MARKET DATA: AUGUST 2017

EquipmentWatch remains the largest sales database on the planet with 20x the sales data of any other source.

$31,090,709,222

RESALE
$30,926,473,757
426,511 Assets

AUCTION
$164,235,465
6,501 Assets

The *EquipmentWatch* **Market Report™** is a monthly resource for the construction, lift/access, agriculture and commercial truck industries to make better-informed decisions by leveraging key **equipment values, market activity, age and usage metrics**.

How is the Price Stability INDEX calculated?

MARKET SUMMARY

For more detailed articles, visit *EquipmentWatch* Intelligence online.

MARKET ACTIVITY	YEAR OVER YEAR MARKET METRICS		MONTH OVER MONTH MARKET METRICS		PRICE STABILITY INDEX ™
CONSTRUCTION	VALUES ▼ 6.1% FMV	▼ 7.4% FLV	VALUES ▲ 1.3% FMV	▲ 1.4% FLV	99.67 (95 – 105) DEFLATED / STABLE / INFLATED
$14,003,825,790 MARKET VALUE; 166,263 ASSETS	VOLUME ▼ 13.0% RESALE	▲ 28.6% AUCTION	VOLUME ▼ 4.0% RESALE	▼ 5.2% AUCTION	
LIFT/ACCESS	VALUES ▼ 8.4% FMV	▼ 8.1% FLV	VALUES ▲ 0.6% FMV	▲ 0.5% FLV	99.51 (95 – 105) DEFLATED / STABLE / INFLATED
$921,639,617 MARKET VALUE; 33,475 ASSETS	VOLUME ▼ 14.8% RESALE	▲ 109.7% AUCTION	VOLUME ▼ 3.1% RESALE	▲ 21.0% AUCTION	
AGRICULTURE	VALUES ▼ 5.7% FMV	▼ 5.7% FLV	VALUES ▼ 1.7% FMV	▼ 1.4% FLV	99.00 (95 – 105) DEFLATED / STABLE / INFLATED
$12,271,752,857 MARKET VALUE; 138,157 ASSETS	VOLUME ▼ 16.4% RESALE	▲ 48.7% AUCTION	VOLUME ▼ 24.0% RESALE	▲ 34.3% AUCTION	
COMMERCIAL TRUCK	VALUES ▼ 10.3% FMV	▼ 5.5% FLV	VALUES ▼ 0.9% FMV	▲ 0.3% FLV	99.01 (95 – 105) DEFLATED / STABLE / INFLATED
$3,893,490,958 MARKET VALUE; 95,117 ASSETS	VOLUME ▲ 10.2% RESALE	▲ 50.9% AUCTION	VOLUME ▲ 9.1% RESALE	▼ 34.2% AUCTION	

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You are reading the **free version** of the EquipmentWatch Market Report™

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Subtype Trends • Brand Analysis • Regional Price Stability

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CONSTRUCTION

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

$14,003,825,790
MARKET VALUE

166,263
ASSETS

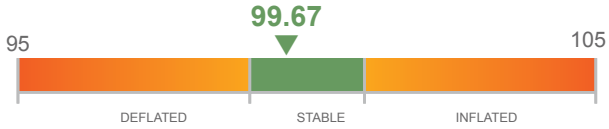
YEAR OVER YEAR MARKET METRICS

	FMV	FLV
VALUES	▼ 6.1%	▼ 7.4%
VOLUME	▼ 13.0% RESALE	▲ 28.6% AUCTION

MONTH OVER MONTH MARKET METRICS

	FMV	FLV
VALUES	▲ 1.3%	▲ 1.4%
VOLUME	▼ 4.0% RESALE	▼ 5.2% AUCTION

MONTH OVER MONTH PRICE STABILITY INDEX ™



MARKET PERFORMANCE

This month FMVs and FLVs rebounded from July. Values in the auction channel increased by 1.44% and 1.3% in the resale channel. The Price Stability Index™ shows values are in a stable range. This value is below 100 because three of twelve subtypes that went up account for 60% of all included models.

