



Wholesale Market Insights

Through December 2019

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COX AUTOMOTIVE™



INVENTORY



RETAIL



FINANCIAL



MOBILITY





Manheim Used Vehicle Value Index

Concept:

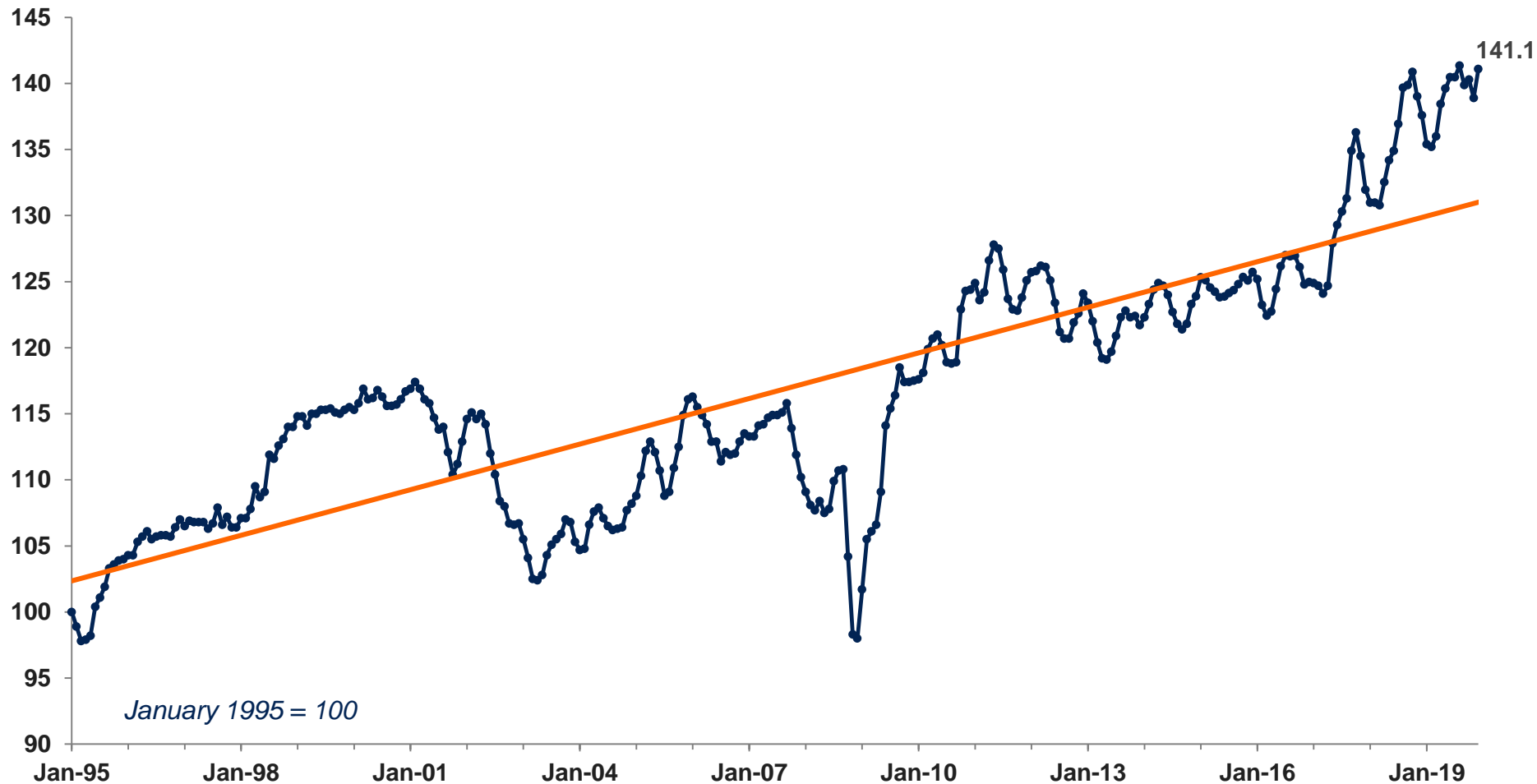
A single measure of used vehicle price change that is independent of underlying segment shifts in the characteristics of vehicles being sold

Steps:

- All Manheim U.S. sales
- Classify by market segment
- Account for differences in mileage
- Weight to provide smoother segment mix
- Seasonally adjust

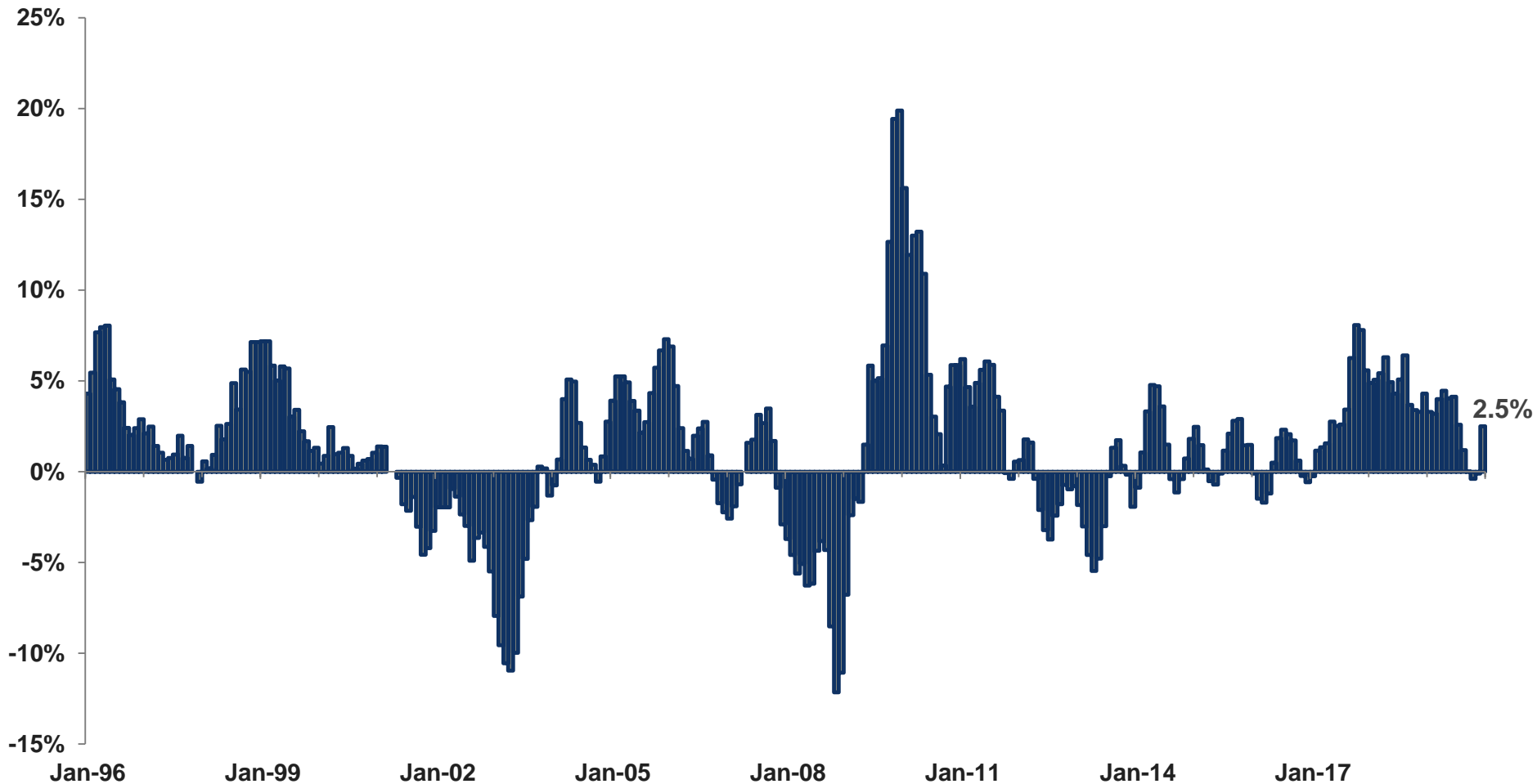
Wholesale Prices Rebound To End The Year

Prices in December increased 1.54% versus November 2019 and were up 2.5% compared to December 2018



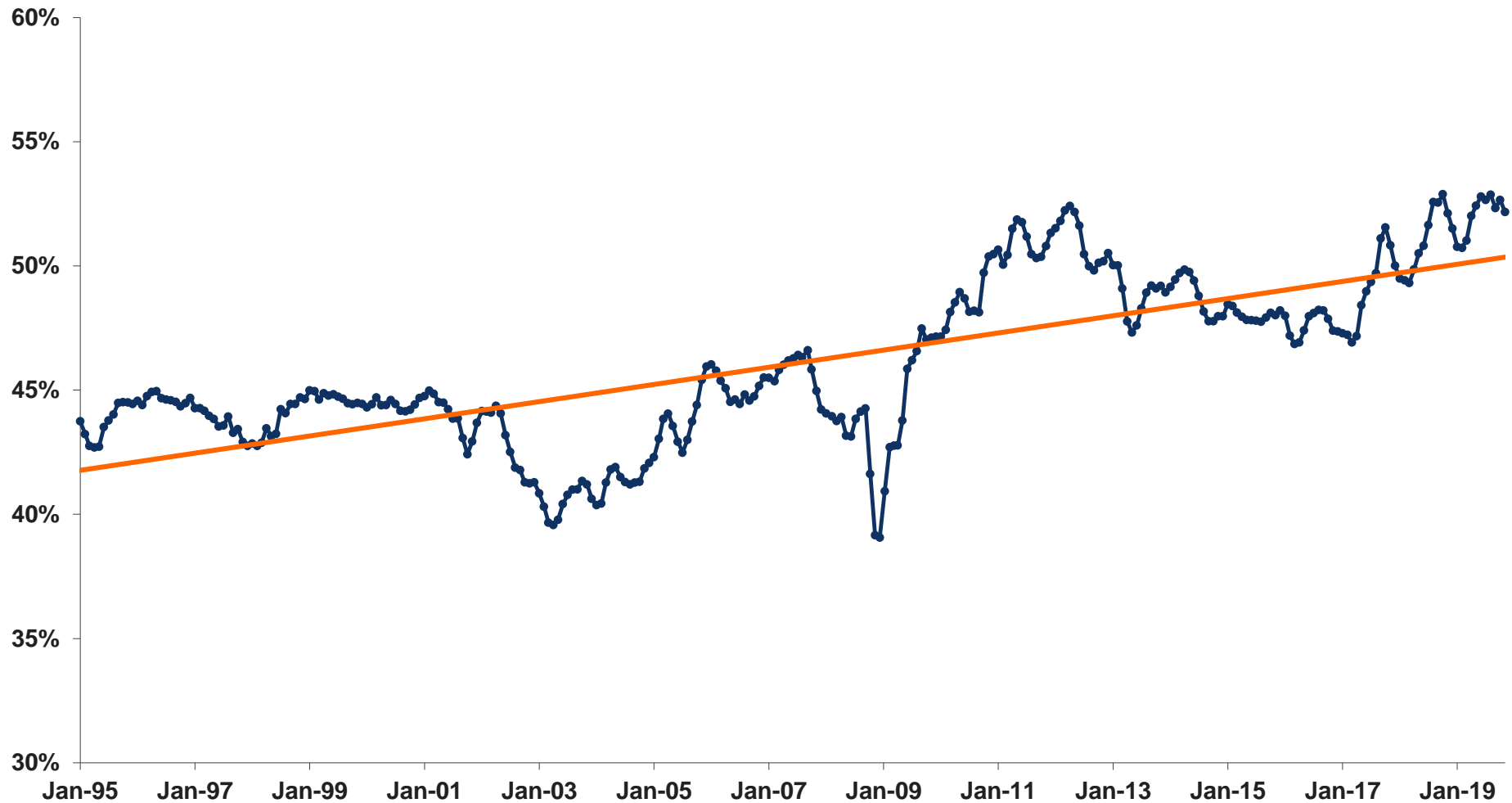
Used Vehicle Values Bounce Back From Lows

