

The US New-Car Dealership: Past, Present, and Future

(Dealership of Tomorrow 2023 Update)

CADA February 2023

Purpose & disclaimers

PURPOSE

The purpose of the original (January 2017) Dealership of Tomorrow **(DOT)** project, and its subsequent updates, is to provide NADA member dealers information and insights for their own strategic planning processes, *looking ahead about ten years*, as NADA was concerned that members were too focused on short-term operational issues. Note that the goal is to provide information and insights: this report stops short of making policy recommendations or assuming advocacy positions.

DISCLAIMERS

Because DOT (and related projects drawn upon for this presentation) is written for new-car dealers, its review of industry trends focuses on such trends' *impact on dealers*. Broader social, environmental, and other impacts are not considered in any depth. Further, as the primary audience is *American* dealers, developments in other countries are addressed only to the extent they may shape events in the United States. Next, our focus is on **uncertainty, so well-defined trends well underway are mostly ignored (e.g., the rising tide of online sales)**. Finally, this document presents the *opinions of the author only*, not of anyone else, including data sources.

Qualifications

Glenn Mercer is an independent **automotive researcher**. He has over 35 years of automotive experience, beginning in 1985 at a Certain Consulting Firm, where he was a Partner in the Automotive Practice, participating in hundreds of client studies over that time. Since 2006 he has been a sole practitioner. In this period, in addition to project work for investment firms (e.g., Baillie Gifford, Kleiner Perkins, KKR, TPG, Greenbriar, Sterling) , he has been an advisor to industry entities (NADA, NAAA, etc.) a Board member for automotive firms (e.g., Rimstock, Grakon, Ricardo, Stackpole), an expert witness in automotive cases, and a lecturer on automotive economics in academia (e.g., Wharton, Coventry, Case). Prior to beginning his automotive career at McKinsey, he worked at first the CIA and then at BP. He has been President of the Society of Automotive Analysts and Director of the International Motor Vehicle Program. He once owned a Zanardi NSX but sold it, which says something about his ability to forecast!

Disqualifications



“Well, it’s a baffling story. We were the clan who left the rain, rocks, and wind of Scotland for ... the wind, rain, and rocks of Newfoundland...”

Mercer’s Cove, Bay Roberts, Nfld.

The US New-Car Dealership

Past: “Barbarians at the Gate” Repulsed

Auto retailing forecasts of the recent past

THREATS OF THE 1990s

- Forward integration by OEMs
 - Ford Retail Network
 - GM Retail Holdings
 - Daewoo (!)
- Rise of the lead generators
 - AutoByTel IPOs at >\$40/share
- End of traditional dealers
 - Edsel Ford: publics would “soon” own 40% of dealers, OEMs 40%, families 20%



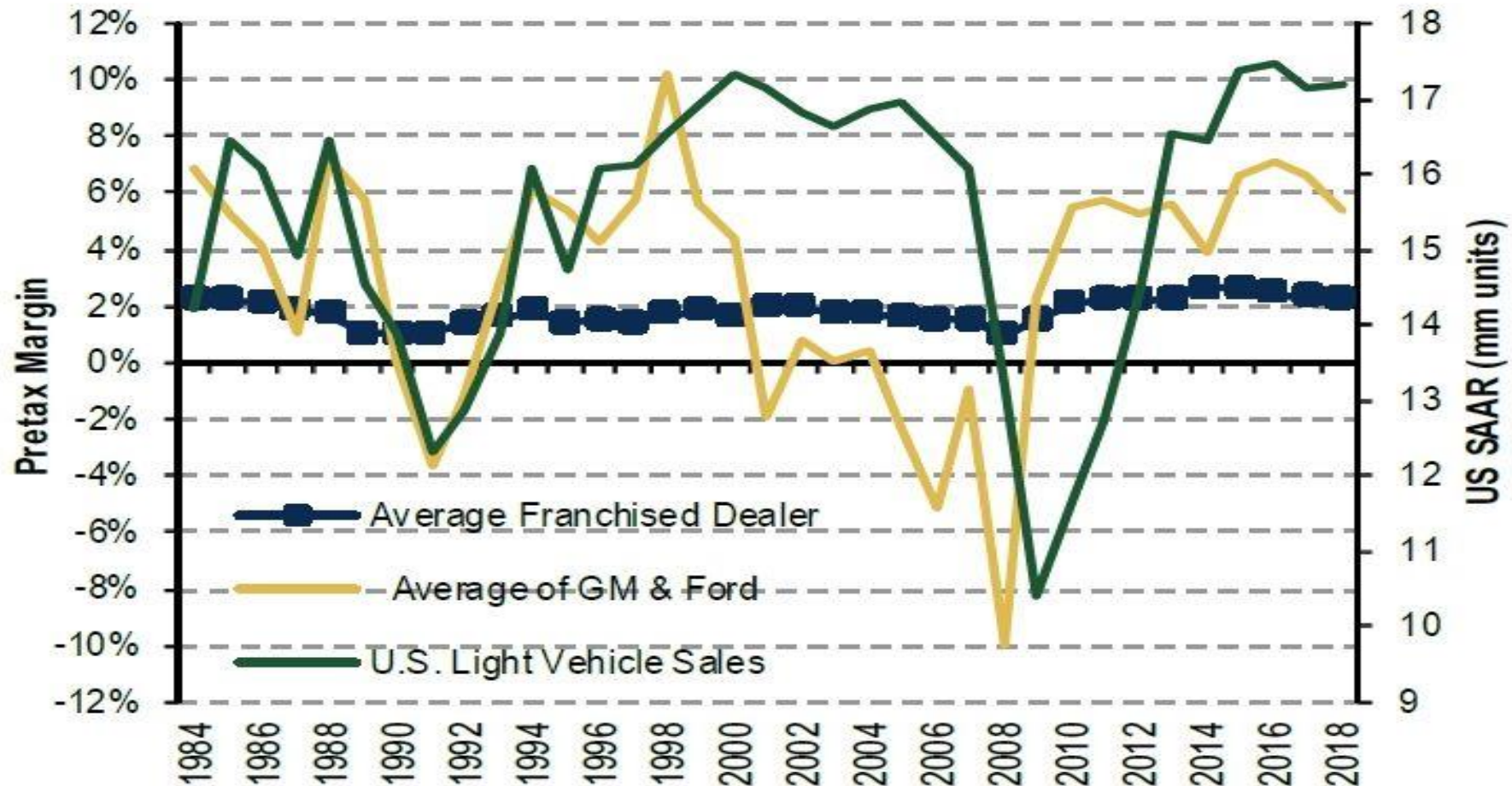
RESULTS OF THE 2000s

- Forward integration
 - FRN: abandoned
 - GMRH: abandoned
 - Daewoo: collapsed
- Rise of the lead generators
 - ABT taken private at \$0.40
- End of traditional dealers
 - Publics c. 10% of unit sales, OEMs <5%, families c. 85%

Other past threats: BTO wipes out inventories, scale economies kill family stores, better car quality decimates service...

Stable dealer profitability despite shock after shock

RECESSIONS, OEM BANKRUPTCIES, SUV BOOM, KOREAN INVASION, REGULATORY TIGHTENING, ETC.



Source: Company filings, WardsAuto InfoBank, NADA

The US New-Car Dealership

Present: “Barbarians 2: The Sequel” Repulsed

Industry mostly on track - except for COVID and chips

USA FORECAST QUESTION: WILL...	2017 FORECAST (FOR 2025)	EVALUTION TODAY	GRADE
... we have cars to sell? ▶ No “peak car” yet, in the USA at least: latent unit demand flat, dollar demand rises**	Yes, 17 mm average SAAR	Supply-limited to 14+, 17 latent	INC or A*
... the physical dealership still exist?	Yes, even as it goes online	Omnichannel dominates	A
... the franchise system still dominate? ▶ In 2017 we worried about the direct model, but missed “agency” experiments	Yes, but with DTC inroads	Yes, but OEMs “nibble” at the edges	B
... there be fewer stores?	Yes, 16.5 k, down from 18 k	No, holding steady at 18 k	F
... there be fewer owners? ▶ Always remember there are two kinds of consolidation!	Yes, 6.5 k, down from 8 k	Yes, on track for this target	A
... dealers still be profitable?	Yes, but at lower levels	Yes, but higher due to chips	INC or B*
... the mix of store profits change?	Yes, service will do more	Yes, but the shift is to new sales	INC or B*
... management of the store change?	Digitization proceeds	Yes (including more OEM control)	A
... the regulatory environment shift?	Only marginally. Watch F&I	Correct, with F&I at the forefront	A

NET NET: “Evolution not revolution, challenges abound but have been manageable, as it ever was.”

* INC = incomplete, *if* you accept the pandemic and chip shortage as unforecastable



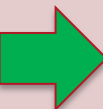


** 14 mm at \$45,000 = \$630 billion, versus 17 mm at \$35,000 = \$600 billion

The US New-Car Dealership

Future: “Carpocalypse” Deferred

Comparing past and current forecasts for CASE+D

(OUR FORECASTS ARE AT ANY POINT IN TIME FOR “5-10 YEARS OUT”)

Trend Domain	2017 Forecast and Dealer impact	2022 Forecast and Dealer Impact	Current Trend Direction and Dealer Threat Level
Connected Car (CC)	Cheap to do, 100% penetration by 2025. Modestly favorable	Same penetration, less favorable to dealers (digital disintermediation)	
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Distribution Channels (DC) *NEW*	Expected mostly in the form of DTC EV firms, taking perhaps a 5% share by 2025.	DTC (excl. Tesla) slower to arrive than expected, but incumbent OEMs now push for “agency”	

OEMs are intent on CC monetization

In the past, the OEMs mostly lost the first three rounds of the CC battle. Remember OEM-installed car phones? OEM-installed in-trunk players of maps on DVD? Radios and cassette decks? “Not again!”



