Automotive Tier One
Q2 2019

Applied Value Industry Reports
August 2019

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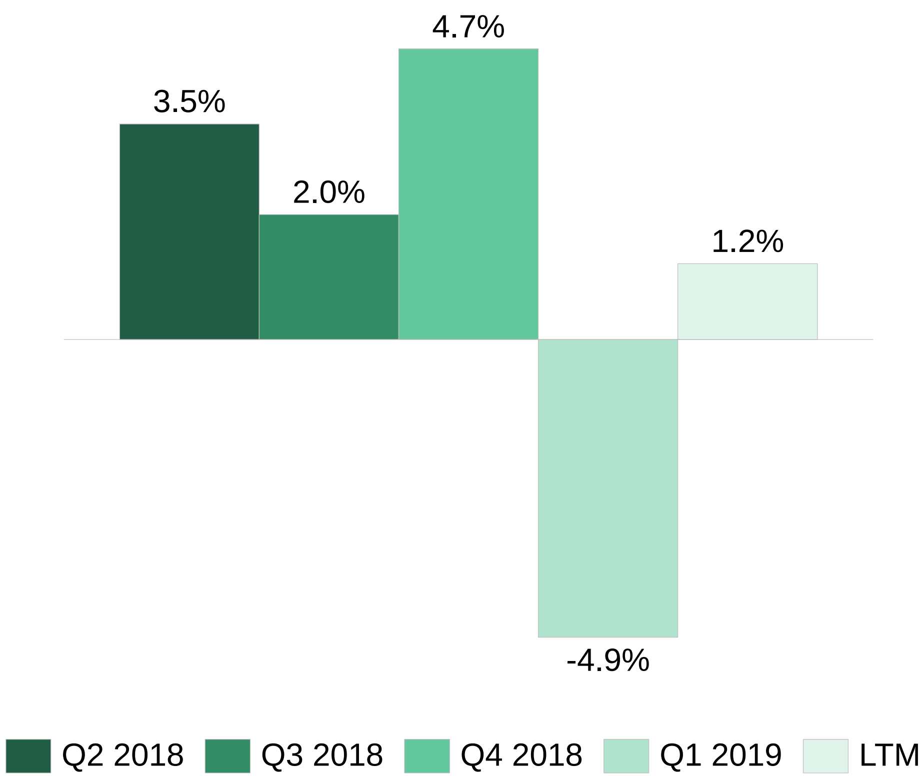
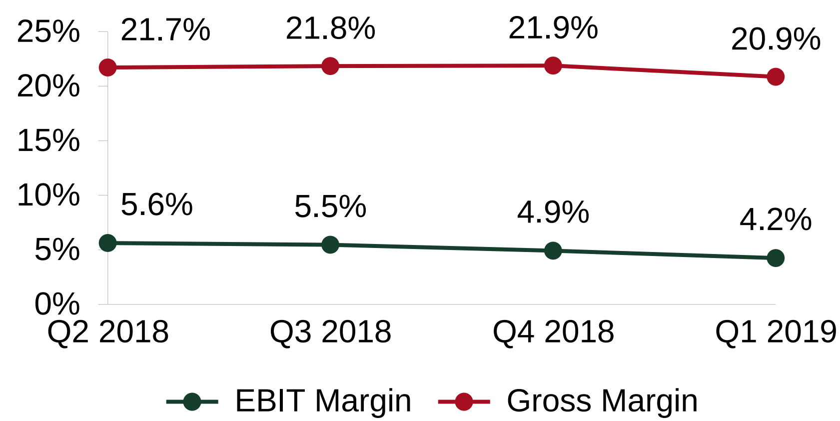
After a strong 2018, Q1 2019 had a 4.9% y-o-y revenue decline, along with tighter Gross Margins and declining EBIT.

Auto OEM Average Industry Revenue Growth
Quarterly & LTM, year over year comparison



Auto OEM Margins
LTM

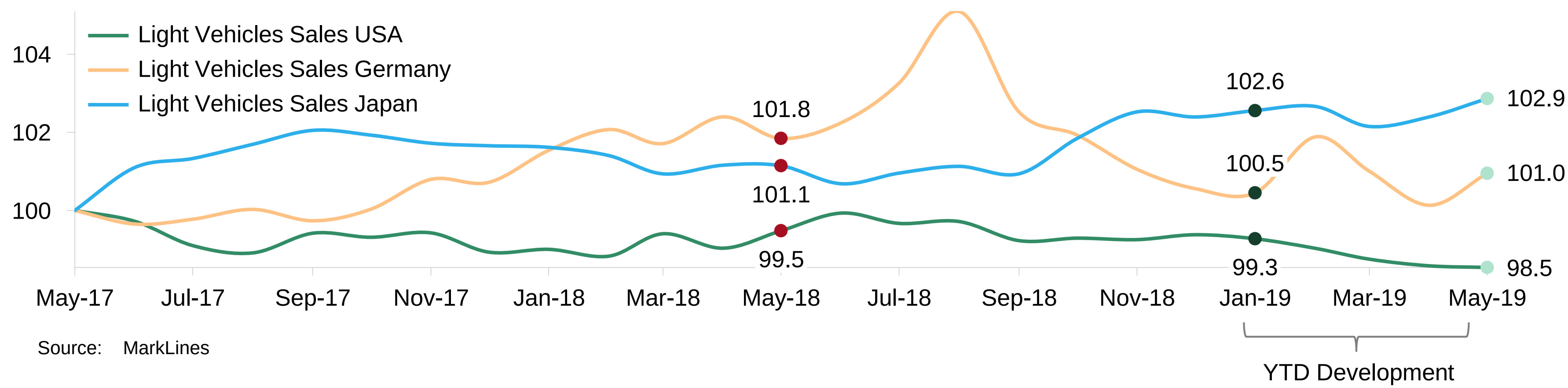


- Following a strong 2018, Auto OEM's had a devastating Q1 2019 with revenue down -4.9%, driven by Nissan and Daimler, while only few managed to increase their revenue in Q1 2019, such as Tesla and Mitsubishi
- After recording three straight quarters of improvement, OEM gross margins lost all the LTM progress, tumbling to 20.9% in Q1 2019
- EBIT margin continued to decrease, extending the downward trend to four consecutive quarters and finishing up Q1 2019 at 4.2%

Notes: Based on a sample size of 22 OEM's located throughout Asia, Europe & North America.
Source: Interim & Annual Reports, Capital IQ, Applied Value analysis.

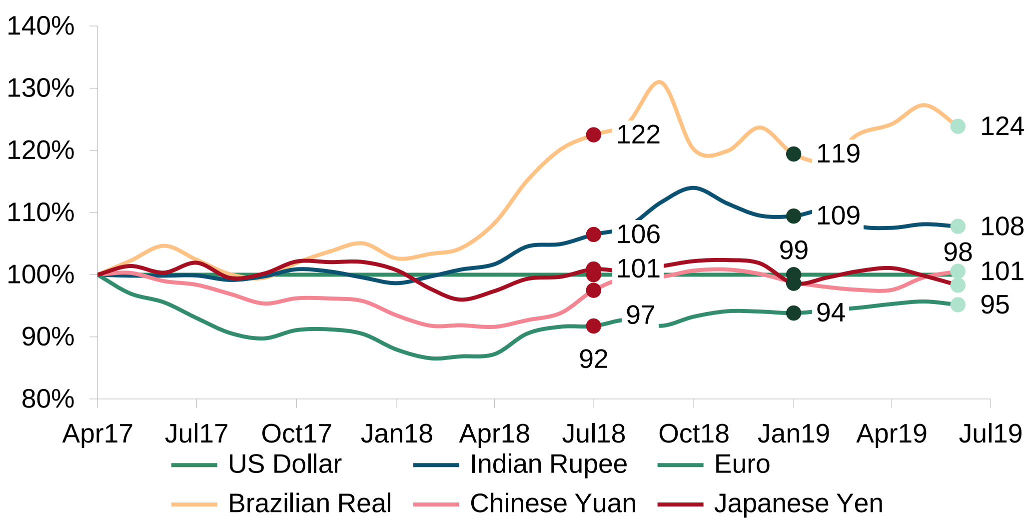
OEM sales volume declined in Q1 2019 across all regions, although they have started to rebound in Germany and Japan as of May.

Monthly Light Vehicle Car Sales by Country, Indexed rolling 12-month average - thousand units



Source: MarkLines

Currency appreciation against USD



US OEM Quarterly Wrap Q1 2019

- Car sales in Germany and Japan are up YTD in comparison to the same period last year at +0.9% and +1.1%, respectively, while it is down over the same period in the US, at -2.1%
- Growth in the Non-US regions primarily occured following Q1, signaling that Q2 revenue figures could see some recovery on lost ground
  - Since March, Japanese car sales have increased by 0.7% and in Germany, they decreased slightly by -0.1%
- Most currencies have appreciated against the dollar in YTD, although the Chinese Yuan and the Euro are still below levels from April 2017

● Last Year ● January Data ● Most recent data

APPLIED VALUE

Auto OEM Financial Performance

Auto Tier One Financial Performance

Auto Tier One Investment & Innovation Trends

Market Trends & Cost Curves

About Applied Value

AV's methodology breaks out Tier One Auto Companies into key Sub Segments.

Chassis

Axles, exhaust, suspension, steering wheels, brakes, bearings, 4WD components, fuel tanks, bearings

Powertrain

Drive controls, engines, transmissions, 5C components, pistons, heads, engine cooling and air management, injectors, turbochargers, tubes and hoses, antivibration systems

Electronics & Infotainment/ Connectivity

Airbag/controller, antilock braking system, harnesses, headlights, entertainment, control modules, regulators as well as Infotainment including entertainment, info, navigation services

Exterior/Body

Class A stamping, non-/structural stampings, frame/subframe components, body hardware glass, paint, body molding, fascias, wiper systems, door handles, seals

Interior

Seats, seat belts, interior products, instrument panels (IPs), trim, carpet, headlines, HVAC, mirrors, climate control

Conglomerates

Suppliers a composite of the above categories with no distinct specialization

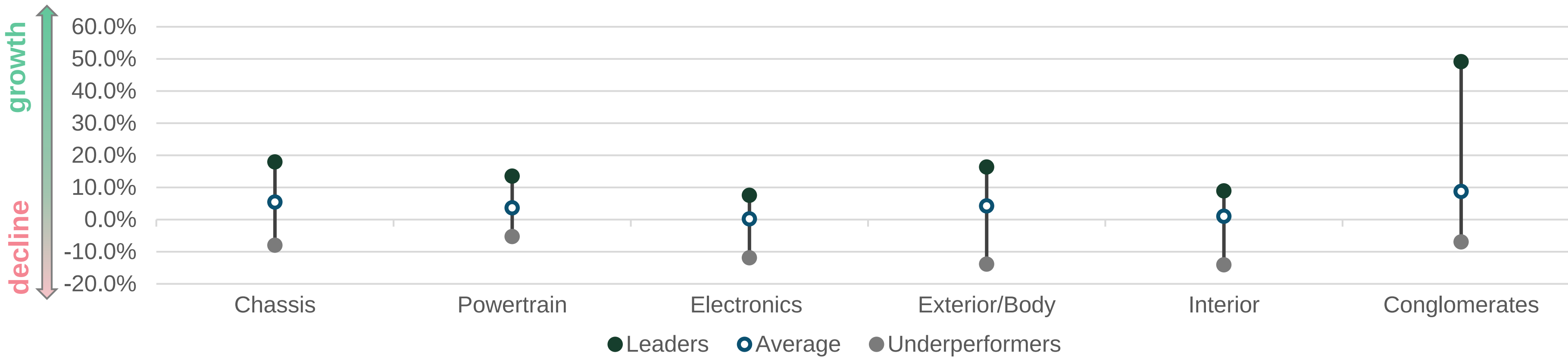
Applied Value has assessed 89 publicly traded Auto Tier 1 companies across 6 different operational segments.

Segment	Companies	Total in Analysis
Chassis	JTEKT, Gestamp, Martinrea, SKF, DANA, R, LCI Lippert Components, AAM, F-tech inc., LEONI, NSK, PRESS KOGYO, SAF-Holland, SHOWA, akebono, TOWER International, NISSIN, DORMAN, MERITOR	20
Powertrain	HITACHI Inspire the Next, DENSO Crafting the Core, BorgWarner, RHEINMETALL, DELPHI, nemak, MODINE, SANDEN, LINAMAR, NGK, EXEDY, 住友理工 SUMITOMO RIKO, F.C.C., MUSASHI, SECO, Allison Transmission, CooperStandard	17
Electronics	Visteon, STANLEY, HELLA, flex, APTIV, SUMITOMO, HYUNDAI MOBIS, OMRON, NS NIPPON SEIKI, HI-LEX, GENTEX CORPORATION, KOITO, VOXX International Corporation, Stoneridge, TOKAI RIKA	15
Exterior/Body	SUPERIOR INDUSTRIES, MITSUBA, SHILOH, FUTABA FUTABA INDUSTRIAL CO.,LTD., UNIPRES, G-TEKT CORPORATION, SUNGWOO HITECH, Topre	8
Interior	LEAR CORPORATION, ADIENT, TOYOTA BOSHOKU, TS Tech, SEOYON E-HWA, SY, GENTHERM, TACHI-S, Kasai, JIFENG, NIHON PLAST CO., LTD. 日本プラスト株式会社, GRAMMER, POLYTEC HOLDING	13
Conglomerates	TOYODA GOSEI, KAUTEX A Textron Company, MITSUBISHI ELECTRIC, MAGNA, Continental, Mando, ITW, SMP Standard Motor Products, Inc., AISIN, Panasonic, Autoliv, TENNECO, HORIZON GLOBAL, NBHX, TUPY	16

APPLIED VALUE

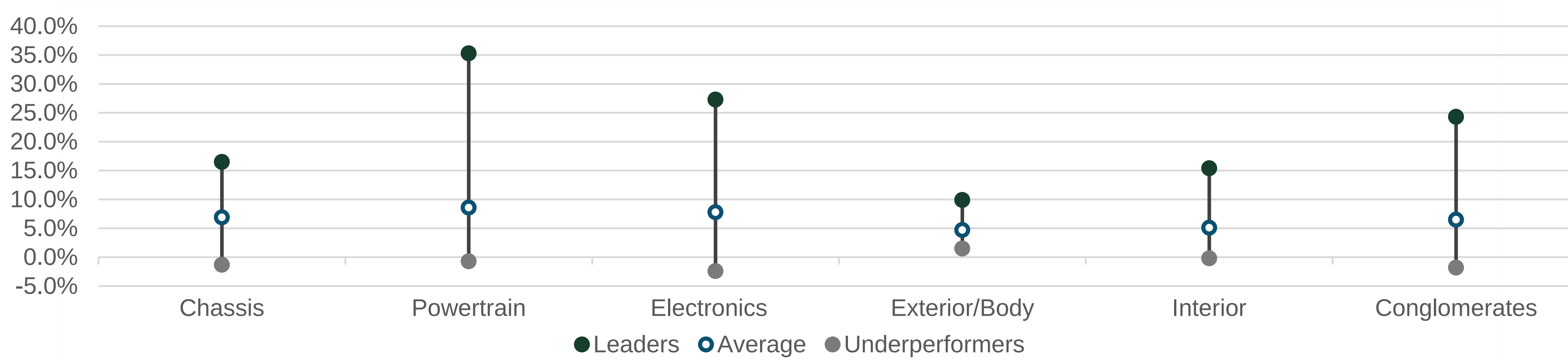
Companies that make up the Powertrain and Electronics segments had wider variability on EBIT Margin performance in LTM.

Revenue Growth by Tier One Industry Segment LTM



Source: Capital IQ, Applied Value analysis.

EBIT Margin by Tier One Industry Segment LTM



Source: Capital IQ, Applied Value analysis.

APPLIED VALUE

Applied Value has analyzed 20 companies in the Chassis segment.

Chassis

Axles, exhaust, suspension, steering wheels, brakes, bearings, 4WD components, fuel tanks, bearings

JTEKT, AAM, F.tech inc., SKF, DORMAN, MARTINREA, SHOWA, Gestamp, LIPPERT COMPONENTS, NSK, NISSIN, TOWER INTERNATIONAL, DANA, akebono, PRESS KOGYO, SAF Holland, MERITOR, LEONI

Executive Summary:

- Chassis EBIT margins have declined over LTM, driven by rising COGS and weakened demand from OEMs in Q1 2019.
- LTM gross margin and margin volatility in the segment highlights gaps between company performances driven by SKF and Akebono.

Chassis Segment Financial Performance Highlights:

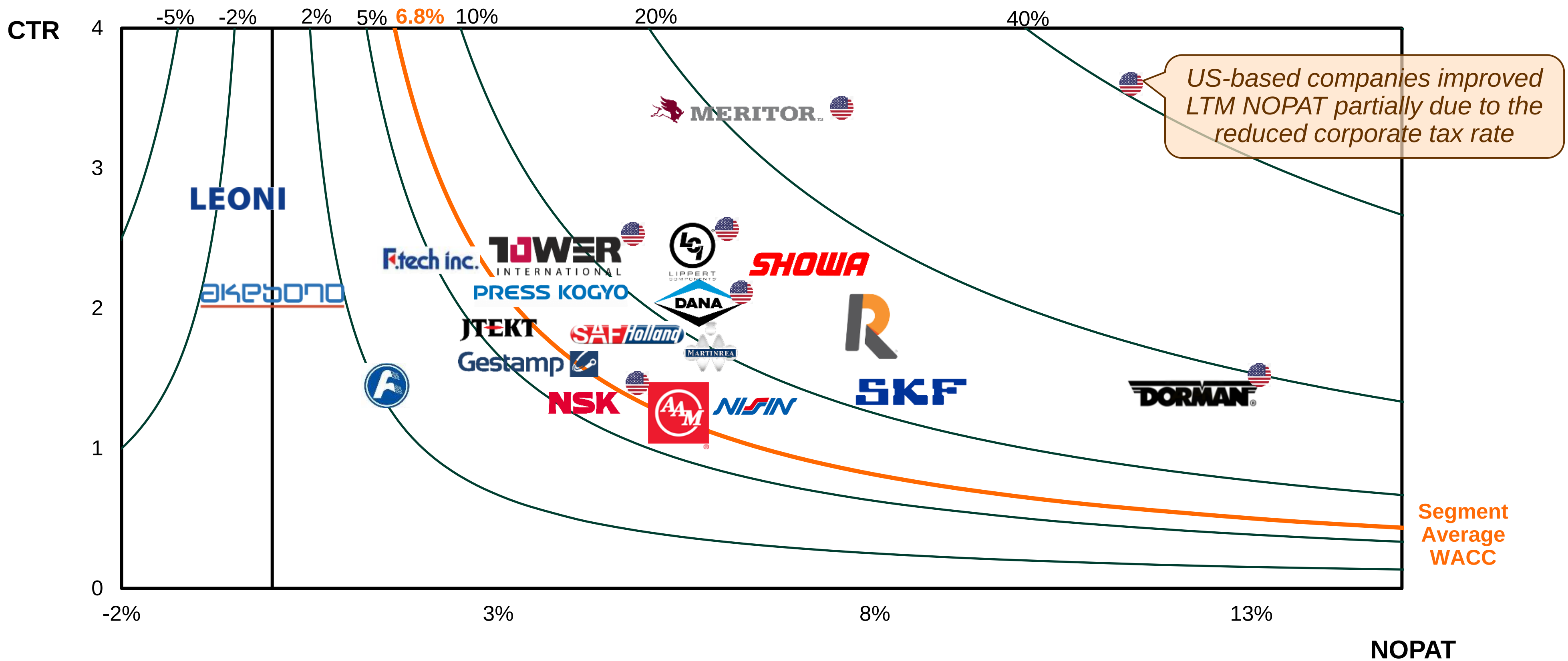
LTM Average

Revenue Growth	EBIT Margin	SG&A/Sales
5.4%	6.6%	9.4%

COGS/Sales	Gross Margin	Gross Margin Volatility
81.9%	18.1%	1.3%

ROIC snapshot for Chassis segment.

