

S&P Global
Market Intelligence

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Earnings Call

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CALL PARTICIPANTS	2
PRESENTATION	3
QUESTION AND ANSWER	8

Call Participants

EXECUTIVES

Howard I. Ungerleider

President & CFO

James R. Fitterling

Chair & CEO

Pankaj Gupta

*Vice President of Investor
Relations*

ANALYSTS

Arun Shankar Viswanathan

*RBC Capital Markets, Research
Division*

Christopher S. Parkinson

*Mizuho Securities USA LLC,
Research Division*

David L. Begleiter

*Deutsche Bank AG, Research
Division*

Frank Joseph Mitsch

Fermium Research, LLC

Hassan Ijaz Ahmed

Alembic Global Advisors

Jeffrey John Zekauskas

*JPMorgan Chase & Co, Research
Division*

Joshua David Spector

*UBS Investment Bank, Research
Division*

Kevin William McCarthy

Vertical Research Partners, LLC

Michael Joseph Sison

*Wells Fargo Securities, LLC,
Research Division*

Patrick David Cunningham

Citigroup Inc., Research Division

Patrick Duffy Fischer

*Goldman Sachs Group, Inc.,
Research Division*

Unknown Analyst

Vincent Stephen Andrews

Morgan Stanley, Research Division

Presentation

Operator

Greetings, and welcome to the Dow's Second Quarter 2023 Earnings Conference Call. [Operator Instructions] As a reminder, this conference is being recorded. I will now turn the call over to Dow Investor Relations Vice President, Pankaj Gupta. Mr. Gupta, you may begin.

Pankaj Gupta

Vice President of Investor Relations

Good morning. Thank you for joining our webcast today. The accompanying slides are provided through this webcast and posted on our website. I'm Pankaj Gupta, Dow Investor Relations Vice President. And joining me today on the call are Jim Fitterling, Dow's Chair and Chief Executive Officer; and Howard Ungerleider, President and Chief Financial Officer. Please note, our comments contain forward-looking statements and are subject to the related cautionary statements contained in the earnings news release and slides.

Please refer to our public filings for further information about principal risks and uncertainties. Unless otherwise specified, all financials, where applicable, exclude significant items. We will also refer to non-GAAP measures. A reconciliation of the most directly comparable GAAP financial measure and other associated disclosures are contained in the earnings news release and slides and are posted on our website. On Slide 2, you will see the agenda for our call.

Jim will begin by reviewing our second quarter results and operating segment performance. Howard will then share our outlook and modeling guidance and then provide an update on our cost savings actions and financial position. To close, Jim will outline how we are continuing to advance our long-term Decarbonize and Grow as well as Transform the Waste strategies while navigating challenging short-term dynamics. Following that, we will take your questions. Now let me turn the call over to Jim.

James R. Fitterling

Chair & CEO

Thank you, Pankaj. Beginning on Slide 3. We continued to navigate a challenging macroeconomic environment with slow global growth in the second quarter. Despite lower year-over-year sales and earnings, Team Dow delivered sequential earnings improvement by executing on our financial and operational playbook. We leveraged our diverse portfolio to capitalize on gains in packaging and modestly higher seasonal demand in building and construction. This resulted in a sequential improvement in volume.

In addition, we continue to implement our \$1 billion of proactive and targeted cost savings actions, delivering \$250 million of savings in the quarter and \$350 million year-to-date. Net sales were \$11.4 billion, down 27% versus the year-ago period, reflecting lower demand and prices due to slower macroeconomic activity. Sales were down 4% sequentially as volume gains were more than offset by lower local prices.

Volume decreased 8% year-over-year, led by a 14% decline in Europe, the Middle East, Africa and India or EMEAI. Volume was up 1% sequentially, driven by gains in Asia Pacific and Latin America as well as in Industrial Intermediates & Infrastructure and Performance Materials and Coatings. Local price decreased 18% year-over-year and 5% sequentially due to lower demand on weak macroeconomic activity as well as lower global raw material costs.

Operating EBIT for the quarter was \$885 million, down from \$2.4 billion in the year ago period, primarily driven by lower local prices. Operating EBIT increased \$177 million sequentially, driven by gains in Packaging and Specialty Plastics. We generated cash flow from operations of more than \$1.3 billion, up more than \$800 million versus the prior quarter, driven by improved working capital.

On a trailing 12-month basis, our cash flow conversion is 98%. Our strong financial position gives us the flexibility to continue to advance our long-term strategic priorities, supported by our disciplined and balanced capital allocation strategy. In the quarter, we returned \$743 million to shareholders through dividends and share repurchases. Year-to-date, we have returned nearly \$1.4 billion, and our balance sheet remains healthy, supported by strong investment-grade credit ratings.

We also published our 2022 INTERsections report in June. The report once again received limited assurance by our external audit firm and showcases Dow's continued progress on our ambition to be the most innovative, customer-centric, inclusive and sustainable materials science company in the world.

Now turning to our operating segment performance on Slide 4. In the Packaging & Specialty Plastics segment, operating EBIT was \$918 million compared to \$1.4 billion in the year ago period. Local price declines were driven by lower global energy and feedstock costs, which in turn impacted polyethylene prices across all regions. Volume declines primarily in EMEAI were driven by lower demand for olefins and aromatics. Sequentially, operating EBIT improved by \$276 million, driven by lower energy and feedstock costs.

