getting better use out of our wear parts and our tooling to extract better efficiencies. And maybe even more important when you sell the 3D training. In some parts of the world, domestic U.S., look, it's a tight labor market. And we pay people very well, take great care of them. But it's -- right now, it's not that exciting of an opportunity for folks to step into. And so we don't have 10 years to get people to work on the front end of the line and the back end of line and understand the cadence of all. We have to use technology to get folks engaged very quickly to show that this business is actually a little sexier than people would think. And where that's principally how we're using automation in technology is to bring on and maybe even mix our skill into higher engineering class of laborers, so they can use these tools. They can automate these lines. We can right-size our productivity efforts in terms of labor, and we can benefit from the technology.

So as we look out in terms of the earnings profile and how this lends itself to what Scott's going to talk about, what John's already highlighted, new categories, new category introductions, us taking a leadership position in those, as we have, price, mix, global versus regional customers. We have, globally, over 1,000 customers. It's exponential compared to what our other competitors have. We pride ourselves in embracing complexity and working with folks and getting into every market, every channel possible. We see real value in that. And we will continue to pursue that because there's -- where there's complexity, there's opportunity. Geographic growth, there are still places that we're not at, in the same level that I think even some of our competitors are at. But we were -- last week, John indicated, we're in some spots with great opportunity set.

We were in Moscow and Spain last week. But great sustainability paths for the can to continue to win. We have great people, great infrastructure, great footprint. So there are pockets even within our existing infrastructure. Argentina, I know a lot of folks have talked to peers about that over the last 24 hours. Great opportunity set in front of us. Plant efficiencies, I marvel at the way our plants continue to drive and gain output despite the complexities that are thrown at them.

In our European business and our North America business this year, we will do 90-plus thousand label changes. That's probably up 40% from 4 years ago. So we will eclipse 100,000 probably in the next 18 months. And our efficiencies are going up. And that takes commitment and that takes process change and that takes thought, and that takes capability and that takes a culture that we've built and we lean on heavily.

And I think as both Scott and John have also talked about, we've launched our global business service initiatives. There's been a lot of structure and thought that have gone in behind that. I think Scott will touch on that a little bit more. But we'll continue to right-size the organization to make sure the folks that are working on strategic initiatives are working on strategic initiatives and the folks that need to be working on managing KPIs and driving efficiencies and back-office functions are doing that full-time.

So we've already begun to execute on these opportunities. I'm excited to see this sustainability search, continued growth in specialty and how well capitalized and positioned we are for these opportunities going forward. Ball is proud to be the industry leader for beverage cans. It comes with great responsibility and humility, is an important part of our culture. Will everything break our way? No. But I also know that we will make decisions based on the best economic outcome for our

fellow shareholders, and we will have the team and assets to be able to execute and serve our growing customers and categories with the most sustainable package in the world. Thanks, and I'll turn it over to Scott or Rob. One of them.

Rob Strain

Senior VP & President, Ball Aerospace

Good morning. First I'd like to thank those that took their time yesterday to go up to our Boulder, Colorado operations. Our team got a real kick out of being able to show off some of the stuff they're involved in. And your interesting questions keeps them motivated. John talked a bit about where we've been and a little bit about where we're going. I will try to dig a little deeper into that. So this year, the first half of the year, we've had pretty close to \$50 million worth of operating profit, \$554 million of sales, which represents a 12% growth year-over-year.

John told what is, for us, a kind of remarkable story on the backlog, the winning new business portion of our business. Just a couple of years ago, we had backlog of \$600 million, and now at \$1.8 billion, almost \$1.9 billion [of contracted backlog], and hope to win some other programs here in the next few weeks, actually, that could take it even beyond that. John talked a bit also about the hiring pace that we've been on. We've hired over 700 new people this year. That's been the fastest pace of hiring in our company's 62 years of its existence. And I have to tell you. I spend a lot of time with a lot of the new employees. We keep raising the bar. It's incredible to me the capability of some of the folks that we've bought on. It also has given us an opportunity to, in a very material way, address our diversity of our staff. Over 40% of the new hires this year are women and minorities, well above our industry's average.

So a question could be, how have we done this? And we've done this in a number of ways. One, we've leveraged the expertise across our entire company, not even just Ball Aerospace, but across the entire corporation. An investment we've made is building strong relationships with our customers well earlier than we ever had before. The other thing we touched a little bit yesterday is we made a major investment in people, time, energy in our D.C. office. Almost all of our customers are D.C.-based, and we've had to ramp up over the last several years our presence there to make sure people know our story.

Most importantly, what we've had to do is we've had to deliver on our commitments and execute on the programs we currently have. There's no better way to win new work is to execute well on the work that you have.

The other thing is and has been talked about over and over, and you'll hear it from me as well, because I believe strongly that it's a discriminator with our -- in our industry and with our customers in that is we have to have and continue to have a culture of transparency, integrity, innovation, humility and collaboration.

Without that, we'll just be one of those other guys. And we really, really don't want to do that. We use that in how we behave with our customers, how we behave amongst ourselves, and we use it as a criteria as we hire people. Do they pass that test? So we've been about staffing up to take on the work we've already captured. As I said, we've hired 700 so far. We'll hire another 200 to 300 yet this year, and the talent is absolutely terrific. Thanks. A number of people have asked me questions on how do we contract with the government.

First of all, if you go to the far right, we are a government contractor through 98%. And we service the civil market, the DoD market and the intel market.

In the civil, that includes NASA, NOAA, USGS. In the DoD, that includes Navy and Air Force and Army, the others. And then there's an intel community, which I won't go into, but is a big part of our business. This changes from time to time. But our current mix, most of our contracts are contracted either on a fixed price basis for products to be delivered or on a cost-plus basis. And typically, if there's a great deal of development or new technology, they tend to go cost-plus. Those bring a little bit less profitability, but they have very, very low levels of risk. We at Ball Aerospace have done extremely well in doing fixed price contracting. And that will change over time as the mix of our contracts or where we are in our

contracts change. And then you can also see the mix. Right now, and this is a material change over the last 5 years, we are highly defense and intel-oriented right now. But that goes back and forth depending on where the government budgets are in that regard.

Next chart, thank you. On the innovation front, those of you had a chance to get up to Boulder yesterday, one, again, thank you; two, you've got a chance to look and see first hand and talk to some of our staff about some of the exciting technologies we're working on.

Innovation is the key for us, and there's no way around that. We recently won a quite large contract for us with NASA, which will build on our many, many year history of working on their most important missions. The newest of their important astrophysics missions is a program called WFIRST. That is a space-based observatory designed to answer essential questions in the area of dark energy, exoplanets and infrared astrophysics.

It is the new -- over the next 5 or 8 years will be the new research areas of the scientific community, not in America, but worldwide. And it builds on a long history of other great astrophysics missions, the last of which was the Hubble Space Telescope, of which continues to fly today and has 6 of the 6 instruments flying today provided by Ball Aerospace.

Next chart, please. So John talked a little bit last night and again today about our view of being a mission partner, which is terribly important to us. We don't use the term, mission prime. We use mission partner, which represents a mindset that we approach our customers with. And that is to be part of their mission, part of their success. And it also broadens our role on these missions. As John said a number of years ago, we were a sleepy little provider of really good little instruments. We've grown from that to spacecraft, to integration, to testing, to launch. We also do launch and now bringing the data down to the ground to the scientists or war fighters, whatever the case.

This has come about as we've crawled up this food chain. We've had a couple of key customers give us opportunities, starting with studies, as John said, on to small missions or demo missions. And now we're into operating or program or record missions. And we're off actually to a very good start on that. And that opportunity space looking forward is really, really good for us, providing we continue to perform.

Next slide, please. On the technology side, just to highlight a couple. We have done data analytics for the military and for the intel community for 35 years. And we do it well. We have 400 scientists and engineers that do that. And over the last few years, we've taken that group and teamed it up with some interesting commercial opportunities. And it's an area we think we can grow. So that's one area of technology. Another, which we're -- which fits neatly in the sustainable -- sustainability category, and that is we've developed for the government methane monitoring instruments that can measure with very, very high accuracy from aircraft or from space for pipeline operations, for safe -- community safety. And we've more recently teamed with an organization that takes that to market, and we're kind of excited about where that might go also.

And the third area, to touch on just briefly, is in the area of LIDAR. We have worked in the LIDAR world with the Air Force and Navy for years and years and years, and that technology is really advancing. There's some very clever work that was done by MIT that was transferred, and then we recently bought the rights to that technology. That helped identify objects from very, very far away with just a few photons and something that could really change the game for us. And we've -- after having just this spring to acquire that technology, we've already won our first program that will take advantage of that.