Year-over-year price performance now stronger than average

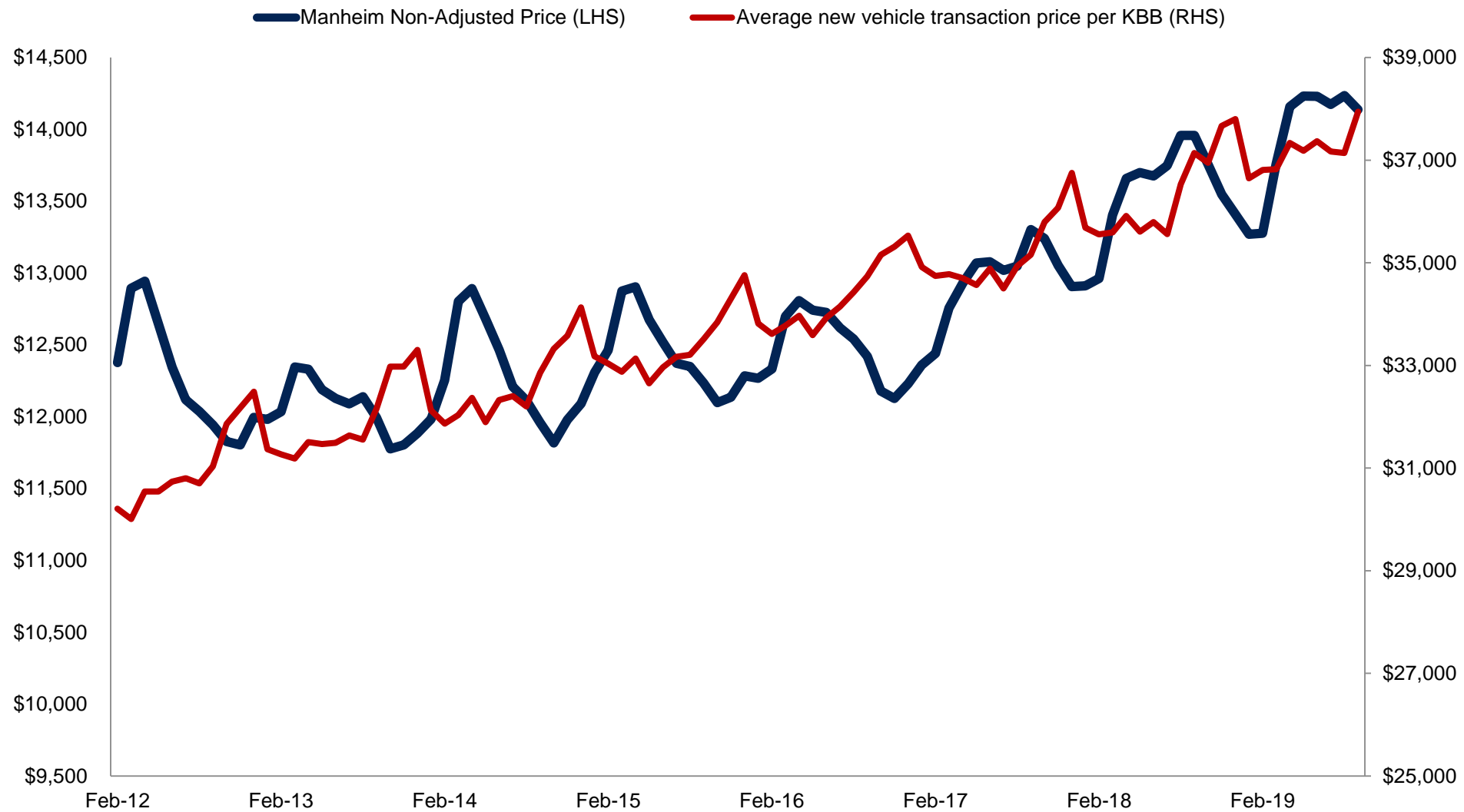


Manheim Index versus Mix & Quality Adjusted New Vehicle Price with 3 ½ year Lag

Used vehicle prices stay above the historical new vehicle price relationship trend



Wholesale Used Vehicle Prices vs. New Vehicle Prices

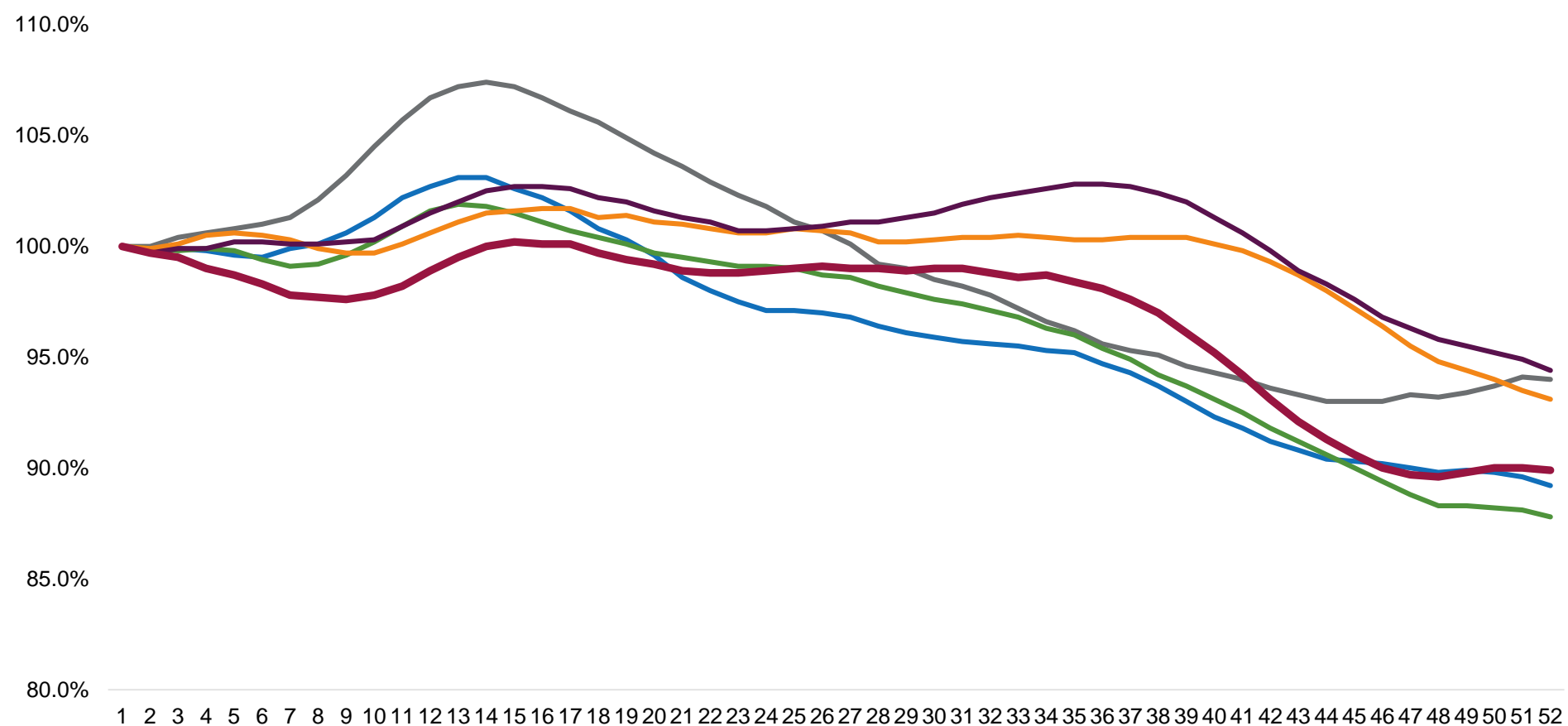


2019 Weekly Price Trend Ended 2019 Stable

Depreciation accelerated to start the fall, but end of year trend normalized

3-Year-Old Model MMR Index by Week

— 2014 — 2015 — 2016 — 2017 — 2018 — 2019

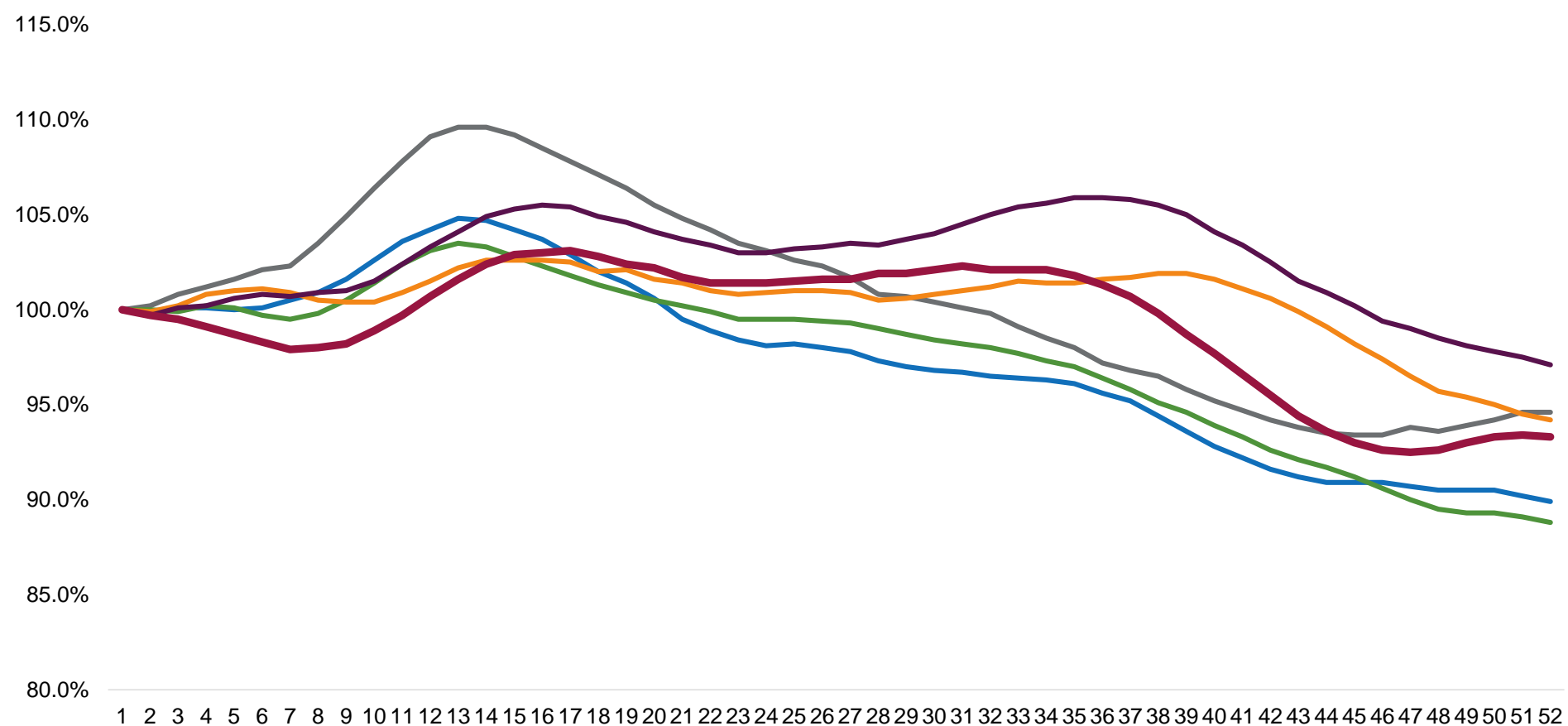


Weekly Price Trend Was Strong For Non-Luxury

Accelerating depreciation in the fall transitioned to stabilized values to end the year

