OBSERVATION

TD Economics

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GAS PRICES UP, BUT TRUCKS STILL ON TOP

Highlights

- The recent spikes in gasoline prices have sparked some talk about drivers shifting towards smaller, more fuel efficient vehicles. However, consumer preferences have been quite constant over time.
- Moreover, the uptake of hybrid and electrical vehicles has been much slower than automakers had anticipated. Although new models continue to be introduced, these advanced technologies still have a number of hurdles to overcome before they will comprise a significant share of the U.S. market.
- While $4 per gallon gasoline has not triggered much of a change in consumer preferences, fuel efficiency has still improved over the years, thanks to the increased fuel economy of traditional gasoline engines.

In America, the 'bigger the better' mentality has characterized the auto industry pretty much since the dawn of time. However, with gasoline prices experiencing some major spikes in recent years, there has been much chatter about consumer preferences shifting in favor of smaller, more fuel efficient vehicles. While it appears as though higher gas prices have brought about a change in driving habits – as miles travelled in the U.S. are down by 3% since 2007 and gasoline demand is at a decade low – the data show that consumers are not necessarily sacrificing size for better fuel economy.

Constant trend over time

The price of gasoline is probably the most visible and talked about price among consumers, as it is posted all over the country's roads and highways. Hence, consumers are continuously aware of the rise or fall in prices. Given that gasoline prices have been trending up for the past decade, consumers have had to adjust to a higher level of prices. The impact on consumer vehicle preferences, however, has remained fairly constant.

Looking at the trends seen over the past decade, it is clear that consumers have not given up their love for trucks. Table 1 presents the top ten selling vehicles in the U.S. in 2001 and 2011, which account for roughly a quarter of total sales in each year. The picture in both years is largely the same: five of the ten vehicles are identical models, pick-up trucks remain in the number 1 and 2 spots, and only two vehicles classified as 'small' made the list. Moreover, excluding light trucks, six of the top ten selling passenger cars are in the mid- or full-sized category in both years (Table 2). If these tables were to show the years in between or the first four months of this year, the results would be similar. What's more, vehicle models tend to grow both in size and weight with every new generation. So, given that some of the models are the same – including the Accord and Camry – vehicles currently on the roads may actually be larger and heavier than they were 10 years ago.

Perhaps one difference that has taken place is the introduction and success of the crossover utility vehicle segment, which has accounted for the largest share of all new vehicles sold for three straight

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years (Chart 1). This steady rise in market share over the past decade has come largely at the expense of the sport utility vehicle and minivan segments. Still, while superior to those segments, the average fuel economy of crossovers is lower than that of small and mid-sized vehicles, suggesting that several consumers are still opting for a larger, less fuel efficient vehicle.

Slow uptake of hybrid and electrical vehicles

While the introduction of hybrid and electrical vehicles was meant to offer an auspicious alternative to the internal combustion engine that would reduce fuel costs, consumers still favor the traditional gasoline engine. Indeed, unlike the crossover utility segment, the share of hybrid and electrical vehicle sales has not seen much growth since hitting the mass market in 1999, as consumers have been slow to adopt the technology. Demand has been much weaker than automakers had expected, accounting for only 2.2% of new vehicles sold in 2011. Automakers remain confident in the technology and are continuing to introduce new models to the market. While more variety of available models should help to boost demand for the fuel efficient technology, there are a number of hurdles that will take time to overcome before hybrid and electric vehicles comprise a significant share of the U.S. auto market.

Perhaps the biggest deterrent for these vehicles is the cost. The premium attached to hybrid and electric vehicles is quite high, and on average, analysts estimate that it takes about seven years to pay off[1]. Consumers who plan to keep the vehicle for only 4-5 years (particularly if leased) will find these automobiles to be a highly impractical purchase – even with any applicable government rebates. So, automakers are dealing with a bit of a Catch-22 situation: until they can produce these vehicles at a lower cost – likely through economies of scale – they will be a hard sell for consumers.

Aside from the simple math, consumers may also be hesitant to purchase a hybrid or electric vehicle because they are not yet fully confident in the technology, as it is relatively new. Moreover, given the lack of infrastructure, the time it takes to recharge and limits on distance for electrical vehicles, consumers may opt for a gasoline engine simply out of convenience – especially those who plan to use the vehicles for longer distances or road trips.

Furthermore, statistics suggest that consumers who have purchased vehicles with these advanced technologies may

TABLE 1: TOP TEN SELLING VEHICLES IN THE U.S.

