

# Economic Watch

US

## Auto Industry Outlook

### Innovation on wheels

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Economic Analysis

US  
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- Pent-up demand, employment growth and low interest rates support auto sales in the short-run
- Low interest rates and higher terminal values make leasing an attractive financing option
- As the economy continues to recover, used car price appreciation will decelerate
- The future of the auto industry will be shaped by changes in consumer preferences, new technologies and regulation

### Positive perspectives for auto sales in 2014-2016

The U.S. economy is gaining momentum and in turn, auto sales are returning to pre-recession levels. In May, sales of new light weight vehicles reached 16.8 million (seasonally adjusted at annual rates), the highest since August 2006. Our forecasts point to 16.3 and 16.6 million new units sold in 2014 and 2015, respectively, which will mark the strongest performance in almost ten years. These figures assume a better economic environment implied by our GDP growth forecast of 2.5% for both 2014 and 2015.

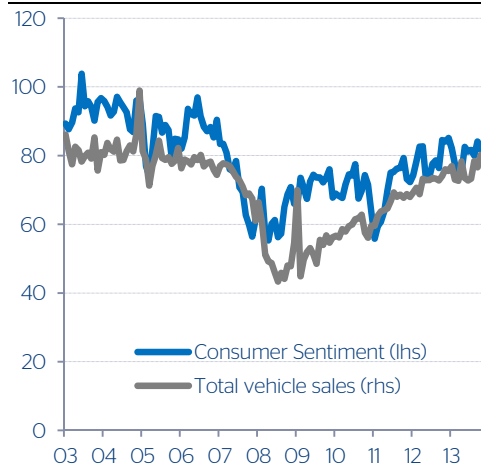
Table 1  
BBVA Research Forecasts

Average	2012	2013	2014	2015	2016
<b>Auto sales</b> (million units, SAAR)	14.5	15.6	<b>16.3</b>	<b>16.6</b>	<b>17.2</b>
<b>GDP growth</b> (% change)	2.8	1.9	<b>2.5</b>	<b>2.5</b>	<b>2.8</b>
<b>Unemployment rate</b> (% avg.)	8.1	7.4	<b>6.5</b>	<b>5.9</b>	<b>5.6</b>
<b>Fed funds</b> (%, eop)	0.25	0.25	<b>0.25</b>	<b>0.5</b>	<b>1.5</b>
<b>3-year Treasuries</b> (%, eop)	0.35	0.69	<b>1.24</b>	<b>2.26</b>	<b>3.22</b>

Source: BBVA Research

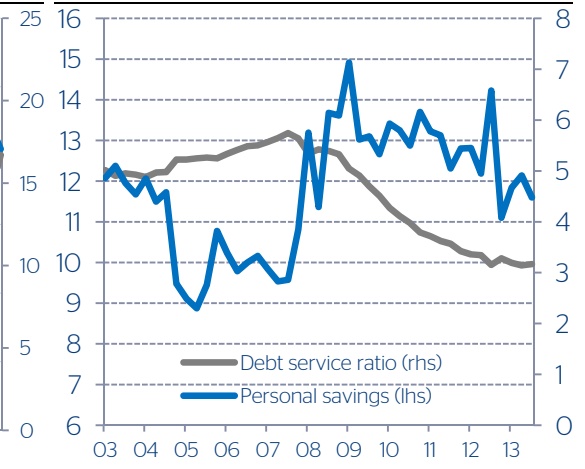
Stronger economic conditions have infused confidence in potential buyers. According to the Conference Board Consumer Confidence Survey, 12% of respondents plan to buy a car within the next six months, the largest share since 4Q08. Likewise, the University of Michigan Consumer Sentiment Index continues to trend upwards and is gradually moving to pre-recession levels. Measured by non-farm payroll, the labor market has recovered the jobs lost during the recession and has created an average of 214K new jobs every month since January 2014. Employment creation supports real personal income growth, although this has expanded at a slower pace than in the previous cycle. Owner's equity in real state has rebounded in line with the recovery of the housing market. Meanwhile, the debt-to-income ratio has stabilized and the post-crisis personal savings rate has gone down.

