SPECIAL REPORT

TD Economics

March 4, 2014

U.S. AUTO SALES BASKING IN THEIR COMEBACK GLOW

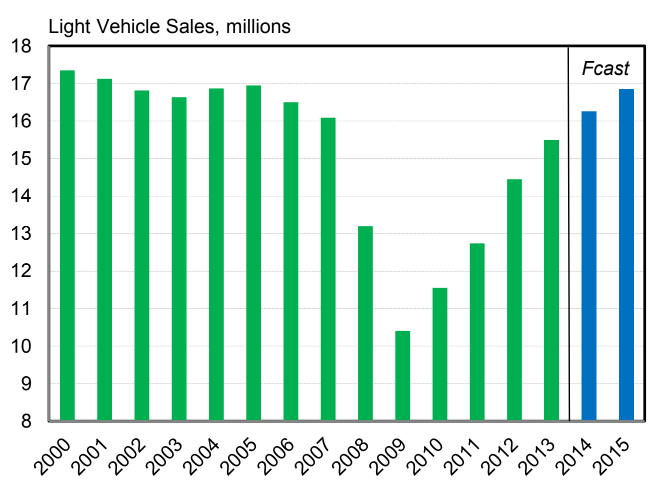
Highlights

- U.S. auto sales grew for the fourth straight year in 2013, surpassing the 15 million vehicle mark for the first time since the 2008-09 financial crisis. This translated into an annual increase of 7.5%, or more than one million vehicles relative to the year prior.
- Vehicle sales are expected to continue their resurgence over the 2014-15 period, breaching the 16 million mark in both years. Economic drivers underpinning our forecast include a strengthening economy and labor market, improved availability of credit, and an unleashing of pent-up vehicle demand which has blossomed in recent years.
- Pickup trucks are expected to be a standout light vehicle category throughout our forecast period. An improved new housing construction climate – as proxied by the level of housing starts – will help support vehicle demand in this category.
- Beyond 2015, we expect that annual sales will remain substantially elevated relative to the past few years. Purchases should far exceed their demographically-supported levels of 15.5-16 million, as pent-up demand is further unleashed, scrappage rates return to more normal levels, and the average vehicle age stabilizes and then gradually declines.

"The auto sector is back" has been a popular mantra among industry followers. This adage was certainly appropriate for 2013. Sales grew for the fourth straight year in 2013 by 7.5% (or a million new vehicles), breaking the 15 million mark for the first time since the 2008-09 financial crisis.

Helped in part by a strengthening economy, the improved availability of credit, as well as an unleashing of pent-up demand, sales will continue to march higher in 2014 and 2015, rising to 16.20 million and 16.75 million units, respectively (See Chart 1). Moreover, the gradual improvement in wealth and employment will continue to support auto sales growth beyond 2015. Pickup trucks, in particular, are expected to outperform other categories over the coming years, as sales will rise in tandem with improving housing starts.

CHART 1. SALES TO HIT PRE-CRISIS NUMBERS



Source: BEA. Forecast by TD Economics.

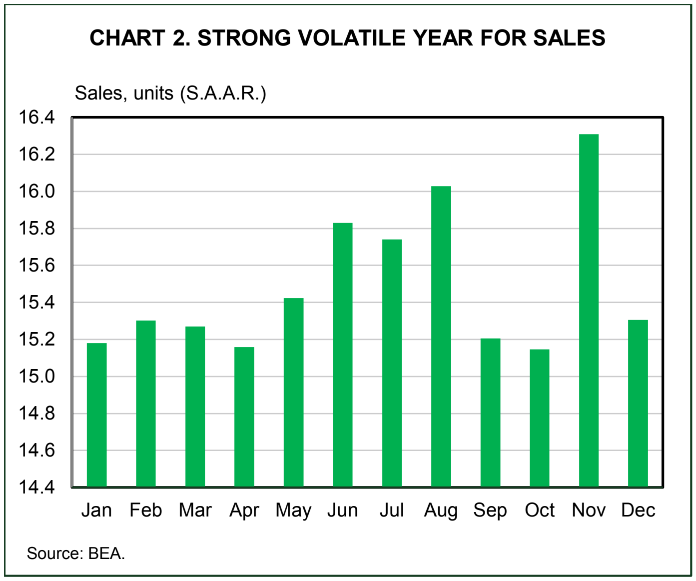
A bumpy 2013 year in review: sequestration, calendar-month impacts and the weather

Sales over the course of 2013 were no stranger to volatility (See Chart 2). Following a strong handoff from 2012, sales trended downwards in March and April, as the expiry of the payroll tax cut and non-extension of marginal tax breaks on high incomes , in addition to sequestration, dealt a blow to household spending plans.