Peer Group ROIC LTM



Top Performers (LTM ROIC)	SHOWA	16.4%	Dorman	16.8%	Meritor	24.6%
Bottom Performers (LTM ROIC)	Sumitomo Riko	+0.3%	Akebono	+0.1%	Leoni AG	-2.5%

ROIC = Return on Invested Capital (actual return that the company has generated after tax)

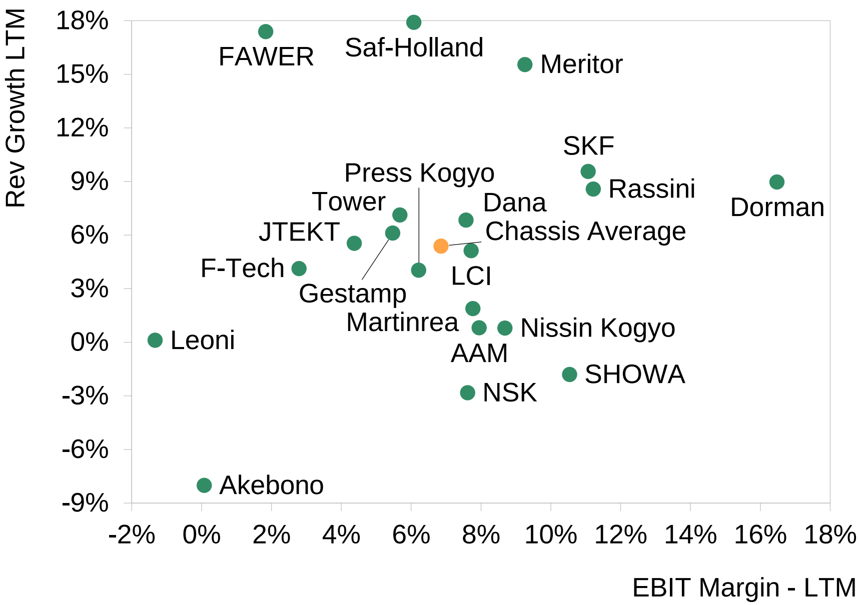
WACC = Weighted Average Cost of Capital (the required return that the company must generate in order create value, i.e. a ROIC>WACC creates shareholder value)

Source: Capital IQ, Annual reports, Applied Value Analysis.
WACC: Damodaran Online.

APPLIED VALUE

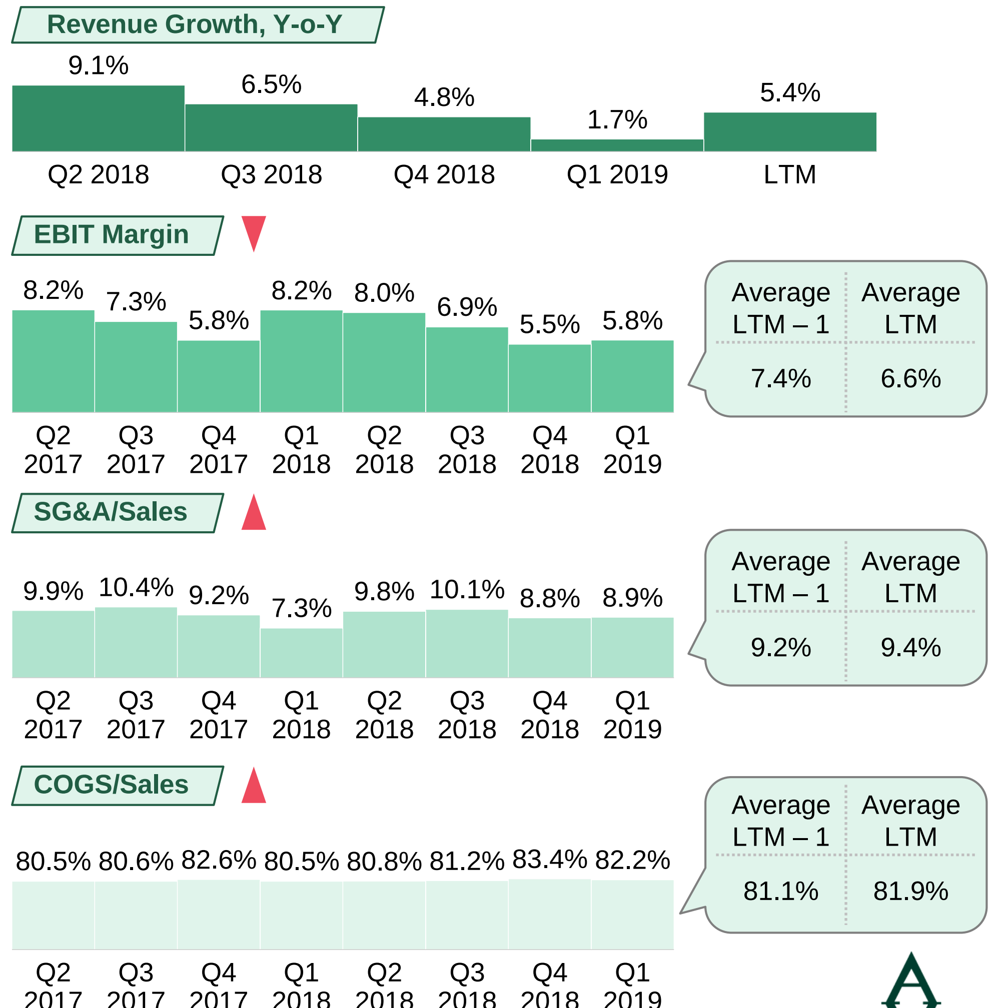
Chassis EBIT margins have declined over LTM, driven by rising COGS and weakened demand from OEMs in Q1 2019.

Chassis' EBIT Margin x Revenue Growth, year-over-year



- The segment experienced moderate revenue growth of 5.6% over LTM, while facing rising COGS
  - SAF-Holland grew revenues by 17.9% supported by the acquisition of Swedish distributer Stara Group in Q1 2019 (February)
- Due to increased COGS in the segment during LTM, EBIT Margin decreased over LTM from 7.4% to 6.6%. The decline was driven primarily by Akebono and Leoni
- Akebono continues to be one of the worst performers in both revenue growth and EBIT margin as it struggles to recoup investment costs related to unsuccessful US expansion projects from 2015
  - In 2015, it invested 90 million USD to expand facilities in South Carolina and Tennessee

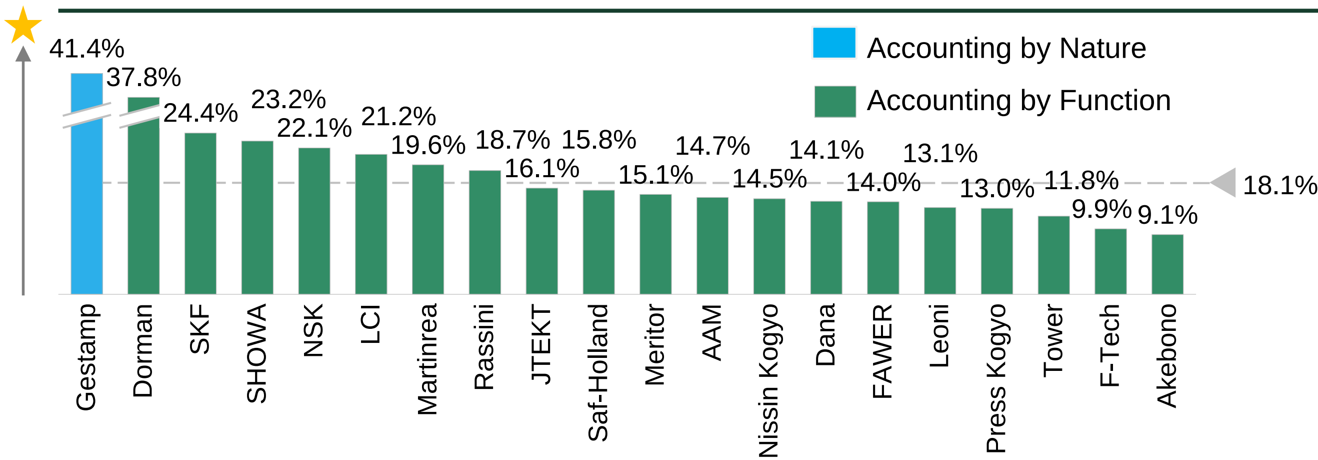
Chassis' Quarterly Development



LTM gross margin and margin volatility in the segment highlights gaps between company performances driven by SKF and Akebono.

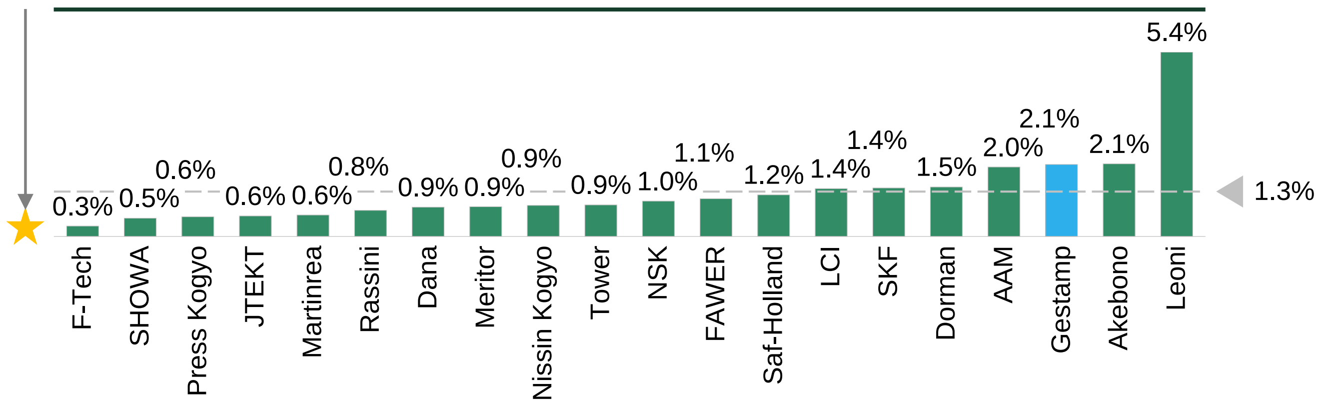
Chassis Gross Margin

LTM



Chassis Gross Margin Volatility

LTM



- The Chassis peer group had an overall gross margin of 18.1% over LTM, as COGS have increased for 12 firms in the group
- SKF saw a high gross margin in LTM due to the divestment of SKF Motion Technologies, which was impairing their assets and increasing COGS
- Akebono is still reeling from drastically failing to meet US demand, reporting 174 MUSD in losses for fiscal year ending in April
  - SHOWA and Akebono were the only two companies to experience decline in revenue in LTM
- Leoni had high gross margin volatility in LTM as a result of disappointing performance from a new plant (Q4 2018) in Merida, Mexico, as well as a substantial decline in demand for their auto wiring systems

Note 1: Gestamp does accounting by nature, which only considers raw materials instead of all COGS
Note 2: Dorman only serves Aftermarket, thus the higher Gross Margins compared to peers
Source: Interim & Annual Reports, Capital IQ, Applied Value analysis.

APPLIED VALUE

Applied Value has analyzed 17 companies in the Powertrain segment.

Powertrain

Drive controls, engines, transmissions, 5C components, pistons, heads, cooling and air management, injectors, turbochargers, tubes and hoses, antivibration systems

Executive Summary:

- Powertrain margins have decreased as SG&A has taken up a higher share of the costs proportionally to Sales.
- Of the Powertrain segment's 17 companies, more than half reported an LTM gross margin below 19% and volatility below 1.5%.

Powertrain Segment Financial Performance Highlights:

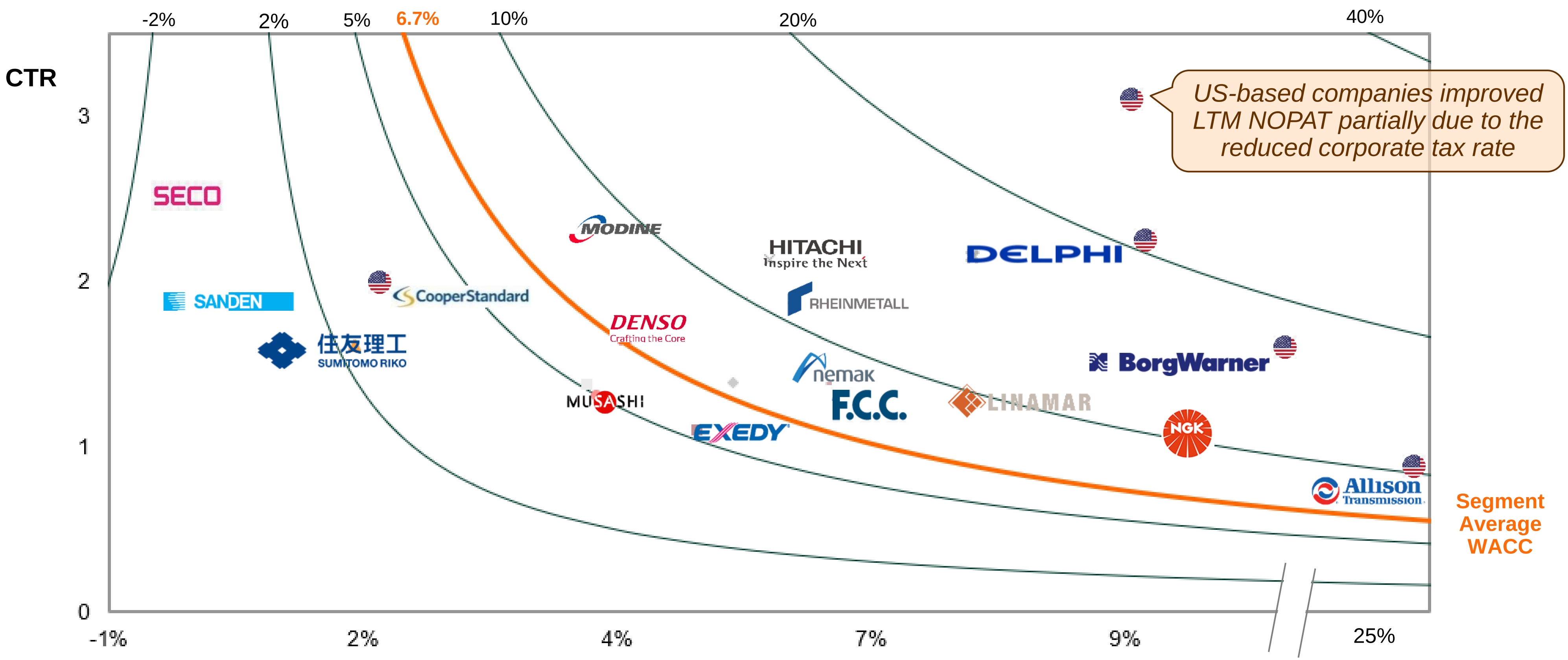
LTM Average

Revenue Growth	EBIT Margin	SG&A/Sales
3.6%	8.2%	11.6%

COGS/Sales	Gross Margin	Gross Margin Volatility
78.2%	21.8%	1.4%

ROIC snapshot for Powertrains segment

Peer Group ROIC LTM



Top Performers (LTM ROIC)	Hitachi	+13.5%	Delphi	+16.1%	Allison	+18.3%
Bottom Performers (LTM ROIC)	Sumitomo Riko	+2.2%	Sanden	+0.4%	Seojin	-1.3%

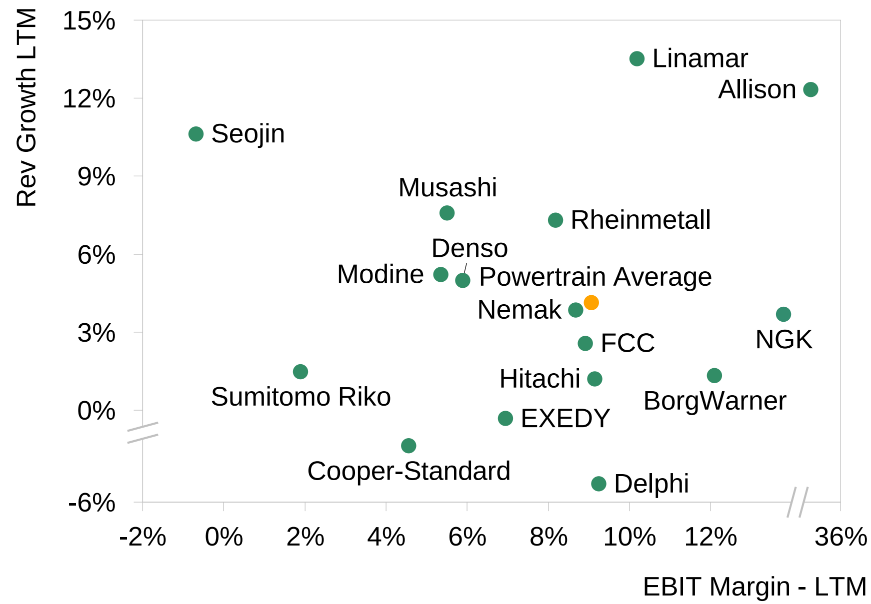
ROIC = Return on Invested Capital (actual return that the company has generated after tax)

WACC = Weighted Average Cost of Capital (the required return that the company must generate in order create value, i.e. a ROIC>WACC creates shareholder value)

Source: Capital IQ, Annual reports, Applied Value Analysis.
WACC: Damodaran Online.

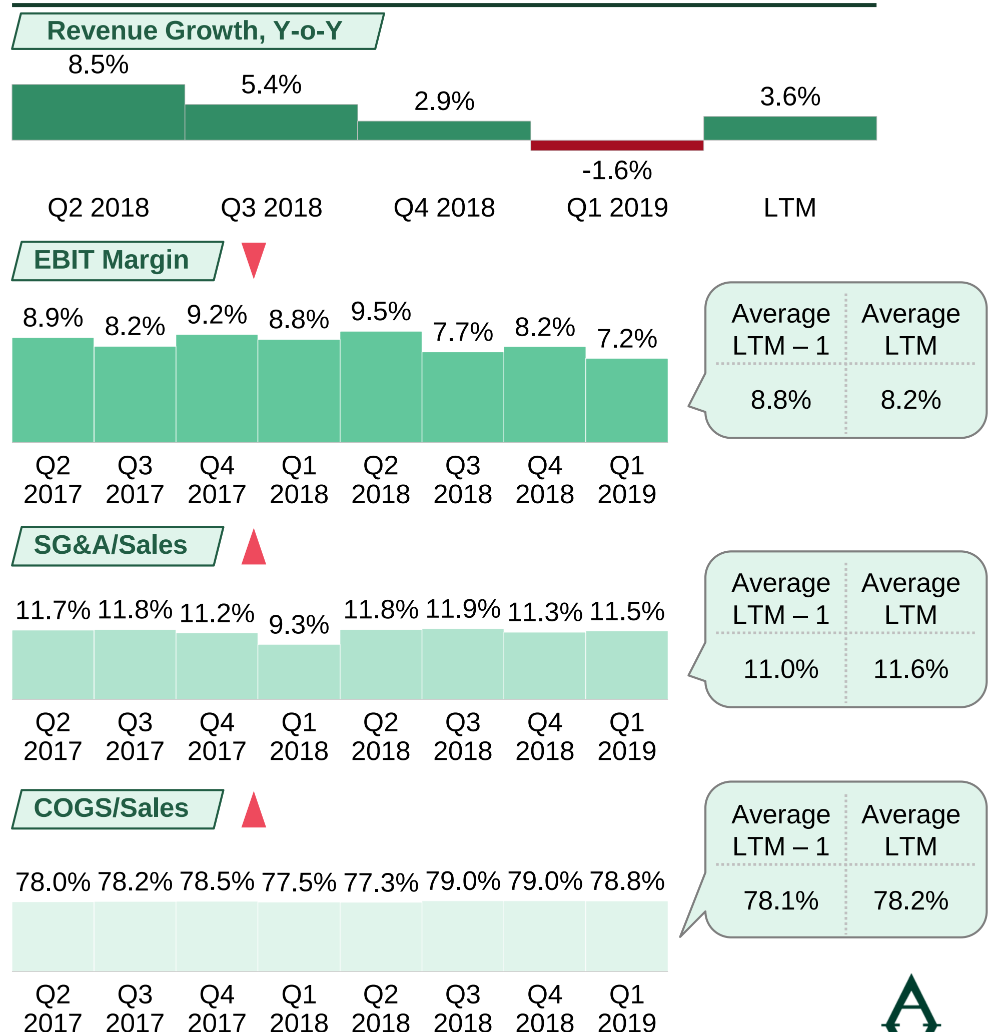
Powertrain margins have decreased as SG&A has taken up a higher share of the costs proportionally to Sales.