Next chart, please. On the people and culture, you've heard that in Boulder yesterday. You've heard it last night. You heard it from John and Dan. You'll hear it from me again, and I have no doubt out you'll hear it in Golden this afternoon. As we grow, and as John mentioned, 40% of the people who are working at Ball Aerospace today didn't work there just 2 years ago.

So maintaining, protecting that culture is terribly important to us. We talk about it all the time in every communication we have. Our customers value it. We value it. And again, it really embraces integrity, humility, transparency, innovation and collaboration. It's important to us. And whatever size we get to be, it will be through that lense.

And last chart, I believe. John and Scott will also talk a little bit about we've made some major investments, not only in people, which I've talked about. But we've made major investments. You can see the charts. And those of you who were on the tour yesterday saw some of that, new office space, new labs, new test facilities, in order to do the work that we've already captured. This isn't a case of if we build it, they will come. They have come. We need the facilities. And finally, as John said on the once-in-a-lifetime aspect of our business and the other businesses, Ball Aerospace has been around 62 years, Colorado-based. There has never been a moment where the opportunities were as rich as they are today. And my team and myself are very excited about taking on that challenge and seeing where we can take this business over the next 5 years. So thank you for your attention, and now to Scott.

Scott C. Morrison
Senior VP & CFO

Good morning. Going with Dan's basketball analogy, I obviously don't possess Dan's height. And apparently, I didn't possess his offensive skills. To go with that, I have virtually no vertical leap. But I actually did play college basketball. And the way I got to play college basketball was I played tenacious defense, and I have the broken bones and broken teeth to prove it. And I scored more than half my points off of free throws and layups. Now you laugh, but to me, that was an easy way to add value to my team. And I think about -- when I think about our free cash flow and returning it to shareholders, I think about it the same way. It seems like an obvious and impactful way to add value to our team. And I'm going to talk about that later.

It's great to be here. It's been nearly 2 years since we did our last investor day. And the good news is we're on track to achieve many of those near-term goals that we laid out for ourselves. And more importantly, the longer-term opportunity, I think, is even bigger. I'm going to review some of our original Drive for 10 goals that John talked about last night that we laid out in 2010 and what we've achieved in terms of our goals of growing EBITDA, EVA dollars, free cash flow generation and returns. And we look at those goals, we really have accomplished a lot. What's more exciting is that the opportunities that are in front of us, I think, are even greater. And we really do have a once in a lifetime to reshape all the businesses that we're in as we go forward.

Now operationally things, footprint changes things like Reidsville and Recklinghausen and Chatsworth and Longview and Birmingham are always difficult, but the added flexibility that we're building and have built into our system in places like Cabanillas, Spain, Goodyear, Monterrey, Belgrade, San Luis Potosi, Pouso Alegre, Argentina, Chile, Myanmar, India aerosol, the aerospace manufacturing center and Paraguay add greater opportunity and flexibility for us going forward. We've invested heavily in our future, and we need to ensure that the returns for all those capital show up. And we need to execute on the incredible backlog that we have in aerospace. So it's been talked about a couple of times that not less than 3 years ago, that backlog stood at just over \$600 million and now is approaching \$2 billion. And we need to execute on our commercial strategy of ensuring we get the proper value for what we bring to our customers, and that runs across every business that we operate. And we need to transform the way we do work. The world is -- as people have talked about, is more complex. And oftentimes, we make things even more so, and we need to master this complexity and simplify where possible and not just think business as usual.

When we acquired Rexam a couple of years ago, we laid out goals that we wanted to accomplish by the end of 2019. And you could see from this slide that we're doing our part in 2018 to essentially achieve these goals through tremendous work by all the businesses and support functions, the things we are doing are working. We're growing the earnings, the free cash flow, reducing our debt as planned. And frankly, I think if we take a look back at -- from where we were 2 years ago to where we are today, all the hard work is paying off. And the one area that we're easily exceeding is on the capital spending front. And this isn't all bad because I think the things that we've spent money on, we're going to like a heck of a lot as we go into the future and really create the next leg of growth for our company.

Now when we started Drive for 10 back in 2010, we laid out a few financial goals, as John mentioned, like doubling our EBITDA over 10 years. And we knew if we focused on what was important and gave ourselves flexibility to invest in our businesses or acquire new businesses, we could get there. Now early on, you could see we're relatively flat, as in the first few years we dealt with currency headwinds, a big change in the market environment in China and declines in our recently sold steel food container business. All told, those headwinds were over \$300 million. But through this period, we focused on improving our businesses that we had and maintained a strong flexible balance sheet to be able to orchestrate the last big consolidation play in the global beverage can business.

That platform, and what we've been able to do in growing our other businesses, has given us a clear path to the goal of doubling our EBITDA and our goal of \$2 billion for 2019 is within sight.

Probably more importantly than growing EBITDA was our focus on doubling our EVA dollars. Our real value creation comes when we grow EVA dollars. It's not about getting bigger, it's about EVA. And I'll show you in a slide in a few minutes how this proves out. If you look at the line on this chart, even when our EBITDA from a previous chart was relatively flat, we were able to grow our EVA dollars by focusing on our balance sheet, receivables, payables, inventory and being prudent with our capital spending. During the period of 2010 to 2015, we grew EVA dollars by 50% without much growth in EBITDA. Now this chart only goes out to 2020, but I can tell you that even more opportunity to grow EVA dollars is in front of us as we execute on the capital and commercial plans that we have that we're executing. And at times, pruning businesses can also improve your EVA dollars.

Recently we sold into a JV a majority stake of our U.S. tinplate food and steel aerosol business, and that move will result in a \$16 million improvement in our EVA dollars as the tinplate business wasn't earning its targeted returns. Not only -- and not to mention, it also gives us a lot of cash to be able to buy back additional stock and reduce our debt even faster. The other big financial goal was to double our free cash flow from around a half a billion per year to more than \$1 billion. As important as EVA dollars are, free cash flow are close second. Cash flow is the life of any -- any lifeblood of any business, and it's what allows you to return value to shareholders through share buybacks and dividends as well as continue to invest in your business and pay for acquisitions. Now 2016 was an anomaly on the chart, given the timing of the Rexam acquisition and the cash flow effects of that transaction, but you can see our goal of doubling our free cash flow is within reach. And we're laser-focused on 2019 to hit that \$1 billion target that we laid out a couple of years ago. And again, this only goes out to 2020, and it's based on last year's strategic plan, but I believe the opportunity to continue to grow as we grow our earnings and our CapEx modifies somewhat to grow that even further.

And so how do we do that? It's really things now that are really right in front of us. It's a lot more in our control today than it was 2, 3, 4 years ago. And it's really about unlocking the potential that we have today. Now if you've been around us for a while, you've known -- you've seen this chart a number of times. And there's many things that have changed at Ball, but this is something that isn't changing.

This strategy works. EVA is the primary financial lens that we use and we'll continue to use. We focus on generating cash in all of our businesses. We then prudently allocate that capital to those investments or acquisitions that will further improve and grow our EBIT, and all of these things with an EVA lens focus. And this disciplined approach to running our businesses and investing for the future works. All the projects that I'm going to talk about in the next couple of minutes are not about growth for growth's sake, but about improving our returns even further and growing that cash flow pool and those EVA dollars.

John showed us a version of this slide earlier. And we know when we do these things right, it translates into higher share price. And here's a few examples of large acquisitions or deployment of capital and the resulting change in EVA dollars and the translation to improve stock price. So the first example was the Reynolds deal way back in 1998 in U.S. beverage cans. The EVA generated from this transaction over 4 years was nearly \$90 million, and our share price increased 2.5x over that same 4-year period. The second example is from the Schmalbach acquisition of European beverage cans back in 2002. Again, over the next 4 years, we nearly doubled EVA dollars, and our stock price increased over 80%. The 2009 ABI plant acquisition is next. Over the next 4-year period, we, again, nearly doubled EVA

dollars. Now the stock price increased only about 30%, but remember, this was during the last financial crisis. So valuations were a little distorted to the downside. So now we come to 2016 and Rexam. So far, we've achieved roughly \$150 million improvement in EVA, and the stock has moved up only modestly.

A couple of things to point out. First, we're only about 2 years into the post-deal period, and something as complicated as this will take a bit longer, and the previous examples were all after 4 years. We also issued shares to pay for part of the Rexam deal, which dilutes the existing shares. And the next point is, we're just at the beginning phases of really the execution of the large capital that we've spent since the acquisition, our footprint changes and our commercial strategy and transformation work. When we do this, I have no doubt that this will translate into share price.