Sonya Gulati, Senior Economist
Andrew Labelle, Economist

Sales accelerated through the summer, culminating in 16.03 million units (seasonally-adjusted and annualized) sold in August. Part of the reason for the strength seen in this particular month was simply due to a calendar quirk – the last official selling day for August extended until Tuesday, September 3rd (Monday was Labor Day). Because of special holiday offers, sales were likely brought forward: higher August sales came at the expense of lower sales in September (see Chart 2).

The calendar year ended with a government shutdown, a fiscal resolution and lousy weather, all of which contributed to a choppy fourth quarter. Although the monthly ride for vehicle sales was bumpy, overall it was another strong year of rising auto sales. In fact, this was the fourth consecutive year where annual light vehicle sales growth exceeded a million units.



Sales to cruise through 2014-15

The volatile trend appears to have continued in 2014, with January sales coming in below expectations. The cold weather patch stretched into February but conditions have already begun to thaw, and a strong Spring is expected.

Generally speaking, the stellar performance seen in 2013 is unlikely to be repeated in 2014 and 2015. That said, the numbers won't be too shabby. Our forecast calls for auto sales of 16.20 million in 2014 and 16.75 million in 2015. This represents annual increases of 4.3% and 3.4% Y/Y respectively, slower than the 7.5% pace seen in 2013. These would be the first two years of more than 16 million light vehicles sold since the financial crisis. Moreover, 16.80 million units would be the largest annual sales tally recorded since 2005.

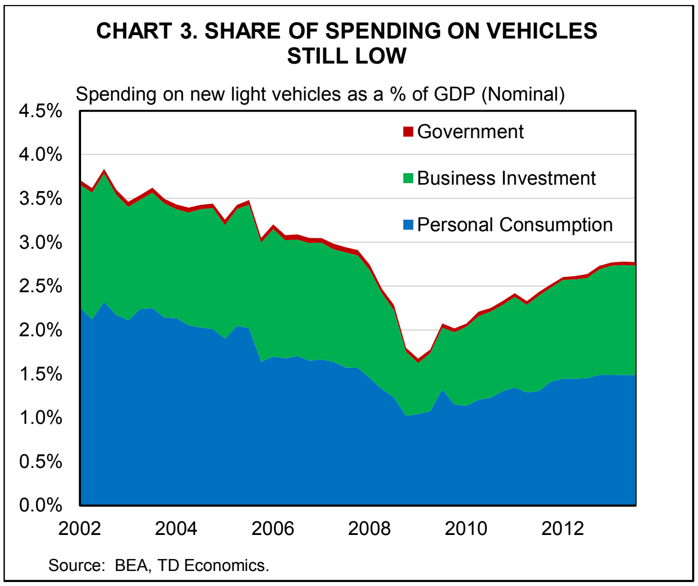
Higher vehicles sales will be a result of a stronger economy, improved financial conditions, and pent-up demand. The factors behind our forecast are explained in more detail next.

Economic drivers

Growth in personal disposable income (PDI) and GDP underpin our generally positive near-term vehicle sales forecast. Unencumbered by further tax hikes, PDI should accelerate from 1.9% growth in 2013 to 4.4% in 2014 and 5.2% in 2015. More income in consumer's pockets should provide a boost to vehicle sales over the next two years.

Moreover, the share of nominal GDP spent on new light vehicles by individuals, businesses and governments is still far below what it was prior to the financial crisis (see Chart 3). According to our baseline economic forecast, nominal GDP is expected to rise 4.6% in 2014 and 5.4% in 2015. Even if the share of nominal GDP spent on new vehicles remains constant at its 2013 level, this implies vehicles sales of at least 16 million in 2014, and more than 16.5 million in 2015[1]. These tallies represent an effective floor to our near-term auto sales forecast.

