Thank you and good morning, everyone, and welcome to our second-quarter earnings conference call.

With me today are Mike Roman, 3M’s chairman and chief executive officer, Monish Patolawala, our chief financial and transformation officer, and Kevin Rhodes our chief legal officer. Mike, Kevin, and Monish will make some formal comments then we will take your questions.

Please note that today’s earnings release and slide presentation accompanying this call are posted on the home page of our investor relations website at 3M.com.

Please turn to slide 2.

Please take a moment to read the forward-looking statement. During today’s conference call, we will be making certain predictive statements that reflect our current views about 3M’s future performance and financial results. These statements are based on certain assumptions and expectations of future events that are subject to risks and uncertainties. Item 1A of our most recent Form 10-K lists some of the most important risk factors that could cause actual results to differ from our predictions.

Please note, throughout today’s presentation we will be making references to certain non-GAAP financial measures. Reconciliations of the non-GAAP measures can be found in the attachments to today's press release.

With that, please turn to slide 3 and I will now hand the call off to Mike.

Thank you, Bruce. Good morning, everyone, and thank you for joining us.

In the second quarter, we made significant progress on the important actions we have been taking to improve our performance and shape the future of 3M.

We posted adjusted organic growth of negative 2.5%, which includes a negative 1.7% headwind from the expected decline in disposable respirator sales. Revenue for the quarter was at the high end of our guidance range.

Our adjusted operating margin was 19.3%, impacted by restructuring charges of $212 million, or a headwind to adjusted operating margin of 2.7 percentage points. Excluding these charges, we increased operating margin year over year.

We delivered adjusted earnings per share of $2.17 and adjusted free cash flow of $1.5 billion, driven by continued improvements in inventory management.
Today, we are updating our full-year earnings per share guidance to $8.60 to $9.10, up from a previous range of $8.50 to $9.00. We remain confident in our ability to deliver on our commitments, realize additional benefits from our restructuring actions, and position 3M for the future.

In the quarter, we maintained a strong focus on serving customers, driving operational execution, and maintaining spending discipline. All business segments delivered sequential improvement in adjusted operating margins.

Our restructuring actions and strong focus on cost management drove these margin improvements.

Looking at our markets, trends played out as expected.

We saw strength in automotive, both OEM and aftermarket; as well as highway infrastructure, and personal safety, excluding disposable respirators. Health Care, which was up slightly, continues to be impacted by lower post COVID-related demand notably in our biopharma, health information and medical solutions businesses. We also saw continued weakness in electronics, consumer retail, and China.

Please turn to slide 4.

**Slide 4, Executing on our strategies**

*Mike Roman*

As we focus on improving our performance, and managing a dynamic external environment, our teams are driving three strategic priorities: improving operational execution, successfully spinning off our Health Care business, and addressing litigation.

We are on track with our restructuring actions and have made significant progress in leaning out the center of the company, simplifying our management structure, and streamlining our supply chain.

The changes to our enterprise supply chain organization are enabling improvements in service, cost, and inventory, which helped drive our second quarter results. We are also taking advantage of the continued healing in supply chains to reduce logistics costs and improve production yields.

We have also made progress in advancing our go-to-market models to bring our innovation closer to customers. In support of these changes, to date we have initiated the transition to a new export model in 24 countries. I am pleased with how these changes are helping drive performance.

We’ve made good progress on our planned spin of our health care business, including regulatory filings and system updates in preparation for soft spin. We are also in the final steps of naming a CEO. We continue to work towards closing the transaction by year-end 2023 or early 2024, subject to the required conditions and additional factors we have disclosed in our SEC filings.

Last month, we announced an agreement, subject to court approval, to resolve public water systems claims nationwide in the AFFF multi-district litigation. This agreement will benefit U.S. based public water systems that provide drinking water to a vast majority of Americans. The settlement covers all forms of PFAS. As we announced, we have taken a Q2 related charge of $10.3 billion, payable over 13 years.

Also, related to litigation, we continue to participate in the confidential mediation process as part of the Combat Arms MDL and will provide updates as appropriate.

To provide additional details on our PFAS settlement agreement, I will now turn the call over to Kevin.

Please turn to slide 5.

*Kevin*
Thank you, Mike, and good morning. This is an important step forward for 3M. As Mike said we have entered into a broad class resolution with public water systems that provide drinking water to the vast majority of Americans. We are taking a proactive approach to managing PFAS by establishing a more certain path forward for public water systems, communities, and 3M.

Subject to court approval, 3M has agreed to support PFAS remediation for public water systems that detect PFAS at any level, and our agreement addresses all PFAS, not just those compounds that have been the primary focus of litigation to date.

Our agreement also provides funding for eligible public water systems that may detect PFAS into the future, and we have agreed to fund additional testing by public water systems, as well.

As Mike shared, the agreement terms entail a present value commitment of $10.3 billion, paid over 13 years. Additional details regarding the payment schedule are available in our Form 8K filed in June.

While this agreement provides an alternative to continued litigation for class members and for 3M, we remain prepared to defend ourselves in litigation should the agreement not receive court approval or should public water systems choose to litigate instead.

