

SUMMARY

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

COMMERCIAL TRUCK

# **MARKET DATA: NOVEMBER 2016**

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

\$33,455,516,150

**RESALE** 

\$33,326,113,244

432,808 Assets

**AUCTION** 

\$129,402,906

4,364 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?

#### For more detailed articles, visit EquipmentWatch Intelligence online. **MARKET SUMMARY** MONTH OVER MONTH YEAR OVER YEAR MARKET ACTIVITY MARKET METRICS **MARKET METRICS** PRICE STABILITY INDEX TO **▲** 0.2% **7** 2.4% **V** 0.3% 0.0% CONSTRUCTION **VALUES VALUES** 100.36 FLV FMV FLV 95 105 V \$16,028,155,782 177,732 **4.3% T** 11.4% VOLUME 42.5% **VOLUME 7** 39.0% MARKET VALUE **ASSETS** DEFLATED STABLE INFLATED RESALE RESALE **AUCTION AUCTION** 99.52 LIFT/ACCESS **T** 1.3% **7** 2.0% **V** 0.2% **▲ 0.1%** VALUES. **VALUES** 95 FMV FIV FMV FIV 105 38,674 \$1,223,247,258 19.7% **2.2% ▲ 10.1% V** 4.6% MARKET VALUE ASSETS **VOLUME VOLUME** DEFLATED STABLE INFLATED RESALE **AUCTION** RESALE **AUCTION** 99.65 **7** 9.0% **7** 9.4% **V** 0.6% **V** 0.3% **AGRICULTURE** VALUES. VALUES. 95 105 FMV FLV FMV FLV \$12.466.262172 140.694 **66.7% 21.5% 21.7% T** 17.4% MARKET VALUE ASSETS VOLUME VOLUME DEFLATED STABLE INFLATED RESALE **AUCTION RESALE AUCTION V** 6.1% **V** 0.5% **V** 1.8% 97.74 **COMMERCIAL TRUCK VALUES T** 1.6% **VALUES** FMV FLV FMV FLV 95 105 \$3,737,850,938 83,072 **147.6% 2.5%** VOLUME **19.5% V** 31.5% MARKET VALUE ASSETS VOLUME DEFLATED STABLE INFLATED RESALE **AUCTION** RESALE **AUCTION**

DECEMBER 22, 2016 VERSION: FREE | UPDATED MONTHLY



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**OVERALL** 

TYPE TRENDS

BRAND TRENDS

**REGIONAL TRENDS** 

How is the Price Stability INDEX calculated?



### MARKET PERFORMANCE

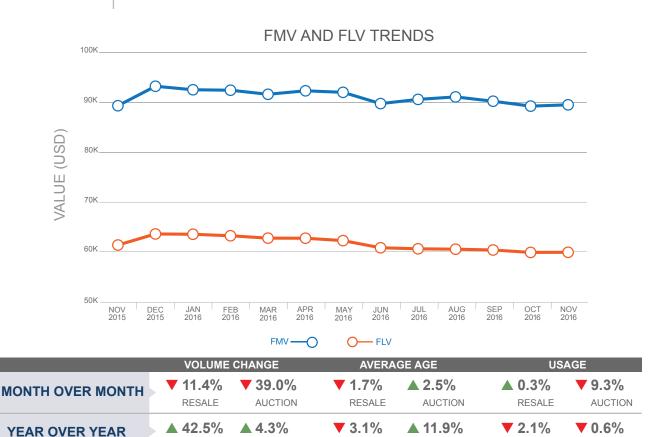
Used construction equipment markets continued their expected year-end trend in November. Average FMV and FLV rose slightly from October as resale and auction channel market activity both demonstrated an anticipated market contraction. The offsets from these two factors led to a remarkably benign Price Stability Index of 100.36.

### **MARKET HIGHLIGHTS**

- Resale markets for used equipment showed some signs of continued improvement in November, with a 0.2% and 0.3% increase in month-over-month and year-over-year average FMV.
- Average age on the resale channel decreased 1.7% as average usage increased 0.3%, indicating a mild decline in the average condition of equipment available in November.
- Even with the sharp declines in market activity from October to November, both channels recorded market activity above recorded levels from November 2015.

#### MARKET FORECAST

As many equipment owners and fleet managers prepare for end of year disposition in December and new asset acquisition in the first months of 2017, we expect to see a tremendous increase in market activity and a slight decrease in average FMV and FLV over the next two months. Auction markets should also start to deviate slightly from the general resale trend as buyers and sellers gear up for the mega auctions of the first quarter.



**RESALE** 

AUCTION

RESALE

**AUCTION** 

**RESALE** 

**AUCTION** 

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### **MARKET PERFORMANCE**

Lift values remained basically even in November, with resale slightly declining and auction slightly increasing. Volume decreased slightly less in November than it did in October.