One economic factor holding back auto sales in recent years has been the labor market. There are still over 1.3 million less people employed today than there were in 2008, according to the household survey. The impact of a weak labor market can be directly observed by looking at the groups which have been most adversely affected, notably younger cohorts. From 2007 to 2011, the share of car sales to buyers aged 18 to 34 fell nearly 30%, according to Edmunds[2]. The tide partly reversed in 2012 amidst strong job



Textbox: Licensing Patterns Have Been Changing

Auto sales are a function of both the ratio of vehicles purchased by licensed driver, and the number of drivers in the country. For a long time, there was little change in the share of licensed drivers relative to the population aged sixteen and older. This meant that growth in the number of drivers generally matched growth in the population aged 16 and over.

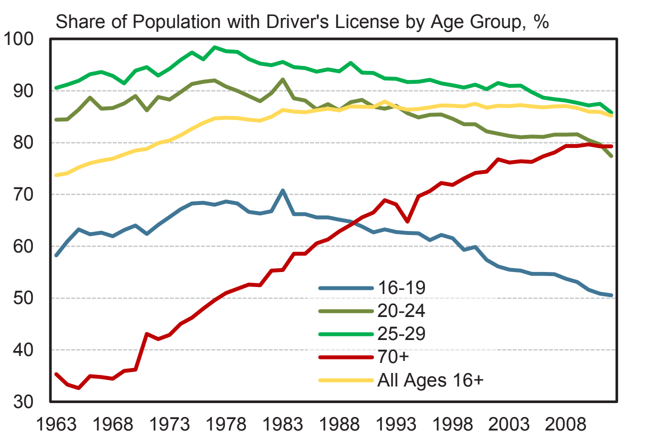
The ratio of licensed drivers per population held relatively steady at 87% from 1995 until 2008. However, since the financial crisis, the share has fallen roughly 2 percentage points to 85.1% in 2012. Although the fall was more pronounced for younger cohorts, most demographic groups registered a decline, suggesting that a significant portion of the drop was cyclical in nature and will likely return once the economy improves further.

This is not to say that there haven't been changes in the age distribution of those holding licenses. On a long-term basis, there has been a secular decline in the licensing rate of younger age cohorts, coupled with a rise in the licensing rates of older individuals (see Chart 4).

Since 1997, annual changes in the ratio of licensed drivers per population appear to be overwhelmingly driven by changes in the licensing rates among age cohorts, rather than shifts in the population between age cohorts (i.e. rather than the general aging of the population). From 1997-2008, the impact of lower licensing rates for individuals aged 16-34 was entirely cancelled out by greater licensing rates for those aged 70 and over. However, licensing rates for those aged 70 and over appear to be now reaching a plateau (see Chart 5).

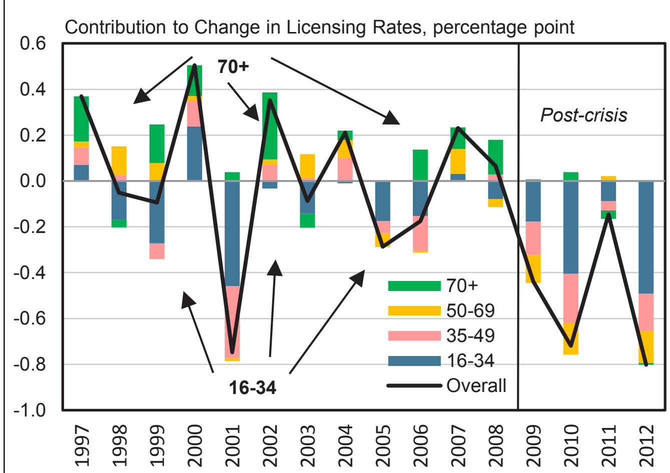
Unless the licensing rate of younger cohorts stabilizes or that of older cohorts keeps rising, the overall licensing rate among the entire population aged sixteen or older will fall over time. While not all licensed drivers purchase vehicles at the same rate or frequency, less drivers in a population generally equate to fewer light vehicle purchases. Finally, we may have to get used to seeing more drivers with grey hair on our roads. Note that these changes happen only gradually, and therefore should be viewed as having a medium term impact, rather than a near term one.