We are building on actions 3M has taken and continues to take. We were the first company to exit the manufacturing of two forms of PFAS, namely PFOA and PFOS which we announced more than 20 years ago. We have invested in state-of-the-art water filtration technology in our chemical manufacturing operations. And we have announced that 3M will exit all PFAS manufacturing by the end of 2025.

We will continue to build on this important progress as we focus on the future and work to proactively manage PFAS.

Now, let me turn it over to Monish to provide more details regarding our performance in the quarter.

Monish

Thank you, Kevin, and I wish you all a very good morning.

Please turn to slide 6.

Our second quarter performance was driven by a continued focus on serving our customers, improving manufacturing and supply chain productivity while also maintaining strong spending discipline.

Also, during the quarter we initiated a large part of our restructuring program to simplify and streamline the organization. We are aggressively reducing management layers and rooftops while also streamlining our go-to-market models and supply chain, bringing us closer to our customers.

End-market trends continued to play out as anticipated with ongoing weakness in electronics, soft discretionary spending patterns in consumer retail and mixed trends in industrial end-markets.

Regionally, China’s recovery has been slow impacted by electronics and soft export trends, Europe remains challenged as the uncertain geopolitical situation persists, while end-markets in the U.S. largely remain steady.
Second quarter total adjusted sales were $8 billion, or down 4.7% year-on-year. This result was a little better than forecasted as we experienced a smaller than anticipated headwind from foreign currency translation of (0.9)%, versus a forecast of (2)%.

On an adjusted basis Organic sales declined 2.5% versus last year. This result included an expected year-on-year headwind of approximately $140 million, or 1.7 percentage points, related to lower disposable respirator demand. Excluding this impact, Q2 adjusted organic sales declined 0.8%.

On an adjusted basis, second quarter operating income was $1.5 billion, with operating margins of 19.3%, and earnings of $2.17 per share.

These results included pre-tax restructuring charges of $212 million which negatively impacted adjusted operating margins by 2.7 percentage points and earnings by $0.31 per share. Without the impact of restructuring, second quarter adjusted operating margins were 22%, or up 40 basis points versus last year, and earnings were $2.48, up $0.03 year-on-year.

Turning to other components that impacted results year-on-year.

We were able to more than offset the impact of lower sales volumes and inflation impacts through improved manufacturing productivity, benefits from restructuring, strong spending discipline and selling prices, while continuing to invest in the business. The net result was an increase to margins of 1.4 percentage points and $0.15 to earnings.

The previously mentioned headwind from disposable respirators resulted in a negative impact to operating margins of 50 basis points and to earnings of $0.09 per share.

The carryover impact of higher raw material, logistics, and energy cost inflation created a year-on-year headwind of approximately $30 million, or a negative 30 basis point impact to operating margins and $0.04 to earnings.

As mentioned, foreign currency translation was a negative 0.9% impact to total sales. This resulted in a headwind of 20 basis points to margins and $0.02 to earnings per share.

Divestitures, primarily Food Safety, did not impact margins but resulted in a year-on-year headwind of $0.03 to earnings per share.

Finally, other financial items increased earnings by a net $0.06 per share year-on-year, primarily driven by a lower share count, which was partially offset by a lower non-op pension benefit.

In summary, our team’s focus on driving productivity, executing restructuring actions, and controlling spending is starting to yield results. These actions, coupled with improvement in global supply chains, drove sequential improvement in adjusted operating margins across all of our business groups. Excluding restructuring charges, adjusted operating margins improved 3.6-percentage points sequentially.

**Slide 7, Q2 2023 cash flow and balance sheet**

Monish Patolawala

Please turn to slide 7.

Second quarter adjusted free cash flow was approximately $1.5 billion, up 44% year-on-year, with conversion of 122%, up 50 percentage points versus last year’s Q2.

This year-on-year improvement was driven by our ongoing focus on working capital management, especially inventory and the timing impact related to restructuring charges. Inventory was flat sequentially, versus a typical historical build from Q1 to Q2. We continue to adjust production output to end-markets and leverage the power of daily management and data and data analytics to increase the velocity of inventory turns.
Adjusted capital expenditures were $328 million in the quarter, or similar year-on-year, as we continue to invest in growth, productivity, and sustainability.

During the quarter, we returned $828 million to shareholders via dividend.

Net debt at the end of Q2 stood at $11.7 billion, or down 12% year-on-year.

Our business segments continue their long history of robust cash flow generation. In addition, our proven access to capital markets, along with the anticipated one-time dividend from the spin of Health Care at 3x to 3.5x EBITDA and 19.9% retained stake, will provide additional financial flexibility. This, combined with our existing strong capital structure, provides us the flexibility to continue to invest in the business, return capital to shareholders and meet the cash flow needs related to ongoing legal matters.

Now, please turn to slide 9 for our business group performance.

**Slide 9, Safety & Industrial**

Monish Patolawala

Starting with our Safety and Industrial business, which posted sales of $2.8 billion, or down 4.6% organically.

This result included a year-on-year headwind of approximately $140 million, or 4.8 percentage points, due to last year’s COVID-related disposable respirator decline. Excluding disposable respirators, Safety and Industrial’s sales grew 0.2% organically in Q2.