Chart 1  
Consumer sentiment & vehicle sales  
Index & total light vehicles (SAAR in millions)



Source: Haver Analytics

Chart 2  
Debt-to-income ratio and savings rate  
%

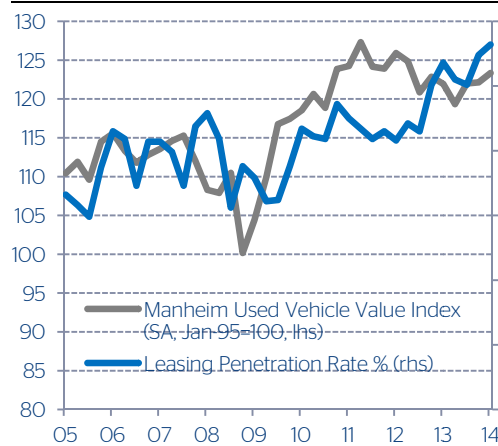


Source: Haver Analytics

Pent-up demand is also expected to boost auto sales, as high unemployment forced a vast number of consumers to delay the purchase of new cars. New auto sales may also be favored by an aging vehicle fleet that raises the cost of maintenance, incentivizing owners to replace their units. The average vehicle age was 11.4 years in 2013, the highest on record. Our estimates suggest a 10 to 13 million hole that will have to be filled in the following years. However, this gap may be smaller once we discount for factors like changes in driving habits, consumer preferences, and technological progress that improves durability.

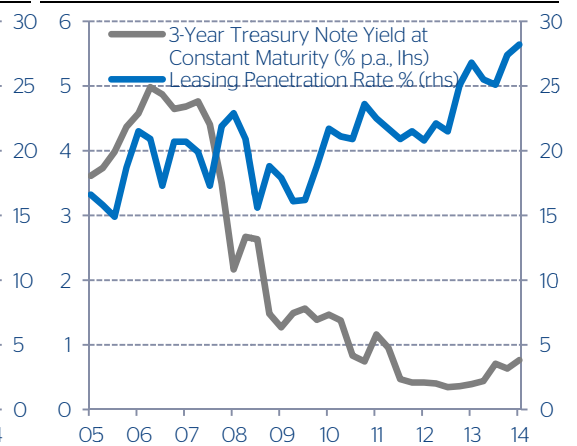
The recovery of auto sales has come with a significant rebound in leasing as an alternative to traditional financing. The ratio of leased cars as a share of total financed units reached 28.2% in 1Q14, the highest since the series was first recorded in 2005. Two factors support the upward trend in leasing: a prolonged period of low interest rates, and higher expected residual values in response to a relatively long period of high prices in the wholesale market. Going forward, leasing may cool down as the normalization of monetary policy leads to higher interest rates and employment growth puts downward pressures on prices of used vehicles, particularly in the non-luxury segment. In fact, our forecasts for the Manheim index point to continuous growth albeit at a more moderate pace than in previous years.

Chart 3  
Leasing rate & used car prices  
Quarterly



Source: Haver Analytics

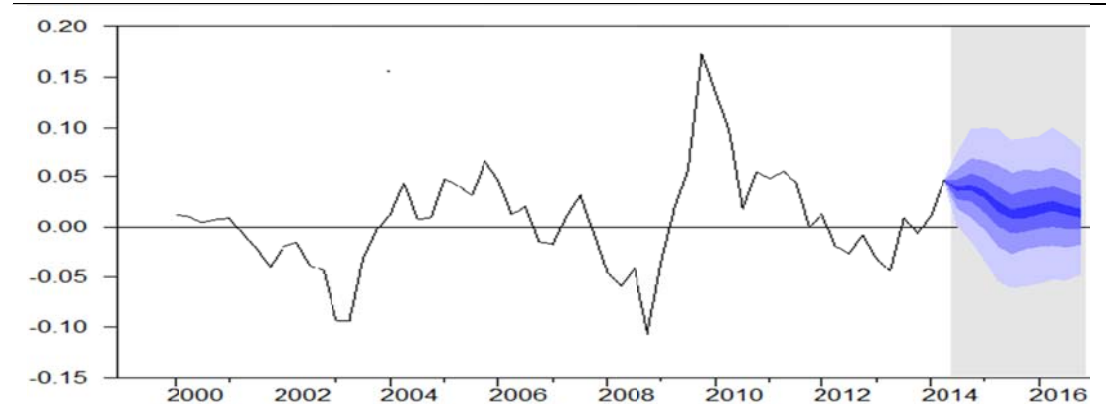
Chart 4  
Leasing rate & interest rates  
Quarterly



Source: Haver Analytics

Access to credit has improved. Banks have eased credit standards and are more willing to lend now than five years ago. This is due to healthier balance sheets and higher collateral values. Auto loan originations have recovered to levels similar to 2007, while 90+ day delinquencies on auto loans have dropped to their lowest level since 2008. As credit volumes and risk appetite return to more normal conditions, the delinquency rate may stabilize or increase slightly in the following years. However, as interest rates remain low and technology allows for new forms of shadow banking, traditional auto lending will continue to be challenged by alternative forms of financing such as leasing and even more disruptive models like peer-to-peer lending. Auto loan securitization will intensify as the economy continues to gain momentum. According to data compiled by Bloomberg, ABS issuance with auto debt as collateral has recovered significantly since the lows of 2009, reaching \$96 and \$92bn in 2012 and 2013, respectively. These figures are similar to the annual average between 2002 and 2007. More securitization will provide liquidity to the market, allowing financial entities to cope with a higher demand of vehicles.

