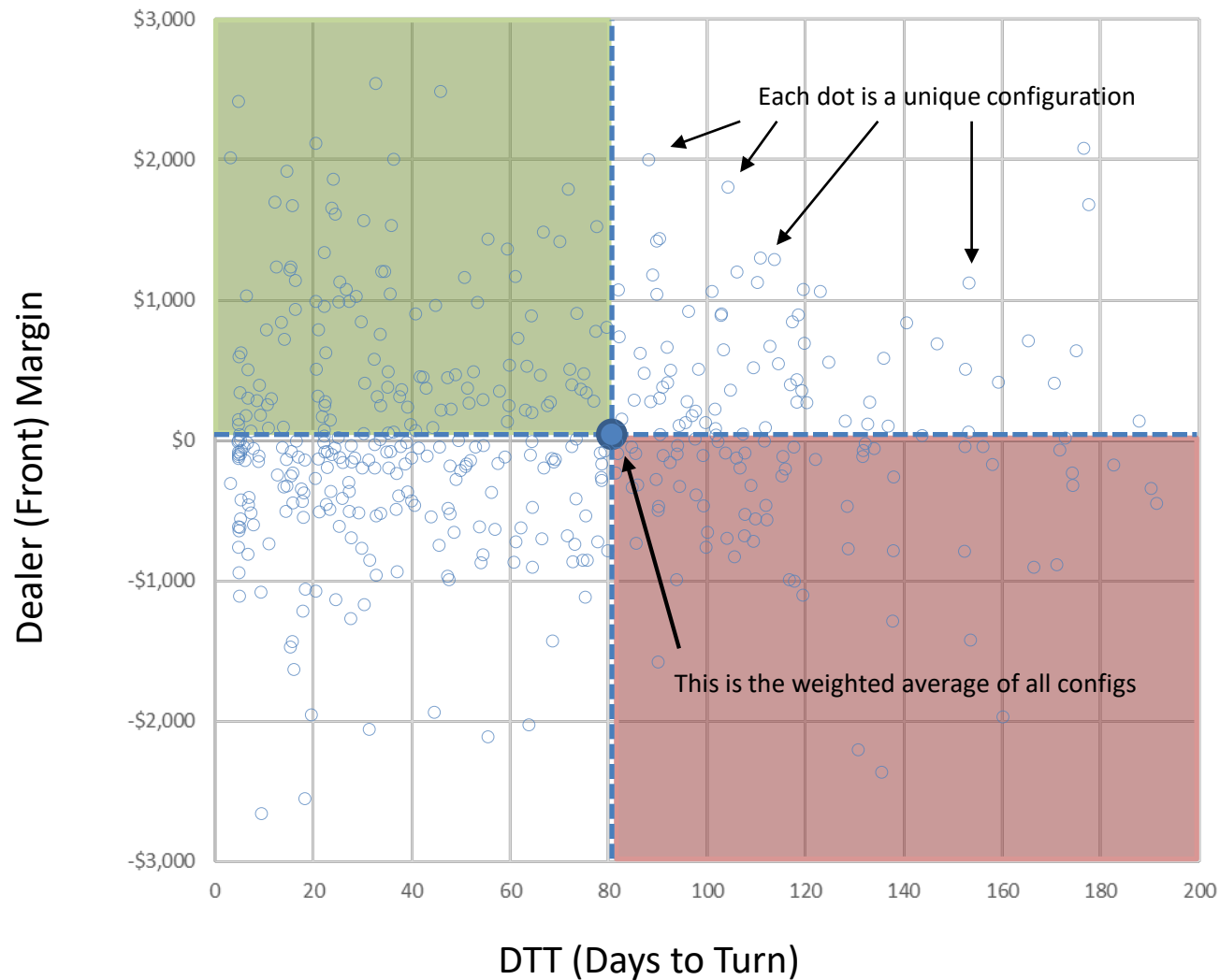


Configuration Complexity in the Automotive Industry

CONSIDERATION: Configuration Build Complexity in Auto

National Sales Performance for “Model A”