Moving to the Industrial Intermediates & Infrastructure segment, operating EBIT was a loss of \$35 million compared to earnings of \$426 million in the year ago period. Results were driven by lower local prices and demand in both businesses. Volume declines were primarily driven by lower demand for consumer durables, building and construction and industrial applications. Sequentially, operating EBIT was down \$158 million due to lower local prices and increased planned maintenance turnaround activity.

And in the Performance Materials & Coatings segment, Operating EBIT was \$66 million compared to \$561 million in the year ago period. Local price decreases were driven primarily by declines for siloxanes and acrylic monomers. Volume was down on lower global demand for silicones and coatings applications. Sequentially, operating EBIT increased \$31 million, driven primarily by seasonally higher volumes. Next, I'll turn it over to Howard to review our outlook and actions on Slide 5.

Howard I. Ungerleider
President & CFO

Thank you, Jim, and good morning, everyone. We continue to expect a challenging macroeconomic environment in the third quarter. While inflation is beginning to moderate, the lagging effects of tighter monetary policy on consumer demand and a slower-than-expected demand recovery in China have resulted in a slowdown of industrial economic activity around the world. In the U.S., industrial activity remains weak with June manufacturing PMI in contraction at 46.3. However, consumer demand has remained resilient, supported by low unemployment levels.

With inflation starting to ease, consumer confidence in June is now at the highest level since early 2022. In Europe, recessionary conditions persist and are expected to continue despite lower energy prices and inflation declining to a 17-month low. Industrial activity in the region continues to contract with PMI reaching the lowest level since May 2020.

In China, while we are experiencing growth, the anticipated economic rebound following the end of zero-COVID restrictions, has yet to fully materialize. June manufacturing PMI continues to hover around the neutral level of 50 and China's exports were impacted by the global demand slowdown contracting at the fastest pace since the beginning of the pandemic. Around the rest of the world, India's manufacturing PMI expanded to 57.8 in June as demand outpaced higher input costs and ASEAN manufacturing PMI remained in expansionary territory. Manufacturing activity in Japan, however, retreated back to contractionary levels, following improvement in PMI for 3 consecutive months.

Given these regional dynamics, we will continue to take a disciplined approach to managing our operations and adapt our business to the evolving market realities.

Turning to our outlook for the third quarter on Slide 6. In the Packaging & Specialty Plastics segment, industry polyethylene demand increased 4% in June. Despite this tailwind, we exited the second quarter at lower price levels, which are expected to drive lower average prices sequentially. We're also experiencing

increased feedstock costs, primarily driven by higher ethane prices on the U.S. Gulf Coast. All in, we anticipate these market dynamics will be a \$50 million headwind in the quarter.

Additionally, increased planned maintenance turnaround activity at our cracker in St. Charles, Louisiana, is expected to be \$100 million headwind and we see another \$100 million headwind from the lack of project-based licensing sales from the prior quarter which will not occur. However, we do expect to generate a \$50 million tailwind in the quarter as we continue to implement our cost savings actions.

In the Industrial Intermediates & Infrastructure segment, while demand and energy end markets remains resilient, we expect continued demand pressure in consumer durable end markets. We anticipate a \$15 million tailwind from our cost savings actions as well as a \$25 million tailwind following the completion of a planned maintenance turnaround from the second quarter. Additionally, following an unplanned event at our Louisiana operations this month, our preliminary estimate reflects a \$100 million headwind to earnings. I want to please reinforce that this estimate is only preliminary at this point. As we get a more refined estimate, we will update if needed.

In the Performance Materials & Coatings segment, we expect continued price pressure in siloxanes, while seasonal demand remains below normal for building and construction end markets, together contributing a \$50 million headwind. Our cost savings are on track to deliver a \$35 million tailwind for the segment. Additionally, the completion of second quarter turnarounds at our Carrollton and our Zhangjiagang siloxanes facilities are anticipated to contribute a \$25 million tailwind in the third quarter.

Operationally, our earnings are expected to be flat with the prior quarter as our self-help is expected to fully offset the estimated margin compression. All in, we expect third quarter earnings to be down approximately \$150 million sequentially before the impact of the Plaquemine outage as a result of the \$50 million higher turnaround expense and the \$100 million in project-driven licensing sales, which will not recur.

Turning to Slide 7. Our commitment to financial and operational discipline enables Dow to navigate the near-term market challenges while continuing to invest for the future. We are on track to deliver our \$1 billion of cost savings in 2023. We achieved 35% of the savings in the first half of the year and continue to expect we will deliver the remaining 65% in the second half.

This includes our previously announced global workforce reduction program. 75% of the 2000 impacted roles exited at the end of the second quarter and more than 90% are expected to exit by the end of the year. Our \$300 million reduction in planned maintenance turnaround spending remains on track and we're continuing to execute improvements in our raw materials, logistics and utility costs.

We're also continuing to execute actions to rationalize select higher cost, lower return assets in our Polyurethanes, Coatings and Industrial Solutions businesses in line with market fundamentals. These actions support the strong financial position that Team Dow has purposely built since Spin. Our debt and our credit profile gives us significant flexibility and optionality to continue to advance our strategic priorities across the economic cycle.

All in, our actions have allowed us to lower our cash commitments by approximately \$1 billion since Spin, driven by significantly lower cash interest and pension liabilities, reduced share count and no joint venture cash contributions.