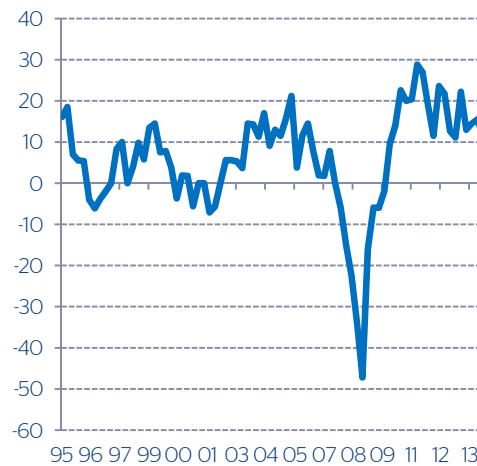
Chart 5  
Manheim Used Vehicle Value Index  
(Yoy % change)



Source: BBVA Research and Haver Analytics

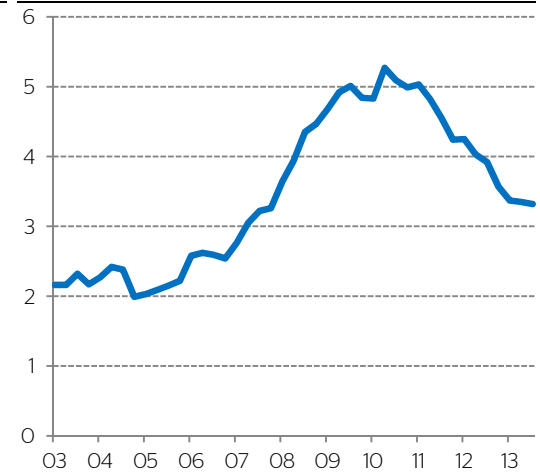
A step up in auto sales will boost profitability of dealerships and their new vehicle departments. According to the National Automobile Dealers Association (NADA), 2013 was the third consecutive year of positive profits in the new car segment. Still, for the average dealership, used cars and services and parts continue to be more profitable. According to NADA information, net profit was \$69 per new vehicle and \$254 per used vehicle retailed in 2013. We expect the profitability of new-vehicle franchised dealers to improve, although intense competition will keep it relatively low.

Chart 6  
**Banks willingness to lend to consumers**  
 Net percentage balance, %



Source: FRB Sr. Officers Survey and Haver Analytics

Chart 7  
**Auto loan 90+ days delinquent**  
 % of balance



Source: Haver Analytics

In our macroeconomic baseline scenario, the balance of risks is tilted to the upside. Stronger-than-expected employment growth could boost consumer confidence and auto sales even further. Although we expect the Fed to start increasing rates by mid-2015, downside risks to auto lending may emerge from a faster-than-expected normalization of monetary policy or elevated financial volatility. However, even in this scenario, interest rates will remain below historical average. An additional downside risk may come from slower-than-expected global economic growth and its impact on the U.S. economy.

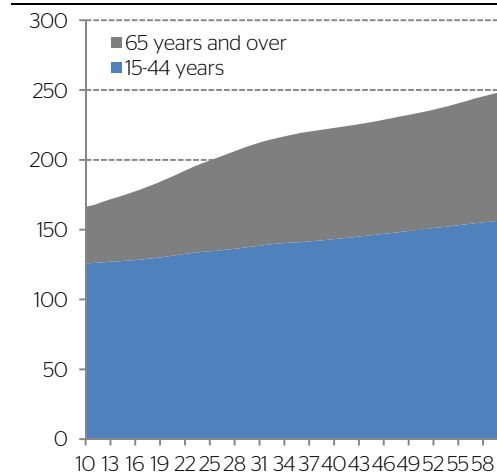
**Structural trends: Drive less, don't pollute and stay connected**

The auto industry is going through a significant transformation driven by changes in consumer preferences, technology and regulation.