Powertrain's EBIT Margin x Revenue Growth, year-over-year



- Allison, which is a typically higher margin company due to it's focus on automatic transmissions, props up the average segment EBIT of 8.2%. It has also recently (April 2019) closed an acquisition of AxleTech, indicating further investment into electric vehicle systems.
- Sliding revenue growth in LTM including a -1.6% growth in Q1 2019 for the Powertrain segment reflects the ongoing slowdown for passenger vehicles both domestically and in particular, China.
- Delphi, which has a high exposure to the Asia Pacific market (~25% of sales) was among the worst performers in revenue growth of the peer group in LTM, falling 5.3%. Some of the lost sales were related to higher margin passenger car diesel fuel injection systems.
- While Linamar's sales have increased by 10.2% in LTM, most of this growth is attributed to its industrial business segment, including its acquisition of MacDon (agricultural) in February 2019, rather than commercial vehicle related sales.

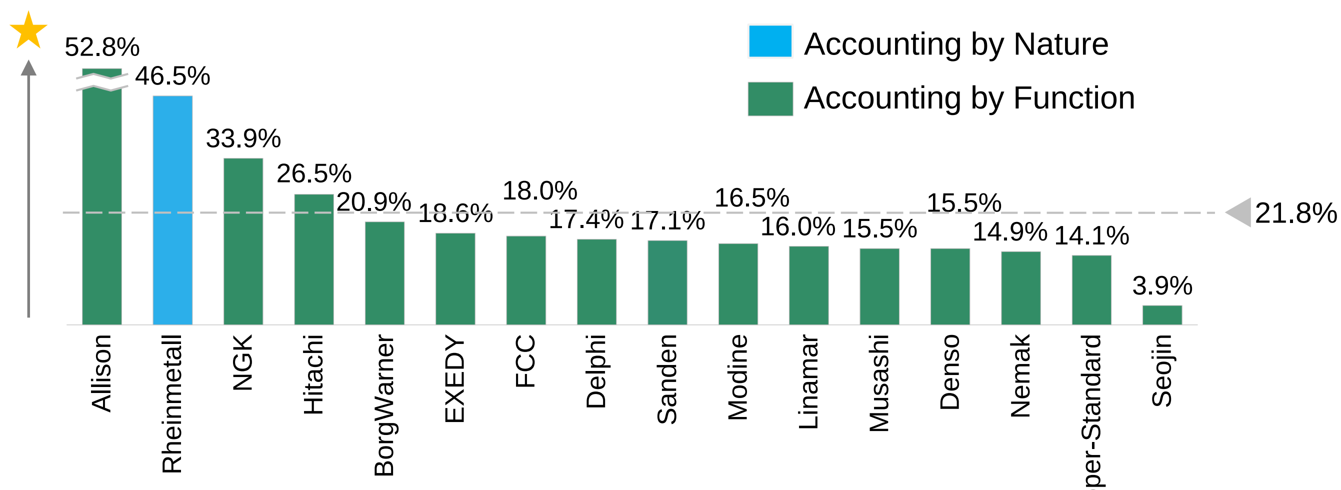
Powertrain's Quarterly Development



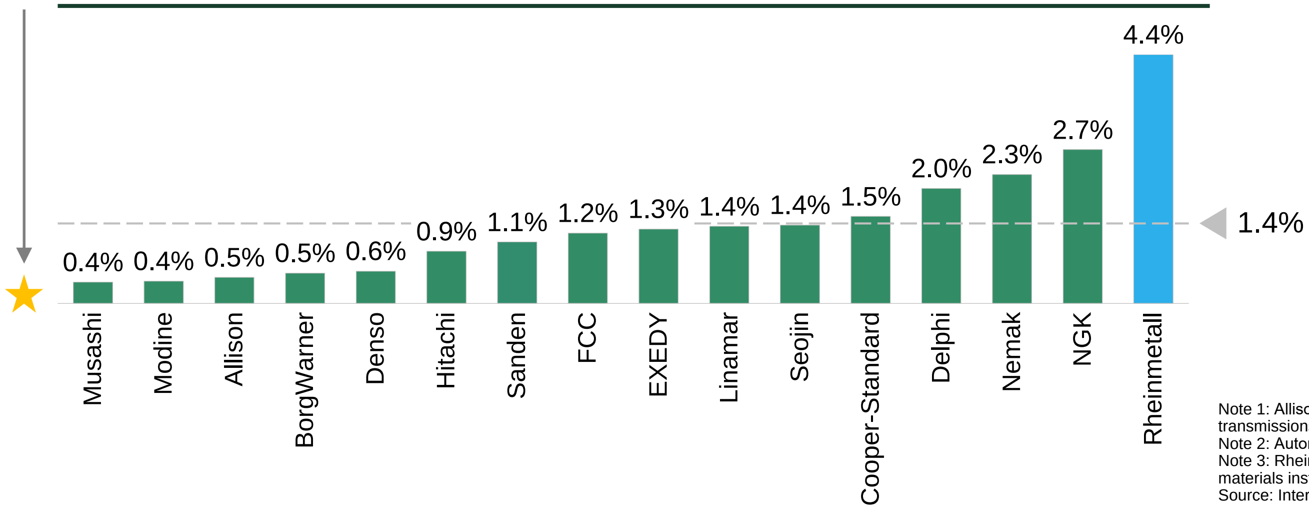
APPLIED VALUE

Of the Powertrain segment's 17 companies, more than half reported an LTM gross margin below 19% and volatility below 1.5%.

Powertrain Gross Margin
LTM



Powertrain Gross Margin Volatility
LTM



› Denso, Nemak, and Seojin trailed the peer group in gross margin LTM, hampered by market slowdowns in China and Europe

› Nemak's gross margin continues to be affected by the new EU WLTP emissions standards, which were implemented in the middle of 2018

› Cooper-Standard sold their anti-vibration division in Q4 2018 to Continental, giving up their French and Indian presence, and contributing to a decline in gross margin

› BorgWarner faced a net sales decline of 40 million in Q4 2018 from its Engine segment, while net sales increased by 30 million in Q4 2018 from its Drivetrain segment

Note 1: Allison's high gross margin is attributed to it's focus on automatic transmissions
Note 2: Automotive is only 10% of Hitachi's Revenue
Note 3: Rheinmetall does accounting by nature, which only considers raw materials instead of all COGS
Source: Interim & Annual Reports, Capital IQ, Applied Value analysis.

APPLIED VALUE

Applied Value has analyzed 15 companies in the Electronics & Infotainment segment.

Electronics

& Infotainment/ Connectivity

Airbag/controller, antilock braking system, harnesses, headlights, entertainment, control modules, regulators as well as Infotainment including entertainment, info, navigation services

APTIV · GENTEX CORPORATION · SUMITOMO · HI-LEX · OMRON · VOXX International Corporation · HELLA · flex · HYUNDAI MOBIS · NIPPON SEIKI · STANLEY · Stoneridge · Visteon · KOITO · TOKAI RIKA

Executive Summary:

- EBIT decreased by 1 ppt in LTM in the electronics segment as both COGS and SG&A increased.
- The Electronics segment's gross margin was driven up by a select group of high performer companies.

Electronics & Infotainment Segment Financial Performance Highlights:

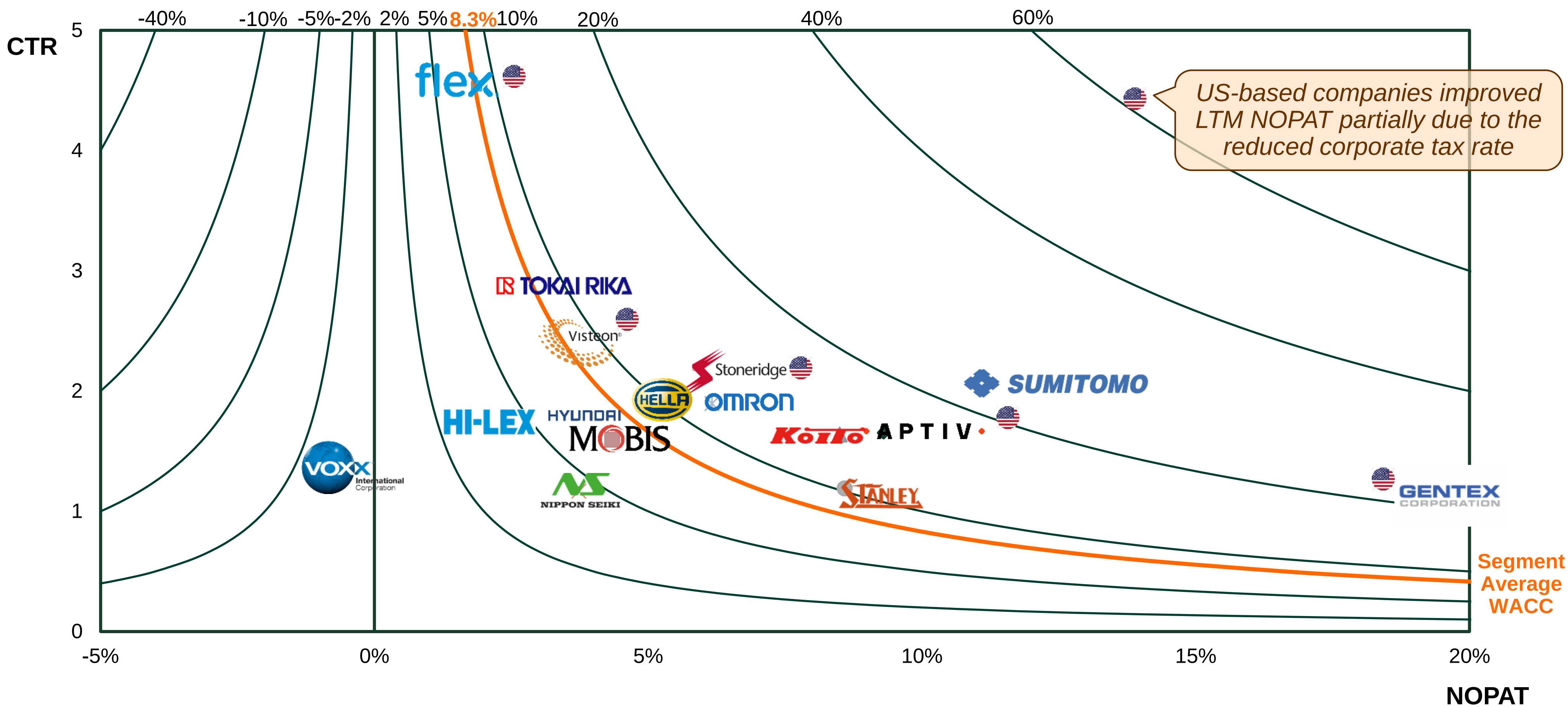
LTM Average

Revenue Growth	EBIT Margin	SG&A/Sales
0.2%	6.6%	12.1%

COGS/Sales	Gross Margin	Gross Margin Volatility
79.4%	20.6%	0.8%

ROIC snapshot for Electronics & Infotainment segment.

Peer Group ROIC LTM



Top Performers (LTM ROIC)	Koito	+13.9%	Aptiv	+15.4%	Gentex	+22.8%
Bottom Performers (LTM ROIC)	Nippon Seiki	4.4%	Hi-Lex	+3.6%	Voxx	-1.9%

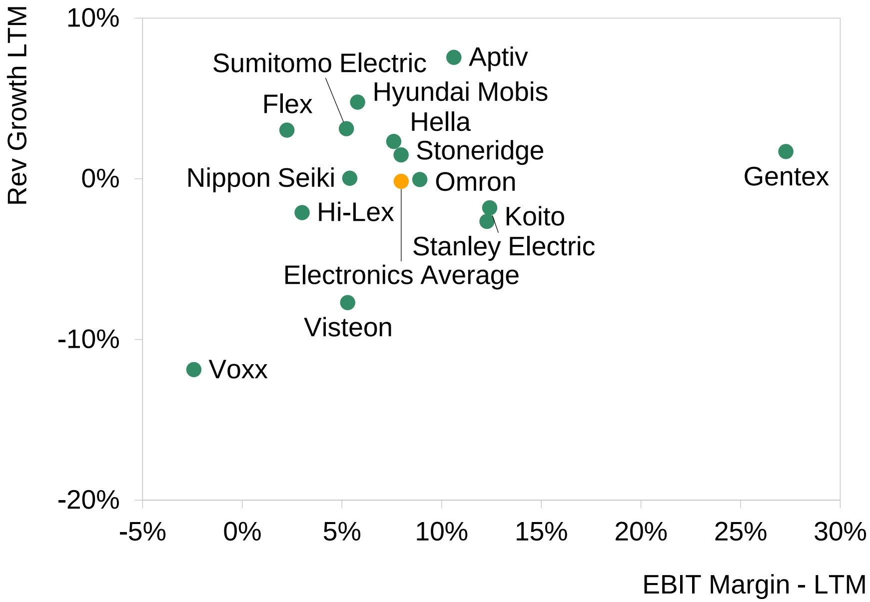
ROIC = Return on Invested Capital (actual return that the company has generated after tax)

WACC = Weighted Average Cost of Capital (the required return that the company must generate in order create value, i.e. a ROIC>WACC creates shareholder value)

Source: Capital IQ, Annual reports, Applied Value Analysis.
WACC: Damodaran Online.

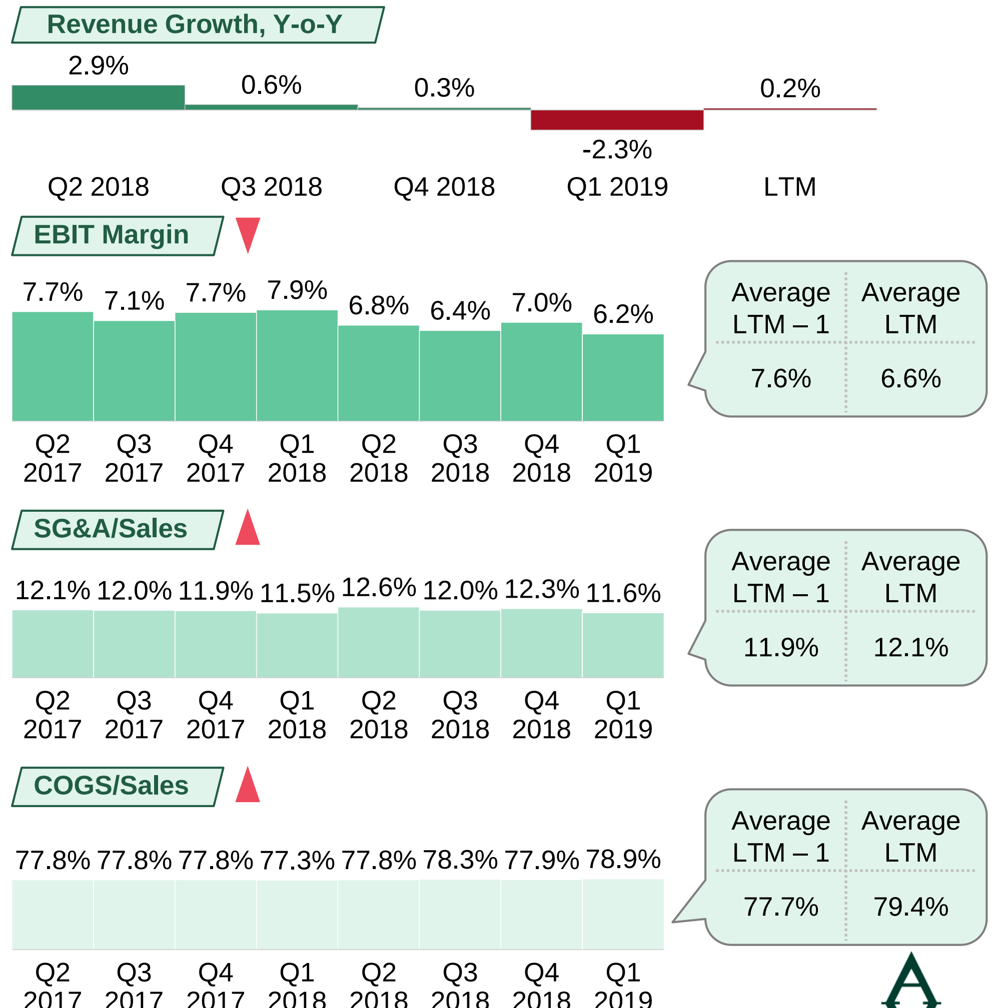
Rising COGS and SG&A costs LTM resulted in a 1 ppt decrease in EBIT in the Electronics segment.

Electronics' EBIT Margin x Revenue Growth, year-over-year



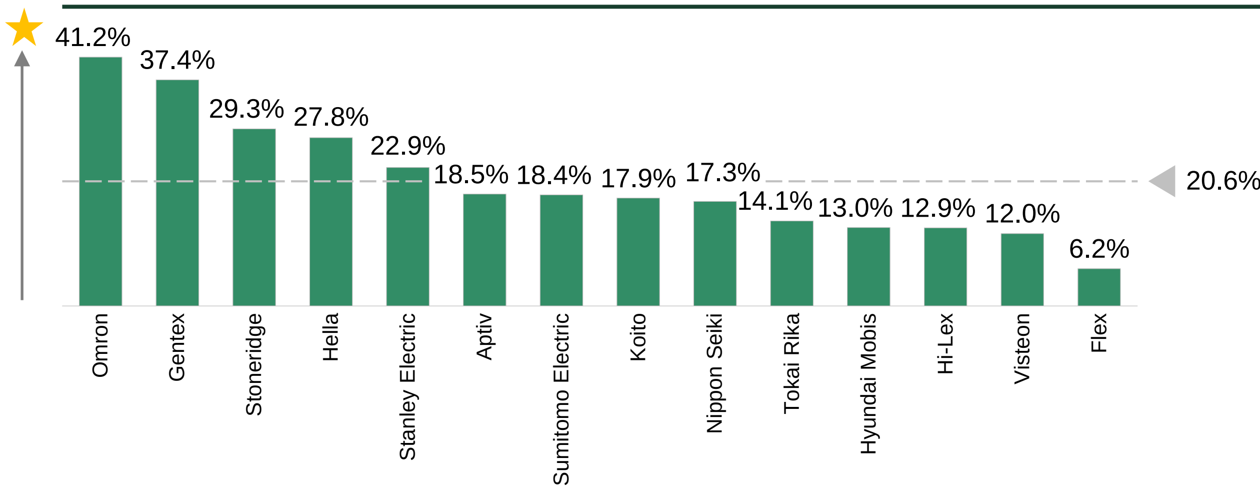
- Segment revenue contracted by 2.3% in Q1 as compared to Q1 2018. All companies except Hyundai Mobis, Nippon Seiki, and Sumitomo generated less sales in Q1 of this year due to weak demand from the automotive market in China, which fell for the first time in 20 years.
- The segment EBIT Margin dropped 1 ppt to 6.6% LTM driven by Voxx, Hi-Lex,and Flex. Gentex led the segment in EBIT margin in LTM.
- Aptiv, Gentex, Hella, and Stoneridge dominated the peer group over LTM, as they led in both revenue growth and in EBIT Margin.
- Visteon's EBIT margin decreased 2 ppt YoY due to stalled product launches and higher than expected costs in a location change of their Reynosa, Mexico plant, placing them in the least competitive range.
- Voxx's worsened performance and revenue decline were driven by increased competition, lower selling prices, changes in technology, and political and economic volatility in Venezuela.

