



HARBOUR | IQTM

Industry Outlook

Presented By: Laurie A. Harbour
President and CEO
June 1, 2016

Trusted Advisor to the Manufacturing Industry

Established to help small- to medium-sized businesses transform operations and develop a roadmap to maintain financial and operational success.



Business
Assessments



Strategic
Development



Benchmarking



Operations
Improvement



Harbour IQ

HARBOUR | IQ™ Partners

Executive Level



Pro Level



Basic Level



Agenda

- ✓ Industry Forecasts
- ✓ Manufacturing Trends
- ✓ Geographic Trends
- ✓ Manufacturing Performance
- ✓ Positioning for Success

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INDUSTRY FORECASTS

Strengthening US Dollar



Low oil and gas prices



Steady US economy



Falling commodity prices



Uncertain global economy



Regulations



Total outlook for tool makers:



Heavy Truck



+1.7%

Appliance



0.1%

Medical Devices



+0.5%

Automotive



+1.9%

Construction

+1.9%



Agriculture

+1.3%



Aerospace

+1.0%



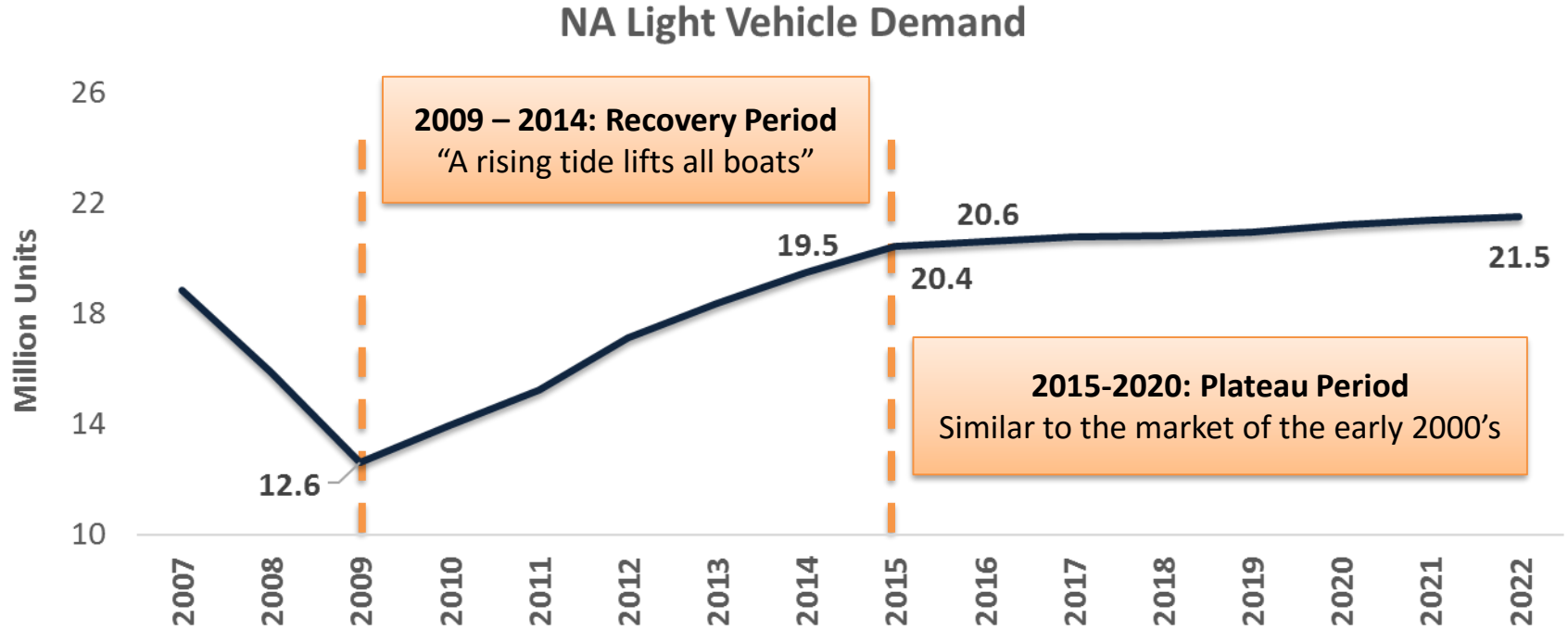
2016 to 2020 CAGR revenue shown; Source: Statista estimates

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MANUFACTURING TRENDS

Auto is at an Inflection Point, Driven by Demand

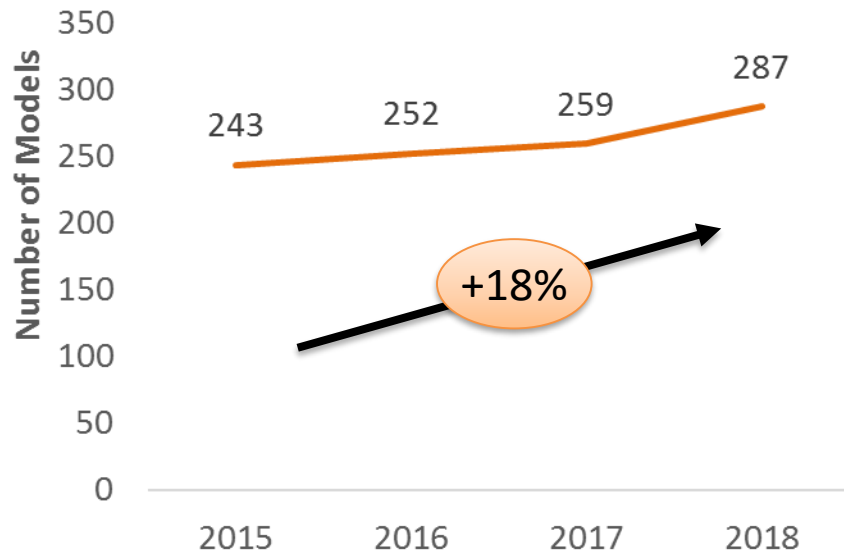
Dynamics of the Market May Change Dramatically



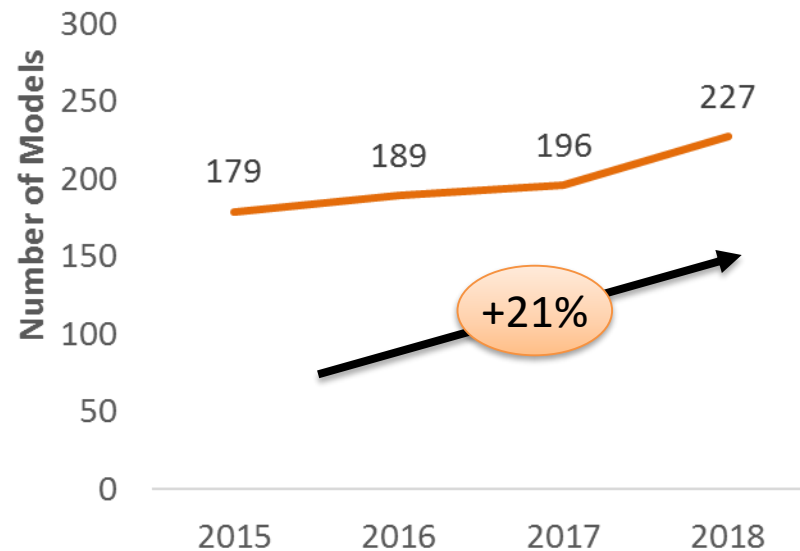
Source: LMC Automotive, WardsAuto

At the Same Time, Mix is Increasing

No. of N.A. Models in Production



No. N.A. Models <100K Units



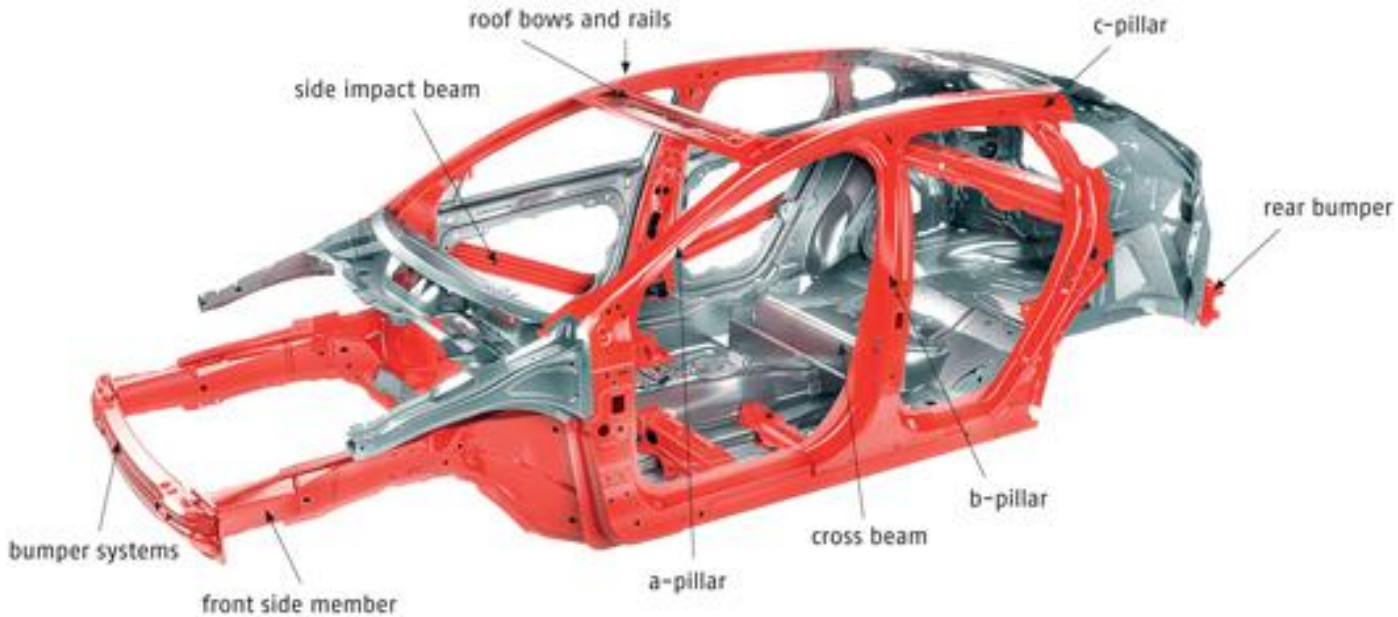
Above models mean over 800 trim levels on the market by 2018