**Consumer preferences:** Americans are driving less. According to the Federal Highway Administration, the number of vehicle miles traveled declined 2% from its previous peak in 2007. This trend can be partially explained by high unemployment rates that eliminated the need to commute to work for those who lost their jobs and remained in unemployment for a long time. However, four years after the recession officially ended, the amount of vehicle miles traveled has remained flat at an average of 2.96 trillion miles per year.

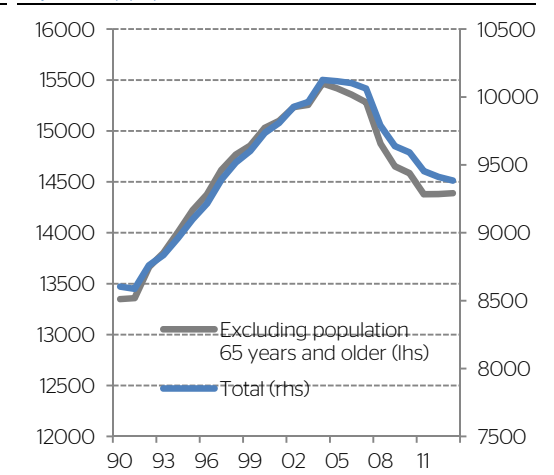
When adjusted by population, traveled miles have experienced a downward trend since 2004. This may be explained by the massive retirement of Baby Boomers and the aging of the population. When adjusted for retirees, traveled miles per working-age population (16 to 65 years old), reached its peak back in 2004 and have remained stable since 2011. The aging of the population is expected to continue over the next decades. According to the Census Bureau, the share of population 65 years and older grew from 9.9% in 1970 to 14.1% in 2013, and it is expected to reach 20.9% by 2050. In general, older adults tend to drive less.

Chart 8  
Population projections by age  
Millions



Source: Haver Analytics

Chart 9  
Vehicle miles traveled  
Adjusted by population, million miles



Source: Haver Analytics

On the other side of the demographic spectrum lies the Millennials, a segment of the population that includes those that are currently 18 to 33 years old. This generation has different preferences than its predecessors X and Baby Boom generations for which the car represented a symbol of freedom and status. For Millennials, however, a vehicle represents a tool to help move from one place to the other that it is losing importance relative to other necessities. According to the Gartner Group Survey of U.S. Drivers, 46% of Millennials would prefer to have internet access than own a car. This share contrast with the 85% of respondents between 45 to 64 year olds who would prefer owning an automobile than having internet access.

A reduction in fertility rates and household formation, increasing urbanization and mass transit infrastructure, and the advancement of information technologies have boost car-sharing, particularly in some big metropolitan areas like Austin, Boston, Chicago, Miami, New York, Portland, San Diego, San Francisco, Seattle and Washington, D.C. Car sharing has negative implications for auto sales. Research published by the consulting firm AlixPartners found that, in the absence of car sharing alternatives, Americans would have bought around 500K cars between 2006 and 2013, and giving the increasing popularity of car-sharing, this figure could increase by 1.2 million in 2020. According to the same study, car sharing reduces auto sales by a staggering ratio of 32 to 1 in the above-mentioned cities. Car2Go, Zipcar, Getaround or RelayRides are examples of companies through which people can rent a car, by the hour or day, either from the company's own fleet or from somebody else.

**Technology and regulation** also play a significant role in the transformation of the auto industry. Carbon dioxide (CO<sub>2</sub>) emissions remain a concern, and governments across the world will continue tightening emission standards. In 2012, the National Highway Traffic Safety Administration and the Environmental Protection Agency established new emission standards for new car and light trucks. The goal is to reduce average CO<sub>2</sub> emissions from 295 to 163 grams per mile between 2012 and 2025. Equivalently, the average miles per gallon will rise from 29.7mpg to 49.7mpg by 2025, by law.

Government pressures to curb CO<sub>2</sub> emissions have incentivized innovation in cars propelled by non-fossil fuels. Although there is agreement that innovations in the combustion engine are capable to meet these standards, the International Energy Agency predicts that by 2050 more than 90% of light duty vehicles sold in the world will be propelled by a wide combination of powertrains. The U.S. energy market, endowed with vast reserves of oil and gas, allows for the proliferation of different kinds of plug-in hybrids in the country. Electric cars continue to gain momentum, but a market entirely dominated by this technology seems unlikely in the short-term given the relative abundance of hydrocarbons.

