ANALYSIS
NOVEMBER 2020

Prepared by

Michael Brisson
Michael.Brisson@moodys.com
Senior Economist

Recent Used-Vehicle Price Gains Are Unsustainable

Introduction

Wholesale used-vehicle prices across Australia reached a fourth consecutive all-time high in October, according to the Datium Insights-Moody's Analytics Price Index. Used-vehicle prices are now 32% above where they were in October 2019. The incredible rise in prices has slowed over the past couple of months but remained above 2% month over month, 10 times higher than the average long-run monthly change.

Recent Used-Vehicle Price Gains Are Unsustainable

BY MICHAEL BRISSON

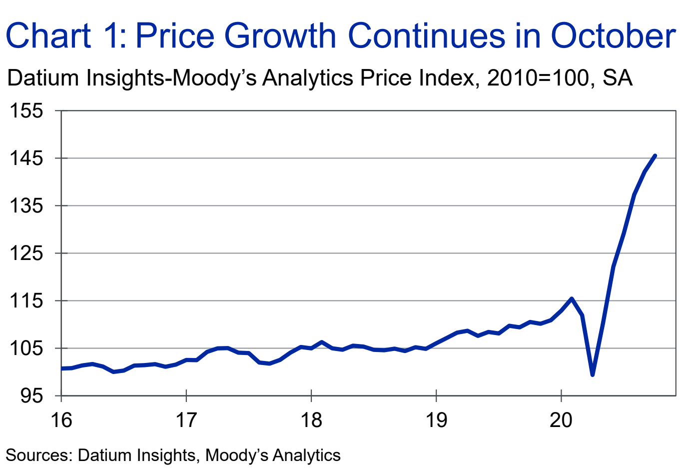
Wholesale used-vehicle prices across Australia reached a fourth consecutive all-time high in October, according to the Datium Insights-Moody's Analytics Price Index. Used-vehicle prices are now 32% above where they were in October 2019 (see Chart 1). The incredible rise in prices has slowed over the past couple of months but remained above 2% month over month (see Chart 2), 10 times higher than the average long-run monthly change.

As prices continue to climb, there is a developing question of sustainability. Under normal circumstances used vehicles have a maximum price that a consumer should never pay more than, known as the manufacturer's suggested retail price. Above that price, the consumer should buy a new vehicle rather than a used car or ute. Younger vehicles are testing this upper limit, with the average sales price for 1-year-old vehicles coming in at over 90% of MSRP during the past two months. This is compared with an average of 72% of MSRP in the five years prior to 2020.

For older vehicles, there is not as clear of a price ceiling with MSRP as there is for younger vehicles. For all vehicles, the MSRP minus depreciation is the value that they should not be priced above. Unless it is a classic car that is rising in value because of its scarcity, a vehicle should depreciate as it gets older. And every vehicle loses value as more kilometers are added to the odometer. This depreciation is based on the diminished remaining viable life of the vehicle.

Looking at the specific example of a 2016 Volkswagen Tiguan using the Moody's Analytics AutoCycle™ residual value forecasting tool, we can see exactly how depreciation impacts the specific vehicle (see Chart 3). For this Tiguan, we forecast an expected 20,000 kilometers per year. From 2021 through 2024, we see how the vehicle depreciates as it gets older and more kilometers are on the engine. The forecast price drops from around A$27,000 to around A$15,000 as an extra four years and 80,000 kilometers are driven.

Using this, we are also able to see how the depreciation-to-age/kilometers-driven relationship has been broken in 2020. The economic shock of April sent prices into a nosedive, much faster than a normal depreciation curve. Unexpectedly, the jolt in market prices pulled expected sales values well above pre-pandemic levels despite the continued use of the vehicle and corresponding wear and tear. For a durable



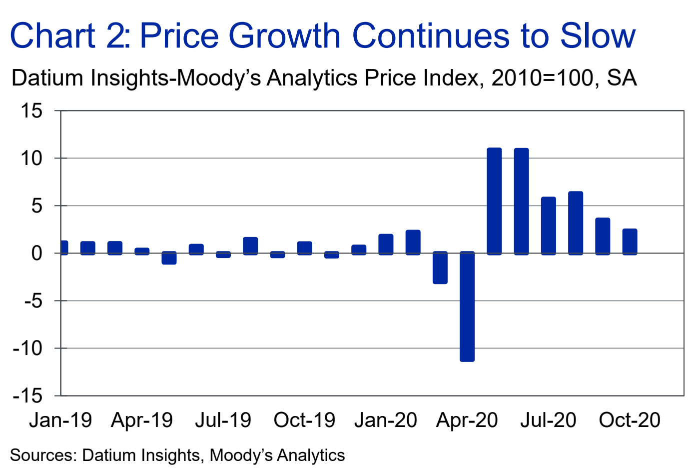
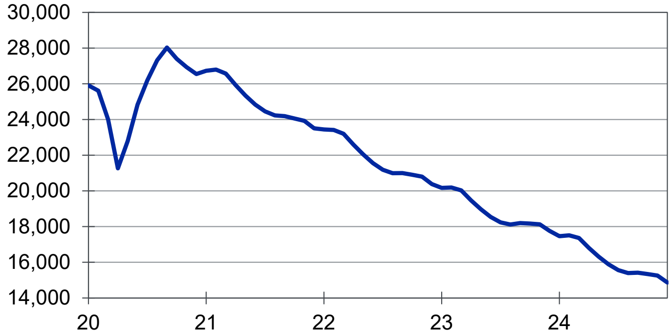


