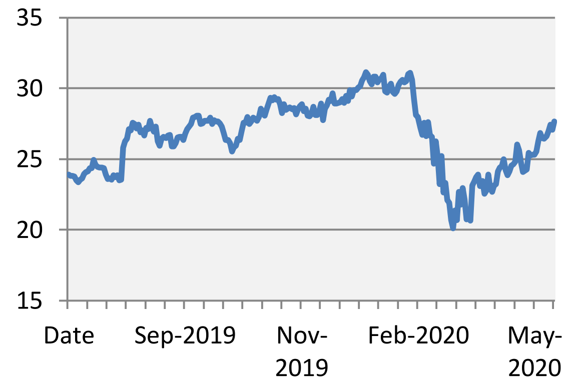
Gentex (NASDAQ: GNTX)

20 June 2020

SELL: US$22.73

Company Information	
Last Closed	$27.08
Dividend Yield	1.79%
Valuation	$22.73
Market Cap	$6.63b
Country of Incorporation	U.S.
Line of Business	Automotive Supplier

YTD Share Price



DCF Valuation Inputs	
Revenue Growth	-17%, 10%
Risk Free Rate	0.70%
Equity Risk Premium	5.35%
Levered Beta	0.96
Cost of Debt	1.96%
Discount Rate	5.76%

Q1 2020 (31 Mar 2020) Updates

1. Q1 Revenues largely in line with management forecasts, which fell off in the last 2 weeks of March
2. USD$75m of revolving credit agreement drawn as precautionary measure
3. Management has revised revenue forecasts for FY2020 downwards by approximately 20%

Company background

Founded as a manufacturer of fire protection products in 1974, Gentex has transitioned to become an automotive parts supplier that mainly produces interior and exterior automotive mirror products with auto-dimming and other added functionalities embedded into their products, which are shipped to over 30 OEMs.

Company Strengths

1. **Strong market share** – As of FY2019 based on management's estimates, the company holds 93.5% market share of electrochromic automotive mirrors, with penetration rates on newly produced light vehicles of approximately 14.8% for exterior mirrors and 32.9% for interior mirrors. Penetration figures are expected to increase with the company's marketing efforts and increased adoption of integrated technologies by general consumers.
2. **Strong company performance** – Gentex has been able to consistently generate superior margins and returns compared to its automotive supplier peers, and is on track to maintain its superior performance for extended periods of time.
3. **Robust financial position** – Gentex does not hold any long-term debt which enables the company to better weather macroeconomic downturns, and offers management flexibility in pursuing projects and policies which will best benefit equity holders, which management has demonstrated.
4. **Exploring other industries –** Management has affirmed its commitment to seeking opportunities outside the automotive industry, taking advantage of its expertise with auto-dimming and integrated technologies. New projects include partnerships with Boeing and Mayo Clinic.

Investment Risks

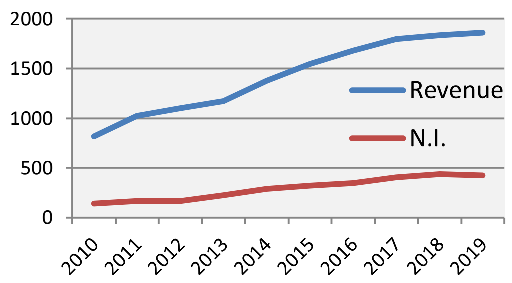
1. Macroeconomic exposure – Gentex's derives 97% of its revenues from the automotive industry, leaving the company entirely exposed to macroeconomic conditions

2. Reduced capital returns – With historically high total payout ratios for share buybacks and dividends, against the backdrop of an uncertain operating environment, it is highly likely that there will be reduction in capital returns in the form of share buybacks.

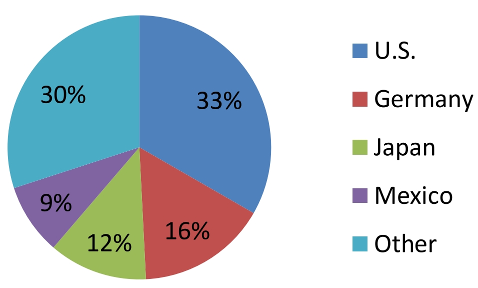
3. Uncertainty in growth from new projects – While the company has ventured into the aerospace industry for dimmable windows, the revenue and growth impacts have been muted.

Year	2018A	2019A	2020E	2021E	2022E
Revenue (USD$m)	1,834.1	1858.9	1567.5	1724.2	1896.8
Revenue Growth (%)	2.18	1.35	-15.7	10.0	10.0
EBIT (USD$m)	508.1	488.5	376.2	392.8	410.1
EBIT Margin (%)	27.7	26.3	24.0	22.8	21.6
ROC (%)	22.0	22.3	16.4	16.7	16.9

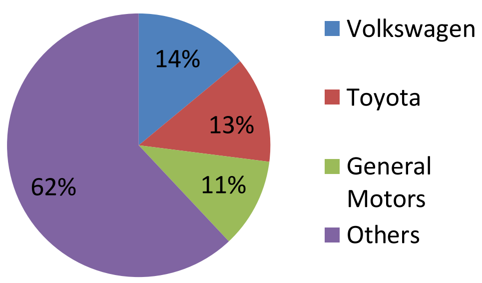
Revenues (8.58% CAGR)



Revenues by region



Revenues by customer



**Daimler and Ford each accounted for 10% of revenues in 2017*

Revenues by segment (FY2019)

	Revenues	Percentage
Automotive Mirrors	$1638.6m	88.2%
HomeLink Modules	$171.9m	9.2%
Fire Protection Products	$23.7m	1.3%
Windows Products	$24.6m	1.3%
Total	$1858.9m	100%

Business Description

Gentex is an automotive parts supplier that specializes in the application of electrochromic (auto-dimming) technology, and has developed an expertise in integrating computer technologies to value add to their product line-up. Apart from automotive mirrors, the company has been able to develop new applications with their expertise, in the form of dimmable aircraft windows and smart lighting technology for medical usage.