In-car communication: lost to phones



In-car navigation: lost to PNDs and then phones



in-car music (and video?): lost to phones

OEMs are intent on CC monetization



“...if we fast-forward 10 years, the software, services, subscriptions, and other adjacent businesses... will be equal or greater than what we’ll have from selling the vehicle.”

Mary Barra (Chair and Chief Executive Officer, General Motors)



“By 2030, 20% of our [VW Group] revenue will be related to subscriptions and mobility services”

Michael Wintergerst (Executive Vice President, Vehicle & Cloud Platform CARIAD, a Volkswagen Group Company)



“This new business unit [Mobilize] aims at developing new profit pools from data, mobility, and energy-related services... to generate more than 20% of group revenues by 2030.”

Luca de Meo (Chief Executive Officer, Groupe Renault)



“Our new high-margin software business will reach 4 billion Euros of revenues by 2026 and 20 billion Euros by 2030.”

Carlos Tavares (Chief Executive Officer, Stellantis)



CC monetization hope: will the money actually flow in?

ON THE ONE HAND, GAMERS READILY PAY FOR SUBSCRIPTIONS... ON THE OTHER, OEMS MAY COMPETE ALL THE REVENUE AWAY



Source: Chartr from Activision data, Hyundai, Plante Moran from Tesla data

CC monetization hope: will the money actually flow in?

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Bluelink+ vs. Competition										
Comparison of free periods offered at point of new car purchase.										
	Chevrolet	Ford	Toyota	Honda	Hyundai	Nissan	Kia	Subaru	Volkswagen	Tesla
SAFETY/SECURITY										
Auto Collision Assistance	1 Month	N/A	10 Years	1 Year	Complimentary	6 Months	5 Years	3 Years	No Trial	N/A
SOS Assistance	1 Month	N/A	10 Years	1 Year	Complimentary	6 Months	1 Year	3 Years	No Trial	N/A
GPS Roadside Assistance	1 Month	N/A	10 Years	Complimentary	Complimentary	6 Months	1 Year	3 Years	No Trial	N/A
MAINTENANCE										
Remote Diagnostics	10 Years	Complimentary	10 Years	Complimentary	Complimentary	3 Years	1 Year	3 Years	5 Years	8 Years
Maintenance Reminders	10 Years	Complimentary	10 Years	Complimentary	Complimentary	3 Years	5 Years	3 Years	5 Years	8 Years
OTA Software Updates	10 Years	Complimentary	10 Years	Complimentary	Complimentary	3 Years	1 Year	1 Year	5 Years	Wi-Fi
CONVENIENCE / REMOTE										
Remote Access	1 Month	Complimentary	3 Year	3 Months	Complimentary	3 Years	1 Year	1 Year	5 Years	8 Years
Remote Start / Climate	1 Month	Complimentary	3 Year	3 Months	Complimentary	3 Years	1 Year	1 Year	5 Years	8 Years
Car Finder / Tracking	1 Month	Complimentary	3 Year	3 Months	Complimentary	6 Months	1 Year	1 Year	5 Years	8 Years
Stolen Vehicle Tracking	1 Month	N/A	10 Years	3 Months	Complimentary	6 Months	1 Year	1 Year	No Trial	N/A
Remote Charging Control	1 Month	Complimentary	3 Year	N/A	Complimentary	6 Months	5 Years	1 Year	5 Years	8 Years
Parental Alerts (Speed/Loc/Etc.)	1 Month	Complimentary	3 Year	3 Months	Complimentary	6 Months	1 Year	1 Year	5 Years	8 Years
MULTIMEDIA/NAVIGATION										
Connected POI	1 Month	3 Years	1 Year	3 Months	Complimentary	5 Years	1 Year	1 Year	No Trial	8 Years
Send Destination to Car	1 Month	3 Years	1 Year	Complimentary	Complimentary	5 Years	1 Year	1 Year	5 Years	8 Years
OTA Map Updates	1 Month	Wi-Fi	1 Year	Wi-Fi	3 Years	Wi-Fi	1 Year	Wi-Fi	No Trial	Wi-Fi
Sports/Stocks/Weather	1 Month	3 Years	N/A	N/A	Complimentary	5 Years	1 Year	1 Year	No Trial	N/A
OTHER										
UBI	1 Month	1 Year	N/A	3 Months	Complimentary	N/A	N/A	N/A	5 Years	8 Years
Smart Voice Recognition/Assistant	1 Month	3 Years	1 Year	Complimentary	Complimentary	5 Years	1 Year	1 Year	No Trial	8 Years

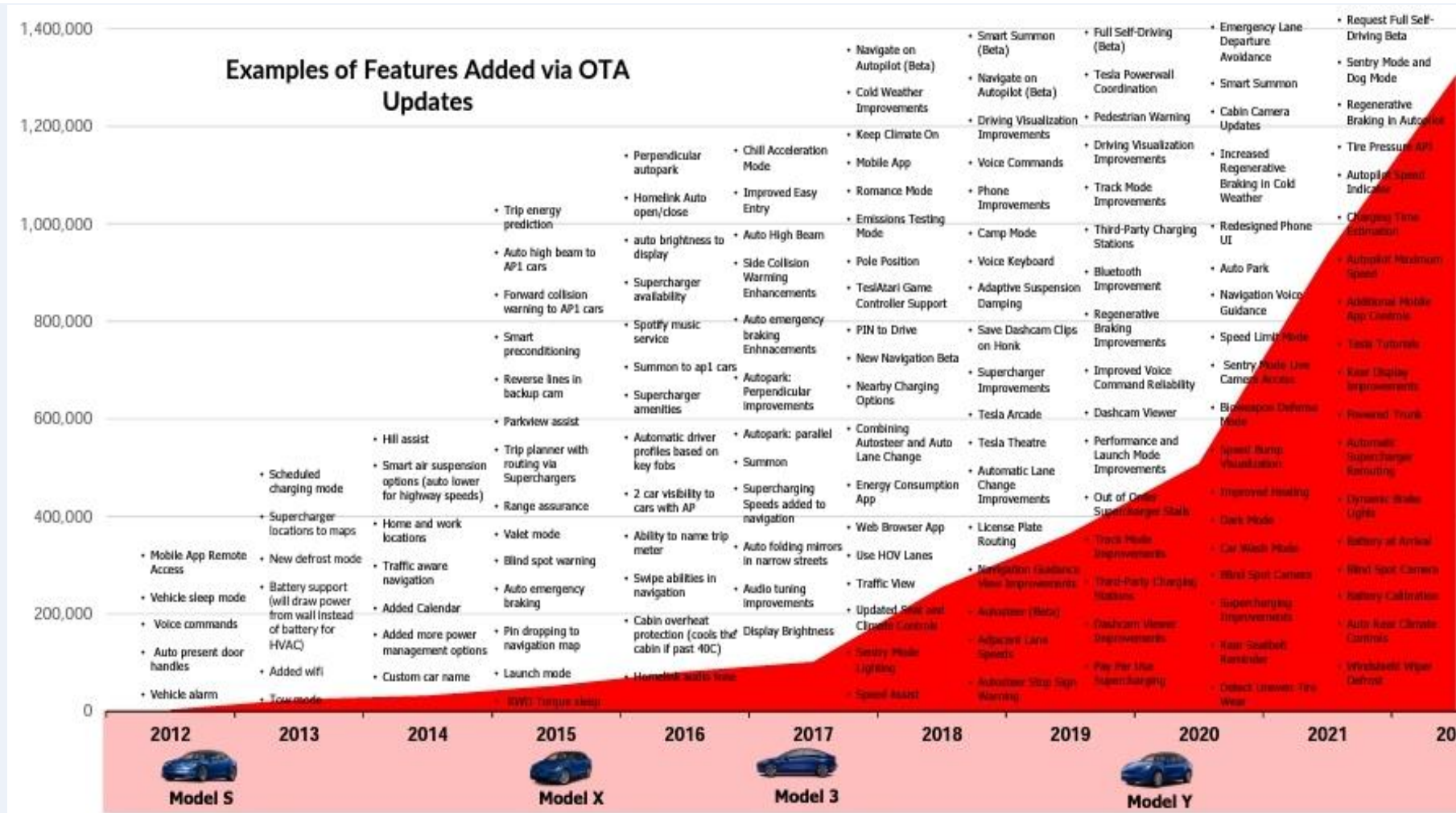
Free Access Period Key: Hyundai Complimentary 5 Years + 1 Year + 1 Year or Less No Free Trial Not Available Wi-Fi

* Information based on publicly available manufacturer connected services web pages as of January 2023.
* Complimentary services dependent on 4G LTE network and related technology.

