

COVID-19: J.D. Power Auto Industry Impact Report

April 1, 2020

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Agenda

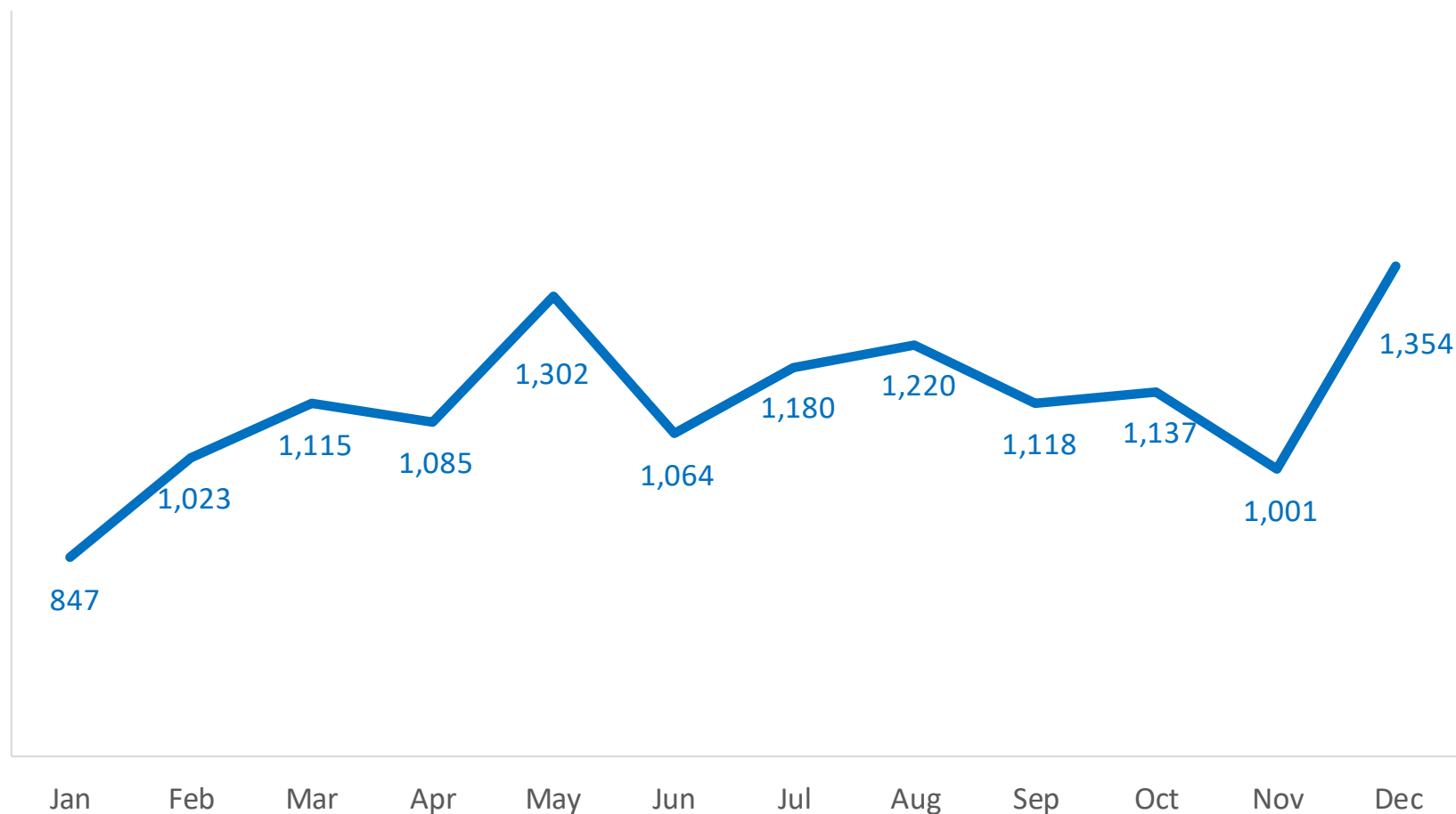
1. Retail Sales Impact Through March 29

2. Sales Outlook

3. Q&A

1. Retail Sales Impact Through March 29

2020 J.D. Power Pre-Virus Retail Forecast (000s)



2020 Pre-Virus Full Year Forecast

Prior to the escalation of the COVID-19 in the U.S., J.D. Power expected annual total sales of 16.8 million and 13.4 million retail sales, declines of 1.9% and 2.6% respectively from 2019.

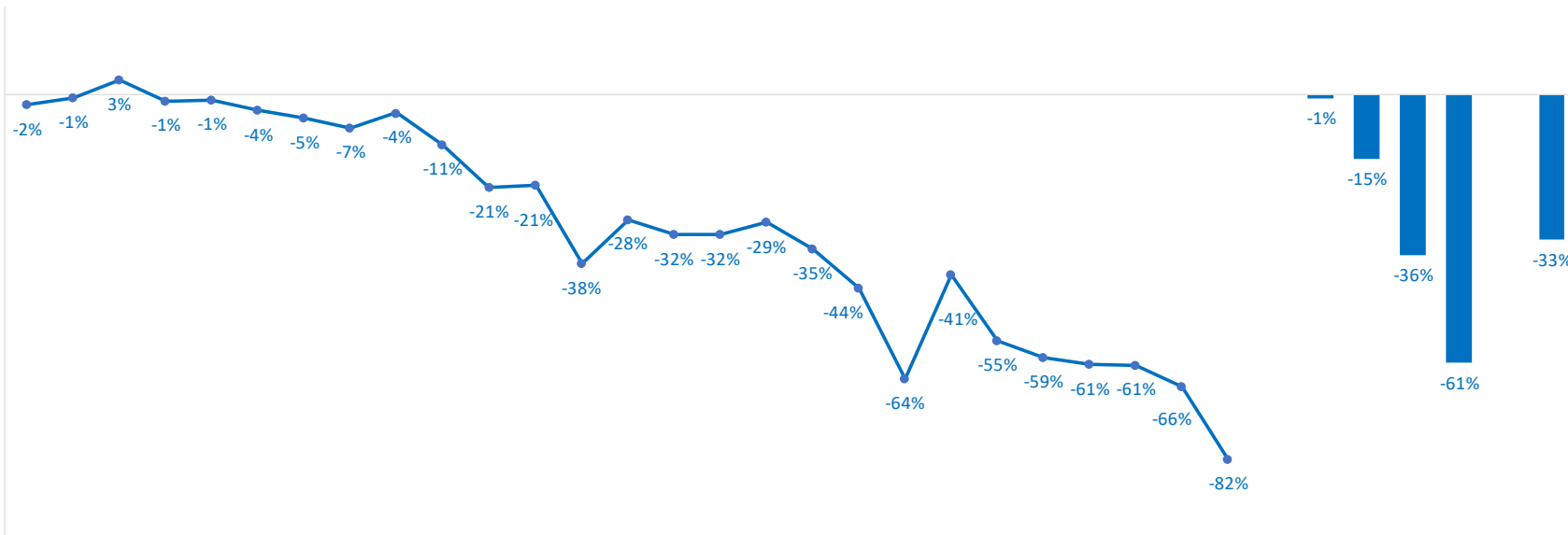
Pre-Virus March Forecast

The pre-virus forecast for March 2020 was 1.48 million total sales and 1.12 million retail sales, declines of 0.5% and 1.7% respectively from March 2019.

Pre-Virus April Forecast

The pre-virus forecast for April 2020 was 1.36 million total sales and 1.09 million retail sales, declines of 0.8% and 1.1% respectively from April 2019.

March Retail Sales: Actual over/(under) Pre-Virus Forecast



Month-to-Date Impact

Through Sunday March 29, 667,000 retail sales have occurred, a decline of 325,000 units/-33% vs. pre-virus forecast.

Weekly Deterioration

The weekly sales pace has been declining rapidly for weeks ending:

- March 8: -1% or 1,000 units
- March 15: -15% or 35,000 units
- March 22: -36% or 95,000 units
- March 29: -61% or 193,000 units

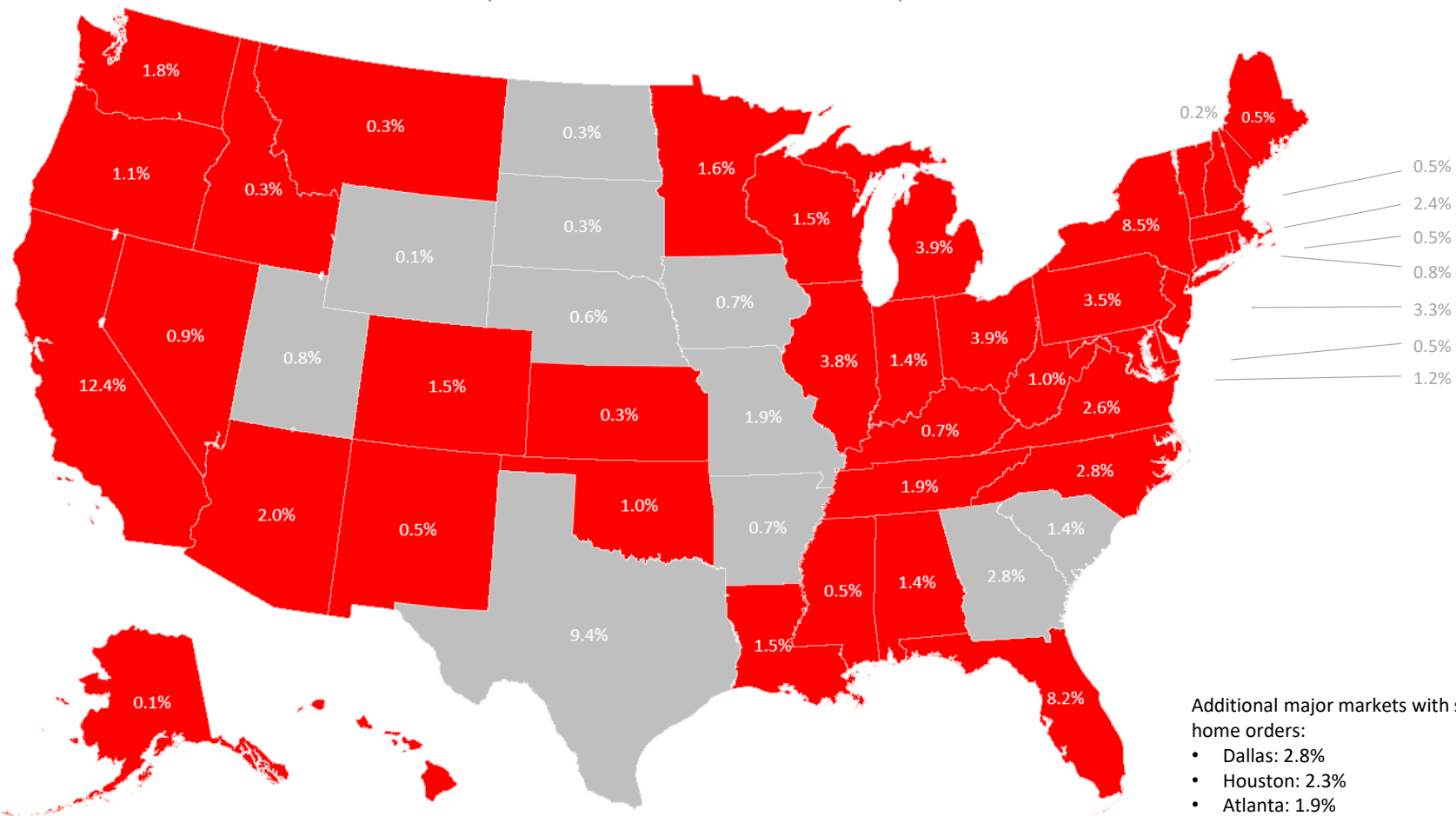
Weekend of 3/28-3/29

Sales pace declined significantly again over the weekend (down 66% on Saturday 28 and 82% on Sunday 29).