Automotive products

Gentex's revenues are derived mainly from its automotive mirror products, comprising interior and exterior electrochromic (auto-dimming) mirrors. These mirrors dim light that shines on them mirrors, reducing glare from the light source, which is achieved by passing an electrical current through a chemical layer within the mirror. Such mirrors are standard features on some vehicles, but are most often packaged with other optional packages or part of varying trim levels of individual car models. Being the first company to introduce auto-dimming mirrors in 1982, Gentex today holds an impressive 93% market share of electrochromic mirrors, allowing the company to position itself as the main supplier to automotive OEMs. Over the years, Gentex has added new capabilities, translating into new mirror products, such as the Full Display Mirror (FDM), capable of displaying a digital image on the rear view mirror, removing any obstructions from the driver's view and potential blind spots, while have a fail-safe of a physical mirror within the unit.

Integrated technologies

In 2013, Gentex acquired HomeLink for USD$700 million with approximately USD$423 million of cash and the rest in debt, which is the sole supplier of integrated wireless communications with home automation products. Through a Radio Frequency (RF) network, HomeLink enables users to control products on the same network or Wi-Fi enabled devices, including garage doors and home security systems. Gentex has been able to successfully integrate HomeLink into its mirror products, and the technology is now on approximately 100 million vehicles and 300 nameplates worldwide.

The Integrated Toll Module (ITM) launched with Audi in 2019 was yet another step in the direction of increasing connectivity between drivers and their environment. ITM allows the car to communicate and interact with its environment, allowing for functionalities such as in-vehicle payments for tolls and gas.

Gentex Full Display Mirror
Source: Gentex Annual Report FY2019

Gentex Dimmable Aircraft Window
Source: Gentex Website

Gentex is also in the process of developing and bringing to the market other functionalities. These include the integration of iris-scanning technology into their mirror products for biometric authentication, providing the possibility of vehicle personalization and limiting vehicle functionality based on who the driver is, as well as

Beyond automotive

Other revenues are derived from dimmable aircraft windows and fire security products. Through a partnership with PPG Industries, Gentex implemented electrochromic window shade systems first in the passenger-cabin windows of the 2010 Beechcraft King Air 350i airplane, which was the first airplane in general and business aviation with electrically dimmable window shades as standard equipment. Since 2012, Gentex has been supplying Boeing with dimmable aircraft windows on its 787 Dreamliner. Responding to passenger and airline feedback over the years, the company has developed several iterations of the product, with the most recent being capable of blocking 99.99% of visible light. At CES 2020, Gentex also announced a new partnership with Airbus, to offer this latest generation of electrochromic windows on their aircraft. For fire security products, current products being marketed include smoke detectors and fire alarm bells.

Industry Overview

Automotive Industry

As of 2019, global light vehicles sales was expected to grow at a CAGR of approximately 2%, with most of this growth expected to come from China and emerging markets. The industry has generally had to struggle with low margins, due to various factors such as competition between manufacturers, inability to pass on costs to consumers due to the discretionary nature of the product, and high operating leverage resulting in high debt loads.

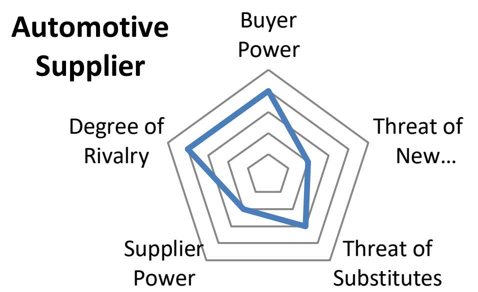
Industry headwinds

Planned restrictions on sales of fossil-fuel vehicles – To address ongoing conversations of phasing out gasoline vehicles, OEMs are taking steps to electrify or hybridize their product line up. This has led to large R&D expenditures in areas such as electric drivetrains and battery technology. In developing their own electric vehicles, OEMs also have to compete with Tesla, an established leader in electric vehicles and its strong branding

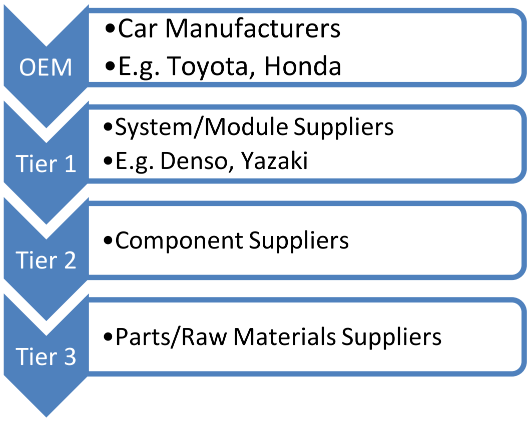
Countries with planned restrictions	
United Kingdom	2035
France	2040
Canada	2040
China	Ongoing Plans