Organic growth was led by mid-single digit increases in roofing granules and automotive aftermarket while personal safety declined due last year’s disposable respirator comp. Excluding disposable respirators, personal safety was up high-single digits organically.

Closure and masking declined due to slowdown in packaging and shipping activity, while industrial adhesives and tapes continued to be impacted by end-market softness in electronics.

Adjusted operating income was $614 million, or down 2.4% versus last year. Adjusted operating margins were 22.2%, up 70 basis points year-on-year, and up 2 percentage points sequentially.

The year-on-year improvement in margins was driven by productivity actions, strong spending discipline, and price. Partially offsetting these benefits were headwinds from lower sales volume, restructuring costs, and inflation impacts.

**Slide 10, Transportation & Electronics**

Monish Patolawala

Moving to Transportation and Electronics on slide 10, which posted Q2 adjusted sales of $1.9 billion.

Adjusted organic growth declined 2.4% year-on-year, largely due to the continued decline in demand for electronics.

Our auto OEM business increased approximately 21% year-on-year, approximately 600 basis points higher than global car and light truck builds.

Our electronics business continues to be impacted by soft end-market demand for electronics. As a result, this business experienced a year-on-year decline in adjusted organic sales of approximately 22%. Electronic end-markets continue to remain highly uncertain. We expect our year-on-year organic growth rates in electronics to remain negative in the second half, however, improve versus down nearly 30% in the first half as we start to lap easier comps.
Turning to the rest of Transportation and Electronics, transportation safety grew high-single digits organically, while commercial solutions and advanced materials were up low-single digits year-on-year.

Transportation and Electronics delivered $369 million in adjusted operating income, down 19% year-on-year. Adjusted operating margins were 19.8%, down 3.6 percentage points year-on-year, however, increased 3.1 percentage points sequentially.

Margin headwinds were driven by sales volume declines, restructuring costs, and inflation impacts. These headwinds were partially offset by benefits from strong spending discipline, productivity actions, and pricing.

Slide 11, Health Care
Monish Patolawala

Looking at our Health Care business on slide 11, Q2 sales were $2.1 billion with organic growth up slightly versus last year.

Organic sales in oral care were up low-single digits year-on-year and medical solutions business grew slightly.

Separation and purification and health information systems declined mid-single digits and low-single digits, respectively. These businesses continue to be impacted by lower post-COVID-related biopharma demand and ongoing stress on hospital budgets.

As procedure volumes continue to improve, hospital budgets stabilize, and we work through post-COVID related impacts, we are confident in the long-term outlook of this business.

Health Care’s second quarter operating income was $411 million, down 16% year-on-year. Operating margins were 19.8%, down 2.8 percentage points year-on-year, however, increased sequentially 1.9 percentage points.

Year-on-year operating margins were impacted by lower sales volume, restructuring costs, and inflation impacts. These headwinds were partially offset by benefits from strong spending discipline, productivity actions, and pricing.

Slide 12, Consumer
Monish Patolawala

Finally on slide 12, our Consumer business posted second quarter sales of $1.3 billion.

Organic sales declined 2.2% year-on-year as discretionary spending on hardline categories remains soft. We expect this trend to continue into the second half of the year.

Organic sales grew slightly in home, health, and auto care while home improvement, and stationery and office businesses both declined.

Consumer’s second quarter operating income was $235 million, down 5% compared to last year, with operating margins of 18.2%, down 40 basis points year-on-year, but up 3.2 percentage points sequentially.

The year-on-year decline in operating margins was driven by lower sales volumes, restructuring cost, and inflation impacts. These headwinds were partially offset by benefits from strong spending discipline, productivity actions, and pricing.

That concludes our remarks on the second quarter, please turn to slide 14 for an update on our full-year expectations.

Slide 14, Raising full-year 2023 EPS guidance
Monish Patolawala
During our January earnings call, we highlighted that we expected macroeconomic and end-market uncertainties to continue to persist into the year.

In addition, we noted that we were starting to see the healing of supply chains, however, we expected to continue to see headwinds from raw material availability and inflation, although at a lower level than 2022.

We also stated that we were not satisfied with our performance and would be taking a deeper look at everything we do as we continue to prepare for the spin of Health Care.

As a result, we noted that as we move through the year, we would be taking additional actions to improve supply chain performance, drive simplification, and bring us closer to our customers.

While we have more work to do, let me take a moment to provide a few examples on the progress we have made through the first half of the year.

- Starting with our sales performance. While end-markets continue to play out as expected, Q1 and Q2 revenue was slightly above our expectations. Our teams continue to relentlessly focus on serving our customers, work down backlogs and leverage the use of data and data analytics to drive improvements in demand planning.

- Next, as we have mentioned, we are aggressively addressing structure. We are on track with our actions to reduce structure across the company including at corporate, in our business segments and in manufacturing supply chain.

- We have initiated the transition of 24 countries to an export model partnering with local distribution to serve those customers and markets.

- In addition, we have made good progress in reducing corporate structure including the exit of our aviation operations and our conference center in northern Minnesota.

- And finally, we continue to adjust our production levels to end market trends, manage inventory, and aggressively control spending.