Alternative fuels are gaining appeal with consumers who are concerned about the environment and the high cost of petrol. This could boost auto sales going forward. In fact, the race for the alternative-fuel vehicle has just begun, and we can expect manufacturers to compete fiercely for bringing reliable and affordable models to the mass market. However, the future of plug-ins and other alternative cars is still uncertain as ongoing innovations in the combustion engine and productivity enhancers in the oil and gas industry can have a positive impact on the demand for gas-guzzling vehicles.

### **Banking and auto industries: different paths, same destiny**

Just like in banking, the auto industry will be transformed by technology and an increasing need for connectivity, particularly among young generations, who are expecting their cars to have the same capabilities as their mobile devices. Connectivity will be a key characteristic of new cars, which will be capable not only to drive by themselves -as some prototypes already do- but also to communicate with each other and provide network access.

The car of the future will be manufactured not as a vehicle but as an intelligent system, capable of compiling, interpreting and generating information in order to plan the most efficient route, read e-mails, check the passenger's health, post a status update on social media, verify the passenger's mood and play music accordingly, communicate with other vehicles to prevent accidents, and much more.

The level of complexity necessary for the manufacturing of such vehicles will require the participation of companies currently outside the car manufacturing space. Google, for example, has recently unveiled an autonomous car prototype and may soon be announcing its first auto to the market.

Just as people can now bank on their smartphones, in the future nothing will prevent them from ordering their cars to check their checking account balances or pay their credit cards. And yet, this is not the only way by which the future of cars and banks will be linked.

Although Americans are expected to drive less, the automobile will continue to be their primary mean of transportation for several more years. However, demographic changes suggest that banks should market their financial products differently to Millennials and Baby Boomers given their conflicting views on car ownership. Digital banking could be leveraged with Millennials who are intensive users of internet and mobile devices.

The dealership will continue to be the primary selling model for most brands. However, new business models may emerge, creating challenges and opportunities for financial entities. As plug-in vehicles grow in popularity, companies like Tesla will continue to disrupt the market by circumventing franchised dealers, which are important customers for banks.

Tesla's direct-sales model, for example, allows customers to have physical contact with the electric car at the shopping mall, learn about it, and purchase it at a later time over the internet. Tesla adopted this model under the premise that it can enhance customer experience by offering potential buyers a more relaxed environment than the traditional dealership. This strategy has some similarities with Apple, which began opening Apple Stores in 2001 and revolutionized the consumer electronic retail experience. In the auto market, this strategy can be replicated or improved by new or current incumbents.

Despite intense lobbying, state laws that protect franchised dealers from manufacturers may also change. State legislatures could pass bills to create exceptions for "plug-in vehicles" as could be the case of Pennsylvania, where a bill was proposed to allow manufacturers of "electric vehicles" to sell their units directly, but not to manufacturers of other types of vehicles. Not surprisingly, this bill has been opposed by dealers and manufacturers alike. New York and Ohio are two states where Tesla has reached agreements to operate a few dealerships. On the other hand, Texas, New Jersey and Arizona still forbid manufacturers' direct selling.

Finally, banks should also be prepared for the arrival of new and innovative satellite businesses around smart and plug-in vehicles such as car sharing companies, alternative-fuel stations, and specialized repairmen services. These are just some of the new possible players that will benefit from the wired car.

### References:

- AlixPartners, LLP. 2014. "AlixPartners Study Indicates Greater Negative Effect of Car Sharing on Vehicle Purchases." Accessed June 9: <http://www.alixpartners.com/en/MediaCenter/PressReleases>
- "Annual Financial Profile of America's Franchised New Car Dealerships." National Automobile Dealers Association. 2014.
- Boudette, Neal E. 2014. "Car-Sharing, Social Trends Portend Challenge for Auto Sales." *The Wall Street Journal*. February 3.
- "Green wheels: Once seen as environmental villains, cars are becoming squeaky clean." *The Economist*. April 20, 2013.
- Koslowski, Thilo. 2012. "Your Connected Vehicle Is Arriving." *The Connected Vehicle. Business Impact. MIT Technology Review*. January, pp. 2-3.
- Ramsey, Mike. 2014. "Pro-Tesla Bill in Pennsylvania Draws Ire of Other Auto Makers." *The Wall Street Journal*. June 9.
- Regalado, Antonio. 2012. "This Ride is Digital." *The Connected Vehicle. Business Impact. MIT Technology Review*. January, pp. 1.
- "The great powertrain race: Carmakers are hedging their bets on powering cars." *The Economist*. April 20, 2013.
- Webb, Tom, Hatmaker, Scott, et. al. 2013 Used Car Market Report. Manheim. 18<sup>th</sup> Edition.

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