CHART 4. DIVERGING PATTERNS IN LICENSING RATES



Source: U.S. Dept. of Transportation: Federal Highway Administration, Census Bureau.

CHART 5. YOUNGER AND OLDER AGE COHORTS HAVE BEEN OFFSETTING



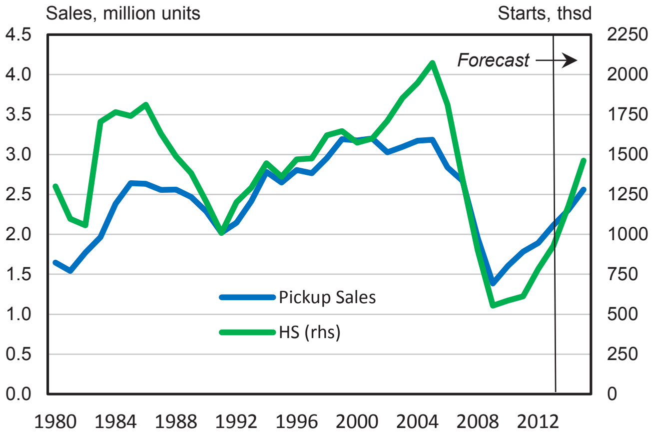
Source: U.S. Dept. of Transportation: Federal Highway Administration, Census Bureau,

growth, but it appears to have subsequently fallen in 2013.

With job growth set to rise in the coming years, the labor market should turn from a headwind into a tailwind for auto sales. Employed individuals will be more likely to exchange their aging clunker for a new one. Finally, although there are long-term questions concerning the interest that younger cohorts have in driving (see Textbox), we do expect to see to see a cyclical rebound in vehicle sales to younger drivers, as the unemployment rate for these cohorts falls.

Another economic factor which will have a direct positive impact on auto sales is the expected rebound in residential construction and housing starts. Growth in annual

CHART 6. HOUSING MARKET SUPPORTIVE FOR PICKUPS



Source: Census Bureau, BEA.

housing starts and pickup truck sales are highly correlated (see chart 6). Housing starts added up to 927 thousand units in 2013, but they are forecast to rise to just under 1.5 million by 2015. This new housing trajectory will be a boon to pickup sales, which were severely hit following the crash in the housing market.

From 1994-2006, pickup trucks represented on average 18.4% of all new light vehicles sold annually. The only year in which their market share was below 18%, was in 2006 when home prices started turning sour. With the collapse in starts over this period, the market for pickup trucks shriveled, falling to only 13.3% of sales in 2009. However, the rebound in construction has begun, and as a result pickup sales grew by a strong 11.7% in 2013. Nonetheless, even with the strong showing in 2013, the share of pickup trucks relative to total auto sales remains substantially lower than its pre-crisis level, at 13.6% last year. This suggests that there is considerable upside potential for this vehicle category to rebound further. Therefore, pickup truck sales are expected to grow 9% in 2014 and 11% in 2015.

Financial drivers

A number of financial factors will also help support auto sales over the next two years. The first of these is increasing household wealth and healthier consumer balance sheets, both of which are positive for auto sales.

In terms of household wealth, home prices will continue their ascent in 2014, after rising 11% last year, according to the CoreLogic home price index. Moreover, gains in financial assets are likely to continue in 2014, albeit at a decelerated rate, after the meteoric 29% year-over-year rise in the S&P500 last year.

