Pandemic Scenarios

R.V.I. ANALYTICAL SERVICES, INC.
STAMFORD, CONNECTICUT

RVI GROUP
SINCE 1989

1. COVID-19

Base Scenario: Pandemic will peak in April and gradually recede in the third quarter in North America. Some type of vaccine will be available by the end of June. Globally, the pandemic will conclude by the end of the year.

Extended Pandemic Scenario: Pandemic will peak at the end of 2020 and gradually recede in 2021 in North America. No effective vaccine will be available until 2021. Globally, the pandemic will conclude by the end of 2021 with more than 1 million deaths globally.

2. General Economy

Base Scenario: Non-essential businesses will be shut down until May. Economic activities will recover in late 2020 and early 2021 with some residual impact from the fear of COVID-19 or the possibility of another virus outbreak. 2020 will officially be a recession year, as we have been predicting since 2014, with negative GDP growth in the first three quarters. Economy will see a strong recovery, rebounding in the second half of 2021.

Extended Pandemic Scenario: Non-essential businesses will be shut down until the end of 2020. Economic activities will recover in early 2021 with significant residual impact from the fear of COVID-19 or the possibility of another virus outbreak. 2020 will officially be a deep recession year with negative GDP growth in all four quarters. Negative GDP could exceed -10 percent for individual quarters. Economic activities will not return to pre-Pandemic levels until the end of 2021.

3. Automotive Industry

Base Scenario: New vehicle sales will be affected severely due to low supply and low demand for at least three months. With the majority of the workforce working from home and many people losing their jobs, the need to commute is reduced. In addition, with the heightened unemployment and the economic uncertainty for those remaining employed, people will delay major purchases such as vehicles. Manufacturers will increase incentive activity to sell inventory already produced but production has shut down at most facilities. New vehicle sales will be at a 12.0 million annual rate for the second quarter and 14.5 million units for the year for the U.S. market. For Canada, new vehicle sales will be 1.44 million units in 2020.

The used car market will be affected too, but at a lesser rate than the new vehicle market, since the used vehicle market is more inelastic than the new vehicle market. In tough economic times, many consumers move from the new vehicle market to the used vehicle market. With the COVID-19 outbreak, the majority of auction activities have shifted to online platforms rather than physical auctions. But even with this shift, auction activity is expected to slow down in the short term; dealers do not need to replenish their used inventory. Since consumers are practicing social distancing and avoiding shopping in dealerships, sales are slowing. In addition, we expect the overall used vehicle supply to decrease as trade-in and off-lease vehicle volumes will be lower. Used vehicle prices will decline by 10% over the next few months and will recover in the fourth quarter.

Ride-sharing business models will be negatively affected, slowing down the trending shift from consumer ownership towards fleet business models. There will be some negative impact on electric vehicles due to the reduced demand from fleet businesses. In addition, the short-term impact from the oil price war between Russia and Saudi Arabia (the purpose of Russia's action appears to be eradicating shale oil business in the U.S.) also will hurt the sales of electric vehicles as gas prices remain low. Autonomous driving may get renewed attention but still has too many regulatory hurdles for us to see any impact from it at this time.

For Canada, we forecast a similar trend as the US in the short term but with less severity. We are predicting a decrease of roughly 5% over the next few months and then a rebound throughout the remainder of the year. Normally the Canadian macro index would benefit from the stronger US dollar price caused by the current oil price war. However, this is not the case; demand for used vehicles in Canada remains low due to the COVID-19 pandemic and the shutdown of the border between US and Canada, which results in buyers from the US being unable to take advantage of the favorable exchange rate.

Extended Pandemic Scenario: New vehicle sales will be affected severely due to extremely low supply and extremely low demand for at least six months. With the majority of the workforce still employed working from home, there is little reason for consumers to purchase vehicles for commuting purposes. Job losses will be in the level of several million unemployed with the unemployment rate reaching levels not seen since the recession in 2009 and potentially going beyond these levels. The manufacturers will not reopen factories until the second half of the year and parts will become scarce as overseas factories that produce them remain shuttered as well. For any remaining stock of vehicles, manufacturers will have increasingly high incentives to move them from dealers' inventory, as consumers will need extra inducements to make large purchases. New vehicle sales will be at a 9.0 million annual rate for the second and third quarter and 12.0 million units for the year in the U.S. In the Canadian market, new vehicle sales volume will be 1.15 million units in 2020.