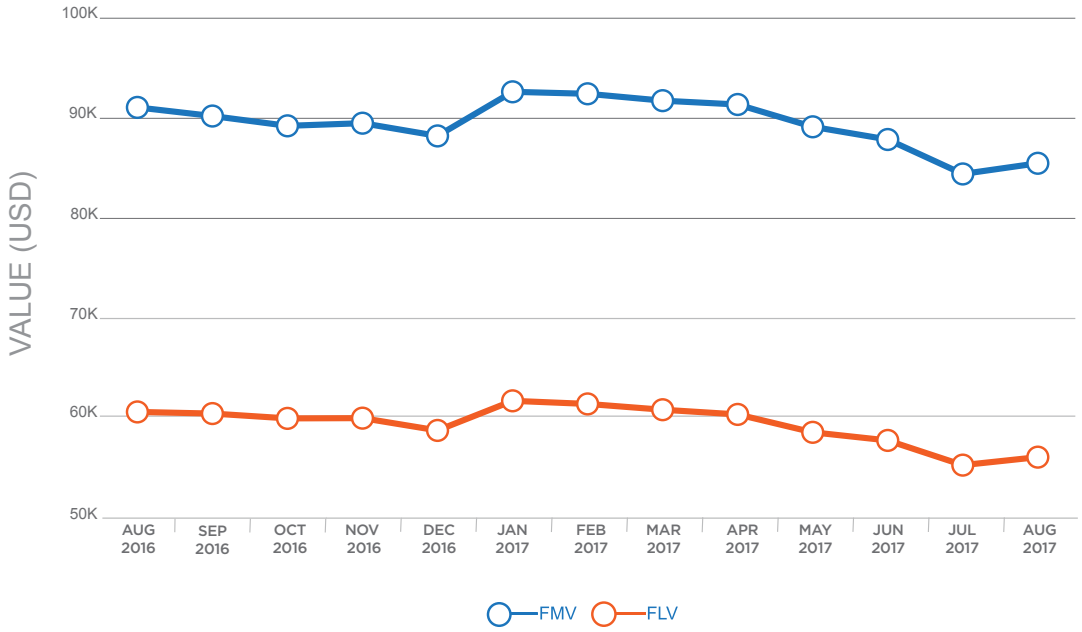
MARKET HIGHLIGHTS

- Market activity decreased in the resale channel by 13.0% and increased in the auction channel by 28.6% since August 2016.
- Dealers and equipment owners sold older heavy equipment this year as average age increased in both channels since last year.
- Overall, usage in the resale channel remained relatively constant over the previous month and year.

MARKET FORECAST

Hurricanes Harvey and Irma are likely causing the demand for construction equipment to spike in Texas and Florida. Preliminary reports are already showing increases in construction costs in other parts of the country. We predict the unexpected higher demand for construction equipment to result in higher values later this year.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▼ 4.0% RESALE	▼ 5.2% AUCTION	▲ 1.1% RESALE	▼ 6.1% AUCTION	▼ 0.7% RESALE	▲ 4.9% AUCTION
YEAR OVER YEAR	▼ 13.0% RESALE	▲ 28.6% AUCTION	▲ 3.6% RESALE	▲ 1.1% AUCTION	▲ 0.7% RESALE	▲ 15.2% AUCTION

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LIFT/ACCESS

OVERALL | TYPE TRENDS | BRAND TRENDS | REGIONAL TRENDS

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

$921,639,617
MARKET VALUE

33,475
ASSETS

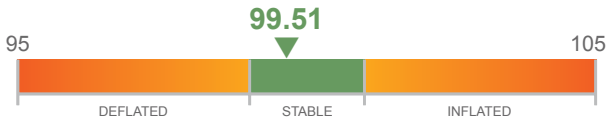
YEAR OVER YEAR MARKET METRICS

VALUES	▼ 8.4% FMV	▼ 8.1% FLV
VOLUME	▼ 14.8% RESALE	▲ 109.7% AUCTION

MONTH OVER MONTH MARKET METRICS

VALUES	▲ 0.6% FMV	▲ 0.5% FLV
VOLUME	▼ 3.1% RESALE	▲ 21.0% AUCTION

MONTH OVER MONTH PRICE STABILITY INDEX ™



MARKET PERFORMANCE

FMV and FLV for lift had slight increases in August when compared to July data, increasing by 0.6% and 0.5%, respectively. Volume decreased in the resale channel by about 3% and increased by 21% in auction markets.