Non-Luxury 3YO Model MMR Index by Week

— 2014 — 2015 — 2016 — 2017 — 2018 — 2019

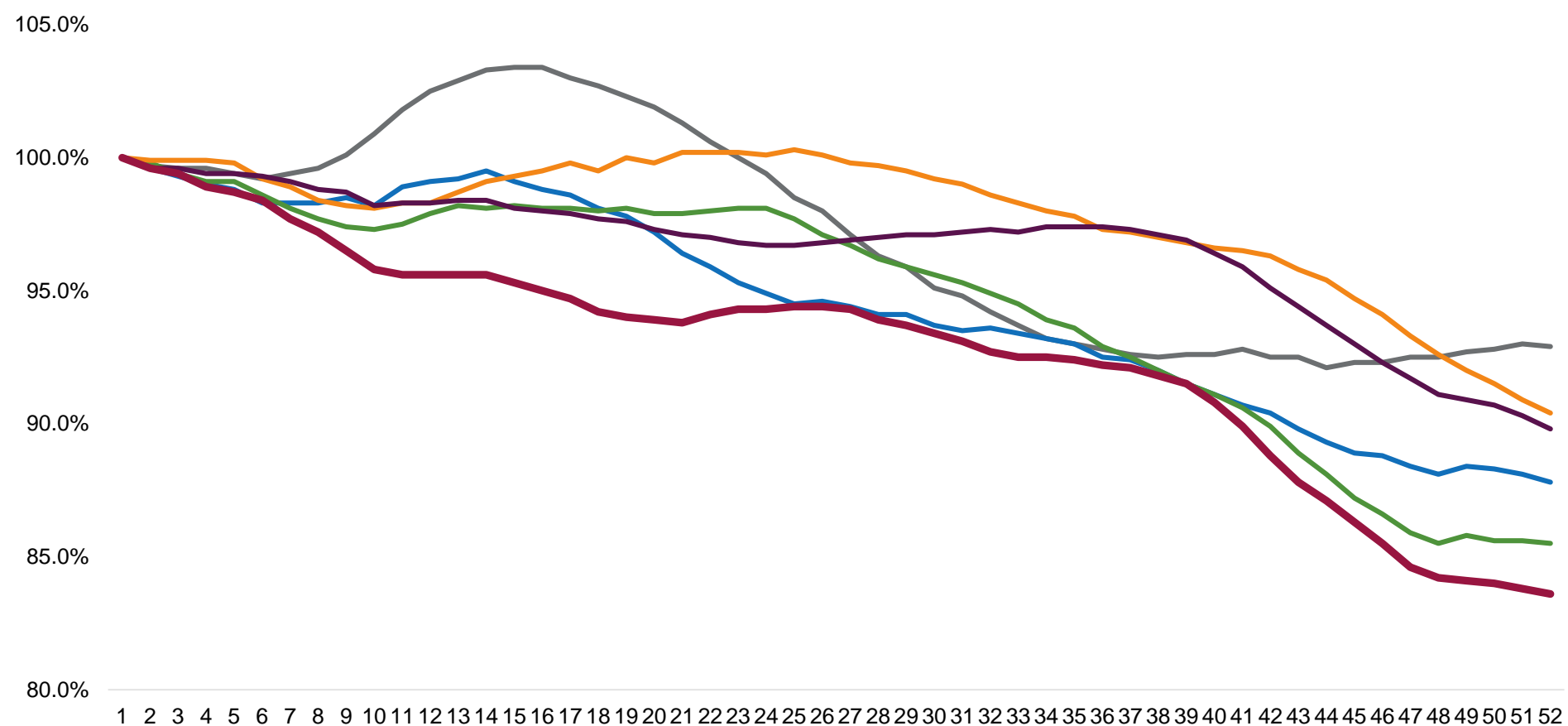


Weekly Price Trend Weaker For Luxury

Luxury vehicles saw steep depreciation in first quarter and again in fall but ended stable

Luxury 3YO Model MMR Index by Week

— 2014 — 2015 — 2016 — 2017 — 2018 — 2019

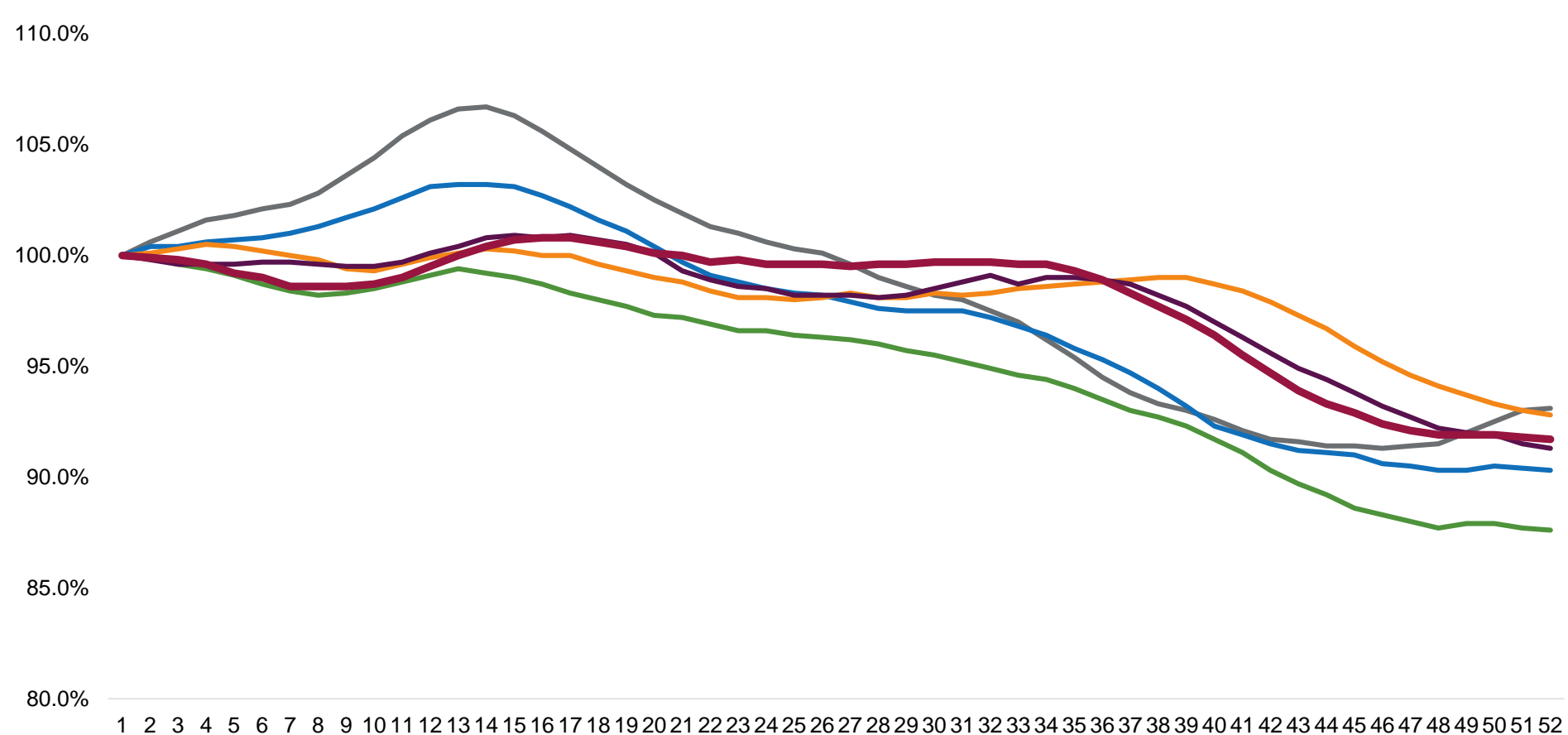


Weekly Price Trend Strong for One-Year-Old Vehicles

One-year-old vehicle prices were very stable with little depreciation until the fall and ended stable