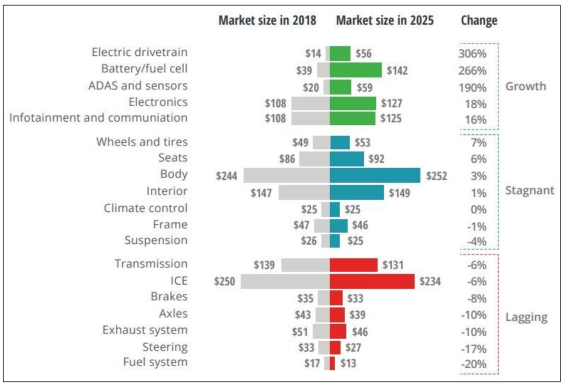
Largest Automotive Suppliers	
Bosch	Powertrain, chassis, car multimedia, batteries
Continental	Electronic brakes, tires, chassis systems, powertrain
Denso	Electronic systems, telecommunications, thermal solutions
Magna	Seating systems, body structure, vision technologies
ZF Friedrichshafen	Transmissions, chassis components, braking systems, driver assist systems

Porter's Five Forces



Automotive Supply Chain





Source: Deloitte 2019 Global Automotive Supplier Study

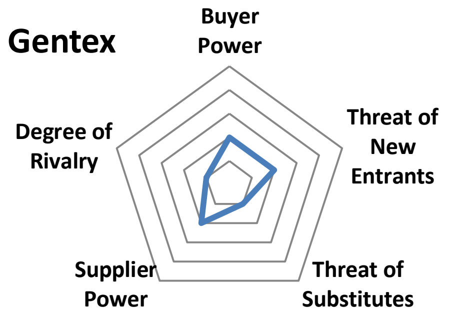
U.S. – China trade war – Following the imposition of tariffs on automobiles and their parts, as well as the possibility of more, manufacturers have been working to respond to this volatile operating environment which is expected to persist. Some steps taken by manufacturers include absorbing the costs of tariffs, and relocating production to China or U.S.

Automotive suppliers

Due to the large number of components that goes into each vehicle, OEMs source a portion of these components from various automotive suppliers, each specializing in a range of products, and develop other vehicle specific components in-house. As suppliers to OEMs, automotive suppliers also have to respond to general trends in the automotive industry and the requirements set by OEMs in terms of the type and quality of components to be fitted on to these vehicles. Automotive suppliers' production cycle is also closely matched with OEMs' production cycle by practicing just-in-time manufacturing to meet their production needs.

Being entirely exposed to the automotive industry, automotive suppliers are also subject to the same industry headwinds as OEMs. However, the impact on automotive suppliers will be of a greater extent compared to OEMs, attributed to being lower in the automotive supply chain. With the marginal performance of most OEMs, a similar pressure is felt by automotive suppliers, with margins and returns generally depressed. Automotive suppliers have also been responding to electrification efforts by OEMs, which include developing components for electric vehicles (EV), acquiring other companies with existing EV technology, and spinning off ICE divisions.

Porter's Five Forces

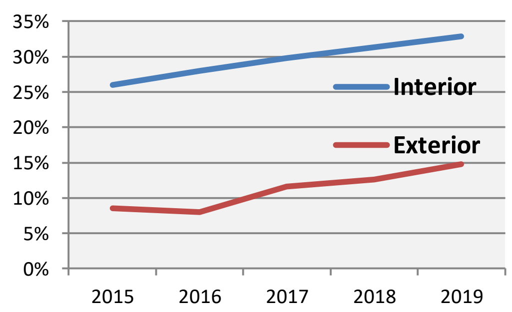


Metrics Comparison

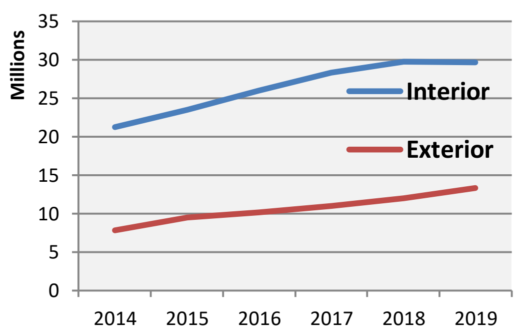
	Peer Group*	Gentex
Gross Margin	0.200	0.370
Operating Margin	0.070	0.263
Net Margin	0.039	0.228
Equity : Debt	7.749	0
ROA	0.037	0.196
ROE	0.071	0.219
ROC	0.084	0.219

**Peer Group comprises 22 publicly traded automotive suppliers of varying size and product mix, metrics calculated based on FY2019 results*

Mirror Penetration Rate



Mirror Shipment Volume



Investment Theses

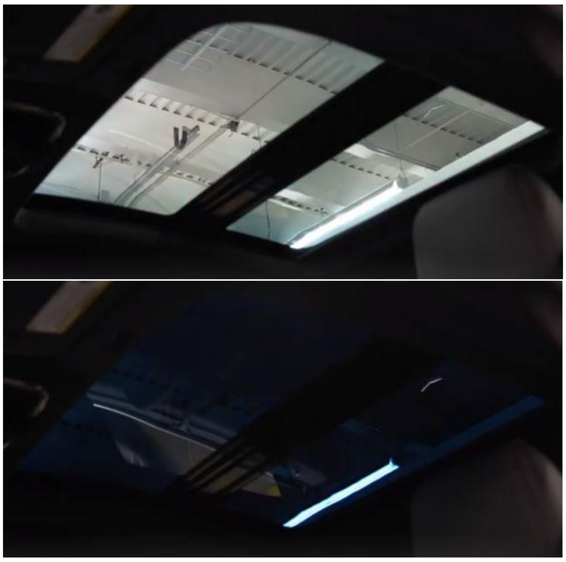
Proven Business Model

Gentex has successfully leveraged on its expertise in auto-dimming technology to develop a niche product for the automotive market, and found other applications for this technology within the automotive industry and in other industries.