For 2023, we expect our annual net interest expense to be down more than 40% versus 2019, and we have no substantive debt maturities due until 2027. And we see more than \$1 billion of unique to Dow additional cash levers going forward, including resolution of our pending Nova litigation, structural working capital improvements and our intervention actions. Next, I'll turn it back to Jim for an update on our long-term strategy.

James R. Fitterling
Chair & CEO

Thank you Howard. Moving to Slide 8. We remain confident in our long-term growth as we drive the transition to a more sustainable future with a focus on profitability and maintaining our disciplined and

balanced capital allocation priorities. Our Decarbonize and Grow strategy is expected to increase underlying earnings by \$3 billion annually while also reducing greenhouse gas emissions by 30% by 2030 versus 2005 levels.

Notable updates this quarter include: our FCDH unit is now fully operational and is ramping up rates. Leveraging breakthrough technology, the unit expands our capacity at lower capital and cost intensity while reducing energy usage and greenhouse gas emissions relative to conventional PDH units. In collaboration with X-energy, we are preparing to submit a construction permit application through the U.S. Nuclear Regulatory Commission for our small modular nuclear energy facility in Seadrift, Texas.

We plan to break ground in 2026 and the project is expected to provide the site with safe, reliable, low-carbon power and steam. In parallel, we are utilizing a capital-efficient approach to quickly scale production and grow our supply of recycled and bio-based products. By 2030, we expect to advance our Transform the Waste strategy by commercializing 3 million metric tons per year of circular and renewable solutions.

Our collaborations with Valoregen and Mura Technology, both remain on track to start up their respective mechanical and advanced recycling facilities in the fourth quarter. Together, these investments will help us unlock long-term growth opportunities as we meet increasing customer and brand owner demand for more sustainable and circular solutions.

Taking a closer look at our Fort Saskatchewan, Alberta Path2Zero project on Slide 9. This flagship project will create the world's first net-zero CO2 emissions, ethylene and derivatives complex. Another example of how we're delivering long-term value growth through sustainability. By 2030, the project will decarbonize 20% of our global ethylene capacity while expanding our global polyethylene supply by 15% and tripling polyethylene capacity at our Alberta site.

We are on track to secure partner agreements and subsidies during the second half of this year and we are targeting Board and regulatory approval, along with a final investment decision by year-end. Construction is projected to begin in 2024, and start-up of the project will occur in 2 phases.

Phase 1 will add approximately 1,300 kilotons of ethylene and polyethylene capacity annually by 2027. Phase 2 will contribute another approximately 600 kilotons annually by 2029. We expect to spend, on average, roughly \$1 billion of CapEx annually on the project beginning next year to project completion.

By mid-decade, our total CapEx for the company is projected to ramp above D&A between 2025 and 2027 as we implement Phase 1 of the Alberta project. We remain fully committed to keep our target CapEx within D&A across the economic cycle and expect to return to those levels after the completion of the first phase of this project.

At full run rate, we expect the project to deliver \$1 billion of EBITDA annually, and targeted returns on invested capital above our enterprise goal of 13% over the economic cycle, driven by the Alberta feedstock cost advantage which provides Dow with lower ethane costs compared to the rest of the world even more advantaged than the U.S. Gulf Coast, industry-leading capital efficiency, building on the success of our Texas 9 investment which has delivered over 15% return on invested capital since start-up with best-in-class capital intensity, conversion costs and CO2 emissions.

A higher value sustainable product offering which drives value as we capitalize on technologies that deliver low and zero CO2 emission solutions with enhanced performance for our customers and by leveraging third-party investments for decarbonization and CO2 infrastructure assets, which will reduce our capital spend consistent with our best owner mindset.

Altogether, we are well positioned to lead the industry and meet the needs of customers and brand owners as they seek products with a lower carbon footprint. Our disciplined and phased approach will enable us to decarbonize our assets, grow earnings and keep CapEx within D&A across the cycle.

Closing on Slide 10. Dow remains focused on advancing our long-term strategy while navigating challenging short-term market dynamics. We're proactively reducing costs and maximizing cash flow while maintaining a broad focus on financial flexibility and operating discipline. The actions we've taken since

Spin to strengthen our balance sheet and improve our cash generation profile are enabling us to be more resilient as we deliver on our capital allocation priorities across the economic cycle.

As a result, we have raised our underlying earnings above pre-pandemic levels, substantially improved our 3-year cumulative free cash flow, reduced our net debt and pension liabilities by more than \$10 billion and delivered around 84% of net income back to our shareholders since Spin. Well above our target of 65% across the economic cycle. At the same time, our diverse, differentiated and global product portfolio is well positioned to capture the above GDP demand growth across our attractive market verticals.

With increasing customer demand for more sustainable and circular solutions, we'll continue to advance our Decarbonize and Grow and Transform the Waste strategies which will raise our earnings profile, reduce our greenhouse gas emissions and create a more circular economy.

With that, I'll turn it back to Pankaj to open the Q&A.

Pankaj Gupta

Vice President of Investor Relations

Thank you, Jim. Now let's move on to your questions. I would like to remind you that our forward-looking statements apply to both our prepared remarks and the following Q&A. Operator, please provide the Q&A instructions.

Question and Answer

Operator

[Operator Instructions] Your first question comes from the line of Vincent Andrews of Morgan Stanley.

Vincent Stephen Andrews

Morgan Stanley, Research Division

Wondering if you could just give us a little bit more color, perhaps by region in Packaging and Specialty Plastics for the third quarter, that \$50 million headwind you see on a net basis between the higher feedstock costs and the lower average pricing. How do those dynamics play out in each region?