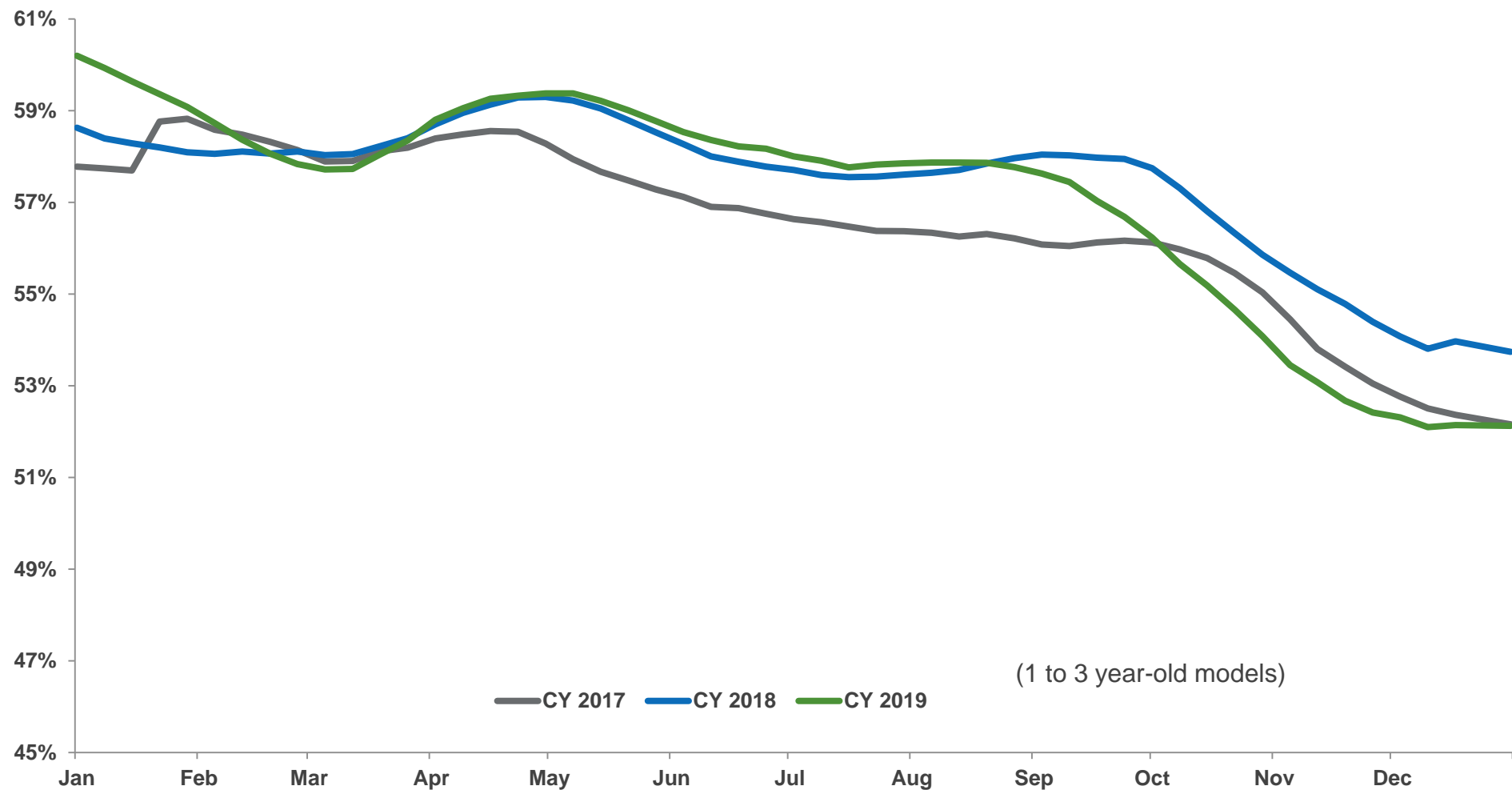
1-Year-Old Model MMR Index by Week

— 2014 — 2015 — 2016 — 2017 — 2018 — 2019



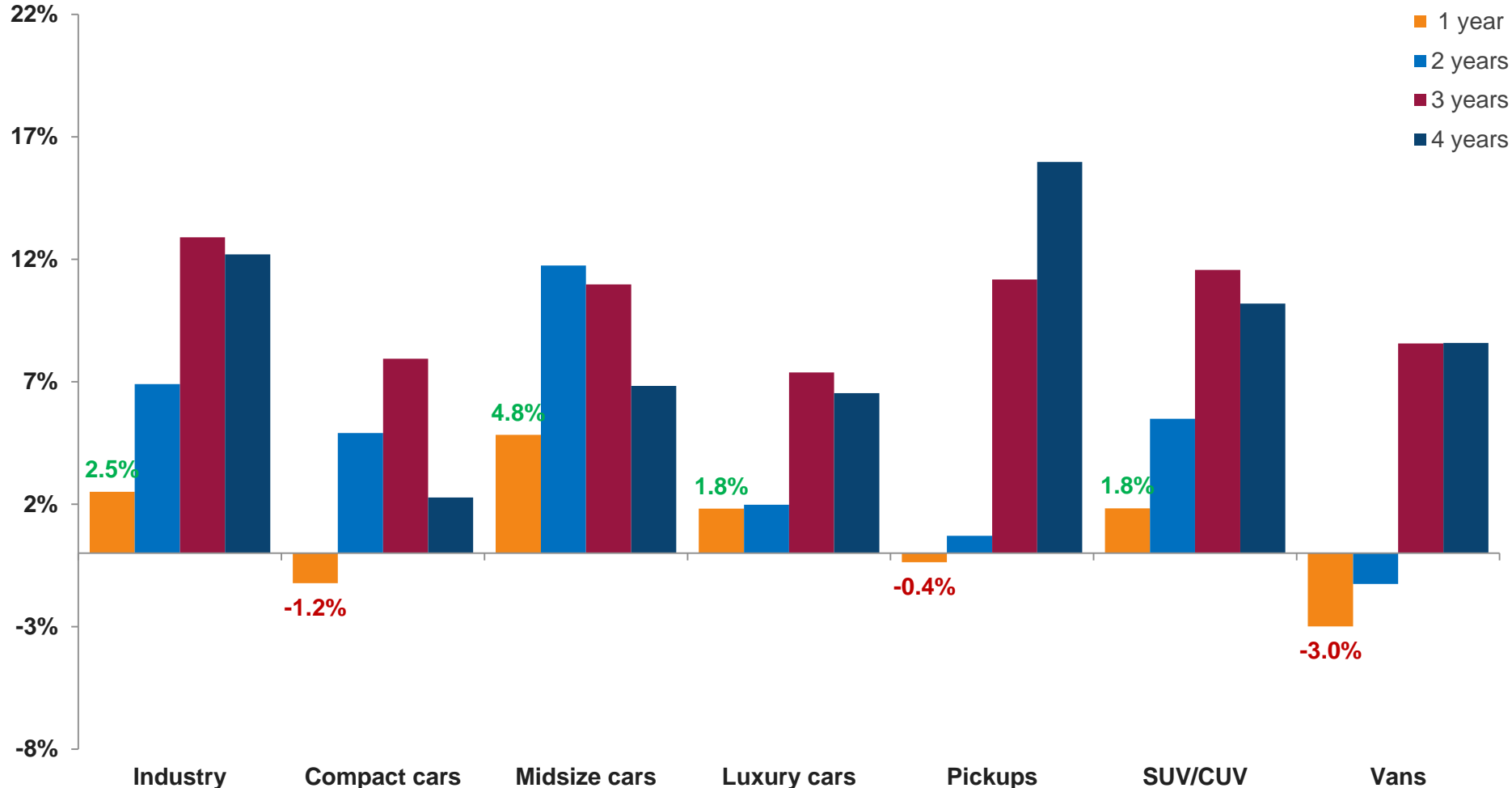
Retention Values Ended 2019 Down 1.6% Relative to 2018

Relative to MSRP and fixing the basket of vehicles by what was sold leaves residuals flat with 2017



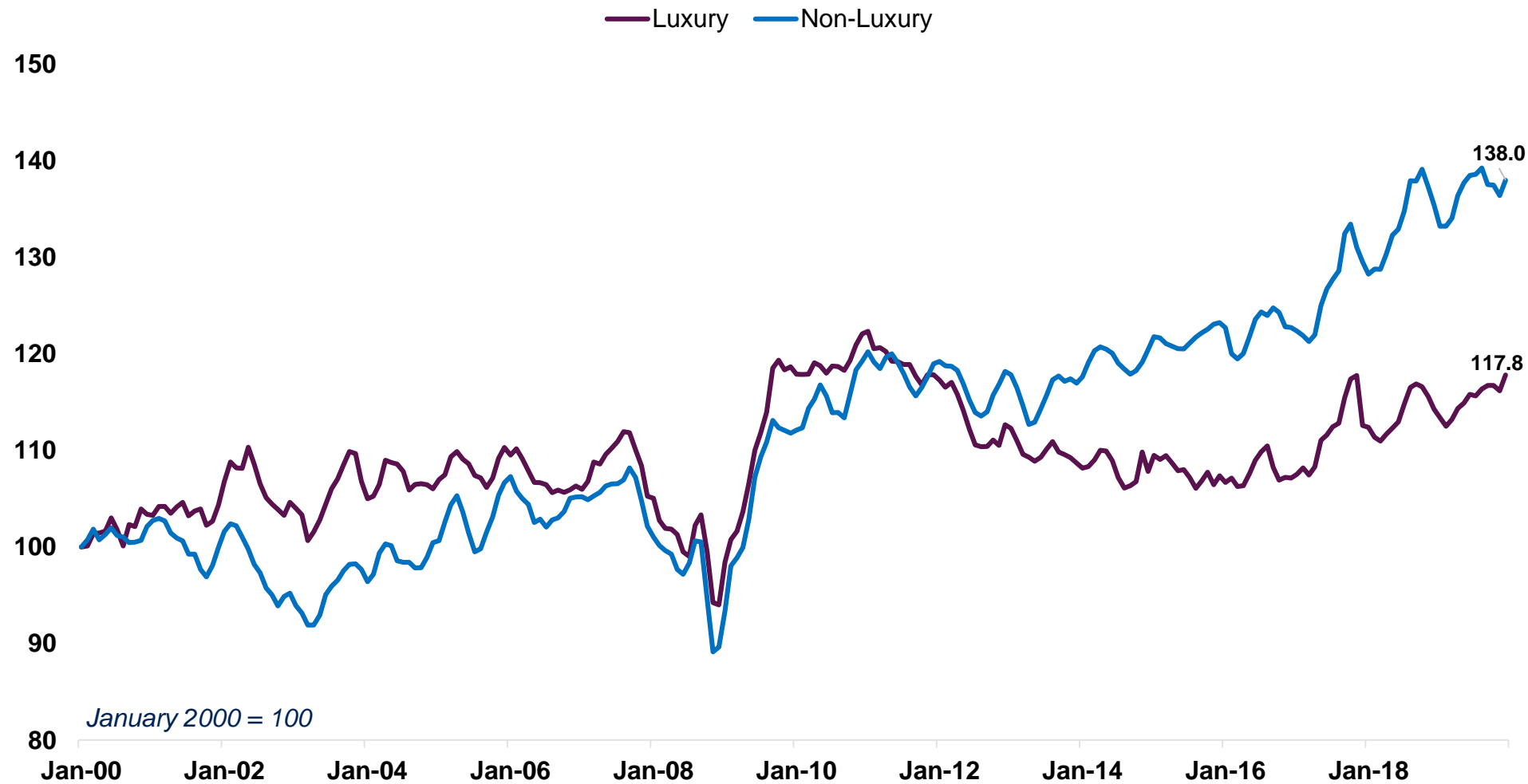
Percent Change in Wholesale Prices for Major Market Segments

Only three major segments saw year-over-year gains in December



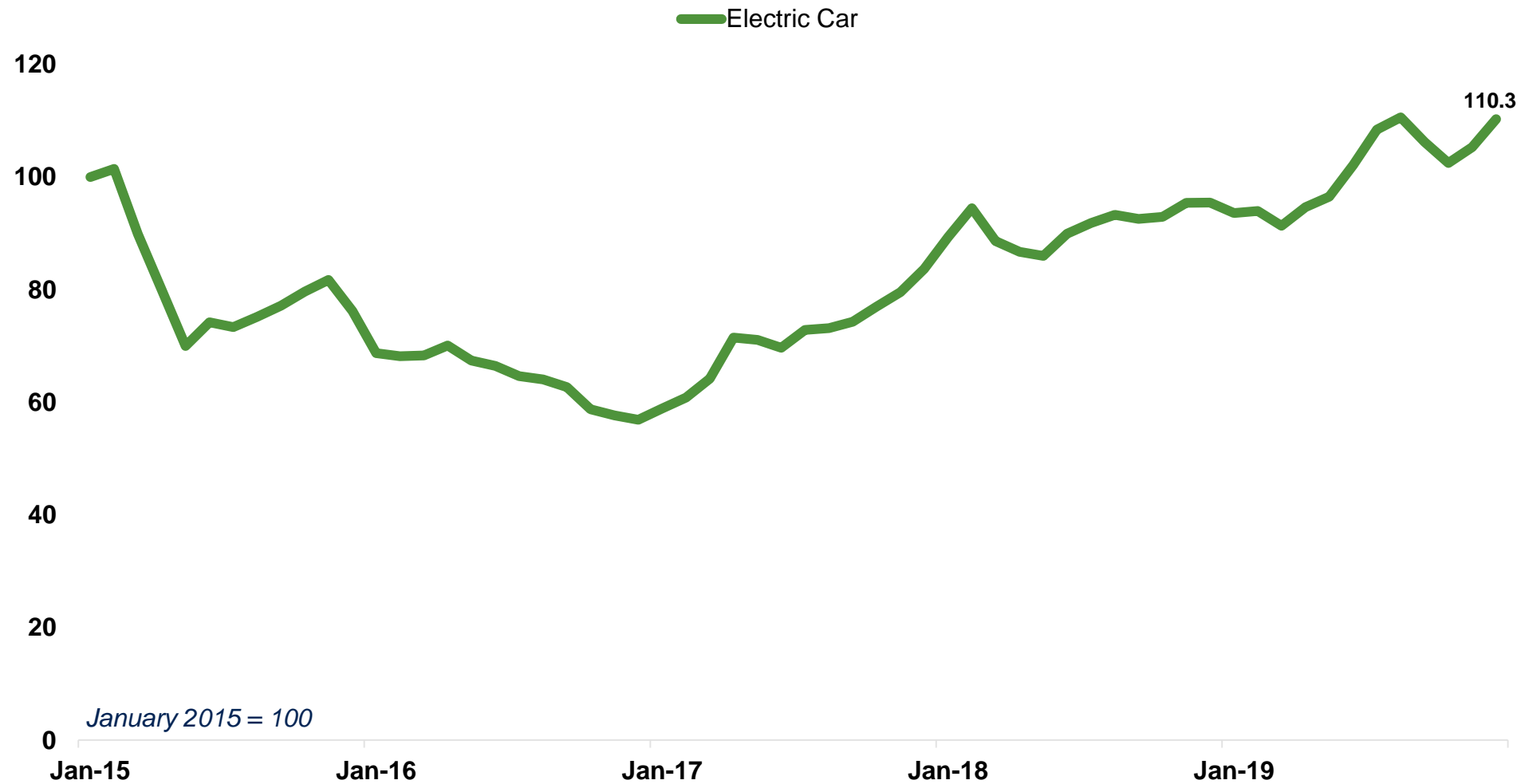
Luxury Ends Year on Upward Trend

Luxury prices in December were up 3.1% compared to Dec 2018, while non-luxury prices increased 1.9%



