NADA Used Vehicle Price Forecast: Winter/Spring 2012–2013

AT A GLANCE

How used vehicle prices have changed so far in 2012

What to expect in used price movement through Q1 2013

How consumer preference for new and used vehicles is changing

The impact of used supply, gasoline prices and employment on used prices

Introduction

It's common knowledge that used vehicle prices have grown dramatically over the past three years.

NADA estimates that from 2009 to 2011, the average price of used vehicles up to eight years of age grew by 19.7 percent, or \$2,356.



Many factors contributed to this period of phenomenal growth, including advances in vehicle design, quality and efficiency; manufacturers' return to a build-to-demand production philosophy; and an increased focus on used vehicle operations among franchised new car dealers. But the most important factors driving up the price of used vehicles were the parallel trends of increasing demand and decreasing supply in the used vehicle market. In fact, used supply contracted by 7 percent from 2009 to 2011 because of the steep decline in new vehicle sales following the recession.

At the start of this year, NADA expected that the ongoing slide in used supply, as

well as substantive economic and employment growth, would push used vehicle prices higher for the fourth year in a row.

Indeed, in the first quarter, 677,000 jobs were added to non-farm payrolls, gross domestic product (GDP) grew 2 percent—slightly lower than expected, but still positive—and used prices grew by nearly 4 percent on a mileage- and mix- adjusted basis, relative to the first quarter of 2011.

But economic conditions have deteriorated since then. From April through August, only 382,000 jobs were added and second-quarter GDP growth slowed to just 1.3 percent, according to the government's third and final estimate. In addition, consumer confidence remains in a fixed state due to concerns over the year-end tax cut expiration and government spending reductions, economic contraction in the eurozone and slower growth in other global economies.

Despite all these challenges, used vehicle demand has proven quite resilient. While used vehicle prices have fallen by 7 percent since April and the year's advantage over 2011 has slipped to 1.2 percent through September, the lion's share of the drop came over the three-month span between May and July, and used prices have only dipped by an average of 0.5 percent over the past two months.

Given recent trends, NADA's outlook for the next two quarters is that prices will remain very firm by historical standards, but they will begin to drift lower on an annual basis heading into the first quarter of 2013.

We'll build up to NADA's specific forecast for the coming months by first addressing four primary factors that affect used vehicle prices: used vehicle supply, gasoline prices, an economically oriented preference for used vehicles and employment rates.

Used Vehicle Supply

The ongoing recovery in new vehicle sales is slowly helping to loosen the constrained used vehicle supply environment by growing the number of units added to the total vehicle population and by generating more used trade-ins. But there's still some time to go before the overall supply of used vehicles begins to grow again, because length of ownership cycles are such that new units don't begin to enter the used market in meaningful numbers until three to four years down the road. That being said, the structured nature of lease contracts, combined with shorter lease terms, mean the volume of off-lease units will improve faster than it will for retail purchases.

In fact, NADA estimates that the supply of units three years of age and under has been growing since the beginning of the year, and overall lease supply will begin to trend upward in the fourth quarter of 2012. Fleet volume has also been on the rise. After growing by 4 percent in 2011, fleet supply is projected to grow by an additional 3 percent in 2012.

This combination of growing fleet and off-lease volume will fuel an increase in used supply for units three years of age and younger by 2 and 6 percent over the next two quarters, respectively.



As for units beyond three years of age, NADA projects that over the next six months, volume for units four to five model years of age will fall by an average of 4.5 percent, and that the supply of units up to eight years of age will drop by an average of 1.5 percent.

Looking farther out, it's expected that volume for models up to five model years of age won't begin to grow until late 2013, and that the supply of units up to eight years of age will decrease by an average of 6 percent on an annual basis from 2012 through 2014.

While the anticipated growth of younger used supply will provide some relief to franchised dealers in sourcing newer, low-mileage units, it still remains that overall late-model supply will continue to decline mid-term. This trend will continue to benefit used vehicle prices over the forecast period.

Gasoline Prices

Regular-grade gasoline averaged \$3.38 per gallon nationally at the beginning of the year and rose to a peak of \$3.94 in April — when crude oil prices increased due to concerns over Iran's nuclear ambitions, and the heightened threat of military action by either Iran or Israel. As tensions subsided, gasoline prices fell to \$3.36 in early July before rising once again to \$3.88 per gallon in mid-September — due to a series of U.S. refinery and pipeline disruptions, Hurricane Isaac's presence in the Gulf of Mexico and flared anti-American sentiment in the Middle East.

By late September, the premium associated with this latest series of temporary events was reduced, and future prices for West Texas Intermediate (WTI) had receded from late August's level of \$96 bbl. to \$92 bbl. Given current market conditions, NADA expects that WTI prices will continue to drift back toward levels dictated by long-term demand growth and seasonality.

