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GNTX.OQ - Q1 2022 Gentex Corp Earnings Call

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OVERVIEW:

Co. reported 1Q22 net sales of $468.3m, net income of $87.5m and EPS of $0.37. Expects calendar year 2022 revenue to be $1.87-2.02b.

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CORPORATE PARTICIPANTS

Josh O'Berski *Gentex Corporation - Director of IR*

Kevin C. Nash *Gentex Corporation - VP of Finance, CFO, Treasurer & CAO*

Neil Boehm *Gentex Corporation - CTO & VP of Engineering*

Steven R. Downing *Gentex Corporation - President, CEO & Director*

CONFERENCE CALL PARTICIPANTS

David Whiston *Morningstar Inc., Research Division - Sector Strategist*

David Lee Kelley *Jefferies LLC, Research Division - Equity Analyst*

James Albert Picariello *BNP Paribas Exane, Research Division - Research Analyst*

John Joseph Murphy *BofA Securities, Research Division - MD and Lead United States Auto Analyst*

Luke L. Junk *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

Mark Trevor Delaney *Goldman Sachs Group, Inc., Research Division - Equity Analyst*

Michael Joshua Nichols *B. Riley Securities, Inc., Research Division - Senior Analyst of Discovery Group*

Ryan J. Brinkman *JPMorgan Chase & Co, Research Division - Senior Equity Research Analyst*

PRESENTATION

Operator

Good day, and thank you for standing by. Welcome to the Gentex First Quarter 2022 Financial Results Conference Call. (Operator Instructions) Please be advised that today's conference may be recorded. (Operator Instructions) I would now like to hand the conference over to your host today, Josh O'Berski, Director of Investor Relations. Please go ahead, sir.

Josh O'Berski - *Gentex Corporation - Director of IR*

Thank you. Good morning, and welcome to the Gentex Corporation First Quarter 2022 Earnings Release Conference Call. I'm Josh O'Berski, Gentex's Director of Investor Relations, and I'm joined by Steve Downing, President and CEO; Neil Boehm, Vice President of Engineering and CTO; and Kevin Nash, Vice President of Finance and CFO. This call is live on the Internet and can be reached by going to the Gentex website and at ir.gentex.com.

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This conference call contains forward-looking information within the meaning of the Gentex safe harbor statement included in the Gentex reports first quarter 2022 financial results press release from earlier this morning and as always shown on the Gentex website. Your participation in this conference call implies consent to these terms.

Now I'll turn the call over to Steve Downing, who will get us started today. Steve?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Thank you, Josh. For the first quarter of 2022, the company reported net sales of $468.3 million compared to net sales of $483.7 million in the first quarter of 2021.

For the first quarter of 2022, global light vehicle production decreased approximately 5% when compared to the first quarter of 2021. Additionally, light vehicle production in the company's primary markets of North America, Europe and Japan/Korea declined by 11% on a quarter-over-quarter basis. These declines were primarily a result of the ongoing industry-wide component shortages and global supply chain constraints.

The company has been dealing with the impacts of component shortages and supply chain constraints since the beginning of 2021, which is why our forecast for the beginning of this year was more conservative than the original IHS Markit estimates for light vehicle production.

During the first quarter of 2022, we saw estimated light vehicle production declined by over 4% versus the beginning of the quarter. While the effects of the electronic component shortages improved slightly during the first quarter of this year, our concerns about the lingering impact on light vehicle production were well founded.

Our first quarter 2022 sales improved sequentially from the fourth quarter of 2021 but we're still below the level suggested at the beginning of the quarter based on IHS Markit estimates and the release data from our customers. Despite the lower-than-planned sales levels in the first quarter, the industry backdrop and the underproduction of light vehicles over the last year should create the opportunity for an improving sales environment as we move throughout the rest of 2022.

For the first quarter of 2022, the gross margin was 34.3% compared to a gross margin of 37.9% for the first quarter of 2021. Gross margins were impacted in the quarter by raw material cost increases, elevated freight expenses, labor cost increases and response to a tight labor market, lower-than-expected sales levels and ongoing customer order volatility.

Considering the inflationary pressures on our business right now, the gross margin was within 70 basis points of our annual guidance range for gross margin performance despite the fact that sales for the first quarter are expected to be at the lowest level of the year. The company is in active discussions with our customers about the inflationary aspects of our business and how to best formulate long-term collaborative relationships that provide the opportunity to minimize the impact of these inflationary pressures on our business model, while preserving the ability to grow through the introduction of new innovative products. We fully expect that these discussions will extend throughout calendar year 2022 and even into 2023.

Operating expenses during the first quarter of 2022 increased by 15% to $57.1 million compared to operating expenses of $49.6 million in the first quarter of 2021.

E,R&D expenses during the first quarter of 2022 increased 16% compared to the first quarter of 2021, primarily due to additional staffing and professional fees related to new product development and the ongoing product redesigns necessary to mitigate electronics part shortages. On a quarter-over-quarter basis, SG&A expenses were up primarily due to increases in outbound freight expense and the return of in-person customer meetings and trade show-related expenses.

Income from operations for the first quarter of 2022 was $103.3 million compared to income from operations of $133.7 million for the first quarter of 2021. During the first quarter of 2022, the company had an effective tax rate of 15.3%, which was primarily driven by the benefit of the foreign-derived intangible income deduction and discrete benefits from stock-based compensation.

Net income was $87.5 million for the first quarter of 2022 compared to a net income of $113.5 million for the first quarter of 2021. The change in net income was primarily the result of the quarter-over-quarter changes in sales, gross margins and operating profits. Earnings per diluted share for the first quarter of 2022 were $0.37 compared to earnings per diluted share of $0.46 for the first quarter of 2021.

I will now hand the call over to Kevin for the first quarter financial details.

Kevin C. Nash - *Gentex Corporation - VP of Finance, CFO, Treasurer & CAO*

Thank you, Steve. Automotive net sales in the first quarter of '22 were $458 million compared with $475.6 million in the first quarter of '21, and auto-dimming mirror unit shipments decreased 7% during the quarter compared to the first quarter of '21.