	Day																				Week Ending				MTD							
	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10	3/11	3/12	3/13	3/14	3/15	3/16	3/17	3/18	3/19	3/20	3/21	3/22	3/23	3/24	3/25	3/26	3/27	3/28	3/29	3/8	3/15	3/22	3/29	Mar'20
Baseline (000s)	20	22	25	33	57	11	35	29	29	32	40	63	13	38	32	33	34	43	69	14	36	37	41	42	55	86	21	167	241	264	319	992
Actual (000s)	20	22	25	32	56	11	33	27	28	28	32	50	8	27	22	23	24	28	39	5	22	16	17	16	22	29	4	166	206	168	126	667
Delta (000s)	(0)	(0)	1	(0)	(1)	(0)	(2)	(2)	(1)	(4)	(8)	(13)	(5)	(11)	(10)	(11)	(10)	(15)	(30)	(9)	(15)	(20)	(25)	(25)	(34)	(57)	(18)	(1)	(35)	(95)	(193)	(325)

Share of U.S. Retail Sales by State

■ States with stay at home orders ■ States with no stay at home orders



- Additional major markets with stay-at-home orders:
- Dallas: 2.8%
 - Houston: 2.3%
 - Atlanta: 1.9%
 - San Antonio: 0.9%

Stay-at-Home Status as of April 1

39 states have enacted “stay-at-home” or “essential business” mandates that affect 265 million people, or 80% of the U.S. population.

Sales Operations Status as of April 1

25 of these states have full or partial bans on automotive sales with many markets also closing dealerships’ sales operations.

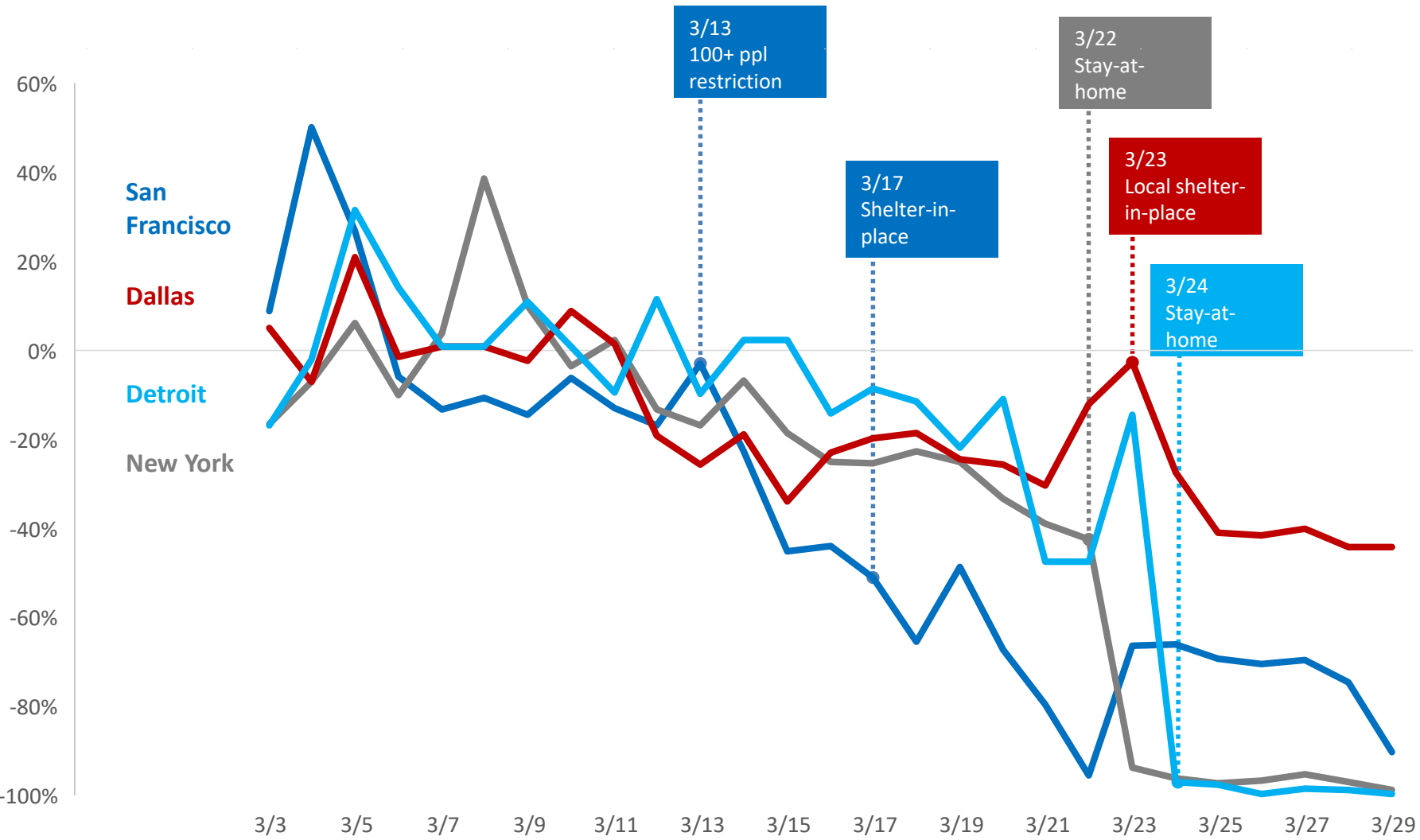
States with “No Autos Sales” Orders

Stay-at-home orders are being clarified everyday to allow dealers to complete online or no-contact sales. However, these states currently do not have allowances even for digital sales:

- Michigan
- Pennsylvania
- Washington
- Kentucky
- Hawaii

Note: Twelve-month period ended February 2020

March Retail Sales: Actual over/(under) Pre-Virus Forecast



Regional Variation

Market decline greatly affected by stay-at-home orders

Dallas

Despite local order, Dallas remains one of the most resilient markets in country, buoyed by pickup sales

San Francisco

Modest bounce back this week after 86% decline last weekend, implying dealers are adapting quickly to new environment

New York

Near total collapse in sales after stay-at-home issued

Detroit

Near total collapse in sales after stay-at-home issued

Impact: Regional Retail Sales Decline Through March 29 (000s)

	Mar-20			Δ Y/Y	Week Ending			Δ W/W
	Mar-19	Feb-20	MTD		2019-03-31	2020-03-22	2020-03-29	
National	1,225	1,023	667	-36%	363	168	126	-25%
Pre-Virus Forecast	1,225	1,023	992	-5%	363	264	319	21%
New York	93	83	42	-46%	31	14	1	-93%
Los Angeles	80	68	42	-39%	21	9	7	-15%
Chicago	36	27	18	-41%	10	4	3	-22%
Dallas	33	28	22	-24%	9	5	5	-1%
Philadelphia	34	29	14	-50%	11	4	0	-93%
Detroit	31	26	17	-35%	11	6	1	-76%
Boston	28	26	15	-40%	9	4	2	-38%
San Francisco	28	24	12	-50%	8	2	2	-6%
Houston	28	24	18	-24%	8	4	5	17%
Miami	28	24	17	-29%	8	4	4	-8%
Washington, DC	26	22	14	-37%	8	3	3	-10%
Atlanta	24	19	14	-32%	7	3	3	-1%
Tampa	22	19	15	-23%	6	4	4	15%
Phoenix	21	18	14	-24%	6	3	4	28%
Orlando	20	16	12	-30%	6	3	3	13%
Cleveland	19	15	11	-35%	6	3	2	-28%
Seattle	17	14	8	-44%	4	2	1	-47%
Minneapolis	17	13	10	-30%	6	3	3	5%
Denver	14	12	8	-36%	4	2	1	-22%
Pittsburgh	14	11	5	-53%	4	1	0	-98%
Sacramento	13	11	6	-44%	3	1	1	-1%
San Diego	13	11	6	-42%	3	1	1	-28%
Rest of East	222	183	120	-36%	68	33	23	-28%
Rest of West	85	70	45	-37%	24	11	9	-17%
Rest of Central	279	229	160	-32%	83	40	36	-11%