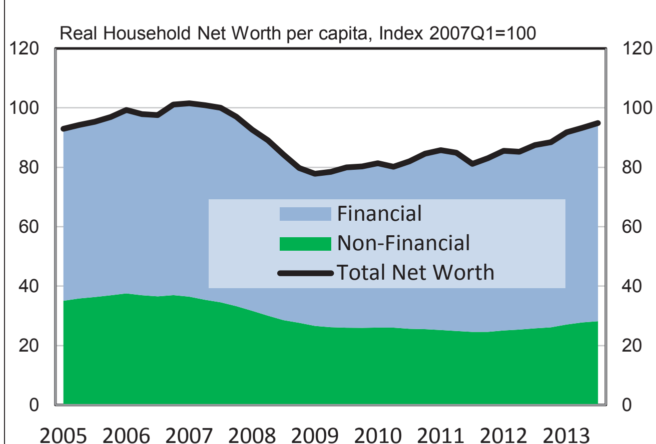
It should be noted that although household wealth has been rising in America, on a real per capita basis, it is still roughly 5% lower than it was at its pre-crisis peak. Furthermore, much of the gains in recent years have come in financial assets (see Chart 7), which are more heavily concentrated among wealthier households. As such, while the rise in household wealth has been positive, most individuals are unlikely to feel as rich as they did in the pre-crisis years. Going forward, as household wealth continues to rise, this sentiment will slowly lift. Individuals will therefore be more inclined to take on the additional expense of a new vehicle. Finally, the rise in wealth is occurring after debt levels have been pared back, meaning that consumers are now well-positioned to borrow more to finance vehicle purchases.

This brings us to the next element which will be supportive for auto sales: the wide availability of auto credit. If auto sales growth has been strong over the past year, dealers can thank their financing departments and the willingness of consumers to borrow. On a year ago basis in December 2013, auto loan balances rose 10.2%, the fastest pace of growth among all household credit.

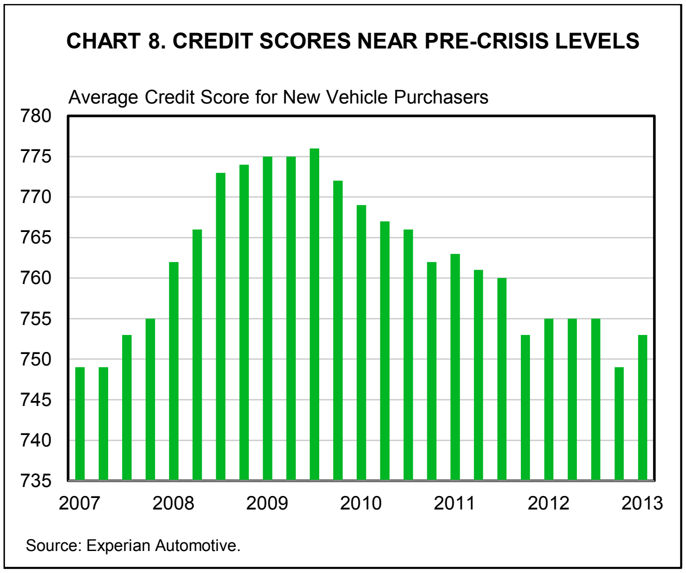
According to Experian Automotive, the average loan rate for a new vehicle was 4.27% in the third quarter of 2013, 26 bps lower than a year before. Given that in a rising yield environment, one would expect auto loan rates to similarly rise, the fact that they did not, is a clear sign that credit conditions in automotive lending have generally eased.

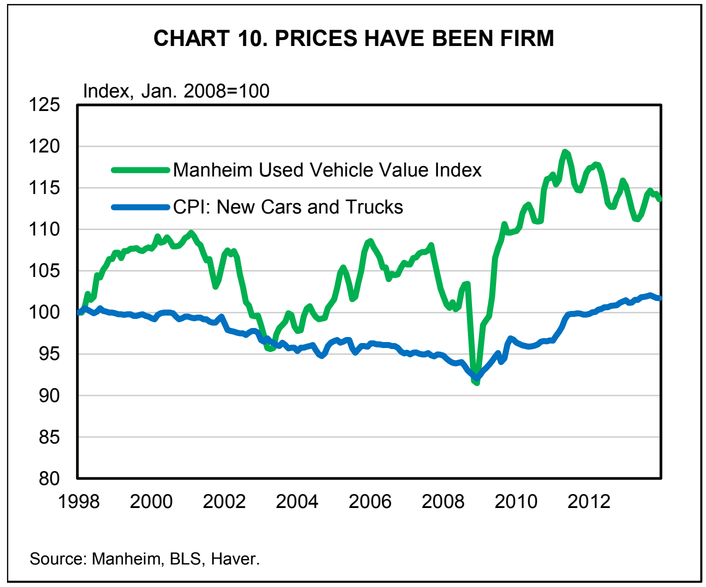
In a sense, the easing in credit conditions is not surprising considering the performance of auto loans during the crisis. Delinquency rates on auto loans were much more resilient