2020MY



INSIGHT

Complexity of a single model

- Each blue dot is a unique 2020 configuration (not counting color) that has been sold
- “Model A” on average, sits on dealer lots for just over 80 days, and brings in under \$100 of front profit to the dealer (*excludes any Finance and Backend Product profits*).
- DTT will continue to grow as shipped 2020MY vehicles sit on dealer lots

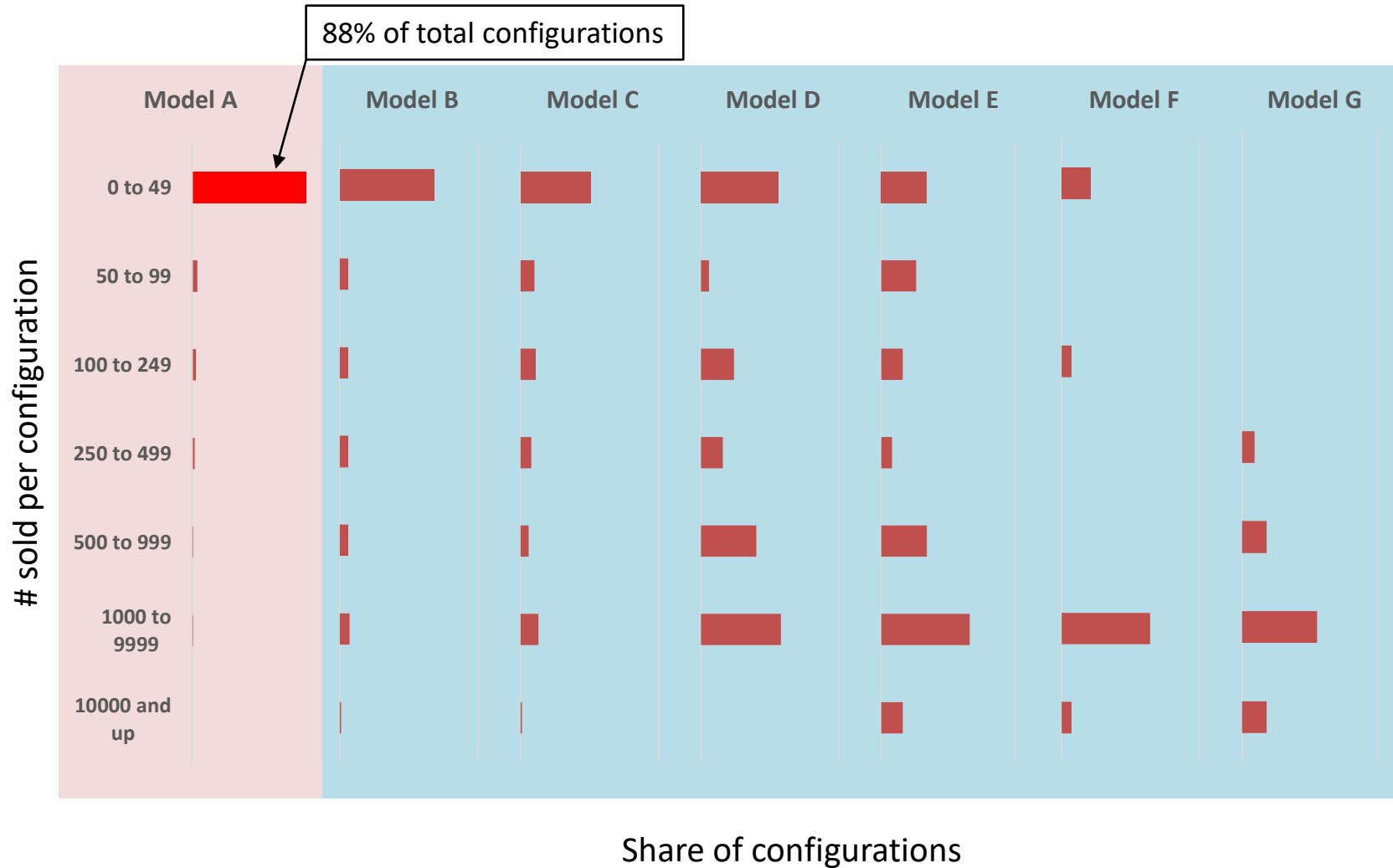
KEY TAKEAWAY

There were over 605K different configurations built in 2019 (excluding color)