The other interesting thing that we -- we've combined these acquisitions with taking out financial leverage, and then quickly paying down the debt and turning that free cash flow to buying back our shares. This tracks the same transactions from the previous slide, plus one additional one. And you can see from the red line, the increase in leverage to finance the deal, then the quick deleveraging afterwards, where we're paying down the debt, and the blue bar on the bottom is our free cash flow. The lighter blue part of the bar is the amount of free cash flow we use to buy back stock. And again, the resulting share price and the green box is at the bottom. There are a lot of numbers on this chart, but the summary is really threefold: make smart acquisitions, generate the hell out of EVA and cash flow, pay down your debt quickly, and then buy back your stock. This worked back in 1998. It's worked in every subsequent transaction, and I have no doubt it's going to work again.

Now the other point about this chart is that we're not done yet. The value creation opportunity with the latest acquisition is really still in front of us. And you also see that there's -- tends to be a bit of a lag in the stock price reaction to the share buyback activity. And we're really just at the beginning stages of starting to return the majority of our cash flow back to share buybacks, and we really have a lot more to go in the last 4 months of the year. I think through the third -- end of the third quarter will be roughly -- we'll repurchase roughly 12 million shares or about \$470 million. And so we still have a ways to go here in the fourth quarter. And then we see next year, with our leverage being where we want it to be, returning essentially all of those free cash flow dollars back to shareholders in the form of dividends and share buyback.

The other part of the value creation opportunity is the capital that we're spending to improve and grow our businesses. And you can see in the last couple of years as well as this year, we spent a lot of capital across all the businesses. And much of that capital is really still ramping up, and we've yet to achieve the full financial potential of that spend. And we need to make sure that the execution and maturing of this capital shows up to drive the next leg of our growth and earnings. The spending, just since we closed Rexam a couple of years ago, will generate -- needs to generate an incremental \$117 million in net operating profit after tax for all those capital. And all these projects play important roles in what's next for us and the value creation opportunity ahead of us. And I'm highly confident in all these projects that we're going to like what we've got once these capital plans mature.

We've talked about the incredible growth in aerospace backlog, and that's one of the areas where we're spending a lot of money. Those of you that were on the tour yesterday saw the big D chamber and over here in Westminster we're adding onto that facility for additional production and test facilities. And so as they've won a lot of this new business, we've had -- the capital in that business seems to come in chunks every 5 to 7 years or so. We've got a big phase this year and next year, and then I see that moderating back to more of like a \$50 million to \$75 million range. But the capital programs are going well, and then it's the execution of the contracts, which I'm highly confident we'll deliver on that as well.

So how all this comes together, this is a busy slide, but it's important. When we invest and grow our business through acquisition or capital, we get returns greater than the cost of capital. The way to kind of decipher this chart is the bars across the bottom represent the return on capital with the gray being up to the cost of capital now around 6% and the white being the amount of returns in excess of that cost of capital. The numbers at the top are the total returns for each year. And also very important from an EVA perspective is the size of the capital base that we're using. So that's the blue bar across the bottom. As an example, in 2004, we had roughly \$2.3 billion of capital deployed earning just over 16% or

roughly \$370 million of total return dollars.

Go forward a couple of years, in 2006, we had \$3.1 billion of capital deployed. So a bit more capital, but earning only 11.7% or \$362 million of total return dollars.

Again, not much change in the returns or in the EVA dollar returns that are generated. And so not much moving in our stock price over that period of time. Roll forward to 2014, when we had 5 -- a little over \$5 billion of capital deployed earning 13.7% or nearly \$700 million of total return dollars and the corresponding stock price move that you could see in the green bar. Today, we have over \$10 billion of capital at work earning 11.4% or \$1.14 billion of return -- total return dollars. Now that's a 63% improvement in total returns. But again, you have to count for the dilution of the shares that we issued for the transaction. And as those shares get taken off the market, we're going to see the resulting change in our share price.

So what do we need to do? We can control what we control. I mean, that's getting the returns on all that capital that we spent over the last couple of years, and making sure that the growth in earnings shows up. And then with our leverage kind of where we want it for a run rate, it's really turning all that cash machine over the next couple of years back to the shareholders in terms of buybacks and dividends. And you can see by the end of 2020, essentially, we'll have retired all the shares that we issued for the transaction. And I think we like the end result of that.

So what we need to focus on in the near term. We need to continue to aggressively manage our balance sheet. That's everything from receivables to payables to inventory, to the inventory where they're sitting on our floor and warehouses. It's finance transformation, HR transformation, IT. This really touches every part of our back-office operations. If you use data anywhere in our business, it's going to affect you. Nearly everything we do translates into some kind of financial figure, whether it's spoilage or efficiency or indirect costs. And we need to get much better and much more efficient as to how things are done and how we support the business. And so this can mean changing things from what we've done in the past but with a clear line of sight to making us better.

Cost savings and capturing further synergy opportunities is something we focus on every day. We're in a penny business, and we don't forget that ever. And on the commercial strategy, this is about making sure we're getting the right and fair value for what we deliver. And again, this goes across every business that we're in. And we're really just at the beginning of capturing those -- that value. So all this translates into a lot of cash flow generation. We think over the past decade, we'll have been able to triple our free cash flow. So we used to show just one stack of cash. But since we tripled -- and I like to look at cash. We added a couple more stacks of cash.

So the equation, John touched upon this last night. I think what's important as we look forward, everybody has been so focused from when we did the Rexam deal to the end of 2019. And we did -- we had a 3.5-year game plan of a lot of things that had to occur during that time period. But frankly, all the things we've been doing in that time period, the real value creation opportunity from a lot of that work will come in '19 and beyond, '20 and beyond. And that's why I think people really haven't recognized yet. Some people happen on everybody. And so how do we get to that 10% to 15% over the longer term? It's really the return of the stock to -- return of that value to shareholders. We're going to buy back 5% to 7% of the company every year with our free cash flow. It's maximizing existing operations. It's the footprint things we're doing, the commercial strategy that we're employing. It's -- the beverage can is winning around the world. So it's further growth CapEx. The aerosol is winning around the world. So it's growth CapEx to keep up with that growth around the world. So again, add to kind of that 3% to 5%. So we think we have -- again, kind of back to when we've done different acquisitions over the years, we've delevered. We're in a great place to be able to invest in our base and return a heck of a lot of value to shareholders. And we know that we would do this well with an EVA mindset when we talk about ownership and culture with people thinking this is their own money because it is. We're highly confident that we will continue to have opportunities to exploit and to take advantage. And that the best times aren't behind us, the best times are ahead of us.

So to look forward, what we do 2019 and beyond, it's really reaping the benefits of all that Capex. It's executing on those

-- the commercial strategies that Dan talked about earlier. It's investing with an EVA mindset and could be bolt-on acquisitions, grow our diluted earnings per share over time 10% to 15%, generate significant free cash flow and return that cash flow to shareholders. It may not be the most exciting thing, but for me, it is incredibly exciting because I think where we're sitting here today, we have more opportunities in front of us that we can control and direct than really we've ever had. And so to me, it's a really exciting time. And I think the future is even more exciting.

So with that, I think we're going to take a break. And we'll take our 15-minute break, and then come back and we'll do Q&A. So thank you very much.

[15-minute break; prior to Q&A session – see next page]

Question and Answer

Ann T. Scott

Vice President, Investor Relations

Hello. If everyone could please find their seats, we're going to start our Q&A panel. Thank you.

Ghansham Panjabi

Robert W. Baird & Co. Incorporated, Research Division

Ghansham Panjabi at Baird. Thanks, again, for hosting this. First off, I guess, John, going back to your comments on customers' changing complexity, on ordering last minute and you're happy to be paid accordingly. Can you dig into that trend a little bit? How long has that been occurring? Has it changed as your mix has changed towards specialty versus conventional? Is it more specific to a geography? And is that shift going to continue, given as grocery, for example, penetrates into e-commerce?

John A. Hayes

Chairman, President & CEO

Thank you. Good question. It's a little bit of everything you just described. I mean, when you think about first the retailers side and the movement here in America, but even elsewhere -- and I'll turn some of those question, so if you guys can think about how it affects your region. When you think about the Walmart effect, and literally, some of these big-box stores are calling up our customers Thursday night saying, we want to run end-of-aisle display in Boulder, Colorado, starting Friday night. So they have to jump through hoops, and we recognize that. It's also the specialty. I mean, you close your eyes and go back and think about how 1980 was and the whole supply chain itself, it was much more simplistic. There wasn't nearly as much just in time. And so you have this just in time movement combined with this added complexity that Dan very eloquently talk about, with 90,000 labels and 30-plus different sizes, that just compounds it. Is it going away? No, it's not going away. And maybe I'll turn it over, because it varies much by region, but I would say we're dealing with this situation in every region in which we operate. So maybe I'll just start with Gihan and quickly go down the road.