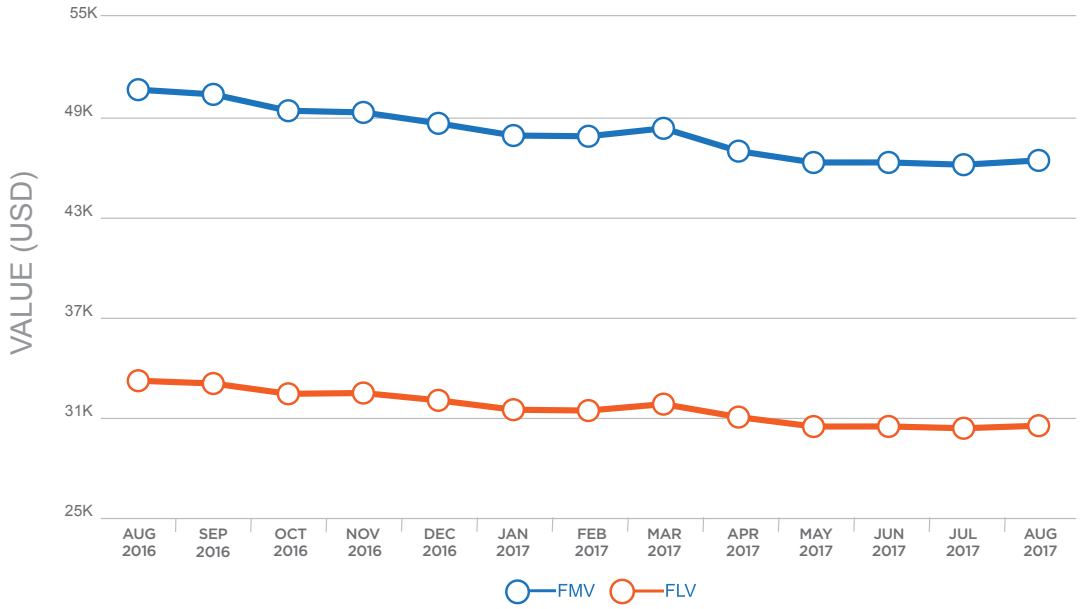
MARKET HIGHLIGHTS

- The Price Stability Index™ was stable for August, with a score of 99.51. This is the third straight month that the lift market has been stable.
- The overall Market Value and number of assets decreased by about 22.5% and 18.1%, respectively, when compared to July. These are relatively large decreases and are expected due to the looming seasonal increases.
- Average age decreased in resale channels, but increased in auction channels. Both channels saw increases in average utilization in July, as compared to June.

MARKET FORECAST

Looking forward to September, we should see values start to decrease more due to autumn looming and people getting ready to sell their equipment. Volume should start to increase slightly.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▼ 3.07% RESALE	▲ 21.0% AUCTION	▲ 1.0% RESALE	▼ 9.96% AUCTION	▼ 2.0% RESALE	▼ 9.9% AUCTION
YEAR OVER YEAR	▼ 14.8% RESALE	▲ 109.7% AUCTION	▲ 3.4% RESALE	▲ 2.4% AUCTION	▼ 2.1% RESALE	▼ 10.4% AUCTION

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AGRICULTURE

OVERALL | TYPE TRENDS | BRAND TRENDS | REGIONAL TRENDS

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

$12,271,752,857	MARKET VALUE
138,157	ASSETS

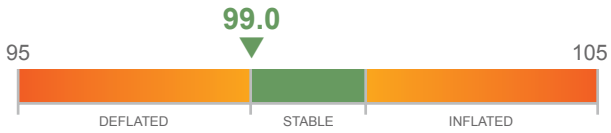
YEAR OVER YEAR MARKET METRICS

VALUES	▼ 5.7% FMV	▼ 5.7% FLV
VOLUME	▼ 16.4% RESALE	▼ 48.7% AUCTION

MONTH OVER MONTH MARKET METRICS

VALUES	▼ 1.7% FMV	▼ 1.4% FLV
VOLUME	▼ 24.0% RESALE	▲ 34.3% AUCTION

MONTH OVER MONTH PRICE STABILITY INDEX ™



MARKET PERFORMANCE

FMVs decreased by 1.7% this month, but values continue to be stable with a Price Stability Index™ of 99.00. FLVs only decreased by 1.4% from July 2017.