### **MARKET HIGHLIGHTS**

- Resale volume decreased by almost 5% in November, while auction volume increased by about 10%.
- Average age and usage decreased across both resale and auction channels in November.
- The Price Stability Index for November returned to a Stable score, thanks to a market correction in which both market activity and average FMV declined.

### MARKET FORECAST

Expect to see values continue to drop slightly in December, before the beginning of the year surge. Volume should also continue to drop, as it did in November.







	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▼ 4.6% RESALE	▲ 10.1% AUCTION	0.0% RESALE	▼ 10.5% AUCTION	0.0% RESALE	▼ 6.1% AUCTION
YEAR OVER YEAR	▲ 19.7% RESALE	▲ 2.2% AUCTION	<b>▲ 2.9%</b> RESALE	▲ 12.0% AUCTION	▲ 17.9% RESALE	▲ 1.4% AUCTION

LIFT/ACCESS

NEXT TYPE TRENDS

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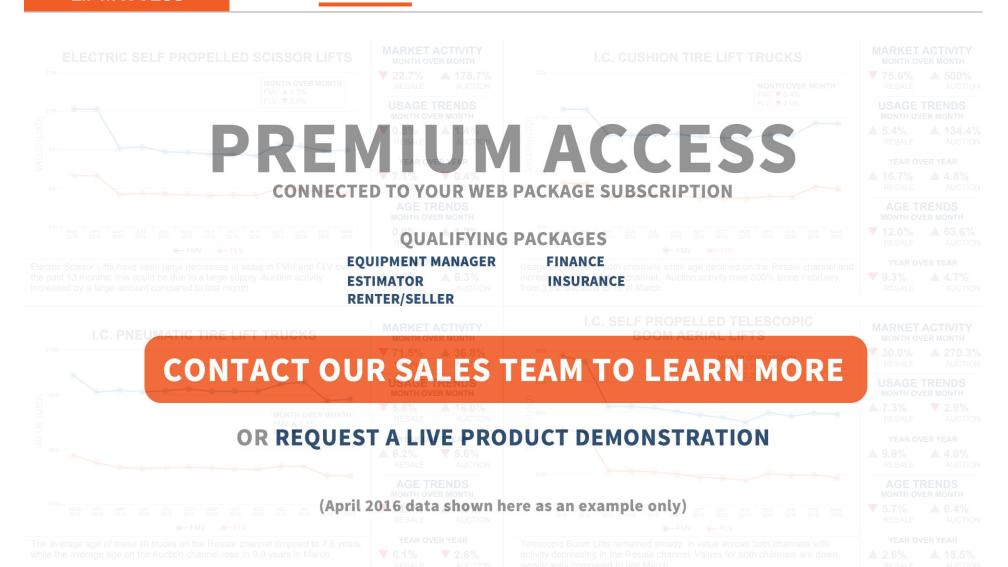
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TYPE TRENDS

**BRAND TRENDS** 

REGIONAL TRENDS



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How is the Price Stability INDEX calculated?



### MARKET PERFORMANCE

The agriculture price stability index for November was almost stable, but still slightly deflated as both FMV and FLV dropped less than 1%. The resale channel increased in volume for both the month and year, but the auction channel dropped month over month with more than a 20% increase year over year.

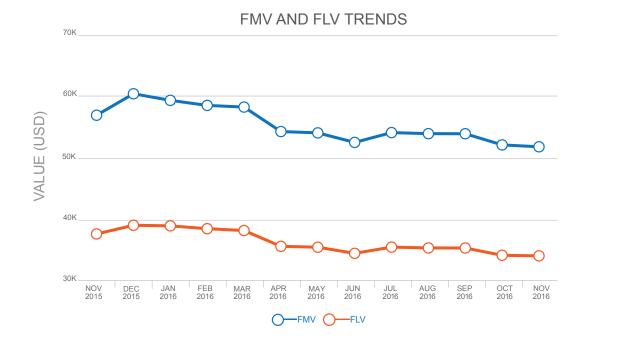
### MARKET HIGHLIGHTS

- · Average usage increased for both the auction and resale channels with much larger increases on auction despite drops in average age month over month on both channels.
- · FMV and FLV were down only small percentage points from October, but both showed dropps 9% and above from last November as volume increased well above November 2015.
- · Average age dropped from October on both the auction and resale channels with increases from the same time last year indicating the higher ages seen last month and throughout 2016 thus far.

#### MARKET FORECAST

If FMV and FLV continue in the same trend as they did last year, December should bring increases despite the more recent drop in the agriculture FMV & FLV this year.