That would average 22 cars sold per unique configuration

CONSIDERATION: Sales volumes across model variants

Configuration Performance Analysis – Example Segment



INSIGHT

Volume per configuration analysis

- “Model A” - 88% of it’s configurations sell less than 50 units each and those add up to only 25% of total sales.
- Industry - 98% of all configurations sell less than 50 units and total 26% of total sales.
- The US market is a “sell from stock” market.
- Understanding what was purchased because it was the right configuration, versus because it was “there” is very difficult.

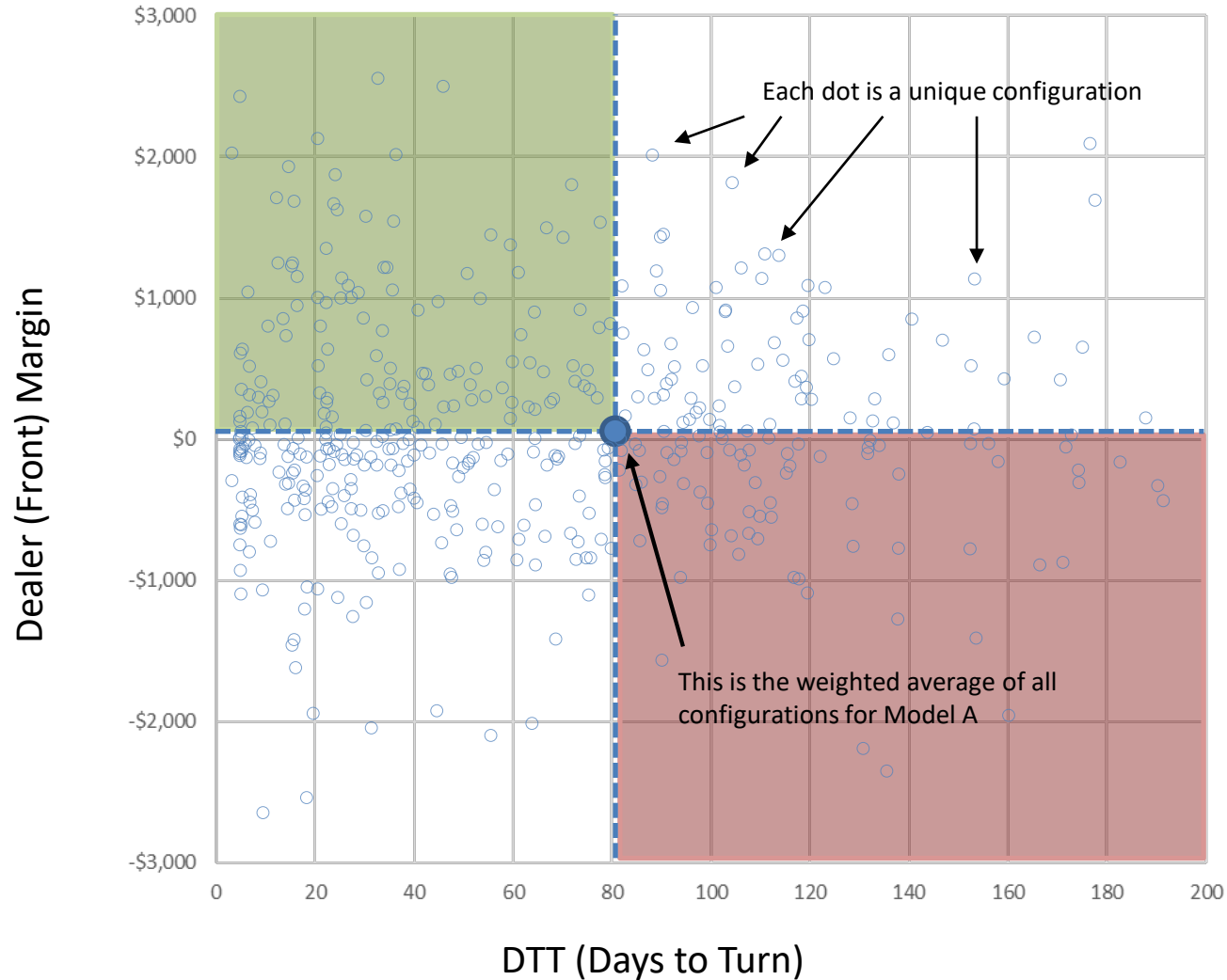
KEY TAKEAWAY

The industry builds and therefore sells a lot of “Unicorns” (less than 50 sold per configuration)