By capitalizing on its dominant market share, Gentex has been able to overcome characteristics typical of automotive suppliers. Management has been able to create value from its growth, allowing the company to consistently outperform peer automotive supplier companies across various return and margin metrics. This outperformance is also expected to remain high. With OEMs' incentive to continue marketing and offering Gentex's products on their vehicles, who obtain a higher margin over Gentex on the sale of auto-dimming mirrors, as well as Gentex being the only major supplier of electrochromic mirrors, Gentex has stronger bargaining power compared to the average automotive supplier. Furthermore, considering Gentex's extensive and long relationships with OEMs, it is evident that the company has established itself as a reputable supplier, capable of meeting automotive production cycles and of producing high quality mirrors which, indirectly reflects the quality of OEMs' cars. With this trust developed, it is even more unlikely that OEMs will be willing to switch to an incoming competitor. Therefore, it is expected that Gentex will be able to lengthen the period for enjoying superior performance.

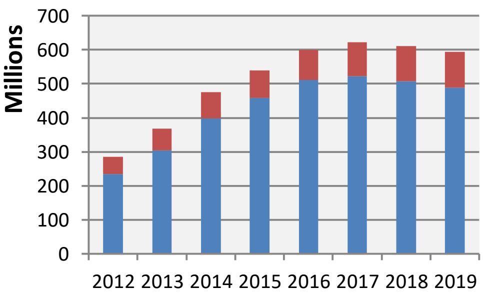
While bolstering its dominant market position, Gentex has also managed to increase the penetration rates of both its interior and exterior mirrors. Apart from marketing efforts, including the display of innovations at CES (Consumer Electronics Show), Gentex also works to incorporate additional features into their mirrors to increase consumer demand for their product, the result of their expertise in integrated technologies. This enhances the user experience for consumers, many of whom come to expect integration of connectivity with their devices, thereby allowing Gentex to ride industry tailwinds of increased adoption of integrated technologies. As penetration rates of Gentex's mirrors increases, revenues are expected to grow proportionately.

Other products that Gentex intend to market which utilizes its dimming technology include large area dimmable devices, such as sunroofs and passenger windows. While there are



Gentex Dimmable Sunroof at CES 2019
Source: GentexCorporation Youtube Channel

EBITDA



Expansion funded by cash

- 2013, acquisition of HomeLink for $700m, funded with $423m in cash and the rest in debt
- 2014, new manufacturing facility began construction, which was completed in 2016, costing $63m paid in cash, which added 10-15 million units of production capacity
- 2019, expansion of main office and manufacturing facilities, with an expected cost of $10m to be funded with cash

dimmable sunroofs currently in the industry, they tend to come with a high price. Magic Sky Control, marketed by Research Frontiers on Mercedes-Benz vehicles, is offered as an optional extra on top-of-the-line S models such as the S-Class Sedan and SLC. This option is priced at least 3 times the cost of an all-glass sunroof. Research Frontiers also applies this technology to some business aircrafts.

Leveraging on its experience from the automotive and aerospace industry, Gentex is capable of producing sunroofs that offer the same functionality: dimmable sunroofs that are capable of blocking out sunlight when required, to prevent cabin temperature from rising. Apart from being applicable to current models, this aspect is particularly of importance to EVs, which would otherwise expend more power to maintain cabin temperature. With the combination of Gentex's expertise, its ability to achieve higher economies of scale, and its extensive OEM relationships, Gentex will be able to develop a more cost effective and appealing solution for OEMs, riding industry trends of moving towards open cabin designs.

Resilient financial profile

Gentex's robust financial performance has allowed for the adoption of a very conservative capital structure. Working capital and reinvestment needs are met with the company's strong cash flow generation capabilities. The company's historical debt profile has also been low, with the most recent debt loading being in 2013 for the acquisition of HomeLink, which was paid off by FY2017. Most recently, Gentex drew USD$75 million of a USD$150 million revolving credit agreement in Q1 2020, in response to uncertainty surrounding the development of COVID 19.

This conservative capital structure ensures that Gentex continues to remain on strong footing for FY2020, a time where most OEMs and automotive suppliers are facing increased uncertainty due to their generally highly leveraged capital structures. Gentex will be in a prime position to capitalize on the expected weakened performance of its competitors, such as that of Research Frontiers, and further extending its lead over its major competitor in automotive mirrors, Magna Mirrors. Further into the future, its financial flexibility also offers the company the option to take on debt for expansion, should favourable opportunities arise. With its currently non-optimized capital structure, taking on more debt will lower the company's cost of capital as debt to equity ratios approach optimal levels. Therefore, Gentex stands to

Optimal Capital Structure			
Debt Mix	COD	COE	WACC
0%	1.47%	5.84%	5.84%
10%	1.47%	6.26%	5.78%
20%	1.47%	6.80%	5.73%
30%	**1.47%**	**7.49%**	**5.68%**
40%	12.05%	8.40%	9.86%
50%	18.39%	10.14%	14.27%
60%	18.99%	12.50%	16.39%
70%	19.41%	16.43%	18.52%
80%	19.73%	24.30%	20.64%
90%	19.98%	47.89%	22.77%

