J.D. POWER

USED CAR AND LIGHT TRUCK GUIDELINES Industry Update

AUGUST 2018

Wholesale Prices Decline in July Prices fall by an average of 0.5%

Used Vehicle Price Index Increases Index rises 1 point to 119.3

New Vehicle Sales Decline Sales fall 3.4%, new vehicle SAAR slips to 16.68

Incentive Spending Increases Incentives grow for 40th straight month

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NEW & USED MARKET UPDATE

USED MARKET UPDATE

Continuing the trend observed over the past several months, the used vehicle market performed exceptionally well once again in July. As a result, the J.D. Power Valuation Services' Seasonally Adjusted Used Vehicle Price increased by 1 point—compared to June— to reach 119.3, marking the second consecutive month of growth. July's robust performance grew the index 4.7-percentage points above the same period in 2017 and 4.8 points above January 2018's level.

Used vehicle prices have been strengthening since the middle part of 2017 and remain strong deep into the summer selling season. Through July 2018, prices have been elevated for most mainstream segments. However, luxury segment prices have been declining due in part to higher incentive spend on the new side of the market.

Some of the strongest performances on the mainstream side of the market have been from passenger cars of all sizes. Compact car prices are up 9.1% from their level in January 2018 followed by midsize and large car gains of 7.3% and 7%, respectively. Mainstream utility segment prices have also shown strength, however not nearly at the same level as their car counterparts. So far, year-to-date, compact utility prices have increased by 2.8% and midsize utility prices have grown by 3.1%. While things are primarily positive on the mainstream side of the market, large SUV has registered a 2.2% decline, which can be largely explained by a 28% increase in 0-5-year-



old wholesale volume.

Luxury segments are not enjoying the same positive trend as their mainstream counterparts, due in part to higher incentive spend on the new side of the market. Nearly all luxury segments have experienced declines in 2018. Like the segment's mainstream counterpart, luxury large utility prices have deteriorated the most and are down 5.6% from January's level. Luxury compact utility prices are down around 2% so far this year. Other luxury



New & Used Market Trends [cont.]

segment losses haven't been as severe, and prices for the collective are down by roughly 1% year-to-date.

There are a few drivers behind the overall strength of the used market. Two primary reasons are an increased dealer focus on used vehicle operations and vehicle affordability.

Used vehicles continue to gain popularity with consumers and dealers alike. Consumers can save money buying a well-maintained late-model used vehicle (especially as overall reliability continues to improve), while dealers can capitalize on used vehicle sales where profit margins are higher than for new

vehicle sales. With a 4% increase in overall wholesale auction volume for units up to five years old through July, consumers and dealers alike have a slew of late model cars, SUVs and trucks to choose from. for up to 50% off their original MSRPs.

Many of the country's top public dealership groups are capitalizing on this dynamic and the benefits were apparent in their latest earning reports. In their Q2 2018 earnings reports, Penske Automotive Group Inc., Group 1 Automotive Inc. and Sonic Automotive Inc. each increased used vehicle sales by sizeable amounts, up 10%, 13% and 17%, respectively. While Lithia Motors Inc. and Asbury Automotive Group Inc. posted smaller gains of 4.4% and 7%, respectively, they were impressive nonetheless. Each dealer group credited increased used vehicle operations for the increase in profits and they continue to state plans for even bigger investments in used operations in the future.

In non-index terms, wholesale prices of used vehicles up to 8 years in age fell by 0.5% in July relative to June. July's performance was better than how the month typically fares. Historically, over the past 5-years, losses for the period averaged 2%.

Declines at the segment level were less than on both the mainstream and premium sides of the market. Large pickups showed the most strength among mainstream segments in July. Prices for the segment increased by 0.2%, which was less than the 0.5% increase in prices the segment experienced in the same period 2017. Compact and midsize utility prices performed better than the overall industry average for the month and declined by 0.1% and 0.3%, respectively. Losses for the pair averaged a combined 0.5% for the period over the past five years.

On the opposite end of the spectrum, premium compact SUV and premium compact car prices fell by 1.9% and 1.5%. The only Premium segment with positive price movement for the month was premium midsize cars. Values for this segment grew by a slight 0.1%. Remaining segments all

New & Used Market Trends [cont.]

experienced losses, however, they were mild and landed within a point of the overall industry average.

AUCTION VOLUME TRENDS

Auction volume for units up to five years in age declined by 5.1% compared to June but increased by 13.1% compared to July 2017. As a result, year-to-date late-model volume now sits 4.2% above year ago levels and continues to increase with each passing month.

At the segment level, some of the largest volume increases year-to-date are still observed among SUV segments. Compact Premium SUV volume is up 51.5% and Large SUV volume is now up 27.6%. In terms of volume share, cars share reached 52% while truck share lags at 48%.