Source: LMC Automotive

And, Product is Becoming More Complex



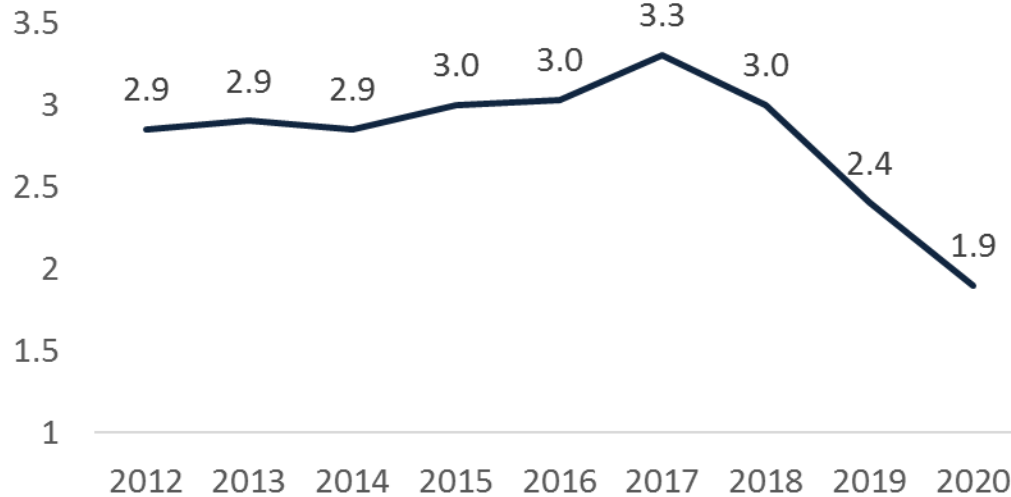
Steel Product Complexity



High and medium strength steel has increased 24% in 4 years and aluminum is up 17%; expectation is more of this by 2022 to meet government regulations

Shorter Lifecycles Squeeze the Industry

Average Showroom Age (Years)



Average age expected to drop precipitously over the next 5 years

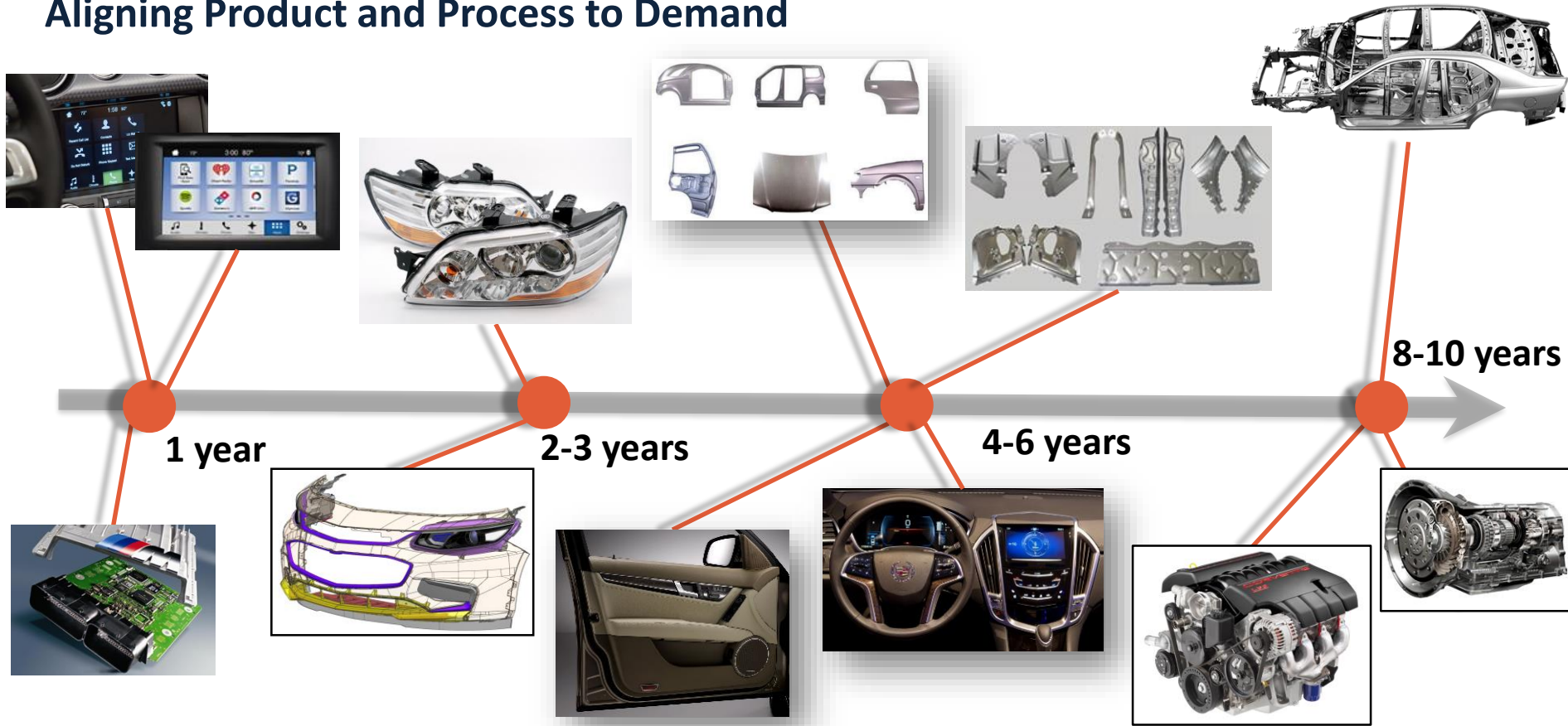
Shorter lifecycles mean **less time to amortize** tooling and other capital