As a result of our actions, along with improvements in global supply chains and raw material availability, we are able to deliver first-half performance better than anticipated, particularly for margins, earnings, and cash flow.

In the first half of the year on an adjusted basis, we delivered sales of $15.7 billion, operating margins of 18.6% and earnings per share of $4.14.

These results included $264 million in pre-tax restructuring charges, or a headwind to margins of 1.7 percentage points and to earnings of $0.38 per share.

In addition, our strong operational execution and working capital management, particularly inventories, helped us to deliver $2.3 billion of adjusted free cash flow with a conversion rate of 105%.

Turning to guidance, we are raising our full-year adjusted earnings expectation as a result of our strong first-half operational execution as evidenced by our improving margin rate.

We now expect full-year earnings in the range of $8.60 to $9.10 versus our prior range of $8.50 to $9.00.

We continue to closely monitor end-market trends across all our businesses, particularly in electronics, consumer retail, industrial and China, and have yet to see signs of improvement in trends.

Therefore, we currently see organic growth tracking to the lower end of our range of flat to minus 3%.
This reflects our performance to date, along with the year-on-year headwind from disposable respirators tracking to the high-end of our anticipated range, or down approximately $550 million, along with continued macro and end-market uncertainty.

And finally, our full year adjusted free cash flow conversion expectation remains unchanged in a forecasted range of 90% to 100%.

Looking ahead to the third quarter, we expect end market trends to be very similar to Q2. Hence, we anticipate third quarter adjusted sales to be approximately $8 billion.

The impact from the COVID-related decline in disposable respirators and last year’s exit of Russia is anticipated to be a year-on-year headwind to sales of approximately $130 million, or 1.5 percentage points.

Third quarter pre-tax restructuring costs are expected to be in the range $125 million to $175 million, with pre-tax benefits of $125 million to $150 million.

Taken together, we expect third quarter adjusted earnings per share will be in the range of $2.25 to $2.40.

To wrap up, we continue to have a strong focus on serving our customers, improving the execution in our supply chain, making progress in our restructuring actions, managing costs, and investing in the business while navigating ongoing end-market weakness.

We expect our actions will continue to build momentum and improve our organic growth, margins, and cash flow performance into the future.

I want to thank our customers and suppliers for their partnerships, and the 3M employees for their hard work and dedication as they continue to deliver for our customers and shareholders.

I am confident in our future. As we have said, as we exit 2023, we will be a stronger, leaner, and a more focused 3M.

That concludes my remarks. We will now take your questions.

**Slide 15, Questions & Answers**  
**Andrew Obin - BofA Securities, Research Division - MD**

Just a question on the outlook. I think operationally, second quarter was quite strong. And I appreciate your commentary on organic growth, but where is the caution in terms of operational results in the second half? What segments, what verticals are you particularly sort of concerned about, as I said, not to raise guidance more given strength in the second quarter?

**Monish Patolawala**

Thanks, Andrew. So as I mentioned in my prepared remarks, when we came into the year, we thought we would have end markets that remain uncertain as well as economic uncertainty would exist. Looking at where are we in the first half, as I’ve called out, electronics continue to remain soft. We were nearly down 30% in the first half. We had consumer spending continue to remain soft. The consumer discretionary spending continue to remain soft. China remained soft in the first half.

And then when you put all that together, you look at it and say, what are the trends we are looking for in the second half. And so what we are watching is electronics and see whether it's hit its bottom or not, we believe that electronic softness will remain. It's still going to be negative for the year but less negative in the second half.
Consumer spending has remained soft in the first half. We believe it will remain soft in the second half. So we are watching back-to-school season and holiday season. Industrial activity has remained mixed. There are certain markets that continue to remain strong. There are certain markets that we are seeing a little bit of destocking in there.

Health care elective procedures, we believe, will continue to go up on a sequential basis. At the same time, biopharma and Health Information Systems are still constrained. Biopharma is going through COVID-related demand and HIS, or Health Information Systems, is impacted by stressed hospital budgets.

As I've also mentioned in my prepared remarks, DR right now looks like it's going to be at the worst end of our range of down $550 million versus we thought it was going to be $450 million to $550 million coming into the year. And in China, we have -- second quarter was weak, down 4% on lower comps, and we currently have not seen much of the recovery show up in China. Plus as a reminder, it was a tough comp in -- through 3Q of last year as China was coming out of COVID.

So when you put all that together, Q3 is very similar to 2Q. And overall, the trends that we see make us feel that where we are right now in the first half and where we see trends going in the second half, we feel that from a revenue guide basis, we'll be at the lower end of our guide that we had given, which was flat to minus 3% coming into the year.

But with that said, Andrew, if markets change, we will definitely be there to serve it. The teams are executing well as you have seen in the results that we have announced. We've got momentum on supply chain and supply chain execution. The team is doing a great job on restructuring and driving the cost as well as the team has hyper focus on making sure we are continuing to be prudent on our cost spending. But as we see these markets start to evolve in the second half and into 2024 and beyond, we won't hesitate to invest in growth in the high-growth markets because ultimately, we are in for the long run. Hope I answered your question, Andrew.