Electric Car Prices Improved in 2019

Electric car prices in December were up 15.5% compared to December 2018

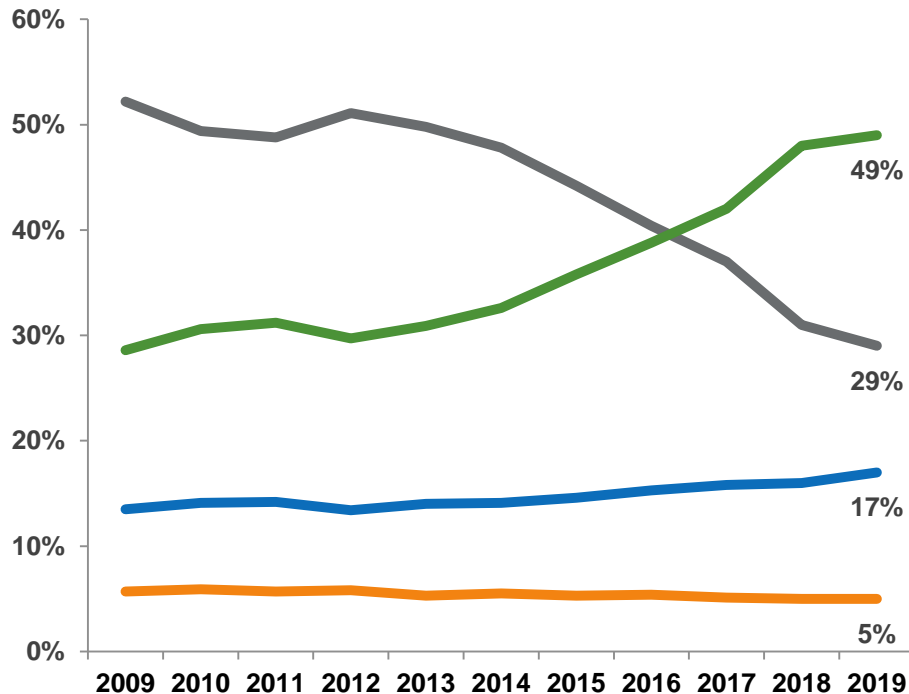


Shifting Consumer Preferences Not Reflected in Wholesale Market Volumes

The SUV reigns supreme in new vehicle sales while cars still dominated the used car market

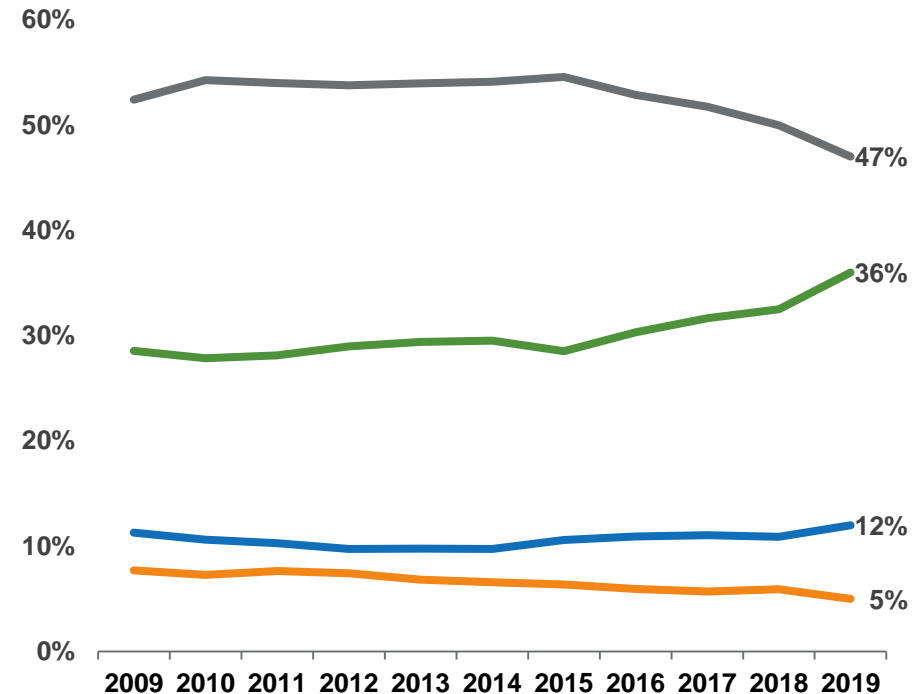
New Vehicle Sales by Category

CAR PICKUP SUV VAN



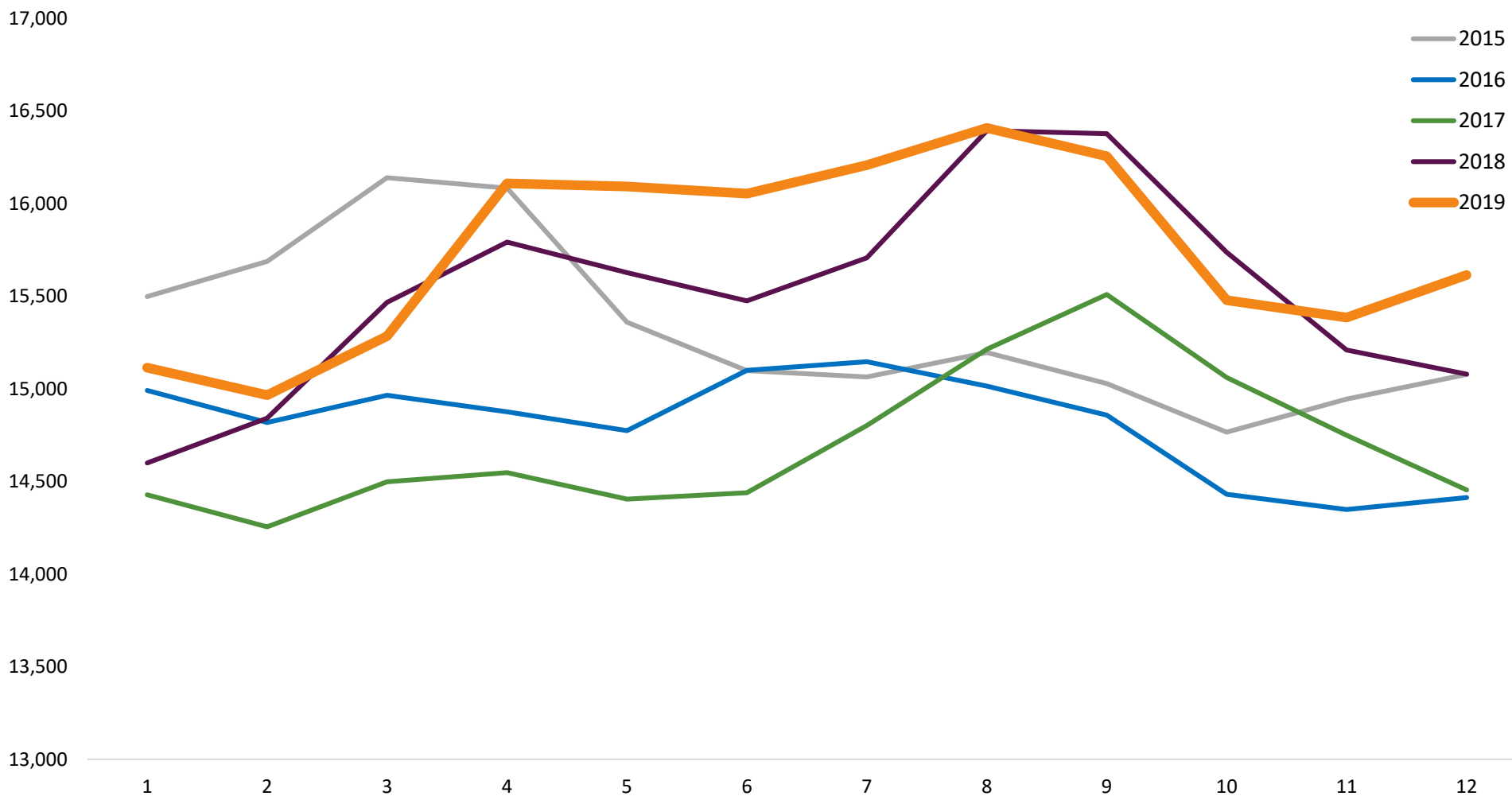
Manheim Sales by Category

CAR PICKUP SUV VAN



Average Auction Price – Rental Risk Units

Average price for rental risk units sold in December up 3.5% y/y and up 1.5% m/m



Distribution of Rental Risk Vehicles

	2017 Q4	2018 Q4	2019 Q4
Number of unique year, make, model, body configurations sold	3,014	2,623	3,054
Share accounted for top 10 YMMB	11.9%	12.0%	13.3%
Share accounted for top 25 YMMB	22.5%	23.7%	23.1%
Number of YMMB to reach 50% share	110	112	109