Result: suppliers will need to recover investment with **higher piece prices**

Source: Car Wars, Bank of America Merrill Lynch

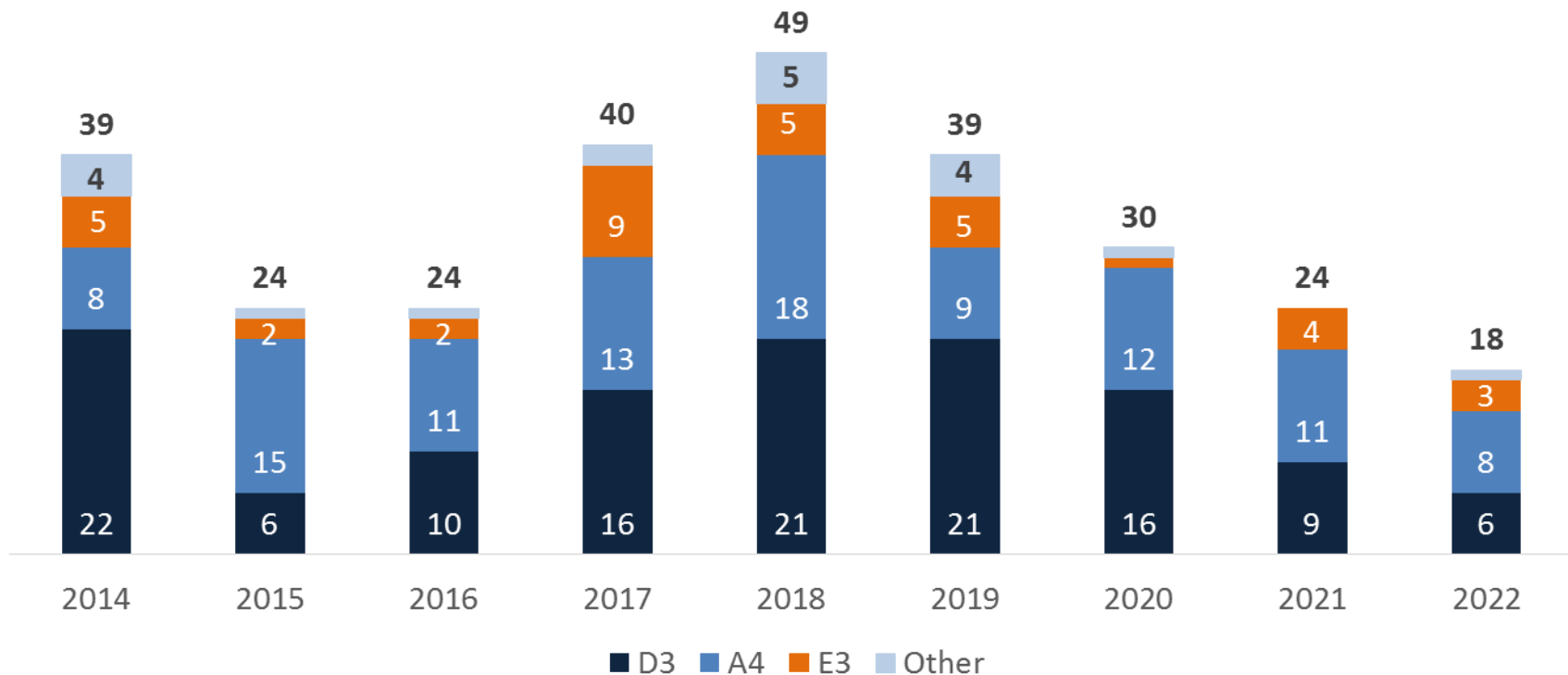
Develop Long-term Strategies

Aligning Product and Process to Demand



N.A. New Vehicle Launches Remain Strong









New Entry and Redesign – SOP Launch Year



Source: LMC Automotive

Upcoming Big 3 All-New Launches and Redesigns

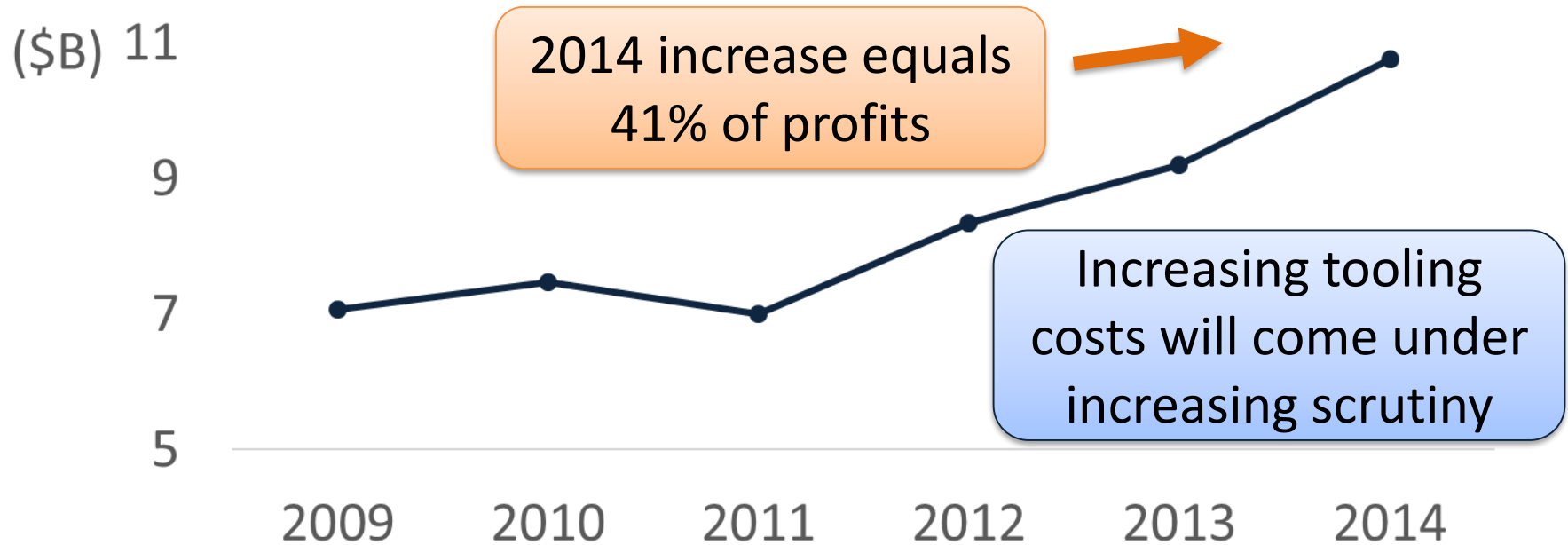
Likely Sourcing Tooling Soon

Q1 2018	Q2 2018		Q3 2018			
 <p>Cadillac CT2 All New SOP: Jan 2018</p>  <p>Jeep Wrangler Pickup All New SOP: Jan 2018</p>	 <p>Chrysler Midsize SUV All New SOP: Apr 2018</p>  <p>Ford Small Car All New SOP: Apr 2018</p>	 <p>GMC Sierra Major SOP: May 2018</p>  <p>Chevrolet Silverado Major SOP: May 2018</p>	 <p>Ford Focus Major SOP: Q3 2018</p>  <p>Lincoln MKC Major SOP: Jul 2018</p>	 <p>Chrysler compact SUV All New SOP: Jul 2018</p>	 <p>Ford Compact Hybrid All New SOP: Sep 2018</p>  <p>Ford Fusion Major SOP: Sep 2018</p>	
<p>Others of note: Nissan LEAF Ram 1500 Infiniti QX60 Subaru Tribeca Toyota Avalon Acura RDX</p>	<p>Others of note: Toyota Prius MB GLE Kia Forte</p>		<p>Others of note: Hyundai Santa Fe Nissan Versa Toyota Tundra Tesla Model III Hyundai Accent Nissan Sentra BMW X4 MB A-Class Mazda Mazda3 Lexus ES BMW X5</p>			

Source: LMC Automotive

Continued Tooling Spend Increase is Untenable

Example OEM Tooling Assets



Source: Company Financials; Net of Amortization

Tooling a Factor in 787 Profitability

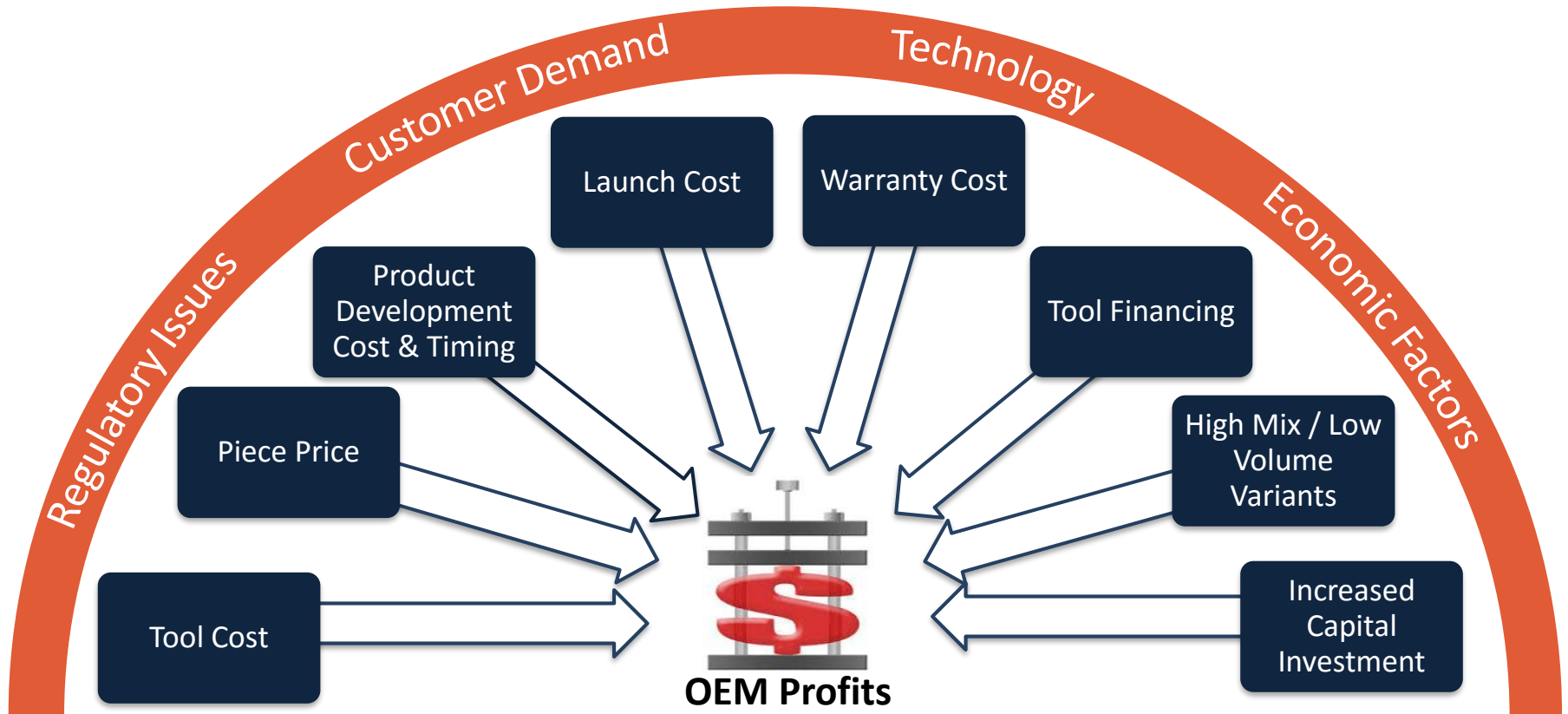


787 total tooling
costs ~\$5.5B

*Currently lose an
average of \$15.6
million per aircraft,
driven in part by
tooling costs*