Andrew Obin

Yes. No, I mean it's still sort of margin was pretty solid. But let me drill down on consumer electronics maybe a little bit more. What would it take for this business to finally turn positive? Or is it just some time early next year, the comps get so easy that it can't decline anymore? But what KPIs in terms of end markets are you watching?

Mike Roman

Yes, Andrew, maybe I'll pick up on Monish's description of what we're looking at in the second half. And if you look a little further at the consumer electronics, we saw a soft first half in -- across all consumer electronics category, smartphones, TVs, notebooks, tablets. It -- you just saw -- and it was impacting our results as Monish outlined.

And as we look into the second half, maybe there starts to be projected recovery in the markets in fourth quarter, but really third quarter looks like the first half. And I would say picking up on inventory in the channel, we see destocking in a slowdown like this. And so we expect some destocking to continue in the electronics channel. So as we go into third quarter, that's kind of forming the view that we have.

Now what would we need to see? We would need to see a turnaround in demand in those particular build rates in those end markets. And we'll see, I think, confidence show up in the inventory in the channel as well. So we're watching each of those categories closely in consumer electronics. And we also keep an eye
on semiconductor capacity as well and how that's being -- how production is changing there. That gives you an indication of demand as well.

**Andy Kaplowitz - Citigroup Inc., Research Division - MD and U.S. Industrial Sector Head**

So I just want to delve in a little more into your margin performance in Q2 and what it means for your second half. I mean, obviously, you had a nice step-up in sequential margin despite absorbing the 2.7% of pre-tax charges. So how do we think about the durability of the productivity actions, the positive price versus cost that looked like what was going on in the quarter? And how do you think about margin performance embedded in Q3, Monish, in the second half as it looks like you're forecasting margin below Q2 in Q3?

**Monish Patolawala**

Yes, Andy, I'll just start first with your question on sustainability, et cetera. There have been a few questions on cadence of restructuring charges and benefits. And we have attached an appendix that shows you by quarter where we expect to be for 2023, which is charges in the range of $400 million to $450 million and benefits in the range of $400 million to $450 million, so self-funding.

The total program, as a reminder, is between $700 million to $900 million of charge and $700 million to $900 million of benefits. From a cadence perspective, depending on how the restructuring announcements play itself out, we've given you 2023, we expect 2024 charges by the end of 2024 to have pretty much taken most of the restructuring charges. The benefits, of course, show up in '25 and beyond. And once all these charges come to an end, the benefit is between $700 million to $900 million.

Your second piece on where are we starting to see margin, as you have seen coming into the second quarter, one of the reasons for us able to beat expectations in the second quarter was driving supply chain efficiency. So factories started to heal better, raw materials started to flow better, which allowed us to have longer runs.

But at the same time, the work that the supply chain team has done under Peter Gibbons is starting to drive the execution, and we are starting to see that in the results. And then, of course, the team is hyper-focused on cost control.

So to answer your question on second half and how this plays out, one is you do have to adjust for the restructuring cost by quarter, and you will see that the margin rate is climbing. Secondly, when we came into the year, we had said OI or operating margin will be somewhere in that 18.5% to 19% range. Sitting right now with a lower revenue number with a higher EPS number, we believe that we'll be somewhere in that 19.5% to 20% range, which includes all the charges and all the benefits.

What we are watching also is, to answer some other of your points, raw material and energy cost inflation coming into the year was $150 million to $250 million. We have now changed that to $150 million to $200 million. So we are starting to see the benefit there.

What we have seen so far, Andy, is disinflation, which is lower inflation than last year. We are seeing the benefit in logistics. But however, some of our commodities still continue to be inflationary and labor, frankly, is sticky from an inflation perspective in those commodities. But that also will play itself out as events play out through this year and into 2024 and beyond. And then we will continue to be focused on cost.

Another item for us in the second half is as we are getting ready for the spin of Health Care, we'll be, of course, standing up the new management team. Mike already talked about that in his prepared remarks.
There will be some cost incurred from a -- as these -- as we have management teams appointed that start getting ready to be -- have Health Care be a stand-alone company.

And then on -- I would just say on another housekeeping item is other financial, when we came into the year, we had said it would be minus $0.10 to flat on a year-over-year basis. We are updating that to minus $0.05 to plus $0.05, which on the midpoint is 0. First half, we got benefited by $0.11. Second half, it will be a negative $0.11, but that's on a year-over-year basis. So I gave you a lot, Andy, just to make sure that you have enough information as you build your models out and you look at us in totality.

Andy Kaplowitz

No, that's very helpful, Monish. And then just for the next question, maybe just a little more color into industrial businesses within Safety and Industrial. I think you'd guided to down low single digits for the year and you continue to be down mid-single digits in Q2. I know last quarter, you described industrial markets as mixed, same description this quarter. But maybe you can characterize markets for us. Do you still see low single-digits decline for the year in industrial?

Mike Roman

Yes, Andy, the quarter down mid-single digits, that was also impacted by disposable respirators down as we talked about, so about flat for the quarter outside of disposable respirators. And as Monish outlined, we're going to see more to the high end of our range of what we expected for disposable respirator declines in the year, which means in third quarter, we'll see an impact from that as well.