	2001	2011
1	Ford F-Series	Ford F-Series
2	Chevrolet Silverado	Chevrolet Silverado
3	Ford Explorer	Toyota Camry
4	Ford Taurus	Nissan Altima
5	Honda Accord	Ford Escape
6	Ram Pick-up	Ford Fusion
7	Honda Civic	Ram Pick-up
8	Toyota Camry	Toyota Corolla
9	Ford Ranger	Honda Accord
10	Ford Focus	Chevrolet Cruze

% of Total Sales: 24%

'Small' cars in green font

Source: Ward's Auto

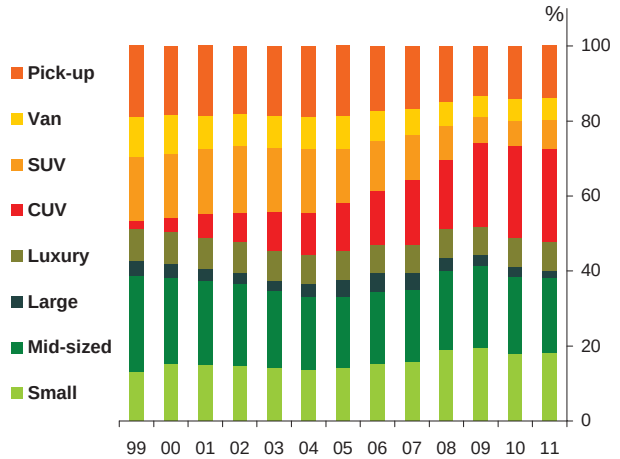
TABLE 2: TOP TEN SELLING CARS IN THE U.S.

	2001	2011
1	Ford Taurus	Toyota Camry
2	Honda Accord	Nissan Altima
3	Honda Civic	Ford Fusion
4	Toyota Camry	Toyota Corolla/Matrix
5	Ford Focus	Honda Accord
6	Toyota Corolla	Chevrolet Cruze
7	Chevrolet Cavalier	Hyundai Sonata
8	Chevrolet Impala	Honda Civic
9	Pontiac Grand AM	Chevrolet Malibu
10	Chevrolet Malibu	Hyundai Elantra

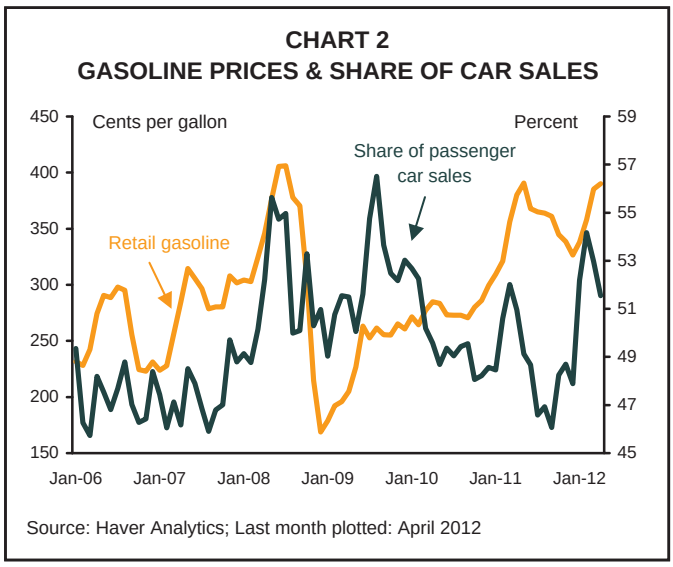
'Small' cars in green font

Source: Ward's Auto

CHART 1: U.S. AUTO SALES BY SEGMENT



Source: Ward's Auto



not be completely satisfied with it, as only 35% of hybrid owners purchased another hybrid when they returned to the market last year – despite a significant increase in the selection of hybrid vehicles now available[2]. Of course this raw number does not take into account owners who needed to purchase a particular class or size of vehicle that didn't come with a hybrid option. Nonetheless, it is clear that only a minority are repeat buyers, which does not bode well for sales going forward.

$4 gasoline not high enough to shift preferences

While the rise in gasoline prices over the past decade has not triggered much of a shift in consumer preferences, how have consumers responded to the recent spikes of close to (or over) US$4 per gallon? Surprisingly, the response has not been consistent. In fact, the correlation between gas prices and the market share of passenger cars (versus light trucks) is quite weak. (Chart 2)

When gas prices shot up to a record high of over US$4 per gallon in 2008, the share of passenger cars sold jumped above 50% for the first time since 2001. Small and mid-sized cars accounted for most of the gains, while a rise the crossover utility segment provided some offset. Of course, the timing coincided with the recession and credit crisis, suggesting that the outperformance of the passenger car segment could also have been driven in part by the fact that smaller vehicles are more affordable.

However, the opposite happened during the gas price spike in early 2011. Light truck sales made up more than half of total sales, with crossover utility, sport utility, and pick-up trucks all taking a larger chunk of the market. The passenger car segment was actually losing market share while fuel prices were rising.