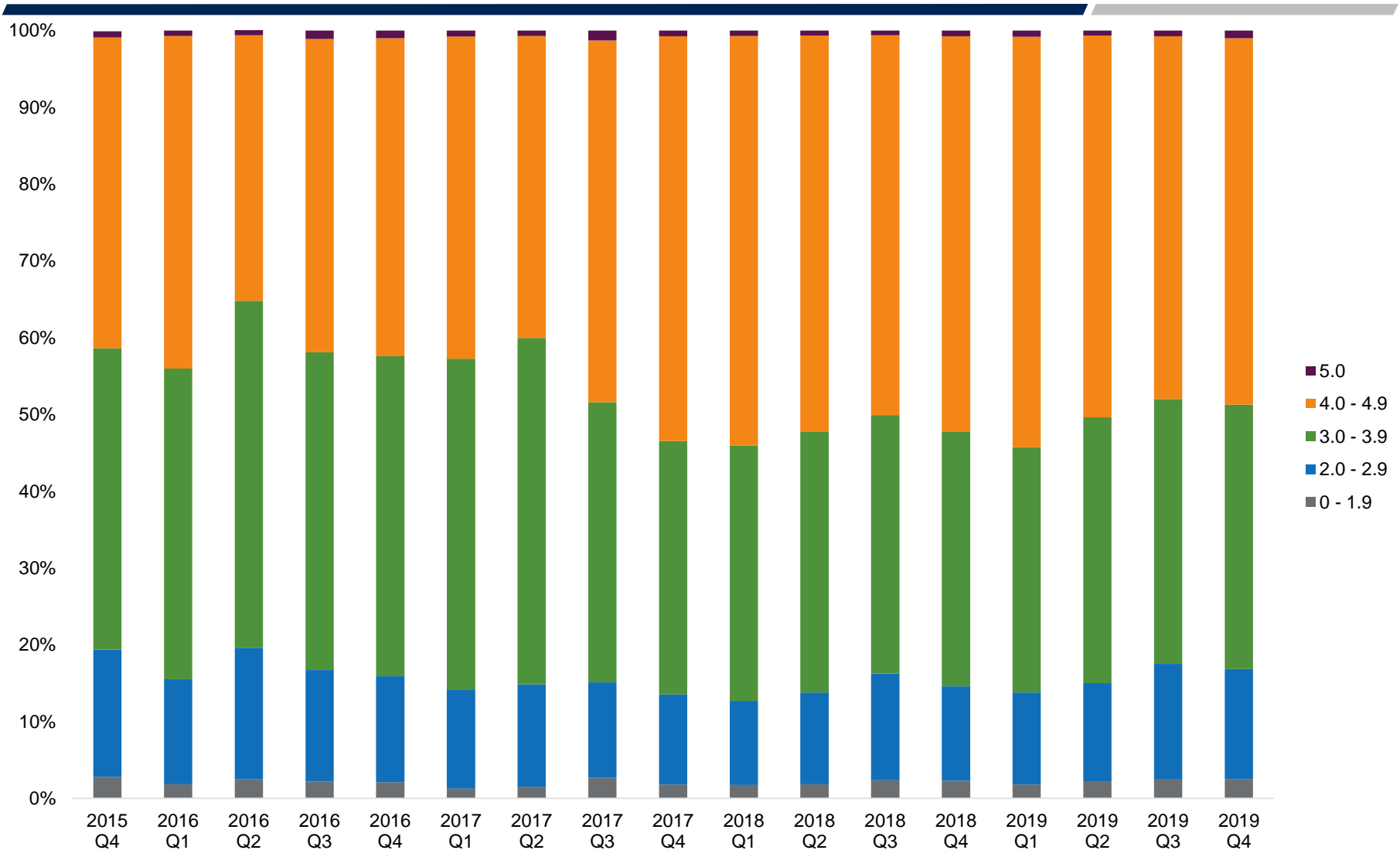


Average Mileage – Rental Risk Units Sold at Auction

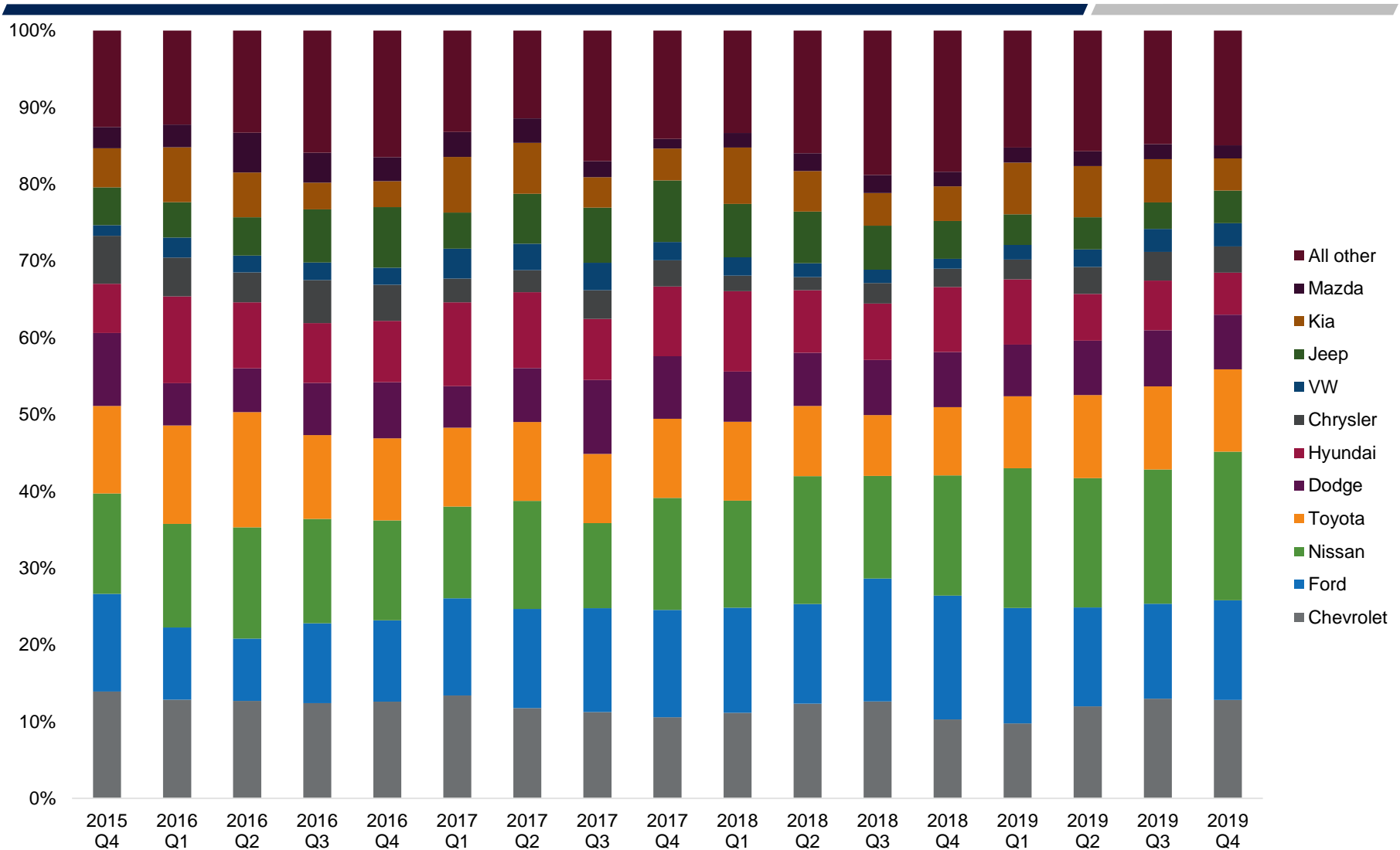
Average mileage for rental risk units in December was up 6% compared to a year ago and up 5% m/m



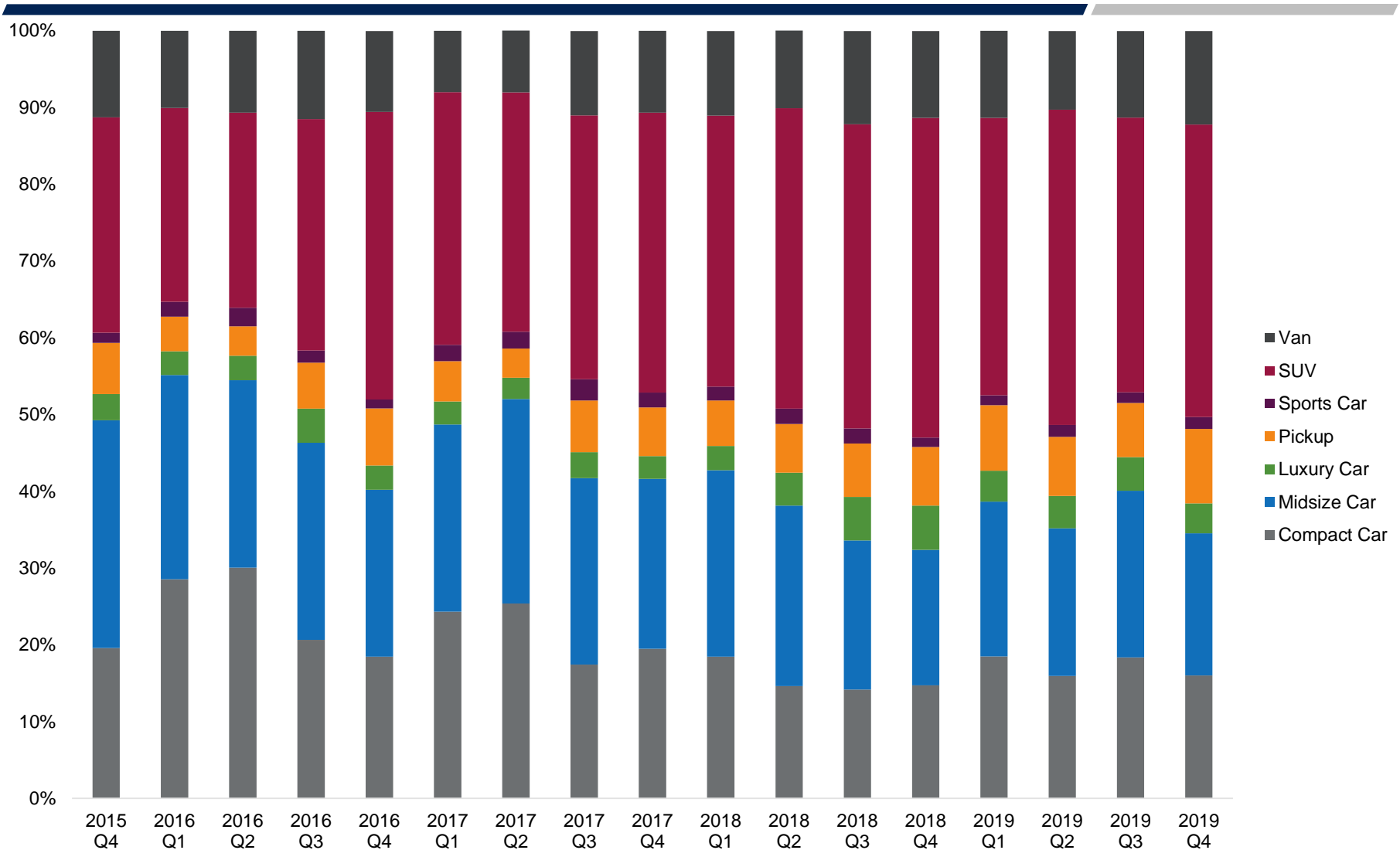
Rental Risk Units Sold by Condition



Rental Risk Units Sold by Make



Rental Risk Units Sold by Segment



Manheim Market Report (MMR) Vehicle Insights

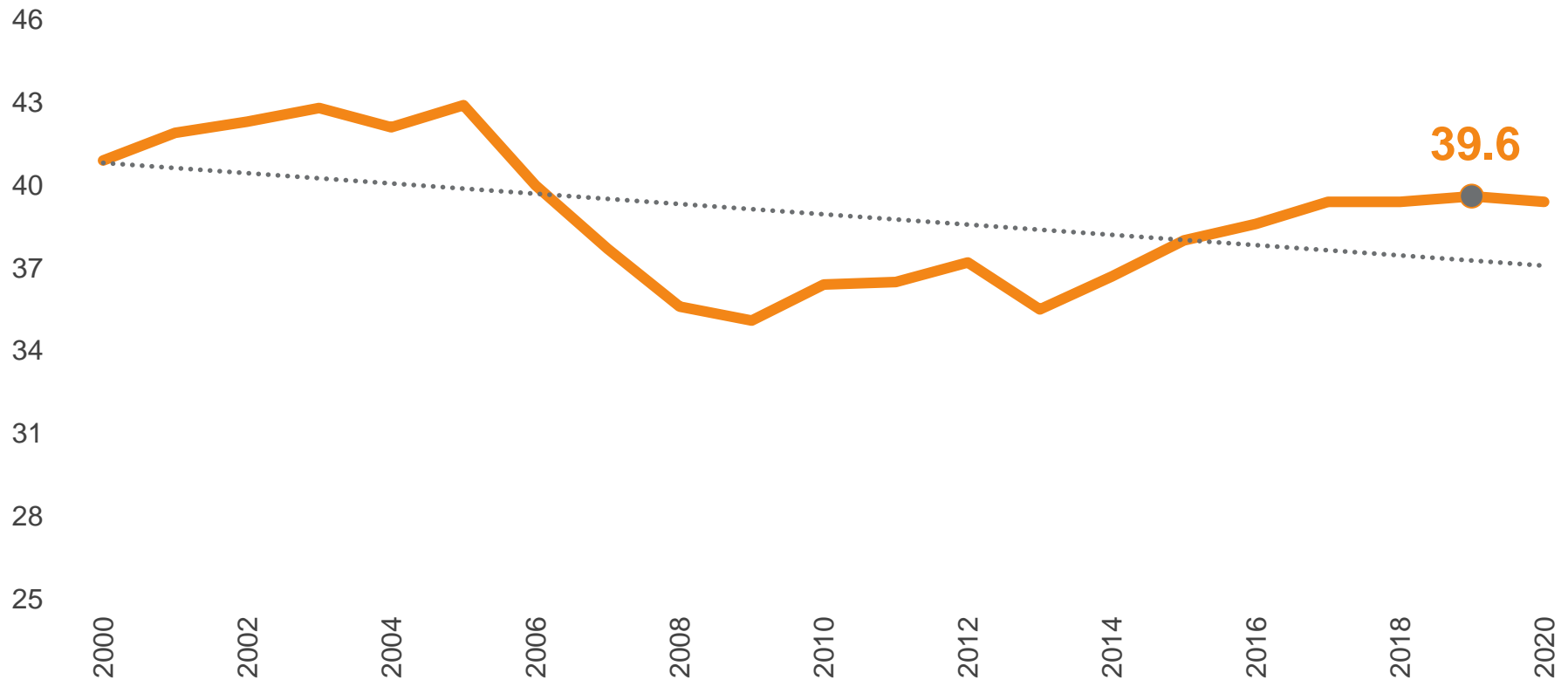
Top selling vehicles in December at Manheim saw broad range of depreciation rates in the last 30 days (December 3 – January 2) as the top selling vehicles were again heavy in luxury vehicles. Prices year-over-year also saw quite a range from appreciation to higher than normal depreciation.