Ride sharing businesses will be hard pressed to stay afloat as losses will mount from little to no revenue coming in for a significant period of time. With oil prices staying low due to the worldwide economic downturn, the recent growth of EVs will slow as they become less attractive to consumers as fuel prices remain low. In addition, the higher initial cost of EVs will make them a difficult sale at this time as consumers choose to hold on to cash.

Used vehicle prices will decline by up to 15% over the remaining months of 2020 as demand for even used vehicles wanes. Prices will start to recover towards the end of 2020 in the U.S. The trend will be similar in Canada, but used vehicle prices will drop up to 10% instead of 15%.

4. RVI Macro Index

RVI's Macro Index reflects the impact of macroeconomic variables and automotive industry factors on residual values. Pandemic Scenario is our base scenario in the figures below.

Figure 1. RVI Macro Index – U.S.

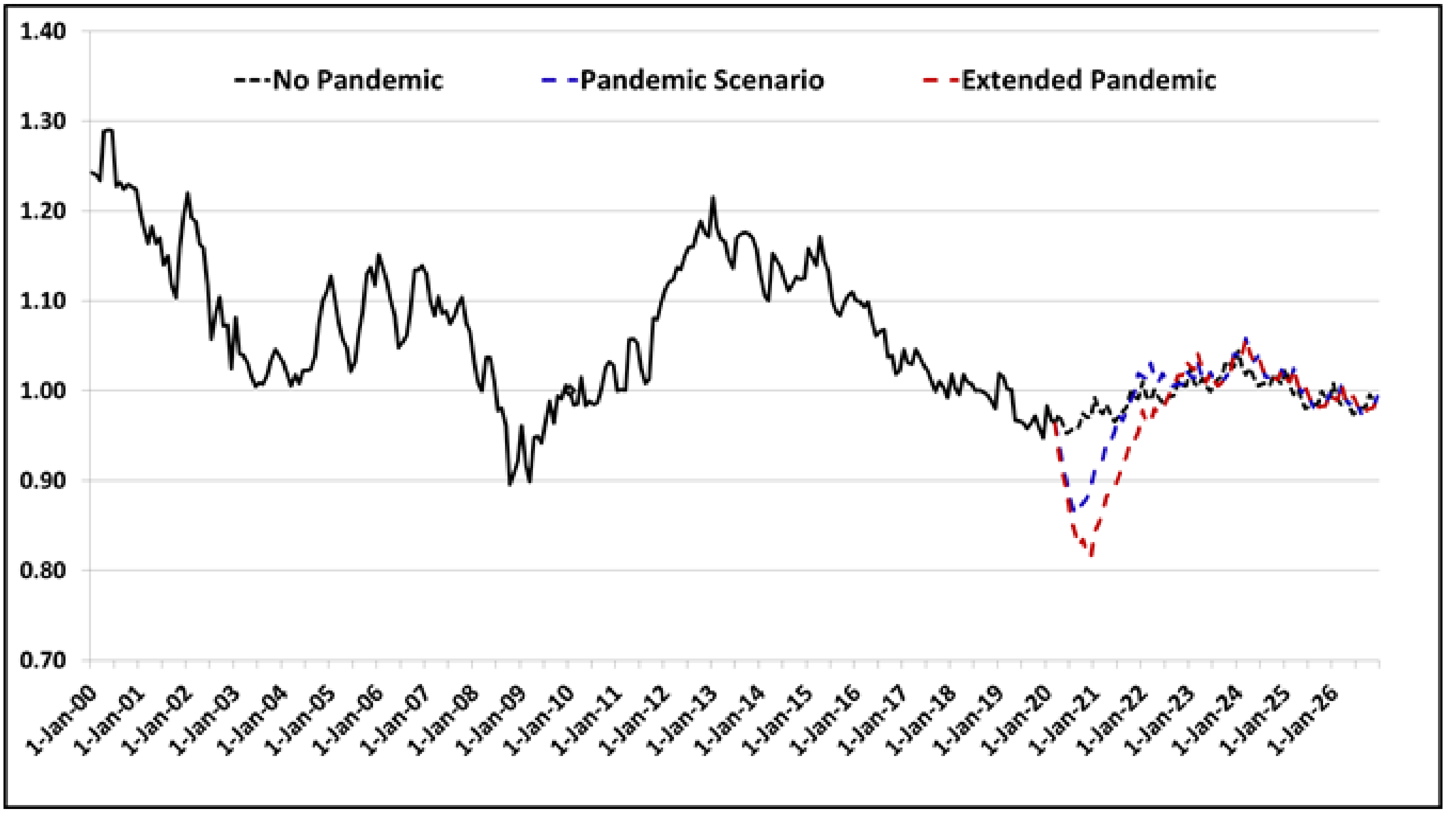
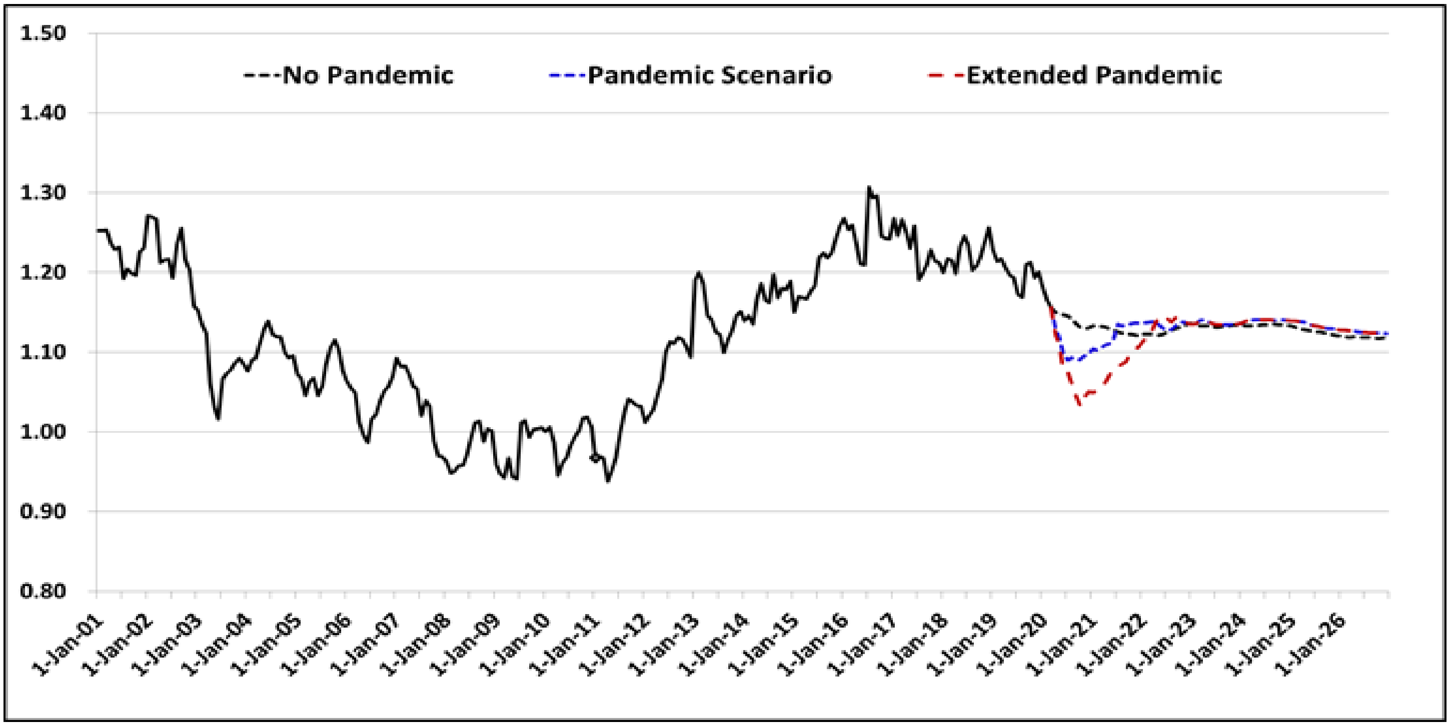


Figure 2. RVI Macro Index – Canada



5. Guidebook Forecast

In the U.S. market, we see the above factors leading to a 3% decrease in residual values for 12-month forecasts and no impact for 24 months and beyond as the economy returns to normal levels and the future residual values get the benefit of the lower supply of new vehicles being sold at this time. For the Canadian market, we expect the pandemic will decrease our forecast by 2% for 12-month forecasts and have minimal impact on the 24 month forecast and beyond.