Electronics' Quarterly Development

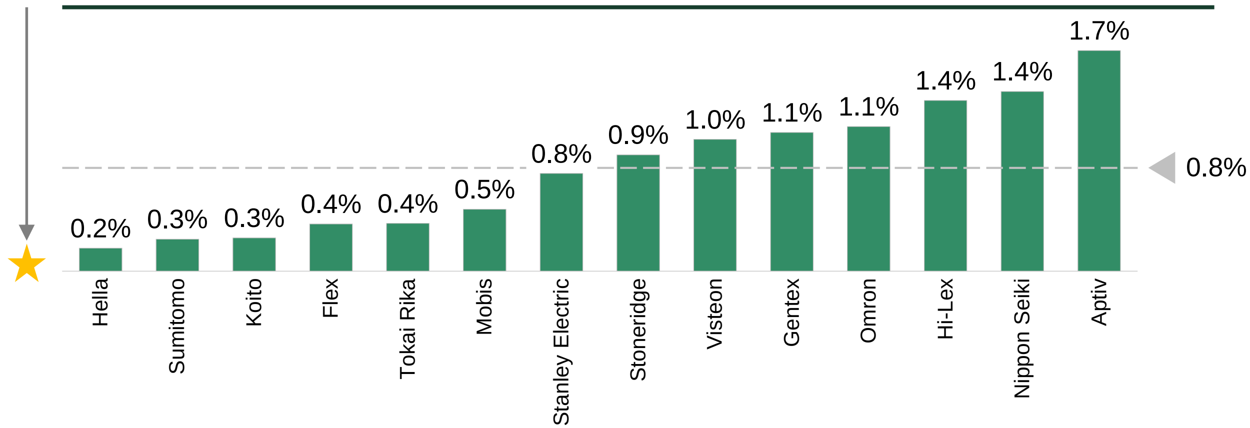


The Electronics segment's gross margin was driven up by a select group of high performer companies.

Electronics & Infotainment Gross Margin
LTM



Electronics & Infotainment Gross Margin Volatility
LTM



- Gross margin in the Electronics & Infotainment segment averaged to 20.6% over LTM.
- Flex remained the weakest performer of the peer group, at a constant 6.2% gross margin, while Omron continued to lead the peer group due to its Industrial Automation Business segment, which is highly cost-effective.
- Out of the American companies, Stoneridge had the best gross margin, at 29.3%, performing in tandem with Hella and Voxx.
- Voxx, although lowest in EBIT margin and revenue growth, is above average in gross margin indicating poor SG&A efficiency. Their current administrative costs as a percentage of revenue are double the segment average, at 24.3%.
- Visteon has the worst overall gross margin performance with the second lowest margin and the second highest volatility.

Note 1: Omron's Gross Margin is higher because of their Industrial Automation Business segment
Source: Interim & Annual Reports, Capital IQ, Applied Value analysis.

Applied Value has analyzed 8 companies in the Exterior/Body segment.

Exterior/Body

Class A stamping, non-/structural stampings, frame/subframe components, body hardware glass, paint, body molding, fascias, wiper systems, door handles, seals

MITSUBA, SUPERIOR INDUSTRIES, Topre, FUTABA (FUTABA INDUSTRIAL CO.,LTD.), SUNGWOO HITECH, G-TEKT CORPORATION, SHILOH, UNIPRES

Executive Summary:

› The Exterior/Body segment's EBIT Margin has decreased over LTM, as COGS rose in the same period while revenues decreased.

› The Exterior/Body segment's gross margin and EBIT margin are less than that of both the Chassis and Powertrain segments

Exterior/Body Segment Financial Performance Highlights:

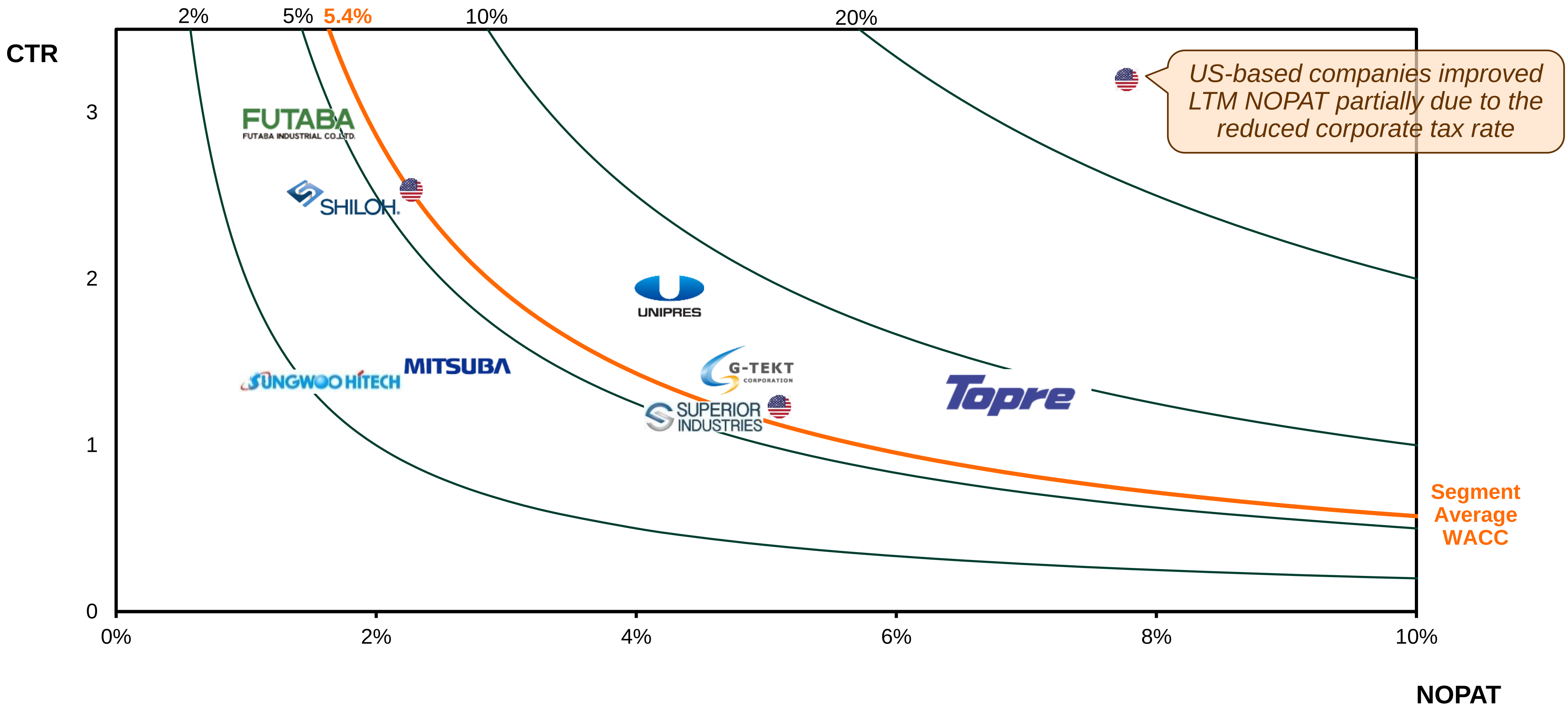
LTM Average

Revenue Growth	EBIT Margin	SG&A/Sales
4.2%	4.6%	6.2%

COGS/Sales	Gross Margin	Gross Margin Volatility
88.9%	11.1%	1.5%

ROIC snapshot for Exterior/Body segment

Peer Group ROIC LTM



Top Performers (LTM ROIC)	G-Tekt	+6.7%	Unipres	+7.9%	Topre	+9.3%
Bottom Performers (LTM ROIC)	Mitsuba	+3.4%	Futaba	+3.1%	Sungwoo	+2.3%

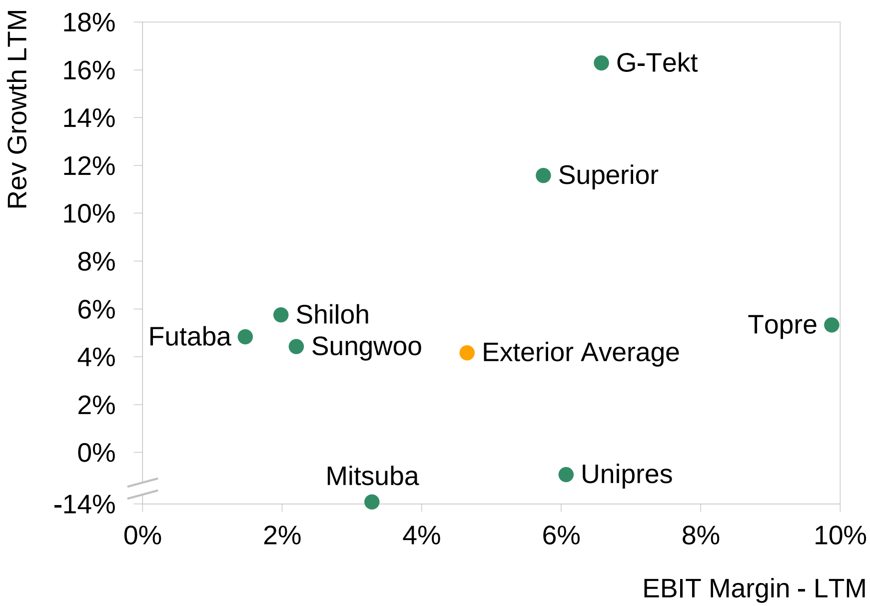
ROIC = Return on Invested Capital (actual return that the company has generated after tax)

WACC = Weighted Average Cost of Capital (the required return that the company must generate in order create value, i.e. a ROIC>WACC creates shareholder value)

Source: Capital IQ, Annual reports, Applied Value Analysis.
WACC: Damodaran Online.

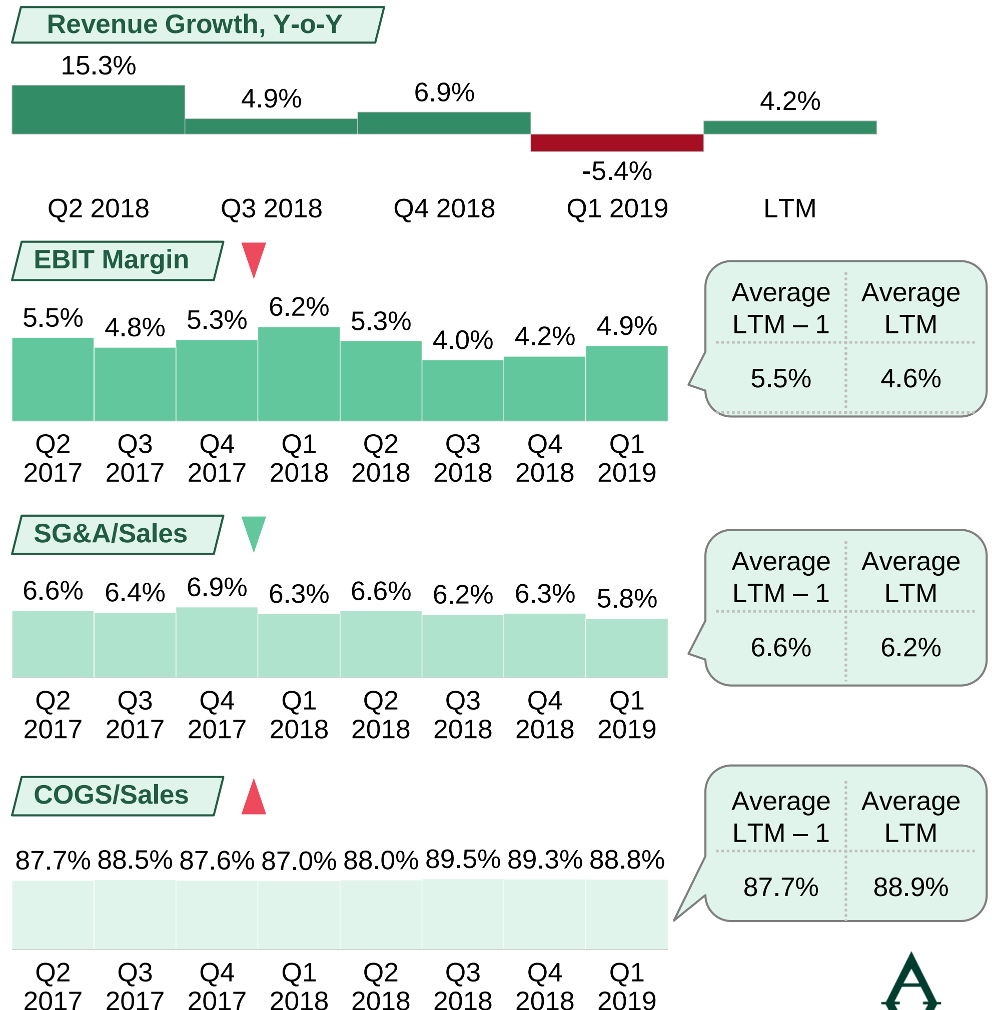
The Exterior/Body segment's EBIT Margin has decreased over LTM, as COGS rose in the same period while revenues decreased.

Exterior/Body's EBIT Margin x Revenue Growth, year-over-year



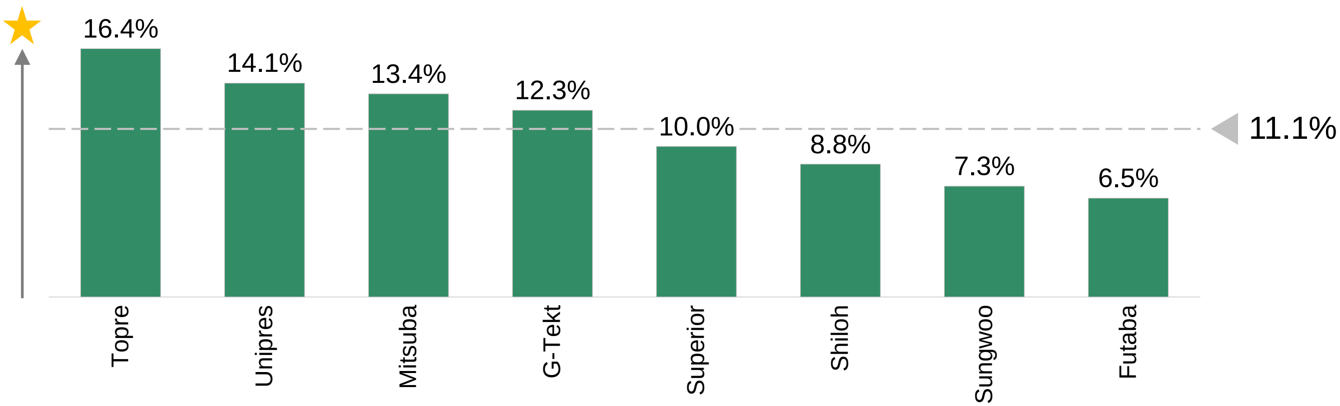
- Mitsuba faced a 2.4% decrease in revenues in Q1 2019 due to falling demand in Asia and Europe, especially in China
- Shiloh experienced a -1.2% EBIT during Q4 2018 as a result of increased tariffs and new product launches.
- Topre's gross margin has decreased in Q1 2019 amid multi-year expansion projects in Alabama, Ohio, and Tennessee. Topre's primary customers are Nissan, Honda, and Toyota.
- Unipres saw -0.9% revenue growth in LTM while demand for diesel vehicles has fallen and Nissan sourcing has moved from England to Japan.

Exterior/Body's Quarterly Development

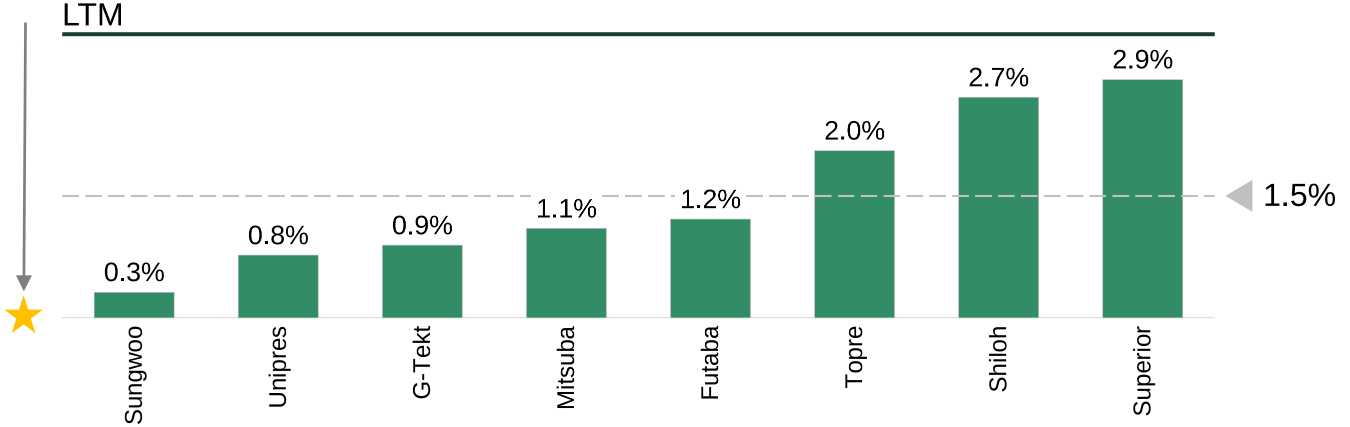


The Exterior/Body segment's gross margin and EBIT margin are less than that of both the Chassis and Powertrain segments

Exterior/Body Gross Margin
LTM



Exterior/Body Gross Margin Volatility
LTM



› Mitsuba's gross margin fell 1.2% in Q1 2019 as a result of falling demand from Europe/Asia, as revenues fell 2.4% in the quarter

› Topre's volatility rose to 2% due to large investment in a Springfield, Illinois plant, contributing to an increase in COGS of 4.2%

› Shiloh has experienced sizable volatility since shifting their business from process-oriented to product-oriented as a workaround for tariffs

› Despite the tariff war and continuously declining Chinese sales as cited in company reports, Futaba and Sungwoo have low gross margin volatilities in LTM compared to competitors in the segments

Source: Interim & Annual Reports, Capital IQ, Applied Value analysis.

Applied Value has analyzed 13 companies in the Interior segment.

Interior

Seats, seat belts, interior products, instrument panels (IPs), trim, carpet, headlines, HVAC, mirrors, climate control

TOYOTA BOSHOKU, TS Tech, SEOYON E-HWA, SY, TACHI-S, NIHON PLAST CO., LTD. 日本プラスト株式会社, LEAR CORPORATION, Kasai, ADIENT, GRAMMER, JIFENG, GENTHERM, POLYTEC HOLDING

Executive Summary:

- The Interior segment's revenue growth has developed positively over LTM, but Q1 2019 was a weak quarter compared to Q1 2018.
- The Interior segment's gross margin had some of the lowest aggregate numbers in this report, despite Ningbo's performance.