Other net sales in the first quarter of '22, which includes dimmable aircraft windows and fire protection products, was $10.3 million compared to other net sales of $8.1 million in the first quarter of '21. Fire protection sales increased by 46% for the first quarter of '22 compared to the first quarter of '21. Dimmable aircraft window sales decreased by 20% for the first quarter of '22 compared to the first quarter of '21.

The company continues to expect that dimmable aircraft window sales will be negatively impacted until there's a more meaningful recovery of the aerospace industry and the Boeing 787 aircraft production levels improve.

Share repurchases. During the first quarter of '22, the company repurchased 2.44 million shares of its common stock at an average price of $29 per share for a total of $71.3 million. As of March 31 '22, the company has 22.4 million shares remaining available for repurchase pursuant to its previously announced share repurchase plan. The company intends to continue to repurchase additional shares of its common stock in the future in support of the previously disclosed capital allocation strategy, but share repurchases may vary from time to time and will take into account macroeconomic issues, including the impact of the COVID-19 pandemic and supply constraints, market trends and other factors the company deems appropriate.

Let's take a look at a few key balance sheet items. The balance sheet items mentioned today are values as of March 31 of '22 and are compared to December 31 of '21, unless otherwise noted. Cash and cash equivalents were $279.7 million, up from $262.3 million, primarily due to cash flow from operations and investment sales, which were partially offset by share repurchases, dividend payments and capital expenditures.

Short-term and long-term investments combined were $182.7 million, down from $213.1 million. Accounts receivable was $281.5 million, up from $249.8 million due to the sequential increase in sales. Inventories were $362.7 million, which increased from $316.3 million, the majority of those changes in raw materials. The company continues to take a conservative position related to raw materials inventory with ongoing supply chain issues, component shortage issues in addition to customer order volatility, the company has taken on additional components of certain medium and long lead time items to help manage risks.

When the supply chain constraints start to alleviate and the component shortages begin to abate, the company will evaluate the proper levels of inventory at each commodity level.

Lastly, accounts payable increased to $140.9 million, up from $98.3 million, primarily due to increased inventory purchases and capital expenditures.

Let's take a quick look at the cash flow statement for the quarter. First quarter 2022 cash flow from operations was $106.9 million compared with $190.8 million in the first quarter of '21. Operating cash flow was impacted by the lower net income quarter-over-quarter as well as increases in receivables and inventory.

Capital expenditures for the first quarter of '22 were $17.2 million compared with $12.6 million for the first quarter of '21. And lastly, depreciation and amortization for the first quarter was $24.7 million compared with $25.6 million for the first quarter of 2021.

I'll now hand the call over to Neil for the product update.

Neil Boehm - *Gentex Corporation - CTO & VP of Engineering*

Thank you, Kevin. In the first quarter of 2022, there were 21 net new nameplate launches of our interior and exterior auto-dimming mirrors and electronic features net of previously disclosed feature headwinds. There is a significant growth in launches of base interior auto-dimming mirrors for the quarter, with approximately 60% of these base mirrors launching in the China market. As we've talked about before, launching base auto-dimming mirrors is extremely important for our growth of features, they enable us to grow the content and scale across platforms.

Now for an update on our Full Display Mirror product. At the completion of the first quarter of 2022, we started shipping Full Display Mirror on 5 additional nameplates, and we're excited to announce that in the first quarter of 2022, we began shipping Full Display Mirror to our 12th OEM Ferrari, and our 13th OEM, Ford. With Ferrari, we began shipping Full Display Mirror on the 812 and the SF90 Stradale. For Ford, we started shipments for the Ford Transit Custom.

Also in the quarter, we started to ship Full Display Mirror for the Aston Martin Valkyrie and for Land Rover on the new Range Rover. As of the end of Q1 2022, we are shipping Full Display Mirror on 70 vehicle nameplates. Here's a comprehensive list of the OEMs and the number of nameplates where we are currently shipping FDM: General Motors, our initial launch customer, has 25 nameplate shipping; for Toyota, we're now shipping on 16 nameplates; at Jaguar Land Rover, we are currently shipping on 8 nameplates; we are shipping FDM on 5 nameplates for Jeep and RAM; both Subaru and Nissan are currently shipping FDM on 3 nameplates; Aston Martin, Mitsubishi and Ferrari are all shipping FDM on 2 nameplates; Ford, Mercedes, Fiat and Maserati all have FDM shipping on 1 nameplate.

As we look forward to the second quarter and the balance of the calendar year, we realize that many of our customers' expected launches of new vehicles may be affected by the current shortages. However, based on the demand for Full Display Mirror, we anticipate we will have approximately 10 additional nameplate launches and an additional OEM to announce over the remainder of 2022.

In summary, even with the current challenges our industry is facing, our launches and product rollouts are strong, and we believe we are positioning the company with a technology and product portfolio that will drive growth into the future.

I'll now hand the call back over to Steve for guidance and closing remarks.

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Thank you, Neil. The company's current forecast for light vehicle production for the second quarter of 2022 and full years 2022 and 2023 are based on the mid-April 2022 IHS Markit forecast for light vehicle production in North America, Europe, Japan/Korea and China.

Light vehicle production in these markets is expected to be flat for the second quarter of 2022 versus light vehicle production for the second quarter of 2021. For calendar year 2022, our press release had a formula error this morning that showed European light vehicle production with the incorrect volume for calendar year 2021 as 13.02 million vehicles instead of the correct volume of 15.89 million vehicles.

Based on this updated volume for the last year, the forecast for light vehicle production in our primary markets of Europe, North America, Japan/Korea and China, is forecasted to increase 4% when compared to calendar year 2021. The company continues to expect that revenue will remain difficult to forecast for the remainder of the year as a result of high levels of volatility in customer orders and vehicle production volumes, electronic supply chain constraints, the Ukraine-Russia conflict, labor shortages and overall economic uncertainty.