Rank	Source(Rank)	Category	Subcategory	Vehicle	2-Jan	Past 30 Days	Last Year	Current Dep	L12M Dep/Mo
1	All	Compact Car	Compact Car Premium	2017 HYUNDAI ELANTRA 4D SEDAN SE	\$9,750	\$9,725	\$9,625	0.3%	0.1%
2	All	SUV	SUV Entry	2017 FORD ESCAPE 4WD 4D SUV 1.5L SE	\$13,950	\$13,800	\$14,350	1.1%	-0.2%
3	All	Luxury Car	Luxury Car Premium	2017 MERCEDES-BENZ E CLASS 4D SEDAN E300	\$25,200	\$25,700	\$35,300	-1.9%	-2.4%
4	All	Midsize Car	Midsize Car Premium	2017 TOYOTA CAMRY 4C 4D SEDAN SE	\$13,850	\$13,750	\$13,100	0.7%	0.5%
5	All	Luxury Car	Luxury Car Premium	2016 MERCEDES-BENZ C CLASS 4D SEDAN C300 4MATIC	\$16,550	\$17,000	\$22,400	-2.6%	-2.2%
1 Dealer	Dealer	Midsize Car	Midsize Car Premium	2015 NISSAN ALTIMA 4C 4D SEDAN S	\$6,450	\$6,450	\$9,025	0.0%	-2.4%
1 Lease	Lease	Compact Car	Compact Car Premium	2017 HYUNDAI ELANTRA 4D SEDAN SE	\$9,750	\$9,725	\$9,625	0.3%	0.1%
1 Rental	Rental	Midsize Car	Midsize Car Premium	2018 NISSAN ALTIMA 4C 4D SEDAN SL	\$12,650	\$12,500	\$14,850	1.2%	-1.2%



Retail Sales Continue to Grow As Used Vehicle Sales Plateau

USED VEHICLE SALES OUTLOOK (MILLIONS)



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FULL-YEAR FORECASTS

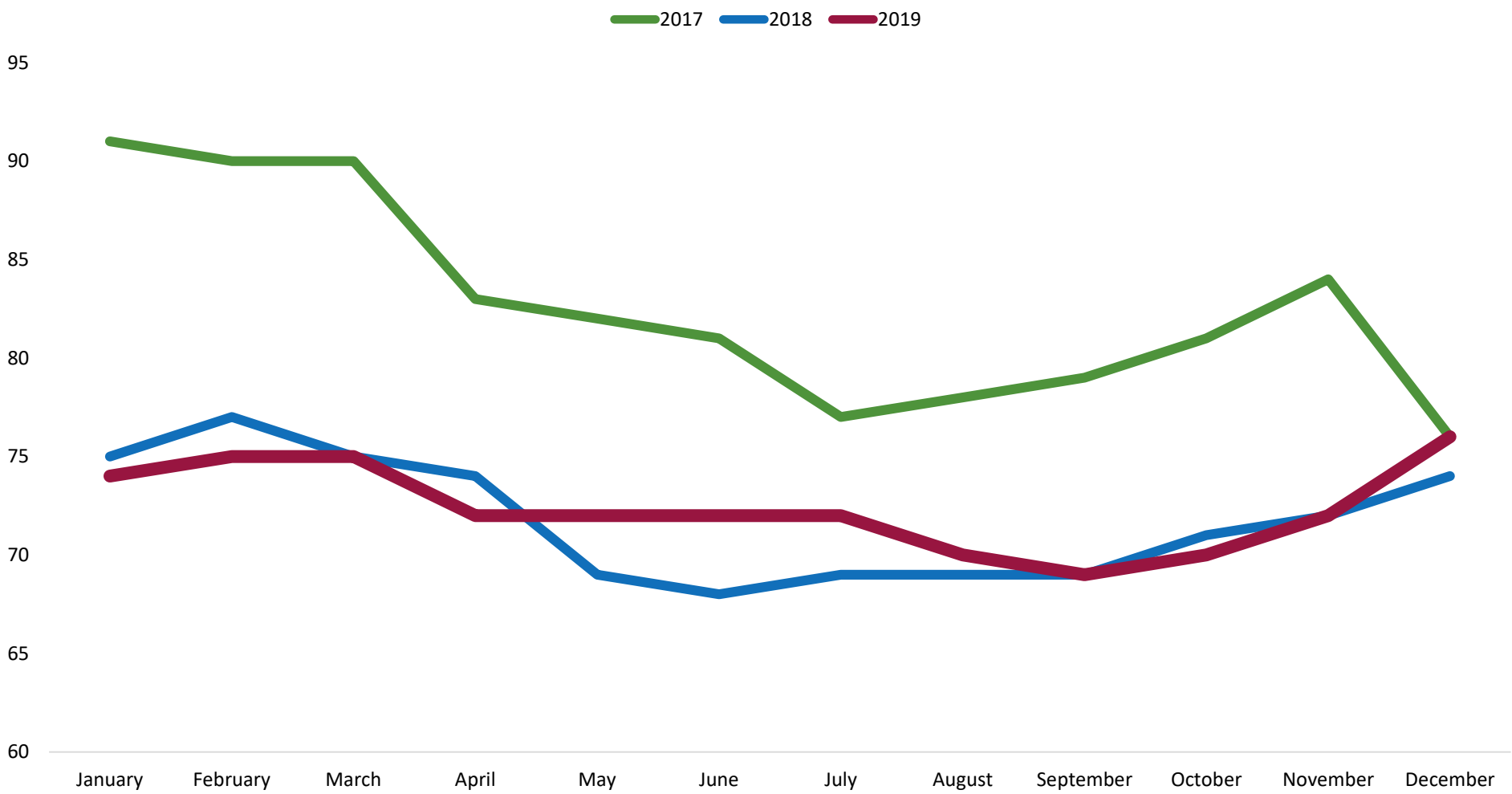
2018	2019	2020*
39.4	39.6	39.4

COX AUTOMOTIVE
USED RETAIL FORECASTS

2018	2019	2020*
19.5	20.0	20.3

Retail Inventory Trend Slide

Average Used Days In Inventory



Q4 2019 Cox Automotive Dealer Sentiment Index

According to the Q4 2019 Cox Automotive Dealer Sentiment Index (CADSI), the current U.S. auto market is mostly unchanged from Q3 and remains negative, with an index score of 47. The slight decrease from Q3's 48 was not statistically significant.

Year-over-year, the current market index is up by three points, a statistically significant improvement, but the index remains below 50, which is considered negative. The current market sentiment skews more positive for franchised dealers compared to independents. The gap narrowed this quarter, however, as franchised dealers became less positive—decreasing from 56 in Q3 to 51 in Q4—while independents dealers remained negative at 46, unchanged from Q3.

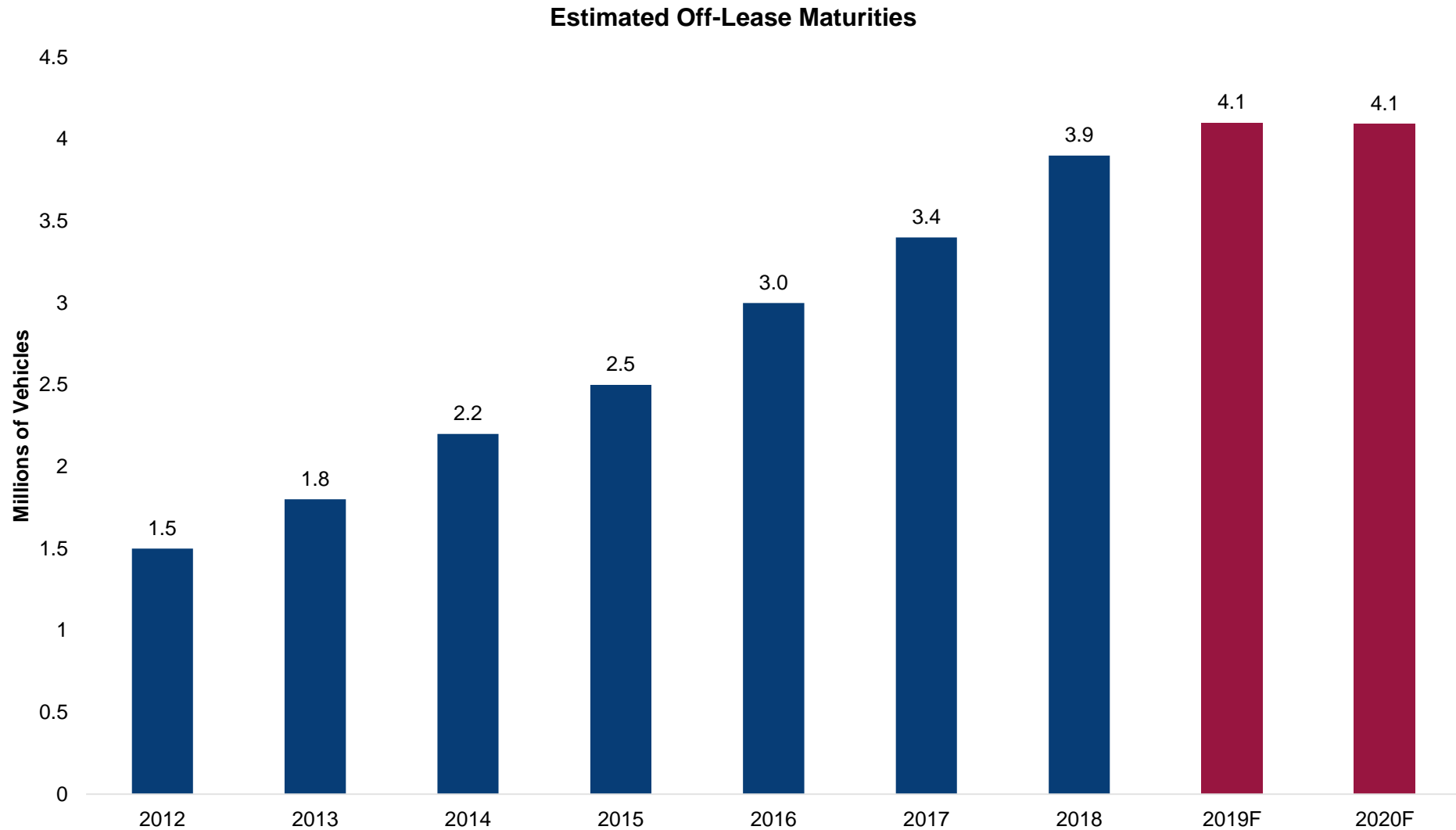
Franchised dealers' lower current market sentiment is likely tied to perceptions of used-vehicle sales, which saw a statistically significant decline from last quarter, dropping from 73 to 66. The new-vehicle market is stable according to franchised dealers, down just one point from Q3 and still in positive territory at 56.

When it comes to views of the future, franchised and independent dealers moved closer together in Q4 as well. Franchised dealers scored 54, down from Q3, while independents increased from 49 to 51. Independents have seen a statistically significant increase in their outlook for the future compared to last year. The improvement likely relates to improved used-vehicle inventory and increasing profits.

The factors holding back the business across all dealers remained consistent in Q4, although "The Economy" entered the Top 5 and pushed "Expenses" to number 6. "Market Conditions" remained in the top spot, with 35% of dealers citing it as holding back their business, down from 38% in Q3. "Competition" remained in second place, followed by "Credit Availability for Consumers" and "Limited Inventory." "The Economy" rounded out the Top 5.