Management Compensation (FY2019)			
	Salary	Stock Awards	Total
Steve Downing (CEO)	733 846	1 444 748	3 059 702
Neil Boehm (CTO)	395 046	392 006	1 155 146
Kevin Nash (CFO)	396 308	385 274	1 151 942
Matt Chiodo (VP Sales)	372 893	365 996	1 081 485
Scott Ryan (VP General Counsel)	348 346	337 130	1 006 429

Insider Ownership	
	Shares Beneficially Owned
Steve Downing (CEO)	233 988
James Wallace (Chair of Board)	75 803
All Directors and Executive Officers	908 667

Core Growth Strategies for FY2020
1. Increasing penetration rate of core mirror products 2. Continued growth of Full Display Mirror product 3. New Launches of Integrated Toll Module Product 4. Providing profitable products for customers

benefit doubly when debt is used appropriately to fund expansion: from increased growth and a lower cost of capital, thereby generating even higher return on capital invested. By drawing down on its revolving credit agreement, there is an indication of management's willingness to take on debt to bolster its cash and overall financial position, and opens the door for additional debt during this period of uncertainty.

Strong corporate governance

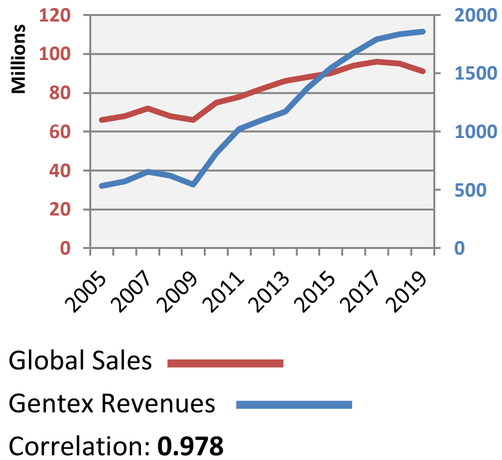
Gentex's strong performance across multiple fronts can be attributed to good corporate governance policies. Gentex is led by a capable and young executive team, all of whom have been internally promoted and been employed by the company for at least 10 years. Such internal hiring practice ensures continuity of company best practices and operational understanding, and creates a culture that incentivizes employees to contribute to the company with credible opportunities for career advancement.

Executive remuneration policies, set by the Remuneration committee, are also reasonable. Compensation comprises a fixed based salary and a variable component of cash and stock in varying proportions and vesting periods, which is tied to the company's performance. Metrics for determining the level of variable compensation include EBITDA and ROIC on a cumulative basis over a three-year period, and other financial performance metrics, to align management's interests with shareholders'.

Capital allocation policies are constructed with the objective of creating value for shareholders, where free cash flows directed towards dividends, share repurchases and capital expenditure and research and development. Share buybacks have been a key component of capital return policies at Gentex and are executed when management believes their shares to attractively priced.

Good corporate governance is also exhibited by the Board of Directors, made up entirely of independent directors. Each member of the Board brings with them decades of experience in various fields, including that from the automotive and information technology industries. The presence of an independent Chair of the Board coupled with Board of Directors meeting without management present, further opens up an avenue for transparent communication between shareholders and management.

Gentex Correlation with Market

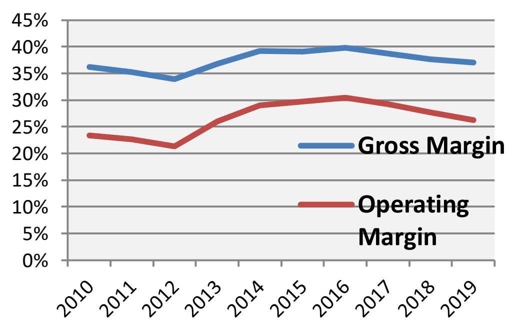


Source: OICA Sales Statistics

> *"Surveys that attempt to determine the impact of ride-sharing adoption on car ownership yield mixed results, but in general suggest that it is, at worst, modest. A recent study from the Transport Research Board found that per capita vehicle sales on average fell 3-4% in the years after Uber/Lyft entered a state."*

Source: Schroders, "Uber is not killing car ownership (yet)"

Margins (2010-2019)



Investment Risks

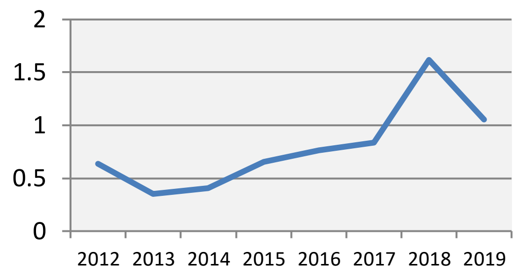
Macroeconomic risks

Compared to other automotive suppliers that produce a range of products, allowing for diversification of revenues, Gentex is more exposed to macroeconomic fluctuations, since it produces a single product that is used only in vehicle production. Current penetration rates also suggest that auto-dimming mirrors are still discretionary when purchasing a new car. As such during times of macroeconomic downturn or uncertainty, as is the case for FY2020, we can expect a twofold impact on Gentex's revenues: a decline in auto production and a decline in customers choosing to include auto-dimming mirrors in their cars purchased during this period. This has played out through a fall in light vehicle production forecast by IHS, which management bases upon to forecast expected revenues for the year. Forecasted revenues have been revised downward by approximately 20% for FY2020, and there is a high probability that auto production will not revert to FY2019 levels even in FY2021, as consumers reduce and delay discretionary expenditure and OEMs delay the release of new models.