James R. Fitterling

Chair & CEO

Vince, great question. Packaging and Specialty Plastics was strong in all 4 regions of the world. We saw volume increases in all 4 of them. And we saw overall, the biggest volume increases across all the businesses in P&SP for the quarter. In terms of the \$50 million headwind, obviously, June closed out a little bit softer on pricing. North American prices settled down \$0.03 in June, and that's because you've had some new capacity that came online during that time. Inventories came down actually during the month of June, I think, which is a reflection of the strength in China, also India, also exports to Mexico. All 3 of those regions are relatively strong.

Asia Pacific and Latin America led in terms of volume. And obviously, Europe was the weakest of the 4 regions. So my expectation is that while feedstocks have come up a bit in North America, a lot of that is really due to the hot weather that we've had and ethane staying in natural gas. The projection is that, that will continue through the third quarter, but if the weather breaks, then obviously, we'll see some of that come out. But our expectation is we'll start with that lower pricing in July and then we've got actions out there in July of up \$0.03, up \$0.05 for August, and as we speak, Asia is increasing about \$20 to \$30 a metric ton in July.

Operator

Your next question comes from the line of David Begleiter of Deutsche Bank.

David L. Begleiter

Deutsche Bank AG, Research Division

Jim, staying on the \$50 million decline in feedstocks and pricing, looking at integrated margins, that would suggest it would be worse than down \$50 million. So what are you doing to offset the perhaps great headwinds in at least consultant margins versus your forecast down \$50 million.

James R. Fitterling

Chair & CEO

David. Look, on integrated margins for the second quarter, I think they ended slightly higher than where we were in the first quarter and that was good news in North America. Our expectation is that they will improve in Europe in the third quarter. And obviously, the pressure that's been on here in North America has really been from the feedstock cost. And as I mentioned, I think there's -- it's hard to project how long the feedstock costs are going to stay where they are.

We know new capacity is coming in both natural gas, liquids and in frac capacity, and so that's going to mean there's plenty of ethane available. There's more than 750,000 barrels a day of ethane in rejection today. I think some of it stayed in rejection because natural gas demand has been so strong because of the warm weather but it doesn't take much for that to turn and there will be an incentive to break that out. Frac spreads are good right now.

I also think that inventories on NGLs are above the 5-year average, about 15% above that 5-year average, even with this warmer weather. And that's a reflection of record natural gas productions. We've had record ethane production in the year so far. And so while that seems like we've got cost pressures coming at, the reality is those things can be very dynamic and they can change during the quarter. Exports continue to be strong. We continue to see month-over-month and quarter-over-quarter improvements and ability to move exports out.

Our experience with China, even though China is relatively slower from a GDP growth standpoint than previous years, it's still in the 4.5% to 5% GDP range, which is relatively good, and we've been able to move good volume into China.

Howard I. Ungerleider
President & CFO

And Dave, in terms of what additional tailwinds are there to help compensate or offset some of those headwinds that you talked about, a big chunk of it, we continue to ramp our marine pack cargo in our shipments. So you should expect sequential volume growth in P&SP from Q2 to Q3. And then also, it's the self-help that the team delivered in the second quarter. I mean if you look at all of the -- at a high level from an enterprise perspective, a big chunk, if not almost all of the delta of sequential improvement came from the self-help and the interventions.

And so at the end of June, we had about 75% of those 2,000 roles and these are enterprise-level numbers exit and so, think about half of that is impacted in P&SP. So self-help and the interventions will also be a tailwind sequentially for P&SP.

Operator

Your next question comes from the line of Hassan Ahmed of Alembic Global Advisors.

Hassan Ijaz Ahmed
Alembic Global Advisors

Jim and Howard, just wanted to sort of ask a quick question around the supply addition side of things, ethylene, polyethylene specifically. There have been some rumblings in the press about China potentially considering rationalizing inefficient facilities. So what are your thoughts around that? And also around the pace of capacity additions given the macro the way it is?

James R. Fitterling
Chair & CEO

Hassan. Look, I think if you look over the near term, the pace of capacity additions versus demand increases is really going to be net short. I mean most of the capacity is on now. And so I think that's what's leading to, obviously, some of the pricing pressure that we've seen. But the volume growth is there. And so as that volume growth increases, we're going to see that eat up that capacity relatively quickly.

On China, obviously, China has had the benefit from a naphtha standpoint. China has moved into a better cost position than Europe. Obviously, Europe's naphtha crack cost position has become higher. But China has moved into a better cost position, and so that means they've been able to supply more domestically. And still, we've been able to export out of the U.S. to supplement that because the U.S. has an overall lower cost position.

So I think there's obviously pressure on high-cost producers. There's plenty of methanol available today, but MTO producers aren't really running, which I think speaks to the naphtha advantage there. And then I think if you look at the industry capacity, about 1/4 of the industry capacity is greater than 40 years old. And if you think about assets that are high carbon footprint, assets that are in high-cost position, those are highly suspect and they're going to be under pressure.

I haven't seen any announcements to shut down, but I think usually those things lag a little bit. My expectation is that polyethylene typically holds up the best through an economic slowdown that continues

to be true today. Our cost advantage and our feedstock cost advantage with our flexibility is showing through in the results. We see that even in Europe where we're cracking more LPGs right now, maxing out on LPGs and that improves our European position. And I think that's going to carry through the back half of the year.

Operator

Your next question comes from the line of Jeff Zekauskas of JPMorgan.