CHART 7. HOUSEHOLDS STILL FEELING THE PINCH



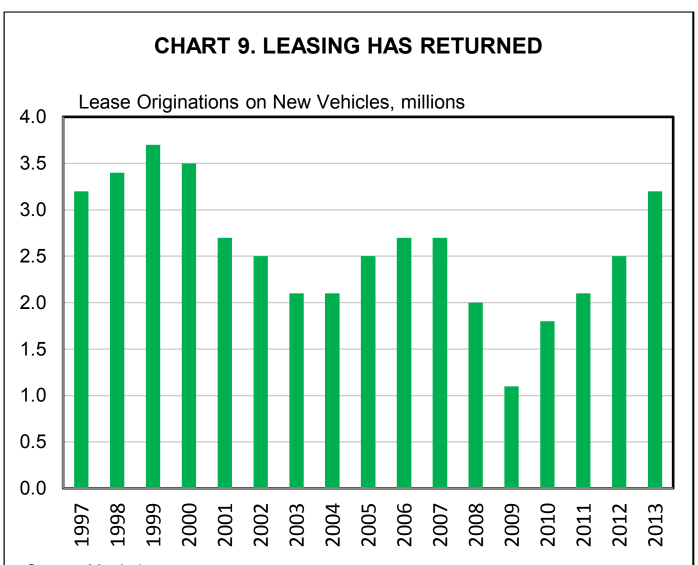
Source: Federal Reserve, BLS, Census Bureau.





than was the case for mortgages, suggesting that even in an economic and financial crisis, individuals will keep prioritizing their car over other items. In addition, current delinquencies remain low, providing lenders with confidence that consumers will repay their car loans.

Nonetheless, following the first rumors of tapering in May 2013 until the end of the year, advertised auto loan rates rose by roughly 30-50 bps, suggesting that the low point for rates may be behind us. Going forward, auto loan rates should gradually rise, spurred by higher treasury yields as the Fed continues to taper its asset purchase program. However, the rise in loan rates will likely be muted. The federal funds rate is expected to remain between 0-0.25% until the end of 2015, and this will anchor the front end of the curve, off which auto loan rates are generally based.



Therefore, credit over the next two years is expected to remain relatively cheap, which is positive for auto sales.

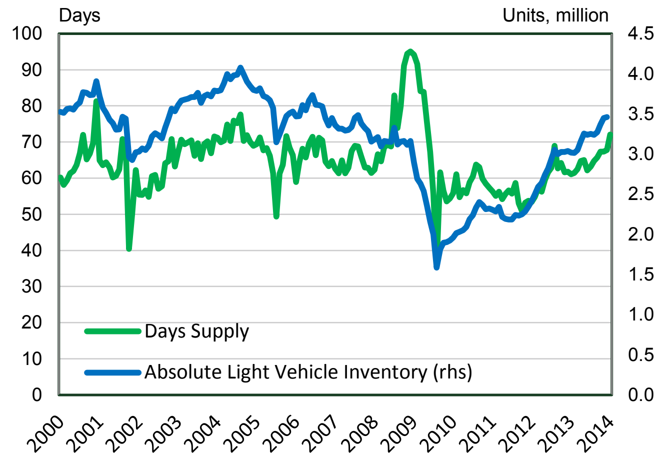
Beyond auto loan rates alone, we have also seen a preference on the part of consumers and a willingness on the part of lenders, to extend loan terms. The average loan term for a new vehicle rose by one month to 65 months in Q3 2013, relative to a year ago. Moreover, there was a 15.8% bounce in the number of 73-84 month auto loans over the same period.

All these elements point to an easing in credit conditions. In fact, creditworthiness has almost returned to its pre-crisis level (see Chart 8). This allows individuals who were previously shut out from the auto finance market, to buy new vehicles.