Source: Chartr from Activision data, Hyundai, Plante Moran from Tesla data

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Implications of CC for dealers are mixed



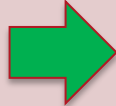


- CC ties car and driver more closely to the OEM and the dealer (positive): e.g., automated in-car physical service reminders with appointment scheduling. See Lexus Service Connect, FordPass, Hyundai Bluelink, etc...
 - For safety recalls and other system upgrades, OTA updates are fast and useful, though the role of the dealer may be altered (neutral?).
 - CC enables a proliferation of digital / OTA product revenue opportunities, but how and to what extent such opportunities are shared with the channel is unclear (negative).
- ▶ See Distribution Channels section

Connected Car Summary:

1. Rapidly proceeding
2. Emerging as an issue for dealers

Comparing past and current forecasts for CASE+D

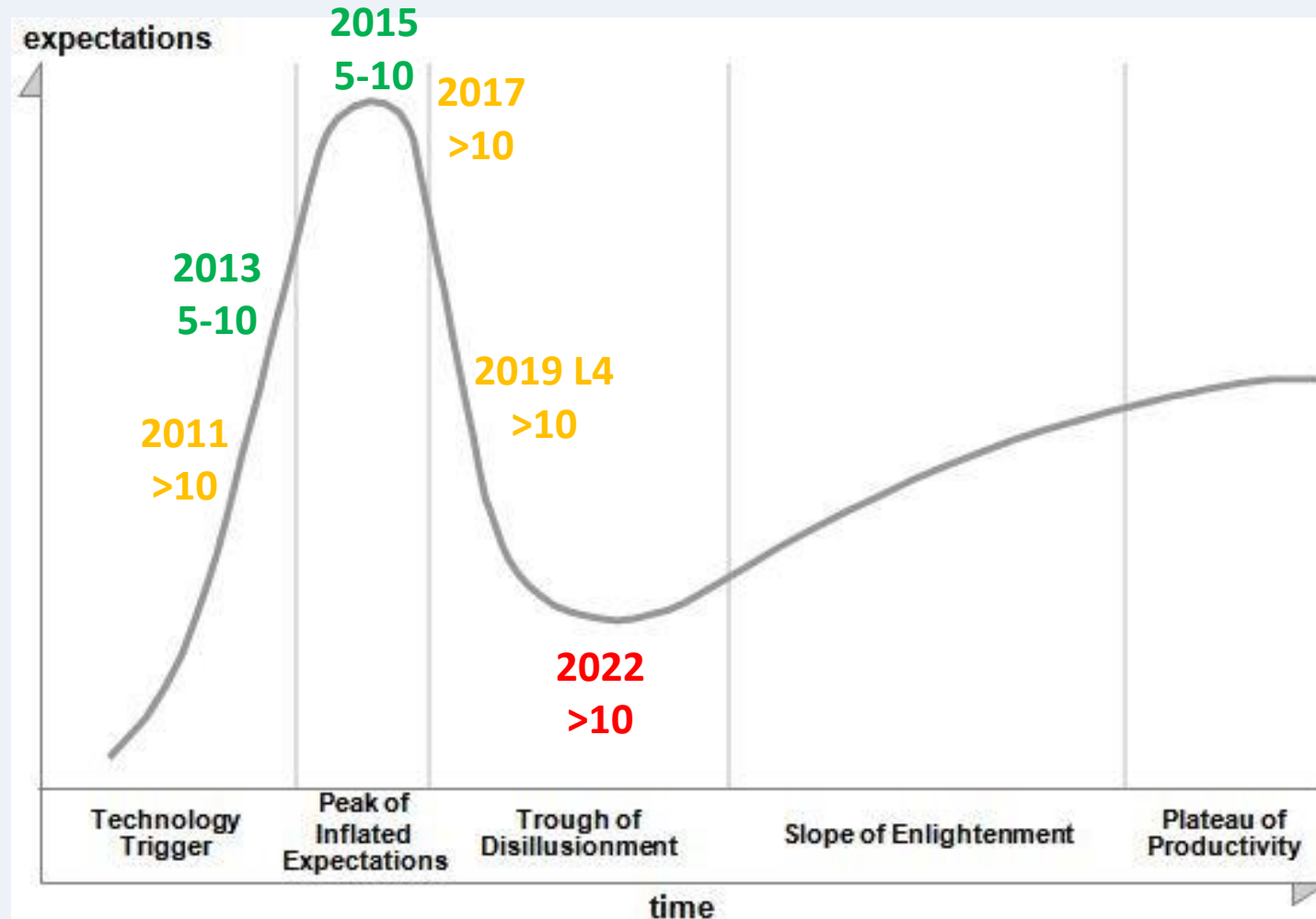
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* ADAS = Advanced Driver Assistance Systems; L4 = Level 4 SAE AV category

AVs and the Gartner “hype cycle:” on the way, but delayed

PLACEMENT OF AV ON HYPE CYCLE CHART BY YEAR, WITH EXPECTED YEARS TO PLATEAU STAGE



AV progress has been glacial, but now speeding up...

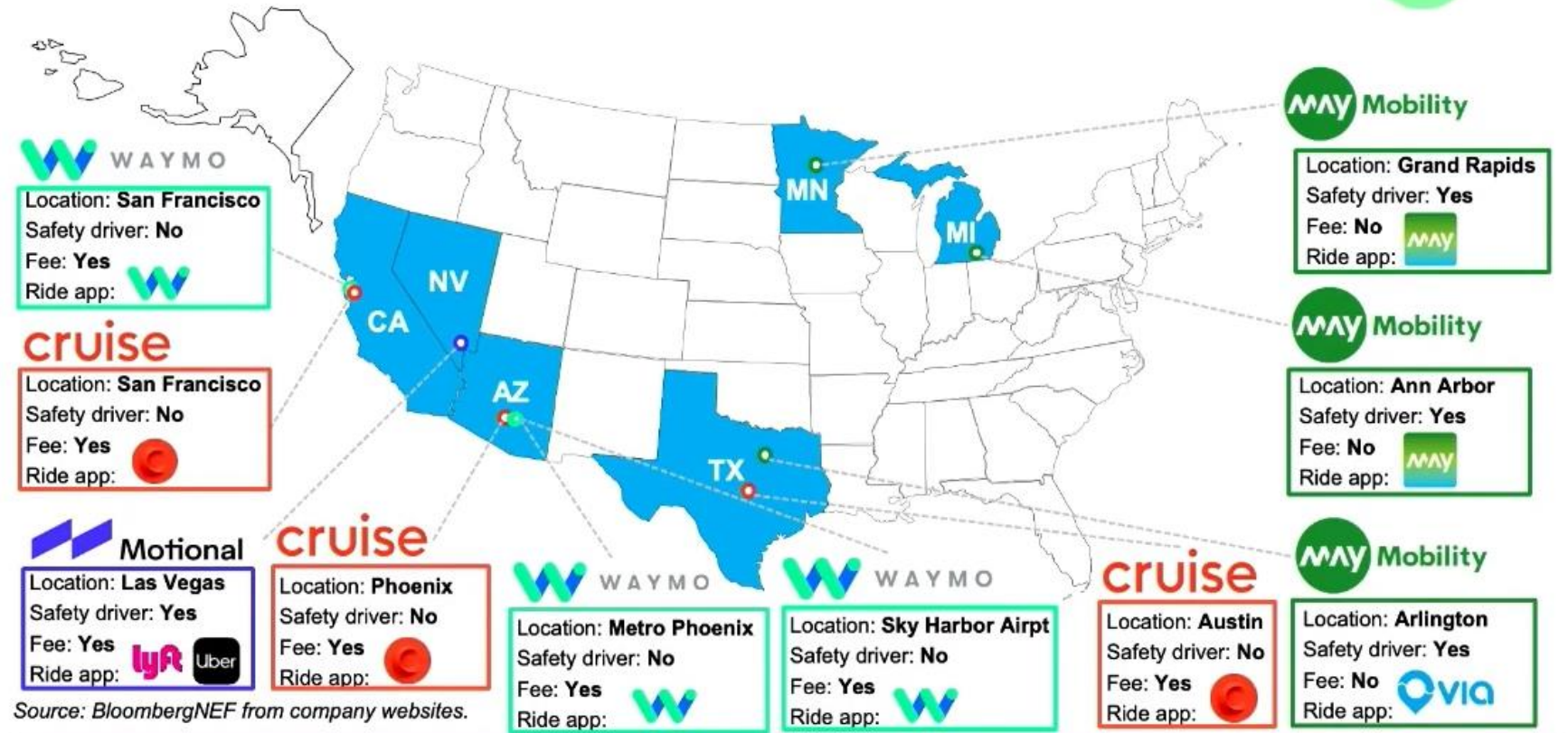
The years in blue indicate when the industry leaders thought these predictions would come to pass. I have highlighted all the dates up through 2021, now numbering 17 of the 23 predictions. Not one of them has happened or is even close to happening.

FORECASTS: http://www.driverless-future.com/?page_id=384 March 27, 2017

NVIDIA to introduce level-4 enabling system by **2018** (2017)
NuTonomy to provide self-driving taxi services in Singapore by **2018**, expand to 10 cities around world by **2020** (2016)
Delphi and MobilEye to provide off-the-shelf self-driving system by **2019** (2016)
Ford CEO announces fully autonomous vehicles for mobility services by **2021** (2016) ←
Volkswagen expects first self driving cars on the market by **2019** (2016)
GM: Autonomous cars could be deployed by **2020** or **sooner** (2016) ←
BMW to launch autonomous iNext in **2021** (2016) ←
Ford's head of product development: autonomous vehicle on the market by **2020** (2016) ←
Baidu's Chief Scientist expects large number of self-driving cars on the road by **2019** (2016)
First autonomous Toyota to be available in **2020** (2015) ←
Elon Musk now expects first fully autonomous Tesla by **2018**, approved by **2021** (2015)
US Sec Trans: Driverless cars will be in use all over the world by **2025** (2015)
Uber fleet to be driverless by **2030** (2015) ←
Ford CEO expects fully autonomous cars by **2020** (2015) ←
Next generation Audi A8 capable of fully autonomous driving in **2017** (2014)
Jaguar and Land-Rover to provide fully autonomous cars by **2024** says Director of Research and Technology (2014)
Fully autonomous vehicles could be ready by **2025**, predicts Daimler chairman (2014) ←
Nissan to provide fully autonomous vehicles by **2020** (2013) ←
Truly autonomous cars to populate roads by **2028-2032** estimates insurance think tank executive (2013)
Continental to make fully autonomous driving a reality by **2025** (2012)

AV progress has been glacial, but now speeding up...

Public robotaxi services in the US



Source: BloombergNEF from company websites.

BNEF

BloombergNEF

But here's an AV business case that may work!



