

ANALYSIS
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Prepared by

Michael Brisson
Michael.Brisson@moodys.com
Senior Economist

Jonathan Smoke
Jonathan.Smoke@coxautoinc.com
Chief Economist, Cox Automotive Inc.

Contact Us

Email
help@economy.com

U.S./Canada
+1.866.275.3266

EMEA
+44.20.7772.5454 (London)
+420.224.222.929 (Prague)

Asia/Pacific
+852.3551.3077

All Others
+1.610.235.5299

Web
www.economy.com
www.moodyanalytics.com

New Vehicles Becoming Less Affordable as Incomes Drop

Introduction

Knowing if new vehicles are affordable for the average U.S. consumer is more than rising and falling MSRPs. The question of affordability needs to consider customer incomes, manufacturer incentives, and likely finance charges. These factors have shifted significantly as the U.S. economy looks to get its mojo back after the deepest and quickest economic contraction in the nation's history.

New Vehicles Becoming Less Affordable as Incomes Drop

BY MICHAEL BRISSON AND JONATHAN SMOKE

Knowing if new vehicles are affordable for the average U.S. consumer is more than rising and falling MSRPs. The question of affordability needs to consider customer incomes, manufacturer incentives, and likely finance charges. These factors have shifted significantly as the U.S. economy looks to get its mojo back after the deepest and quickest economic contraction in the nation's history.

Millions of Americans remain out of work, disposable incomes that were supercharged by federal stimulus look poised for a crash landing, and the Federal Reserve has promised to keep interest rates low for the foreseeable future. Given these economic crosswinds, a tool that can help determine if new vehicles are more or less affordable than in previous periods is extremely valuable.

The Cox Automotive/Moody's Analytics Vehicle Affordability Index captures the necessary components to gauge the American consumer's ability to purchase a new car, truck or SUV. The index shows in Chart 1 that in 2019, compared with 2012, it took two fewer weeks of median income for the average consumer to purchase a vehicle. This

long-run trend equals out to a decrease of almost 1% per year to the number of weeks needed to purchase a new vehicle. This trend of requiring less of your income on a percentage basis to purchase a new vehicle stalled in 2013 and 2018, and appears to be poised to do the same in 2020.

Contrary to popular belief, it is not only the rise in average MSRP that is making vehicles less affordable. The increase in the average transaction price between January and September was well below average compared with the past eight years. Price gains and incentive reductions due to the arrival of 2021 model-year vehicles changed this in October, but still much of the increase in the amount of income needed is caused by recent stag-

nation of household incomes causing vehicles to become less affordable for the average household.

Household incomes jumped significantly during the onset of the pandemic as the federal government passed the largest stimulus package in history. The CARES Act put thousands of dollars into citizens' pockets

through large onetime payments and weekly unemployment bumps of \$600. This jolt has not been renewed. Household incomes have begun to reflect the reality of a labor market that is more than 10 million jobs in the hole compared with the start of the year. In Chart 2, we see that the jump in number of weeks needed to pay for a vehicle is more than three times larger than the average difference for October when compared with the 12-month moving average of the index. This shows it is not seasonality that is driving the increase, but a change in fundamentals.

The change in trend for the Cox Automotive/Moody's Analytics Vehicle Affordability Index from a decreasing number of weeks of income needed in 2019 and during the period of fiscal stimulus to increasing the time needed in the past few months is made clear in Chart 3. The year-over-year percent change removes the seasonality and demonstrates how the number of weeks of income needed to purchase a new car decreased for 16 consecutive months prior to August. Since that point, we have had three consecutive months of rising yearly changes. The largest increase happened this past month when shrinking incomes and the rising average transaction price combined to push yearly increases to their highest point in more than two years.

The increased number of weeks of income needed for a new-vehicle purchase would be larger if not for the actions of the Federal Re-

Chart 1: Vehicle Affordability Index

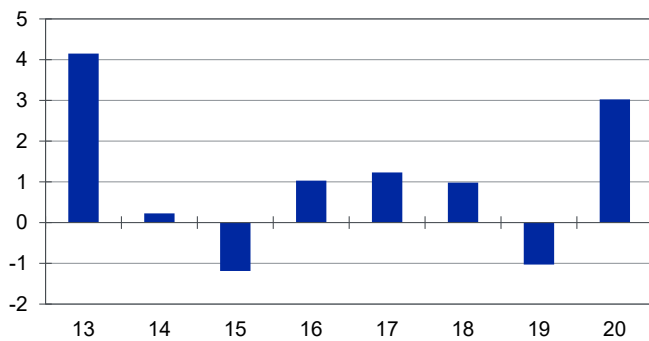
Wks needed to purchase new light vehicle, #, NSA