Gihan Atapattu

President, Beverage Packaging Asia

Yes. Example, China, I think the largest e-commerce market now in the world. Some of our customers are trying to figure out what's the package, because in China, when they buy on e-commerce, their expectation, it's going to be cheaper. So how do you ensure that you can keep your premiumization and then have a package for e-commerce that's a little bit different to give a price point, but also keep the premiumization? That's forcing us into some different packaging, working with the brands, understanding the profit pools. But that's the opportunity and that's what we're doing with innovation.

Colin J. Gillis

President, Beverage Packaging Europe

Well, much like John explained, in our business, it is in the moment. And our customers are being challenged by the retailers, because if you think where the power resides right now is at the retail level. And in order to keep up with changing consumer demand, they place orders very last minute and expect us to deliver so that they can deliver as well. I think specifically in the U.K. because of the sugar tax, a lot of our customers had to figure out a new way to avoid paying the tax. And in some instances, it was reformulation, which added to a fair amount of complexity, and others, to ensure that sugar remained on the shelf for those who wished to buy it, there was a size change. So again, we're paid

for complexity. And I think, if we embrace complexity as opposed to abhor, we win.

Anthony Barnett

President of Beverage Packaging Africa, Middle East & Asia

Yes. So given all the volatility that's in the AMEA region, the market in the way that the customers were traditionally generating their values turned upside down. And basically, they're looking at -- as Colin was saying, they're looking at new ways or how to adapt to that to drive the value. And added complexity that we get in an AMEA region is some of our supply chains on raw materials are very complicated, like with bringing metal into these countries and coatings, and they're -- and looking for those profit pools. So the complexity is what's going to really help us as we go forward to look at driving those, that value, and then we get a share in that value.

Carlos Eduardo Pires

President, Beverage Packaging South America

It's very similar in South America. The only thing that I think I can add, it's we try to use more technology to enhance our productivity at the same time that we are increasing our complexity.

Carlos Medeiros

President, Beverage Packaging North and Central America

We note here in North America that our customers, they tend to -- through their revenue management, they tend to maximize their profit. So they have clearly realized that there is an appropriate packaging for every drinking occasion. So you saw earlier, the chart showing the different price per ounce for different packaging, and this is the driving of -- for the growing SKUs. We note that there is double-digit growth in numbers of SKUs here in North America. And this is the answer that we help our customers for them to grow and also that helps us growing our business as well and creating value.

Stan Platek

Vice President and General Manager, Ball Aerosol Packaging

Hi, I'm Stan. I'm the aerosol and slug guy, with my beverage brethren here at the table. So our market is beauty and personal care. So you can imagine by looking at the table in the back, I mean, we have a very complex range of products. At the same time, we're lightweighting and offering a sustainable solution for our customers. It's really about being a strategic partner instead of a transactional supplier. And in order to do that, you have to be able to help sell their products. So that means innovative products that pop on the shelf, you have to be able to check their sustainability block and then you need to be in the regions of the world where they need you to be. They really only want solutions in the end of the day. So customers are a little bit like electricity, they find the path of least resistance in a good way. So if you can offer solutions for them, I think they naturally want to come to you.

Scott Louis Gaffner

Barclays Bank PLC, Research Division

Scott Gaffner from Barclays. When you look at the shift around sustainability and what obviously consumers and brand owners are talking about, I mean, that could potentially be a long-term tailwind. But can you talk about it by region? Because I think if you kind of look at the U.S., it doesn't seem to me at least that there's really an environment for increased regulation under the current administration and that plastics actually performed relatively well under the current standards based on the -- by the EPA. So can you talk about sort of how you see this evolving over time through government regulations? Because that can really shift the tide on this movement pretty quickly.

Carlos Medeiros

President of Beverage Packaging North and Central America

So as you said, it is very difficult to associate a time line for these events. But what we know is that as we move along with all these initiatives, with the several NGOs, all these activists, these will eventually help changing public opinion and these will drive law changes. That's the normal flow. Now the -- on the other hand, as show also earlier today on the new [product] launches, the IRI, showing that 60% of the new launches are already taking place into cans. So question becomes, why is this happening? Is it already public opinion influence to that? It's very difficult to dissociate. But it's very clear to us that most of the new launches are using cans, and that's positive. And also, it's important to mention that all of our main customers, they're talking about sustainability. So they are also -- they will also be driving changes. So when we are going to see the tipping point? It's not clear. First, we don't know, but we believe that there is a huge potential ahead of us, and we are working with all of our customers to reach this point sooner than later.

Anthony James Pettinari

Citigroup Inc, Research Division

Anthony Pettinari from Citi. John or Dan, I think we've seen packaging markets whereas margins and returns improve. You see new market entrants or maybe some customers trying to do it for themselves. Just wondering, as you talk about being a market leader, how you balance between obviously maximizing your profitability near term, but also kind of partnering with your customers so they don't go in a direction you don't want them to go to.

John A. Hayes

Chairman, President & CEO

This really gets to the whole network, and complexity is our friend. And as I mentioned the example I gave in the U.S., where we can make all sorts of different specialty sizes, from California to New York and everything in between. I could go through -- we could go through Europe and do the exact same thing. We could go through South America and do that -- the exact same thing. We live in a competitive world, and we're not going to either shy away from that or have our head in the sand that says that those types of things won't happen. But if we're able to supply our customers, I think as Stan was just saying, what they need, when they need it, and you can do it in a way that we're actually helping them create these profit pools and helping them create value, you're always going to run -- you're going to have a 1-plant operation that pops up somewhere. It just happens. You've got to deal with it. But if we have a whole network approach that we can service our customers better than any individual plant, that's one of the ways. Will we win 100% of the opportunities we're talking about? No, we're not going to win that. And we're conscious of that. But we also have this mindset, a little bit like we were talking last night about, this close-to-the-customer thing. We -- our dreams are fueled by the revenues that our customers pay us, and that's not lost on us. And so we just have to be humble and hungry and go a little bit after a little harder and leverage the network that we have and embracing the complexity that they were just talking about. That's what's going to win in the marketplace.

Steven Mark Wilson

Lapides Asset Management, LLC

Steve Wilson with Lapides Asset Management. I'm curious on a couple of fronts. We've built this mega plant in Arizona and we've closed a bunch of smaller, older facilities scattered around the country. We're doing this at the very time that freight rates are skyrocketing and availability of trucking is becoming more and more challenging. Are we now sort of moving away from or being caught more exposed to that phenomenon, as we look for longer travel from these larger plants that obviously at the plant level are more efficient, but now it's going to be that much more expensive to get the cans to the customer?

Carlos Medeiros

President of Beverage Packaging North and Central America

The -- well, first, the concept of building these mega plants is fundamentally they replace less efficient plants. And not only that, but also this new plant is capable of producing a lot more specialty cans than the other plants, the plants that were closed. Now on the freight side, the situation is that some of these freight is passed through our customers, some

are not. So the answer to that is we have a much more sophisticated way to manage our logistic operation than we had years ago. So that follows the complexity that has grown our business. We also have adjust our capabilities across our system. So it's not only what -- that we built a mega plant, but also when you look the whole system, our capability of producing specialties in several other lines are very different to what they were years ago. And the intent is to have the right can closer to the customer. And lastly, we also -- as Dan mentioned, we have a productivity challenge, where as we produce more cans in the right spot, we tend to at least offset some of these logistic cost that we all know it's growing in the U.S. So these are the main roads or the work streams that we are using to face or to fight against this growing cost.

John A. Hayes*Chairman, President & CEO*

Steve, I'm going to add though, it's -- to answer your question directly, no, the fundamentals of freight is important in our business and will always remain important. And Goodyear, Arizona, in particular, it's a great example. Carlos just talked about, in Southern California -- in actually all of California, we were kind of short certain sizes. We were actually shipping them even further than Arizona. It should be not lost on anyone that our Goodyear, Arizona, plant is about 1/4 of a mile off of Route 10 right to L.A. Basin, and it also can touch Texas. So we look at this as a system approach. And so when you look at where that is relative to Longview, Texas, as well as Chatsworth, California, and what we can do in -- let's not forget we added capacity in Conroe, Texas, as well. And so you look at it as almost a spoken hub concept, and you're trying to optimize freight, while at the same time, recognizing that different cans are going different places. And so you should not expect that we're -- close your eyes and we're always going to build 4-line plants, because that doesn't make sense. In Goodyear, Arizona, it certainly did, given where the population is, given where our service points are and given where we took out those 2 plants.

Steven Mark Wilson*Lapides Asset Management, LLC*

Yes. My concern was more that you mapped this all out prior to seeing this huge spike that most people say is not going to just fade away. So the ROI that you expected on all this gets altered.