Based on the previously mentioned light vehicle production forecast, the company is making no changes to its previously provided guidance for calendar year 2022 as shown in today's press release and is as follows: revenue for 2022 is expected to be between $1.87 billion and $2.02 billion; gross margins for the year are expected to be between 35% and 36%; operating expenses are currently forecasted to be approximately $230 million to $240 million; our estimated annual tax rate, which assumes no changes to the statutory rate is forecasted to be between 15% and 17%; capital expenditures for 2022 are expected to be between $150 million and $175 million; and depreciation and amortization is forecasted to be between $100 million and $110 million.

Additionally, based on the company's forecast for light vehicle production for calendar year 2023, the company still expects calendar year 2023 revenue growth of approximately 15% to 20% above the 2022 revenue guidance. While we are optimistic given the sales level achieved during the first quarter and what we expect to be increased revenue levels throughout the remainder of the year, we have also seen increased levels of volatility in customer orders in recent weeks, stemming from the electronic supply chain shortages and OEM shutdowns. The company has devoted significant resources to product reengineering that has allowed us to maintain consistent supply to our customers and cleared the path for better revenue levels throughout 2022 and 2023.

While the inflationary aspects of our business will continue to be a challenge over the next several quarters, we believe our recipe of outgrowth versus the underlying vehicle production market will create record sales levels that will allow us to leverage our overhead to help offset some of the cost increases we have seen recently.

We believe that this combination of record-level sales, when combined with our consistent and disciplined capital allocation philosophy will result in excellent shareholder returns over the next several years.

That completes our prepared comments for today. Thank you for your time, and we can now proceed to questions.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) Our first question comes from the line of Luke Junk with Baird.

Luke L. Junk - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

First question for me this morning to start. Wondering if you could help us unpack flat sequential gross margins this quarter. Typically, you'd be looking at gross margin compression in the first quarter due to the timing of annual price downs, which was not the case this quarter. Tire sales obviously helps. But what other strings were you able to pull to operationally drive that result?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Go ahead, Kevin.

Kevin C. Nash - *Gentex Corporation - VP of Finance, CFO, Treasurer & CAO*

Yes. So sequentially, the real improvement was in sales levels. We did have some price downs from customers, which is typical, but our fixed overhead levels improved from the fourth quarter to the first quarter. And then we were able to offset -- we did have a little bit better performance on the freight and tariff situation from Q4 to Q1, not a ton, but that helped offset some of the pricing reductions that we did have, but it was primarily based on overhead, if you go from Q4 to Q1 margin.

Luke L. Junk - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

Okay. Second question, with respect to the Full Display Mirror specifically, assuming that eventually, we do see improvements in chip supplies begin to materialize in the second half, is everyone in the other industry, of course, is hoping -- just wondering how or if that changes your strategic approach here. Are you able to play a little more offense in the near term? Are there any cost considerations that could come into account in terms of streamlining production or whatnot? Just trying to capture all the relevant variables as it relates to chips and the FDM things.

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. I think right now, the only thing suppressing FDM demand is our ability to get components. So if indeed this does start to get better in the second half of this year, which we hope so, then you would see some positive pressure on FDM volumes in the back half of the year. And we've had incidences already throughout this last couple of quarters where we've had to tell OEMs that we can't increase volumes the level they would like because there's just not availability of components. And so as we've been struggling just to make sure we hit the current shipments, obviously, the concept of growing that more than what we'd already been planned is very difficult. So that would be one of the positive aspects.

Obviously, on the negative side, what goes with the shortages is the cost containment issues. If you look on a year-over-year basis, the gross margin decline, a good portion of that's driven by cost increases that we've seen and a lot of that's come on the electronic supply side. So as we move forward out of this year and into next year, we think there's some positive momentum on the product side. We hope that, that will carry over, obviously, in out years and continue to be positive demand from our customer and consumer base for that product.

What we have to work on, obviously, is the cost containment side to make sure that we get the costs in line with where OEMs expected us to be at this time and at these volumes.

Luke L. Junk - *Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst*

If I could just squeeze one more question in this morning. A cost-related question. So as I look at over the broader industrial landscape, folks that follow the freight market closely are starting to warn of a potential downturn there, which could result in falling spot rates, better availability, et cetera. Given that your production is concentrated in Zeeland, to what extent would any loosening the freight market help the company, both wondering if you could comment in terms of quantitative terms, dollar costs currently in the P&L and then qualitatively in terms of your day-to-day operations as well.

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Well, if you look at -- there's 2 distinct aspects of freight that have caused us pain really over the last 2 years. The first is on the incoming freight side, and that obviously is reflected in the gross margin calculation. Kevin, I would say there's probably a good -- in the total over the last 2 to 3 years, at least $3 million to $4 million increase in freight costs on the incoming side that if things were to reverse and go back to where they were pre-COVID, we could see obviously a tailwind there.

On the sales expense side is where we see a lot of freight expense that goes to finished goods to our customers. And I would say that's probably another good $4 million to $5 million on outgoing freight that we've incurred over the last 2 years, and that's on an annual basis. So if indeed that does happen, which we truly hope so, I mean, obviously, that would help provide some offset to some of the cost increases that we've seen recently.

Operator

And our next question comes from the line of David Whiston with Morningstar.

David Whiston - *Morningstar Inc., Research Division - Sector Strategist*

I guess first on -- in the press release, you called out some increase in headcounts around hiring for R&D. I was just curious what talent are you looking for there that caused you to need to hire?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

The vast majority of what we are referencing there was really in Neil's team looking -- specifically, we've seen increased expenses on the software and our electronics design side. And that's really been in the last 2 years -- a lot of Neil's group's resources have been towards product redesigns. So we have a firmed-up schematic for an FDM product, for instance.

And then what happens is we find out that there's 2 or 3 components that are constrained. So even though the products hardened fully validated in production, as team goes back and then has to do what historically, we've had happen very rarely, which is go back and redesign the entire schematic to get around the 2, 3, 4, 5 components that are in short supply.