Overall, we are anticipating a 6.5% increase in supply for vehicles up to 5 years in age this year, which is slightly less than the 6.6% increase recorded in 2017. Most of 2018's increase will be driven by a 14.2% increase in off-lease volume followed by an 8% increase in rental supply and 2.7% increase in regular retail purchase supply. Supply is expected to peak in 2019 before leveling off.

2018 FORECAST

For August, wholesale prices of vehicles up to 8 years in age are expected to decline by around 0.5%. In terms of full-year expectations, used prices are forecast to increase by around 1% in 2018. Negative forecast factors hurting used vehicles continue to be incentives, such as an anticipated increase in used supply, worsening credit conditions and increasing gasoline prices. However, positive factors—such as favorable labor conditions, strengthening housing prices along with long-term quality improvements—will outweigh the negatives.

NEW SALES SLOW IN JULY

After increasing in June, the new vehicle market slowed in July. After 4 consecutive months



Source: WardsAuto

running above a 17 million units SAAR, July's figure fell to 16.7 million units. The seasonally adjusted annual rate (SAAR) of 17.38 was also above June 2017's 16.61 million. July's level was flat with the same period in 2017, but a sharp decline from June's 17.2 million and lowest recorded since August 2017.

NEW VEHICLE SALES

Overall, new vehicle sales declined by 3.4% in July relative to the same period in 2017. July's result brought 2018's year-to-date tally to 9.934 million units, up 1.3% compared to the same period in 2017.



New & Used Market Trends [cont.]

Source: WardsAuto

Mainstream Brand Per		ts Sold)				
	Jul-18	Jul-17	CYTD-18	CYTD-17	Y/Y Change	CYTD/CYTD
Buick	14,815	15,966	124,510	126,282	-7.2%	-1.4%
Chevrolet	155,921	151,342	1,174,007	1,119,226	3.0%	4.9%
Chrysler	11,624	13,303	100,254	115,398	-12.6%	-13.1%
Dodge	31,119	31,264	282,052	292,244	-0.5%	-3.5%
Fiat	1,240	2,244	9,525	16,926	- 44.7%	-43.7%
Ford	179,810	186,283	1,368,843	1,394,329	-3.5%	-1.8%
GMC	36,657	47,412	306,164	310,587	- 22.7%	-1.4%
Honda	125,355	136,770	840,526	854,785	-8.3%	-1.7%
Hyundai	51,137	52,437	378,923	388,878	-2.5%	-2.6%
Isuzu Truck	272	250	1,894	1,686	8.8%	12.3%
Jeep	79,906	69,351	574,928	475,642	15.2%	20.9%
Kia	53,112	56,403	346,675	352,139	-5.8%	-1.6%
Mazda	24,125	27,089	188,049	168,713	-10.9%	11.5%
Mini	4,296	4,398	26,932	26,603	-2.3%	1.2%
Mitsubishi	9,950	8,025	77,277	62,601	24.0%	23.4%
Mitsubishi Fuso	4	8	28	50	6 -50.0%	-44.0%
Nissan	99,045	117,455	807,570	858,000	15.7%	-5.9%
Ram	43,808	42,846	296,537	313,378	2.2%	-5.4%
Scion	0	7	2	181	0 100.0%	98.9%
Smart	103	182	753	2,165	43.4%	-65.2%
Subaru	59,426	55,703	382,286	360,513	6.7%	6.0%
Toyota	183,367	193,148	1,237,677	1,214,379	- 5.1%	1.9%
Volkswagen	30,520	27,091	203,418	188,329	12.7%	8.0%
Source: WardsAuto					-	-

Luxury Brand Performance (Units Sold)

	Jul-18	Jul-17	CYTD-18	CYTD-17	Y/Y Change	CYTD/CYTD
Acura	13,247	14,177	85,900	88,048	-6.6%	-2.4%
Alfa Romeo	2,016	1,225	14,281	4,944	64.6%	188.9%
Audi	19,221	18,824	127,163	121,795	2.1%	4.4%
BMW	21,982	21,965	175,368	171,051	0.1%	2.5%
Cadillac	11,160	11,227	87,109	83,300	-0.6%	4.6%
Genesis	615	1,626	7,877	11,545	62.2%	-31.8%
Infiniti	9,747	10,840	81,917	89,983	-10.1%	9.0%
Jaguar	1,880	3,166	16,667	23,831	- 40.6%	-30.1%
Land Rover	6,209	5,915	50,988	41,754	5.0%	22.1%
Lexus	25,403	28,902	160,403	162,662	-12.1%	-1.4%
Lincoln	7,898	8,875	58,167	65,212	11.0%	-10.8%
Mercedes-Benz	22,955	28,669	198,713	206,424	-19.9%	-3.7%
Porsche	4,020	3,901	33,441	31,469	3.1%	6.3%
Tesla	9,517	3,384	51,355	24,894	181.2%	106.3%
Volvo	8,622	6,967	56,244	41,072	23.8%	36.9%
Source: WardsAuto					-	-

Total volume in July reached 1.36 million units, a figure below last year's 1.41 million over the same period. However, the month's decline can be attributed to one fewer selling day compared to last year. Ultimately, July's daily selling rate (DSR) increased 0.6% over the month's 24 selling days.