And when we talk about mix, it's really across the portfolio. We're seeing some strengths in our roofing granules, our automotive aftermarket business. The demand for car repair and around that business is strong. We saw some softness in electrical markets and abrasives. Our industrial adhesives and tapes business is impacted by electronics. So that's feeding into the industrial business as well. Personal safety, excluding disposable respirators, has been showing strength, up high single digits in the quarter. So that's kind of the mix picture.

I -- we're also in the channel, we're seeing some caution from distributors. They're cautious about the outlook for industrial markets. They're also seeing the benefit of improving and healing supply chains. So cycle times are improving, and they're pulling back on some inventory. So that's having some impact on our businesses as we come through the quarter and our outlook for the second half. So it's a mix.

And the impact from China is part of that as well. We're seeing the slowdown in the markets there or the slow first half and not yet seeing an upturn in that and looking for that as we go into the second half. So that kind of gives you a view across the -- what we mean by mix markets.

Scott Davis - Melius Research LLC - Founding Partner, Chairman, CEO & Research Analyst of Multi-Industry Research

I'm curious, just overall, are you seeing areas or particular products or markets where you're getting some pressure to drop your prices, particularly given some of the weaker demand? Or do you feel like you can hold on to some of those price increases that you've gotten the last couple of years?
Mike Roman

So yes, Scott, I would say as you see -- Monish called it disinflation, moderating of inflation. You're going to start to have discussions around impact on price. I would say when we look at it, our price value is in the right place where we are, where we face our markets.

You -- I would say the area where you have the most discussion, typically, are retail markets. It's an ongoing discussion, it always is. Even in the times of high inflation, it's a strong discussion. But price is a topic everywhere, right? We're confident that we're priced in the right place as we come through this market dynamic broadly. So we're not looking at pressure specific in one segment or another. But I would say the conversation is something that we anticipate as we see disinflation and eventually, we see deflation, then we would expect it to ramp up.

Scott Davis

Okay. That's helpful. And guys, a little bit bigger-picture question. When you talk about supply chain streamlining, what do you mean exactly? I mean, how do you balance kind of the -- I'm assuming that means kind of localization. But between balancing resiliency and not being relying on any particular supply partner, but sometimes there's added costs that come into resiliency. So how do you think about streamlining and the cost-benefit of streamlining? And maybe you can give us a more concrete example of that to help us understand what that means specifically.

Mike Roman

Yes, Scott, maybe I'll step back for a second. As we came through the pandemic, we saw a lot of factors impacting our supply chains. Inflation, labor shortages, raw material availability, all that was impacting our production runs and really creating inefficiency in our factories, impacting yields. And as we came into this year, we started to see supply chains healing. We're seeing labor availability improving. Our -- Monish highlighted, we're still seeing inflation in labor.

Raw material availability has improved. And we put a lot of focus during the most difficult times in the supply chain disruptions on multiple sources for raw materials. And we were engaging with many suppliers, hundreds of suppliers, on a monthly basis to try to manage those raw material interruptions. As they've healed, that's become much more focused on a few raw materials. We're seeing much better availability.

All this is helping us run our factories a little more efficiently. We're seeing improvements in yield. We're seeing improvements in logistics as supply chains heal more broadly. And so as we stepped into the restructuring, we were taking stock of what we learned during the pandemic, what we learned during the restructuring, also what we learned as we moved to our global operating model.

And so streamlining is really taking advantage of all those learnings and I would say also taking advantage of investments in data and data analytics, our digital strategies, investing in productivity, more broadly in our manufacturing models. And so streamlining is focused broadly across our supply chain. I talked about we're working to improve every aspect of it, better, more disciplined planning, taking advantage of data and analytics, stronger focus on sourcing, that dual sourcing, taking advantage of that strategy, what we can learn in the plants about running more efficiently and how we can manage logistics more efficiently. So plan, source, make, deliver, we're streamlining across that really taking advantage of the learnings and I would also say stepping into aligning to customers in our business models.

And it's going to continue to be an opportunity for improvement. We'll continue to evolve this. But the restructuring actions really try to incorporate those learnings. And it wasn't a top-down, we're going to take
out so much head count. It was how do we restructure, realign, streamline our supply chain plan, source, make, deliver to take advantage of all that and position us in the markets that we're in, but also position us to be ready for a stronger performance as we go forward in the future.

Joe Ritchie - Goldman Sachs Group, Inc., Research Division - VP & Lead Multi-Industry Analyst

I appreciate the additional details on the restructuring, Monish. Just -- my first question really just around that deflationary point. Things are getting a little bit better or better than you originally expected. It seems like most of the inflationary headwinds have already occurred for the year. And so do you expect that to turn positive, I guess, by 4Q? Or is that something that could turn positive in the 3Q numbers?

Monish Patolawala

Yes. So Joe, I think you have to break this up into multiple pieces. What I've said before is what we are seeing is lower inflation than a year-over-year. Our headwinds are somewhere in the range of $150 million to $200 million between electricity and carryover of raw material inflation. We have done $100 million in the first quarter and we have done, I would say, $25 million in the second. So we still got a little to go on carryover.