The corresponding reaction in gasoline prices is expected to result in national averages of \$3.77 and \$3.71 per gallon over the next two quarters, respectively.

Because gas prices are expected to steadily decrease from one quarter to the next, the net effect on used vehicle prices over the period will be minimal.

Used Vehicle Preference

Numerous signs indicate that used vehicle demand continues to grow, but at a rate that is progressively slower than what has been witnessed over the past few years.

Per CNW Research, year-to-date used vehicle sales through August grew by 3 percent, relative to the same period last year; this was slightly less than the 4 percent growth rate recorded over the first eight months of 2011. Used vehicle floor traffic has fallen off more dramatically. CNW data shows that used vehicle floor traffic grew by 9 percent on an annual basis through August—but again, this was well below 2011's 22 percent increase.

Similarly, the number of consumer-generated used vehicle searches on NADAGuides.com through August was essentially unchanged on an annual basis, while used activity increased by nearly 12 percent over the same period in 2011.



When viewed alongside the comparatively mild 1.2 percent year-to-date rise in used prices, these trends indicate moderating used vehicle demand growth.

NADA believes that a portion of this softening is due to a shifting of demand back toward the new vehicle market.

The onset of the recession and the slow rate of recovery since its end in mid-2009 dictated a pullback in vehicle sales in general, but new market losses were more extensive than they were for the used market.

This inequality in lost sales can be attributed to a shift in demand among consumers who usually purchase new vehicles but decided to purchase used ones instead due to economic conditions.



NADA has developed a statistically significant composite to estimate the impact this substitution effect has had on used vehicle prices over the past few years. The composite is based in part on the difference between actual results and estimated long-term trends in consumer expenditures on new and used vehicles.

The chart at left illustrates these relationships. Here we can see how consumer expenditures on new and used vehicles fell significantly from the historical rate of growth, both during and following the recession. We can also see that expenditures on new vehicles dropped more dramatically than they did for used vehicles. These results provide credence for NADA's



view that traditional new vehicle consumers gravitated toward the used market over this economically stressful period of time.

Per NADA's composite, it's estimated that this preference for used vehicles increased by more than 5 percentage points from January 2009 through December 2011—and that its positive impact on used price growth nearly matched that of falling supply.

However, the duration and extent of the economic recovery — even



if moderate—increasingly has this set of consumers less fiscally apprehensive and more confident in the future direction of their economic well-being. As a result, preference is shifting back toward the new vehicle market. Supporting this position is the increase in new vehicle sales recorded year-to-date, which so far has exceeded most analysts' expectations.

In short, the preference for used vehicles among consumers who usually purchase new ones is waning, and NADA expects this trend will have an increasingly negative impact on used vehicle prices going forward.

That being said, NADA believes that the effect on used vehicle prices will be felt gradually over an extended period of time, rather than quickly and acutely.

At 14.5 percent, new vehicle sales have grown more over the past year than during any other since the end of the recession—but as stated earlier, this growth hasn't prevented used vehicle prices from also increasing. In addition, new vehicle sales expectations for next year are much more subdued. IHS Automotive's 2013 forecast for new vehicle sales stands at 14.8 million units, or just 3.5 percent more than 2012's estimated total of 14.3 million units. This rather modest estimate supports NADA's position that the shift in demand from used vehicles back to new vehicles will not cause a significant drop in used vehicle prices.

Moreover, both new and used expenditures remain well below pre-recession levels and long-term rates of growth. This means that, as with new vehicles, there is still demand potential on the used side of the market and the primary catalyst for its release is consequential job growth.

Employment

Post-recession economic growth also contributed to the slow recovery of used demand among individuals who, either due to preference or financial reasons, typically purchase used vehicles. NADA believes that demand for used vehicles among both new and used vehicle intenders played a pivotal role in pushing used vehicle prices to historic highs. Meaningful job growth will be the key to unlocking additional demand among used vehicle intenders. Unfortunately, the average number of new jobs created since early spring has not been enough to keep up with population growth. So, what's holding businesses back from hiring? It's not a shortage of funds, as corporate profits are at historically high levels. It's simply an uncertain economic landscape, particularly as it relates to the approaching "fiscal cliff" here in the United States.

As a result, NADA expects that in the near-term, employers will avoid taking on new risk and job growth will continue to trend below population growth until the second half of 2013, once the outcomes of these domestic threats are better known. This means employment will have little impact on used prices—neither positive nor negative—over the next six months.

Over the long-term, the magnitude of the recession and the depth of its psychological imprint will most likely translate into incremental changes in consumer purchase patterns over a prolonged period of time as material job growth occurs.

EMPLOYMENT POPULATION RATIO (EPR)

The total number of non-farm jobs divided by the total population.



Winter / Spring Forecast

It's expected that both gasoline and employment will essentially have a neutral impact on used vehicle prices over the next two quarters. Although a prevailing environment of tight late-model supply will help mitigate the downward pressure placed on used prices by the gradual transference of substitute demand back toward the new vehicle market, it won't completely offset it.