Based on DSR, cars continued their descent, falling 13.8% from July 2017. However, trucks increased by 8.5% and accounted for 69.5% of the total market, which is a new all-time high. At this rate, truck share could surpass 70% by the end of the year.

At the manufacturer and brand level, FCA posted a 10.3% increase in July which was supported by fleet deliveries, marking its 5th consecutive increase. Ford managed a small 0.2% gain, its 2nd increase in 2018. Several other automakers posted increases in July including BMW, General Motors, Mitsubishi, Subaru, Tesla, Volvo and Volkswagen Group.

Mitsubishi celebrated an especially big gain of 29.2% and has now increased for 13 straight months. Volvo sales have increased every month in 2018 by an average of 38%, including July's nearly 29% increase. Tesla has doubled its sales year-over-year for 4 consecutive months, the brand's growth has been supported by widespread availably of the Model 3.

INCENTIVES GROW BY 3.7%

Automakers grew incentive spending once again in July, making it the 40th month in a row spending increased. On average, according to Autodata, spending reached \$3,776 per unit versus \$3,640 per unit in July 2017.

Among the U.S. Big Three, GM increased incentives by 15% in July to an average of \$4,949 per unit. Spending at Ford Motor Company grew by 5.5% to \$4,628 per unit, while FCA incentive spend was flat at \$4,461 per unit.



New & Used Market Trends [cont.]

Source: Autodata

New Vehicle Days' Supply



Source: WardsAuto

As for import automakers, Toyota Motor Sales dropped incentives by 7.9% in July, reaching an average of \$2,634 per unit. American Honda decreased incentives by 5.4% to \$1,935, while Nissan North America decreased spending by 10.2% to \$4,067 per unit.

Luxury automaker BMW increased incentives by 18.3% to an average of \$6,133 in July. Audi increased spending by a massive 46.5% to \$4,869 per unit, while Mercedes-Benz boosted spending by 7% to \$5,255.

At the mainstream brand level, Buick's \$6,246 average incentive spend was the highest among the non-luxury brands. At the other end of the spectrum, Subaru spent only \$1,621 per unit, up 47.5% compared to the same period in 2017.

JULY INVENTORY DOWN TO 65 DAYS

Compared to June, days' supply fell by 3 days in July. Total supply level declined to 65 days for the period, compared to 68 days in June 2017, according to WardsAuto.

General Motors' inventory fell to 81 days, down 2 days from June. Ford Motor Company's supply declined 3

days to 75, while FCA's inventory increased by 5 days to 87 days. On the import side, Toyota Motor Sales' supply declined by 12 days to 52 days. Inventory for American Honda Motors declined by 12 days to 56, while, Nissan North America's supply increased by 10 days to reach 63 days. Subaru's 26 days of supply remained lowest on the mainstream side of the industry. As for luxury automakers, Tesla's 2-day inventory was the lowest on the premium side of the market.

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ECONOMIC UPDATE

The Bureau of Economic Analysis (BEA) advanced estimate for second quarter 2018 GDP growth is 4.1%. This is based on source data that is subject to further revision by the agency. A second estimate with revised data will be released later this month. The increase in GDP reflected an increase in personal consumption expenditures (PCE), exports, nonresidential fixed investment, federal government spending, and state and local government spending. These increases were partly offset by negative contributions from private inventory investment and residential fixed investment. The second quarter GDP growth compares favorably to the first quarter 2018 GDP growth rate of 2.2%. Real GDP grew by an annual average of 2.6% in 2017, a marked increased from 1.8% growth during 2016. The BEA expects a similar growth trend to continue in 2018.

EMPLOYMENT

The unemployment rate edged down 0.1% to 3.9% in July following an increase in June. Employment grew in manufacturing, health care, mining, professional and business services and construction. The U-6 unemployment rate which measures discouraged, part-time or underemployed workers in the economy, is at 7.5% for the month of July which is slightly down from 7.8% in June.

Non-farm employment increased by 157,000 jobs in July, which was a smaller increase in job growth following June's revised growth of 248,000 jobs. Employment continued to trend up in several industries including professional and business services, manufacturing and health care while the retail sector remained stagnant. The average monthly gain in jobs over the past 3 months stands at 224,000.