John A. Hayes*Chairman, President & CEO*

No, not meaningfully, because the other thing people don't talk about, there's really 2 aspects of freight and logistics. There's first the distance, which you're getting to fuel really and the trucker availability. But then the whole other thing is how many touches you have. I can't tell you many times because of this complexity created, we will make pallets in a plant, we'll have to go to a third-party warehouse and put them closer to the customer, then they get drawn twice and you're touching it 4 times. And when you have wage rates in California where they are, that adds up meaningfully. And so what we're trying to do is as much direct-to-the-customer as possible, and that's what some of these plants like Goodyear actually help cure.

George Leon Staphos*BofA Merrill Lynch, Research Division*

George Staphos Bank of America Merrill Lynch. Thanks for the details in the presentation today. John, I had a question for you, piggybacking off of Slide 54 and 55, where you're talking about the new opportunities. The first question is, and you've mentioned it, in years past, not everything goes right, and when you used to have a business mix that was so concentrated in a few SKUs, there was greater risk in any year that something wouldn't go right, and you've diversified the portfolio rightly. If we think about your business for next year and everything goes more or less as you expect, how much of your revenue or EBITDA, either North America or globally, however you want to answer, would be driven by Craft and nontraditional cans? Would it be 5%, 10%, 20%? And then I had a follow-on question.

John A. Hayes

Chairman, President & CEO

It's hard to answer that only because we're not done with the integration of Rexam, and so we still have all these cost savings from the footprint we just talked about. Those are going to be flowing through, and that's separate and apart. But here's what I'd tell you, and Dan had that slide about all the category growth, and that was in North America, we look at it in virtually every facility. I'd go back to there and look, and what you see is what I would describe as traditional, the way people think of traditional 12-ounce packages, which is domestic beer and just 12 packs of soda, those are declining, they are. But we're seeing a lot of good growth in all those other categories and we've -- it's a hunter versus gatherer mindset, and we have a hunter's mindset. And that's why sparkling water and hard seltzers Dan mentioned, the wine, the coffee that you see here, and certain customers announcing they're going big into that in a packaging format. So there's not just one stock answer to it, but I would say the preponderance of growth is coming from things like that.

George Leon Staphos

BofA Merrill Lynch, Research Division

Okay, I appreciate that. The other question related to it is, if we look at again, specifically, Slide 55, and you have the \$120 million to \$240 million of, I think, contribution margin was what you were referencing there. Is there a way to quantify how much your capital intensity increases by offering more of these custom size and seeing a proliferation of your business mix. Presumably, EVA is going up, so the capital intensity is going down. But is there a way that you can quantify that for us so that we can come up with our own EVA calculations?

John A. Hayes

Chairman, President & CEO

Well, it varies by region, but let's start here in North America, and we can go into Europe and then South America. But our big capital throws with this Longview, Texas -- or excuse me, the Goodyear, Arizona, as well as what we've done in Conroe, Texas, that largely builds out that flexibility. So the capital intensity, now we get leverage it. To Scott's point, wherever he is. Now we've invested in this, now we get to leverage that. And in Europe, we're still -- we just have this new Spain plant coming on. We've been adding some -- in a very small way, some capability here and there. There could be some more down the road that we're look at doing. And then in South America, we've been doing the same thing and in fact, even with Paraguay. That creates -- right now, what's happening is Argentina and Chile have been growing so strongly, we've been shipping cans from Brazil down there. If Paraguay frees up, we can create a Southern Cone-system effect around that. And so the capital intensity for all that ought to be getting better. The other thing is that we talk a lot about internally is that we're talking all about the commercial growth and how we're going to make this stuff. Well, our operations around the world, they've been doing a tremendous job. And we have still so much opportunity, and Dan referenced this, so much opportunity that if we could be best-in-class in every one of our facilities, the free cans coming out of that just through the efficiency gains and the spoilage gains is huge. Now do we have natural impediments that won't allow us to do that? Absolutely, we do. But you close your eyes and dream and say, how high? Despite the number of labels going up 40% over the last few years, we -- our efficiency has been able to go up. And then how much more can we get out of it? Because when you have a system that makes over 100 billion cans and you can get 1% efficiency more of it, that's 1 billion more cans. Now they may not all be in the right spot, but that's across the -- it's a lot of fun to go in our manufacturing plants and you see the folks wearing T-shirts that say 85 and 2, which is 85% efficiency, 2% spoilage, as they know what their goal is and they know how it affects EVA also.

Colin J. Gillis

President, Beverage Packaging Europe

Maybe I think the other thing, George, is we're using integrated business planning in our business to be a lot more efficient as to how we look at where line loads are and how we maximize the network. And that just rolls opportunity to the bottom line to increase our capacity.

Daniel William Fisher

Senior VP & COO of Global Metal Beverage Packaging

I think you know this, but just to reinforce this point on the capital investment going forward in order to attack this growth opportunity in specialty. In all of the regions, but most appreciably in North America, over the last 6 or 7 years, when we go and convert a line, we've got multiple can sizes on that. And so there's upside. We are basically forward-investing, like in Goodyear, in 12 sleek, in 16 ounce, in 24 ounce. And so 12-ounce still plays a role, but we are anticipating that, that will be less because of the major categories. But then we've also built in another can size that we believe, and we're making bets on that based on our very good market due diligence, that we'd be able to step into some of that. So a lot of the investment is actually just leveraging previous investment.

Tyler J. Langton

JP Morgan Chase & Co, Research Division

Tyler Langton from JP Morgan. I think John, you mentioned, it's much improved, but cans still make a little less profit for your customers than PET, and it is a scenario you want to address and improve. Could you just talk a little bit about the initiatives that you want to take there to help them with that?

John A. Hayes

Chairman, President & CEO

Well, yes. I could spend hours talking about this, but I think at this highest level, what we're really focusing on, and it's different than we've done in the past, is whether it's existing categories or new categories, focusing on the channel that it's going into and focusing on the price points. So for example, 5 years ago, you didn't see -- and I know we're spending -- most of this is about North America, so I'll turn it over to South America. People don't realize, more than 50% of all cans in South America are specialty, and then actually on the European side as well. But 5 years ago, in North America, you didn't see a 16-ounce can in the single serve cold vault. We're selling a half a billion cans, I think, these days, doing that. And that's -- they're selling it at \$0.99, as I showed you up there. That didn't exist before. And so those are the types of things that in the past we would say, well, our customers know a heck of a lot more about marketing than we do, and that's right. But we -- because we get to see across categories, we get to see what's working where and when and how. And so we can actually now accumulate that and actually go to our customers and say, dear beer customer, this may not be relevant to you, but what we've been seeing in the energy space is x, y and z. And hopefully, you're getting these lightbulbs turn on in people's minds, and then they start trialing and doing some things. And not all of them are successful, we know that, but the more you can bring ideas to it, the more it actually helps our business and actually helps the stickiness with our customers. Pires or Colin, do you want to say anything else about Europe or South America.

Colin J. Gillis

President, Beverage Packaging Europe

Well, I was referencing sugar taxes in the U.K., so one of our customers who have a sugar product downsized the package, for the same price. So you can get 250 milliliters of a full-sugar product versus 330 ml of a no-sugar product at the same price. So guess what, they just margined up. Yes, there's probably a little bit of tax to pay, but overall, selling their same products in a smaller package allowed them to margin up. And it's an example of how we can use that to leverage other opportunities. Water is such -- it's a commodities' commodity. How can you leverage up by creating new space for water in premium packages such as cans and allow our customers -- we have to make it about our customers, how can we help them create value through the products we sell them.

Carlos Eduardo Pires

President of Beverage Packaging South America

In South America, we also can see different things like there's a new market growing a lot, it's quality beer, it's pure malt beer. And also, when we have different shapes and covering the cans, it helps a lot the product to be completely differentiated in the supermarket shelves and help the customers to grow their margin. And this thing is also related to occasions. Can we imagine to drink a beer in a beach in Rio Janeiro and the temperature outside is close to 100? It's a

big size not enough in terms -- or too much in terms of that the temperature goes so high in the lake that doesn't allow you to have the flavor of the nice beer. So those occasions help us in the same way that there's this perception from the customers that they need to have a premium product. It could be in the soft drink side or in the beer side.

Edlain S. Rodriguez

UBS Investment Bank, Research Division

Edlain Rodriguez, UBS. This is a question for John. In one of Scott's slide, he talked about bolt-on M&As. Can you talk about what those opportunities would be, like is it outside or the major difference we did in aerosol? Like, where would you see bolt-on opportunities?