And so the problem with this is that, not only is that happening, but it's happening multiple times on the same products because it is a -- I hate to use the terminology, but it's somewhat of a rolling brownout on the component supply side, where you hear about 3 or 4 components, you redesign, you revalidate, you're back into production. And then 3 months later, you find out that there's different components that are now constrained and you have to go redesign again. So that's been driving a portion of the increase in headcount.

The other one is, quite frankly, the positive side of that story, which is looking at the new products and new features and the launches and the launch cadence increasing. It's just the normal work that comes with growth in our business.

David Whiston - *Morningstar Inc., Research Division - Sector Strategist*

And I know one new market for you is nano sensing. Do you have adequate talent there from the acquisitions you made? Or do you need to add more people in that area?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

No, the teams, both on the Nano sensing side and with our team in Israel have both been looking at additional talent acquisition. There have been some increases in headcount in both of those locations to help us expedite the development of both of those technologies. But for the most part, Neil's team is pretty adequate and staffed in Zeeland to help support those and the launch of those when they're ready for production.

David Whiston - *Morningstar Inc., Research Division - Sector Strategist*

And on unit volume this quarter, the international side, outside North America, got hit a lot harder. I was just curious, is that primarily due to the German plant shutdowns from the wire harnesses from Ukraine? Or was it just other things like the chip shortage more?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

It was -- the European impact was definitely heavily impacted by the wire harness issues from the Ukraine. The rest -- the Japan/Korea got hit really hard. That was more about underlying economic issues and component issues. So less on the -- obviously, less for the Asian customers on the Ukraine wire harness issue and more about just systematic problems in the industry, especially on the electronic supply side.

Operator

And our next question comes from the line of James Picariello with BNP Paribas Exane.

James Albert Picariello - *BNP Paribas Exane, Research Division - Research Analyst*

Congrats on the solid start to the year. So could we just confirm what's baked into the full year guide? So it was my understanding last quarter, IHS was at plus-8%. You guys were thinking about a range, I think, closer to up 5% to 6%. Correct me if I'm wrong there.

And then -- so now IHS is plus 4%. Is this in line with your view? Where does the company's internal range fall out? And then I think one of the clear conclusions to draw is that your product and content mix is starting to recover after a tough year specific to Gentex last year. But I would, of course, be curious to get your take on that.

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

No, you're exactly right. I mean one of the reasons why we called out our pessimism about the IHS volume coming into the year was that we didn't see the market conditions able to support that level of volume even though demand was there. The supply base wasn't going to be able to keep up. And we think that the IHS numbers that are now kind of moved down closer to what we were estimating, and even a little lower than what we thought light vehicle production would be is more than we expected this quickly in the year. We thought it would take a little longer in the year for that -- those estimates to kind of get closer to ours.

But the good news is, is that if you look at our range of revenue growth and total revenue for the year, it still puts us well inside of that range that we provided previously. So we feel like our conservative approach coming in. And our guide were well aligned around some continuing problems that we expected this year. And there's nothing that happened in the first quarter that takes us outside of that guidance range. So we feel like that our conservative approach has really set us up well to be able to hit those numbers.

James Albert Picariello - *BNP Paribas Exane, Research Division - Research Analyst*

Got it. So just to clarify then, your LVP assumption -- your internal assumption would be closer to where IHS is now, and then the positive offset would be better mix?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes, correct. And like we mentioned in Q1, we actually did a little better than we thought. We knew we had customer orders and releases that showed that level of sales. Historically, what we have seen is a lot of order volatility. January and February were really solid. OEMs basically gave us their releases, and they came very close to those. March got a little more volatile once the conflict picked up and some other things happened. But for the most part, Q1 was very close to what our beginning of year estimates were.

James Albert Picariello - *BNP Paribas Exane, Research Division - Research Analyst*

Got it. And so I think the second quarter here from an LVP standpoint should trend down sequentially, but you guys are calling for the first quarter to be the low watermark for the year. So I just want to kind of get your take on what the -- how you're thinking about the first half, second half split cadence for the year in terms of the top line and margins?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. We think if you look at Q2, typically, if you look at our year, and I know it's always difficult to look at historical cadence of vehicle cycle and then compare to what's happened in the last 2 years or so. But if you look at normally for us, Q3 tends to be one of our biggest quarters. Right now, our internal forecast would tell you that Q3 should -- the year should continue to build up to Q3. And then you usually see a little bit of a tail off in Q4 just due to holidays and less shipping days towards the end of the year, given the amount of holidays and shutdowns that happen.

And that's currently what our forecast is still showing. So kind of a return to normal cadence this year. We truly believe that Q1 will be the smallest quarter, assuming that the rest of this -- that the light vehicle production forecast that we're looking at holds up even remotely close to reality.

James Albert Picariello - *BNP Paribas Exane, Research Division - Research Analyst*

Okay. And as you -- sorry, just one last one. Has your assumption in terms of the net impact for inflationary costs versus your recovery. It seems like a very fluid dynamic, right, in terms of negotiations. Has your net assumption changed at all versus last quarter's guide?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

You mean our overall gross margin assumption or APR?

James Albert Picariello - *BNP Paribas Exane, Research Division - Research Analyst*

Just the inflationary costs are going up, right? You mentioned that in your prepared remarks. Just wondering in terms of the recovery, are you offsetting that? Has the net impact, the cost versus your recovery? Has that changed in this guidance versus last quarter's guidance?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

No. It hasn't changed in the guidance. What I would say. There's been underlying all of that, there's been a couple of changes. The cost increase side has been worse than we initially anticipated. But we've been able to come up to Kevin's point about some operational efficiencies that have helped to offset some of that. Obviously, labor cost is more expensive now than it was before, and that's escalating quicker than we had assumed kind of at the end of last year. But overall, we've come up with some cost savings initiatives that have allowed us to offset some of those.