But when you talk about new inflation, I'll break this up into logistics costs are seeing in lower costs, partly driven by we are also reducing the amount of premium freight that we used during the pandemic because raw materials are flowing better. You are still seeing inflationary items in downstream. So upstream materials have started to show signs of moderation of inflation. But from a downstream perspective, labor cost is still pretty sticky in inflation.

So what I would say is we'll have to look commodity by commodity, market by market. And as things evolve in the third and fourth quarter, you should start seeing some of the cost on a year-over-year basis get better. If you recall last year, it was, I would say, October, November was when you started hitting peak of inflation, and then you saw markets starting to moderate. It will also, of course, depend on ultimately what happens with monetary policy. It will also impact -- depends on demand that you're going to get from China and the rest of the end markets that we play in.

So all put together, our current view is that things have gotten better, especially logistics. Material is flowing better, which is definitely helping us run our factories better. We are seeing cost out, and the teams are doing a nice job of driving it. But it will take a little bit of time for it to show up, depending on our year-over-year comp and how much of that material will be actually consumed based on the volume we produce. Long answer to your question, but it's multiple materials. So it's not one that we buy, unfortunately.

Joe Ritchie

Yes, that's super helpful. I guess my follow-on question, I know we talked a little bit about the weakness in electronics, but I want to go back to it for a second. Is there a way to maybe just kind of parse out exactly what you're seeing in that end market? And then specifically, I know that Apple is considering rolling out like an all-OLED iPad next year. And I know when we went through that transition a few years ago on smartphones, that was a hot topic for your company. Any thoughts just around that specifically and how that impacts your business?

Mike Roman

Yes, Joe, I'll go back to my earlier comments. The decline that we've seen in the first half has really been driven by reduced demand in smartphones, tablets, TVs, those different categories. There is an ongoing
shift in the display technology from LCD to OLED. And that's something we had talked about. As you noted, we talked about it a number of years ago, anticipating it. We continue to innovate on the OLED platforms, but we do see some impact from that shift as we see the continued movement away from LCD to OLED in a few of those categories. So there's some impact from that. The bigger impact, again, is the demand in the end markets, smartphones, TVs, tablets and laptops, as categories.

**Chris Snyder - UBS Investment Bank, Research Division - Analyst**

I wanted to ask on the restructuring program. So for Q3, if you just annualize the expected savings, it's about $500 million to $600 million, which isn't far off the full $700 million to $900 million range, which sounds like we shouldn't expect in 2025. So there's another $400 million to $500 million of spend coming post-Q4 '23. Is there any reason that the savings are maybe tracking a little bit ahead? Is there anything that's front-weighted that we should be aware about here?

**Monish Patolawala**

Yes, Chris, a great question. So your math is right. I would also look at fourth quarter, where we have said $185 million to $235 million. You take that midpoint and you annualize that, you'll get to -- closer to the overall annual range. But when you look at the way our charges are, some of it is rooftops, some of this is noncash charges, and some of it is restructuring people. All that put together in the first half, we have done $262 million.

What is left to go, which is, I think, your question in '24 and beyond, what happens with the cost, there are a couple of things. Geography by geography, we go through negotiations, make sure we are following all the regulations in there. So there will be a cost for that. And then we've got some other rooftops, et cetera, that take a little longer for us to exit that also happen in 2024 and beyond. So that's why you're seeing this the way it is right now.

**Chris Snyder**

Okay. Yes. I appreciate that. And then it certainly feels like the savings here are coming in a bit quicker maybe than previously thought. I did not think there's anything in the guide for Q2 restructuring savings, which obviously came through. Does that change the way you think about the plan over the next couple of years into 2025, just seeing the savings come through faster than you thought?

**Monish Patolawala**

Yes, I would say, listen, on Q2, the teams knew that we had to execute well and early, and they've done a nice job. Some of the benefit came from head count. But a lot of the other benefits that we've got, as Mike mentioned about streamlining the corporate, we were able to go after a lot of indirect costs in those areas, including exiting some of the rooftops that we wanted to that we were planning to early.

So again, it goes back to a lot of focus on cost control, making sure that where we are spending our money on an indirect perspective also is well focused on. And that's where we were able to get Q2 to be off to a better start than we expected.

So I give the team a lot of credit. They're going through very granular level of detail, making sure that we are doing the right amount of spend and focusing in the right place as we get the best return. So my credit to the team.
Nicole DeBlase, Deutsche Bank AG, Research Division - Director & Lead Analyst

Maybe just starting with biopharma. So this is an area where we've seen weakness post-COVID for some time now. Have there been any green shoots there? I don't know if you think about like orders or what customers are saying about spend to the second half?

Mike Roman

Nicole, I -- well, I highlight biopharma as being one of the impacts on solid growth in health care is really a reflection of the post-COVID dynamic. So we saw strong demand in biopharma for vaccines and therapeutics, and we ramped up to serve that, and the industry did broadly. And what you're seeing is kind of the other side of that demand and also the inventory, working off the inventory that was built up and trying to respond to that demand. So we're seeing both aspects of that.