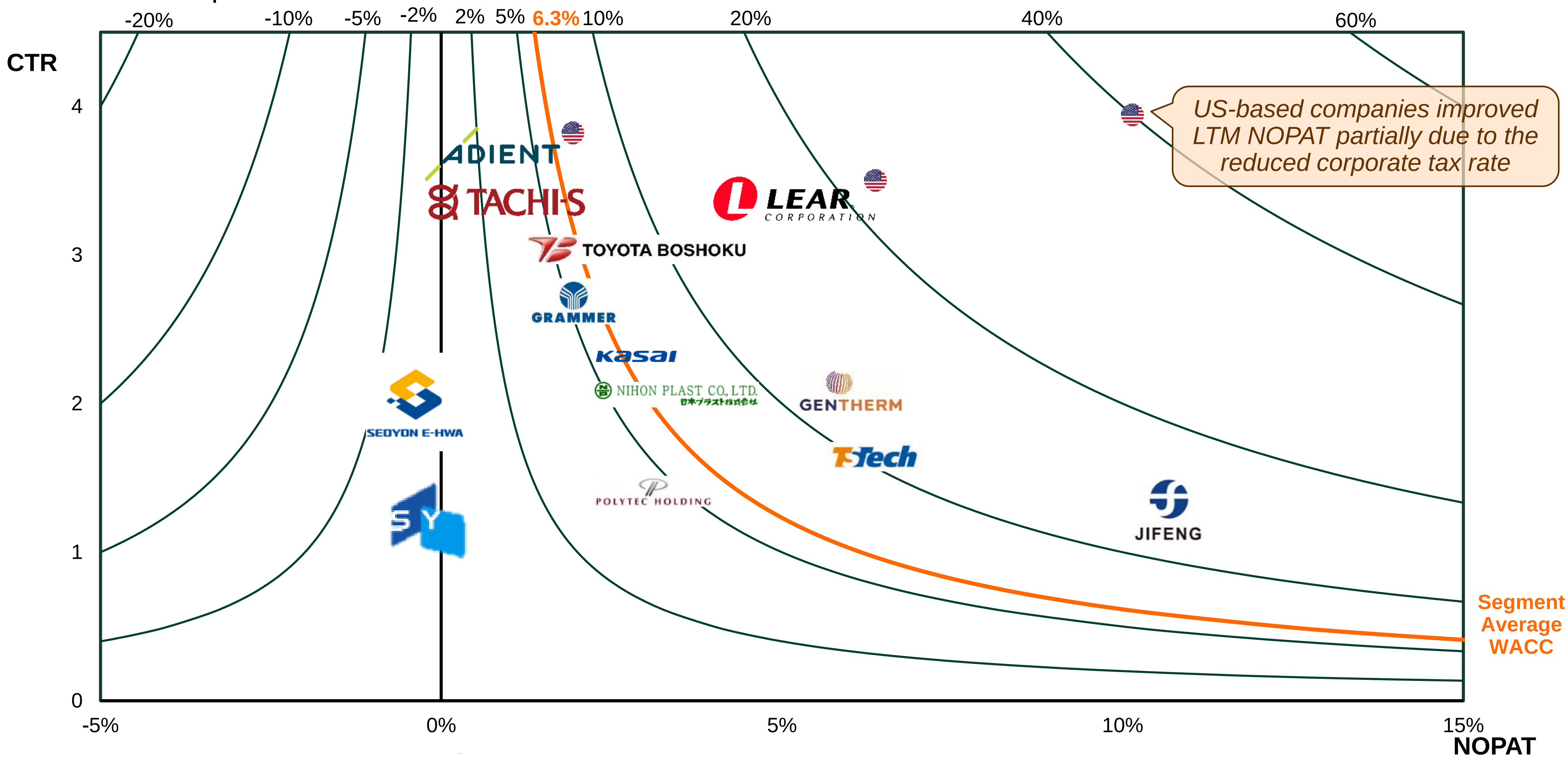
Interior Segment Financial Performance Highlights:
LTM Average

Revenue Growth	EBIT Margin	SG&A/Sales
1.0%	5.1%	9.6%

COGS/Sales	Gross Margin	Gross Margin Volatility
85.0%	15.0%	1.3%

ROIC snapshot for Interior segment

Peer Group ROIC LTM



Top Performers (LTM ROIC)	Gentherm	+12.1%	Ningbo Jifeng	+12.4%	Lear	+19.7%
Bottom Performers (LTM ROIC)	Adient	+4.1%	Seoyon	-0.1%	Seoyeon	-0.3%

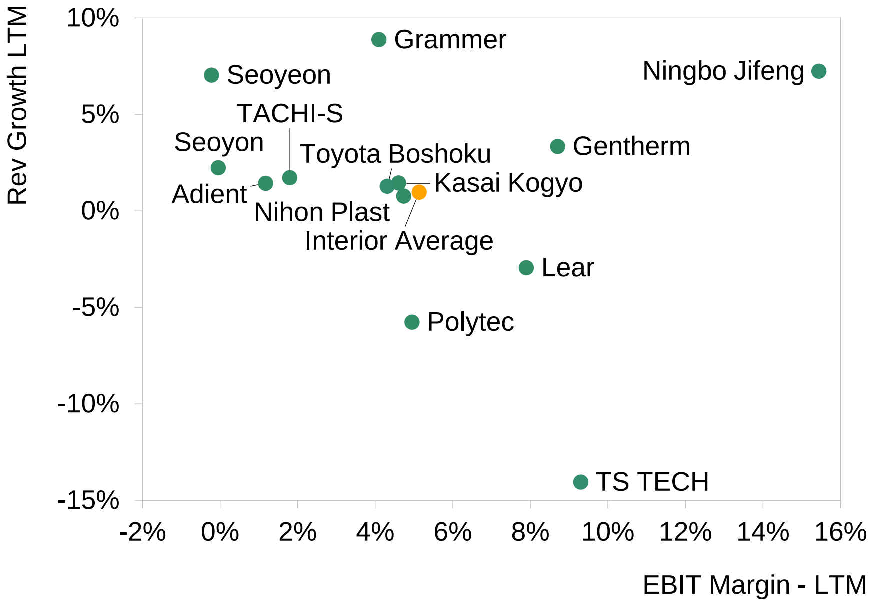
ROIC = Return on Invested Capital (actual return that the company has generated after tax)

WACC = Weighted Average Cost of Capital (the required return that the company must generate in order create value, i.e. a ROIC>WACC creates shareholder value)

Source: Capital IQ, Annual reports, Applied Value Analysis.
WACC: Damodaran Online.

The Interior segment's revenue growth has developed positively over LTM, but Q1 2019 was a weak quarter compared to Q1 2018.

Interior's EBIT Margin x Revenue Growth, year-over-year



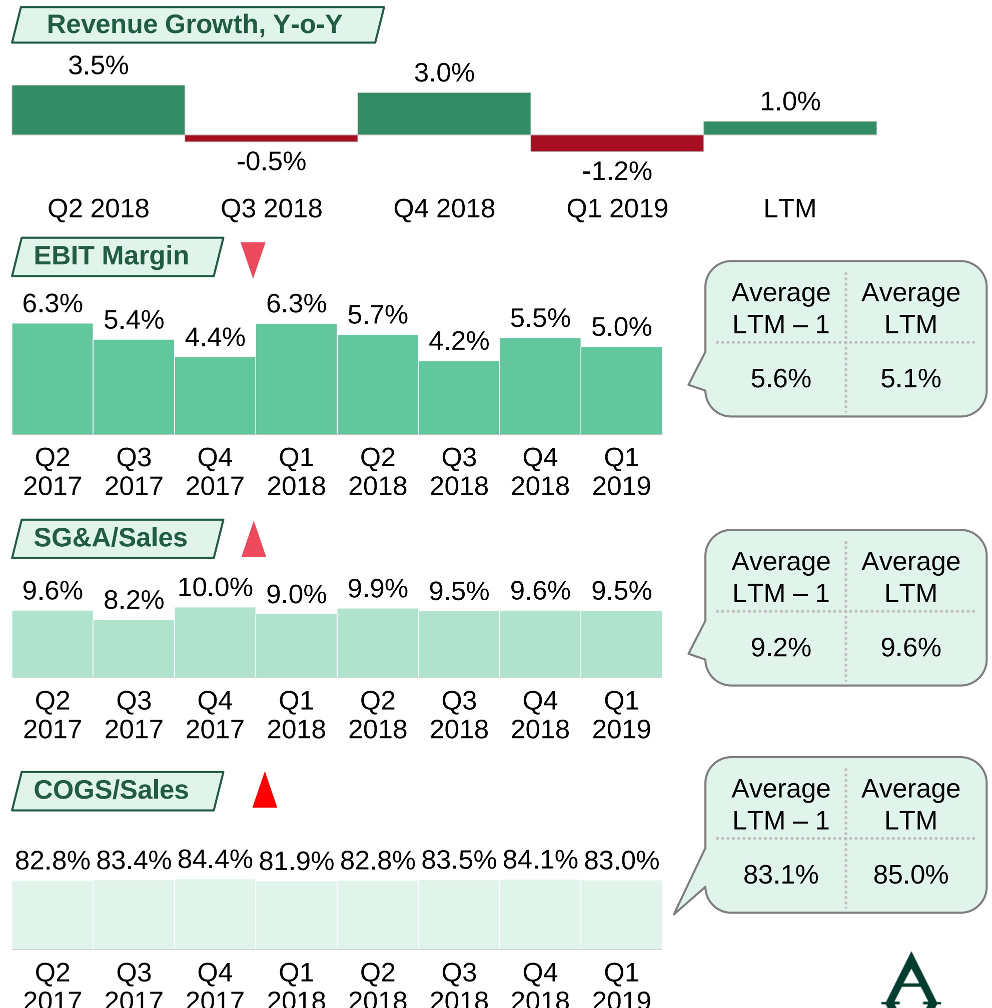
› The segment's revenue development over LTM was impaired by the worst performers in the peer group, Polytec, Lear and TS Tech.

› TS Tech and Lear, which are heavily dependent on Honda and GM, respectively, experienced the worst sales growth of the segment. TS Tech was in particular affected by a recall of outboard seats in the Honda Odyssey.

› Grammar saw the highest revenue growth due to the completion of the acquisition of TMD Toledo Molding & Die as well as the ramp-up of new projects in the North America.

› EBIT margin QoQ for this segment has a large variation due to Grammar, Seoyon, and Seoyeon reporting losses in Q3 '18 and Q4 '17. The two South Korean companies saw increased SG&A costs in both quarters and Grammar experienced the same for Q3 '18 as well as revenue decrease due to weak auto demand in Europe.

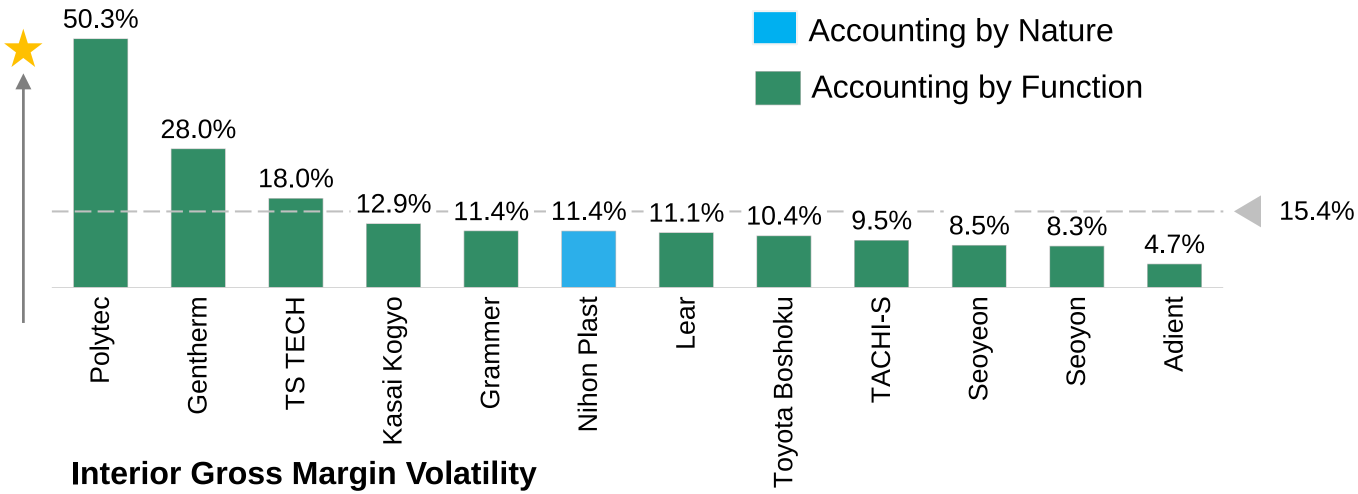
Interior's Quarterly Development



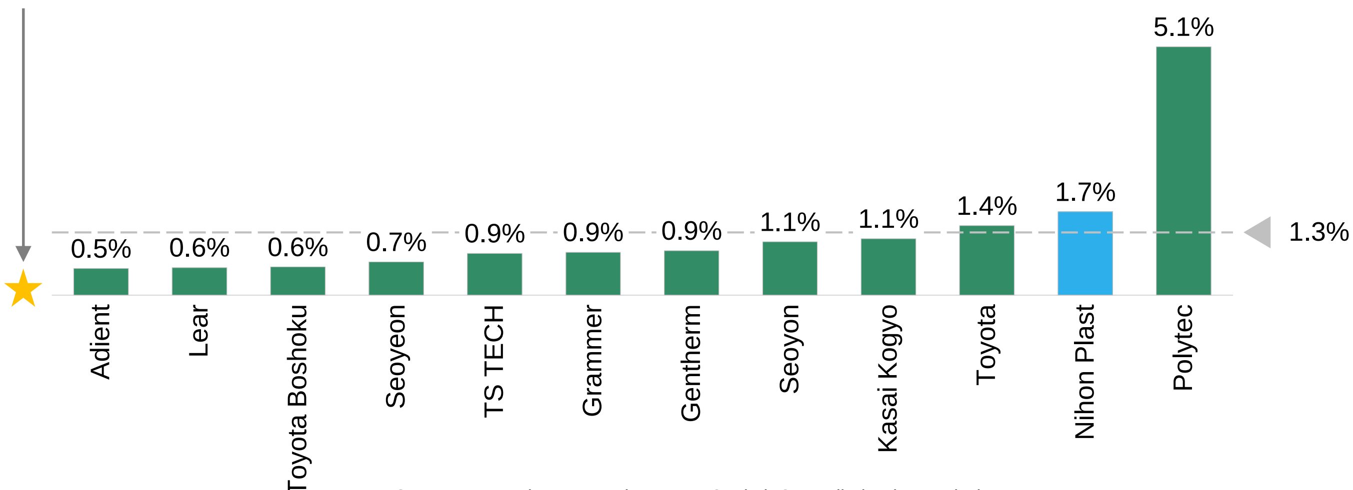
APPLIED VALUE

The Interior segment's gross margin had some of the lowest aggregate numbers in this report, despite Ningbo's performance.

Interior Gross Margin
LTM



Interior Gross Margin Volatility
LTM



- Gross Margin of the interior segment averaged LTM at 15.4% led by Polytec and Gentherm.
- Despite the poor revenue performance, TS Tech had a very strong profitability performance at 18.0% gross margin and volatility of 0.9%.
- Adient, the seating spinoff of Johnson Controls, reached just 4.7% gross margin, dragging down the segement's GM average. Adient's GP decreased by 2 percentage points LTM due to an unfavorable product mix.
- Polytec and Nihon Plast drive up the segment's gross margin volatility average due to their low profit margins in Q3 2018.

Source: Interim & Annual Reports, Capital IQ, Applied Value analysis.

Applied Value has analyzed 16 companies in the Conglomerates segment.

Conglomerates

Suppliers a composite of the above categories with no distinct specialization

AISIN
MAGNA
SMP Standard Motor Products, Inc
Autoliv
HORIZON GLOBAL
KAUTEX A Textron Company
MITSUBISHI ELECTRIC
NBHX
Panasonic
Continental
TUPY
TENNECO
TOYODA GOSEI
ITW
Mando

Executive Summary:

- Revenue for the Conglomerates segment rose 8.7%, offset by a 0.9 ppt rise in COGS/Sales and a 0.1 ppt increase in SG&A/sales.
- The Conglomerate segment had a solid operating performance in LTM, though margins were below the previous period's levels.

Conglomerates Segment Financial Performance Highlights:

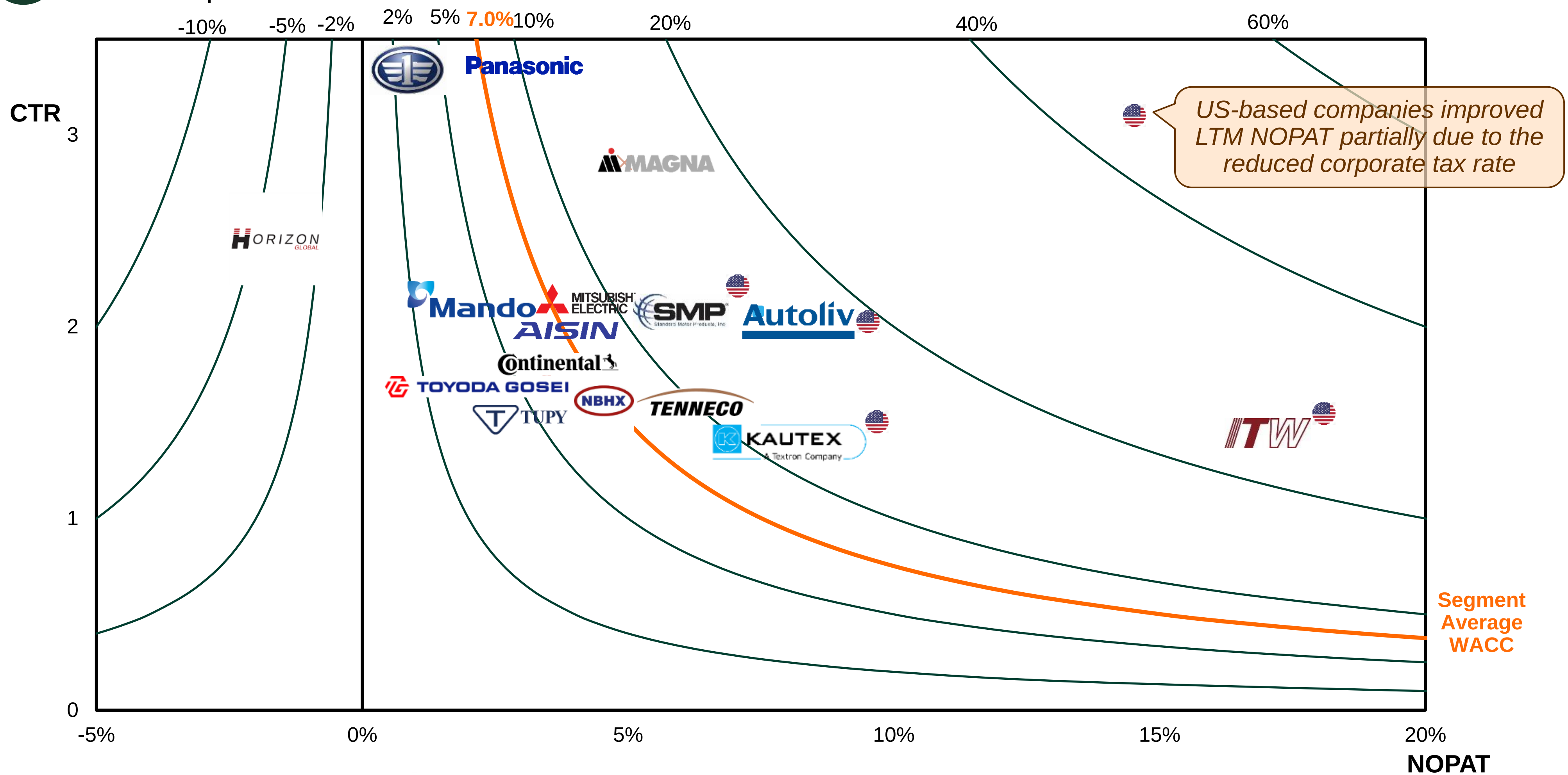
LTM Average

Revenue Growth	EBIT Margin	SG&A/Sales
8.7%	6.5%	10.7%

COGS/Sales	Gross Margin	Gross Margin Volatility
80.4%	19.6%	1.2%

ROIC snapshot for Conglomerates segment

Peer Group ROIC LTM



Top Performers (LTM ROIC)	Standard Motor	+15.1%	Autoliv	+15.5%	ITW	+22.8%
Bottom Performers (LTM ROIC)	Toyoda Gosei	+5.2%	Mando	+4.8%	Horizon	-3.0%

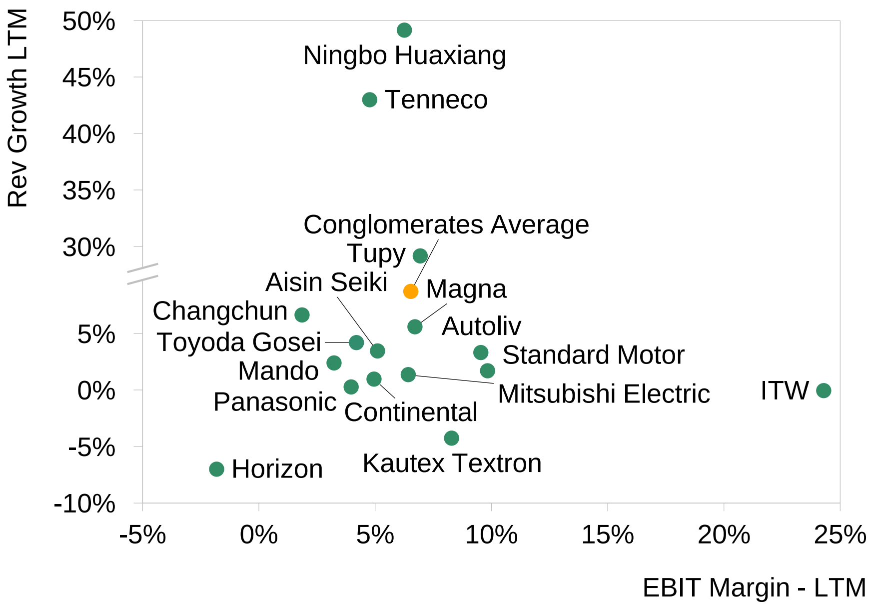
ROIC = Return on Invested Capital (actual return that the company has generated after tax)

WACC = Weighted Average Cost of Capital (the required return that the company must generate in order create value, i.e. a ROIC>WACC creates shareholder value)

Source: Capital IQ, Annual reports, Applied Value Analysis.
WACC: Damodaran Online.