Obviously, they're still negatively impacting overall gross margins on a year-over-year basis. And so we've got a lot of work to do to try to keep that from getting any worse than it is currently. We feel like we're doing all the right things. And by that, I mean not just addressing the cost structure to try to minimize the impact but not necessarily cutting off our ability to continue to grow with our customers. So there's a healthy conversation that has to have about inflationary cost and what does that mean to not only our customers but the consumer. But you're trying to make sure that you're not cutting off that relationship and limiting your ability to sell longer-term, new features, new content.

Operator

And our next question comes from the line of David Kelley with Jefferies.

David Lee Kelley - *Jefferies LLC, Research Division - Equity Analyst*

I believe you noted some slight improvements in electronic availability in the first quarter. Are you seeing those constraints continue to ease, albeit it's early here in the second quarter. And we were curious, if you're seeing any incremental tightness in recent weeks related to some of the COVID restrictions we're seeing in China.

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

So I'll start with the electronics one, and then I'll kind of kick it to Neil quickly. But what I -- how I would describe the electronics component shortage is, is if you back up in the mid last year, maybe at times, we were 50 to 100 different components we were dealing with, concerns around and some of those weren't immediate unavailability of the products, but there were things that you were definitely constraining, you knew you had to do something about in order to -- either the supplier had to come up with a mediation plan or we had to redesign.

The number of components we're dealing with on a daily basis right now isn't as high. The issue, though, is that when they do happen, they're more severe and more immediate. And so they can -- you're getting less lead time about how much forewarning do you get before you need to make an address of the issue. So that's been the difficult part. So yes, it's eased in the sense that there's not as many components that you're watching all at one time. The difficulty is that you have less time and they tend to be more severe when they do happen.

And then, Neil, if you want to comment. Feel free bud.

Neil Boehm - *Gentex Corporation - CTO & VP of Engineering*

No, I think the only part of that would be, right, it's -- they're not as frequent, right? But when they do happen, it's the lead time, the amount of effort to convert that product. There's never a drop in replacement for the ones now. So the amount of effort to convert that new problem part is significantly higher than what we had seen before.

Kevin C. Nash - *Gentex Corporation - VP of Finance, CFO, Treasurer & CAO*

And the last part of your question was on the China situation. So as it relates to Gentex in the China market, there has been some constraints as it relates to our ability to, one, be in the plant working because they have different levels of shutdowns, and we've have people at home for the last couple of weeks, and they're just starting to open that back up to be able to start producing customer orders, but it has caused a little bit of a disruption. I guess any benefit is that it's a smaller part of our business right now, but I would expect the broader industry to have an impact as a result of the last few weeks.

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. And that's an awesome lead in, too, Kevin. One thing we should call out is we have team members in our China facility. You may have read an article about Tesla talking about people staying at the factory. A few weeks ago, we had this happen in Shanghai. We had a bunch of employees who volunteered to stay at our plant, stayed there for days to be able to continue to meet shipments for our customers. This last shutdown has not been as effective in terms of the options weren't necessarily there to allow us to happen. However, we have been able to make some shipments and keep up with our JV OEMs by shipping directly from Zeeland into the China market. So that our parts that are in our Shanghai facility could stay there but not shut down OEMs. So we've been able to mitigate as many of these as possible due to the very strong shutdowns that are happening in the Shanghai area currently.

David Lee Kelley - *Jefferies LLC, Research Division - Equity Analyst*

Okay. Got it. That's helpful. And maybe just a follow-up on the FDM discussion. And Neil, really appreciate kind of the color on the OEM shipments. Can you remind us of your total FDM unit volume in 2021 and how you've been thinking about the ramp into 2022 here?

Neil Boehm - *Gentex Corporation - CTO & VP of Engineering*

Yes. So in 2021 -- so let's go back to 2020, it was about $1.2 million. 2021 was $1.44 million. And then what we've always talked about is somewhere in the 200,000, 300,000 units a year, 200,000 units a year of FDM that we see continued growth with. Obviously, the component shortage in the stuff Steve talked about, about customers wanting more and not being able to supply it can have an impact on that number, but that's about what we've been using as our guidance.

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. And like Neil mentioned, demand would actually be higher than that if we could get -- if the component availability what weren't as big of a factor.

David Lee Kelley - *Jefferies LLC, Research Division - Equity Analyst*

Okay. Got it. Are you seeing any meaningful shift in Full Display ASPs just in light of some of the new launches and new customers coming down the pipe?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. What we have seen actually a lot of volatility. If you look at the first couple of years of FDM, we are basically launching the same type of product for most OEMs. So in other words, I had the same type of graphics processing, similar-sized LCDs, a lot of the same backbone and structure and content. Over the years that we've been launching this for multiple OEMs, every OEM comes with a different perspective of what kind of product they're looking for. And so what you'll see is a much wider variation in average selling price.

Some of these are designed around lower cost models. In other words, less graphics processing, less software running in them, less capability of the FDM itself and how much manipulation of the information on the camera feed is going to happen. And so what we've been able to do is actually attack some of the lower-end portions of the vehicle market with more cost-effective solutions, but still have high end -- slightly more elegant, more complex designs for luxury vehicles.

Kevin C. Nash - *Gentex Corporation - VP of Finance, CFO, Treasurer & CAO*

And just to clarify, Neil's number on FDM, we reported 1.123 million units. So any time he has numbers, we can't trust him so.

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Pick it from the guy who have -- the on LVP.

Kevin C. Nash - *Gentex Corporation - VP of Finance, CFO, Treasurer & CAO*

We would expect the growth to come from that 1.12 million we reported for '21.

Operator

And our next question comes from the line of John Murphy with Bank of America.

John Joseph Murphy - *BofA Securities, Research Division - MD and Lead United States Auto Analyst*

I just wanted to follow up on the outlook. I mean, I understand you guys were more conservative with your initial outlook. But a lot has changed in the world, right? Ukraine was invaded and there's rolling shutdowns in China on COVID, rates are spiking, inflation is going up. I mean there's a lot of things that even the most pessimistic person wouldn't have necessarily anticipated that explicitly. So it just seems like something is on a micro basis. And on your product side, must be going much better than you initially anticipated. I mean, is there something else going on here other than just the general conservatism at the start of the year?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. I think -- yes, you're absolutely right. I mean we tended to be conservative because of the -- a number of things going on in the background that just always gives us pause as automotive suppliers. But I think on the product side, what's really pulling us strongly into the next couple of years is FDM growth and OEC growth.