When taken as a collective, the combination of these factors will see used vehicle price growth level off over the next six months.

NADA forecasts that used vehicle prices in the fourth quarter will fall by a mild 2.7 percent relative to the preceding quarter, and as a result, prices will be 0.7 percent above the average recorded in the fourth quarter of 2011.

On an annual basis, prices for vehicles up to eight model years of age are expected to end the year up by 1 percent, relative to 2011.



NADA also projects that used prices in the first quarter of 2013 will increase by 5.2 percent compared to the last quarter of this year. The predicted increase for the first quarter is 1.5 percentage points lower than the 6.7 percent rise recorded in the first quarter of 2012, when lower gasoline prices and strong employment growth helped push used prices up more significantly.

The smaller increase expected for the first quarter of 2013 will place prices at a moderate 0.8 percent below the average recorded in the first quarter of 2012. While the loss in average value is small, this will mark the first time since 2009 that prices in the first quarter were lower than they were in the preceding year.



Summary

On balance, used market fundamentals remain favorable.

While NADA expects that the shift in preference toward the new vehicle market will be mildly detrimental to used vehicle prices, other positive factors—in addition to tight supply—will help support used prices and minimize value losses associated with emerging new vehicle preference.

Manufacturers continue to demonstrate prudence in their approach to both production and incentives. Current data suggests that future new vehicle production will remain reasonable considering the present rate of sales growth, and incentive spending has increased by just a slight 0.9 percent year to date over last year's deflated level brought on by natural disaster. At least for the near term, NADA expects these trends to continue and doesn't expect undue downward pressure on used vehicle prices from overproduction or new vehicle subsidies.

In addition, improving credit accessibility and the incipient recovery in the housing market will also benefit used vehicle demand. And even though job growth through the first quarter of next year is expected to be minimal, it's anticipated that it will steadily improve as the year wears on. As discussed, this will help support the release of used vehicle demand from the set of consumers who traditionally purchase only used cars and trucks.

Overall, NADA's near-term outlook for the used vehicle market is positive. While used vehicle prices are expected to flatten out and then dip slightly in the first quarter relative to year-ago levels, prices aren't expected to drop precipitously and instead will remain high by historical standards.

Contact the NADA consulting team at 866.975.6232 to get a customized report.

About NADA

NADA Used Car Guide

Since 1933, NADA Used Car Guide has earned its reputation as the leading provider of marketreflective vehicle valuation products, services and information to businesses throughout the U.S. and worldwide. NADA collects and analyzes more than one million combined wholesale and retail automotive-related transaction prices per month. Its guidebooks, auction data, analysis and data solutions offer automotive, financial, insurance and government professionals the timely information and reliable solutions they need to make better business decisions. Visit www.nada.com/b2b

NADA Analytics & Consulting

NADA's analytics team is charged with maintaining and advancing NADA's internal forecasting models and for developing customized forecasting solutions for automotive clients. NADA's analytics team has deep industry experience and is well versed in the nuance and complications involved with forecasting in the automotive market.

NAAA/NADA AuctionNet® Auction Data

Find the most recent wholesale transaction data through AuctionNet Market Report, available online 24/7. Updated every week, it features more than 600,000 new records added each month. AuctionNet Market Report represents more than 80 percent of the nation's auction activity, giving you a clear view of the marketplace. Available exclusively from NADA, in joint partnership with the National Auto Auction Association (NAAA).

AuctionNet data is available either as an annual subscription or in back history for specific years, or it can be customized and/or aggregated based on client needs.

NADA's Used Supply Forecast

NADA's used supply forecast is an estimate of the number of vehicles expected to be offered for sale in the future. NADA calculates used supply volume as the pool of potential vehicles that could return to the market—as represented by all new vehicle sales—and the probability that a vehicle will return from a particular source (i.e., rental, consumer lease, consumer purchase, etc.) after a predicted use period. For example, vehicles sold to rental car companies and consumers each have a specific probability curve associated with the historical likelihood to return to the used market after a given use period. The product of the vehicle pool and the return probability is the expected value of the volume of returned vehicles, which is aggregated to create the used supply volume. NADA calculates used vehicle supply down to the vehicle level.

NADA's used supply forecast data is available either as a one-time deliverable or an annual subscription and can be customized based on client needs.

NADA's Used Vehicle Price Forecast

NADA's used vehicle price forecast is based on expectations for changes to key market drivers, combined with coefficients that estimate how each of these impacts used vehicle prices. Expectations for changes to macroeconomic drivers are based on a consensus view from professional forecasting organizations with adjustments made by NADA economists. Endogenous depreciation, seasonal patterns and expectations for new vehicle prices and incentives are estimated by NADA economists and the editorial team. Relationship coefficients are estimated by NADA's proprietary statistical model.