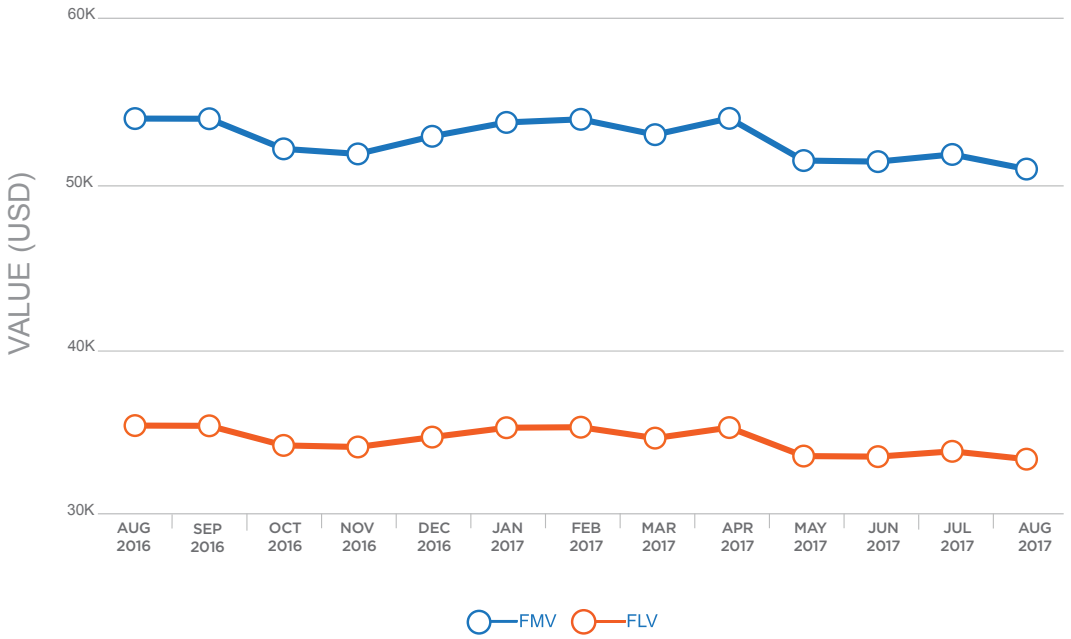
MARKET HIGHLIGHTS

- Auction channel utilization increased 3.9% from July to August.
- Even though FMVs increased over last month, average age also increased.
- Compared to August 2016, market activity shrunk by 16.43% and was reduced by 23.99% over the last month. However, market activity increased in the auction channel.

MARKET FORECAST

We plan on continuing to see stable FMVs and FLVs over the next few months. We also expect market activity to go back up later this year.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▼ 24.0% RESALE	▲ 34.3% AUCTION	▲ 2.8% RESALE	▼ 16.9% AUCTION	▲ 2.0% RESALE	▲ 3.9% AUCTION
YEAR OVER YEAR	▼ 16.4% RESALE	▲ 48.7% AUCTION	▲ 3.5% RESALE	▼ 16.8% AUCTION	▲ 16.2% RESALE	▲ 18.2% AUCTION

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COMMERCIAL TRUCK

OVERALL | TYPE TRENDS | BRAND TRENDS | REGIONAL TRENDS

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

$3,893,490,958
MARKET VALUE

95,117
ASSETS

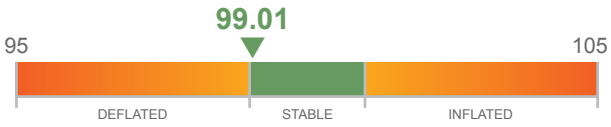
YEAR OVER YEAR MARKET METRICS

VALUES	▼ 10.3% FMV	▼ 5.5% FLV
VOLUME	▲ 10.2% RESALE	▲ 50.9% AUCTION

MONTH OVER MONTH MARKET METRICS

VALUES	▼ 0.9% FMV	▲ 0.3% FLV
VOLUME	▲ 9.1% RESALE	▼ 34.2% AUCTION

MONTH OVER MONTH PRICE STABILITY INDEX ™



MARKET PERFORMANCE

The FMV for the commercial truck market only had a small drop during August as they usually do after the summer months. FMV was 10.3% lower than where it was last year though. The FLV increased 0.3% month over month, which is likely due to the type of trucks on the auction market right now driving prices up.