If you look at our outside, auto-dimming mirror numbers, they have been absolutely growing very, very quickly over the last couple of years. And even if you take kind of the COVID shutdowns and that out of it, if you just -- you kind of flatline that and look at where it would have been on a compounded growth basis, the numbers we're seeing right now are the fastest growth rates we've seen in OEC in a long time.

John Joseph Murphy - *BofA Securities, Research Division - MD and Lead United States Auto Analyst*

Okay. All right. So I mean it sounds like your product based on vehicle mix and wins is running much stronger. I mean were there any sort of notable wins? I know you mentioned a lot of your launches in China in the quarter. But were there -- I mean, are there any big wins in the quarter that we're rolling on significantly that we should be thinking about that would continue -- I mean, obviously, you're -- FDM and OEC. But I mean just -- kind of same thing...

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. I think the one on the OEC side that stands out. I mean, FDM has really been growing with all of our customers. I mean if you look at I mean that was kind of broad-based, and you can see the nameplates and you see the interest of that products getting in the field. The one is a little quieter, but has been growing a lot is our business relationship with Tesla, especially on outside auto-dimming mirrors has really been benefiting our outside mirror business. So we're doing very well with them as a customer. They package the product very well, and it's led to a lot of growth for us in the last 18 months.

John Joseph Murphy - *BofA Securities, Research Division - MD and Lead United States Auto Analyst*

And that's -- I mean -- I mean it's not just glass, but I mean, that's more on the glass side, they're doing the final assembly, right, on the exterior itself, right?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Well, we have a Tier 1. Yes, we have a Tier 1s that we sell to for Tesla. So we're doing just the outside auto-dimming element and then the Tier 1s take care of the shell and the housing. Yes.

John Joseph Murphy - *BofA Securities, Research Division - MD and Lead United States Auto Analyst*

Okay. I mean -- and I don't think you mentioned them in the FDM list. Is that -- is there potential there with them?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

We hope so. I mean, right now, we don't have anything that we're shipping to Tesla currently. But obviously, with the growth that Tesla has put up and honestly, they've handled the component shortages better than they've been able to handle that a lot better than many others. So we would love to have, obviously, work on increased business with them and more technology with them.

John Joseph Murphy - *BofA Securities, Research Division - MD and Lead United States Auto Analyst*

Okay. Second question, just on the discussions with OEMs. It sounds like there's just a greater receptivity to collaborate on the pressures the industry is facing and it's hitting you guys harder than it is them, because they can pass through pricing. What's changing there? And we're hearing this from other suppliers as well. It just seems like there's greater receptivity to help out on raws and expedited freight, ocean freight and extra cost from volatility. I mean, what's really changing there?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Well, I think -- honestly, I think part of it is -- and I hate to say it because it sounds negative, but desperation has caused everyone in the industry to look at things differently than what we would have before. And say the normal ways of attacking problems probably aren't going to get the results that we would like. OEMs, are -- know that there's plenty of consumers, like you mentioned, they do have some pricing power right now with their consumers. And so the ability to get a car produced, that's something a consumer wants is the utmost objective right now.

And so I think there is -- it's been fun to watch OEMs adjust to the changing market conditions quicker than probably the industry would have years ago. And so that's created some opportunities. Hopefully, those changes are lasting in that, once the component shortages aren't the primary focus, how do we react to consumers on the desire for technology and content and make sure that we're getting consumers what they want. Because one thing we know for sure is that ASPs have held up very, very well in this industry on a vehicle price to a consumer. And there's been some pretty significant increases over the last couple of years.

So there's definitely a desire for a good portion of this market to have technology and then how do we collaborate on bringing that right technology to the consumer faster and in a form factor that they appreciate.

John Joseph Murphy - *BofA Securities, Research Division - MD and Lead United States Auto Analyst*

And just lastly, I mean, usually these disastrous periods in the industry lead to a lot of lessons learned on a micro basis, and it leads to much better margins on the other side as the volumes ultimately come back. I mean, can you kind of highlight what you think the key lessons are that you learned here? And if we -- without giving 2023 and '24 margin guidance or out your guidance, but I mean, do you think that there is a potential for potentially higher margins at least for a while as you get this -- finally, get the operating leverage that might come from volume increases late this year but probably more in '23 and '24?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. I think it's probably more in that'24 range because you got a couple of years here of price increases that the capacity on the electronic side needs to increase significantly before you start to get to a deflationary pricing model for electronics. So that will take some time. However, you're right, at the higher growth rates, there's obviously some operational efficiencies that can be gained through the higher sales levels.

So those do start to help. And hopefully, over the -- in the shorter term, that's where you'll see us be able to stabilize margins is really on our internal side. So operationally, getting leverage on our R&D, SG&A. And then more importantly, on the pure throughput basis. In other words, as volumes go up, there are operational efficiencies associated with just building more of the same type of part numbers and products. So that's what we're focused on right now. We know we can't change the overall commodity space in the short term. So we kind of have to weather that storm. And then pick the right partners.

In terms of life lessons and what we've learned, usually, I just joke that there's nothing to be learned other than love pain but...

John Joseph Murphy - *BofA Securities, Research Division - MD and Lead United States Auto Analyst*

Endurance. That's called endurance. Endurance.

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. But in all sincerity, I think the harsh reality is that how suppliers have handled this is going to dictate who partners with who in the future. And this will take years to pick those partners and relationships. But on the electronics component side, certain suppliers have done better than others of communicating early to allow you to adjust and OEMs are starting to pick preferred partners on the electronics side as well.