Market Comments

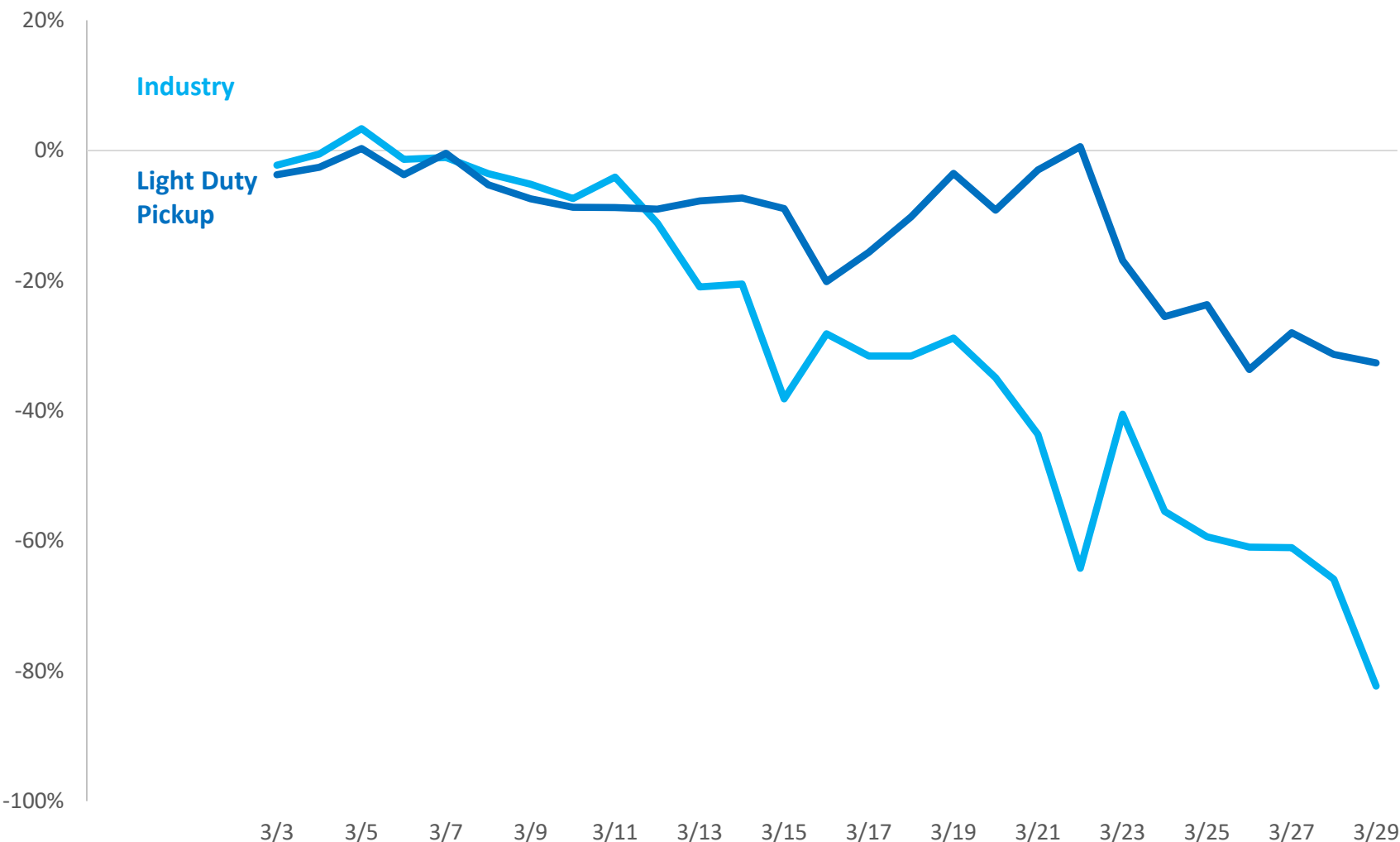
Week of March 29 demonstrates the impact of severe virus progression, stay-at-home restrictions and mandated closure of Dealership sales operations, as evidenced by near total cessation of sales in the New York, Philadelphia, Detroit and Pittsburgh markets.

Other markets show less severe declines and in some cases modest week-over-week increases in sales. Note however that the week-over-week gains are from depressed sales during the week ending March 22.

In many cases, the gains reflect dealers adjusting processes to embrace restrictions while still serving the needs of customers.

Note: Sales changes are selling-day adjusted. Y/Y compares MTD results with comparable period last year

March Retail Sales: Actual over/(under) Pre-Virus Forecast



Light-Duty Pickup

Light-duty pickups have fallen less than sales of other vehicle types.

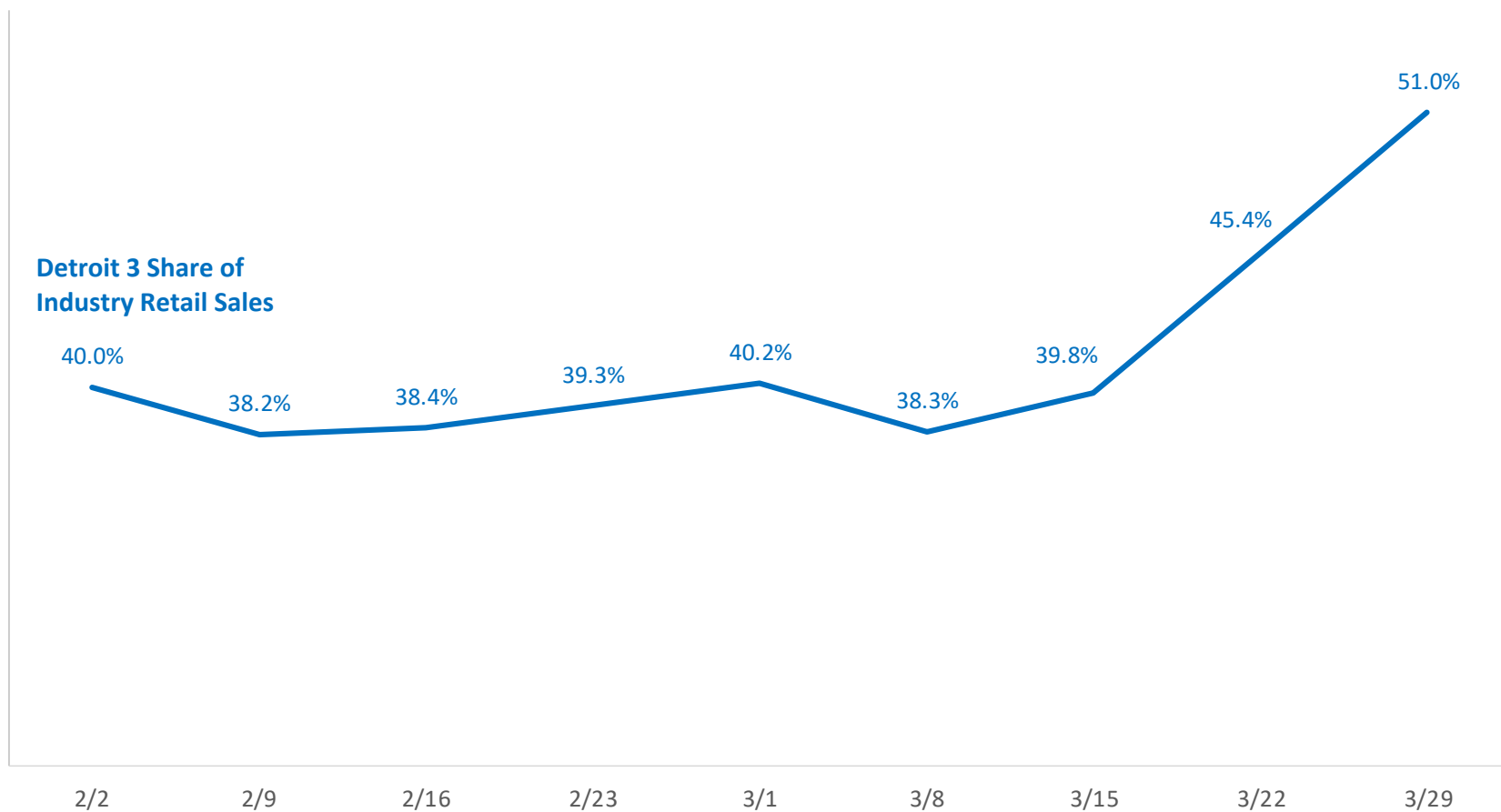
Pickup sales for the week ending March 29 were down 27% compared to 61% for the industry.

The resilience is driven primarily by the availability of unprecedented incentive programs on certain pickup models, specifically loans with a 0% APR for 84 months, plus up to 6 months of payment deferrals.

Key Source of Revenue & Profitability

Light-duty pickups carry net transaction prices of \$42,000 and are among the most profitable vehicles sold by OEMs.

Detroit 3 Share of Industry Retail Sales



Detroit 3

GM, Ford, and FCA retail market share increased 11ppts since week ending 3/15, reaching the highest level in a week since 2006.

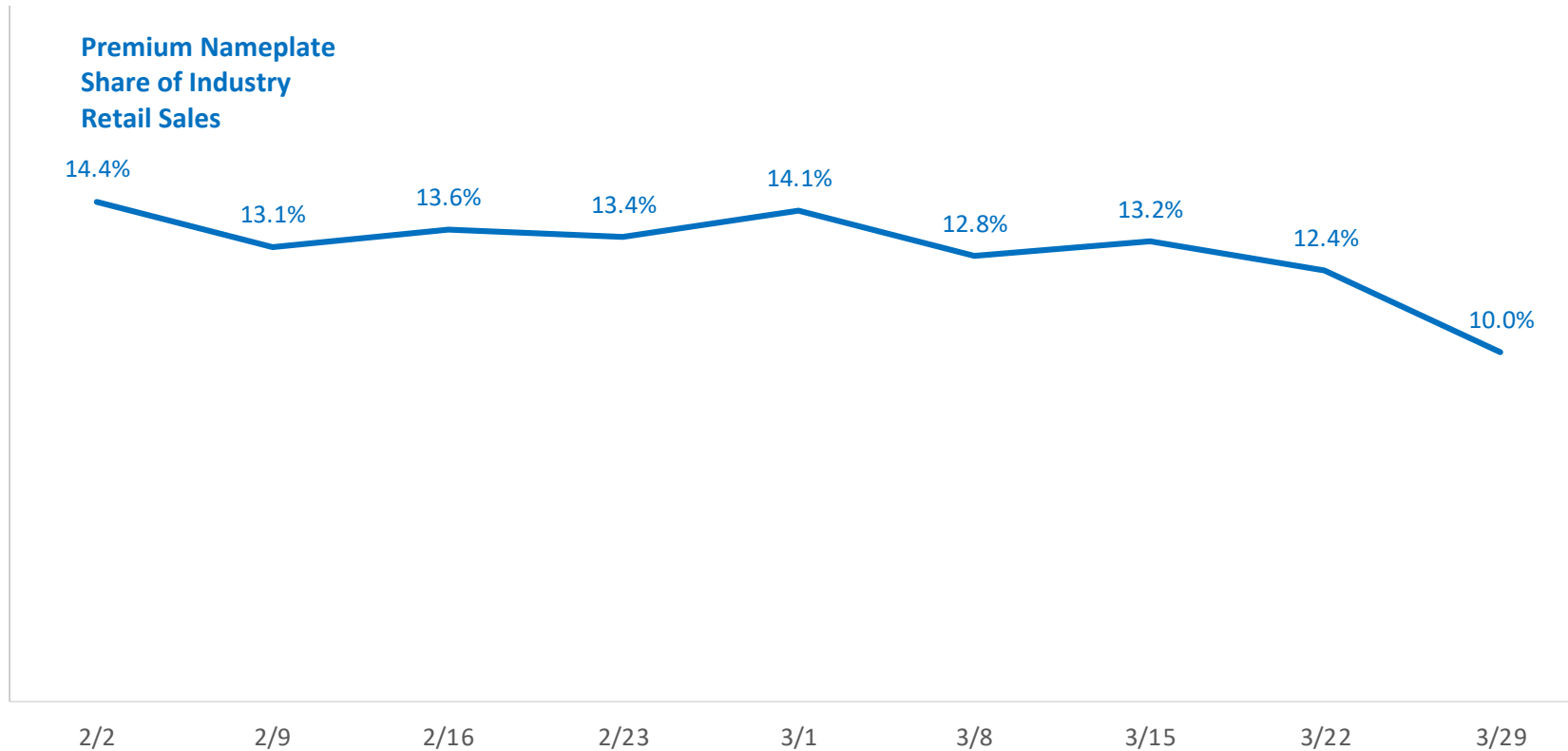
Drivers of Resilience

Gains in weeks ending March 22 and March 29 were primarily driven by Large Pickup trucks outperforming the rest of the industry.