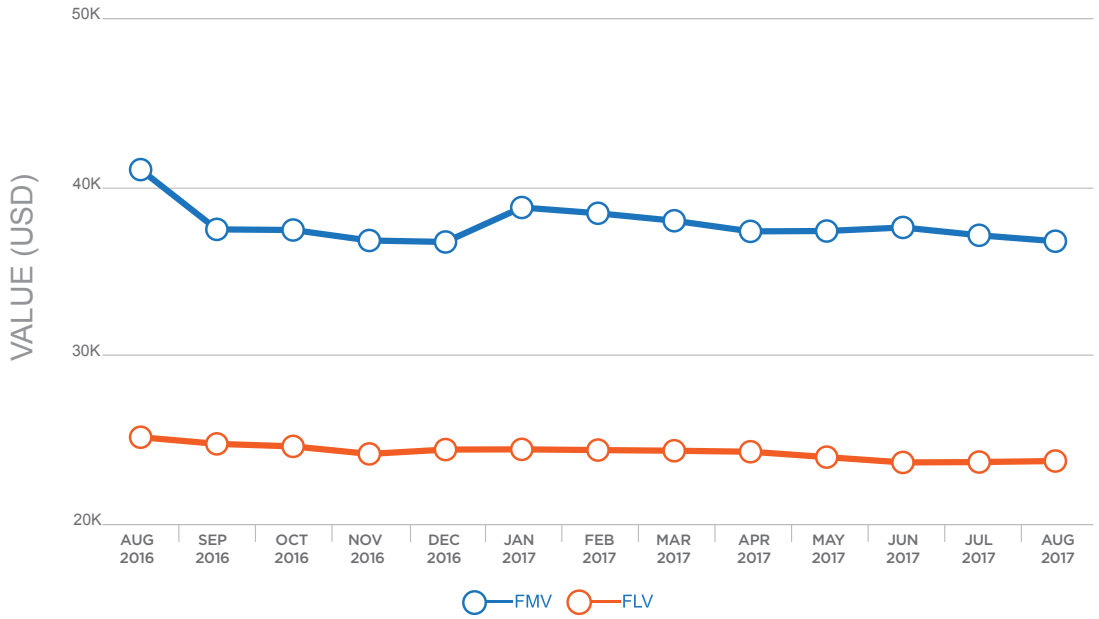
MARKET HIGHLIGHTS

- While the average age dropped 6.4% month over month for the auction channel, the average usage increased 7.4%, which was a result of the medium duty cab & chassis trucks shifting this month.
- The overall increase in market activity, average age and usage across both auction and resale channels are all indicators of the year over year drop in FLV and FMV August.
- Volume was up both month over month and year over year for the resale channel primarily due to the medium duty market of Hino and International trucks.

MARKET FORECAST

Expect minimal changes in overall FMV going into October prior to the end of the year final sales.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 9.1% RESALE	▼ 34.2% AUCTION	▲ 0.2% RESALE	▼ 6.4% AUCTION	▼ 3.8% RESALE	▲ 7.4% AUCTION
YEAR OVER YEAR	▲ 10.2% RESALE	▲ 50.9% AUCTION	▲ 9.2% RESALE	▲ 20.3% AUCTION	▲ 2.8% RESALE	▲ 36.4% AUCTION

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APPENDIX

INTRODUCTION

The EquipmentWatch Market Report is a compilation of a wide array of EquipmentWatch's data, designed to bring you an in-depth look at used equipment markets over the last month.

This Appendix is designed to answer your questions regarding this report. Here we define and illustrate how we think about values, market activity, age, Usage, and regional influence for the most common types of equipment seen on used markets across North America.

