

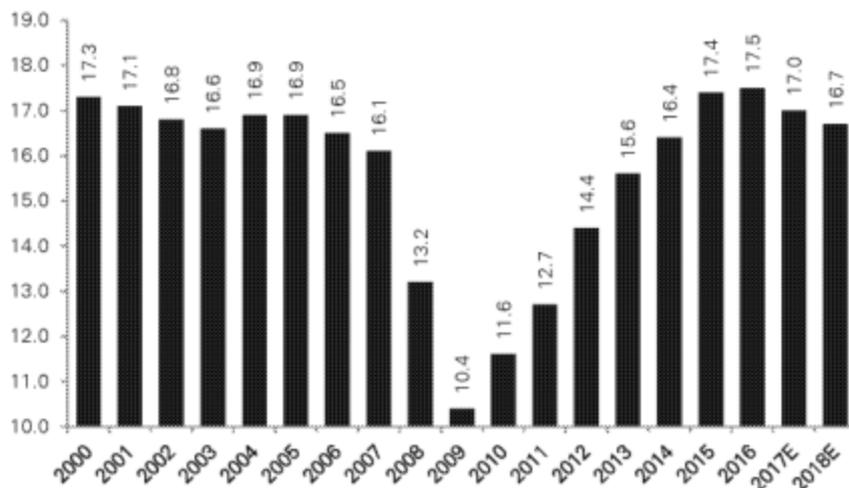


- **Asia:** Vehicle sales growth rate declined in China in '17 as tax incentives were reduced with Deutsche Bank's Global Autos team estimating that '17 sales in China rose 1.8% y/y to 28.5 MM units, following a growth rate of 12.6% in '16. '18 Chinese auto sales are expected to increase 4.0% y/y to 29.7 MM units.

2017 sales in Japan and Korea are expected to increase by 6.0% y/y and 0.9%, respectively, while Deutsche Bank's Global Autos team estimates '18 sales to decrease by 0.6% and increase by 1.1%, respectively.

The auto sector is an important demand driver for chemicals as each new vehicle contains ~\$2,650 of chemical processing and products (including >330 pounds of plastics).

Figure 11: U.S. Light Vehicle Sales, recent trends and forecast (units in MM)



Source: Deutsche Bank, Ward's

Chemicals End-Markets: U.S. housing expected grow in 2018

U.S. housing and construction continues to improve and is poised to remain one of the global bright spots in '18. Fannie Mae expects total housing starts in the U.S. to rise 5.0% y/y in '18 to 1.25 MM units.

Recent housing and construction data points include the following:

- U.S. building permits for November increased 3.4% y/y to a seasonally adjusted 1,298k units (-1.4% m/m). Housing starts for November increased 12.9% y/y (+3.3% m/m) to 1,297k. Housing starts in November represented the highest reading since October 2016, with the construction of single-family housing surging to a ten-year high.
- Per the National Association of Realtors, existing home sales in November increased 3.8% y/y to a seasonally adjusted 5.81 MM (+5.6% m/m). Sales are at the strongest pace since December 2006.

Residential and non-residential construction are key end-markets for the sector, driving sales of paints and coatings, synthetic fibers, insulation, polyvinyl chloride (PVC), titanium dioxide (TiO₂) and adhesives.