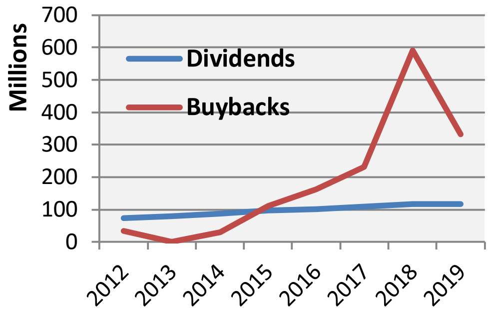
The increasing adoption of ride-sharing services by general consumers also threatens to lower global automotive production. The convenience provided by ride-sharing apps such as Uber, Didi and Grab, as well as lower financial obligations, makes the purchase of a car less appealing, thereby decreasing demand for ownership of cars and sales volume of Gentex's mirrors. While the overall impact on the automotive industry is still uncertain considering the infancy of ride-sharing infrastructure as well as the net effect from public transportation and increasing rides, Gentex has taken steps to prepare itself in tackling the problem posed by ride-sharing, and possibly benefit from it. The company has developed products that aid in developing the long-term potential of ride-sharing, such as biometric authentication within mirrors or structural components and smoke detectors within an autonomous vehicle's ventilation system. Therefore, should the infrastructure for ride-sharing and autonomous taxis mature, the potential effects of decrease in overall global automotive production will be mitigated to some extent.

Gentex is also not immune to pricing pressures, despite its better bargaining power compared to other automotive suppliers. In response to tightening macroeconomic conditions, the company's margins have also been under pressure from OEMs, with annual price negotiations between the company and OEMs.

Total Payout Ratio



Composition of Capital Returns



Expected cutbacks in capital return

Capital return in Gentex has historically been high. More recently however, the sustainability of such capital return policies in the longer term has come into question.

During the first quarter of 2020, the company repurchased approximately 7 million shares at an average price of USD$25.48 per share, equating to approximately USD$175 million of cash outflows, which can be considered aggressive considering macroeconomic conditions. Management acknowledges the aggressiveness of the buyback and likely reduced repurchase activity in the second quarter, but reaffirms their commitment to repurchases when the operating environment and share price are favourable. With macroeconomic uncertainty expected to persist until at least the end of the year as OEMs respond to local regulations, Gentex is more likely to reduce buybacks to hold on to cash to tide through this period of uncertainty, with the USD$75 million of revolving credit being a sign of this. At the same time, management has also increase quarterly dividends from $0.115 to $0.12 per share.

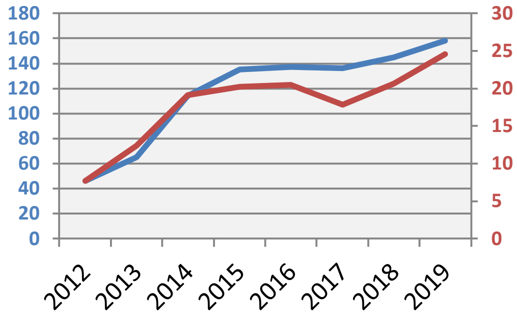
Therefore, we can expect returns to equity holders to be less in the form of continued buybacks and hence short term price enhancement. Instead, capital returns in the form of dividends, at a payout ratio of 27.7% as of FY2019, is expected to remain robust and be the main form of capital return. Ultimately, cash for share repurchases and dividends is derived from FCFE, and should the company be able to find good projects or restructure operations to generate high return on invested capital, the benefits to shareholders will simply be accrued in the form of value enhancement. However, the fact that management has been so aggressive in returning capital over the past few years possibly indicates that growth potential and projects may be limited, hence the decision to return capital to equity holders to prevent destruction of value. Indirectly, this raises questions as to whether Gentex can sustain its superior performance in the longer term and whether investors' perceptions of the company are based upon management's continued share repurchase and dividends, which have become an integral part of the company.

Limited growth potential in the near term

Gentex's projects in the aerospace industry have historically yielded minimal results. Revenues from dimmable aircraft windows and fire protection products have increased at CAGR of approximately 9.6% since 2013, from USD$27.9 million in 2013 to USD$48.4 million in 2019. Despite relatively

Revenues from aircraft windows

Although management did not breakdown revenues from 'Others' before 2018, an estimation of revenues from aircraft windows can be calculated based on management's report of changes in sales from dimmable aircraft windows and fire protection products



Estimated Aircraft Revenues

787 Dreamliner Deliveries

Correlation: **0.964**

Source: Boeing Website Order and Deliveries, calculations

Market Size Estimation

Average revenues from dimmable aircraft windows per 787 delivery, at constant penetration rate = **$156 600**

Forecast period: 2019 - 2028

Type	Deliveries	Scale Factor	Potential Revenues
Single Aisle	14500	0.7	$1.6b
Wide body	3700	1	$580m
Regional Jet	1000	0.7	$110m
Total	19200		**$2.29b**
Average potential revenues over 10 years as percentage of revenues in FY2019: **12.3%**			
PV of cash flows at 30% operating margins, tapering to 20%: **$347m**			

Source: Boeing Commercial Market Outlook for 2019-2038, Airbus Global Market Forecast 2019-2038

Threats to Gentex's Mirrors

Smart Glass manufacturers
- View Inc., Corning Inc., Vision Systems

Replacement of mirrors with on-board cameras
- Provision for camera monitor systems to replace mirrors within Japan and European countries, based on UN-ECE Regulation 46
- Increased competition from automotive camera manufacturers

high growth rates, they continue to contribute only 2-3% of revenues, and this low proportion of revenues is expected to continue considering the intense competition within the fire protection industry and lacklustre demand for previous iterations of dimmable aircraft windows.