WAGES

In July, average hourly earnings for all employees on private non-farm payrolls rose by 7 cents from \$26.98 to \$27.05 and average weekly earnings decreased by \$0.28 from \$933.51 to \$933.23 compared to June. Over the year, average hourly earnings have increased by 71 cents or 2.7 percent. The wage growth continues to trend relatively flat into 2018 even as the unemployment rate has hit historic lows.

HOUSING

The National Association of Realtors reported existing home sales at a seasonally adjusted annual rate of approximately 5.38 million homes during the month of June. This was essentially in line with sales from May but a decrease of 2.2% from June of last year. The median home price for existing home sales increased to \$276,900 in June, surpassing last month's all time high and up 5.2% from June of last year. Total housing inventory at the end of June climbed 4.3% to 1.95 million existing homes available for sale and is .5% higher than a year ago (1.94 million). This demonstrates the first year over year increase in inventory since June 2015.

ENERGY, OIL, GAS

Energy prices remained relatively flat in July, however global demand and geopolitical tensions caused crude oil prices to remain at multi-year highs. U.S. gasoline prices decreased slightly to \$2.85 per gallon in July compared to \$2.89 in June. The year-overyear increase in gasoline prices was approximately \$0.55 per gallon (19.30%) higher than the prior year.

Brent crude oil prices averaged \$74 per barrel in July which is the same as the June average. EIA estimates that U.S. crude oil production averaged 10.8 million barrels per day (b/d) in July, up 47,000 b/d from the June level. EIA projects that U.S. crude oil production will average 10.7 million b/d in 2018, up from 9.4 million b/d in 2017 and will average 11.7 million b/d in 2019.

AT J.D. POWER VALUATION SERVICES (FORMERLY NADA USED CAR GUIDE)

What's New

J.D. Power is pleased to offer a new **Residual Values** product suite designed to help manufacturers, captive finance companies, and lenders make informed decisions on residual setting, lease support, and risk management. This benchmark product incorporates industry-leading data from three trusted sources. Coupled with a seasoned team of data scientists and analysts, the product suite's sophisticated valuation forecast methodology provides a fresh, reliable approach based on objective expertise and complete transparency.

For more information go to www.nada.com/residualvalues.



About J.D. Power

J.D. Power is a global leader in consumer insights, advisory services, and data and analytics to help clients measure and improve the key performance metrics that drive growth and profitability. J.D. Power's industry benchmarks, robust proprietary data, advanced analytics capabilities, and reputation for independence and integrity has established the company as one of the world's most well-known and trusted providers of consumer and market insights for more than a dozen industries. Established in 1968, J.D. Power is headquartered in Costa Mesa, California, and has 17 global locations serving North/South America, Asia Pacific, and Europe.

About J.D. Power Valuation Services (formerly NADA Used Car Guide)

J.D. Power Valuation Services (formerly NADA Used Car Guide) is a leading provider of vehicle valuation products, services and information to businesses. Its team collects and analyzes over 1 million combined automotive and truck wholesale and retail transactions per month, and delivers a range of guidebooks, auction data, analysis and data solutions. J.D. Power acquired NADA Used Car Guide in 2015, forming a powerful combination that brings the automotive industry rich data sets, strong analytics and over 130 years of market experience. Residual Values is the first product to be launched by J.D. Power Valuation Services.

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CONSULTING SERVICES

J.D. Power Valuation Services' market intelligence team leverages a database of nearly 200 million automotive transactions and more than 100 economic and automotive market-related series to describe the factors driving current trends to help industry stakeholders make more informed decisions. Analyzing data at both wholesale and retail levels, the team continuously provides content that is both useful and usable to the automotive industry, financial institutions, businesses and consumers.

Complemented by J.D. Power Valuation Services' analytics team, which maintains and advances its internal forecasting models and develops customized forecasting solutions for automotive clients, the market intelligence team is responsible for publishing white papers, special reports and the Used Car & Truck Blog. Throughout every piece of content, the team strives to go beyond what is happening in the automotive industry to confidently answer why it is happening and how it will impact the market in the future.

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ADDITIONAL RESOURCES

R AND LIGHT TRUCK GUIDELINES

Guidelines

Updated monthly with a robust data set from various industry sources and J.D. Power Valuation Services' proprietary analysis, *Guidelines* provides the insight needed to make decisions in today's market.



Perspective

Leveraging data from various industry sources and J.D. Power Valuation Services' analysts, *Perspective* takes a deep dive into a range of industry trends to determine why they are happening and what to expect in the future.

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White Papers

J.D. Power Valuation Services' white papers and special reports aim to inform industry stakeholders on current and expected used vehicle price movement to better maximize today's opportunities and manage tomorrow's risk.

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Used Car & Truck Blog

Written and managed by the Market Intelligence team, the Used Car & Truck Blog analyzes market data, lends insight into industry trends and highlights relevant events.



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