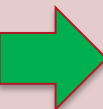




Autonomous Vehicle Summary:

- 1. Stumbled badly, now recovering**
- 2. ADAS an upside, AV less of a downside**

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Car ownership in cities shows no erosion (yet?) from ridehail

PERSONALLY-OWNED VEHICLES PER HOUSEHOLD (V/H), SELECTED US METROS OVER TIME (UBER LAUNCHED IN 2009)

	2010	2015	2021
Chicago	1.64	1.66	1.67
Los Angeles	1.80	1.84	1.89
New York	1.24	1.26	1.24
San Francisco	1.70	1.74	1.76
Washington DC	1.77	1.78	1.78
Simple average	1.63	1.65	1.66



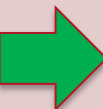


Source: Bruce Schaller, from Census data. His view: “The evidence in these data certainly fails to support the proposition that ride-hail has produced lower levels of vehicle ownership. Rather, these trends tend to suggest that the influx of ride-hail and other new mobility options has not translated to lower vehicle ownership rates.” (Schaller, *Recent Vehicle Ownership Trends in Large US Cities*, May 2020) Data updated by Mercer

Mobility Services (ridehail) Summary:

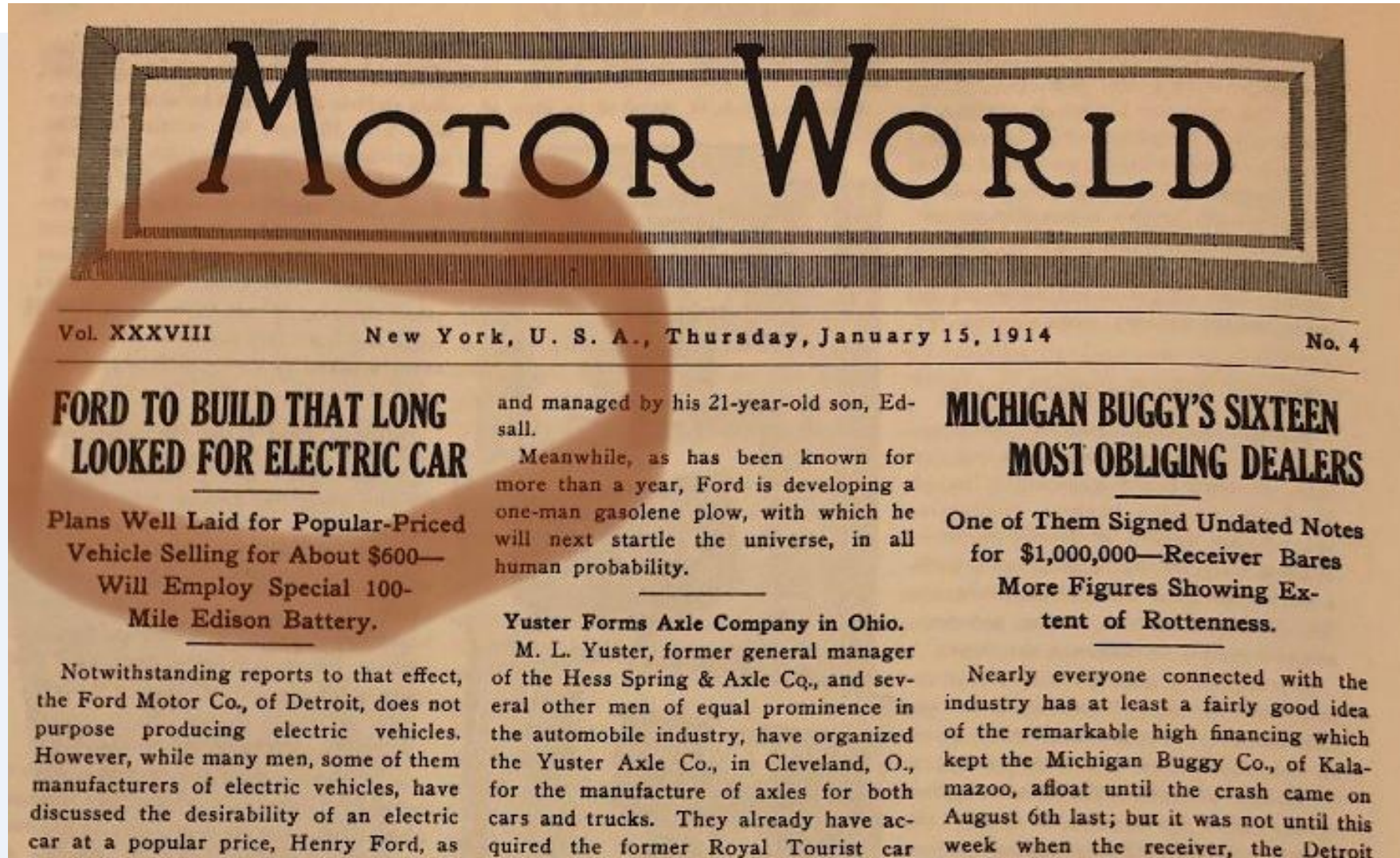
- 1. Absorbed into the mobility landscape**
- 2. Threat has generally receded**

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EVs in 1914... is today different?

A hand is shown holding a vintage issue of Motor World magazine. The magazine cover is the central focus, featuring a large, stylized title 'MOTOR WORLD' in a decorative frame. Below the title, it lists 'Vol. XXXVIII', 'New York, U. S. A., Thursday, January 15, 1914', and 'No. 4'. The cover contains three main articles with bold headlines and sub-headlines, each followed by a short paragraph of text.

MOTOR WORLD

Vol. XXXVIII New York, U. S. A., Thursday, January 15, 1914 No. 4

**FORD TO BUILD THAT LONG
LOOKED FOR ELECTRIC CAR**
Plans Well Laid for Popular-Priced
Vehicle Selling for About \$600—
Will Employ Special 100-
Mile Edison Battery.

Notwithstanding reports to that effect, the Ford Motor Co., of Detroit, does not purpose producing electric vehicles. However, while many men, some of them manufacturers of electric vehicles, have discussed the desirability of an electric car at a popular price, Henry Ford, as

and managed by his 21-year-old son, Edsall.

Meanwhile, as has been known for more than a year, Ford is developing a one-man gasoline plow, with which he will next startle the universe, in all human probability.

Yuster Forms Axle Company in Ohio.
M. L. Yuster, former general manager of the Hess Spring & Axle Co., and several other men of equal prominence in the automobile industry, have organized the Yuster Axle Co., in Cleveland, O., for the manufacture of axles for both cars and trucks. They already have acquired the former Royal Tourist car

**MICHIGAN BUGGY'S SIXTEEN
MOST OBLIGING DEALERS**
One of Them Signed Undated Notes
for \$1,000,000—Receiver Bares
More Figures Showing Ex-
tent of Rottenness.

Nearly everyone connected with the industry has at least a fairly good idea of the remarkable high financing which kept the Michigan Buggy Co., of Kalamazoo, afloat until the crash came on August 6th last; but it was not until this week when the receiver, the Detroit

Yes it is. We looked at 12 factors to answer that question.