Chart 3: Normal Depreciation Returns

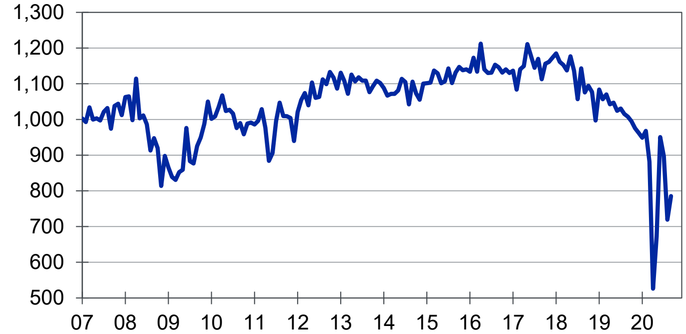
2016 Volkswagen Tiguan, auction sale, 20,000 km/yr, A$



Sources: Datium Insights, Moody's Analytics

Chart 4: New-Vehicle Sales Remain Low

New light-vehicle sales, ths, SAAR



Sources: Wards Intelligence, Moody's Analytics

good with a limited life such as a vehicle, it is not sustainable for prices to rise faster than depreciation without any source of scarcity.

Nevertheless, the argument can be made that the factors that have driven up prices during the past six months are still present. Demand for private transportation is being driven by fear for one's own health on public transportation and air travel. Supply of used vehicles remains well below long-run trends as new-vehicle sales continue their two-year-long slump (see Chart 4). Additionally, leases and fleets have been slow to turn over as lockdowns have caused the raw number of miles traveled to remain lower than prior to the pandemic. Still, there is a limit to how high prices rise before consumers turn to other options, and the used-vehicle market has quickly approached this level.

Going forward, used-vehicle prices will flatten through the end of the year, giving back some gains in the first quarter of 2021. The slowing of growth that has occurred in each of the past two months will continue, and all-time highs will stop being reached by the end of the year as perfunctory limits on growth are reached. As the economy continues to recover, prices of wholesale used vehicles will begin to normalize.

About the Author

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.

About Moody's Analytics

Moody's Analytics provides financial intelligence and analytical tools supporting our clients' growth, efficiency and risk management objectives. The combination of our unparalleled expertise in risk, expansive information resources, and innovative application of technology helps today's business leaders confidently navigate an evolving marketplace. We are recognized for our industry-leading solutions, comprising research, data, software and professional services, assembled to deliver a seamless customer experience. Thousands of organizations worldwide have made us their trusted partner because of our uncompromising commitment to quality, client service, and integrity.

Concise and timely economic research by Moody's Analytics supports firms and policymakers in strategic planning, product and sales forecasting, credit risk and sensitivity management, and investment research. Our economic research publications provide in-depth analysis of the global economy, including the U.S. and all of its state and metropolitan areas, all European countries and their subnational areas, Asia, and the Americas. We track and forecast economic growth and cover specialized topics such as labor markets, housing, consumer spending and credit, output and income, mortgage activity, demographics, central bank behavior, and prices. We also provide real-time monitoring of macroeconomic indicators and analysis on timely topics such as monetary policy and sovereign risk. Our clients include multinational corporations, governments at all levels, central banks, financial regulators, retailers, mutual funds, financial institutions, utilities, residential and commercial real estate firms, insurance companies, and professional investors.

Moody's Analytics added the economic forecasting firm Economy.com to its portfolio in 2005. This unit is based in West Chester PA, a suburb of Philadelphia, with offices in London, Prague and Sydney. More information is available at www.economy.com.

Moody's Analytics is a subsidiary of Moody's Corporation (NYSE: MCO). Further information is available at www.moodysanalytics.com.

About Moody's Corporation

Moody's Analytics is a subsidiary of Moody's Corporation (NYSE: MCO). MCO reported revenue of $4.8 billion in 2019, employs more than 11,000 people worldwide and maintains a presence in more than 40 countries. Further information about Moody's Analytics is available at www.moodysanalytics.com.