So far this year, the response has been mixed. Sales of small and mid-sized cars have been outperforming overall; however, after rising early in the year, the share of passenger cars began to lose ground in March, despite the ongoing rise in gas prices. Moreover, crossovers remained the top selling segment in the U.S. during the first four months of the year (tied with the mid-sized segment), accounting for nearly a quarter of total sales.

This inconsistency in demand for certain vehicle segments during periods of rapidly rising gas prices suggest that, while it is one of many factors that come into the car buying equation, higher gas prices – at least at the US$4 per gallon level – don't necessarily lead to a shift in consumer preferences.

Efficiency still improving

That's not to say that overall fuel efficiency has failed to improve over the years – it has. As shown in Chart 3, Ward's fuel efficiency index of new vehicle sales reached a record high of 24.1 miles per gallon (mpg) in March. The main reason for this gain is that automakers have improved the efficiency of the internal combustion engine – which, for the most part, means that vehicles in all segments have better fuel economy than prior generation models. So consumer choices aren't necessarily inflicting more pain at the pumps. And in fact, some consumers may even be able to upsize without a big hit to the wallet thanks to these improvements.

Most of the efficiency gains that automakers have pro-

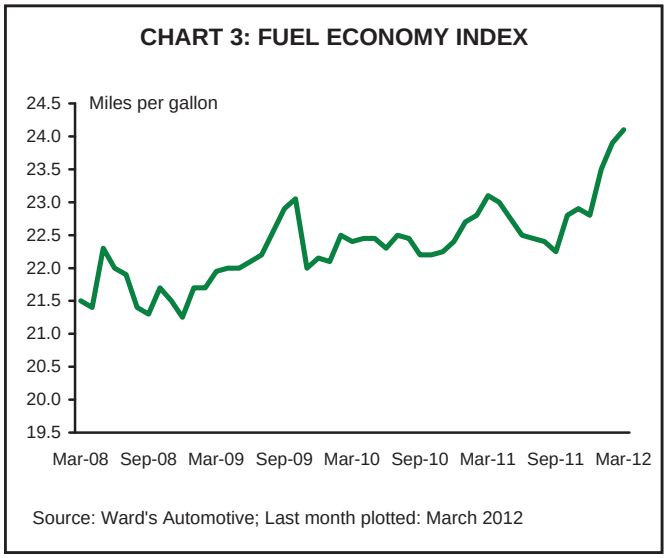
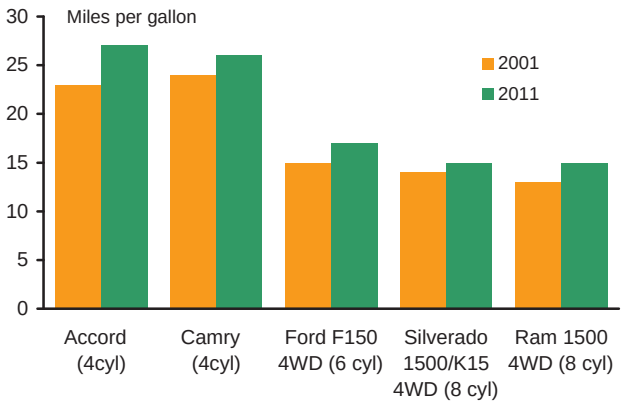


CHART 4: EPA FUEL ECONOMY



Source: U.S. Department of Energy

duced have been driven by stricter government regulations. However, the recent spate of gasoline price spikes has also helped, as automakers are using increased mileage as a selling feature to attract consumers into their showrooms. With the new government regulations requiring an average fuel economy for new vehicle sales of 35.5 mpg by 2017 and 54.5 mpg by 2025, automakers will continue to introduce vehicles with better fuel efficiency. This means a larger selection of hybrid and electric vehicles, but also further improvements to the internal combustion engine since automakers recognize that this is what most consumers want. And what consumers want, consumers buy. So, just because automakers will offer a number of vehicles to meet the regulations, getting consumers to actually purchase these vehicles may prove to be the bigger challenge.

Bottom Line

Consumer preferences have remained fairly constant over the past decade, despite the rise in gasoline prices and the introduction of gas-alternative technologies. This is a trend that is likely to remain intact, with the gasoline engine continuing to dominate the market for many years to come. Notwithstanding, the fuel economy of vehicles on the roads is also expected to improve. Consumers will constantly need to replace aging fleet, and will thus do so with a vehicle that is more fuel efficient than the one being replaced – even if it is the same size, or in some cases, larger.

Ultimately, consumers have the final say on which vehicles they purchase. And so far, higher gas prices and government incentives – such as rebates and special perks including premium parking and permission to use the high-occupancy vehicle (HOV) lanes in some cities for hybrid and electrical vehicles – have not triggered much of a shift in preferences toward smaller or hybrid/electrical vehicles. Whether or not that changes in the coming years remains to be seen.

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