While improved dimming technology in aircraft windows will increase demand, adoption is expected to be slow. Based on 787 Dreamliner production figures over the period when dimming mirrors were offered, this figure can be scaled to annual total production figures for commercial aircraft by Boeing and Airbus to estimate the market for dimmable windows, assuming penetration rates stay constant. However, with financial distress currently experienced by airlines and supply chain shocks, orders and deliveries for new aircraft will decrease as airlines reduce capital expenditure. As such, Gentex's newest iteration of dimmable windows should not have a credible impact on the company's financial performance in the near term. Instead, the growth in revenue from dimmable craft windows will come further in the future, hence greater uncertainty over the success of these products. However, should these products be successful, in the case of dimmable windows becoming standard in commercial aircraft and business jets, the company stands to benefit from additional growth and diversification of revenue sources.

The same can be said for Gentex's ventures into the medical industry with its partnership with Mayo Clinic. Gentex has developed a smart lighting system, which is to be installed flush to the ceiling, and is in the process of testing this system. Through machine vision, this lighting system is capable of addressing many current complaints, eliminating shadows on surfaces and reducing glare on objects. In marketing this smart lighting system, Gentex faces several challenges, mainly the costs associated with installing these systems and the need to justify the costs of replacing current lighting systems.

Market Dominance

Gentex is reliant on its electrochromic and FDM mirrors in achieving its superior business performance. In spite of its expertise in electrochromic technology and applications in the automotive industry, providing a competitive advantage with established relationships with OEMs, the company still faces potential competition from other companies outside the automotive industry with similar technology. Therefore, should the company fail to react appropriately to developments within the space of electrochromic technology and smart glass, it stands to lose its dominant market share, resulting in continued heavy deterioration of its financial performance with a downward trend in market share.

Valuation

Valuation Inputs			
Year	2020	2021	TV
Revenue Growth	-15%	10%	0.7%
Operating Margin	24%	22.2%	15%
Sales to Capital	3	3	3
Cost of Capital	5.76%	5.76%	6.05%

Discount Rate Inputs	
Risk Free Rate	0.70%
Equity Risk Premium	5.35%
Levered Beta	0.96
Cost of Debt	1.96%
Discount Rate	5.76%

Valuation Implied Outputs		
Year	2020	TV
Revenue	$1.57b	$2.86b
Volume (Interior)	25m	45.5m
Operating Income	$376.2m	$429.7m
ROIC	16.4%	13.5%
Value Per Share	$22.73	

Terminal value	$	5,496.22
PV(Terminal value)	$	3,113.53
PV (CF over next 10 yea	$	2,293.81
Sum of PV	$	5,407.35
- Debt	$	75.00
+ Cash	$	278.50
- Value of options		$45.58
Value of equity in comm	$	5,565.26
Estimated value /share	$	22.73

Drivers

Revenue Growth

- Decline in revenues to $1.57 billion for FY2020
- Recovery in revenue growth from FY2020 onwards, reflecting recovery of automotive industry, increasing penetration rate of mirrors and introduction of dimmable sunroofs
- Growth rate will approach but be higher than risk free rate, supported by increased revenues from non-automotive sources
- Industry headwinds of ride-sharing and autonomous vehicles will be mitigated by related products marketed by Gentex

Operating Margin

- Dominant market position enables Gentex to continue exercising stronger bargaining power, maintaining current prices
- Pricing power will slowly give way to pricing pressure from OEMs
- Comparative advantage in electrochromic technology enables Gentex to keep production costs low
- Operational efficiency will continue to remain high
- Operating margin will approach automotive supplier average of approximately 7%, but will still outperform

Reinvestment

- R&D expenditure will remain at around 6% to retain comparative advantage, improve current products and develop new products
- Capital expenditure to increase production capacity to approximately 45.5m units, to meet revenue and volume
- Sales generated per dollar of capital invested will be higher than industry average due to scalability of comparative advantage

Cost of Capital

- Gentex will take on some debt as the company matures
- Debt to equity ratio will approach optimal capital structure but not entirely, to maintain financial flexibility

	Base year	*1*	*2*	*6*	*7*	Terminal year
Revenue growth rate		-15.00%	10.00%	8.14%	6.28%	0.70%
Revenues	$ 1,844.10	$ 1,567.49	$ 1,724.23	$ 2,481.76	$ 2,637.62	$ 2,864.39
EBIT (Operating) margin	26.68%	24.00%	22.78%	18.48%	17.54%	15.00%
EBIT (Operating income)	$ 492.07	$ 376.20	$ 392.76	$ 458.75	$ 462.75	$ 429.66
Tax rate	15.10%	15.10%	15.10%	17.08%	19.06%	25.00%
EBIT(1-t)	$ 417.77	$ 319.39	$ 333.45	$ 380.39	$ 374.55	$ 322.24
- Reinvestment		0	$ 52.25	$ 62.27	$ 51.95	$ 28.20
FCFF		$ 319.39	$ 281.20	$ 318.12	$ 322.60	$ 294.05
NOL	$ -	$ -	$ -	$ -	$ -	$ -
Cost of capital		5.76%	5.76%	5.82%	5.88%	6.05%
Cumulated discount factor		0.9455	0.8940	0.7142	0.6745	
PV(FCFF)		$ 301.99	$ 251.40	$ 227.20	$ 217.60	