CONSIDERATION: Configuration Build Complexity in Auto

National Sales Performance for “Model A”

2020MY



INSIGHT

Performance of low volume configurations

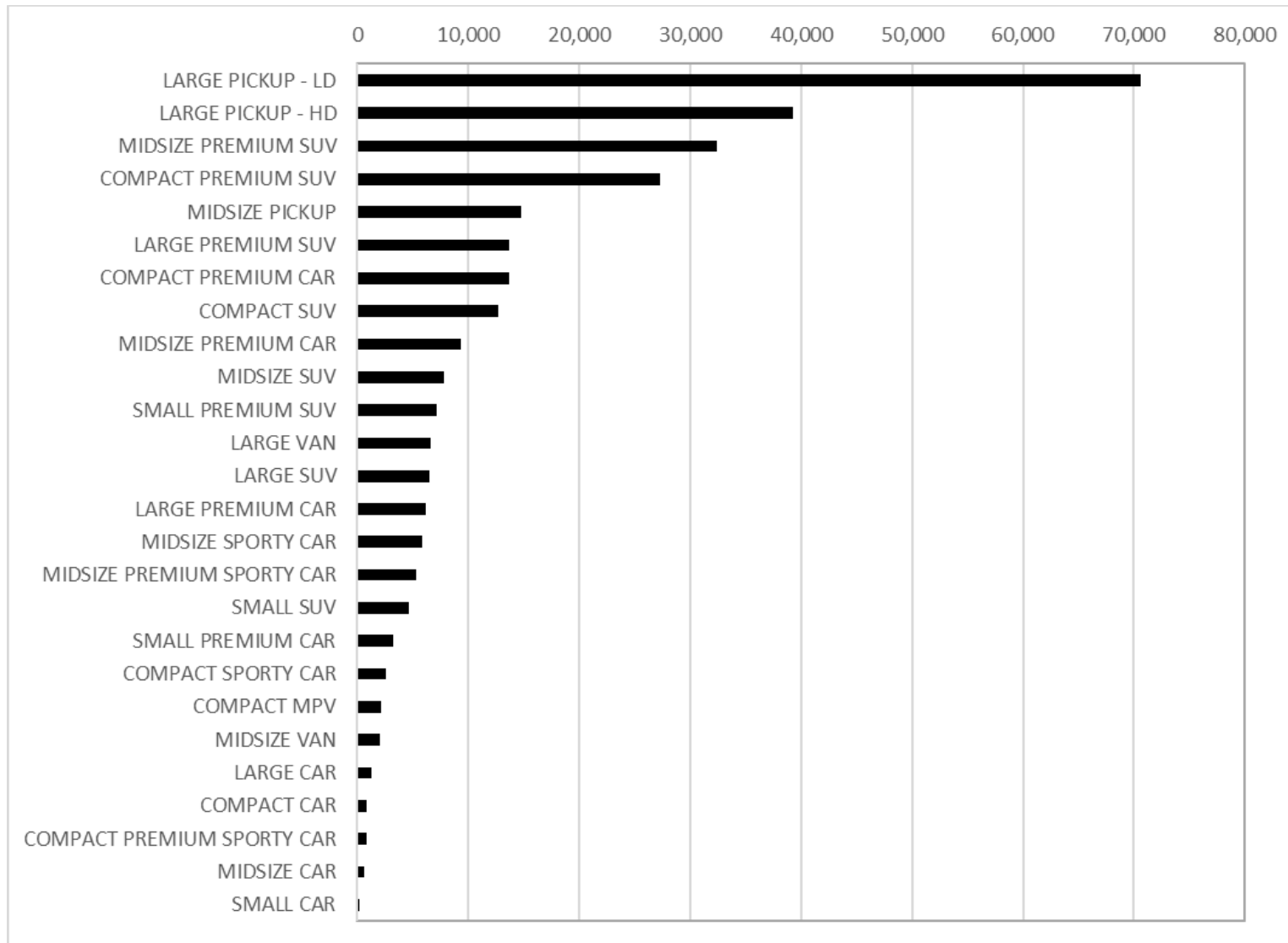
- For “Model A”, half of “Unicorns” sell at higher than average DTT and/or below average margin.
- For the industry, 61% of “Unicorns” perform below the average for their respective model.
- This is not considering the increased incentive cost, lot rot, and carrying costs for OEM’s and dealers that are associated with aged vehicles on the lot.
- There is significant industrial cost associated with creating unique configurations and there is no payback from that cost in performance for these “special” versions.