Detroit 3 were first to market with elevated incentive packages including 0% financing for 84 months on many vehicles with deferred payment options.

Light-duty pickup incentives per unit reached \$7,200 (highest ever). The previous high was \$6,700 in week ending Dec 1, 2019.

Premium Nameplate Share of Industry Retail Sales



Premium Share of Industry

Premium nameplates ceded 3.2ppts of share since week ending 3/15, reaching the lowest level in a week since July 10, 2016.

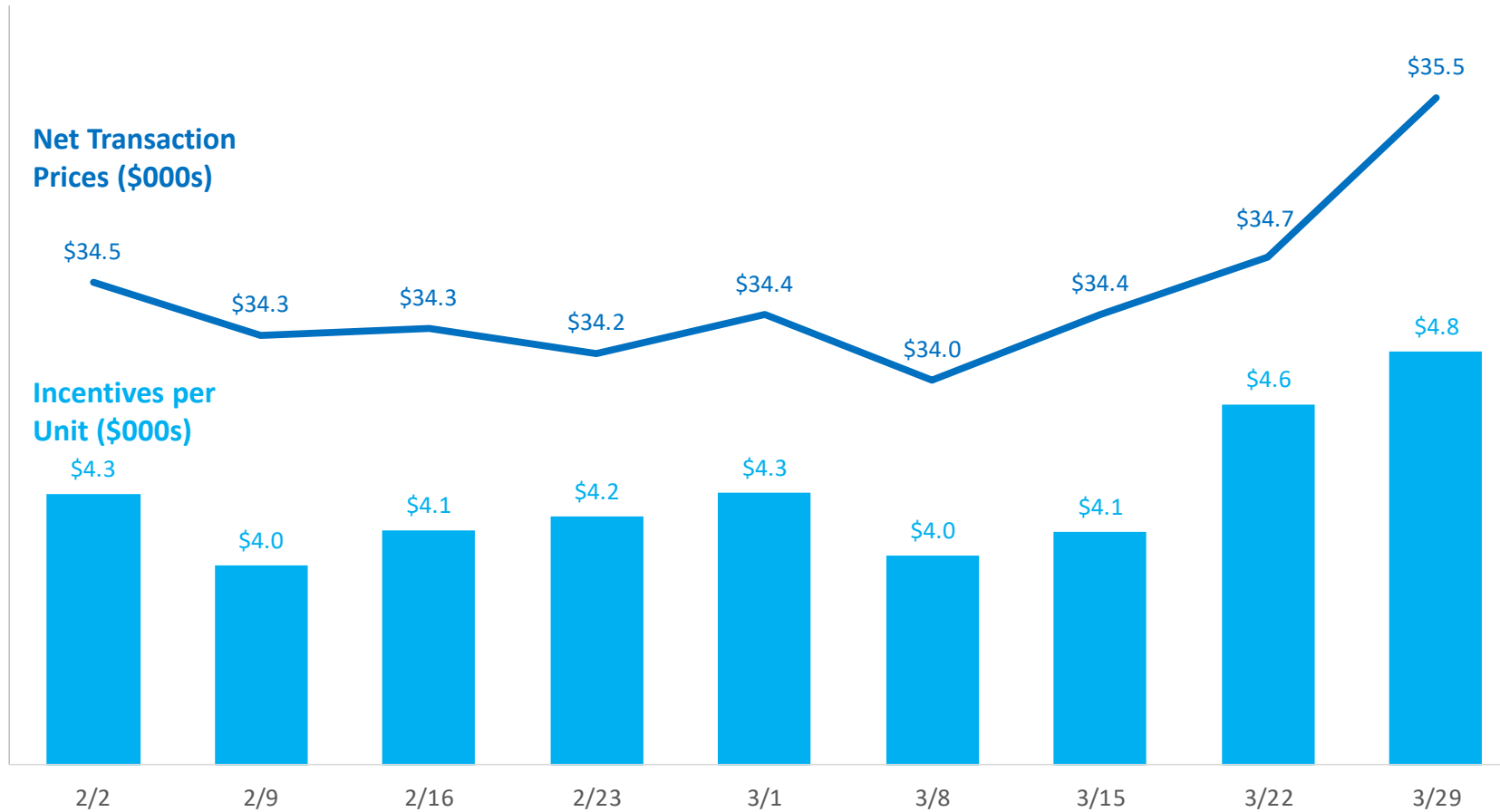
Drivers

Premium nameplates are particularly impacted by the decline in sales of the New York market, which historically accounts for 14% of premium sales.

The high percentage of premium vehicles that are leased (57%) means that there is likely to be significant pent up demand to be released as restrictions are removed.

Note: Exclude Tesla and super-premium nameplates

Net Transaction Prices and Incentives per Unit



Customer-Facing Transaction Prices

Transaction prices reached their highest-level on record at \$35,500 during the week ending March 29. The prior high was during the week ending Dec 22, 2019 (\$35,300).

Higher pickup truck sales mix drove the increase in transaction prices vs. week ending March 15.

Incentive Spending

Incentives reached a record level of \$4,800 per unit during the week ending March 29. The prior high was week ending Dec 1, 2019 (\$4,600).

Incentives rose in every mainstream segment. Spending fell in several premium segments due to lower lease penetration.

Light-duty pickup incentives per unit reached \$7,200 (highest ever). The previous high was \$6,700 in week ending Dec 1, 2019.

Example: 0% 72 month Loan

\$30,000 Financed
= \$417 Monthly Payment



Example: 0% 84 month Loan

\$30,000 Financed
= \$357 Monthly Payment
14% Payment Reduction

Or

\$35,000 Financed
= \$417 Monthly Payment
17% More Buying Power

Importance of High Transaction Prices

Average vehicle transaction prices have risen consistently post-08/09 recession.

Prices averaged \$33,600 in 2019, up from \$31,200 in 2016, powering OEM profitability, in spite of falling retail sales in recent years.

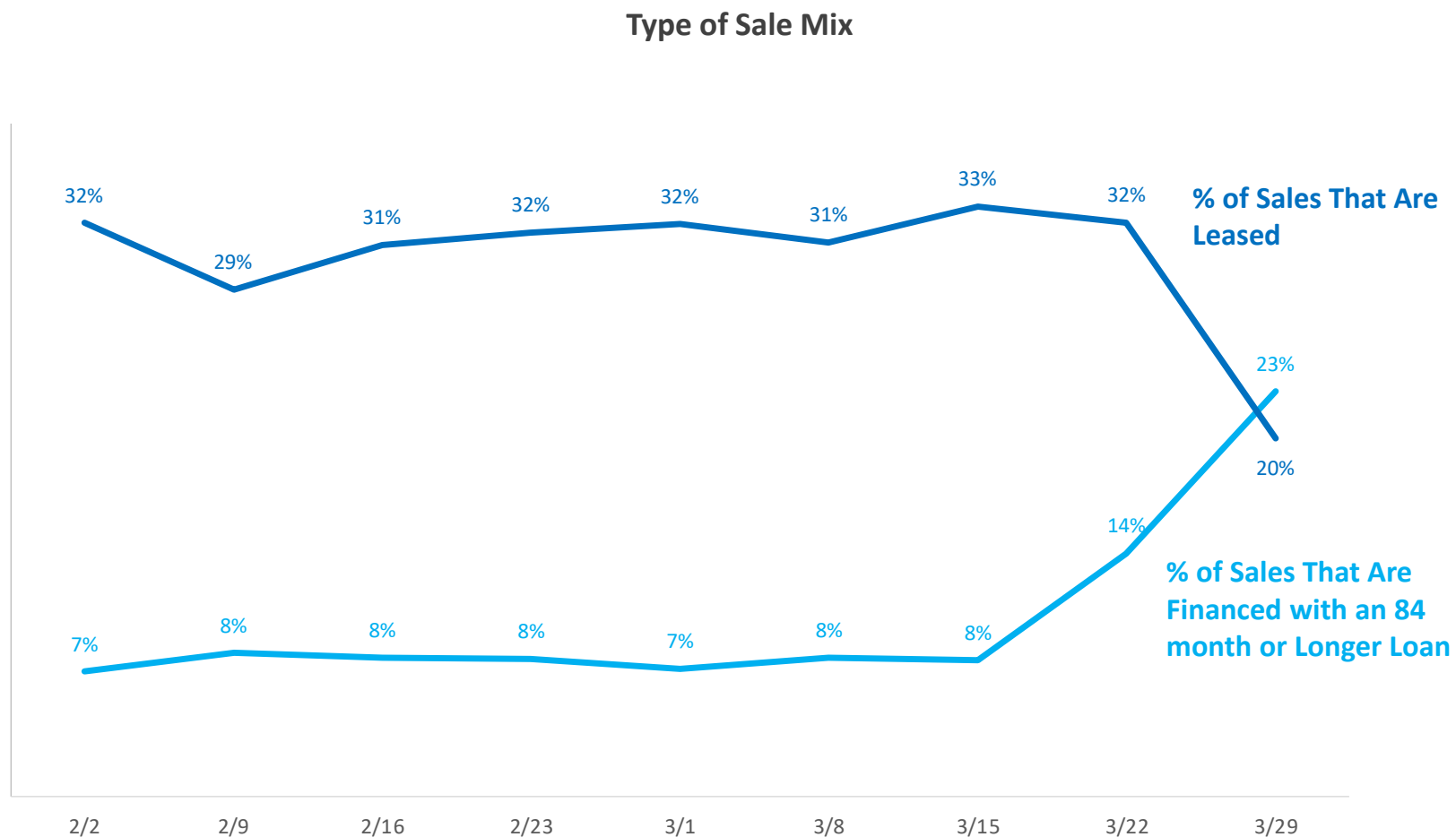
Economic Challenges = Risk to Prices

Virus is reducing sales volumes but economic conditions also pose a threat to average prices, which would result in a further deterioration to the profitability of OEMs.