Sources: Cox Automotive, Moody's Analytics

Chart 2: Higher-Than-Normal Fall Jump

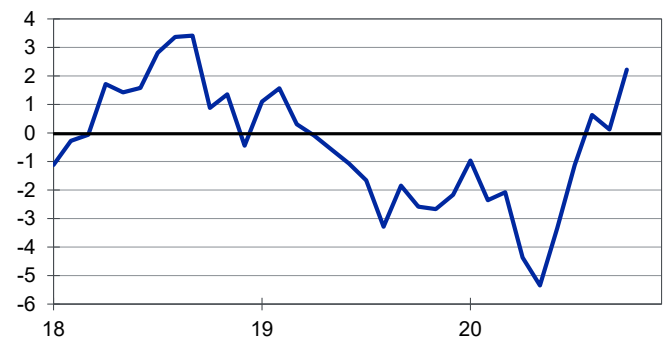
Oct, % difference from 12-mo MA



Sources: Cox Automotive, Moody's Analytics

Chart 3: More Weeks Needed to Buy Car

Vehicle Affordability Index, % change yr ago



Sources: Cox Automotive, Moody's Analytics

serve. In hopes of boosting consumer spending and thus keeping goods like autos within reach, the Federal Reserve quickly dropped its target interest rate to zero in March. The accommodative monetary policy in response to the economic tumult dropped vehicle interest rates by more than 10% from where they were in January. Interest rates are expected to remain low through the end of the year and into 2021, giving continued support to new-vehicle affordability.

Additional support for affordability will come from a second round of stimulus. Given the election outcomes, the fiscal action will likely be held off until the first quarter of next year. Additional stimulus will support American incomes as the labor market continues

to heal and work on a vaccine advances. This support will help make vehicles more affordable for a brief period as was the case following the passage of the CARES Act.

Support for affordability is not likely to come from a slowing of growth in transaction prices or average MSRP. Since June, average annual growth in transaction price for a new vehicle has risen by 4.2%. October continued this trend, rising by 4.7% year over year. A key reason for the increase is the shift into more expensive vehicles such as pickup trucks. Given how the recession has impacted those in the upper income brackets less than lower income brackets, any shift away from more expensive vehicles is not expected to take a breather in the near to medium term.

Over the rest of the year new-vehicle affordability as measured by the Cox Automotive/Moody's Analytics Vehicle Affordability Index will decrease without further federal fiscal policy action. COVID-19 is spreading across the country at an alarming rate, dampening consumer demand, putting continued stress on the labor market, and depressing incomes. Despite falling interest rates, dropping incomes are pushing new vehicles out of reach for the average consumer. The Cox Automotive/Moody's Analytics Vehicle Affordability Index will continue to track these developments, helping auto industry participants make the best possible decisions for their businesses.

About the Authors

[Michael Brisson](#) is a senior economist and associate director at Moody's Analytics. He is the lead auto economist working as a member of the Economic Research group in West Chester PA. Mike works at developing new, empirically driven auto-related products and services. Prior to leading the Moody's Analytics auto research team, Mike built loan and vintage-level CECL, CCAR, and stress-testing models of consumer loan performance as a member of the Business Analytics group at Moody's Analytics. Additionally, Mike has spent time developing econometric models used by U.S. states and local governments for tax/revenue projections. Mike holds a PhD in applied economics from Northeastern University.

[Jonathan Smoke](#) is chief economist for Cox Automotive. Smoke leads Cox Automotive's economic industry insights team, which tracks new- and used-vehicle sales, supply, prices, retail and fleet demand, consumer credit and auto financing, and dealer sentiment to understand the key trends impacting both the wholesale and retail markets for vehicles informed by the proprietary data from all of the company's businesses and platforms including Manheim, Autotrader, Kelley Blue Book, and Dealertrack.

For more than 24 years, Smoke has focused on translating data and trends into relevant, actionable insights for the industries that represent the biggest purchases that consumers make in their lifetimes: real estate and automotive.

Prior to joining Cox Automotive, Smoke served as Realtor.com's chief economist. Before that, he was the chief economist for Hanley Wood, a media and market intelligence company, and also served in a variety of roles at Beazer Homes, including senior vice president of strategy and innovation.

Smoke is an executive member of the board for the Atlanta Economics Club and is a member of the Conference of Business Economists, Harvard Industrial Economists and the National Association of Business Economists. He has spoken at major industry conferences such as the NADA and NIADA conventions, Automotive News World Congress, and Used Car Week. His views on the economy and the auto industry are featured regularly in industry and national news outlets such as Automotive News, Auto Remarketing, The Wall Street Journal, USA Today, Bloomberg, and CNBC. Follow him on Twitter @SmokeonCars to keep up with the latest industry insights.

Smoke holds a bachelor's degree in economics and religious studies from Rhodes College and a master's degree in business from The University of Texas at Austin.

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