And so as a supplier, our objective has to be to get to know who each OEM wants in their product designs. The way the industry has worked for a long time is, we'll design something kind of show up with a black box. We've already got -- Neil's team has already got a good schematic of -- this is our processing platform we want to use.

Well, if you show up to an OEM who's been overly impacted by that supplier on a Tier 2 or Tier 3 side, they may look at it and say, "Hey, you got to redesign this whole thing if you want to sell to us." And so we have to do a better job of understanding those relationships early and making sure we have a more flexible design platform to be able to change it quickly to address OEMs preferences for micro platforms.

Operator

And our next question comes from the line of Josh Nichols with B. Riley.

Michael Joshua Nichols - *B. Riley Securities, Inc., Research Division - Senior Analyst of Discovery Group*

I mean, great to see the company, reaffirm, right, given all the developments, global macro headwinds have kind of come out over the last few months. Clearly, you're right to kind of fade the initial IHS forecast. But I do want to ask, what are your thoughts about the 9% light vehicle production growth forecast that is out there for next year, given that you have high fuel prices, interest rate risk and things like that. What are the puts and takes for next year when you think about light vehicle production because you've historically done a good job at kind of handicapping that?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes, I think you summed up our biggest risk factors. We think as you move into '23, the component side will become less. It's not going to be -- it is not that there will be no story around components still in '23. There still will be some problems and constraints there but I think it will be less of the conversation.

Personally, if I had to gamble on this one, I would say the bigger portion of the conversation around total light vehicle production is going to come down to interest rates, macroeconomic conditions and what happens to demand. I think the interesting part is, if you look at the amount of cash that's been infused in global economies over the last 2 years, there obviously is a price to pay for that. Everyone experiences on the inflationary side. But inflation is really just the tip of the iceberg when it comes to long-term economic impacts from monetary policy changes.

And so that's probably the one that would keep me up the most at night is saying, okay, what does this look like with the interest rate changes that are already being discussed for the next 2 months? Those will start to affect availability. I mean you'll start to see it first in housing. And then usually, you'll start to see it in consumer goods after that at least in our experience. And so that's what we're going to keep our eyes on and saying how high do interest rates go and what happens to the buying power of the consumer? And does that change overall volume? Or does that change the ASP of a vehicle that's sold during that market change?

Michael Joshua Nichols - *B. Riley Securities, Inc., Research Division - Senior Analyst of Discovery Group*

And then last question for me. I think I once kind of touched on FDM there. Clearly, you guys are doing a really good job, seeing a lot of demand there. And hopefully, component availability picks up, so we could see the -- some tailwinds in the second half. But any updates on some of the other earlier-stage ventures that the company is already working on, whether it be like integrated toll monitoring or things like that or progress the company is making to further push those offerings to become more material pieces of revenue over time?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. I think the -- on the automotive side, there's absolute interest in the new technology. Doing CES in-person this year was a great way for us to start to make progress. Obviously, the show wasn't as well attended as it would have been, if it weren't for the spike in COVID that happened. But we're starting to get back to a more normalized business development environment. As OEMs start to have their engineering folks back in the office more and they start to open up that environment to suppliers, that will create more opportunity for us to showcase our products.

The problem with the last 18 months, 2 years has been, it's been so chaotic. Everyone is in crisis mode. Taking the time to think and plan and discuss what 3 years from now is going to look like from a tech platform standpoint, hasn't been the highest priority with most OEMs. And so we're excited for this kind of a more normalized environment. We typically do really well in those conditions, right, where we can show up and talk about 3 to 5 years, how do you scale a tech platform, how do we grow off of what we're doing on FDM to create additional features and content. How do we help broaden that technology base on the more nameplates?

And then from there, there's a lot of other things that we work on, on the aerospace side and some of our other markets, even on the fire protection side that we're pretty excited about, some ideas we have there of what that could look like in a, call it, 3- to 5-year time period.

Operator

And our next question comes from the line of Ryan Brinkman with JPMorgan.

Ryan J. Brinkman - *JPMorgan Chase & Co, Research Division - Senior Equity Research Analyst*

I wanted to check in on the progress of the commercial negotiations relative to pricing and the cost inflation. You saw earlier in the back half of 2021. How has your progress been recovering those higher costs? Did some of that land here in 1Q? And with the goalpost now having moved again since the Russian invasion of Ukraine, which seems to have increased pressure on non-commodity supply chain costs, such as freight, in particular, do you have a new time frame in terms of when you are expecting to recover some of the more recently elevated costs? And is there a percentage of those increased costs that you target recovering?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. So right now in Q1, there was no benefit from cost recovery from our customers. This was basically Gentex' internal efficiency and cost containment efforts that were all internal that helped with the financial performance. We believe that it's going to take us throughout most of this year and into next year to negotiate those deals with our customers.

And the reason why we say it, and we talked about this early on in kind of the supply chain crisis, it was impossible to predict exactly the total ramifications of those cost increases. So we were trying to take a little more patient approach and say, hey, let's wait until we understand the environment a little better before we go in and start that negotiation because one thing we know for sure is most customers don't appreciate hearing from a supplier 3 or 4 times in an 18-month period about, hey, get us to hear, and we'll be okay. And then 3 months later, get us to hear and 6 months later get us to hear. So our position was, let's take our time.

I wouldn't try to clarify what percentage we're looking for. Each situation is unique. With a customer environment, if there's a large award or if there's business growth coming, we might be able to negotiate less of an impact on those in exchange for future business.

On the flip side of that, if you have a declining business environment and increasing commodity problems, I might have to push a little harder on those. So what we're trying to do is make sure that we get the recovery that our shareholders expect and that our employees need in order to help justify with the work they've put in without compromising our ability to walk in with a brand-new technology and say, hey, we have something that we think you'd be interested in.

And so that's a delicate balance to strike, and we know it's going to take time and that's why we're taking a more patient approach than some other suppliers probably will or may need to in some certain situations.