275 EXHIBITS ARRANGED BY TWELVE TOPIC AREAS

1. *Inputs to the EV market*

- Customers
- Vehicles
- Batteries
- Charging
- Governments
- Economics



3. *Outcomes*

- Sales
- Dealers



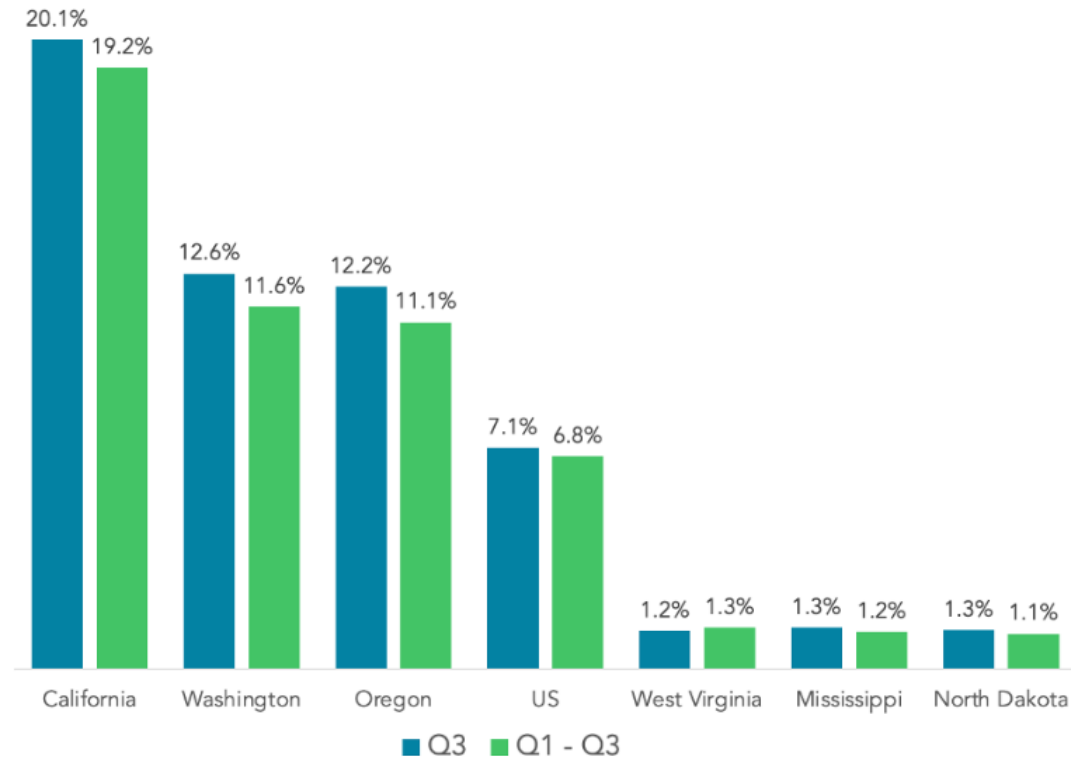
2. *Impacts of EVs elsewhere*

- Environment
- Grid
- Employment
- Geopolitics

Green = positive trend, yellow = neutral, red = negative

Customers: interest in EVs grows... but very unevenly

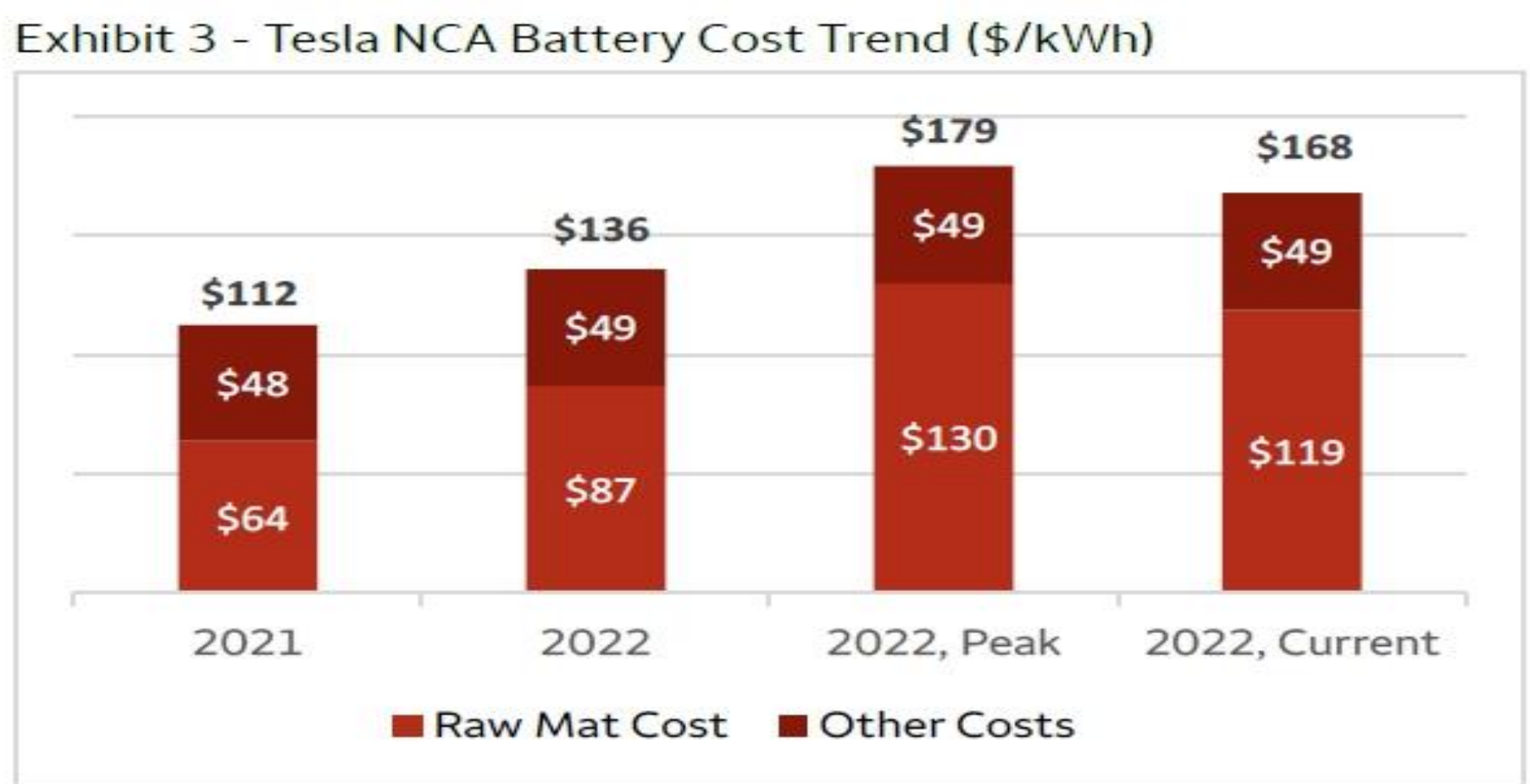
California EV Sales Share Reaches 20% in Q3 2022 US Overall Reaches 7.1%



Data Source: Alliance for Automotive Innovation/S&P Global Mobility
Research & Chart: EVAdoption, LLC | December 26, 2022

Economics: unfortunately weakening...

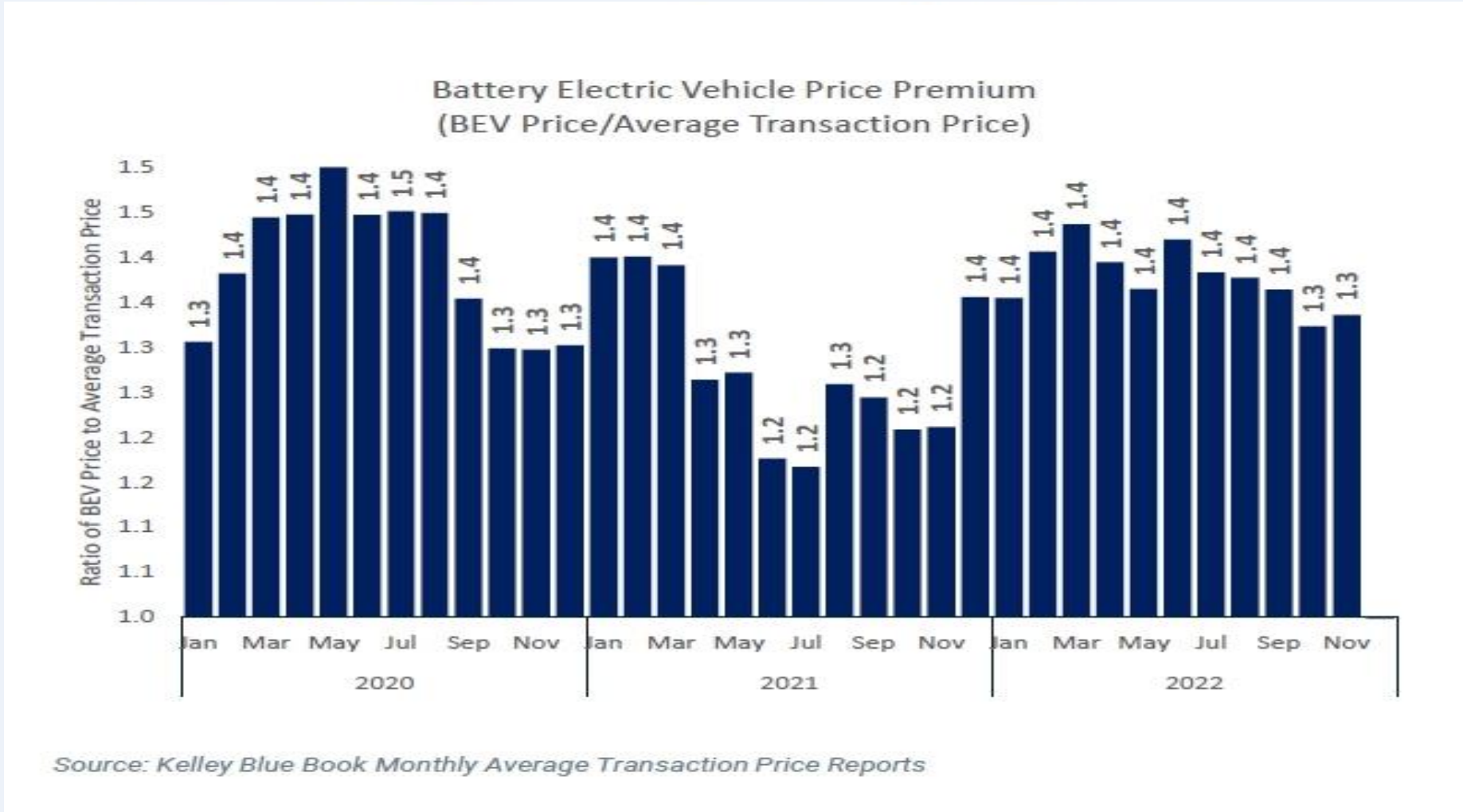
BATTERY PRICES HAVE RECENTLY REVERSED THEIR STEADY COST DECLINE, DUE TO MATERIAL PRICE SPIKES



Source: A2Mac1; Wells Fargo Securities, LLC

Economics: unfortunately weakening...

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ICE and BEV Truck Comparison

F-150 (All Models)