84-Month Loans = Powerful Lever

Comparing a 0%/72mo loan with a 0%/84mo loan, consumers could:

- Reduce payments by 14%
- Borrow 17% more and maintain payments



% of Buyers Taking 84-Month Loans

23% of buyers during the week ending March 29 took an 84-month loan, the highest-ever and 3x more than pre-virus levels of 7-8%.

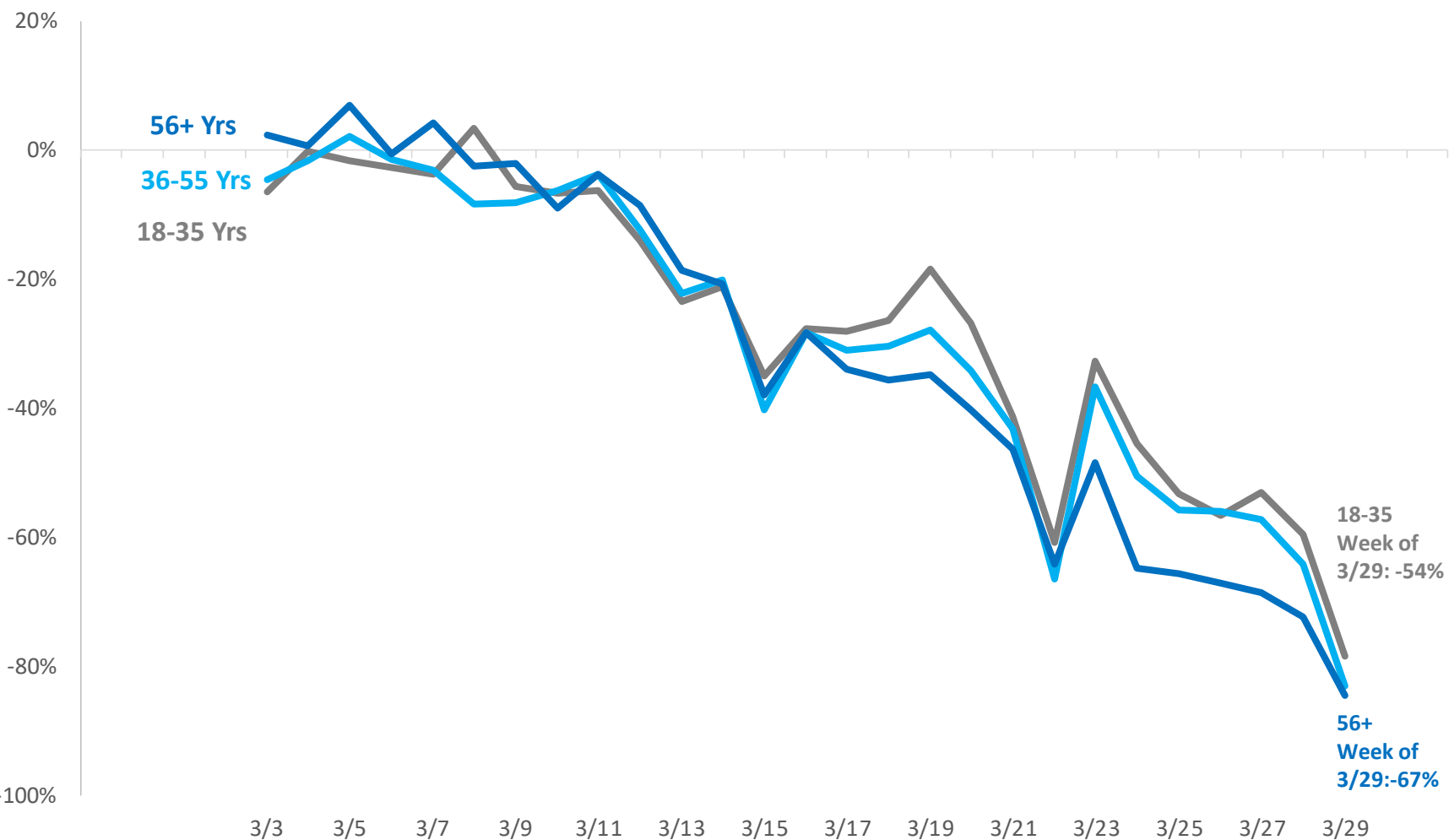
0% for 84-month loans are available on a variety of vehicles, but are particularly popular with pickup truck buyers. 46% of light-duty sales during the week ending March 29 had this term, compared to normal levels of 10-15%.

% of Buyers Leasing Their Vehicles

20% of buyers during the week ending March 29 took a lease, compared to normal levels of 30-32%.

The decline is consistent with customers whose leases are maturing postponing their purchase, coupled with larger sales declines for high lease markets (New York) and vehicle segments (Premium).

March Retail Sales: Actual over/(under) Pre-Virus Forecast



Sales Decline by Buyer Age

Since mid-March, retail sales to older buyers (56+) have declined at a faster pace than younger customers.

Buyers older than 56 typically account for 38% of new vehicle sales.

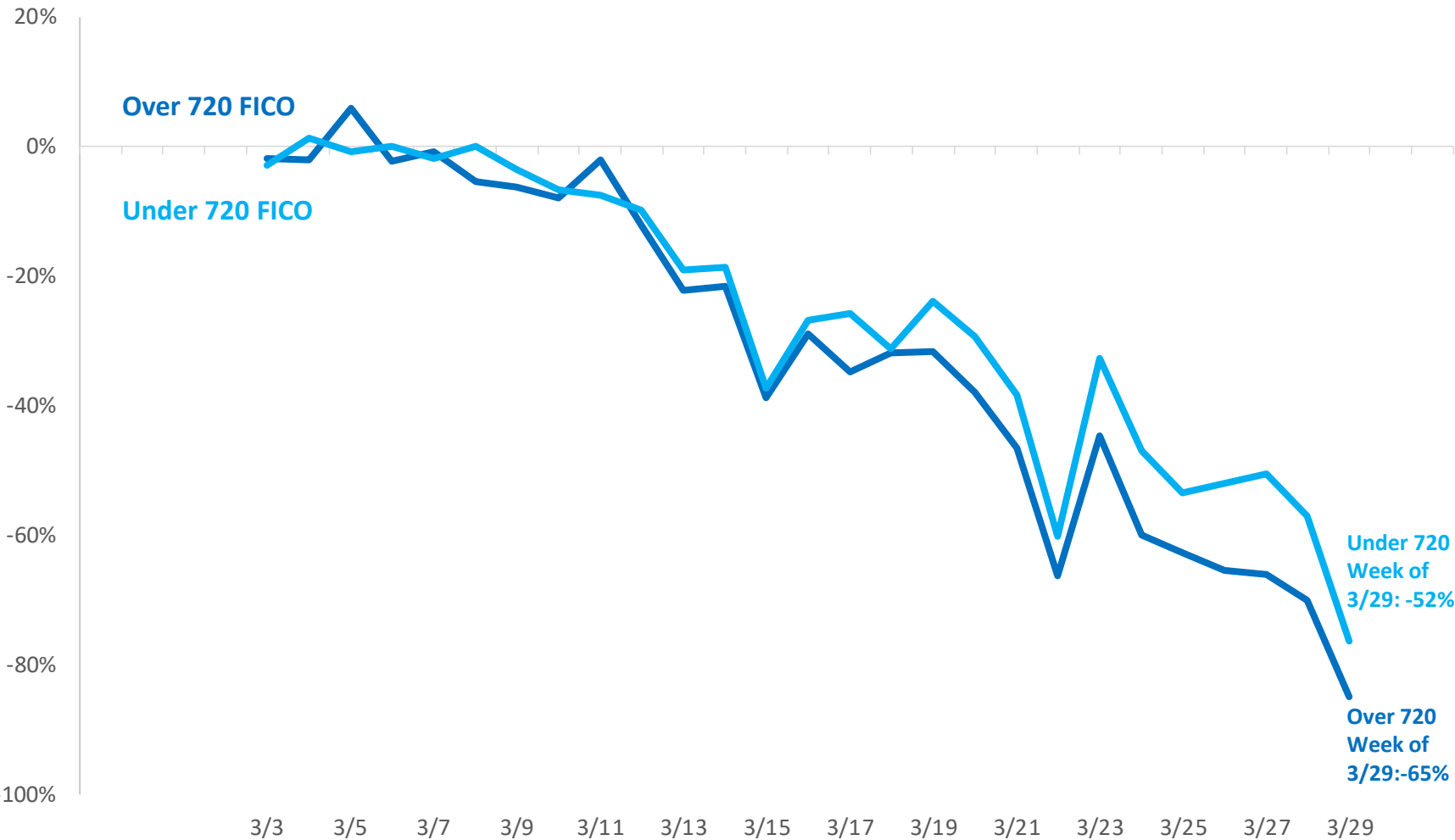
Sales Decline for Week Ending March 29

- 18-35 years: -54% or 38,000 units
- 36-55 years: -58% of 72,000 units
- 56+ years: -67% or 83,000 units

Sales Decline March Month-to-Date

- 18-35 years: -29% or 67,000 units
- 36-55 years: -32% or 127,000 units
- 56+ years: -36% or 131,000 units