Jeffrey John Zekauskas

JPMorgan Chase & Co, Research Division

Two-part question. Can you comment on sequential MDI price trends in the United States, and secondly, you bought back \$250 million in shares. So that's maybe about 5 million shares, but your shares went up \$2 million sequentially and you have them flat for the third quarter. So what's the magnitude of share issuance this year.

James R. Fitterling

Chair & CEO

Yes, I'll take a look at MDI, and then I'll have Howard get the share buyback part of that. Look, on MDI, I think things are in relatively good position. We've seen MDI continue to be relatively strong. I mean the markets where MDI impacts, obviously, automotive has continued to be strong. Where we've seen demand down is obviously in durable goods like appliances, and so that has in some systems offerings there that has put some pressure on prices. I think we are in the process of starting up MDI distillation down in Freeport which is an expansion off of the port capacity, but allows us to retire the La Porte asset.

And so I think relatively speaking, MDI is holding up relatively well. And I think from a supply-demand balance standpoint, our expectation is that some of the capacity that's been announced out there is going to come on later than expected. And I think that's going to offer a little bit tighter operating rates than what the industry analysts might be predicting.

Howard I. Ungerleider

President & CFO

Yes, Jeff. Look, this is Howard. On the share count issue, good eyes, what I would say is, look, in the first quarter because we had a GAAP loss in the period. We had to use the basic share count, not the diluted share count. All else equal, it would have been \$711 million if you were doing an apples-to-apples in Q1. In Q2, we opportunistically repurchased \$250 million worth or 5 million shares. And what we've continued to say is we're going to buy back at least the dilution and we will continue to be opportunistic.

So I mean, I would say you should at least expect another \$125 million of stock buyback in Q3. In terms of what's left on the program, we've got \$1.7 billion left on the current open share repurchase program.

Operator

Your next question comes from the line of Mike Sison of Wells Fargo Securities.

Michael Joseph Sison

Wells Fargo Securities, LLC, Research Division

Your volumes were down 8% in 2Q. I think it's the fourth quarter roll down volumes, and it sounds like third quarter will be down as well. Are you seeing any bottoming in any of your end markets? And do you think the volumes in the second half will maybe improve on a year-over-year basis at some point?

James R. Fitterling

Chair & CEO

Mike, good question. Volumes were down 8%. Obviously, Europe was off 14%. So that's a pretty significant part on that volume being down. Asia Pacific and Latin America volumes were stronger. And so

they've held up relatively well. North America has been relatively flat about 1% on volume. So I think you can see, obviously, the pressure on Europe showing up in some of those markets.

In terms of the look at the macro economy, my feeling is this, we know we're in a global economic slowdown. It really started mid last year. We saw GDP decline through the back half of last year. We saw a little spike up in Q1 of this year, but it's been down in Q2.

And the expectation is it will be down in Q3 and Q4. I think it's setting up for a ramp back in 2024. People ask a lot of times are we in a recession? I think we'll determine if we're in a recession or not when we look in the rearview mirror. But the leading indicators, the destocking that happened in the fourth quarter and into the first quarter appears to be over, inventories are in relatively good control.

MEG, ethylene glycol typically leads into a slowdown. We saw that happen last year, and obviously, it led into this slowdown. And then a lagging indicator into a slowdown is caustic and chlorine, both sides of the electrochemical unit.

Obviously, we saw a time where chlorine demand was relatively strong. And caustic demand was relatively strong. Then we saw caustic fall off, but chlorine stay high. And now we see both caustic and chlorine fall off and that's a lagging indicator that you're into a slowdown. So I would say all the indicators say we're in it right now. And it feels to me like third, fourth quarter is going to be that low point, and then we'd start to ramp back from there.

And with the Fed seem to be nearing the ending of rate increases, a little bit of green shoots in housing, people moving back into the housing market, I think there are some areas to be optimistic for 2024.

Operator

Your next question comes from the line of Kevin McCarthy of Vertical Research Partners.

Kevin William McCarthy

Vertical Research Partners, LLC

Jim, with regard to your Industrial Intermediates segment, can you speak to some of the actions that you're taking there in terms of propylene oxide and your kind of 2-way resupply arrangements with Olin on-site there. And then more broadly, maybe as a follow-up to Mike's question, you're guiding 3Q a little bit lower. Do you think you're at or near an earnings bottom in 3Q in Industrial Intermediates? Or how would you frame that in terms of the bigger picture cycle there?

James R. Fitterling

Chair & CEO

Kevin, good questions. Let me just break it up into polyurethanes and construction chemicals and industrial solutions and look at them differently. In Polyurethanes and Construction Chemicals, we've been overweight propylene oxide and underweight isocyanate for some time. So you see what's happening, where the asset moves. We have been trying to right size a bit on PO and exit the merchant market PO business and that's what has been announced so far.

And then also increase the MDI distillation capacity in Freeport, which is what we're doing and retiring the La Porte asset. I think that balances us out better with the growth in polyurethane, which is in the downstream systems businesses where we make higher value. And so I think you'll continue to see us do that.

In terms of the Olin relationship, we've completed the negotiation of a series of contracts in the U.S. Gulf Coast that extends now through 2035, which means that the value and the sustainability and that integrated economics for both parties remain in place. And we're going to continue to supply ethylene energy and site services to Olin in the U.S. Gulf Coast and Germany. So Stade is the site primarily affected there. We're going to -- Olin is going to continue to supply us chlorine and sell ethylene for the PO businesses in Plaquemine and also chlorine into the MDI assets in Freeport.