Another financial element which has been bolstering vehicle sales in recent years has been the return of leasing. Leasing had a near-death experience in 2008-09, due to both a lack of funding in credit markets, and losses tied to falling used car resale values. However, leasing has returned with a bang, with leases made on 3.2 million new vehicles sold in 2013 (See chart 9). While leasing should continue to be a strong source of new sales, upside does appear somewhat limited given that we are approaching the historical record of 3.7 million lease originations, reached in 1999.

Finally, the last financial element which may be supportive is more stable vehicle pricing. New vehicle prices during the early 2000's were generally on the decline (see Chart 10), as overproduction was rampant and automakers aggressively fought for market share. However, these forces have been less apparent following the financial crisis. The

CHART 11. INVENTORY LEVELS ON THE RISE

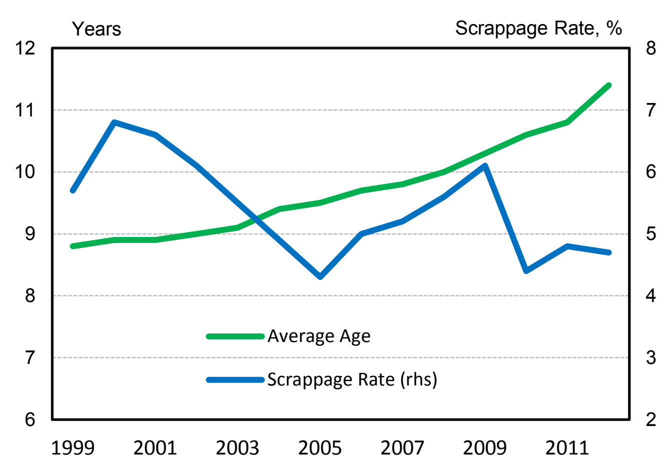


Source: WardsAuto. Data is seasonally-adjusted by TD Economics.

average transaction price has risen from $25,500 in 2008 to $29,200 in 2013, according to JD Power.

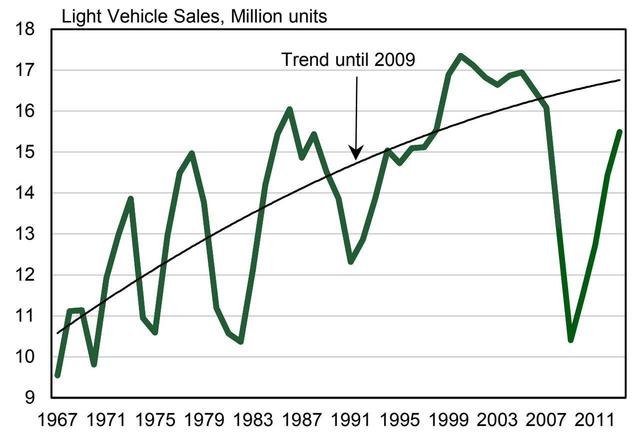
For several reasons, we may see price growth slow down over the next few years. Inventory levels are at a cyclical high (see Chart 11), which may entice automakers to ramp up incentives to help reduce their stockpiles. As growth in new vehicle sales decelerates, automakers may be tempted to slash pricing in order to increase market share. Finally, used vehicle prices have held up quite strongly in the post-crisis era. However, with the pick up in leasing seen of late, the used vehicle supply from lease maturities will rise from 1.7 million leases maturing in 2013 to 2.5 million in 2015. The increased supply in used vehicles will likely exert downward pressure in used vehicle prices. The environment for new vehicle sales may become more competitive as a result.

CHART 12. INDIVIDUALS HAVE HELD ONTO THEIR VEHICLES FOR LONGER



Source: Wardsauto.

CHART 13. LONG TERM PACE OF AUTO SALES HAD ALREADY BEEN SLOWING



Source: Wardsauto.