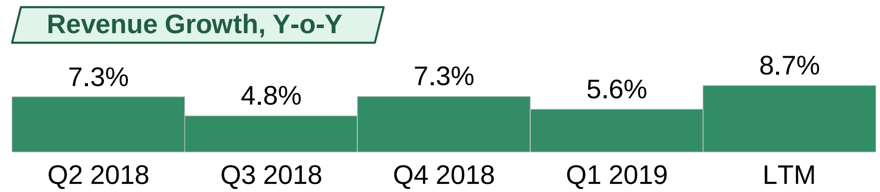
Revenue for the Conglomerates segment rose 8.7%, offset by a 0.9 ppt rise in COGS/Sales and a 0.1 ppt increase in SG&A/sales.

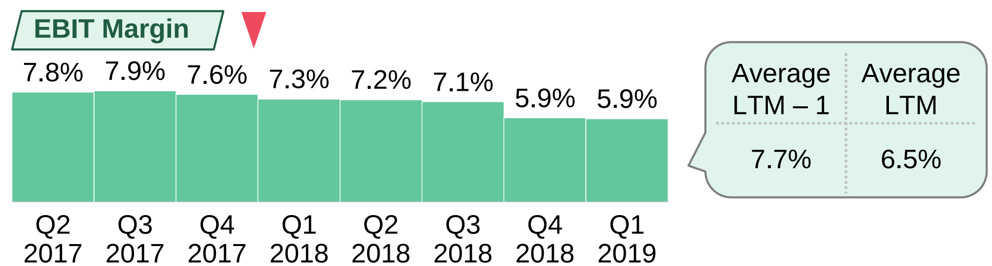
Conglomerate's EBIT Margin x Revenue Growth, year-over-year

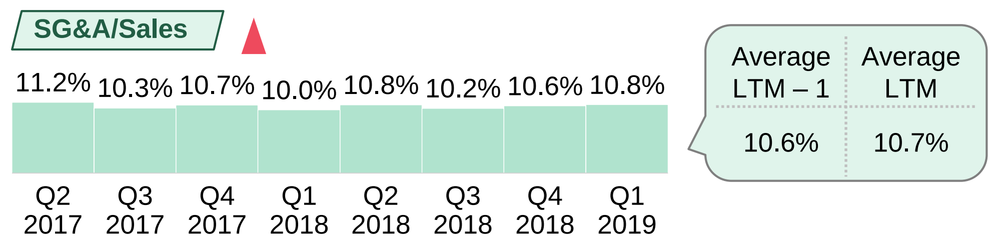


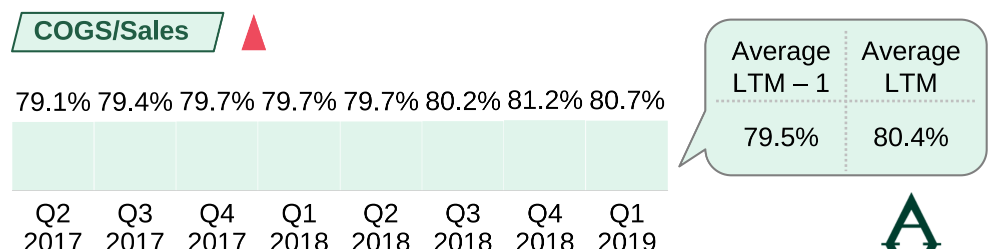
- Conglomerates had a strong LTM revenue growth performance, averaging 8.7%.
- Segment revenue growth in Q1 2019 remained skewed by Tenneco's acquisition of Federal Mogul for 5.4 BUSD.
- Horizon and Changchun saw significant increases to their COGS/sales. As a result, EBIT Margin for the segment dropped by 1.2% to 6.5%.
- Autoliv, Standard Motor, and Kautex Textron are the strongest performers in EBIT Margin.
- Horizon's COGS/Sales skyrocketed by 6 ppt due to unfavorable product mix leading to poor margins and resulting in a decreased average for the segment. as well as Mitsubishi also incurred 2.2 ppt increase in COGS but managed to maintain competitive EBIT margins.

Conglomerate's Quarterly Development





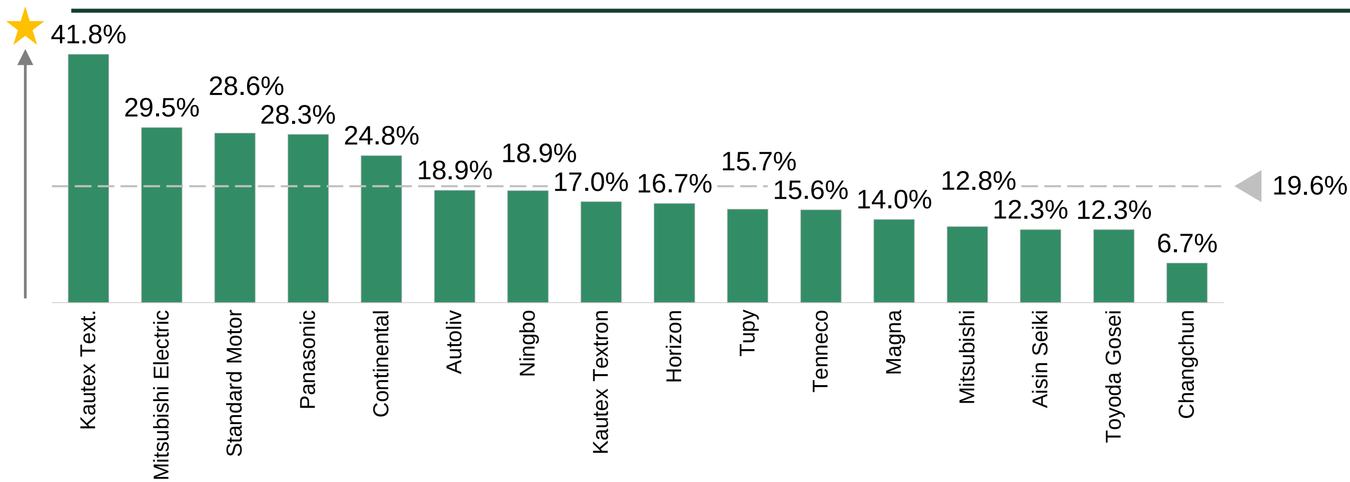




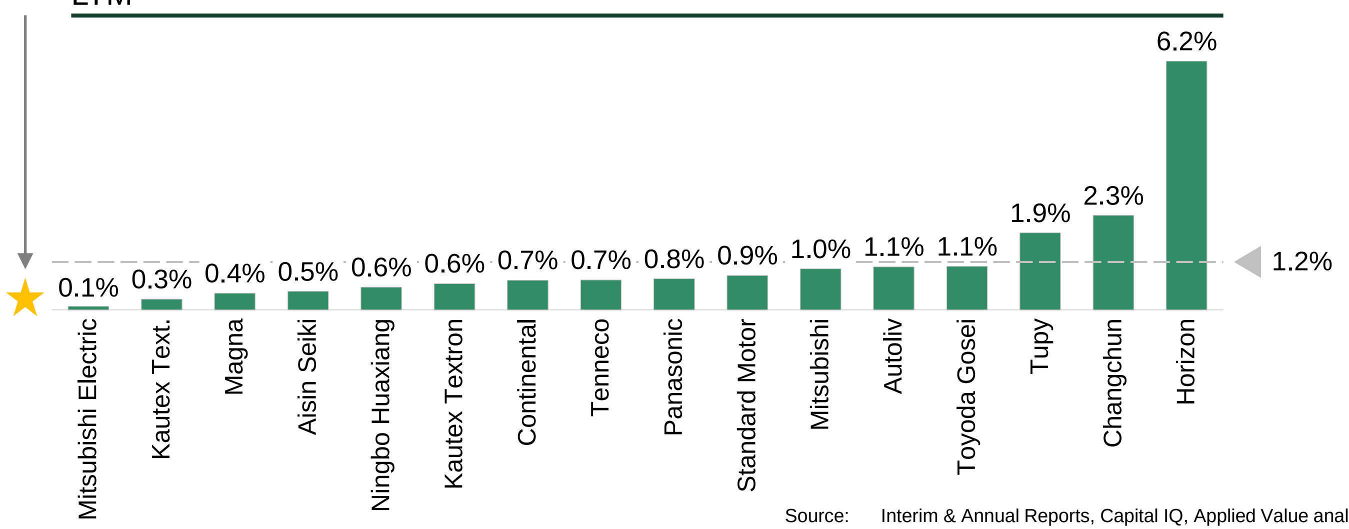
APPLIED VALUE

The Conglomerate segment had a solid operating performance in LTM, though margins were below the previous period's levels.

Conglomerate Gross Margin
LTM



Conglomerate Gross Margin Volatility
LTM

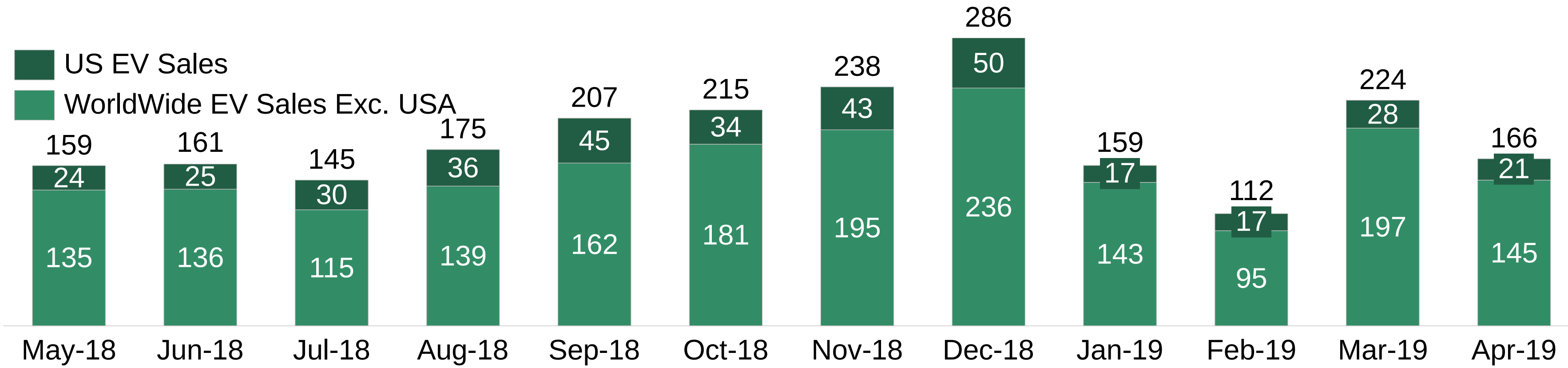


- Mitsubishi Electric, Standard Motor, and Panasonic continue to lead the peer group with the best gross margins as a percentage over sales, at 29.5%, 28.6%, and 28.3%,respectively, as compared to an 18% segment average
- Changchun had the least gross margin out of the peer group, as well as the highest volatility, at over 8%, due to their extremely low profit margin in Q4 2018 of 4%.
- Mitsubishi exhibited the highest gross margin control at an impressive 0.1% compared with the segment average of 1.7%. Mitsubishi also had the highest Gross Margin rates at 11.5 percentage points above average. Although they still lead the peer group, Mitsubishi's gross margin decreased 3 ppt from last year.

Source: Interim & Annual Reports, Capital IQ, Applied Value analysis.

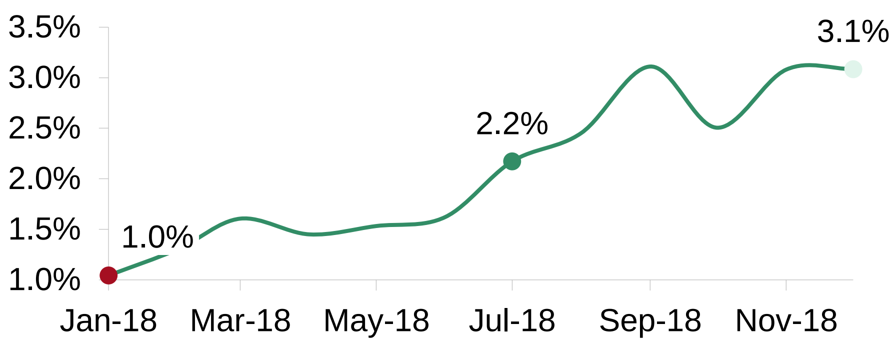
The growth in EV sales has been strong, though the proportion of EV sales to total sales has started to flatten.

EV Sales by month 2018, (thousand units)



Sources: Applied Value analysis, Inside EV's Monthly .

US EV Sales as a % of US Total Light Vehicle Sales



Sources: Applied Value analysis, BEA, Inside EV's Monthly .

- US EV sales totaled 361k in 2018, or ~15.2% of total world sales
- Though, at the same time it fluctuated between 1.0% and 3.1% of total car sales in the US in 2018
- EV sales in December were at least four times higher than in January, though the growth as a proportion of total light vehicle sales was smaller. It grew approximately 3 times as the share went from 1.0% to 3.1%

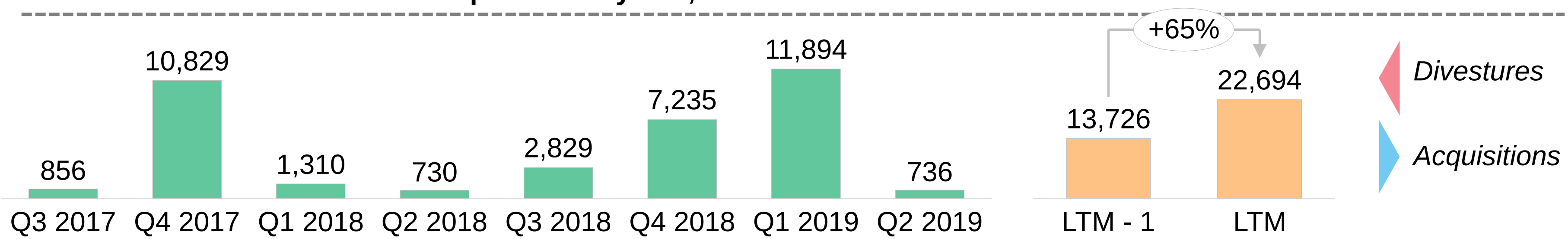
APPLIED VALUE

M&A activity is up 65% in LTM, driven by a strong H1 2019 and ZF's acquisition of WABCO, compared to the same period last year.

Top 5 Most Recent M&A Activity

Company	Target	Close Date	Value, USD	Target Description
ZF	WABCO	03/28/2019	7,982M	*WABCO is an American provider of electronic braking, stability, suspension and transmission automation systems*
MAGNA	Hanon Systems	03/29/2019	1,188M	*Magna sold its Global Fluid Pressure & Controls business to Hanon Systems, a South Korean thermal mgmt. technology*
CIE Automotive	INTEVA Products	06/05/2019	760M	*Roof Systems Business of Inteva Products*
LEAR Corporation	Xevo	04/17/2019	320M	*Xevo specializes in connected car software and smart user experiences, through AI software solutions analytics*
TOWER International	s. n. o. p.	03/01/2019	290M	*Tower Automotive announced a divesture of its EU Operations to Financiere SNOP Dunois, a private French auto supplier*

Total M&A Transaction Amount in previous 2 years, MUSD



Auto OEM Financial Performance

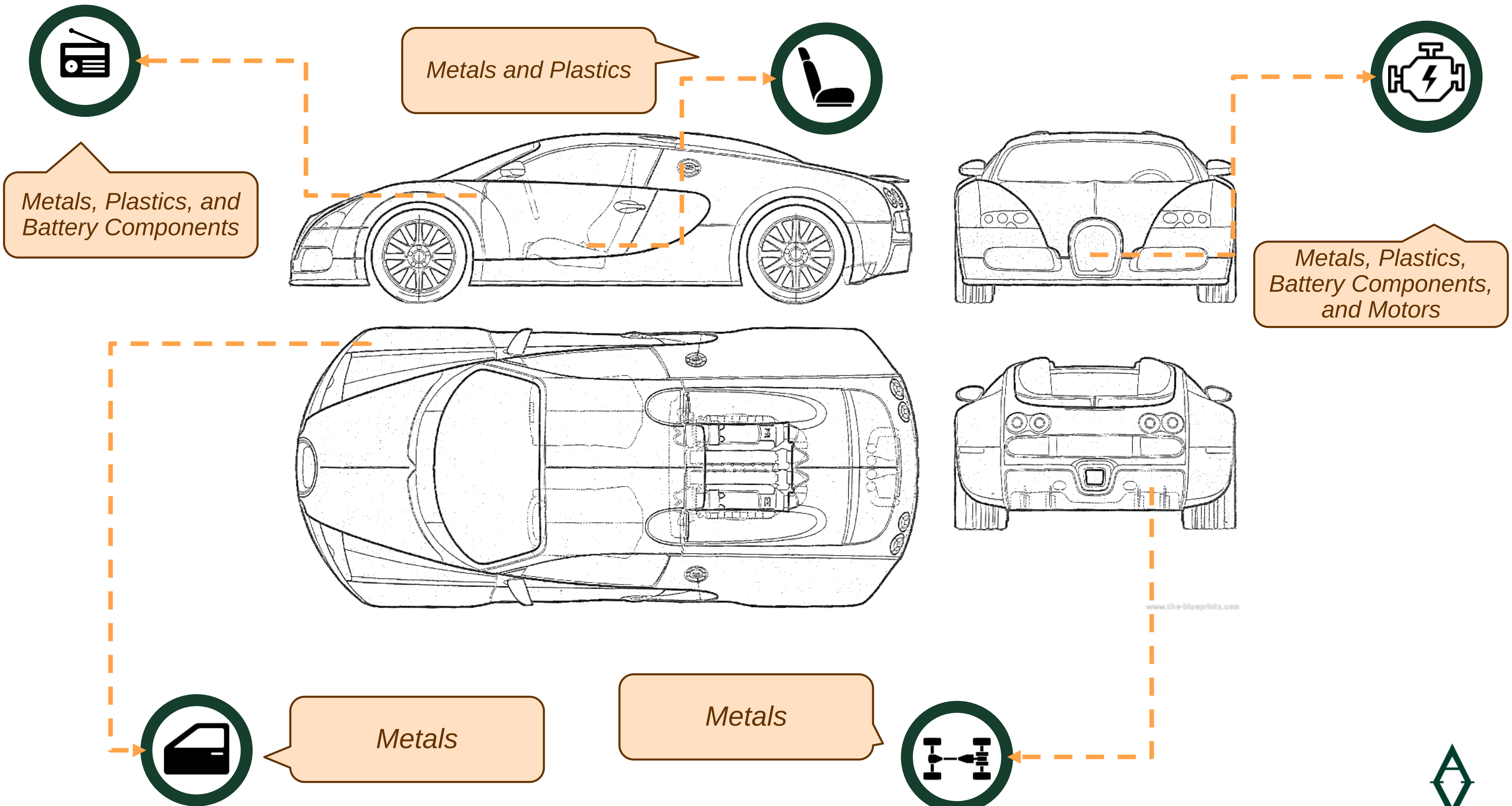
Auto Tier One Financial Performance

Auto Tier One Investment & Innovation Trends

Market Trends & Cost Curves

About Applied Value

Applied Value has highlighted the main raw materials across for Auto Tier 1s; the next pages show the most relevant cost curves.