So I feel good about the working relationship with Olin. I think we've continued to manage this well, and I think we both understand that the best value for each company is to continue to work together and keep that integrated economics alive.

In terms of Industrial Intermediates, I would say it has been growing well. Our focus there is to continue to invest in downstream alkoxyates amenities to support the growth in things like home and personal care, areas like low VOC solvents for the paints and coatings industry, the intermediates for the agricultural sector and obviously, all of the higher value derivatives that we make that go into pharma applications and energy, I think oil and gas and gas treatment, gas scrubbing, all of which have great growth drivers and to deemphasize our exposure to ethylene glycol, which is commodity.

And most people probably won't remember when we did the deal with MEGlobal, we still had a couple of assets here that made ethylene glycol. Longer term, it doesn't make a sense for us to make ethylene glycol and small-scale assets. So we'll move to purified EO only assets for industrial intermediates and then all the higher value downstreams and really emphasize the specialty side of that business versus the commodity.

II&I, I do think, had the additional drag in the quarter of the fact that ag intermediates were very slow in second quarter. Because of the hot weather, farmers did not spray in the second quarter. So they missed a whole spray of crops. That's a pretty significant volume on II&I intermediate capacity. And that's really why you saw the drag on them. I do feel like with housing and construction being at the bottom right now, I do think you can say we're at the bottom in that space. And I think things will look optimistic as we moved in, more optimistic as we move into 2024.

Operator

Your next question comes from the line of Frank Mitsch of Fermium Research.

Frank Joseph Mitsch
Fermium Research, LLC

Clarification and a question, Jim. Just to clarify, your expectation is that we're going to see ethane pricing come back down more in balance with where natural gas is in the relatively near term. Is that correct? And then secondly, Sadara has been impacted by plant maintenance and the macros the last couple of quarters. So can you give us some outlook on what your expectations are for Sadara in the back half?

James R. Fitterling
Chair & CEO

Frank, look, I think ethane supply is going to continue to increase. There's about 15% of additional supply coming on in the '23, '24 time frame. And there are 700,000 barrels a day of rejection today with -- this is after the start-up of new assets. So I think the supply is there. I think some of it has obviously been left in the gas because you've had really strong fuel demand for natural gas with the heat in the United States. That's put a big pull on base load power, which today in the U.S. is very dependent on natural gas.

I think some of that will come off. You see in storage. I think, is going to hit its peak before the winter season comes. And so I think as we see some moderation in the weather, I think you're going to see potential for ethane pricing to come off.

Sadara, you're right, had a couple of turnarounds that impacted the results. And of course, they have a strong exposure to Asia Pacific. They have a very good cost position. So with them back online now and fully operating and with the demand in Asia continue to be strong, and remember, India has GDP rates above 7%, I think you'll see that Sadara will come back a bit in the third quarter and in the fourth quarter.

Howard I. Ungerleider
President & CFO

Yes, Frank, I would also just add that Sadara, just like Dow with self-help, they have a number of structural and operational improvements underway, including some product mix enhancements to increase

margins and then their own cost intervention. So you should start to see that build through the back half of the year as well.

Operator

[Operator Instructions] Your next question comes from the line of Laurence Alexander with Jefferies.

Unknown Analyst

This is Dan Rizwan for Laurence. Just in terms of free cash flow conversion, it's obviously very high now, but I was wondering how we should think about it over the next few years, given what you're expecting in terms of the new projects you've kind of went through during the call?

James R. Fitterling

Chair & CEO

Howard, do you want to take that one?

Howard I. Ungerleider

President & CFO

Yes. I mean, thanks for pointing that out. I mean our second quarter trailing 12-month cash conversion was 98%. And really, the team is doing a great job on working capital management. We also got some dividends from our JVs and just an overall continued focus on cash flow. I would not expect 98% going forward. Over the long run, an 80% cash conversion is a good number. Obviously, during periods of low macroeconomic activity, that number will be high because we tend to release working capital dollars.

So a 90% number in the bottom of the cycle, probably a 70% number at the top of the cycle and then using 80% kind of as a normalized conversion is probably in line.

Operator

Your next question comes from the line of Duffy Fisher of Goldman Sachs.

Patrick Duffy Fischer

Goldman Sachs Group, Inc., Research Division

If you could, on your Slide 6, just walk through each of the segments on the top line guide sequentially, roughly what are you looking volume versus price within those ranges?

James R. Fitterling

Chair & CEO

Duffy. Well, obviously, on the top line, I think sales, obviously, are going to be down about 5% on the high side, it could be down as much as 9%. I think you're going to see -- obviously, we talked a lot about feedstocks and Packaging & Specialty Plastics that will be one element. We had the onetime related items from second quarter to third quarter that won't repeat on licensing. So that's about \$100 million.

Cost savings is about \$50 million to the positive. And then we just finished -- we just have the turnaround at the Cracker at St. Charles, which is \$100 million. So I'd say on price volume, my expectation is volume is going to continue to move as we've seen in the second quarter. We have advantaged cost positions around the world and we're taking advantage of that. They're running at higher rates, and we're able to export, and so we're going to take advantage of that in the third quarter.