March Retail Sales: Actual over/(under) Pre-Virus Forecast

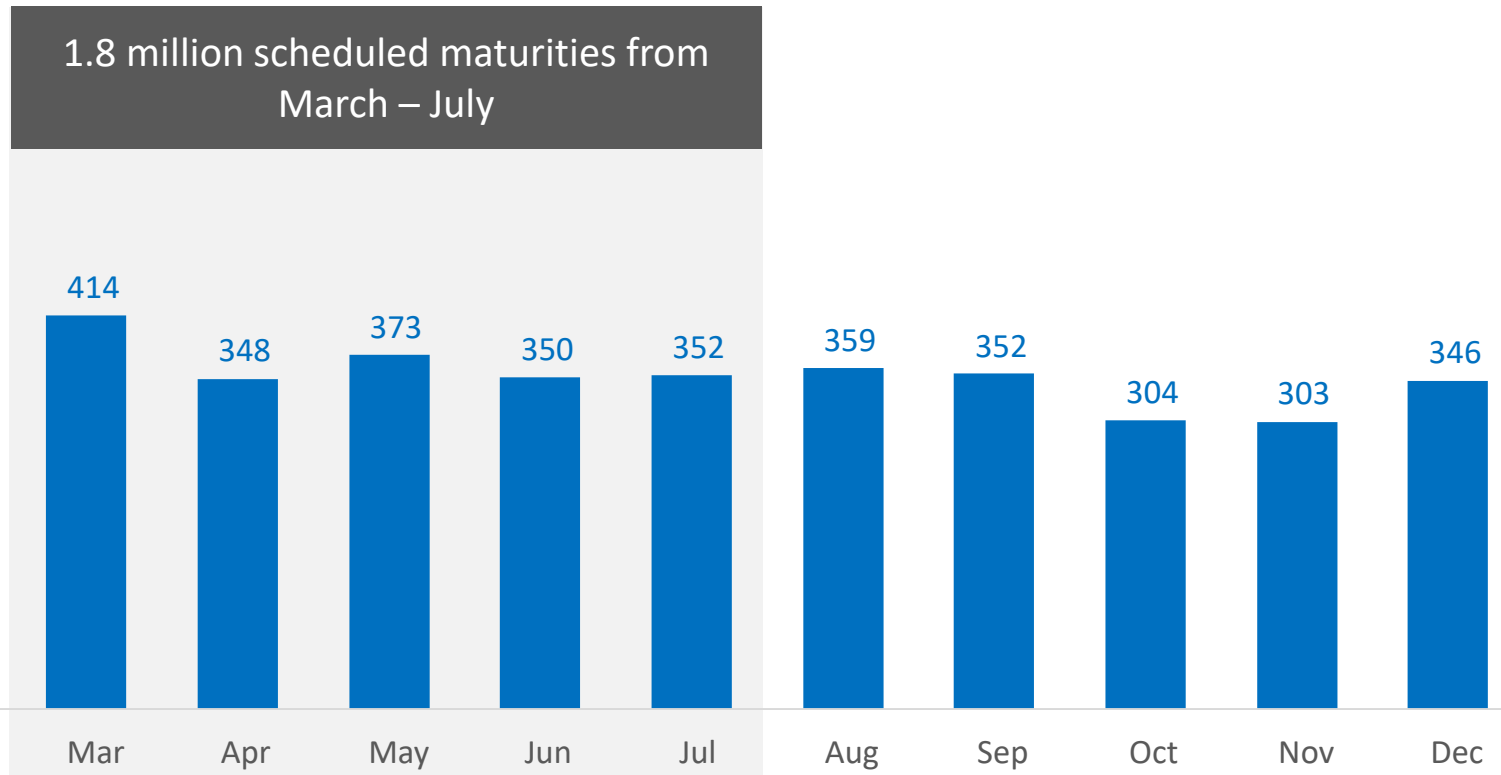


Credit Tier Variation
 Additionally since mid March, retail sales to the higher credit quality customers (over 720 credit scores) has declined at a faster pace. These buyers account for about 65% of new vehicle sales.

Week ending March 29
 Over 720 FICO: -65% or 139,000 units
 Under 720 FICO: -52% of 55,000 units

March Month-to-Date
 Over 720 FICO: -36% or 228,000 units
 Under 720 FICO: -28% or 97,000 units

New Vehicle Leases Scheduled to Expire by Month (000s)



Leasing in the U.S. Market

Leases accounted for 31% of U.S. retail transactions in 2019 and represent a key opportunity for manufacturers and retailers to maintain a base level of new-vehicle sales during this period of uncertainty.

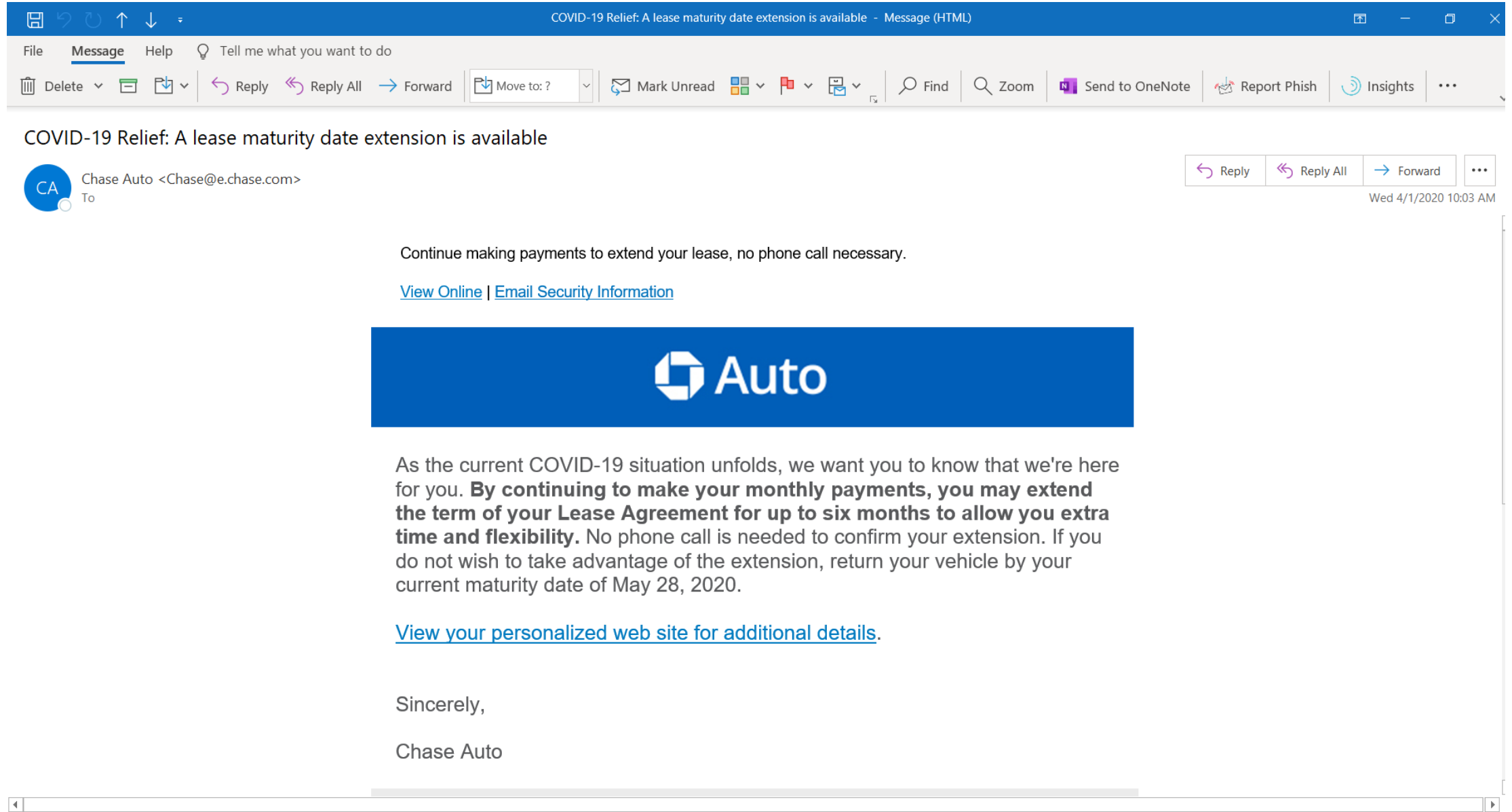
Options for People with Expiring Leases

Lessees with expiring leases must take action. Choices include:

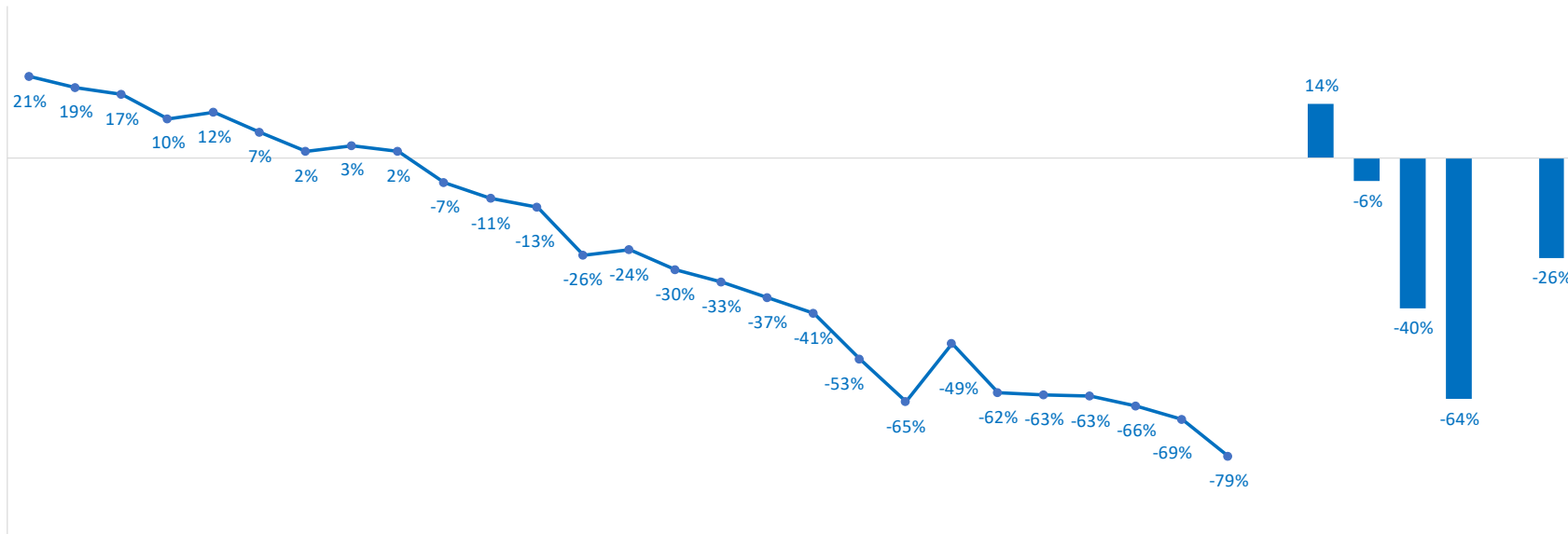
- Leasing or buying another vehicle
- Extending term of existing lease
- Buying out existing lease
- Not replacing lease/walking away

Potential Sales Impact

PIN estimates that 251,000 lessees delayed returning to market in March and another 275,000 may delay returning in April. Combined the industry could see over 525,000 pent-up sales in May and beyond



March Used Sales at Franchised Dealers: Actual over/(under) Pre-Virus Forecast (000s)



Month-to-Date Impact

Used-vehicle sales are falling at a similar rate to new vehicle sales.

Rising Risk to Used Prices

Retail prices have been stable, but cashflow issues may drive prices down at dealerships able to operate.

Auction (wholesale) volumes have fallen sharply due to disruption to physical auction operations (see next slide).