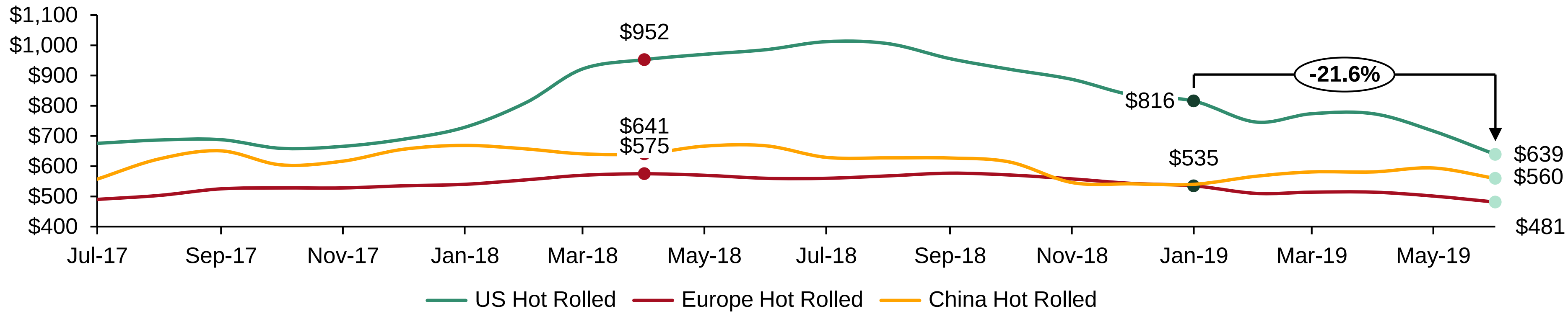


Market Trends Summary.

	Key Takeaways
Metals	• Metals costs in the US kept with the downward tendency and reached their lowest price in 2 years, while prices in EU increased
Plastics	• Rubber and plastic costs have risen across the board in H1 2019, up to 4% to 19%, while Soda Ash has dropped more than 10%
Battery & Electrical	• Battery component costs have a mixed storyline, as lithium prices have flattened (-0.8%), cobalt (-11.7%) and graphite (-30.0%) dropped, while Nickel rose (+4.3%)
Motors	• A spike of 13.7% in Neodymium was offset by a similar decline of 13.4% in Silicon Steel; Copper prices corrected by 1.5% after a brief uptick in 2019
Indirect Costs	• Natural gas costs have decreased to 2-year lows in both the US and Germany, declining 19.6% and 42.4%, respectively
Trade & Employment	• Automotive Tier 1 manufacturing wages are rising most rapidly in the US, as the average hourly rate averaged $21.5/hr in April 2019

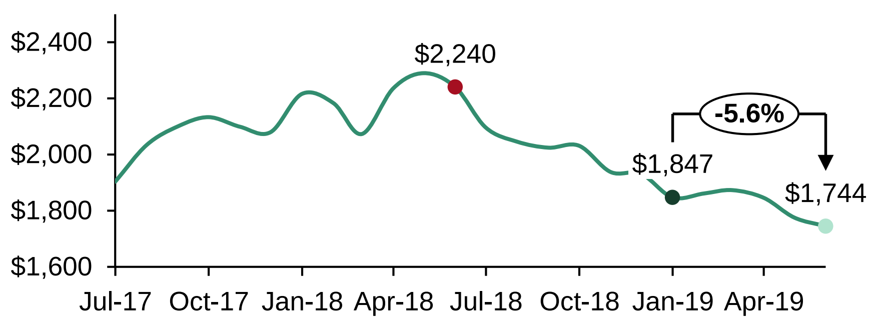
Metals costs in the US kept with the downward tendency and reached their lowest price in 2 years, while prices in EU increased.

Global Steel Prices, Hot Rolled Coil
USD/MT



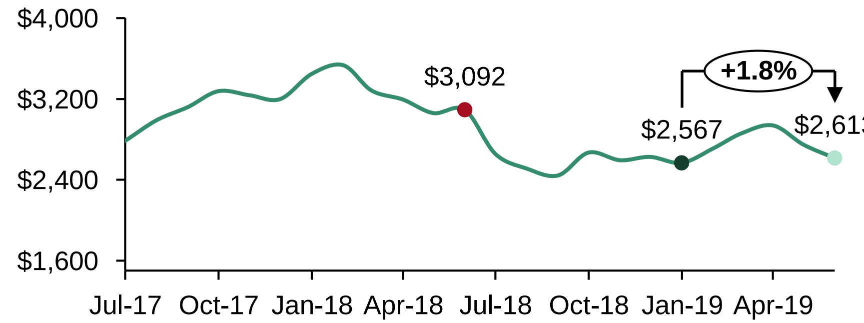
Source: CRU

Aluminum
USD/MT



Source: LME

Zinc
USD/MT



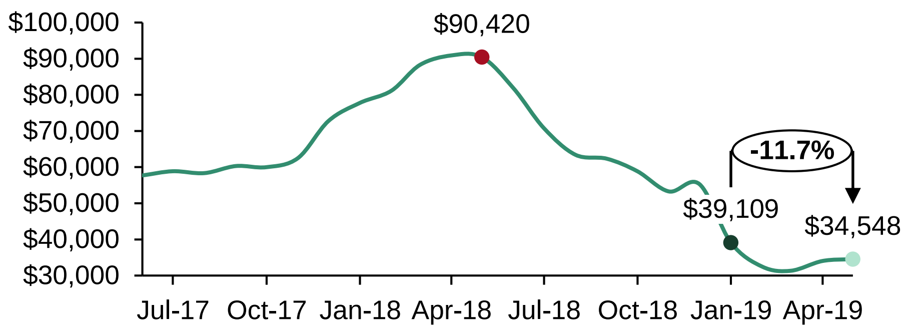
Source: Capital IQ

Last Year   January Data   Most recent data

APPLIED VALUE

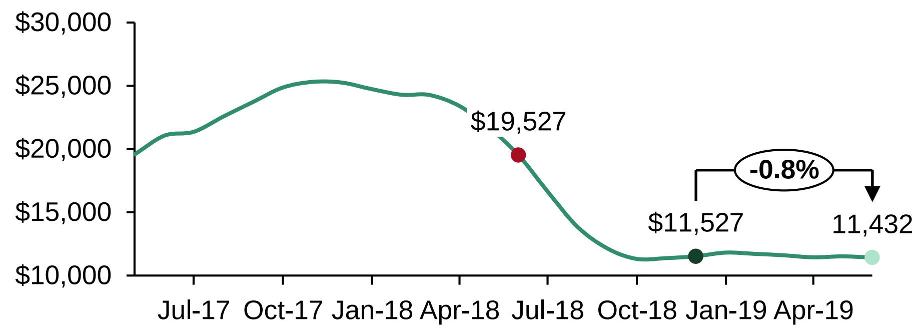
Battery component costs have a mixed storyline, as lithium prices have flattened, cobalt and graphite dropped, while Nickel rose.

Cobalt
USD/MT



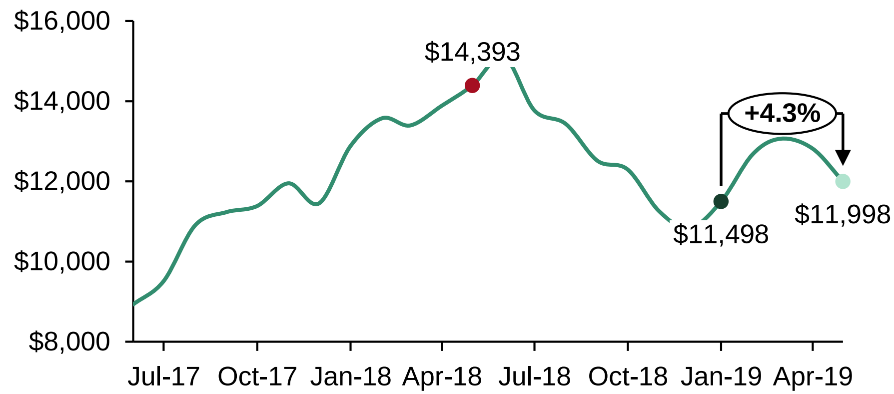
Source: LME

China 99.5% Lithium Carbonate spot price
USD/MT



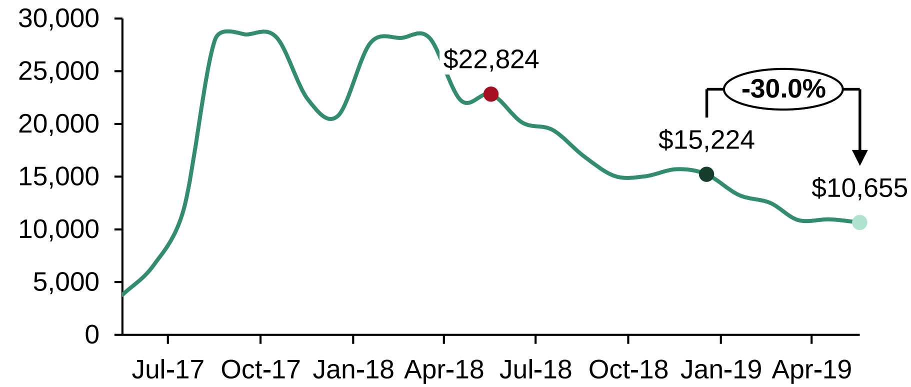
Source: Shanghai Metals Market

Nickel
USD/MT



Source: LME

Graphite
USD/MT



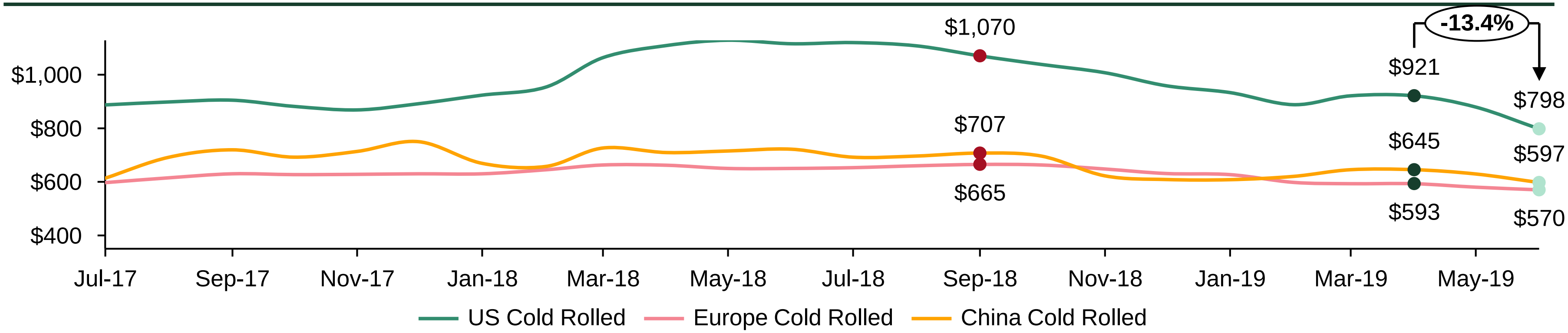
Source: Metal News CN

● Last Year ● January Data ● Most recent data

APPLIED VALUE

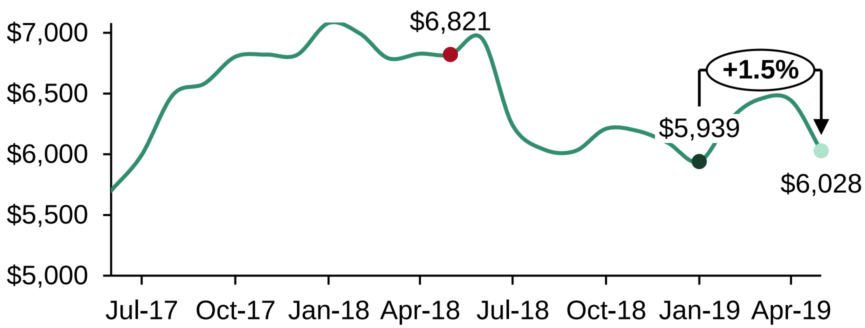
A spike in Neodymium was offset by a similar decline in Silicon Steel; Copper prices corrected after a brief uptick in 2019.

Silicon Steel – Cold Rolled
USD/MT



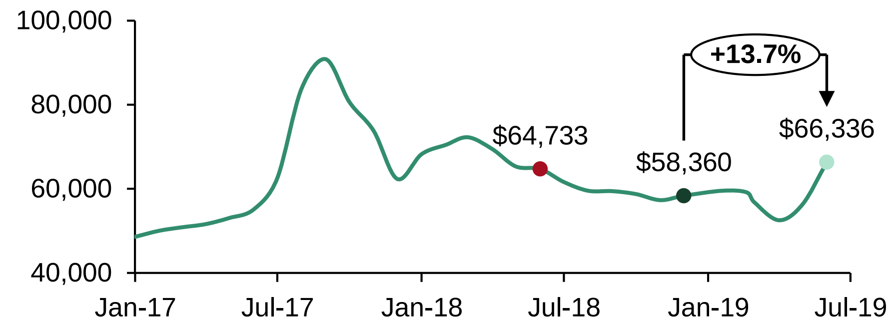
Source: CRU

Copper
USD/MT



Source: LME

Neodymium Costs
USD/MT

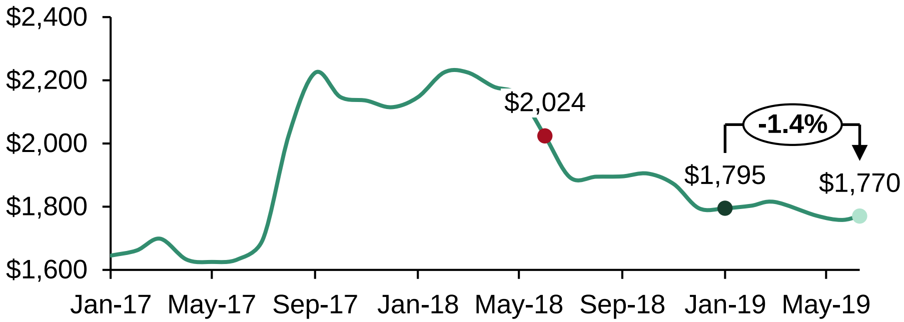


Source: SMM

Last Year   January Data   Most recent data

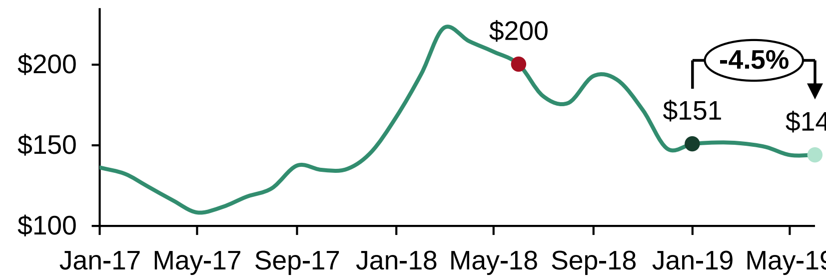
Display and Sensor input costs continued the same downward trend, which began in early 2018.

#441 Silicon
USD/MT



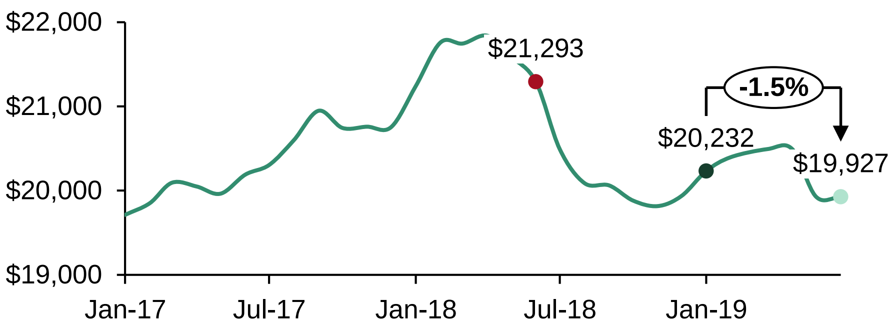
Source: SMM

Gallium
USD/MT



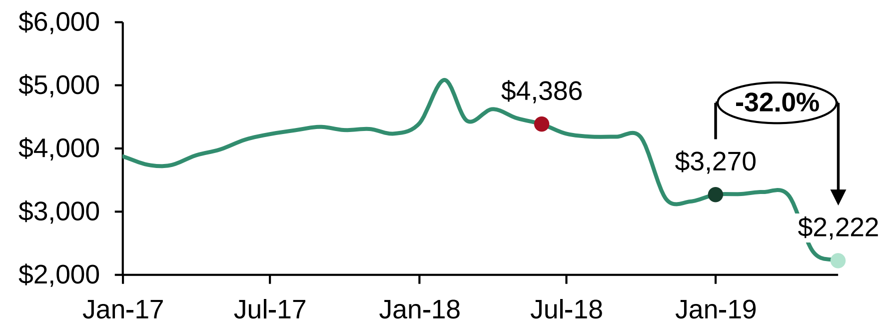
Source: SMM

Stannic Oxide
USD/MT



Source: SMM

Polyethylene terephthalate (PET): Dupont Rynite FR530
USD/MT



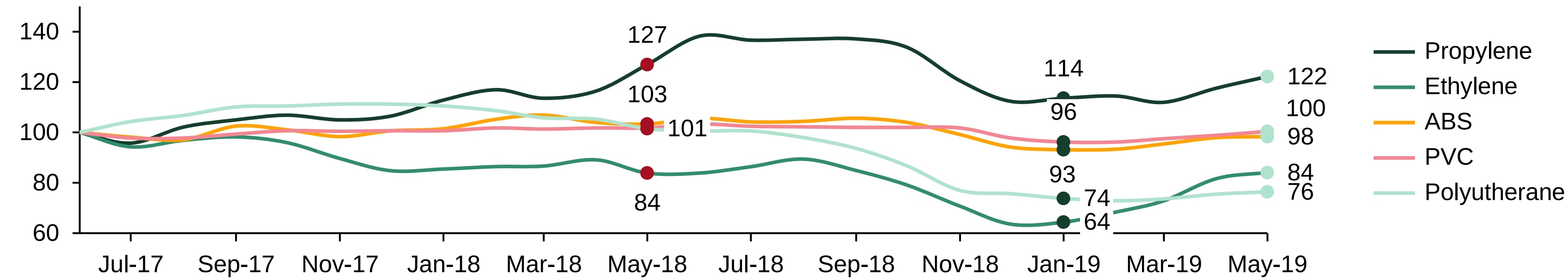
Source: www.soliao.com

● Last Year ● January Data ● Most recent data

APPLIED VALUE

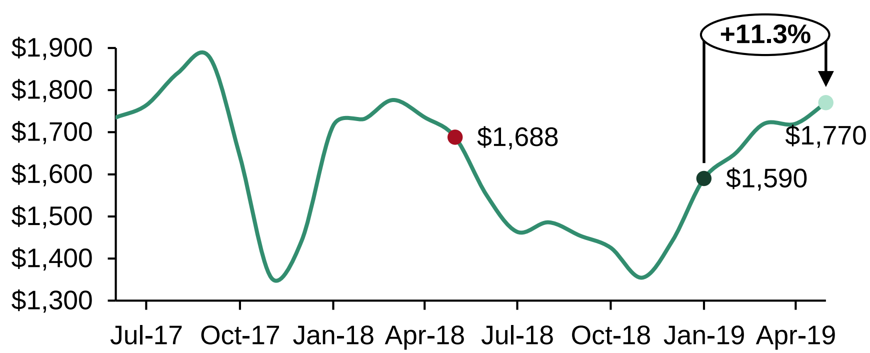
Rubber and plastic costs have risen across the board in H1 2019, up to 4% to 19%, while Soda Ash has dropped more than 10%.