And then we're going to navigate the price and obviously, the headwinds that we have on raw materials. I would say the team is already shifting on flexibility. We've got butane in some cases and propane back in the slate in some areas to mitigate some of the higher ethane costs. If you look at II&I, obviously, the big impact will be the loss of capacity out of glycol in Plaquemine. So that will be a \$100 million headwind that's partly lost margin on those sales and partly the cost of rebuilding the asset and getting it back operational.

Cost savings and maintenance activities are actually about a \$40 million tailwind. And then we'll continue to see how demand holds up. Automotive demand has been relatively good but housing and construction has been relatively weak on the polyurethane side.

Performance Materials and Coatings, I think volumes are going to hold up well. The price pressure in siloxanes has been the biggest headwind there. Although it's flattened and if it maintains flat, then we may not see as much of a headwind there. Cost savings and lower planned maintenance activity are about a \$60 million tailwind for them. So on PM&C, I'd say the other seasonal impact will be a slower seasonal return to kind of a normal seasonal outlook for Coatings because architectural coatings have been relatively weaker.

Industrial coatings have been strong, but architectural coatings compared to last year have been relatively weaker. That's kind of the outlook on all 3. I'd expect at the high end, all 3 of them will be down, primarily due to price, not so much on volume. And then as obviously demand returns, we'll start to see some pricing power come back in.

Howard I. Ungerleider
President & CFO

Duffy, you look at, I would just say at a very high level, if you think about -- if you take a step back at the enterprise and think about what we're trying to guide to, it really is on an operating basis, essentially flat sequentially. You've got our self-help, which we're guiding \$100 million increase in cost savings that's -- we expect that, that will be eaten up by the margin compression that Begleiter talked about that the third-party indices are projecting.

And then that leaves you with \$150 million of stuff that either happened in the second quarter that won't recur. So the project-driven licensing sales from univation, we're not -- we don't expect another \$100 million in the third quarter, although the team continues to work on additional licensing and then the \$50 million turnaround headwind at an enterprise level which is net.

And so that's operationally flat. And then, of course, we're still -- we've got to repair and restore the Plaquemine glycol plant as Jim said. So we're guiding on that \$100 million kind of a onetime impact on margin on lost sales and then the cost to rebuild and recommission and get that return to operations. That's a preliminary number. And as we learn more through the root cause investigation and the implementation plan to get it restarted, we'll give a further update.

Operator

Your next question comes from the line of Christopher Parkinson of Mizuho Securities.

Christopher S. Parkinson
Mizuho Securities USA LLC, Research Division

I just wanted to hit back on Slide 9, if I may, just given the outlook for the CapEx versus D&A and some of the comments on Alberta, can you just hit on any incremental thoughts you have on buyback activity in the second half of the year, dividend growth throughout that period in terms of the current coverage ratio. Just what are the kind of the puts and takes and how your thought process entering the '24 through '27 period?

James R. Fitterling
Chair & CEO

Howard, do you want to hit a view on buybacks?

Howard I. Ungerleider
President & CFO

Yes. Look, we're going to continue to be opportunistic. As we think about the back half, I would say, we're going to have -- my mindset, our mindset, which is what I think I gave the answer on Jeff's question,

\$125 million. That's our estimate for dilution. So all things equal, we're going to cover dilution each quarter, Q3 and then Q4.

But we're going to continue to be opportunistic as we have the free cash flow and the Dow team has done an exceptional job on working capital and just managing cash in a much tighter way. Remember, that was one of the big changes we decided together as a leadership team to make at Spin is that every P&L leader will also have their own balance sheet and also their own cash flow statement.

So every single leader in our company that manages the P&L now manages the cash flow and that rolls up to the one that Jim and I and the leadership team are responsible for. They've been doing a phenomenal job, the 98% cash conversion. So we did \$250 million of stock buyback in Q2. And so you could see that similar kind of number potentially in Q3 and we'll see in Q4.

The other thing, and I don't think we touched on it in this call, but we've talked about in the past is, look, we continue -- every year since Spin, we've had about \$1 billion or more of what I would call unique to Dow cash flow interventions or levers. Structural working capital is \$200 million to \$300 million. Our tax team continues to do a great job around the world. We're looking at any cash that we can potentially extract from our joint ventures just as several examples.

So we also have the NOVA litigation, which is several hundred million dollars that we fully expect to win in, I would say, the final round of that Canadian litigation. So there's another \$1 billion out there over the next 12 to 18 months. And as we get that money and we have the room, we will continue to be even more opportunistic on stock buyback.

Operator

Your next question comes from the line of Arun Viswanathan of RBC Capital Markets.

Arun Shankar Viswanathan

RBC Capital Markets, Research Division

As far as Q3 outlook goes, it looks like you mentioned still sluggish markets in China and recovery there. Would you call out that as really the main driver of when we could expect things to get better. That is should we be looking mainly for an improvement in China that would help lower the rates across many of your segments and signal better demand? Or what do you think are the main drivers of improving volume from here?

James R. Fitterling

Chair & CEO

Look, I think China, even though it's slower than what we are expecting is still relatively good in global GDP. I mean, 4.5% to 5% global GDP in the second largest economy in the world is pretty good. And India has been greater than 7% and Mexico has been strong, and we're well positioned to serve all those markets, and we're seeing that as we increase the exports.

And obviously, both China and India still need higher-value functional polymers which are a highly profitable part of what we export from the U.S. Gulf Coast. So I feel good about that. I don't think it's totally just dependent on China improving. I also think it's dependent on things like housing starting to improve again in North America and the European economy coming back.