\$65,173

3 months after order submission

506 / 572 Miles

MPG falls an average of ~27%

F-150 Lightning



\$84,868

Orders considered a year in advance

230 / 320 Miles

Total range falls 50-70%

Average Transaction Price*

Availability

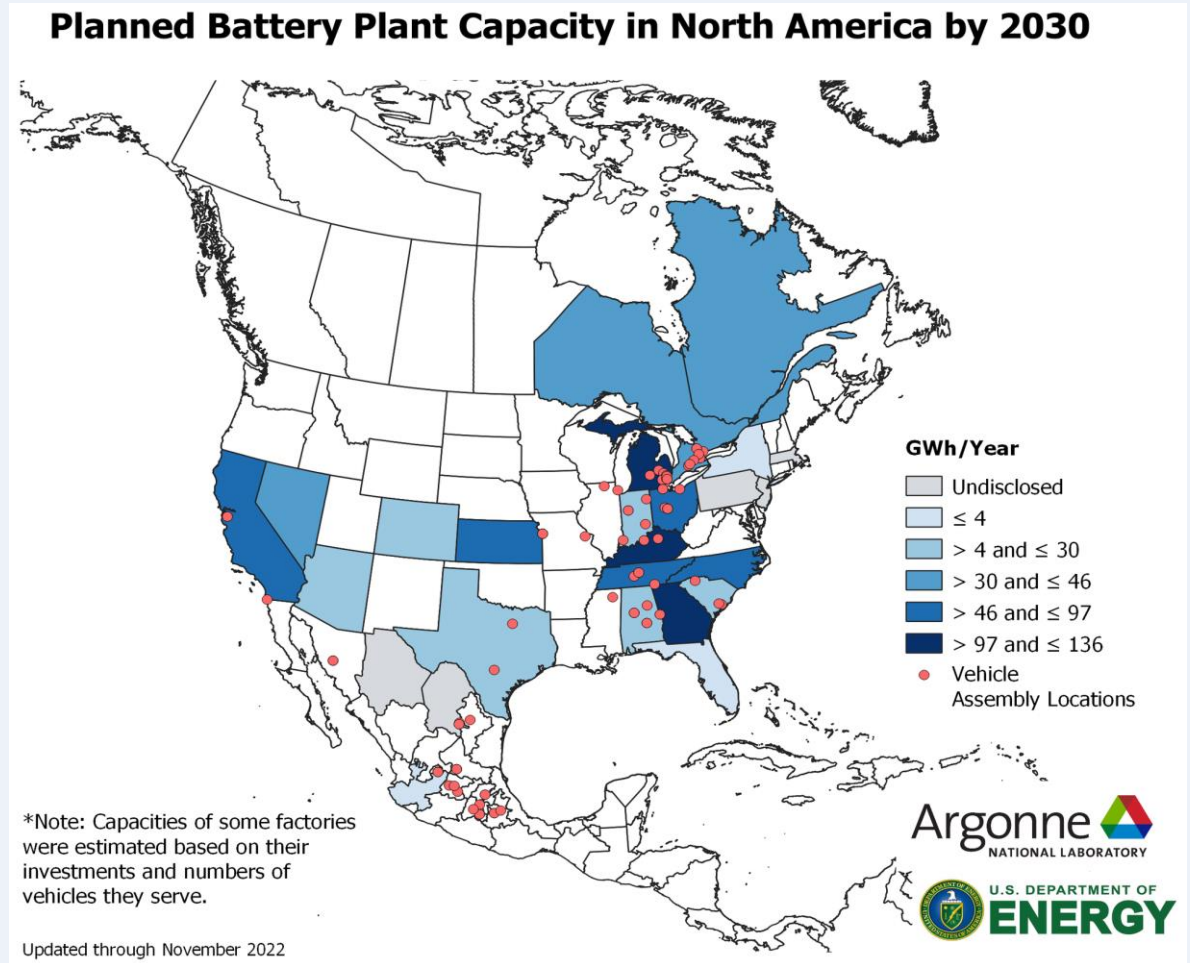
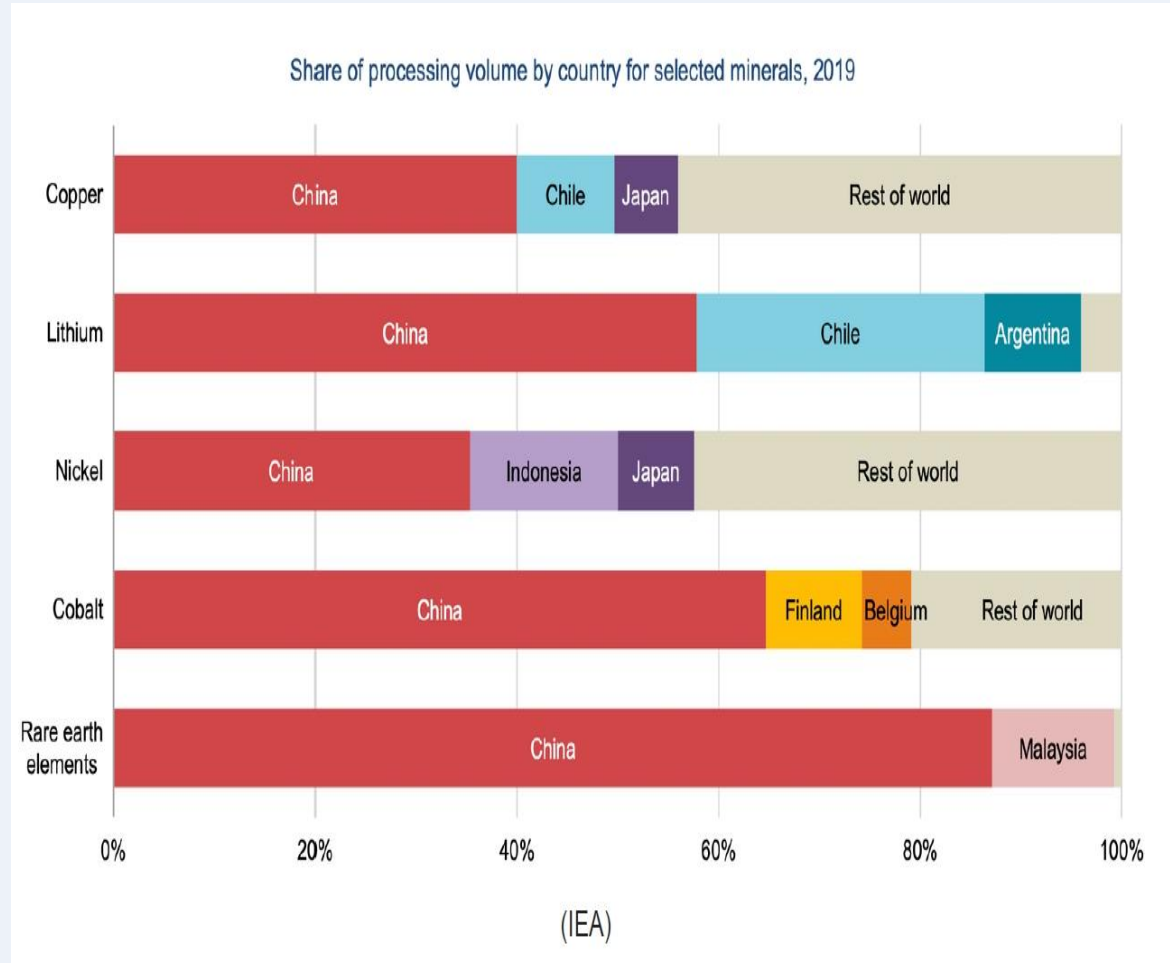
Min/Max Total Range

Towing Range

* Determined by averaging sales made from Group 1 Dealerships between 2021 through 2022

Geopolitics: few options: China is to volts as OPEC was to oil

CHINA DOMINATES EV BATTERY PROCESSING TODAY. AMERICAN RESPONSE IS AGGRESSIVE BUT WILL TAKE TIME



OUTCOMES

Dealers: impact of electrification

WHAT DO EVs MEAN FOR DEALERS? THE ANSWER WILL VARY BY DEPARTMENT

A. Sales: Mildly Negative

- Some volume loss to new EV entrants, to the extent they do not use dealers
- Some investment required in sales force training

B. Service: Negative, Eventually

- Certain eventual decline (~40% vs. ICE?) in service revenue
- Some investment required in tech training, special EV service equipment
- Likely initial increase in service retention (but this is “yours to lose”)
- Probable increase in collision repair and tire revenue

C. Overall dealership

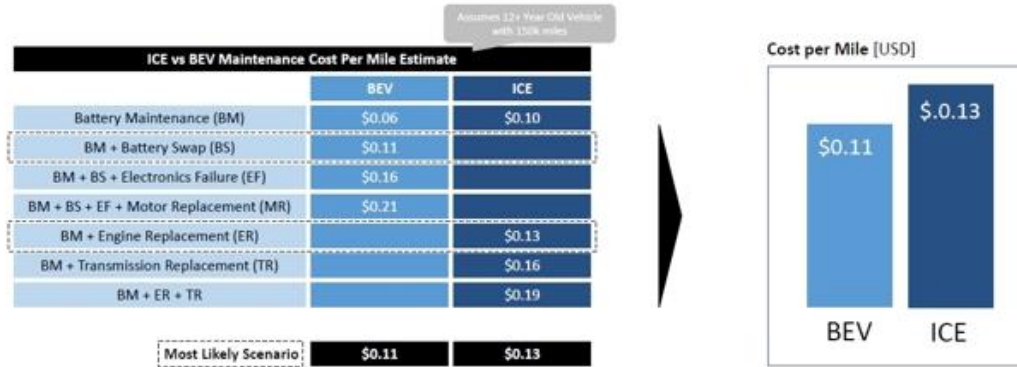
- Increasing OEM attempts to redefine channels: e.g., from *dealer* to *delivery point*, or *agent*

OUTCOMES

Service: the impact will be negative (eventually)

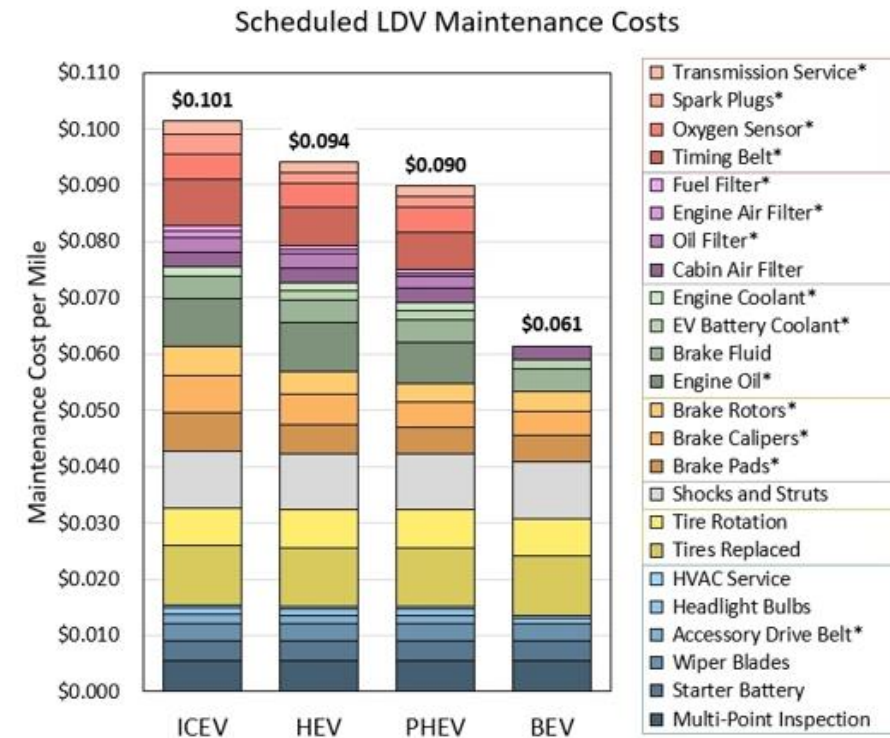
On the service front, there is an est. 15-20% lower cost per mile for BEV when comparing maintenance costs over a vehicle's life