Notably, compared to last quarter, "Consumer Confidence" and "The Political Climate" both saw significant increases as factors holding back the business.

Growth of Off-Lease Has Reached Its Peak

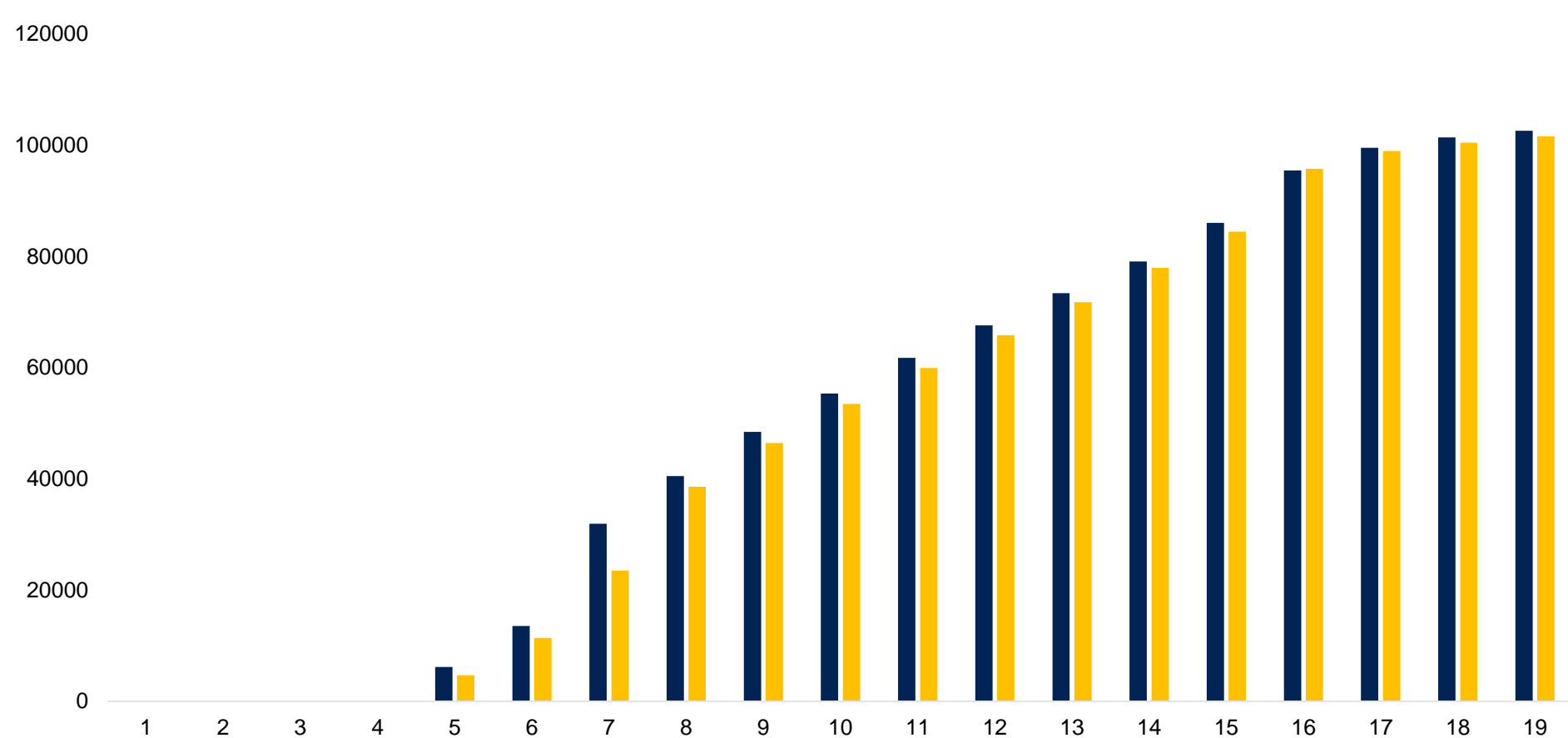


2020 Tax Season Should Be Similar to Last Year in Timing

In week 9, cumulative refunds approach 50%; by week 16 refunds are above 90%

Cumulative Tax Refunds by Calendar Week and Year

■ 2018 ■ 2019

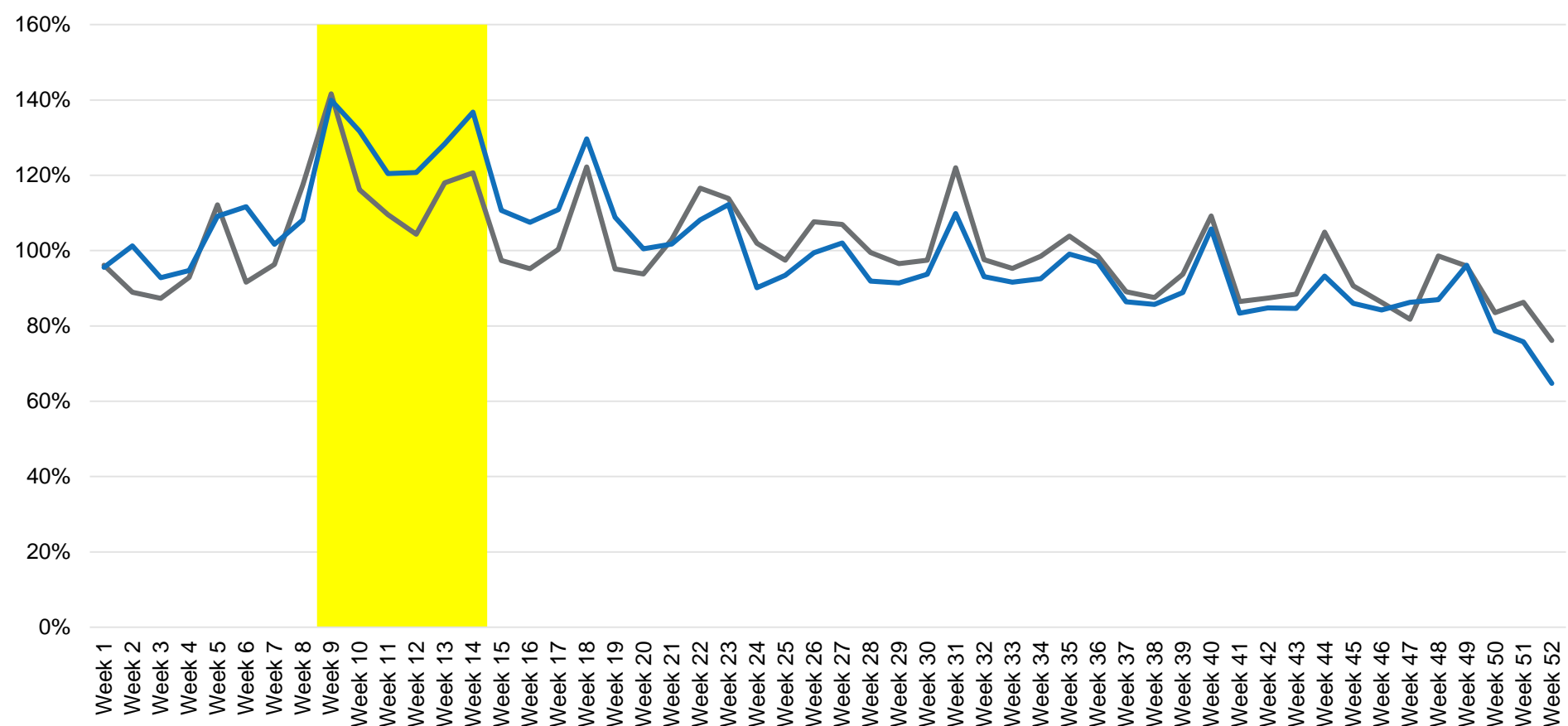


2020 Weekly Used Sales Should Also Look Like Last Year

Weekly sales peak during peak tax refund season each year

Used Retail Weekly Sales Index

Refunds 2018 2019

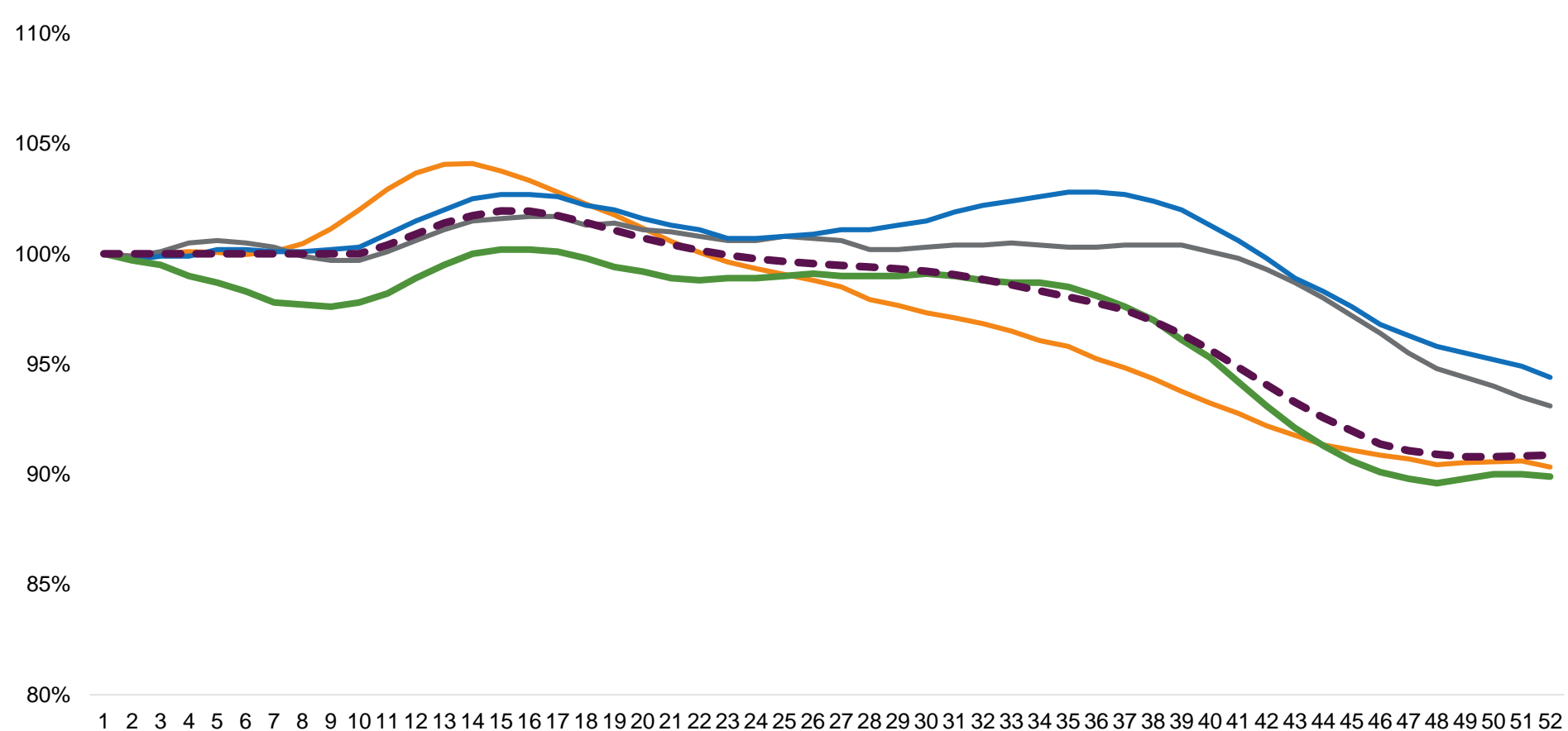


2020 Should See a More Normal Depreciation Pattern

A stable start to year, a normal spring bounce, stronger than normal summer, and a steadier fall expected

3-Year-Old Model MMR Index and Forecast by Week

Ave 2014-2016 2017 2018 2019 2020 Forecast Rev



Thank You

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Economic Industry Insights

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