OUR DATA

Selection Criteria for OEMs and Subtypes

EquipmentWatch tracks Resale and Auction prices and activity for over 15,000 models across 389 manufacturers throughout North America. With over $800 billion in collected equipment transactions, EquipmentWatch is your primary source for intelligence regarding used equipment markets.

The data in this report is divided into four distinct equipment markets: Construction, Lift/Access, Agriculture, and Commercial Trucks. For each market, we selected the top equipment types based on their market share from January 2015 to December 2015. They're listed in the table to the right.

Construction	Lift/Access	Agriculture	Commercial Trucks
4-Wd Articulated Wheel Loaders	Electric Self Propelled Scissor Lifts	Track Tractors	Heavy Duty: Conventional - Sleeper (Heavy Tractor)
Articulated Frame Graders	I.C. Pneumatic Tire Lift Trucks	Balers	Heavy Duty: Conventional - Day Cab (Heavy Tractor)
Articulated Rear Dumps	I.C. Self Propelled Telescopic Boom Aerial Lifts	Combines	Heavy Duty: Conventional - Day Cab (Heavy Cab Chassis)
Compact Track Loaders	I.C. Self-Propelled Articulating Boom Aerial Lifts	Corn Headers	Medium Duty: Conventional - Day Cab (Cab Chassis)
Crawler Mounted Compact Excavators	Telescoping Boom Rough Terrain Lift Trucks	Wheel Tractors	Medium Duty: Cabover - Day Cab (Cab Chassis)
Crawler Mounted Hydraulic Excavators	I.C. Cushion Tire Lift Trucks	Planters	Medium Duty: Crew (Cab Chassis)
Large Generator Sets			
Single Drum Vibratory Compactors			
Skid Steer Loaders			
Standard Crawler Dozers			
Tandem Vibratory Compactors			
Tractor-Loader-Backhoes			

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APPENDIX

We have also limited the scope of the EquipmentWatch Market Report to the following brands in each market:

Construction	Lift/Access	Agriculture	Commercial Truck
Bobcat	Caterpillar	Deere	International
Case	Genie	Case IH	Freightliner
Caterpillar	JLG	New Holland	Volvo
Deere	Sky Trak	Massey Ferguson	Kenworth
Komatsu	Skyjack	Challenger	Peterbilt
Volvo	Hyster	Kubota	Hino

THE EQUIPMENTWATCH PRICE STABILITY INDEX™

Academic justification

The EquipmentWatch Price Stability Index™ is a new metric for understanding used equipment markets for used heavy equipment. It measures resale price capacity based on the movement of market prices and market activity among the equipment types and manufacturers presented above.

Methodology and Calculation

The EquipmentWatch Price Stability Index™ is based on the Laspeyres Index, one of the many economic indices used to monitor changes in prices over time. To calculate it, we use the framework provided by the Laspeyres Index:

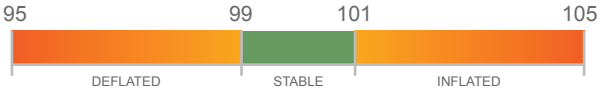
$$P_L = \frac{\sum(p_{c,t_n}) * (q_{c,t_0})}{\sum(p_{c,t_0}) * (q_{c,t_0})}$$

This equation sums the product of prices in the current month and quantity of the previous month and divides that by the product of prices in the previous month and quantity in the previous month.

We have modified this method to track the change in prices for each equipment type from month-to-month against the change in market activity for each equipment type month to month.

Interpretation

The EquipmentWatch Price Stability Index™ can be thought of as an index of price capacity. In more formal terms, it measures how efficiently used markets adjust to equilibrium given previous adjustments in prices and market activity. There are three primary ranges in the EquipmentWatch Price Stability Index™, as noted below:



When the EquipmentWatch Price Stability Index™ is higher than 101, that indicates that equipment is valued at a higher level than expected, given last month's prices and amount of market activity. We categorize this range as "Inflated".

When the EquipmentWatch Price Stability Index™ is lower than 99, it indicates that equipment is valued at a lower level than expected, given last month's prices and market activity. We categorize this range as "Deflated".

When the EquipmentWatch Price Stability Index™ is between 99 and 101, it is typically demonstrating that equipment prices and market activity are moving appropriately towards market equilibrium. We categorize this range as "Stable".