Source: Flight Global, Company reports

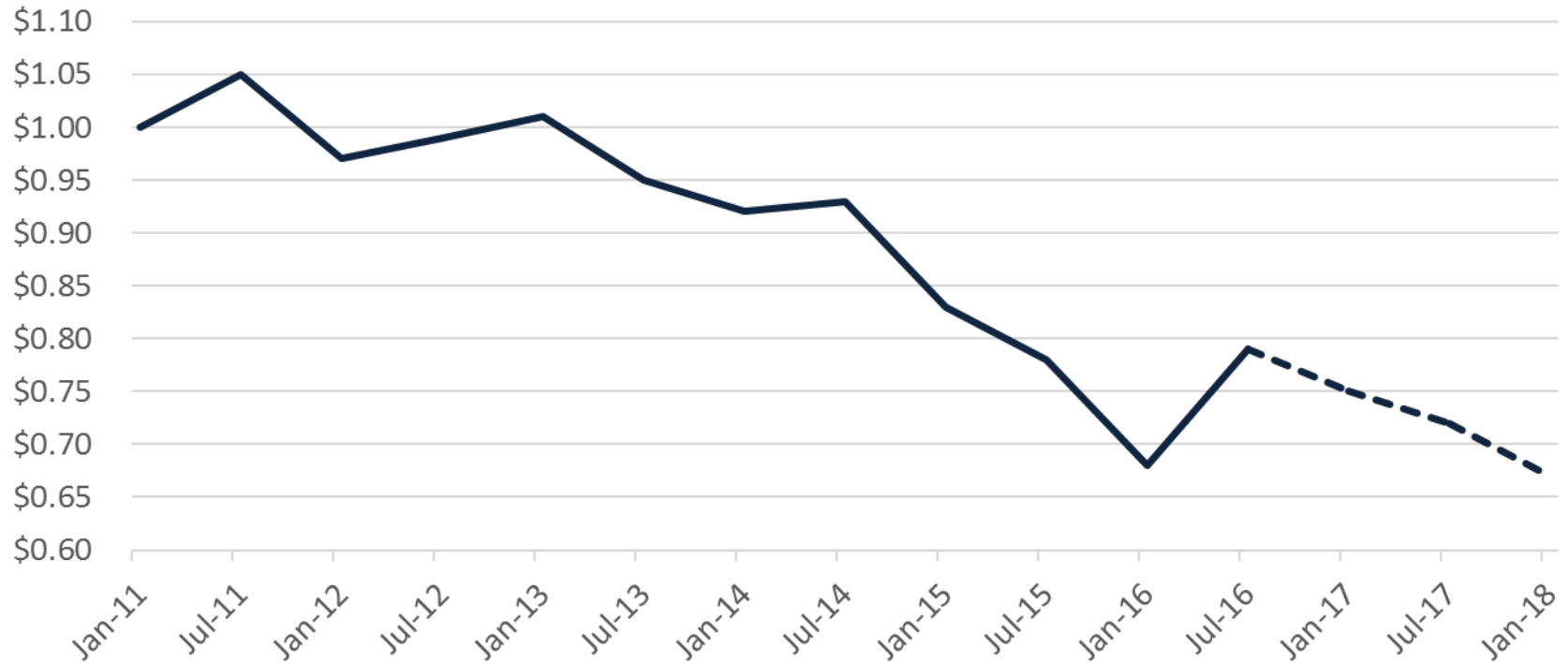
OEM Profits are at Risk



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GEOGRAPHIC TRENDS

CAD/USD Exchange Rate Challenges Industry



Exchange Rate Drives Canadian Advantage

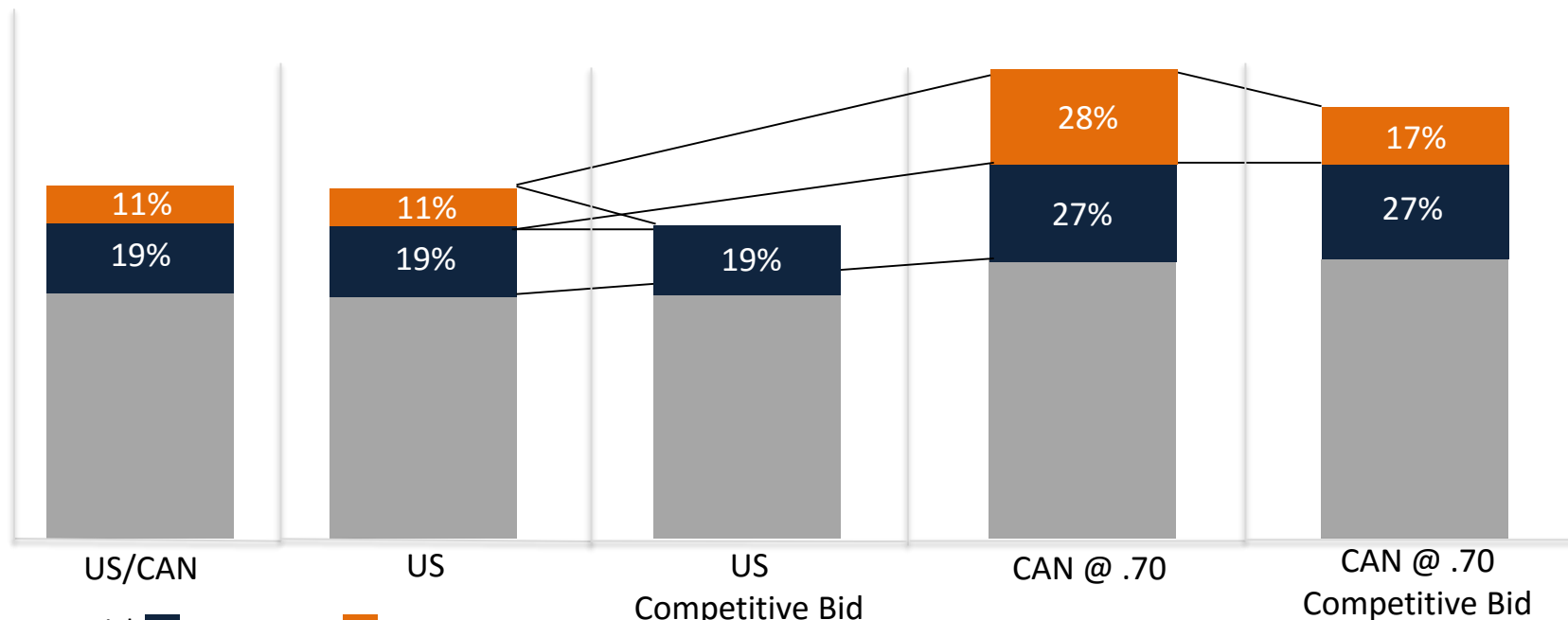
Revenue: \$1M

\$1M

\$0.89M

\$1.43M

\$1.27M



Raw Material

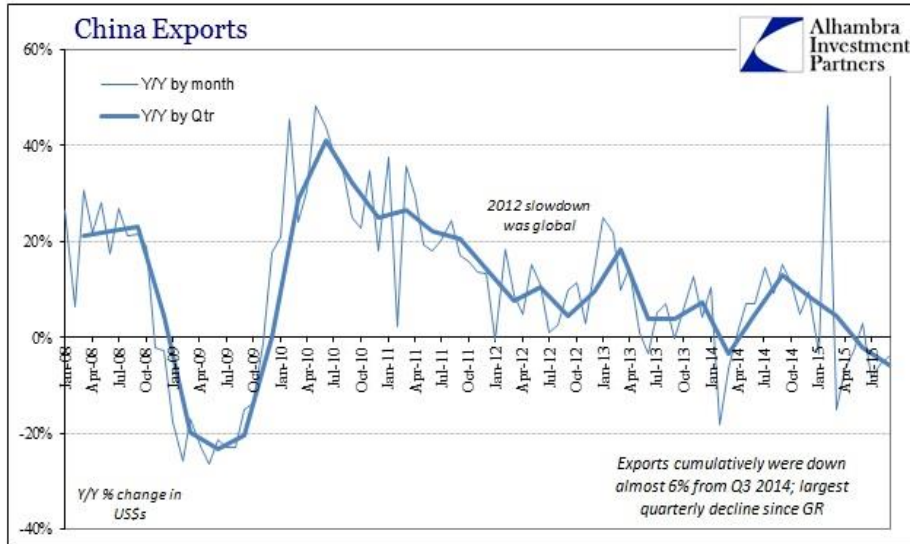
EBIT

SG&A, Overhead, Subcontracting and Wages remain relatively unchanged

China Exports are Slumping, but for Tooling?