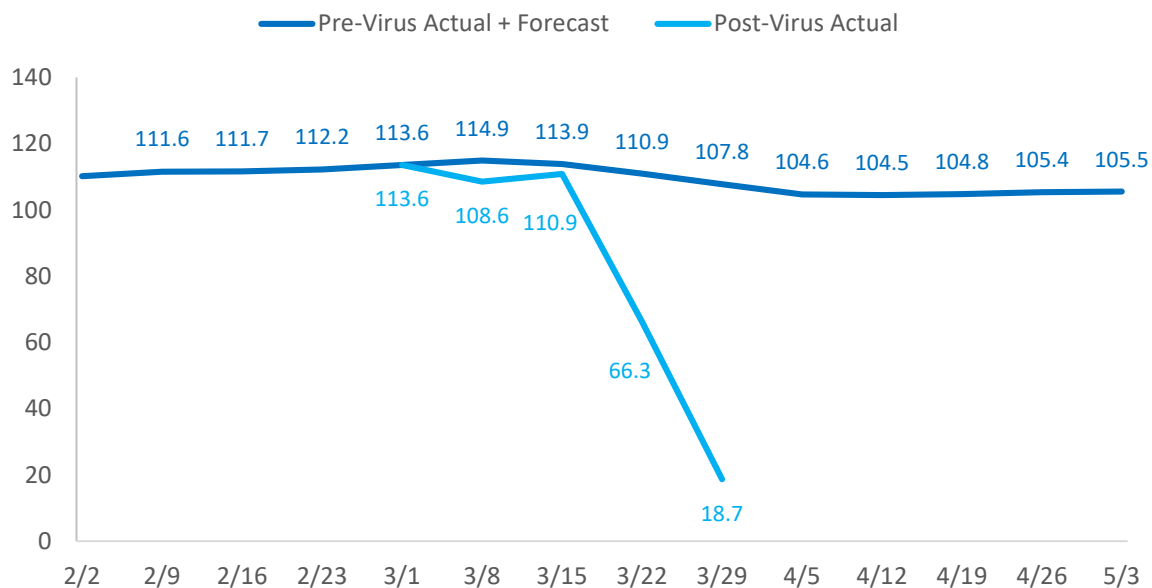
Consequences if Prices Fall

Losses on used vehicles in inventory will compound cash flow and profit issues for retailers. OEMs may realize losses on off-lease vehicles. Consumers will receive less for their trade-ins decreasing their purchasing power.

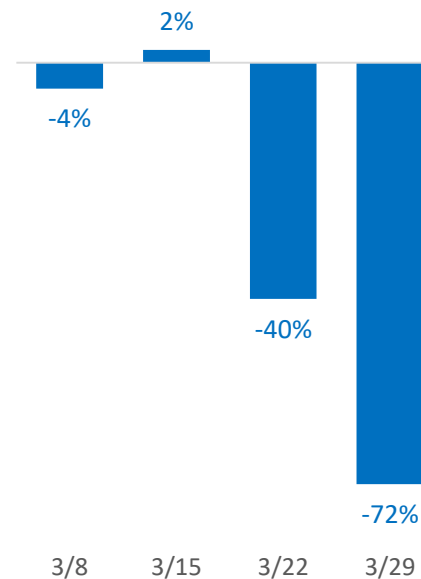
	Day																										
	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10	3/11	3/12	3/13	3/14	3/15	3/16	3/17	3/18	3/19	3/20	3/21	3/22	3/23	3/24	3/25	3/26	3/27	3/28	3/29
Baseline (000s)	24	25	27	34	57	9	36	29	29	31	37	58	9	36	29	30	30	37	60	10	31	31	32	31	38	61	11
Actual (000s)	29	30	32	38	64	9	36	30	30	29	33	51	7	27	21	20	19	22	28	3	16	12	12	11	13	19	2
Delta (000s)	5	5	5	4	7	1	1	1	0	(2)	(4)	(8)	(2)	(9)	(9)	(10)	(11)	(15)	(32)	(6)	(15)	(19)	(20)	(19)	(25)	(42)	(9)

	Week Ending				MTD
	3/8	3/15	3/22	3/29	Mar'20
Baseline (000s)	176	229	233	235	873
Actual (000s)	201	215	140	85	642
Delta (000s)	25	(14)	(92)	(150)	(231)

Weekly Wholesale Auction Volume (000s)



Weekly Change in Auction Volume



Wholesale Auction Operations

Auction activity has been severely curtailed by stay-at-home mandates, suspension of physical auction sales by all auction houses, and the suspension of all non-digital sales thru April 3 at one major auction house.

March Month-to-Date Auction Volumes

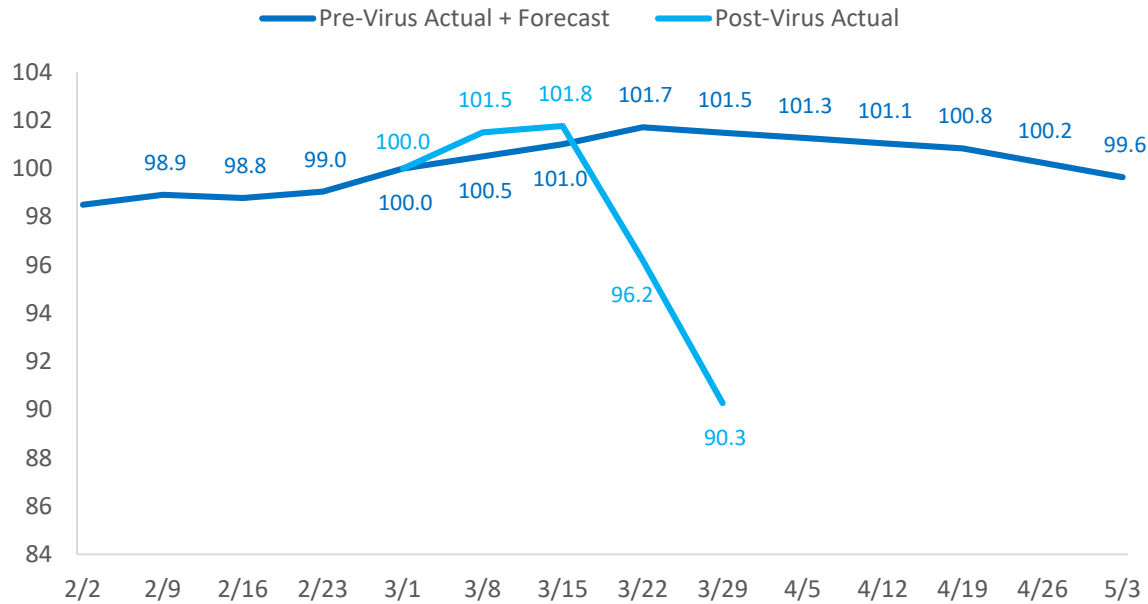
Compared to expectation, March is off 32% or 143,000 units. Compared to March 2019, this March is off 38% or 183,000 units.

Regional Impact

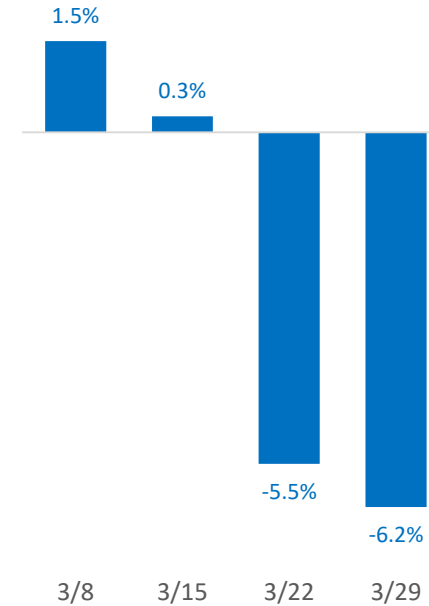
Action activity ground to a halt in hardest-hit states last week, with volume down 96% on average in California, New York, and Michigan.

Notes: Vehicles up to 8 years old; Simulcast and physical auction sales only; Lagging reported sales will impact previously reported results; Actual figures through March 1, 2020

Weekly Wholesale Auction Price Index
(March 1 = 100)



Weekly Change in Auction Prices



Auction Prices Suffer Historic Drop

Last week's 6.2% decline in auction prices was the largest one-week drop on record. Combined with the 5.3% drop the previous week, the two worst declines on record happened this March.

Impact To Retail Prices

While auction prices and volumes have fallen sharply, retail prices have not yet exhibited the same decline.

The risk that retail prices fall will increase with each additional week of sales disruption.

Full Year Used Vehicle Price Expectations

For all sales channels (Retail and Wholesale), J.D. Power Valuation Services has the following full-year projections:

Pre-Virus Forecast: Flat to up 1%

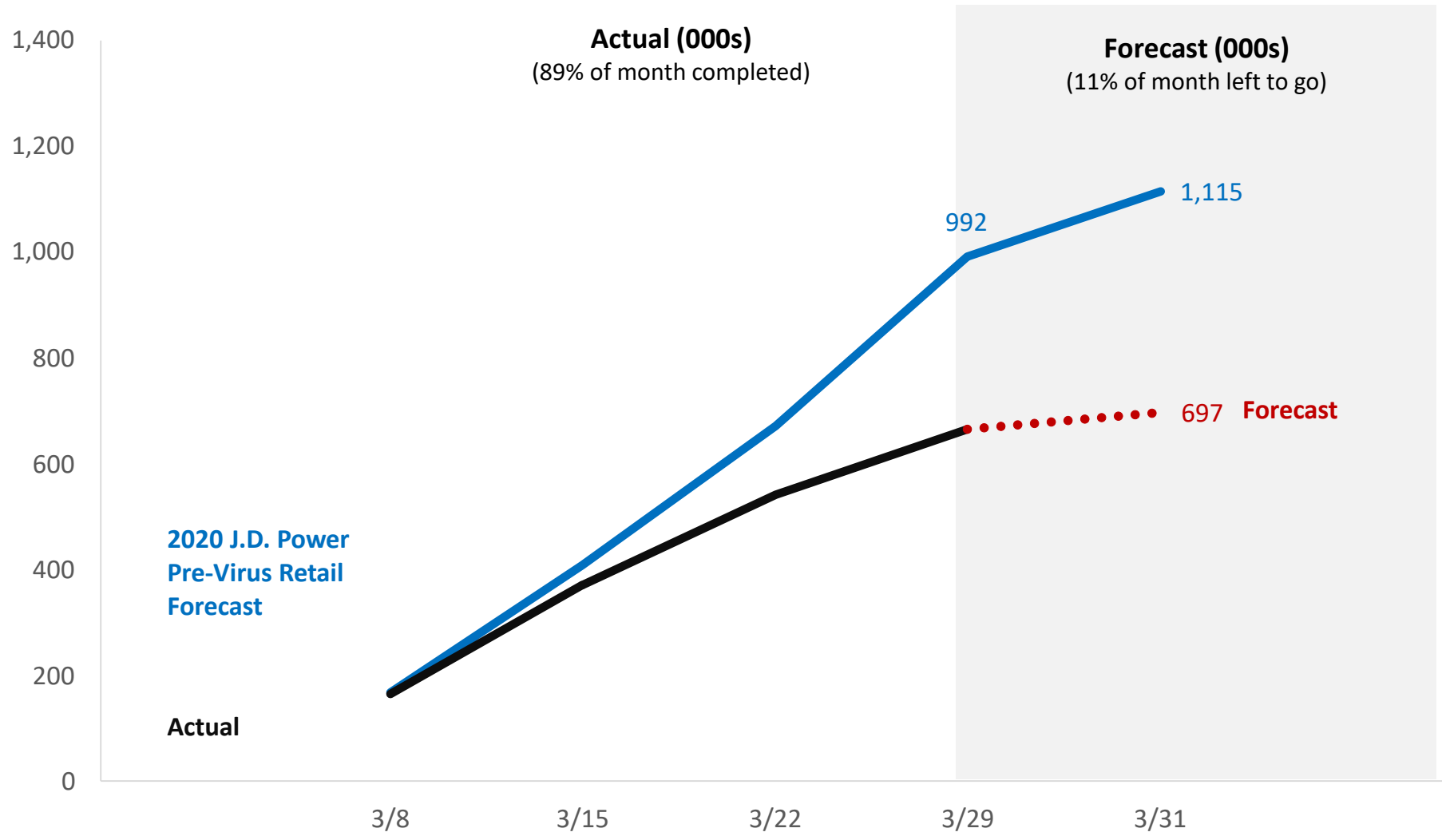
Low Impact Scenario: -2%

Medium Impact Scenario: -8%

Severe Impact Scenario: -10%

Notes: Vehicles up to 8 years old; Simulcast and physical auction sales only; Lagging reported sales will impact previously reported results; Actual figures through March 1, 2020

2. Sales Outlook



Comparison to March Forecast

J.D. Power March retail sales outlook is for 697,000 units. This is a decline of 37% from our pre-virus forecast, or a sales drop of 418,000. Including fleet sales, total sales are expected to be 983,000 for the month, a decline of 493,000.

Comparison to March 2019

Compared to March 2019 retail sales of 1,225,000, this expected range will be a decrease of 528,000, or a drop of 43%. Compared to March 2019 total, March 2020 fell 623,000 units.

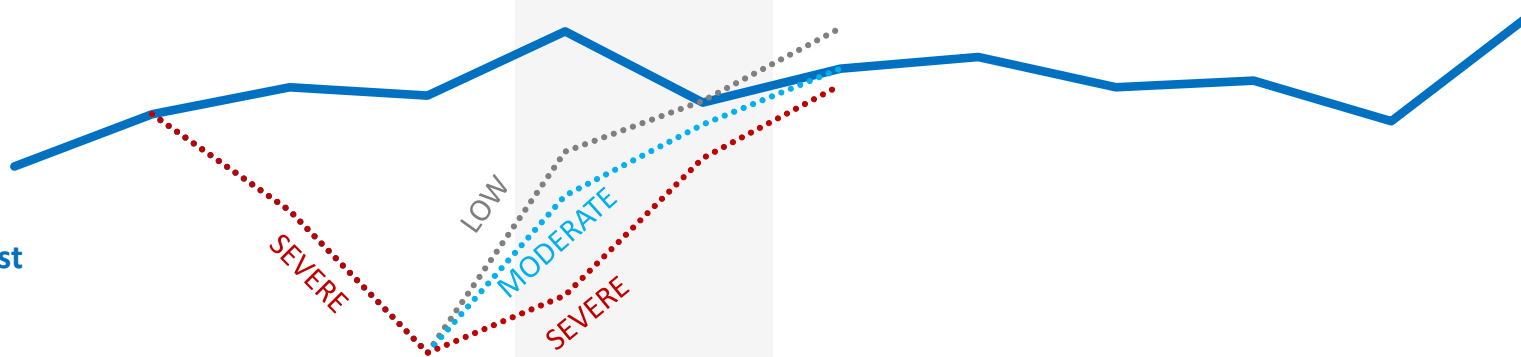
March 2020 SAAR

Based on these results, J.D. Power expects March total sales SAAR to end at 11.2 million vs a pre-virus forecast of 16.9 million. Retail sales SAAR is 8.0 million vs a pre-virus forecast of 12.8 million.

Sales vs. Baseline

	RAMP UP		PLATEAU/ RECOVER		NORMAL	<u>Total Risk</u> (through July)	
						%	UNITS
LOW			30%	0%	0%	27%	1.6M
MODERATE			42%	8%	0%	33%	1.9M
SEVERE	37%	80%	68%	18%	5%	42%	2.4M

2020 J.D. Power Pre-Virus Retail Forecast



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Baseline			1.12	1.08	1.30	1.06	1.18					
LOW				0.21	0.90	1.07	1.31					
MODERATE				0.21	0.75	0.99	1.18					
SEVERE			0.70	0.21	0.41	0.88	1.12					
<u>Delta vs. Baseline</u>												
LOW				(0.87)	(0.40)	0.00	0.13					
MODERATE				(0.87)	(0.56)	(0.08)	(0.00)					
SEVERE			(0.42)	(0.87)	(0.89)	(0.19)	(0.06)					

Sales Impact March-July

The virus is projected to remove 1.6-2.4 million sales over the five months of March-July.

Key driver of actual outcome is duration and severity of stay home regulations.

Full-Year Outlook

Recovery and full-year sales will be determined by:

- Deterioration of economic conditions
- Mitigation of economic conditions through Government and OEM stimulus actions (Estimated net decline for new vehicle demand is 10-30% decline)
- Recovery of sales postponed during March-July (50-75% potential recovery rate)
- 2020CY Retail: 10.5-12.5 million retail sales vs. baseline of 13.4 million.
- 2020CY Total Sales: 12.1-14.8 million total sales vs baseline of 16.8 million.

Outlook: What is the sales outlook for the full year?

Retail Sales (000's)	Pre-Virus Baseline	Virus Sales Scenarios		Sales Change: Baseline vs. Scenarios	
		Severe	Low	Severe	Low
Jan-Mar	2,985	2,567	2,567	(418)	(418)
Apr-Jul	4,631	2,614	3,490	(2,017)	(1,141)
Jan-Jul	7,616	5,181	6,057	(2,435)	(1,559)
Aug Dec	5,829	4,080 <small>*Assumes demand falls 30%</small>	5,246 <small>*Assumes demand falls 10%</small>	(1,749)	(583)
Pent-Up Demand from Mar-Jul to be recovered in 2020CY	n/a	1,218 <small>*Assumes 50% of 2.4M lost Sales Return to Market</small>	1,169 <small>*Assumes 75% of 1.6M lost Sales Return to Market</small>	1,218	1,169
CY 2020 Retail Sales	13,445	10,479	12,473	(2,966)	(973)
Memo: Fleet Sales	3,336	1,668 <small>*Assumes 50% decline</small>	2,335 <small>*Assumes 30% decline</small>	(1,668)	(1,001)
CY 2020 Total Sales	16,781	12,147	14,808	(4,634)	(1,973)

Key Variables

1. What is the economic situation and the impact on demand for new vehicles? Initial estimate is a range of 10-30% reduction in demand for new vehicles
2. How much pent-up demand will be released once stay-home restrictions are lifted: Scenario assumes severe case with 50% of lost sales from March-July recovered, Low scenario of 75% of lost sales recovered.

2020 Retail Sales Outlook

10.5-12.5 million retail sales vs. baseline of 13.4 million sales

2020 Total Sales Outlook

12.1-14.8 million total sales vs baseline of 16.8 million sales.

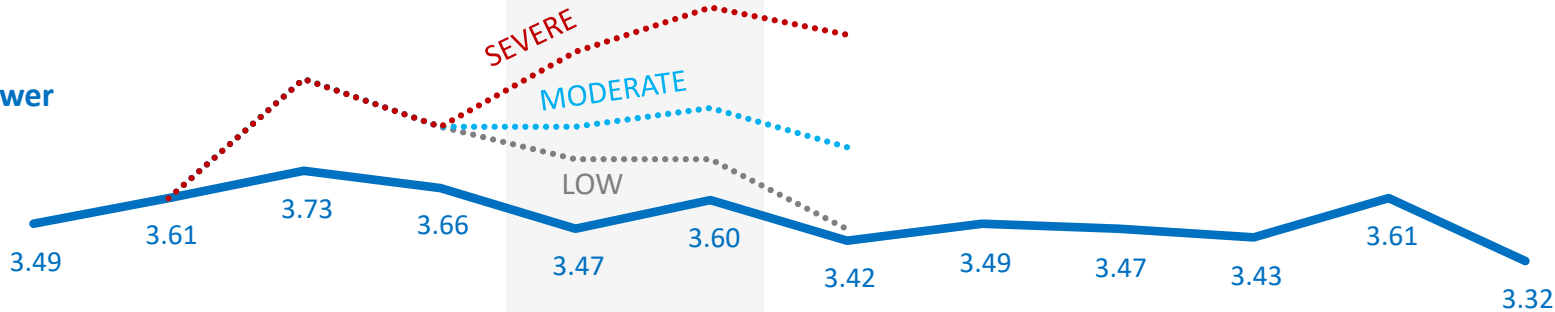
Includes decline of Fleet sales of between 30 and 50%.

RAMP UP PLATEAU/ RECOVER NORMAL

Sales vs. Baseline

LOW			9%	5%	1%
MODERATE			13%	11%	12%
SEVERE	11%	7%	23%	24%	27%

2020 J.D. Power Pre-Virus Inventory Forecast



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Baseline			3.73	3.66	3.47	3.60	3.42					
LOW					3.78	3.78	3.47					
MODERATE					3.93	4.01	3.83					
SEVERE			4.15	3.93	4.27	4.46	4.34					
<u>Delta vs. Baseline</u>												
LOW					0.31	0.18	0.05					
MODERATE					0.46	0.42	0.42					
SEVERE			0.42	0.28	0.80	0.87	0.93					

Scenario Assumptions – Ability to Produce

Production outlook is uncertain but majority of domestic and many global facilities are shut for at least two weeks based on virus-driven restrictions.

Expectation is that shutdowns will be extended and production will be disrupted by supply chain issues once plants re-open.

Baseline assumption is production declines of 100% in April, 33% in May and 10% in June.

Outcome

Sales declines will lead to rising inventories if manufacturers resume production once they are able. Inventory projections indicate that demand-driven production cuts will be necessary over and above those driven by consumer and business restrictions.

3. Q&A

Next Briefing: April 8, 2pm EDT