KEY TAKEAWAY

Low volume configurations (Unicorns) are a drag on sales performance and costs

CONSIDERATION: Complexity By Vehicle Segment

Of Unique Configurations Built To Date For 2020MY



INSIGHT

Summary

- There were a total of 605K unique configurations sold during 2019 MY. This is excluding Interior and exterior color
- In a normal year, the unwanted configurations sit on the lot until the end of the model year when both OEM and dealer price concessions drive them to sell
- Parts shortages due to COVID will drive many complex decisions by the OEM's on what to build

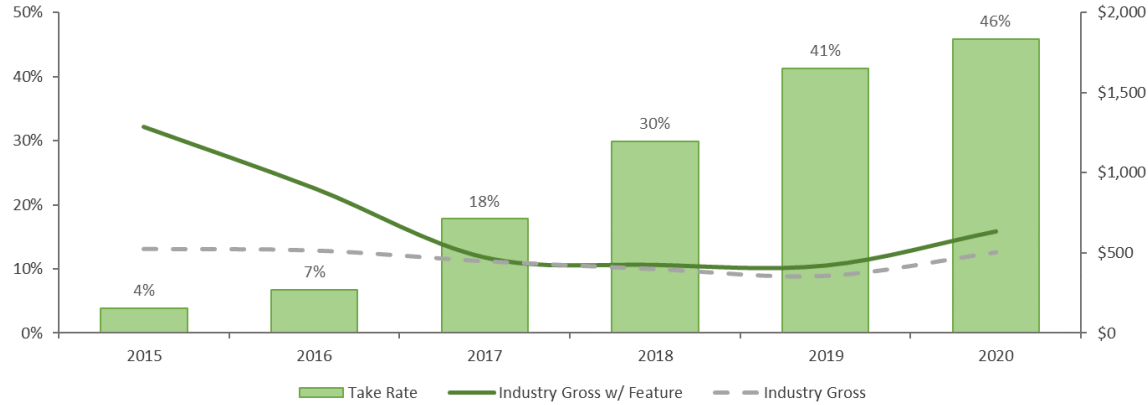
KEY TAKEAWAY

In a Post-Covid 2nd half:

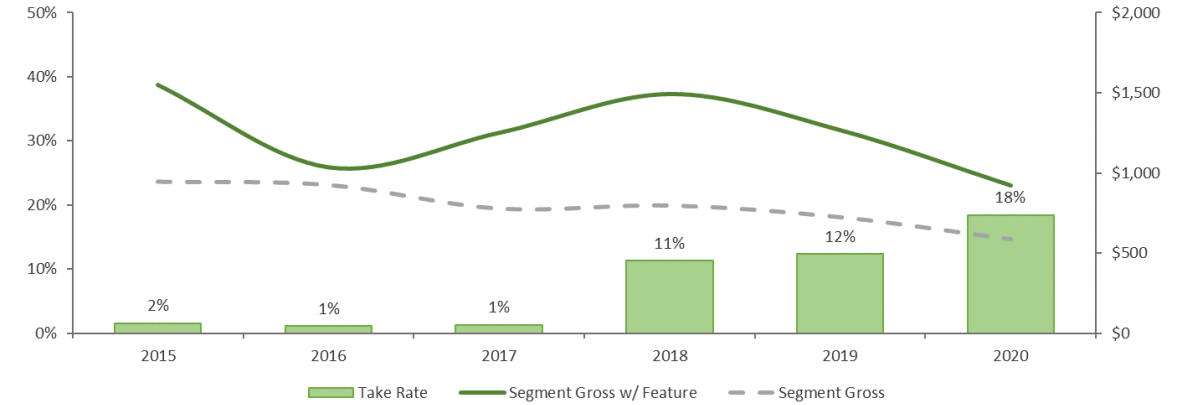
- Parts supply will pressure complexity
- Dealers need to receive configurations that will have velocity = low DTT