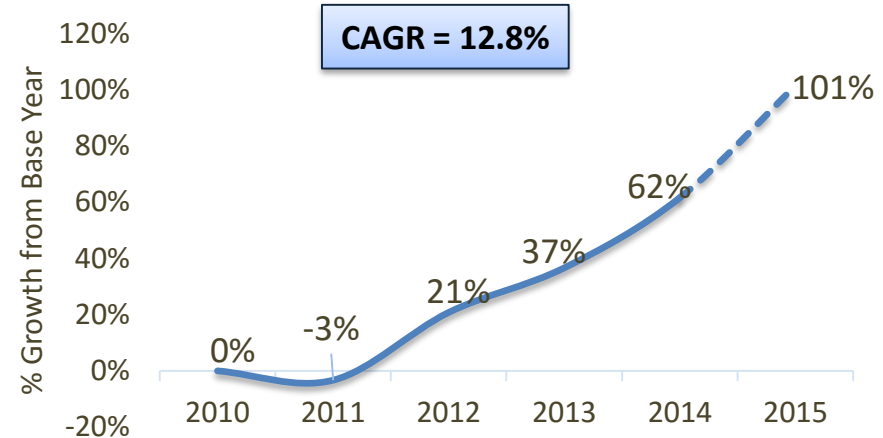


China's export growth has slowed,
is negative in 2015



However, tooling demand from North
America has increased

Growth in Revenue for China Shops



Source: Alhambra

Source: Harbour IQ

Mexico Manufacturing Expanding Rapidly

Automakers have announced \$24.2 billion worth of investment in Mexico ...nearly a third of all new spending... -- Car and Driver, October 30, 2015



*Over 300 **aerospace** component facilities have located new plants in Mexico and are exporting over **\$5B** in aerospace parts.*

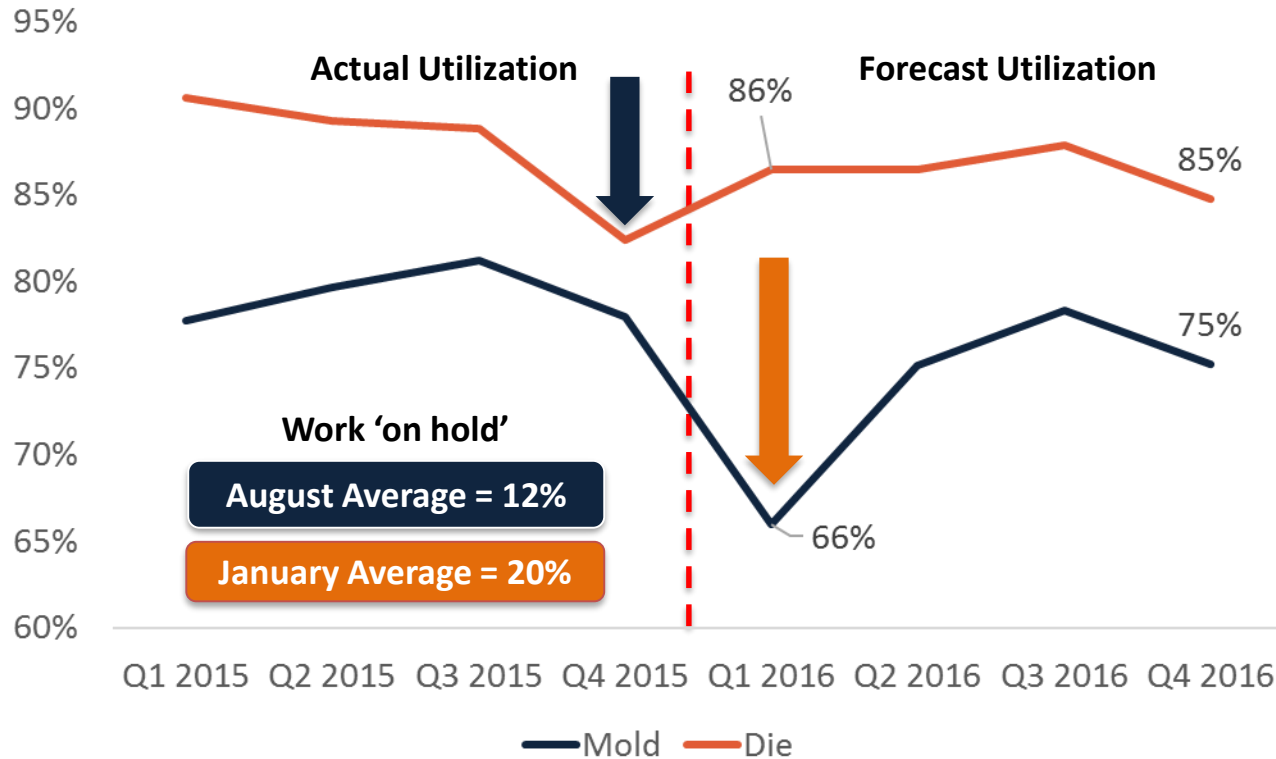
Mold Shops are Following...but not die shops



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MANUFACTURING PERFORMANCE

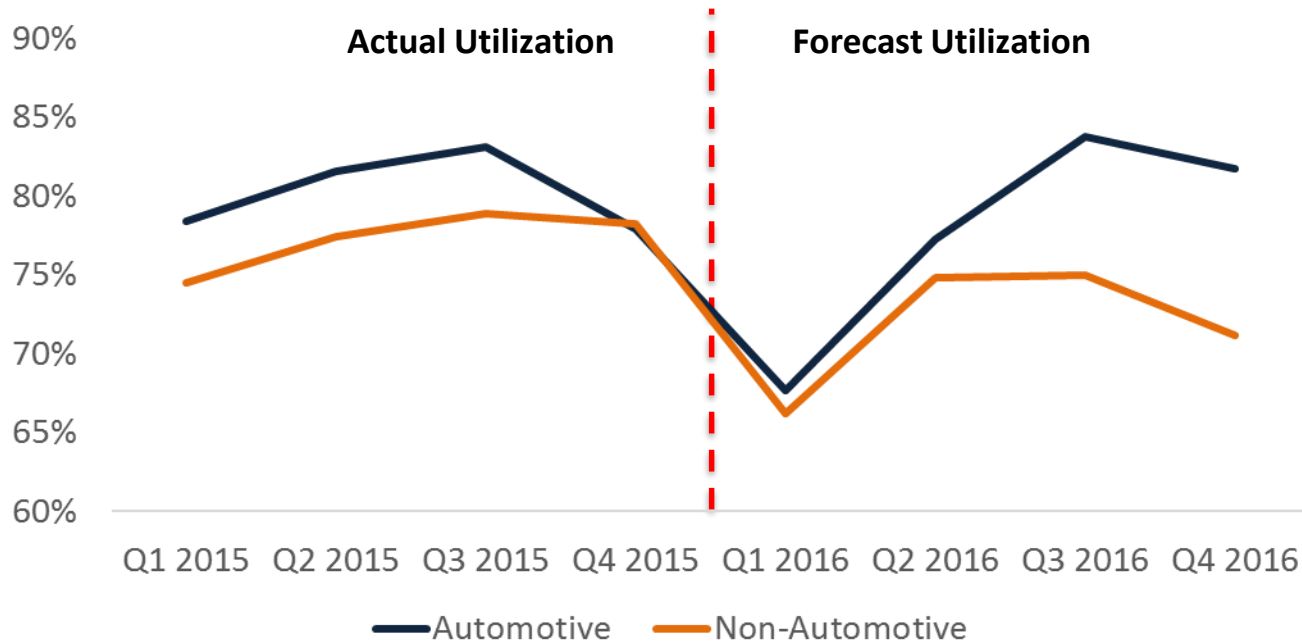
Capacity Utilization Expected to be Low in 2016



To better understand the wide discrepancy we see between mold and die in Q1 2016, we looked at utilization rates by company. In short, a majority of mold and die shops had slowed down, however, there were several die shops that were very busy and drove the overall die utilization rate up

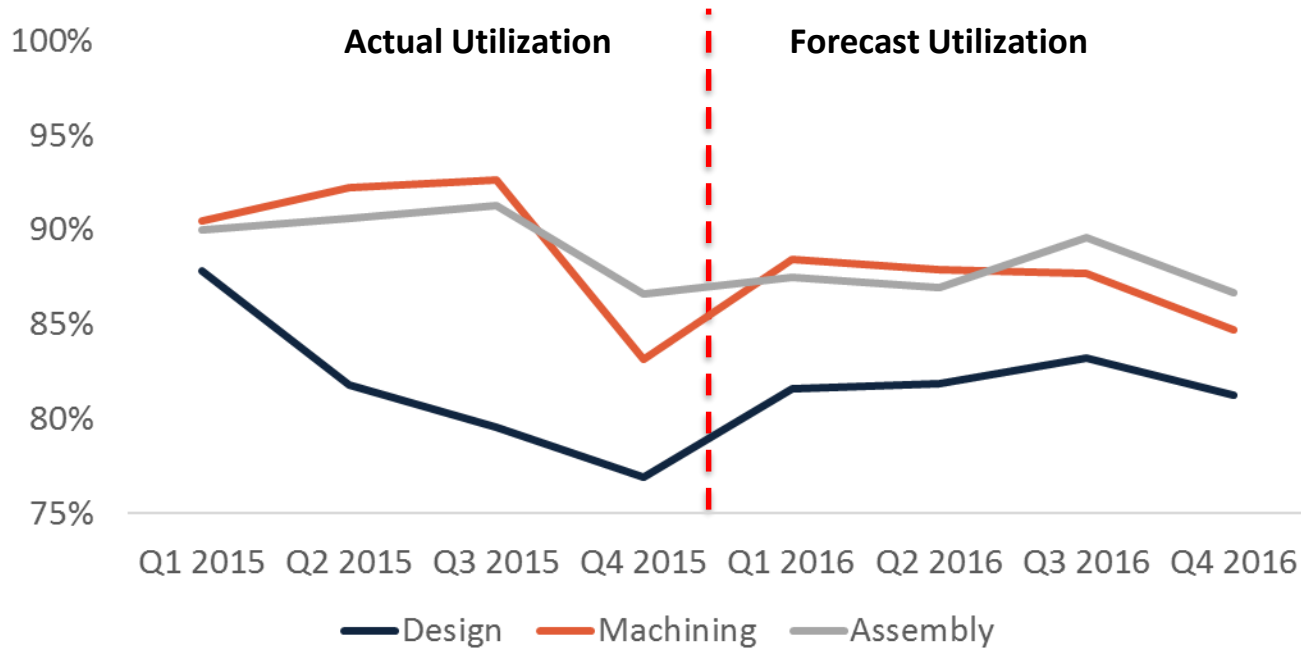
Note: Mold and die shops asked to provide forecasted (not booked) capacity utilization for 2016