The space, the opportunity that we see for innovation and for us, growing the business, we see this as a long-term growth driver. We have new solutions that -- and one of the reasons we had value as we came through the opportunity in vaccines and therapeutics is we could combine steps in processing, multiple steps into one. And so that demand is going to be there. As we look forward, the recombinant protein therapeutics are an opportunity going forward or just near term working through that post-COVID dynamic, both in end-market demand and inventory in the broader channel.

Monish Patolawala

Nicole, I'll add one more is we are very confident and bullish about this business. In fact, we have added capacity to continue to have more production output out there as the demand comes back.

Nicole DeBlase

Got it. And just to clarify, in your second half outlook, like what's baked into the Health Care business? Have you embedded any improvement in biopharma? Or is the expectation that that's more of a 2024 dynamic?

Monish Patolawala

So as I've mentioned, there is slight improvement that you're going to see in -- overall in Health Care. One is elective procedures should go up. Biopharma demand should start settling down. Hospital budgets are hopefully starting to bottom, but we don't know that. So we'll have to see what happens with elective procedures. But overall, I would say there is improvement from a first half to second half in the market in general in Health Care that we have embedded into our guide.

On the other hand, the thing we are watching also is oral care, Nicole, or orthodontics. Because as you know, if the economy slows down, that's an area that people will control their spending on. And so that's the other thing we're watching and, of course, China and seeing how the recovery in China plays itself out.

But as I mentioned in my prepared remarks, Mike has said it multiple times too, this is a great business. In the long term, this will continue to have very good growth. We are working through some comps from last year, which was COVID as well as capital budgets and hospitals. But all those trends in the long term will turn themselves around.
Steve Tusa - JPMorgan Chase & Co, Research Division - MD

Just -- can we just calibrate? Because there's a lot of moving parts around the adjusted sales numbers. I think your guidance implies roughly like $7.9 billion in sales, like a modest sequential step-down from the third quarter just on an absolute basis. Is that right?

Monish Patolawala

It's $8 billion.

Bruce Jermeland

For Q3.

Monish Patolawala

For Q3. Is that your question? I'm sorry.

Steve Tusa

No, Q4, Q4, Q4.

Monish Patolawala

Yes.

Steve Tusa

What's implied?

Monish Patolawala

Yes, it would be around that range, between -- it's somewhere in that range. You're right.

Steve Tusa

Yes. Okay. And can you just give us an idea of the range of the absolute margin? I mean we could probably do a lot of backing into it, but what you now expect for the year from just a range on an absolute margin basis?

Monish Patolawala

Between 19.5% to 20%, Steve, versus the 19% that we had told you coming into the year.

Steve Tusa

That's great. And then just one last one on these liabilities. So what was the change in the mindset from really drawing a bit of a hard line and talking about how the science made you guys look at this stuff and then taking what is still a pretty sizable $10 billion to $12 billion charge? Like what -- like that's a pretty significant change in mindset.
Mike Roman

Yes, Steve...

Steve Tusa

What drove that internally?

Mike Roman

Yes. I think over the last several years, we've been talking about taking a proactive approach to managing our litigation, and that includes the whole PFAS docket. And it's been part of our strategy, and we talk about it kind of in short form that we're going to proactively manage it, defend ourselves in court and work to resolve through mediation as appropriate. And that's been really the guiding strategy and how we've looked at it. So as things evolve, we are making decisions around that frame.

Steve Tusa

Does it matter where the stock price is and what that's reflecting when it comes to your -- how you think about this stuff?

Mike Roman

The addressing litigation, our strategy there is independent of what the share price is doing. I mean, certainly, there's an overhang in the stock price and the uncertainty around that. And we are focused on doing what we can to address litigation, help address that uncertainty. That's something we've been discussing with investors over multiple years.

And so that certainly plays into it from that standpoint. We don't like the overhang on the stock and we want to manage it. But we've got to -- as we move forward, we've got to do what's in the best interest of the company for the long term. And so that gets back to we're going to defend ourselves in court and we're going to work to resolve as appropriate.

Dan Rizzo - Jefferies LLC, Research Division - Equity Analyst

This is Dan Rizzo on for Laurence. Just a quick question on inventories that you've managed so well. How should we think about inventory turnover in the long run, I mean, over the next few years? What is kind of the go-forward thought process?

Monish Patolawala

Yes. You -- as I've said before, as supply chains start to heal, one of our big opportunities or opportunities to continue driving cash flow is inventories. The teams have done a really nice job of starting to use data and data analytics. We are getting better at doing demand planning.

So I would say in the long term, you should see trends continue to improve from an inventory turns perspective. Because as supply chains heal, as we get better on demand planning, that's where you're going to see it. So you will see it get better in the long run.
Wrap Up
Mike Roman

To wrap up, we continue to execute in a dynamic environment. While we see progress and positive momentum, we have more work to do, and will continue to advance our restructuring actions, control costs, and strengthen our supply chain. At the same time, we will drive our strategic priorities: improving operational execution, successfully spinning off our Health Care business, and addressing litigation.

I thank 3Mers for their contributions and commitment, especially as we continue to lead through significant change. We will stay focused on driving growth, improving operational performance, and delivering value to customers and shareholders.

Thank you for joining us.