John A. Hayes

Chairman, President & CEO

Well, let me start by saying, hopefully, you've gotten an appreciation that we have more opportunities in the businesses we're currently in and perhaps we have resources. And I'm not just talking money, people, resources et cetera. So I'll focus on those 3, but I want to be clear about that point. On the beverage can side, it's the fact that we had to divest assets in United States and Europe and Brazil in particular, probably says it's a difficult putt, unless other things break, to do something in there. But you look everywhere else. We could do something in China but I wouldn't expect us to. But there's 17 other competitors that aren't publicly traded companies over there that there's probably consolidation opportunity there. You go into Africa, we're really nowhere there. There's a handful of small operators there, some have one plant, some of multiple plants throughout whether it's -- all the way from South Africa, all the way up the western coast there and as well as into Kenya and other places like that. Southeast Asia is another place where there are some companies that are vertically integrated. So those gives you a flavor of the size and the opportunity on the beverage side. On the aerosol side, we're the largest in Europe but still it's a very fragmented industry. And I think most of them are family owned and operated, and so there's going to be generation change. And so I think there's consolidation opportunity there. I think down in South America and Asia, 2 other places where there's probably opportunity. It gets to a risk-adjusted return and you think of making money doing that. Argentina, for example, is a very difficult place to be doing business right now. I don't know what you follow, but the finance minister resigned 1.5 weeks ago and IMF is bailing them out. So it's tough to do there. Brazil has had a very difficult environment, but we've been doing quite successfully there. And so there could be opportunities there that could also be greenfield opportunities there. All throughout Southeast Asia as well as other places, there's some people and so we kind of hang around and hoop but this is what we call the bolt-on because they're not big "bet the ranch" type of things. And even in aerosol -- or excuse me, the aerospace business, Rob Strain talked about -- actually, you don't have to have pure M&A. We actually acquired perpetual license for the LIDAR side. It was a technology that we saw an opportunity for that we thought we could leverage in a certain end market that they -- the people who owned the technology didn't have an interest in it. So those are the types of things when we talk about bolt-on acquisition.

Mark Wilde

BMO, Research Division

John, I wonder if it's possible for you to give us some sense sort of timing and cadence on a couple of things. One is the kind of commercial opportunity that you've talked about kind of restructure how contracts are written. And the other thing is this movement, shared services, where it sounds like you actually increased your costs last year because you were building out some of these regional shared services operations and some of that are to fall off next year as you pull the services out of the plants and put them in those locations. Maybe you could just help us with both of those?

John A. Hayes

Chairman, President & CEO

Let me start with the second question first, which is about shared services. So when Ball had embarked upon a journey to move to the shared service concept back in 2014 or 2013? And we had to put on hold because of the Rexam acquisition beginning in 2015. And so when we restarted it, it was kind of late '16 going to '17. And what we did is we

actually stepped up. So we really haven't gotten as much of the G&A savings as we could have because we've built a new shared service facility -- office in Belgrade, Serbia as well as Queretaro, Mexico, and we're actually doing the same thing outside of São Paulo in Brazil. And so we've -- and what you have to do when you doing these types of things is you've got a staff up there, you've got to fix your processes and harmonize and standardize your processes and then move them there. We're right in the middle of that game plan. And so as we go forward, where -- a lot of the activities that we're doing at the plant level, whether it's paying invoices or payroll and other things like that, even accounting, that will diminish over time because now we have the shared services center stood up. But it really wasn't until, keep me honest here, guys, really at the end of last year is when we didn't get them staffed up. And even now we're going through in the process of migrating certain of these things. So there is opportunity going forward there. On the commercial side, as we have said, this is a long-term game. And what I mean by that is we have, since the close of the acquisition, spent the last couple of years retraining muscles, is the best way to describe it, from our commercial folks to even our operations folks, we've taken a look -- we haven't had any major contracts up for renewal in any major extent. And over the next couple of years, some of our contracts will start rolling off. And so we spent the last couple of years getting ready. Whiteboarding different -- what does the perfect contract, going to the question earlier, given that many of these contracts were designed in the 1980s, what's different today and how does flexibility build on that? We don't want to say no to our customer. What we want to say, we're delighted to deliver you cans in 12 hours and there's a cost to that. Our current contracts don't allow for that. So as these contracts come off, we're going to be looking at those things and they vary by region and geography. But Dan said it, 10% to 15%, as we go forward, of our contracts are going to be rolling over on an annual basis. But we really haven't had much over the past couple of years.

Vertical Research

Chip Dillon, Research Division

Yes, John. I just had a little bit of a smaller issue but it could be significant. On Slide 52, you talked about how wine in cans is taking off. And I just want to clarify, it's at 319% growth and I assume 14 million cans in North America, if I'm reading that right, annualized. That's big. I mean, that's like double-digit share of the market. Maybe I'm misreading that. But even going -- so if you could clarify that. And then maybe secondly, if you could talk a little bit about how this opportunity could unfold. I noticed last night, we had red wine in cans, but it would seem like white, where you drink it cold or cool at least might even be a bigger opportunity, especially in the smaller sizes. So any developments on those fronts?

John A. Hayes

Chairman, President & CEO

I'm going to turn it over to our sommelier.

Daniel William Fisher

Senior VP & COO of Global Metal Beverage Packaging

Yes. Those numbers are real. It's been exponential the last 12 months, the number of customers. And you've seen product launches for the wine-like products. For instance, a product launch for, I think, one of the Barefoot brand, it's 20 million cans is a product launch, in a test market. So that's the size and the scale of those things when you see it show up in a 7-Eleven, for instance, but I think that was a single serve outlet for that. The -- so what the wine industry is doing is there are -- the wine that you're talking about, red wine in particular, so there's wine-like that's not even wine, this is -- and you can see it in all of -- you can see it in all the other substrates from a retail price point et cetera. They're driving trial in the wine-like and they started there in cans, so they could get a comfort level relative to the product. It's great at picnics, travels well, ready to drink, it's appropriate single serve size, all of those things. And what will eventually happen is you'll see them move into higher price point wine, higher price point bottled wine and the can is going to play a certain role now. Now we've made investments in, as I said, in Sonoma in particular, to fill those higher price point bottled wines that'll move into cans. And you'll see those in -- probably in can shapes that'll look a lot more like a craft beer offering. And the thought process is simply people are willing to pay \$2 to \$3 a can for that. They can step into this. That gets you to a \$13 to \$17 per bottle retail price point. So those brands are going to be -- it's the domestication of wine. It's the fact that, we didn't talk about this, but there's a huge -- one of the biggest wine consortiums, they were facing a choice to build a -- they're vertically integrated, to build another wine bottle manufacturing facility. California's probably not going

to let them do that. There isn't a place to find cullet for the recycled content going into the bottles. So all of these wine consortiums, they're all looking at this. And they've been looking at it for the last several years. And at the lower price points, they're in tetra. There's a market, obviously, for the boxed wine. You'll see most of that in restaurants. And as you move up the value chain on the price point, then you start stepping into cans. At some point, we hope that bottle -- aluminum bottles play a role, at higher elevated price points. But right now it is a big opportunity. It is a big opportunity not only for sustainability purpose. But as John indicated, the Red Bull and the energy drink, craft beer folks are familiar with this and they want to get out of their houses and they want to go experience life and they want to have a ready-to-drink beverage with them. So all of those things are playing really well into this space. The competitive advantage I've had and I've a number of conversations here is these -- every single one of these wines is different. It's a living, breathing organism. And you have to have made investments in and around innovation. We have food scientists on board down in our technology center, that a lot of you have toured before. We have made investments because we stubbed our toe. It was not a small thing for the wine industry to go from cork to synthetic cork. So it's a similar transition into this package in terms of the amount of oxygen, light, all of those things play a role in the formulation. So we're working with all these wineries on our internal coat that partners and pairs best. We're working with formulations of these wines. For those of you who've met Melanie Virreira -- I'm completely passionate about this so I'll shut up in just a second. But Melanie Virreira who was talking to a lot of you, she is Head of Business development and Marketing for Ball. She spent 2 years in San Francisco living there, developing this relationship. I mean, this is not an insignificant investment that Ball has made and it's not an insignificant head start that we have in this area. And so we will, much like the craft beer space, it's a ton of complexity, a lot of customers, a lot of small volumes, but it adds up and it's great margin. And we are going to continue to put our shoulder into this because it's a hell of a great opportunity.

Vertical Research

Chip Dillon, Research Division

By the way, I apologize. I got my billions and millions mixed up [for the wine] market. But still, coming from 0 and no matter good growth.