Non-Auto Tool Shops Appear Less Utilized



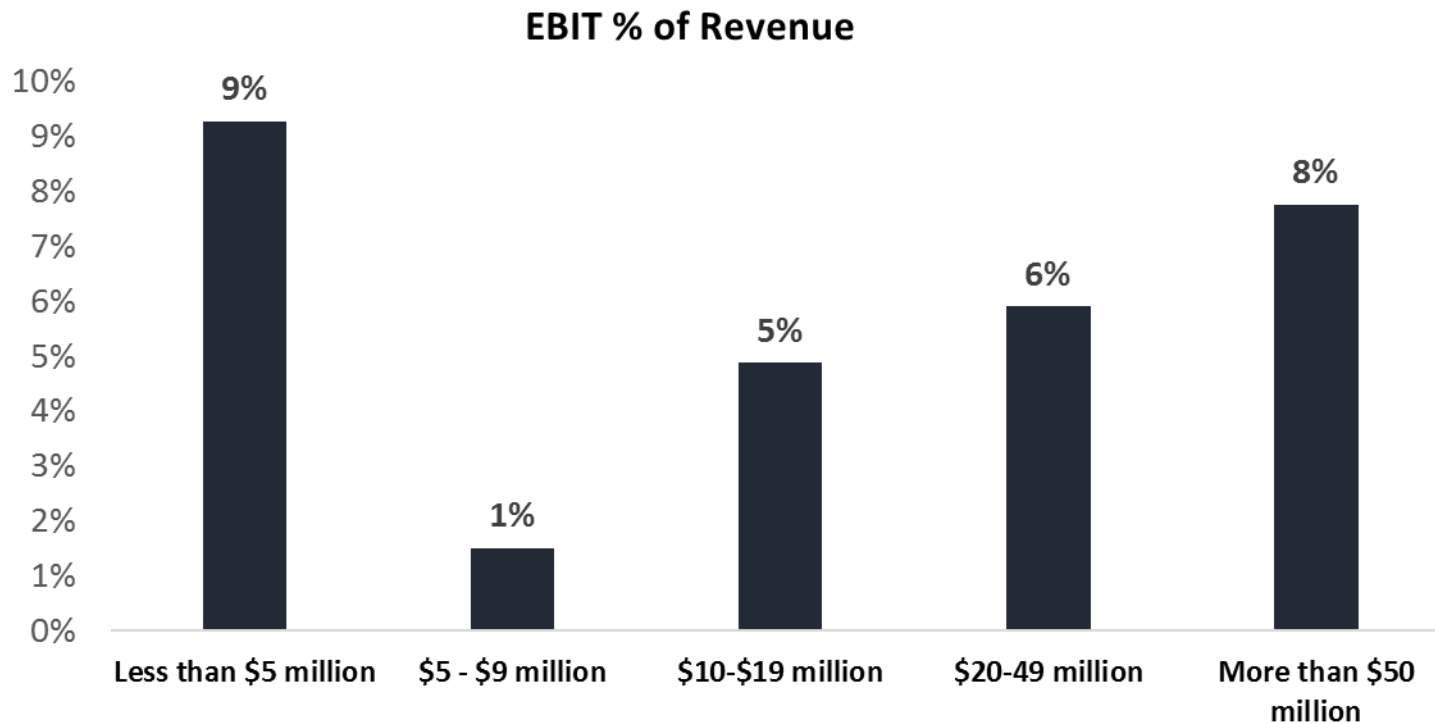
Automotive tool shops expect to be busier in 2016. This is partly driven by a slowdown in appliance, high inventory in heavy truck, and low oil and gas prices.

Capacity Utilization – Die Job Function

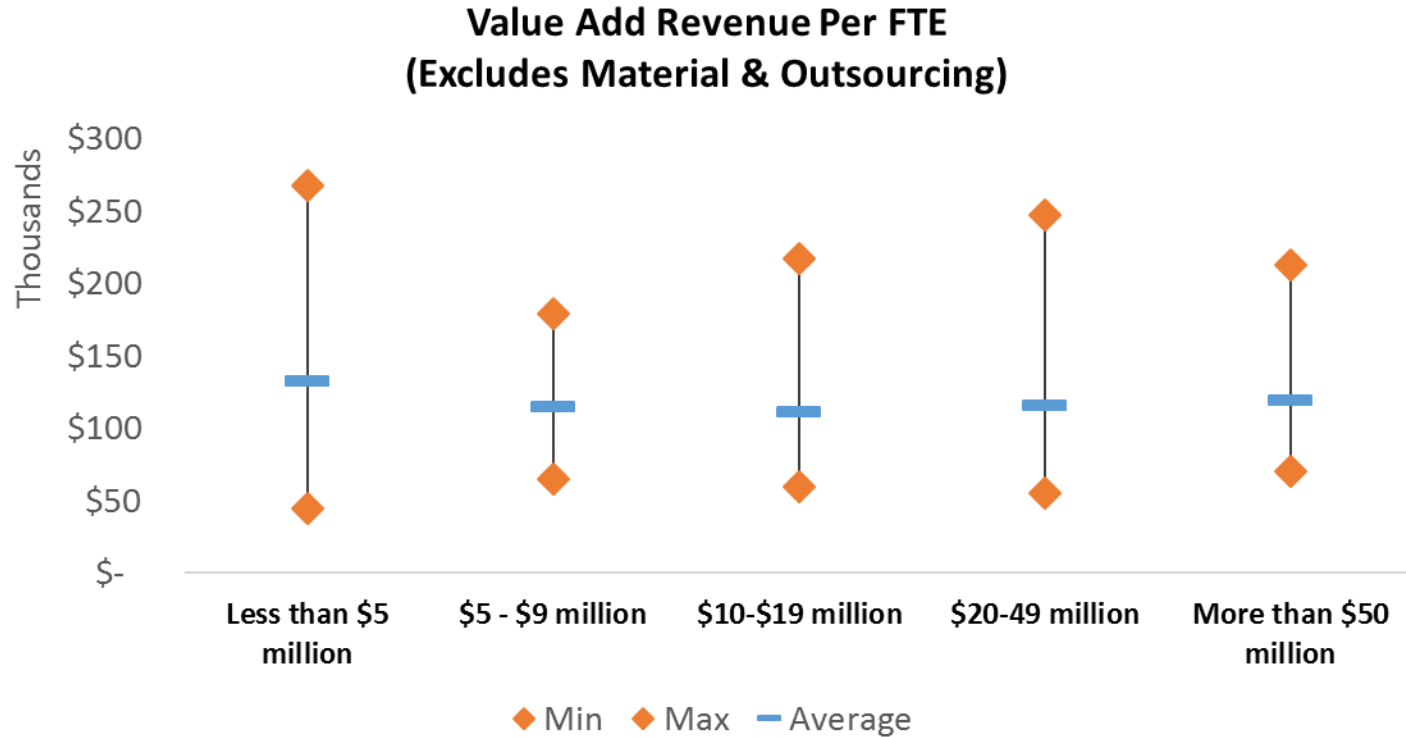


Die shops also have some available capacity in 2016, and are unsure about sales later in the year