Sensitivity Analysis

$ 22.73	7%	8%	9%	10%	11%	12%	13%
20%	25.16	26.22	27.34	28.50	29.72	30.99	32.32
19%	24.18	25.19	26.25	27.36	28.51	29.72	30.98
18%	23.20	24.16	25.16	26.21	27.30	28.45	29.64
17%	22.22	23.12	24.07	25.06	26.09	27.16	28.29
16%	21.23	22.08	22.97	23.89	24.86	25.88	26.93
15%	20.23	21.03	21.86	22.73	23.63	24.58	25.57
14%	19.23	19.97	20.74	21.55	22.40	23.28	24.20
13%	18.22	18.91	19.62	20.37	21.15	21.97	22.82
12%	17.20	17.83	18.49	19.18	19.90	20.64	21.42
11%	16.18	16.75	17.35	17.98	18.63	19.31	20.02
10%	15.14	15.66	16.20	16.76	17.35	17.97	18.61

**Revenue Growth against Steady State Operating Margins*

Overpricing

The current market price of $27.08 implies combinations of revenue growth rates and operating margins which are improbable.

Revenue growth rates of 13% would result in revenues of $2.56b in year 5. If based solely on increase in revenues from automotive mirrors, this equates to approximately 40.7 million and 17.9 million units of interior and exterior mirrors respectively, and penetration rate of 45% for interior mirrors and 19.9% for exterior mirrors. Considering Gentex's current manufacturing capacity of 33-36 million interior mirrors and 14-17 million exterior mirrors, the company does have the capacity to reach these production figures. Contrasted with historical CAGR of revenues of 8.58% between 2014 and 2019, when macroeconomic conditions were favourable, the company would have to either market their current product line-up much more aggressively or release new products. More aggressive marketing is likely to depress gross and operating margins to increase volume, and the release of new products is achievable with Gentex's transferrable expertise in electrochromic technology, but success is uncertain based on lacklustre performance of Gentex's dimmable aircraft windows.

Gross and operating margins have also shown signs of weakening. Management has acknowledged this, trying to address constant pricing pressures from OEMs. Gentex's current high operating margins of 26.3% will not be sustained as the company matures, instead deteriorating over time towards the industry average of 7%, where a case can be made for operating margins slightly above 7% due to the company's competitive advantage.

Contributing factors

Over optimism surrounding dimmable aircraft windows – Potential revenues from dimmable aircraft windows, have recently gained attention with the announcement of fitment of Gentex's dimmable aircraft windows to Boeing's 777X wide-body aircraft, and a new partnership with Airbus. While this would definitely boost revenues from dimmable aircraft windows, considering the duopoly in aircraft manufacturing, the impact will not be very significant. The production and sale of dimmable aircraft windows is simply not able to match the high volumes seen by automotive mirrors, due to annual product volume of aircraft compared to automobiles. Assuming 100 windows per aircraft, approximately 192 000 dimmable windows will be produced per year, which is a fraction compared to 29.6 million units of interior mirrors Gentex produced in 2019. Gentex will most likely be able to charge a high price for the dimmable windows, since these systems have low price elasticity when compared to the overall cost of an aircraft, as well as airlines wanting to enhance the flight experience. However, production costs are also expected to be higher, considering the need to meet aviation safety standards, as well as maintenance costs to ensure continued functionality of these windows. As such, even if penetration rates and widespread adoption materializes, the present value of cash flows is only approximately $347m, increasing value per share by approximately $1.37.

Market expectation of continued capital returns – Considering the high capital returns over the past few years, Gentex's current share price has market's expectations of continued buybacks and dividends priced in. While this may have been justified several years ago with the new management team, the current landscape does not seem as favourable, as analysed in investment risks of the company. Furthermore, total payout ratios above 1 for extended periods of time is not sustainable, and continued payout ratios at such levels sends concerning signals. First, if high payout ratios are to be sustained, the company will have to raise more capital, most likely in the form of debt to protect equity holders, undermining Gentex's robust financial position which distinguishes it from other automotive suppliers, thereby making such a scenario unlikely. Second, high payout ratios signal limited growth opportunities, which appears to be the most likely risk faced by management at the moment. Management's efforts to achieve growth are recognized, with attempts to increase penetration rates and offer products outside the automotive industry. However, the lacklustre performance of dimmable aircraft windows since 2012 suggests that growth potential is limited. Furthermore, when venturing beyond the automotive industry, Gentex also has to compete with other companies that have expertise in electrochromic technology. While management reaffirms their commitment to buybacks and dividends, it appears inevitable that there will be reduction in capital return in the future. At that point, the market will factor this into their pricing, and we will see Gentex's stock price fall to better reflect its intrinsic value.

Few and far between – Gentex is one of the few outperformers amongst automotive suppliers, who are part of the automotive industry supply chain. With the constant spotlight surrounding the automotive industry, which generally does not produce very high returns, any outperformance will be picked out very quickly. Being one of these outperformers, Gentex has many favourable characteristics such as large market share, high return on capital, and a robust financial position. Being a favourable company for investment, Gentex's share price is also more likely to be bid up by investors to participate in this outperformance.

Recommendation

Gentex has the characteristics of a good company for investment: good financial performance, financial position and management. However, based on reasonable assumptions for revenue growth and steady state margins, as well as the inputs required to justify the company's current share price, Gentex is currently overpriced and a SELL recommendation is placed on the company. However, should the opportunity arise to purchase the company near fair value, Gentex has the potential to be a good investment, with an option to expand into other industries with its electrochromic expertise.