Daniel William Fisher

Senior VP & COO of Global Metal Beverage Packaging

And just to add on this, it's -- this -- and we haven't talked about this, but when we formulated post-Rexam, kind of the global structure, we have consolidated engineering and we've consolidated innovation. And so just last week, when we were in Cabanillas, Colin introduced me to the largest wine consortium in Europe. And immediately, the conversation was I need to come over and learn about cans. I know they are a big deal in that, but we need to look into it. We're having problems with the formulation and the off notes. It's like we have done all those learnings, come over, we can't -- we've painfully -- we have learned on this. So that gentleman's going to be coming over in the next couple of weeks. And all of -- Chile's very interested in and I know a lot of this, we have big customers there, big vineyards. So it's probably not going to the size and scale as what's going to happen in California here in the short term. But this is a great building block for us in that particular segment. Thanks.

Gabrial Shane Hajde

Wells Fargo Securities, LLC, Research Division

Gabe Hajde, Wells Fargo. Thanks for all the transparency guys. Maybe just a question around thinking about your business differently and you talked about revisiting kind of just the approach. Is there a cogent sort of investment case around co-locating facilities. I mean, I talked to Colin last night about it, a couple of customers that you guys are co-located with and sort of just as they rethink efficiencies and their go-to-market strategy and the like?

Colin J. Gillis

President, Ball Packaging Europe

Yes, I think as we discussed last night, so we have several opportunities. I think co-location depends -- well, there's a, a relationship, a very long-term relationship and size. Clearly, you can be -- our Red Bull operations, for example, are

through the wall, seamlessly integrated through the filling location. We have some other customers where we have either across the parking lot or through-the-wall opportunities. It's a relationship thing. We tend to do long-term relationships with those customers. We're well integrated with each other. We understand the needs of each other. A lot of communications, comparing maintenance schedules so when they would take maintenance, we do it with them. So it is -- partnerships are sort of a tired word, but you really need a depth of integration to make stuff like that successful. Where you do have it though, it's good stuff because it takes an awful lot of supply chain cost out and definitely adds to both our sustainability credentials as you're not chewing up miles on the road.

John A. Hayes

Chairman, President & CEO

Yes, I'll just add that those -- that's something that we look at all the time but it's not the only piece of the playbook. And as Colin has pointed, it very much is -- not only customer by customer but location by location specific. In our business, to be economic, you have to have scale within a plant. There's a lot one-line plants out there that are either going to becoming 2-line plants or they're probably going to go away as various regions improve. And so if you can't see a line of sight of getting scale within a plant, you're not doing your customer any good, you're not doing yourself any good. So in the examples Colin just gave, they're multiple lines and it makes a lot of sense. But there's not a lot of filling -- our customers filling locations that have that capability on a global basis, but we look at it all the time.

Brian P. Maguire

Goldman Sachs Group Inc., Research Division

Brian Maguire from Goldman Sachs. Over here. My question is on aerospace. Actually, it seems like the business is in a great spot these days. And the tour yesterday was really helpful in helping understand the transformation it's had over the last 10, even 5 years to how it's performing now and the outlook going forward. Just -- my question is really kind of around, do you think that you get enough credit for it in -- from the investment community as part of the packaging company? And given the growth algorithm and outlook for that business, do you think -- I think in the past you talked about as maybe there's not enough scale and size today to be at its own entity spun out. But if it continues to grow, if it's something that 5 or 10 years down the road, do you think could be a possibility to unlock some value, assuming you don't think that investors recognize the value today?

John A. Hayes

Chairman, President & CEO

Yes, well, first and foremost, I haven't met an investor that starts off by saying anything other than effectively, how we're making money. They don't care if we make cans, they don't care if we make satellites, they care if we make money, first and foremost. And it's the money maker. And so does it get recognized. I think it does. But I turned to you in the audience to suggest. I do know this, the single greatest opportunity Ball Corporation has is continue to do the things we're doing with aerospace right now. There could be a point in time where it gets to a size and scale that is big enough to spin off. It is very low tax basis. And so people always ask, well, what's a metal packaging business doing with an aerospace business. It's a fair question, don't get me wrong. And it has a lot to do with -- we've home grown that 62 years ago. But it's a terrific business. And it probably doesn't make sense just to go and pay a bunch of dollars to U.S. government. At some point in time, could it be big enough that it could stand -- thrive on its own? Not just stand on its own, but thrive. Yes, it could. But one of the things that's a little hidden synergy, if you want, is that Rob and team are bidding on billion-dollar contracts right now and if they were stand-alone, it would probably limit the opportunity set because the creditworthiness of the parent actually helps out in those situations. And it's once in a blue moon, Rob says, hey, you got to come and see this customer just to show that we're all in it together, and we're delighted to do that because that's what we can do to help. But at some point in time, it could be big enough. But I'd put it this way, we have got to execute over the next 3, 4, 5 years on this growth that we see and then if that happens, then it's just option value to us.

Satish Athavale

Green Arrow

Maybe a question for Scott or John. Looking at your 2019 goals, so I see your EBITDA is going up by \$125 million, your CapEx is coming down by \$200-plus million and your free cash flow, though, is only going up by \$200 million. I recognize that there is a plus sign to the \$1 billion number. But can you help us kind of bridge EBITDA to free cash flow? Are there like other moving parts like working capital?

John A. Hayes

Chairman, President & CEO

Yes, and I think it's largely working capital. Yes, and that at some point in time, we've done a very good job of effectively managing our working capital. At some point in time, we don't think it's going to be going to a use where it's probably not going to continue to be a source in the way it's been before. So that's far and away the biggest bridge.

Arun Shankar Viswanathan

RBC Capital Markets, LLC, Research Division

Arun Viswanathan, RBC. I just want to ask the big question in the room, I guess, more head on. So on pricing, we covered a lot of industries in this room. Why isn't the beverage can more upfront about pricing in the industry but more upfront about pricing? I mean, is there an opportunity that you could go out and, say, raise 5% on price for the next year in North America, given that you are consolidated, you've seen freight increases? And what's the opportunity in Europe as well?

John A. Hayes

Chairman, President & CEO

We've spent the last 24 hours talking a lot about how our customers are our partners. There is always opportunity to recover costs and other things. We are going to negotiate with our customers in private, not public.

Scott Louis Gaffner

Barclays Bank PLC, Research Division

Just a couple of quick follow-ups. The first one is just -- I guess, you're going to answer, John, or Scott, just on the \$500 million of CapEx that Satish mentioned for 2019, that number's absent in your growth CapEx. What's a more normalized CapEx number after 2019? Is that -- because if you're growing at 2% or 3% a year, I would assume you'd actually have some growth CapEx build into the model on a go-forward basis?

John A. Hayes

Chairman, President & CEO

Well, it actually does include a level of growth CapEx. Our D&A is about \$540 million, and we think, on a current run-rate basis, our true maintenance [CapEx], that if we just pulled this in but wanted to maintain state-of-the-art status quo, as we like to talk about it, it's probably in the range of \$275-ish million. So we're spending -- embedded in that is approximately \$200 million of growth CapEx. The biggest -- single biggest one is probably Paraguay. We have aerospace, some of things in that, that's all embedded in that \$500 million. So as we go forward, folks, I'd love to give you a better answer, but this is the truth, we're an EVA company. We start with 0 each year and say what is the opportunity set present itself. We know we have to -- we are going to maintain our facilities, state-of-art status quo, so we knew we have to spend something. But I'd go back to 2008, again, we were a different company but the concept's still the same. Our maintenance CapEx was about -- we always stop between \$175 million and \$200 million there. And I remember, in '08, we spent \$188 million of CapEx because we said, you know what, we have no idea what this means to us and to the rest of the world, let's pull it back. And so we had that opportunity. So there's always a level of some level of growth opportunities that are embedded. And so as we sit here right now, \$500 million is a little bit below D&A. Does it kind of feel right? Yes. But truth be told is if we see an opportunity, we're going to jump at it. And if we see no opportunity, we'll scale it back.

Scott Louis Gaffner*Barclays Bank PLC, Research Division*

Great. And then just lastly, for the panel, when you look at the -- one of the big opportunities that John mentioned upfront it was moving water out of PET into cans. And just sort of thinking about that a little bit, we got the Alumi-Tek bottles here on the tables and it's probably not the right venue for moving a lot of water into cans. But can you talk about some of the innovation in the emerging markets where you maybe had better gains on re-closeability in other products where maybe you can bring that innovation into the U.S. market and have re-closeability on cans for water in the U.S?

Carlos Eduardo Pires*President of Beverage Packaging South America*

Okay. The markets for water in Brazil is very small. In the reality, what we are trying to achieve is to find the right customer to launch this product in the right channel, through the right way. Very recently, we have some measures going to the legal side. In Rio about, 1 month ago, it is forbidden to sell things using plastic straws. It's not only the beaches, but it's in the entire city. So McDonald's cannot sell anything using straws and plastics anymore. And it's very - it's a little bit of a result from the job we're doing together with the NGOs. Some of those NGOs think plastic is not the right thing to be used, I think, in some of those place. So they're really not looking for the re-closeable products right now, but the right moment to be the launch for the water. And I think the key product will be launched in the standard can just with different shape and size because it's -- they are not looking for their closeability right now, they are looking much more for the occasion of this consumption. It's not so far from the day that plastics is not allowed to be sold in the beaches. And then in Brazil, there's the habit to have water bottles in the beaches and also the tea. There's lots of standard tea being sold in the beaches in the plastic cups. And those are the products that will probably be replaced by water cans. And we're not -- people are really thinking about re-closeability at this moment.