So energy costs have come down in Europe. Natural gas, LNG prices in Europe have kind of flattened around \$10 a million BTU, which is a lot of relief from where they've been, obviously, still much more expensive than United States which is in the 3 handle on natural gas, but still much, much improved.

And so I think a lot will depend on the European economy coming back which has been under a ton of pressure and of course, we have a lot of exposure in Europe. About 30% of our footprint is in Europe, and it's most heavily in polyurethanes and construction chemicals.

And then I think in North America, we look at for housing to take a step back, which has started to show some positive signs on new permits and mortgage applications. I think higher rents and lack of supply on the housing market are leading to more people thinking about moving in.

There's some other bright spots in the economy that I think are coming. We had all the passage of the Infrastructure Bill, the Inflation Reduction Act, the CHIPS Act, which are meant to have a big impact, obviously, here in the United States. But there's a lag between the passage of those bills and the capital spend that goes along with it.

We've already seen in areas like wire and cable for telecommunications and high-voltage transmission, we've already seen very strong demand with our downstream customers. And I don't think that's going to back off. So you see that demand already. The return to travel has meant that aerospace production, plane production is back up. You see that in the coatings sector, especially those that have exposure to coatings for the aerospace industry.

Obviously, automotive continues to be relatively strong and stronger than last year. Heavy machinery continues to be strong because in a lot of parts of the world, we need to increase mining to keep up with the metals that we need to make this happen. And then automation, we don't talk about it much, but with inflation on wages, many companies are looking more to AI, machine learning and automation of existing manufacturing to get productivity out of manufacturing.

So if you're thinking about components that are going into controls and automation and either new construction of new manufacturing lines or revamping existing ones, those companies have pretty big backlogs right now.

So I think as housing picks up, it's going to pick up construction and it's going to pick up consumer durables which had been weak all year, really since mid last year. And I think we look at that to be kind of the indicator of the turn. That will be an indicator in China. That will be an indicator here in North America as well.

Operator

Your next question comes from the line of Patrick Cunningham of Citigroup.

Patrick David Cunningham
Citigroup Inc., Research Division

Price declines in PM&C continue to be fairly substantial. How do you expect demand and trends for the balance of the year? And what are your sort of expectations for new siloxane capacity in 2023?

James R. Fitterling
Chair & CEO

Good questions on PM&C. Let's just take a look at 2023. In Consumer Solutions, which is primarily silicones and some of the higher end of Dow Industrial Solutions that goes into those applications, the 2 areas that are a little bit slower than last year in terms of growth, are electronics and mobility. They're up this year, but not to the same extent as last year.

And then commercial buildings are relatively flat. Industrial is slightly up. Home and personal care is up. And so that's driven the demand. But when you think about electronics and mobility and construction, those are the biggest volume uses, and I think that's what's put the pressure on as well as the siloxanes capacity in China.

In coatings and monomers, the strongest parts of the sector right now are automotive and I think liquid applied sound dampening for undercarriage of cars and road marking applications. So infrastructure builds are really driving the volume increases there. Architectural is off, but it's off by a couple of percent. And obviously, the contractor business has come back where during COVID, it was mostly do-it-yourself business.

So we've got good dynamics, I think, starting to happen in the contractor side. The paper business has been off, paper coatings have been off year-over-year. I think on siloxanes capacity coming in, in 2022, we saw about 450,000 tons of new siloxanes capacity added.

I'd say, in 2023, you've got probably in that range of about 300,000 tons and then beyond 2024 and beyond, you've probably got another 300,000 tons that comes out beyond that time frame. So I think you're looking at kind of the trough on siloxanes right now and maybe a little bit into 2024 and then the demand will start to eat that up.

Operator

And we have time for one more question from the line of Josh Spector of UBS.

Joshua David Spector

UBS Investment Bank, Research Division

Just a quick one on the cost savings. So I guess, if I look at Slide 7, it looks like really 3Q was maybe the last large tranche of sequential step-up. I guess, is that right? So fourth quarter has much lower step up? And can you just remind us what we should be expecting there into 2024?

James R. Fitterling

Chair & CEO

Yes. I think when we looked at the guide for the third quarter, there's \$100 million step-up from second quarter. So that will be on a year-over-year basis, about \$350 million of cost saved. And I think fourth quarter is going to be in that \$300 million to \$350 million as well. So 2/3 of the \$1 billion, \$650 million to \$700 million comes out in the back half of this year.

Obviously, there's some sequential carryover into next year. So you got about \$150 million in the first quarter of next year from the sequential carryover. So the kind of the year-over-year and first quarter will be a step up as well.

And those are the spending impacts and then obviously, the businesses are all working on margin improvement within their portfolios. And then Howard mentioned, in addition to the \$1 billion of cost saves, we're working on \$1 billion of cash levers, unique to Dow cash levers. I think you just outlined that on the previous question.

So I'd say, net-net, we're focusing on cash, both on the cost side and on the cash levers where we can liberate some cash and also improving mix within the businesses and taking advantage of our low-cost positions and running those assets hard and then trimming on the high-cost side where we can to set ourselves up for the ramp-up in 2024.

Operator

There are no further questions at this time. Please turn the call over to Pankaj Gupta for closing remarks.

Pankaj Gupta

Vice President of Investor Relations

Yes. Thanks, everyone, for joining our call, and we appreciate your interest in Dow. For your reference, a copy of our transcript will be posted on our website within about 48 hours or so. This concludes our call. Thank you once again.

Operator

This concludes today's conference call. You may now disconnect.

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