Plastic Costs
Indexed



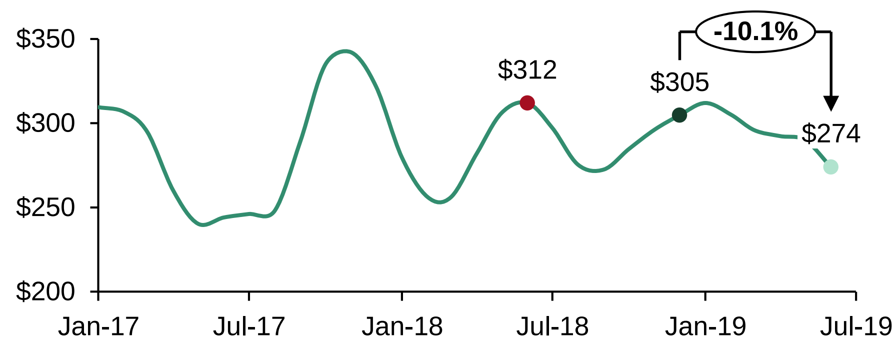
Source: Capital IQ

Rubber – RSS3
USD/MT



Source: Capital IQ SICOM

Glass – Soda Ash
USD/MT



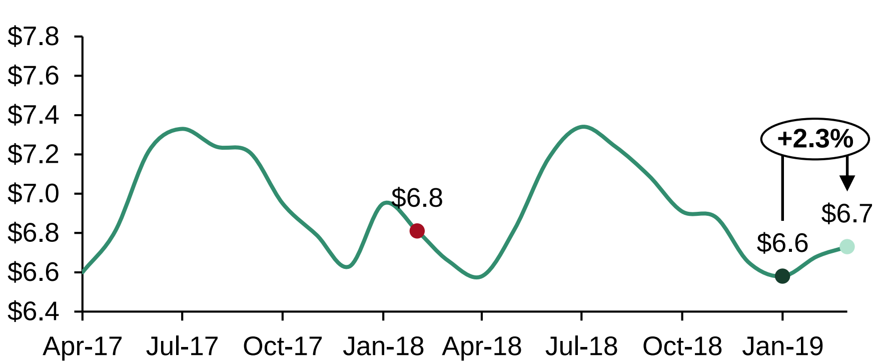
Source: Soda.100ppi.com

Last Year   January Data   Most recent data

APPLIED VALUE

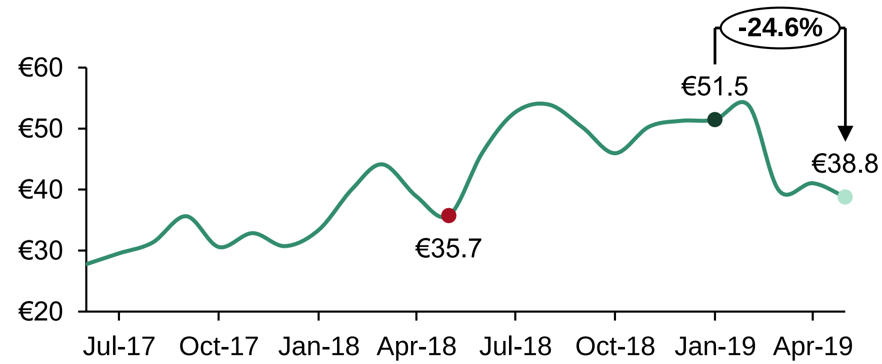
Natural gas costs have decreased to 2-year lows in both the US and Germany, declining 19.6% and 42.4%, respectively.

Electricity US
US Cents/KWH



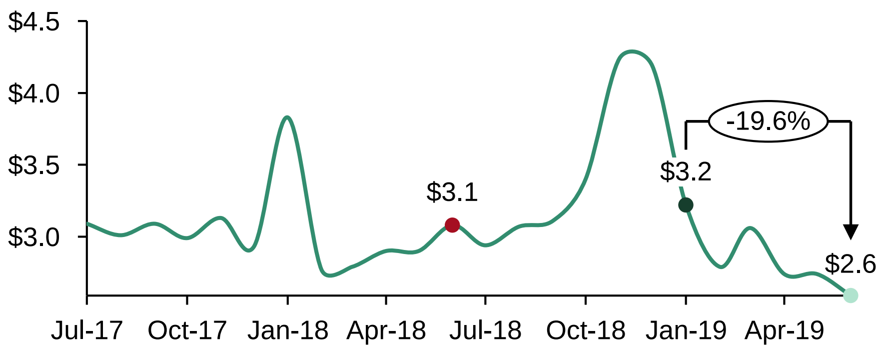
Source: US Energy Information Administration (Industry retail price)

Electricity Europe
EUR/KWH



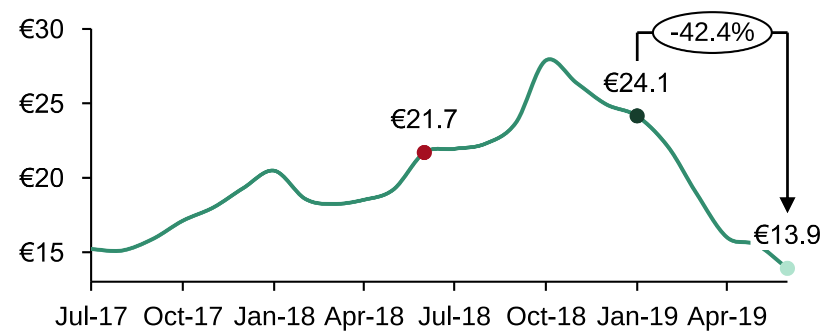
Source: EEX (KWK-Index Germany), Nordpool

Natural Gas US
USD/mmBtu



Source: EIA (Natural Gas spot price at the Henry Hub terminal in Louisiana)

Natural Gas Germany
EUR/MWH

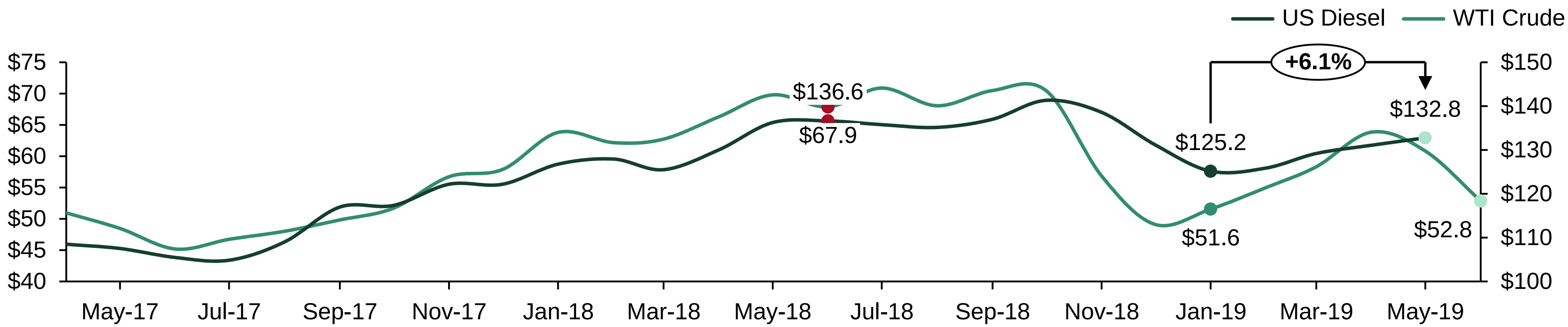


Source: EEX (EGIX Germany)

● Last Year ● January Data ● Most recent data

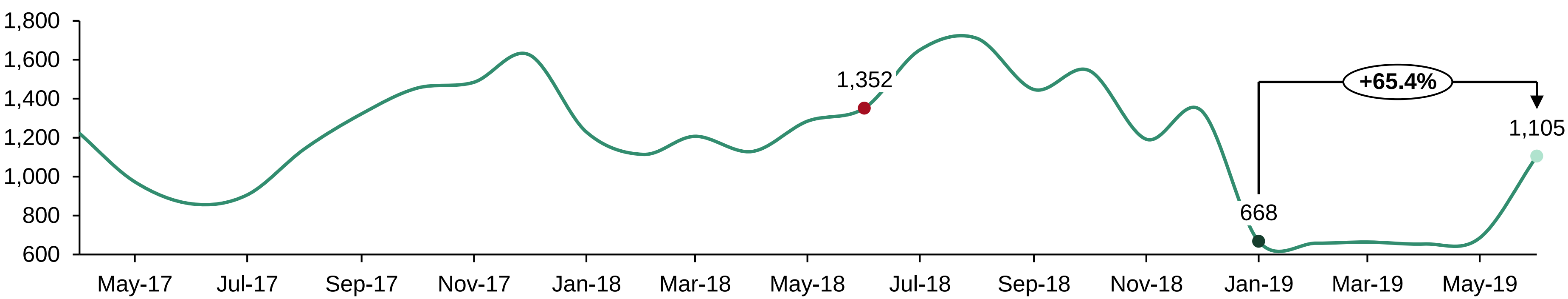
Transportation costs have increased in 2019, with WTI crude up 2.5% and BDI rebounding 65.4%.

WTI Crude
$ per bbl.



Source: Capital IQ

BDI - Shipping



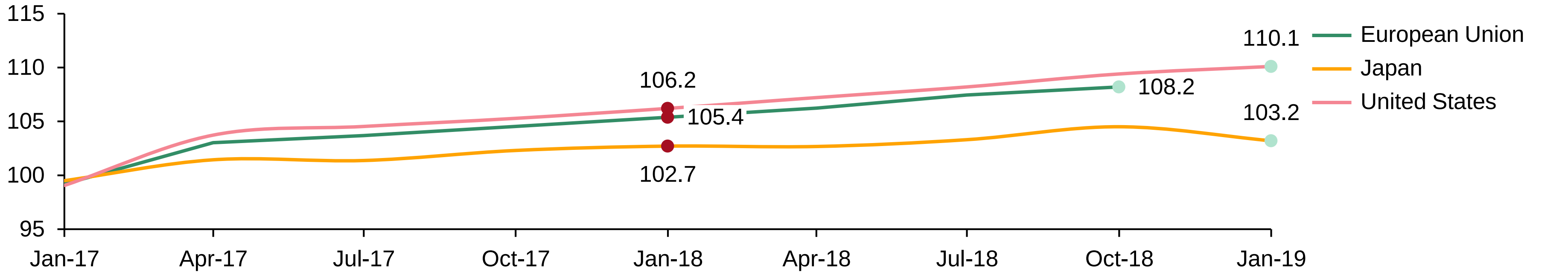
Source: Investing.com

Source: S&P Capital IQ. ● Last Year ● January Data ● Most recent data

APPLIED VALUE

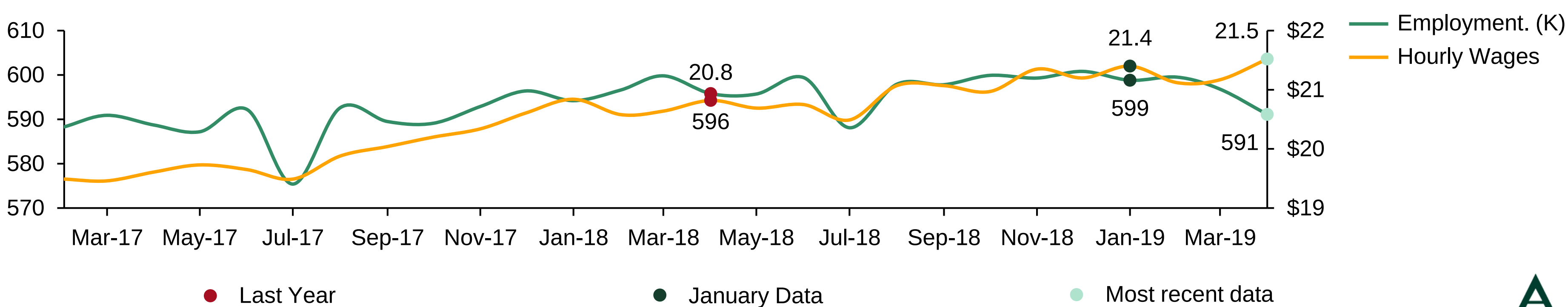
Automotive Tier 1 manufacturing wages are rising most rapidly in the US, as the average hourly rate averaged $21.5/hr in April 2019.

MEI Manufacturing Pay Index
Index 2015 pay rates = 100



Source: OECD.stat

USA Motor Vehicle Parts Manufacturing – Tier One
Employment # in (K) & wages in USD/Hour



Source: Bureau of Labor & Statistics

APPLIED VALUE

Auto OEM Financial Performance

Auto Tier One Financial Performance

Auto Tier One Investment & Innovation Trends

Market Trends & Cost Curves

About Applied Value

Applied Value is a management consulting & investment firm founded on the principles of lean growth and entrepreneurship.

APPLIED VALUE GROUP

From our origin as an internal consultancy within the ***Stenbeck Group…***

Industries of Expertise

- *Private Equity*
- *Chemicals & Process*
- *Industrials & Engineering*
- *Consumer Goods*
- *Telecom & Media*
- *Automotive*

...today, an ***independent, hands-on consultancy***

Lean Growth Principles

Investments	Management Consulting	Social Responsibility
Selected portfolio companies	APPLIED VALUE	HAND IN HAND
HUMAN CARE, COSMOSID, rivermeadow, Bake My Day, Division 5 Inc Steel Fabrication, Söderfors Steel, flexenclosure		Straight Ahead Ministries, Exodus

ROI driven · *Fact-based* · *Practical over theoretical* · *Hands-On* · *Global perspectives*

APPLIED VALUE

Applied Value's Lean Growth framework is based on Focus, Simplicity, Speed – guiding principles to raise client performance.

Lean Growth

Focus
- ✓ Define strategic focus
- ✓ Excel in key capabilities
- ✓ Use partners for non-core activities

Simplicity
- ✓ Reduce complexity
- ✓ Simplify and standardize processes, organization and supply chain

Speed
- ✓ Set targets
- ✓ Measure and improve
- ✓ Reduce Time to Market-Customer-Cash

Offerings

Go-to-Market
Segmentation, Positioning, Product/Channel Mix

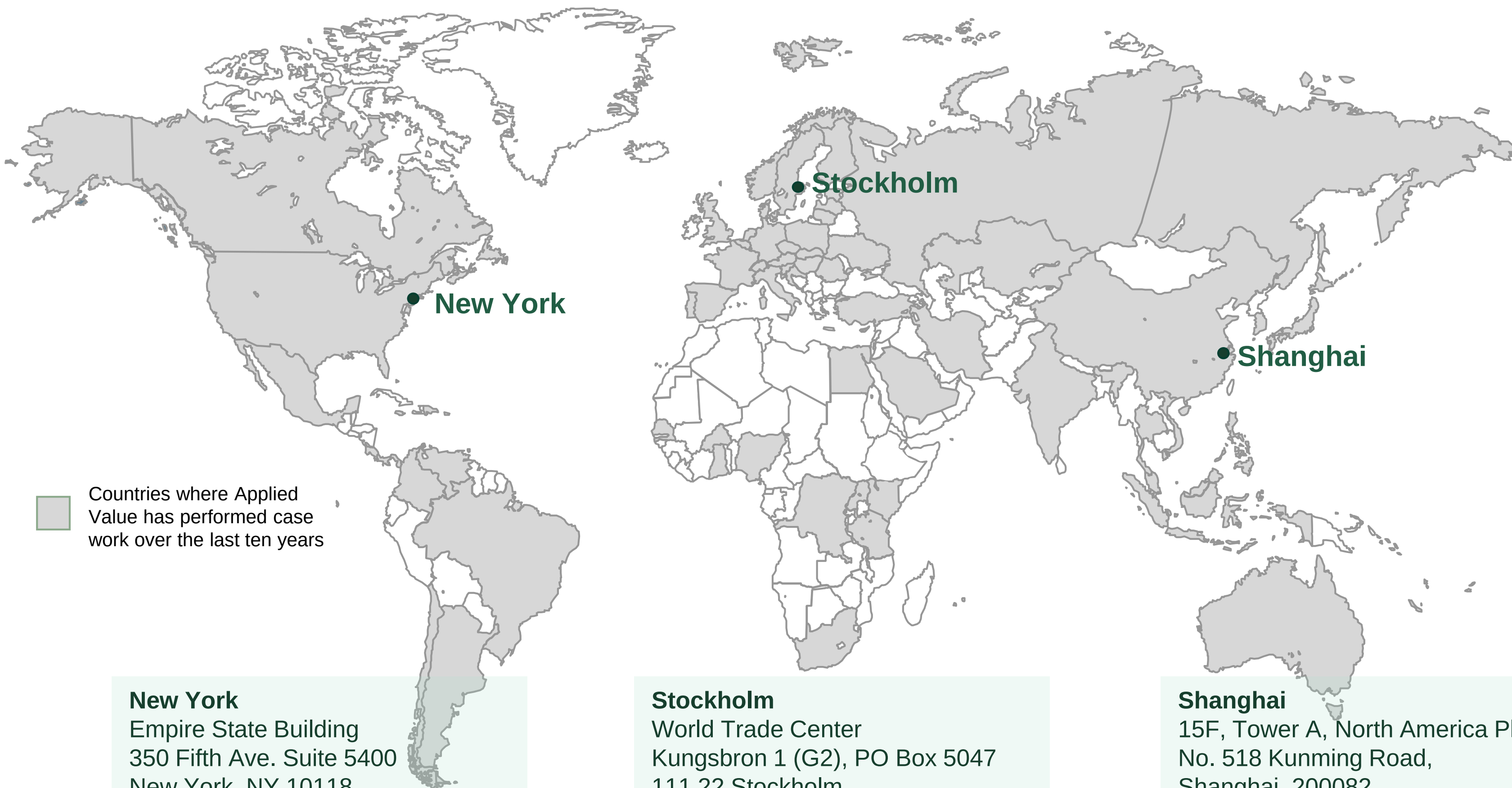
Gross Margin Improvement
Pricing, Sourcing, VA/VE, Supply Chain, Operations

OPEX Efficiency
Operational efficiency, S&M / G&A productivity, Organization

Capital Efficiency
Working Capital mgmt., Innovation/R&D performance, M&A, Fixed asset leverage

Digital Transformation and Efficiency
Strategy, Capability improvement, Execution

Applied Value supports clients and investments globally from three offices.



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APPLIED VALUE