Colin J. Gillis*President, Beverage Packaging Europe*

Well, I think maybe to your point if you re-create the category and size it right, is re-closeability important? If you think for a lot of other beverages, Scott, the whole thing is drink it and go to the next one. Why can't we do that with water? I know the paradigm is, it's a big bottle and you have a screw cap, does it have to be that way? So that will be the first question. I think there was a graph showing in the U.K. the growth of water. We have our first water customer in Russia, hard got. This is years of work and now we finally have somebody putting canned water out in the market in Russia. So the opportunity set is there. I think it's -- there's a lot of patience, a lot of perseverance. And trying to help our customers understand the value proposition to get away from the commodity side of water into the value-added side.

Gihan Atapattu*President, Beverage Packaging Asia*

We're just starting in China, in the qualification process, private label with re-closeability. Small, it will start with 40 million next year, but it'll grow, it'll be the first one. The re-closeability featuring China is to create a newness, a wow factor of -- the entrepreneur wants to say, let's bring a packaging with something new that's not seen in China, and we'll then introduce water in the can as a result of it. So that's where we, as a packaging company, are creating the wow effect.

Daniel William Fisher*Senior VP & COO, Global Beverage Packaging*

Just to build on Colin's point that the conversations we're having most recently with the really big CPG companies, they're not at all happy with the profit they're making in their water portfolio. So this is not going to be a like-for-like at a price point that the end consumer understands. This will give us the opportunity to put different opportunity sets in front of them. Sparkling water's done really well in sleek cans and other things. I think the opportunity for -- to get away from resealability because candidly, all the resealability products outside of our capped can, they have plastic. So that's not a

good solve. We're not going to solve a plastic problem with plastic. And I do think Colin's comment is spot on. It's changing the size, the dimensionality and the channels that these go into, just in the domestic U.S., right, when you've got colleges moving very, very quickly away from plastic or having plastic-free campuses, the conversations, again, we're having with the big CPG companies, it's not about resealability, it's like, what can we get in these channels and what can we get to reset the value proposition on water because water should be making a heck of a lot more money for them. So it's a great question.

Ann T. Scott

Vice President, Investor Relations

We are going to go ahead and take one last question.

Adam Jesse Josephson

KeyBanc Capital Markets Inc., Research Division

Adam Josephson, KeyBanc. Just 2 quick questions, one for Dan or John. I think on one of the slides, you have North American beverage volume growing, I think, 1.7 [percent] over the next 3 years. What is the comparable number of the past 3 years that you had, just out of curiosity?

John A. Hayes

Chairman, President & CEO

I think the number that's actually shown from the U.S. is kind of like flat to down to down 1%. We've experienced growth and we've seen over the past year kind of a stabilization really with what's really had we've talked about this on calls is we've probably in about '14, '15, we saw the folks like ABI and Molson Coors really start to move towards innovation and getting into alternative categories to step into spiked seltzers, et cetera, use their existing capacity in their breweries and move into that. I think Coke has done a really good job maximizing profit pools. And then sparkling water has outperformed any and all expectations. And those along with Mexican export, that has moved kind of from a flattish last 2 to 3 years into what we believe will be a growth trajectory going forward.

Adam Jesse Josephson

KeyBanc Capital Markets Inc., Research Division

Thanks, Dan. And just one on, I think, it was slide 55 that the commercial opportunities you have a footnote saying most of the near-term opportunities will be in North America over the next couple of years that 15% or 20% is largely North America. Presumably you have contracts rolling everywhere not just in the U.S., can you just help me understand why you expect most of that opportunity to be in the U.S. over the next couple of years?

Daniel William Fisher

Senior VP & COO of Global Metal Beverage Packaging

Sure. I think we said this repeatedly but maybe it bears reinforcing. We do the price point for the more commodity containers in North America is at close to the lowest levels anywhere in the world. So we like our margins. We'd like to hold onto our margins in other parts of the world. So that would be where that dynamic of supply/demand balance and getting paid for the value of the products and making sure that we're getting paid for the complexity that have been thrown into that category specifically. That's where the focus is. And as John has indicated in North America in particular, we have longer contracts than we have in other parts of the world. So those longer contracts will begin to mature and give us an opportunity to start to reset some of the contractual language and manage this complexity and get paid for it.

John A. Hayes

Chairman, President & CEO

Well, thank you all on behalf of everyone here at Ball. First, I want to thank Ann. I want to thank Chris and all -- Renee, you're back there. I see you as well. Thank you for putting this all together. We're going to sign off now in the webcast. We appreciate your participation and sitting 3 hours on the webcast, it's the easiest thing in the world. But we certainly appreciate it. So we're going to sign off on the webcast.

Forward-Looking Statements

This transcript and presentation contains "forward-looking" statements concerning future events and financial performance. Words such as "expects," "anticipates," "estimates," "believes," "targets," "likely" and similar expressions typically identify forward-looking statements, which are generally any statements other than statements of historical fact. Such statements are based on current expectations or views of the future and are subject to risks and uncertainties, which could cause actual results or events to differ materially from those expressed or implied. You should therefore not place undue reliance upon any forward-looking statements and any of such statements should be read in conjunction with, and, qualified in their entirety by, the cautionary statements referenced below. The company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Key factors, risks and uncertainties that could cause actual outcomes and results to be different are summarized in filings with the Securities and Exchange Commission, including Exhibit 99 in our Form 10-K, which are available on our website and at www.sec.gov. Additional factors that might affect: a) our packaging segments include product demand fluctuations; availability/cost of raw materials; competitive packaging, pricing and substitution; changes in climate and weather; competitive activity; failure to achieve synergies, productivity improvements or cost reductions; mandatory deposit or other restrictive packaging laws; customer and supplier consolidation, power and supply chain influence; changes in major customer or supplier contracts or a loss of a major customer or supplier; political instability and sanctions; currency controls; changes in foreign exchange or tax rates, including due to the effects of the 2017 U.S. Tax Cuts and Jobs Act; and tariffs or other governmental actions in any country affecting goods produced by us or in our supply chain, including imported raw materials, such as pursuant to section 232 of the U.S. Trade Expansion Act of 1962; b) our aerospace segment include funding, authorization, availability and returns of government and commercial contracts; and delays, extensions and technical uncertainties affecting segment contracts; c) the company as a whole include those listed plus: changes in senior management; regulatory action or issues including tax, environmental, health and workplace safety, including U.S. FDA and other actions or public concerns affecting products filled in our containers, or chemicals or substances used in raw materials or in the manufacturing process; technological developments and innovations; litigation; strikes; labor cost changes; rates of return on assets of the company's defined benefit retirement plans; pension changes; uncertainties surrounding geopolitical events and governmental policies both in the U.S. and in other countries, including the U.S. government elections, budget, sequestration and debt limit; reduced cash flow; ability to achieve cost-out initiatives and synergies; interest rates affecting our debt; and successful or unsuccessful joint ventures, acquisitions and divestitures, including with respect to the Rexam PLC acquisition and its integration, or the associated divestiture; the effect of the acquisition or the divestiture on our business relationships, operating results and business generally.

Copyright © 2018 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.

These materials have been prepared solely for information purposes based upon information generally available to the public and from sources believed to be reliable. No content (including index data, ratings, credit-related analyses and data, research, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of S&P Global Market Intelligence or its affiliates (collectively, S&P Global). The Content shall not be used for any unlawful or unauthorized purposes. S&P Global and any third-party providers, (collectively S&P Global Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Global Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON "AS IS" BASIS. S&P GLOBAL PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Global Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages. S&P Global Market Intelligence's opinions, quotes and credit-related and other analyses are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P Global Market Intelligence may provide index data. Direct investment in an index is not possible. Exposure to an asset class represented by an index is available through investable instruments based on that index. S&P Global Market Intelligence assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P Global Market Intelligence does not act as a fiduciary or an investment advisor except where registered as such. S&P Global keeps certain activities of its divisions separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions of S&P Global may have information that is not available to other S&P Global divisions. S&P Global has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

S&P Global may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P Global reserves the right to disseminate its opinions and analyses. S&P Global's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription), and may be distributed through other means, including via S&P Global publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.

© 2018 S&P Global Market Intelligence.