Ryan J. Brinkman - *JPMorgan Chase & Co, Research Division - Senior Equity Research Analyst*

Okay. That's helpful. Maybe just a follow-up there on the merits of that approach of going to the customers with less frequent but more comprehensive accounting of inflated costs. We did hear from other suppliers such as yourselves that have higher margins and are better capitalized, that they were also pursuing that strategy and the companies that are less well capitalized with lower margins and so less buffers, we're maybe looking for more immediate relief.

And I think that makes a lot of sense. Does it make more sense, though, if the costs are increasing and then they're going to stop increasing? What if we're in some kind of new era where cost kind of perpetually increased? Does that change the dynamic at all? Or does it maybe suggest an opportunity for any kind of more sort of formalized cost recovery mechanism as opposed to ad hoc negotiations?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes, I think there's a lot of potential for that. In other words, if you're right, if there is a several year period of inflated costs, the good news is, the industry is prepared for annual negotiations, right? So that the good news is that the platform already exists for us to have that negotiation.

I think right now, the biggest issue is saying, how do you understand not all of those cost increases had even flown -- gone through our income statement all the way until recently. There were some cost increases, a lot that hit last year, but there were more that started at the beginning of this year and throughout this year. And so we're still waiting until those have actually hit home, not just the conversation about them and knowing that they're happening but wait until they're actually impacting financials before you have that meeting and discussion and negotiation with the customer base.

So what we've been focused on is saying -- and every supplier has to pick their strategy, the best way of going about this. And I'm not here to say that ours is perfect. What I know is, this is our culture and how we do business with our customer base, and so it fits really well with that. Because I think the one factor that people forget is, organizations have a cultural relationship with each other as well. And so you have to -- you can't change that quickly because it can have repercussions.

We're trying to operate in a way that's consistent with the way we've handled our customers in the past. And we think this is the best plan and strategy for us to go about these conversations with them.

Like I mentioned, I think last quarter, we're open-minded. I mean, [we walk in without] an OEM. We're just going to start by being full disclosure about the problems we're seeing and what's going on. And then we're going to talk about, hey, how do we work this out so that we keep that relationship open. And continue to talk about ways that technology can help us both offset these cost increases, whether that's through additional content, or consumer-focused products.

Sometimes your best [way of cost] problem is additional revenue and sometimes not. But we're going to be sitting down with each customer having a very unique conversation based on where we're at with that customer and based on how our relationship is with them.

Operator

(Operator Instructions) And our next question comes from the line of Mark Delaney with Goldman Sachs.

Mark Trevor Delaney - *Goldman Sachs Group, Inc., Research Division - Equity Analyst*

Thank you for all the details on FDM, nameplates and the progress there and also the commentary around FDM unit shipments. I was hoping you could also maybe speak to FDM revenue and how much revenue you think FDM can generate this year? And as you think about that '23 revenue growth target of 15% to 20%, do you think FDM grow similarly to that or faster or slower than the corporate average?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. I'd say, in general, first, on the unit side, yes, we expect FDM to grow roughly in line with the overall corporate growth rate on a percentage basis. And that would put us -- if next year, if it were 15% to 20%, that'd be a little bit higher even than what our normal growth rate in FDM has been, that'd be closer to 300,000 to 400,000 units a year, but that's about what it would take for us to hit 15% to 20% overall revenue growth above 2022 revenue. Sorry, there was a second part of your question there, Mark, and I blanked out on it.

Mark Trevor Delaney - *Goldman Sachs Group, Inc., Research Division - Equity Analyst*

You're speaking to FDM units. I was hoping you could talk to the revenue contribution of FDM this year?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. Those types of revenue -- when I talk about FDM here, we're going to talk about just the mirror itself, not the camera portion. But yes, there's a -- at those type of volumes you're going to be close to probably $250 million to a little north of -- just north of $300 million in revenue.

Mark Trevor Delaney - *Goldman Sachs Group, Inc., Research Division - Equity Analyst*

Okay. That's helpful. And I was just hoping you could speak to the margin contribution of FDM relative to the corporate average. I guess, it's certainly, it's a premium product, but it's also an area where I think there had been some more cost pressure around some of the electronics. So if you can help us understand the market contribution, please?

Steven R. Downing - *Gentex Corporation - President, CEO & Director*

Yes. Historically, what we said is, it's roughly in line with corporate average margin profile for FDM. Given some of the cost constraints, obviously, it's trending a little lower than corporate average currently. But like we said, as we progress through the next few years, we think with the right design, the right partners and hopefully, slightly deflationary electronics pricing market, we should be able to get that back towards -- closer to the corporate average.

Mark Trevor Delaney - *Goldman Sachs Group, Inc., Research Division - Equity Analyst*

Okay. And one last one for me, if I could, please. You spoke to having more raw material inventory on hand and also making some good progress around new sources of supply in order to derisk your production outlook. Could you elaborate a little bit more on that to what extent you have what you need and really give line of sight into the components to hit the '22 guidance between the inventory on hand. You imagine semiconductors and some of those new sources of supply you're going to have.

Kevin C. Nash - *Gentex Corporation - VP of Finance, CFO, Treasurer & CAO*

A lot of the increases have been in areas that are supporting the final assembly. So you have glass increases for growth in element production across our business, inside mirrors, outside mirrors. Electronics is obviously another big area. Circuit board levels have gone up, micros, ASICs, those type of things. But to Steve's point earlier, it really doesn't take all but 1 or 2 components to cause an issue. And so I think that's what you see is volatility in customer orders and potential growth into the back half of the year.

You have to have everything 100%. And so that's what you see is us being a little bit more conservative. If everything pans out, if the customer orders pan out, that we can have confidence that we can build based on the right level of components or the right type of components. So it's really driven around the forecast levels increasing and us being more conservative even than before.

Operator

And I'm showing no further questions at this time. And I would like to turn the conference back over to Josh O'Berski for any further remarks.

Josh O'Berski - *Gentex Corporation - Director of IR*

Thank you, everyone, for the time this morning and for your questions. This concludes our call. Have a great weekend.

Operator

This concludes today's conference call. Thank you for participating. You may now disconnect. Everyone, have a great day.