It is important to note that a higher rating on EquipmentWatch Price Stability Index™ does not necessarily imply that used markets are better than a lower rating. For some, price inflation is desirable; for others, it is undesirable. However, all parties involved in buying or selling equipment on used markets can use the EquipmentWatch Price Stability Index™ to easily understand how prices in a particular region or equipment channel are moving relative to the previous month.

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APPENDIX

SECTION GUIDES

The Introduction

In the top left, we exhibit a tally of the estimated market value of market activity last month in the Resale channel and Auction channel.

In the main table, we display market activity and assets for each market, along with month over month and year over year changes in Fair Market Value and Forced Liquidation Value.

Overall Trends

This page is an overview of each channel. The graph highlights an overall FMV and FLV trend line for all of the equipment types and manufacturers in the report for the last 13 months. It also displays very general month over month and year over year trends across the entire channel.

Type Trends

This page subsets the analysis of the previous page across each of the key equipment types in this report.

Brand Trends

This page shows some of the key month over month trends for the manufacturers represented in this report, including equipment values, Usage, market activity, and age trends.

Regional Trends

This page shows the EquipmentWatch Price Stability Index™ for each of the 14 regions, using the same calculation method as the EquipmentWatch Price Stability Index™ shown on the first page of the report. The states and provinces which make up each region are listed in the table to the right.

Note that due to regional disparity in market activity, some regions with very little or no market activity in the last month are excluded from the analysis. These are marked with “NA” on the map.

Country	Region	State/Province
USA	A	CT, DE, MA, ME, NH, NJ, MY, RI, VT
USA	B	MD, P, VA, WV
USA	C	AL, FL, GA, KY, MS, NC, SC, TN
USA	D	IL, IN, MI, OH, WI
USA	E	IA, KS, MO, NE
USA	F	AR, LA, OK, TX
USA	G	AZ, CO, NM, UT
USA	H	ID, MN, MT, ND, SD, WY
USA	I	CA, NV, OR, WA
USA	J	HI
USA	K	AK
CAN	L	NT, NU, YT
CAN	M	AB, BC, MB, SK
CAN	N	NB, NL, NS, ON, PE, QC

FAQS

Why did you limit the equipment types in this report?

EquipmentWatch tracks market activity for over a hundred unique equipment types each month. For each channel, we selected the most popular equipment types, based on the frequency of appearance on the resale and auction channels.

Why are there only 24 manufacturers in this report?

EquipmentWatch tracks market activity for almost 400 unique manufacturers each month. For each market, we selected the top 6 manufacturers. As the markets shift and prominence on used markets changes, we will adjust our selections accordingly.

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APPENDIX

Why don't you use OLV?

Orderly Liquidation Value, or OLV, is a third major category of values. These are the values of an asset given a single seller and multiple potential buyers given a long or indefinite timeframe in which to dispose. Given the lack of clarity around the time dimension, we have chosen not to make assumptions about the orderly liquidation process. However, OLV is typically between FLV and FMV in gross value.

IMPORTANT DEFINITIONS

Fair Market Value (FMV): the value of an asset sold to a single buyer under no compulsion.

Forced Liquidation Value (FLV): the value of an asset sold at a properly advertised and conducted auction in which the seller is under compulsion to sell on an as-is, where-is basis as of a specific date.

Market Activity: A measure of the total number of observations collected by EquipmentWatch, including publicly-available dealer listings, auction results, and final sales data.

Meter Reads: A measure of Usage that varies by equipment market. For most equipment types, this represents engine hours at the time of observation.

Age: the age of an asset, based on model year and the year of observation.

ABOUT EQUIPMENTWATCH

EquipmentWatch is the trusted source for heavy equipment data and intelligence. EquipmentWatch produces the leading database information products for the construction equipment industry and is the world leader in heavy construction research and serves more than 15,000 professional, high-volume users of construction and lift-truck data. Our online and print products are valuable tools in decisions surrounding the purchase, valuation, operation, and disposal of equipment.

For nearly 50 years, EquipmentWatch has served contractors, equipment manufacturers, dealers, rental companies, lenders and insurers, and government agencies involved in heavy civil construction.

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