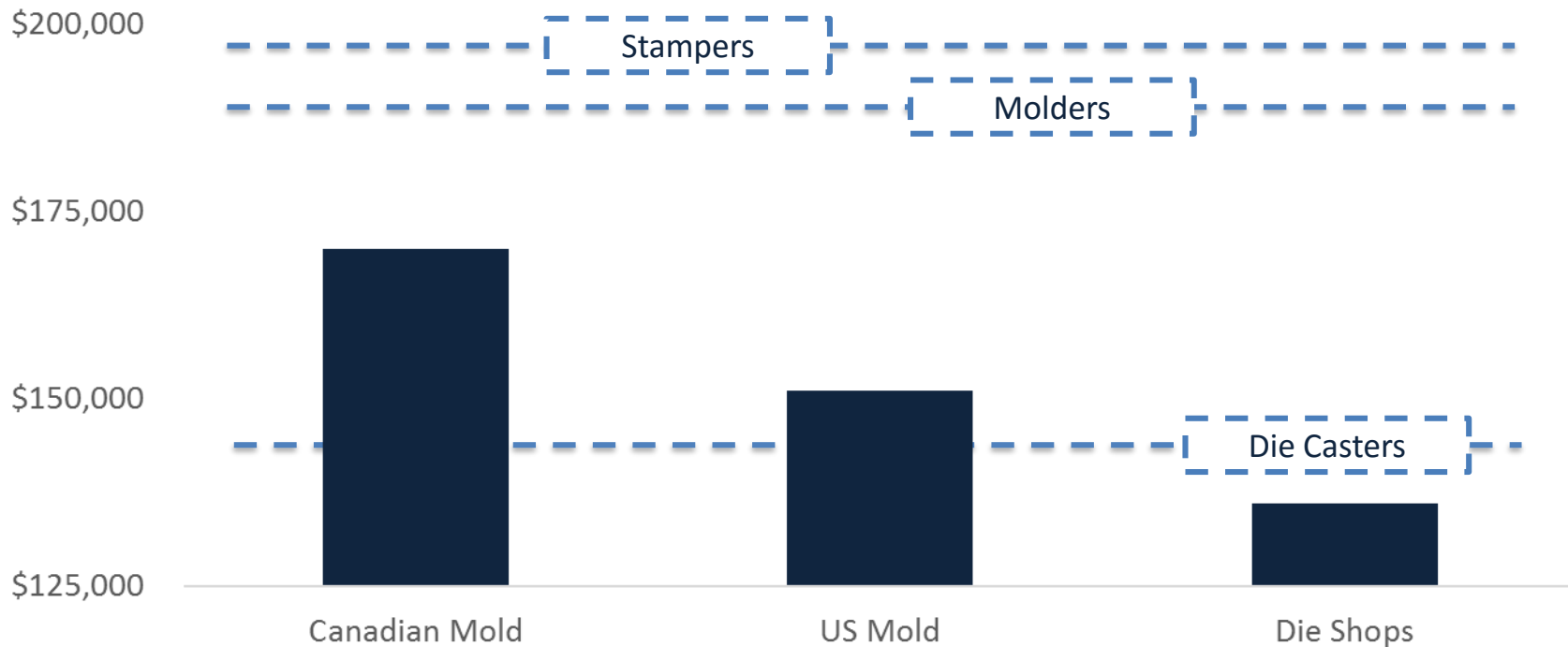
PMA Stamping Benchmarking



PMA Stamping Benchmarking

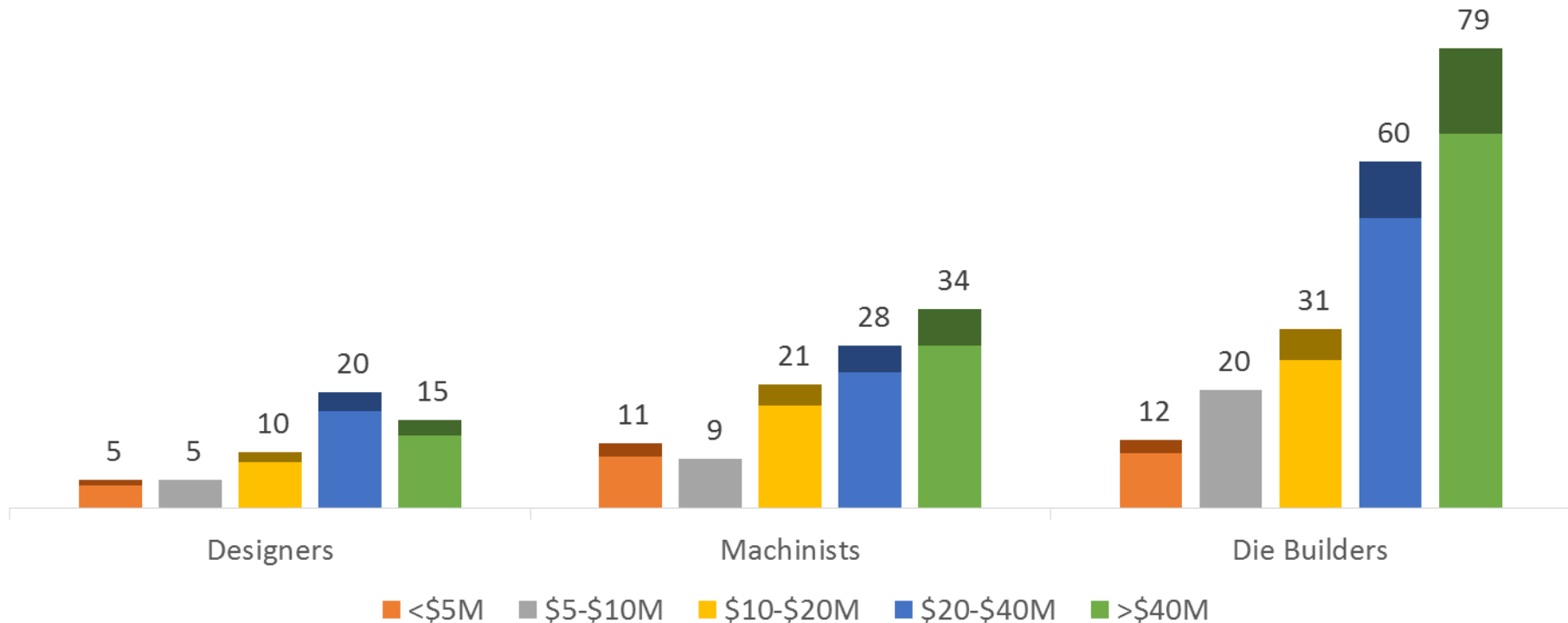


Manufacturing Competitiveness (Rev/FTE)



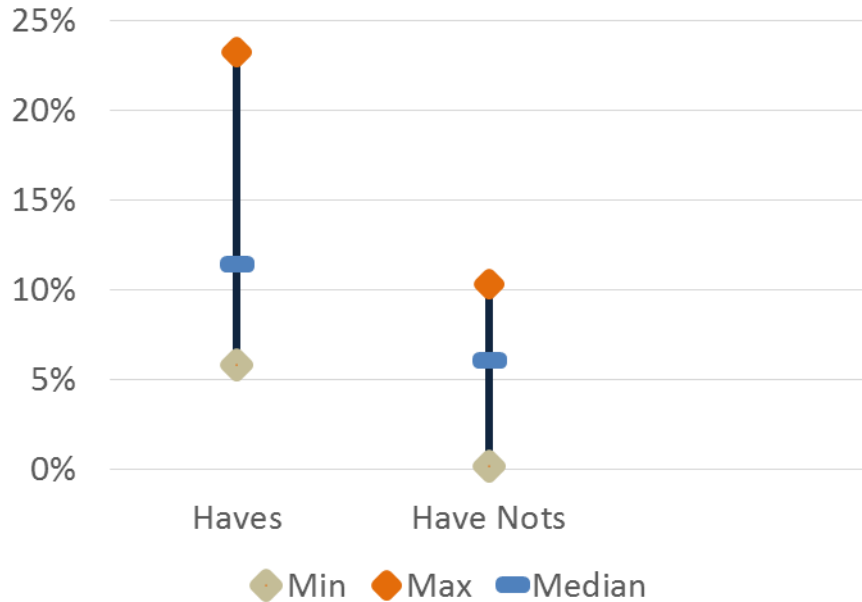
Rev/FTE = (Revenue – Outsourcing) / Full-Time Equivalents