ANY MAJOR BEV COMPONENT FAILURE QUICKLY NARROWS THE GAP IN LONG-TERM MAINTENANCE COSTS



◀ Schwartz Advisors: 15-20%

US Dept. of Energy NREL: 40% ▶



OUTCOMES

Service: the aftermarket is already pursuing EV work

- Firms (e.g., FutureTech) are already providing EV toolkits and training to independent garages:

Included in the NxtGen Bumper to Bumper Option

- DC-1000 High Voltage Battery Discharger and Accessories
- NG Test Adapters
- Two Laptop Computers
 - Pre-loaded with required testing software for this Option
- Power Supply (Charger)
- High Voltage Harness with Reverse Polarity Protection
- BATTSCAN High Voltage Battery Analyzer**
- Fliir Thermal Imaging Tool
- Class 0 Gloves (2 pair)
- External Cooling Unit
- 12 Volt Battery Maintainer
- Pico 4444 (with all accessories included)
- Fluke i400s AC Current Clamps (Set of 3)
- Fluke 1587FC Insulation Multi-Meter
- AT34EV Motor/Generator Testing Kit
- First Annual Site License + Unikey
- Startup and Ongoing Training
 - 3-day hands-on training event
 - 1-year shop membership to **Access OnDemand**



[PURCHASE OR GET A QUOTE](#)

Course ID #A003PP009



3-Phase Power Inverter Systems

\$275.00

[Get Info and Buy Now](#)

Course ID #A003PB009



3-Phase Regenerative Braking Systems

\$195.00

[Get Info and Buy Now](#)

Course ID #A000CC007



High Voltage DC-DC Converter Systems

\$135.00

[Get Info and Buy Now](#)

Course ID #A00HVS019



High Voltage Safety and PPE

\$135.00

[Get Info and Buy Now](#)

Course ID #A00HVS001



High Voltage Vehicle Safety Systems

\$275.00

[Get Info and Buy Now](#)

Course ID #A00HFW017



High Voltage Wire and Cable Systems

\$69.00

[Get Info and Buy Now](#)

- Regulators are already working to gain for the independent aftermarket access to EV repair information. As per CARB this year (May workshop): the purpose of California's service information regulations is to "require emission-related repair information to be available for non-dealer technicians, and to require tooling to be able to access on-vehicle information to be available to non-dealer technicians ."

Summation: the picture down-shifts a bit from 2021

1. *Inputs* to the EV market

- Customers
- Vehicles
- Batteries
- Charging
- Governments
- Economics



3. *Outcomes*

- Sales (9% 2025, 2x in 2030)
- Dealers

2. *Impacts* of EVs elsewhere

- Environment
- Grid
- Employment
- Geopolitics



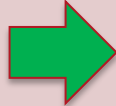




Electric Vehicles Summary:

1. Assuredly growing, pace unclear
2. A mix of opportunity and threat

Comparing past and current forecasts for CASE+D

(OUR FORECASTS ARE AT ANY POINT IN TIME FOR “5-10 YEARS OUT”)

Trend Domain	2017 Forecast and Dealer impact	2022 Forecast and Dealer Impact	Trend Direction and Dealer Threat Level
Connected Car (CC)	Cheap to do, 100% penetration by 2025. Modestly favorable	Same penetration, less favorable to dealers (digital disintermediation)	
Autonomous Vehicles (AV)	By 2025 100% ADAS and 10% L4 AV. Possibly positive for sales but robotaxi (RT) a downside	Same ADAS forecast, high-level AV arriving much more slowly, minimal impact	
“Shared” Mobility Services (MS)	Uncertain but worried that “eternal rental” replaces private ownership.	Receding threat to ownership as business models flounder. RT a worry. Micromobility emerges	
Electric Vehicles (EV)	5% penetration by 2025. Minimal but negative impact (service, DTC OEMs)	9% penetration by 2025. Same concerns but dealers stepping up to the challenges	
Distribution Channels (DC) *NEW*	Expected mostly in the form of DTC EV firms, taking perhaps a 5% share by 2025.	DTC (excl. Tesla) slower to arrive than expected, but incumbent OEMs now push for “agency”	

Why look at changing sales channels today?

OEM “TRIGGERS”

Covid: accelerated the move to digital retailing – *update channel*

+

Chip shortage: demand exceeds supply, so prices rise – *lock this in*

+

Rise of EVs: their high cost imperils OEM margins – *cut all costs*

+

New entrants: push the DTC model – *learn from them, imitate them?*

OEM RESPONSES

Europe + ROW: “agency” (often pushed by consultants)

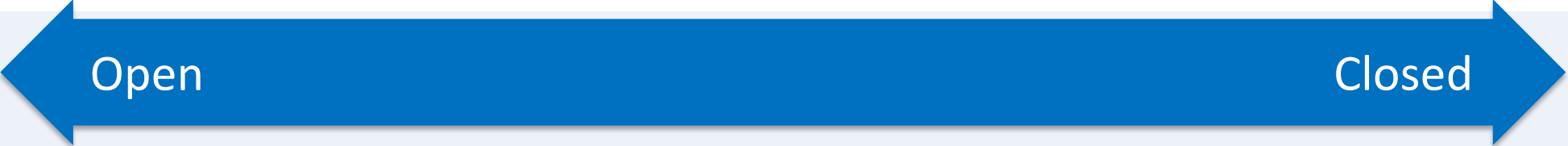
China: a special case (TBD)

USA: experiments and feints (Ford, GM, VW, Volvo/Polestar, etc.) via ordering systems, “no haggle” pricing, distribution centers, “tiered” dealers, etc.

...all typically under cover of “EV customers want something different”

The Sales Channel Spectrum, an *OEM* view

INSPIRED BY E-COMMERCE, OEMS TRY TO MOVE TO MORE CLOSED SYSTEMS

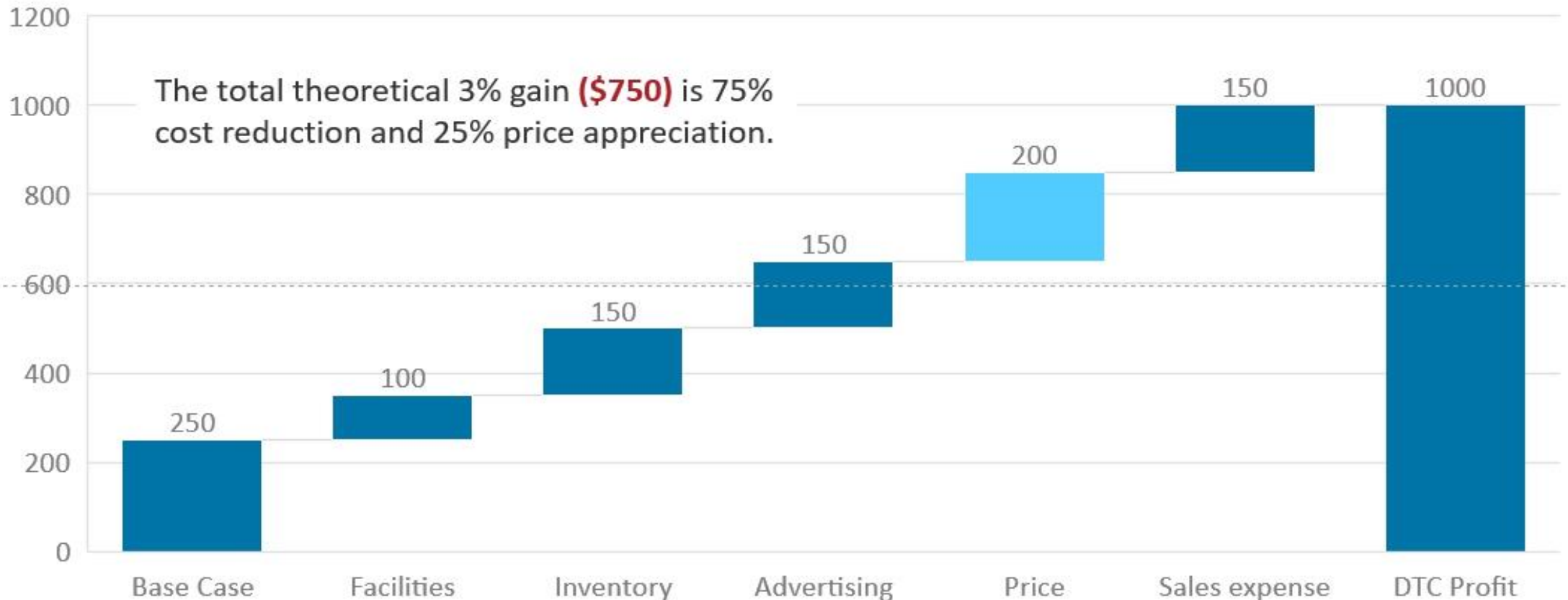


"Bazaar"	Franchise	"Agency"	DTC Stores	DTC Online
Used-car dealers	New-car dealers, fast food	Insurance, fleet sales of new vehicles	Most Starbucks, all Tesla stores	Wayfair, eBay, Etsy
Zero OEM control, lowest total cost, loyalty mostly to merchant	Medium OEM control, high total costs, loyalty split between OEM and merchant	possible loyalty tilts to OEM	OEM only	

NOTE! The *actual* application of all these *theoretical* channels depends *entirely* on the details of contracts and execution! And often channels are mixed.