Releasing pent-up demand

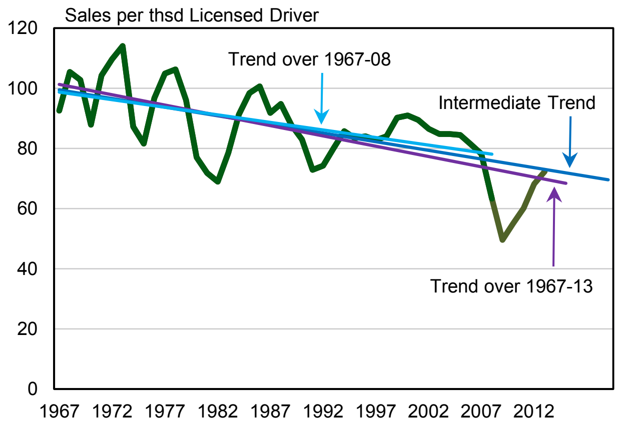
Pent-up demand represents the extent to which demand for new vehicles has been suppressed in recent years, relative to what we would normally expect in better economic circumstances. An analogy might help drive the point home. If a spring is compressed for a period for time, the moment it is let go, it will grow sometimes double or triple in size, before settling back to its equilibrium. The implication for vehicle sales is that this demand will be unleashed in the upcoming years, as the financial health of consumers returns and the economy improves, allowing people to trade in their old vehicles for a new one.

Pent-up demand is notoriously tricky to measure. However, given the steep fall in sales following the financial crisis, it likely numbers in the several millions. Moreover, the average age of vehicles on U.S. roads has now hit 11.4 years, a jump of more than 2.5 years relative to 2000 (see Chart 12). While light vehicles do last longer than they used to, and their median age lies closer to 9.5 years, the aging of the vehicle fleet since the financial crisis does appear disproportionate.

Another signal that points to considerable pent-up demand is the relatively low level of scrappage seen in recent years. From 2010 to 2012, the annual scrappage rate was under 5%.This is substantially lower than the 5.4% which would be typically expected based on historical averages[3]. Therefore, scrappage rates should rise in the next few years. Assuming at least some of these scrapped vehicles are replaced by a new one, this would provide a boost to new car purchases.

Finally, auto sales in the U.S. didn't hit the 15 million

CHART 14. SALES PER DRIVER ON THE DECLINE



Source: BEA, Federal Highway Administration.

mark until 1996 and peak auto sales were recorded in 2000. Vehicles sold in these years will be between 14-18 years in 2014, and approaching the end of their useful life. Therefore, a peak number of vehicles will need to be replaced in the coming years, suggesting a further enhancement to auto sales.

Having established the existence of pent-up demand, the next logical question is to wonder just how it will be released. From a long-term perspective, light vehicle sales growth was decelerating even before the catastrophic year of 2009 (see Chart 13). Sales per licensed driver have generally been trending downwards over time (see Chart 14). Long-term trends suggest that the "normal" level of sales over the next few years is in the high 15 million range. The sales performance in 2013 simply brought the level of sales back to where we would expect it to be in normal economic conditions. Given pent-up demand in the sector, auto sales should overshoot 16 million over the next few years.

Conclusion

The auto sector has come a long way since the throes of the recession. However, the best has yet to come. The past year was a particularly good one for auto sales, yet we are only approaching the level which would be expected according to demographic needs. Given the positive economic and financial backdrop and considerable pent-up demand, auto sales should exceed 16 million over the next several years. More specifically, our forecast calls for sales of 16.20 million in 2014 and 16.75 million in 2015. Pickup trucks, in particular, should perform well, as the construction sector and housing starts gradually normalize. As the labor market and household wealth continue to strengthen, sales are expected to rise further, with the peak in the current auto purchasing cycle likely occurring beyond 2015.

Sonya Gulati
Senior Economist

Andrew Labelle
Economist

End Notes

1. Assumes average transaction prices of $29,700 in 2014 and $30,200 in 2015, reconciled to BEA and WardsAuto annual figures.
2. Source: Edmunds, "Millennials In Reverse", Nov. 1st, 2013. http://www.edmunds.com/industry-center/commentary/millennials-in-reverse.html
3. From 1999-2007, the average age of light vehicles on U.S. roads was 9.2 years. Assuming that vehicles have a life expectancy of double this average, at which point they are scrapped, suggests that in any given year, 5.4% of vehicles should be scrapped – this was also the average scrappage rate from 1999 to 2012.