Die Shops Rely Heavily on Die Builders

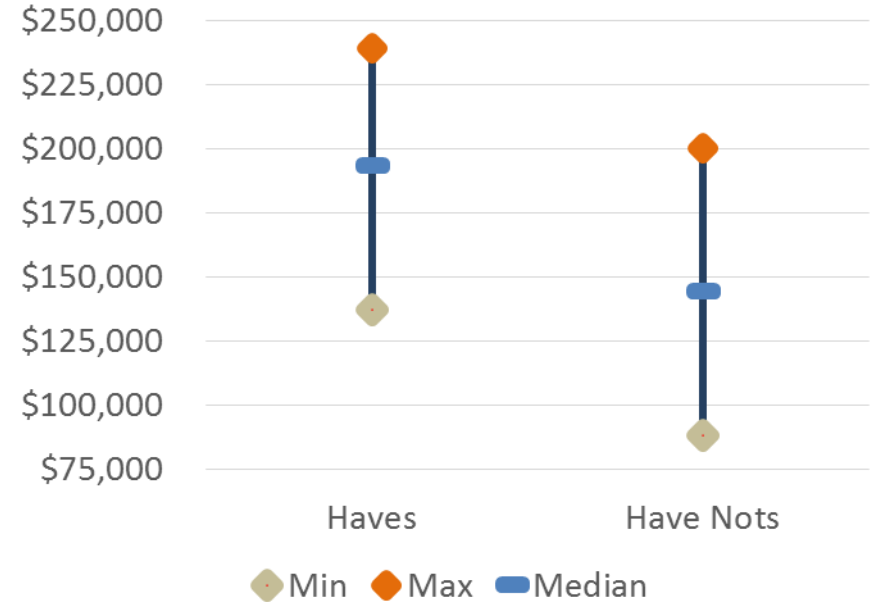


Emergence of the Have's and Have Not's

EBIT Performance



Revenue Per Full Time Equivalent

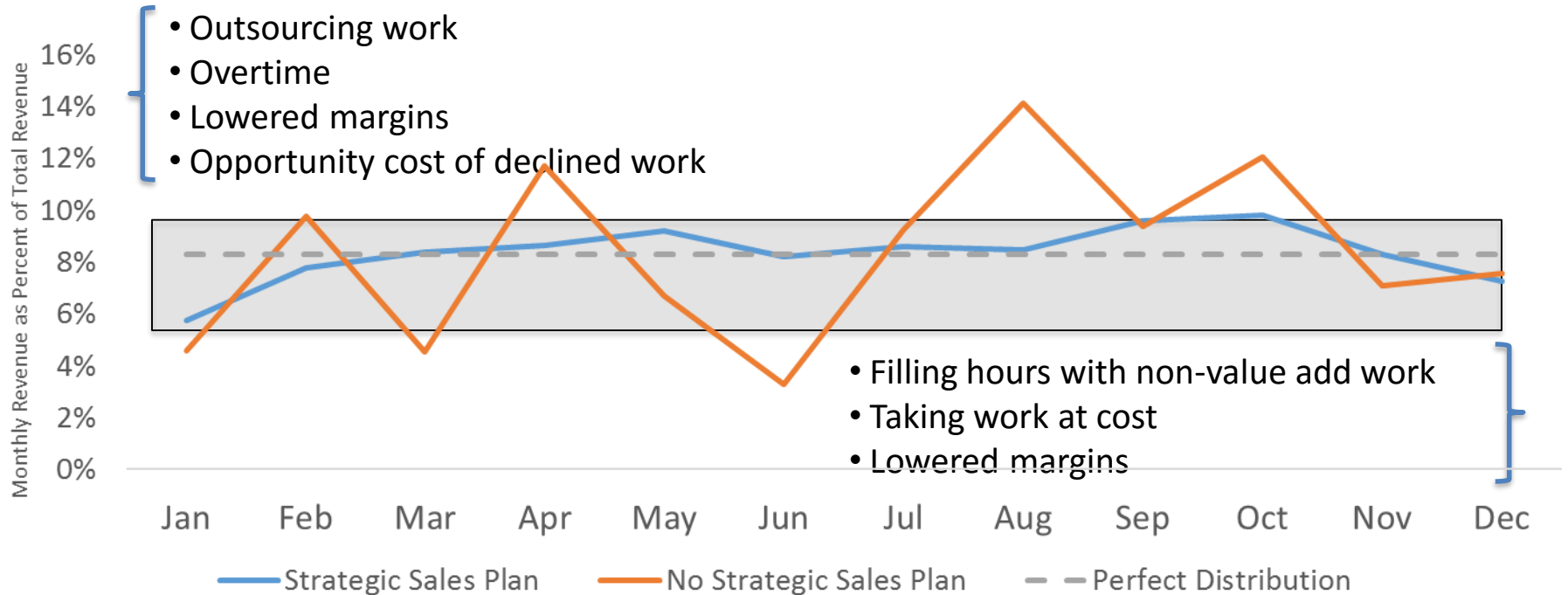


Source: Harbour IQ – U.S. and Canadian Die Shops

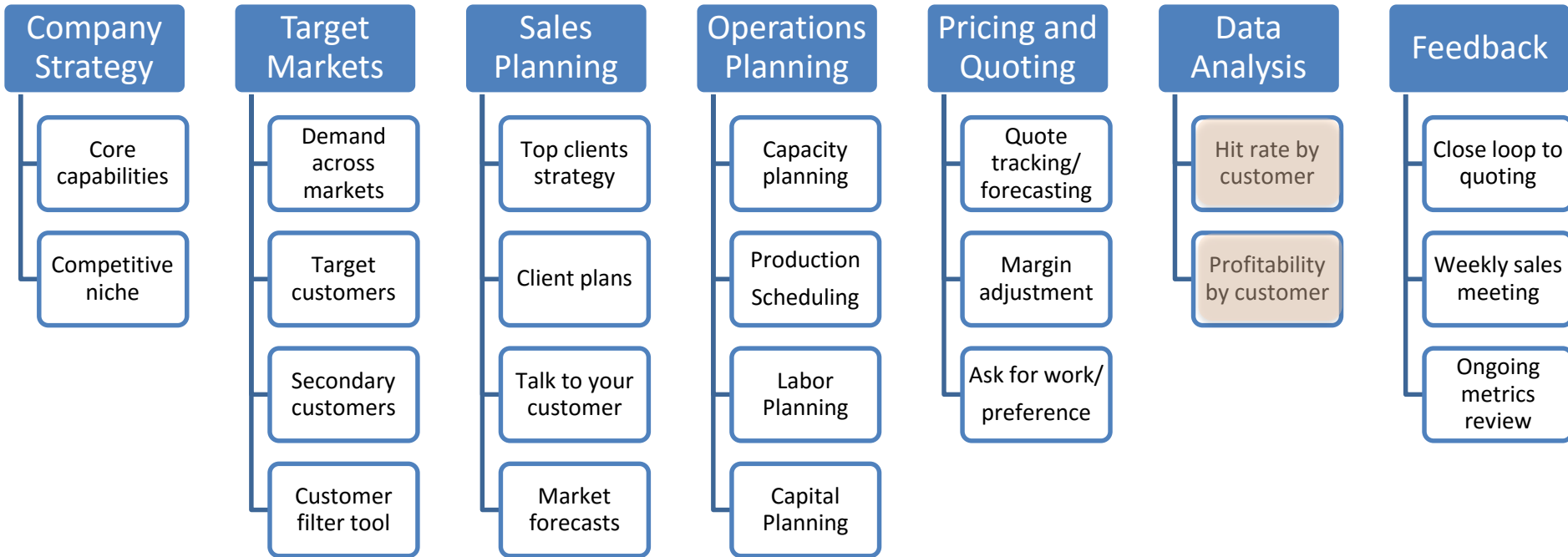
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POSITIONING FOR SUCCESS

Effect of Turbulent Revenue



Strategic Selling Process is the Silver Bullet



Hit Rate Analysis Reveals Inefficiency

Customer	Total Quote (\$)	Total PO (\$)	Hit Rate
Customer 1	\$348M	\$1.1M	0.33%
Customer 2	\$179M	\$1.9M	1.04%
Customer 3	\$163M	\$.3.3M	2.05%
Customer 4	\$96M	\$0.2M	0.17%
Customer 5	\$95M	\$1.9M	1.94%

14-month quote analysis:

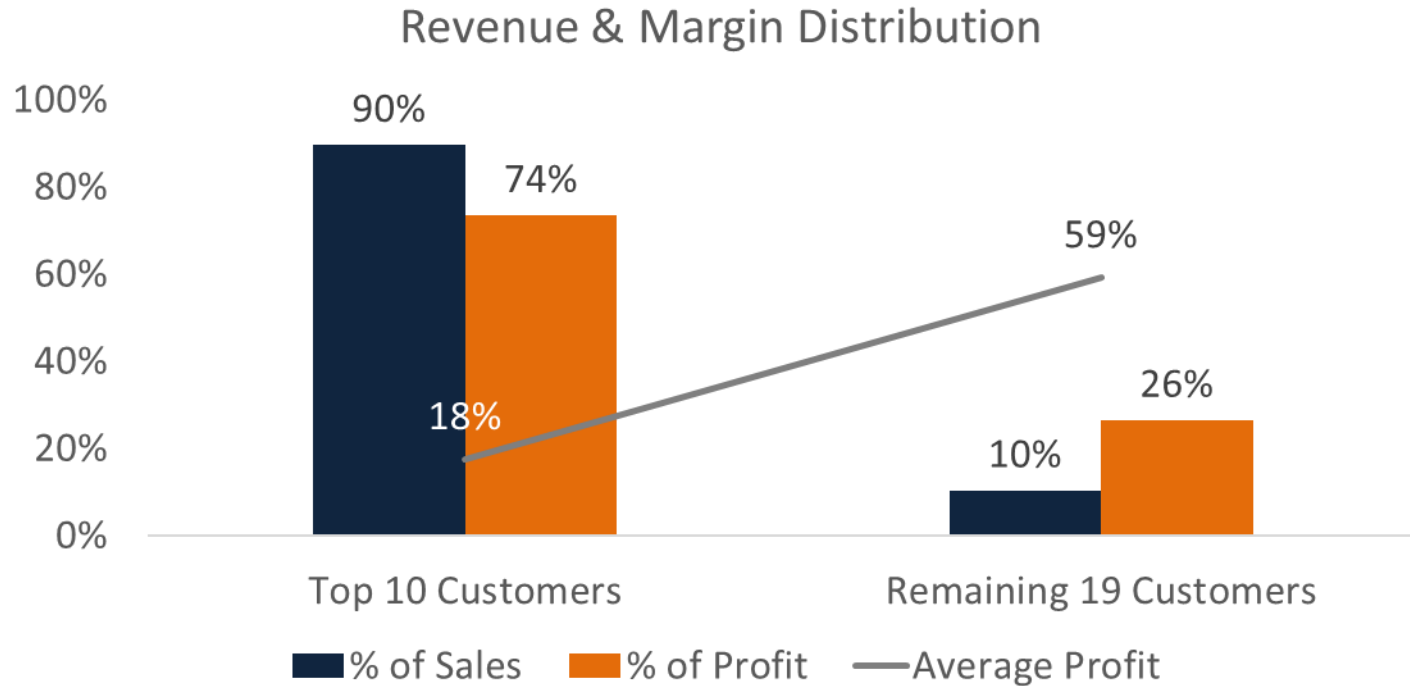
- > \$2B total quotes
- > 4,500 quotes
- 0.91% overall hit rate
- 64% of quoted customers never purchased
- Top 10 customers >75% of total business

Customer	Total Sales (\$)	Total Quote (\$)	Hit Rate
CAT	1,168K	3,821K	31%
GM	1,118K	2,660K	42%
Ford	901K	2,212K	41%
Customer A	215K	9,553K	2%
Customer B	193K	894K	22%
Customer C	176K	2,264K	8%
Customer D	74K	407K	18%
Customer E	60K	485K	12%
Customer F	\$56K	308K	18%
Customer G	\$33K	405K	8%

2015 quote analysis:

- Total hit rate 12% and very high on key customers
- Few customers actually average 12%
- Heavily concentrated on 3 customers
- Large OEMs yet few RFQs

Profit by Customer Can Identify Hidden Gems



Can't Cherry Pick Your Way to Profitability



Where to From Here?

- ✓ Future headwinds are significant
- ✓ Evaluate your sales process
- ✓ What does your data tell you?
- ✓ Adapt your strategy
- ✓ Align sales and operations planning
- ✓ Feedback, feedback, feedback

Leadership is Key

Thank you for the opportunity

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