Cruise Control-Adaptive

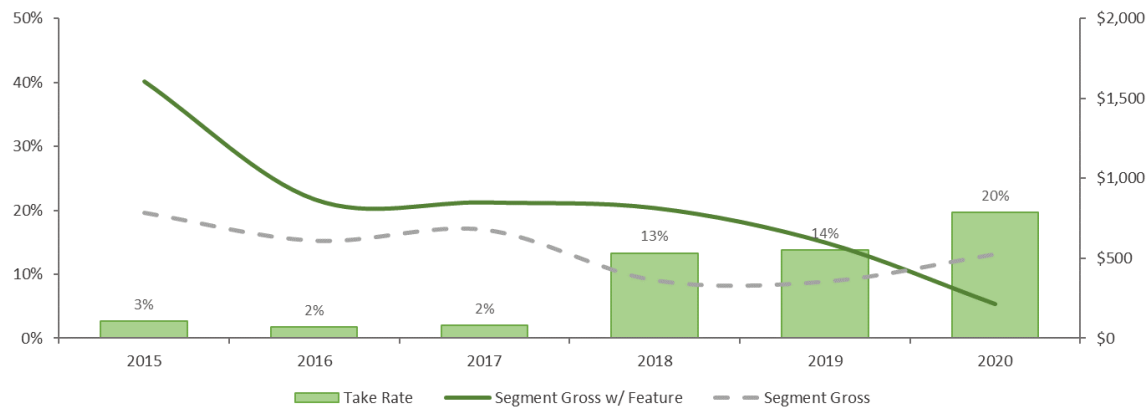
1 Industry Trend



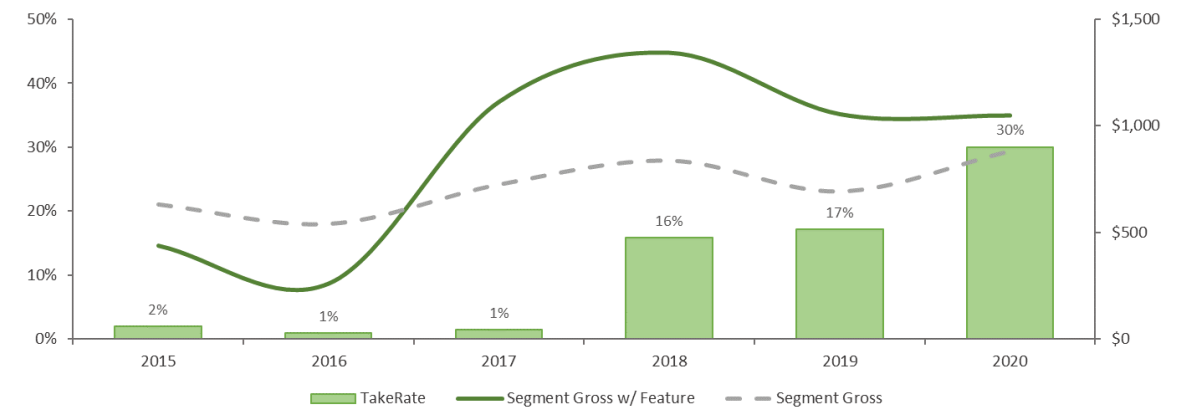
2 Light Duty Pickup



3 Underperforming Market -



4 Overperforming Market -



Source: Based on JD Power configuration performance data (2008 to present).