Does “agency” improve economics? In theory, yes.

Dealer P&L Categories, \$25,000 Car, “Normal” Year, Illustrative



Source is OEM Y.

What might this mean for dealers? Divided opinions

USA (with little agency experience, beyond fleet sales):

- A. **Mostly negative** for dealers, with commissions rather than margins, and with F&I likely migrating to the OEM. Positives are a simpler easier business for dealers to manage, and maybe reduced facilities investments required.
- B. **Probably neutral**, maybe even positive. Reduced margins or commissions or whatever, but no floorplanning expense and probably a lot of savings in sales expense. Might net out to better for us.
- C. Agency **looks good, but** I worry about signing up and then the OEM “rug pulls” my profitability later.

International (with much more experience):

CANADA: Only Genesis right now, but dealers **generally satisfied** with it.

CHINA: Agency seen as **an OEM ploy to claw back dealer profits**

UK: Dealers are concerned, as are regulators. **Details of terms matter.**

GERMANY: Dealers are familiar with agency, but are **nervous about future**. EU regulations not yet finalized.

AUSTRALIA: Some dealers concerned with fair **compensation for past investments**.

NEW ZEALAND: Seen as **mostly positive** (given the loss-making alternative).



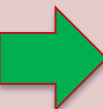


SWEDEN: Seen as **mostly positive** (higher profits), but worries re future

Changing Channels Summary:

1. An emergent trend; now stabilizing?
2. A mix of threat and opportunity

CASE+D Summary

(OUR FORECASTS ARE AT ANY POINT IN TIME FOR “5-10 YEARS OUT”)

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The US New-Car Dealership:

The Immediate Future: *Only One Issue*

***THE* issue: supply/demand balance, thus pricing, thus profit**

CAN OEMs MANAGE TO RESTRAIN SUPPLY INDEFINITELY? NO OVERPRODUCTION, QUICK END TO WEAK MODELS

Exhibit 7 - US New Vehicle Average Transaction Prices & Discount to MSRP

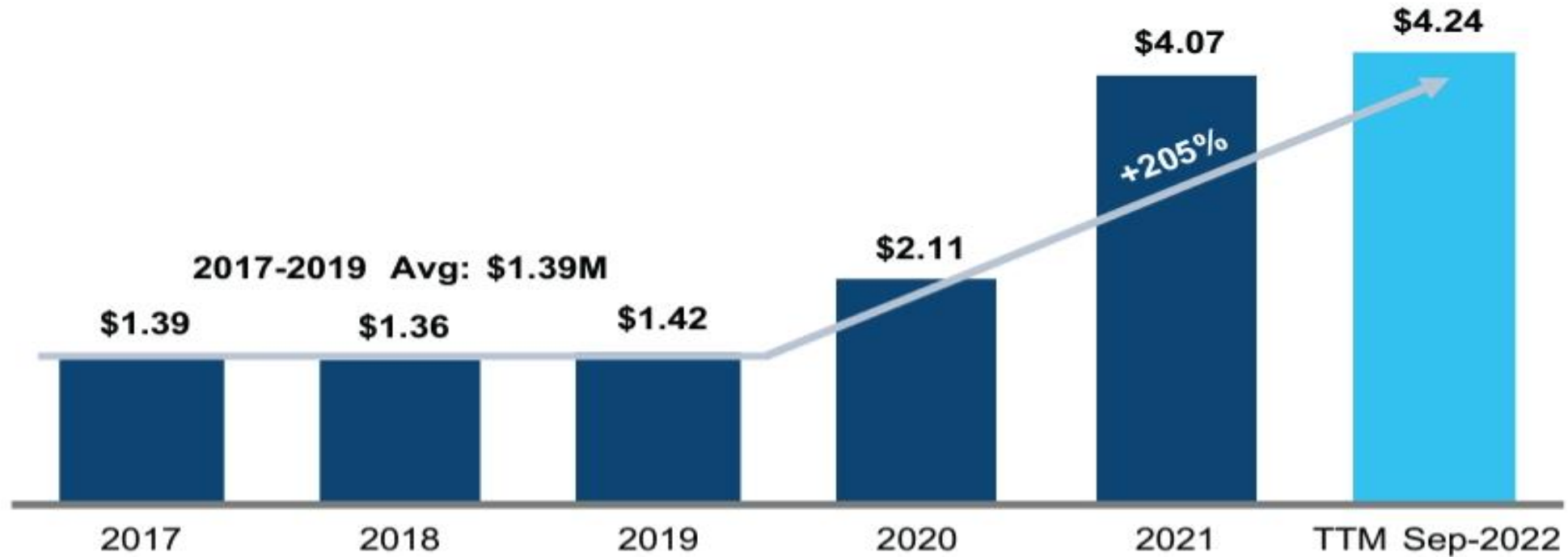


Source: Bloomberg; Wells Fargo Securities, LLC

***THE* issue: supply/demand balance, thus pricing, thus profit**

CAN OEMs MANAGE TO RESTRAIN SUPPLY INDEFINITELY? NO OVERPRODUCTION, QUICK END TO WEAK MODELS

Chart 3 | Average Dealership Earnings, \$ in Millions



Source: NADA Industry Analysis (2017-2021), Kerrigan Advisors Analysis (2022)

Arguments for and against (long-term) future supply discipline

- + Aging population (older buyers spend more)
- + Growing wealth (GDP/capita)
- + Generally solid credit of the new-car buying public
- +/- OEM *intent* to limit output (“40 days not 60”)
- Rising interest rates erode the buffer between higher price and monthly payments
- + Immense pandemic-driven savings “overhang” (some \$2 *trillion?*)... but slowly eroding
- OEMs cannot help themselves, return to the “bad old days” of market share and sales battles
- + Improving car quality and thus lifespan and thus value
- Increasing number of new entrants could trigger discounting (e.g., VinFast)
- + Bifurcation of car market into new-for-the-rich and used-for-the-rest (similar to housing)
- Factories traditionally have not broken even until at 80% capacity...
- + ... but possibly advanced automation, modularity, and EV designs will lower that number?
- + Cars offering more value than ever before (ADAS, software, electronics, EV...)
- + Falling price elasticity of demand (see me for research), including reduced willingness to haggle
- + Cars are still *relatively* cheap: new car CPI is lower than all-items CPI: vs. 1980 car CPI is 170 and all-item CPI 280
- +/- Buyers “trained” for 2 years to order (vs. buy off lot)... JDP sees lower SSI with ordering, AN & LAD orders ebbing
- +/- Customers “trained” for 2 years to see MSRP as floor (versus ceiling)... but beginning to rebel (esp. if *over* MSRP)?

Arguments for and against (long-term) future supply discipline

When it comes to vehicle purchase experience expectations, surveyed consumers in most markets place the greatest emphasis on getting a good deal with transparent pricing.

Most important aspects of the purchase experience

2023 Deloitte Global Automotive Consumer Study

Aspect of vehicle purchase experience	China	Germany	India	Japan	Rep. of Korea	Southeast Asia	US
Getting a good deal	33%	66%	40%	65%	52%	49%	57%
Transparent pricing	29%	37%	36%	47%	63%	46%	45%
Physical interaction with the vehicle (i.e., test drive)	34%	36%	40%	51%	26%	41%	42%
Lower pressure experience	18%	27%	14%	12%	13%	14%	29%
Getting all my questions answered	29%	33%	30%	16%	12%	29%	28%
Convenient location	21%	25%	21%	19%	23%	20%	23%
To be offered different financing and usage-based models	26%	20%	26%	13%	22%	24%	17%
Making good use of my time	24%	11%	24%	14%	15%	16%	16%
Ability to complete all or some of the process online	25%	11%	29%	11%	13%	18%	16%
Building trust in the salesperson	26%	23%	17%	31%	18%	18%	14%
Having a resource for post-purchase needs	36%	11%	22%	19%	42%	26%	13%



















The US New-Car Dealership:

What did we miss?

What did we miss? Micromobility, Google, Amazon, or...?

The automotive 🚗 power of amazon


 Augustin Friedel 🚲 🛠️ 🚗


Production 🏭	Connected car 🚗 & software	In-car entertainment 📺	Fleet management 🚚
 Build industrial cloud to connect all production facilities for more productivity.	 Develop car software platform & digital services with Stellantis. AWS as preferred cloud provider.	 BMW's next-generation vehicle voice assistant will be powered by Amazon Alexa technology	 ABB & AWS jointly develop a cloud-based solution for real-time EV fleet management.
 ŠKODA uses AWS to predict and prevent production line breakdowns	 Honda build build the Honda Connected Platform on AWS.	 The BMW Group integrated the Fire TV experience within the Theatre Screen system	 Bridgestone partner with Amazon to collect and analyze fleet data for new insights.
	 Toyota Mobility Services Platform is build with AWS	 Amazon Fire TV deployed in Stellantis brands Jeep & Chrysler	 Hyundai Motor Group to use FleetWise to collect and analyse connected fleet data.
	 BMW use AWS services to processes terabytes of connected	 Amazon Fire TV deployed in Ford and Lincoln vehilces	
	 AWS Machine Learning at BMW to predict the customer take rates vehicle special equipment	 Amazon brings voice assistance to cars with Alexa Auto device	
<hr/>			
Vehicles & autonomous bets	 ZooX is the Amazon subsidiary that develops autonomous vehicles.	 Amazon is invested in autonomous trucking & driving company Aurora.	 Amazon is investor at Rivian and is ordering 100.000 delivery vans

Desktop research, not exhaustive

The US New-Car Dealership:

*Continued evolution, some revolution,
constant adaptation, maybe less fun.*

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