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	VOLUME	CHANGE	NGE AVERAGE AGE		USAGE	
MONTH OVER MONTH	<b>▲ 21.7%</b>	<b>T</b> 17.4%	<b>2.7%</b>	<b>T</b> 13.6%	<b>▲ 11.3%</b>	<b>▲ 16.7</b> %
MONTH OVER MONTH	RESALE	AUCTION	RESALE	AUCTION	RESALE	AUCTION
YEAR OVER YEAR	<b>▲</b> 66.7%	<b>▲ 21.5</b> %	<b>▲</b> 1.7%	<b>▲ 12.9%</b>	<b>▲</b> 1.7%	▲ 38.4%
	RESALE	AUCTION	RESALE	AUCTION	RESALE	AUCTION

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**TYPE TRENDS NEXT** 

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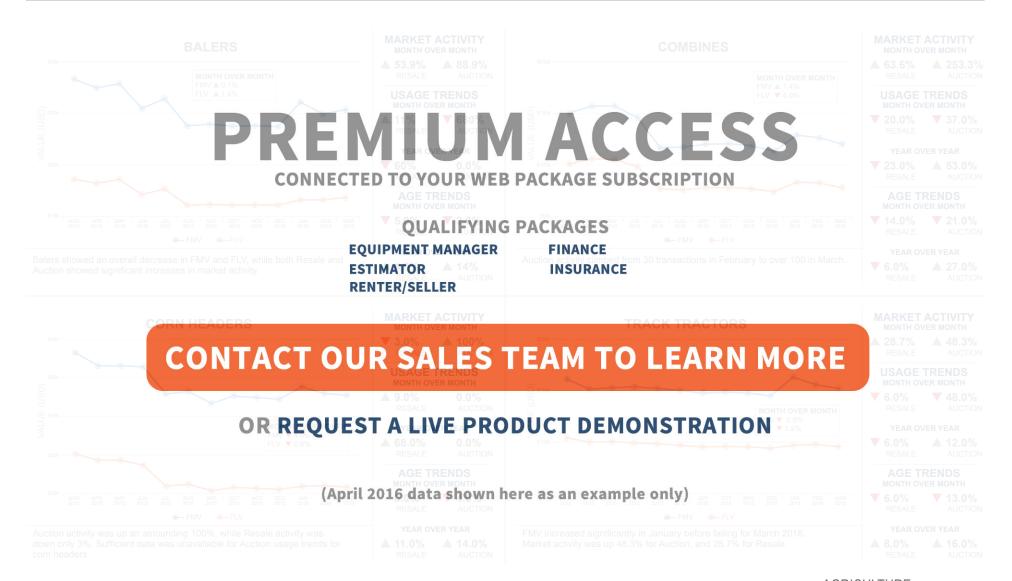
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**OVERALL** 

**TYPE TRENDS** 

BRAND TRENDS

REGIONAL TRENDS



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# **COMMERCIAL TRUCK**

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How is the Price Stability INDEX calculated?



## **MARKET PERFORMANCE**

FMV and FLV were down for the month as the number of trucks available for sale on the resale channel increased and auction sales dropped. FMV was 6.1% below where it was last year and volume of available used trucks for the resale channel was significantly higher.

### **MARKET HIGHLIGHTS**

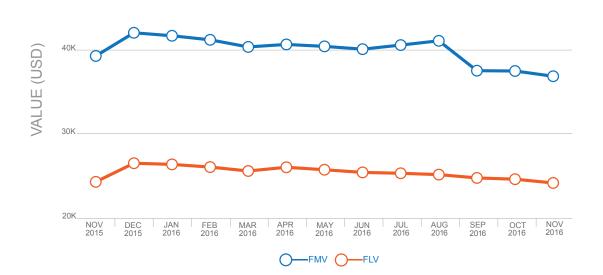
- Even though average age on the resale channel was down for the month, the average truck for sale increased in age 8.0% over the same time last year.
- Despite the 15.3% increase in average age on the auction channel between last year and this year, the average usage on the trucks sold did not change.
- The auction channel may have seen a relatively large drop in volume from last month, but sales were still up from this time last year.

### MARKET FORECAST

While resale volume tends to vary during December, auction volume has historically increased well above November; anticipate FMV to continue to drop with an even larger drop for FLV.

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	VOLUME CHANGE	AVERAGE AGE	USAGE	
MONTH OVER MONTH	<b>▲</b> 19.5% <b>▼</b> 31.5%	<b>▼</b> 2.4% <b>▲</b> 5.6%	<b>▲</b> 2.7% <b>▼</b> 5.1%	
	RESALE AUCTION	RESALE AUCTION	RESALE AUCTION	
YEAR OVER YEAR	<b>▲</b> 147.6% <b>▲</b> 2.5%	<b>▲</b> 8.0% <b>▲</b> 15.3%	<b>▲</b> 20.8 0.0%	
	RESALE AUCTION	RESALE AUCTION	RESALE AUCTION	

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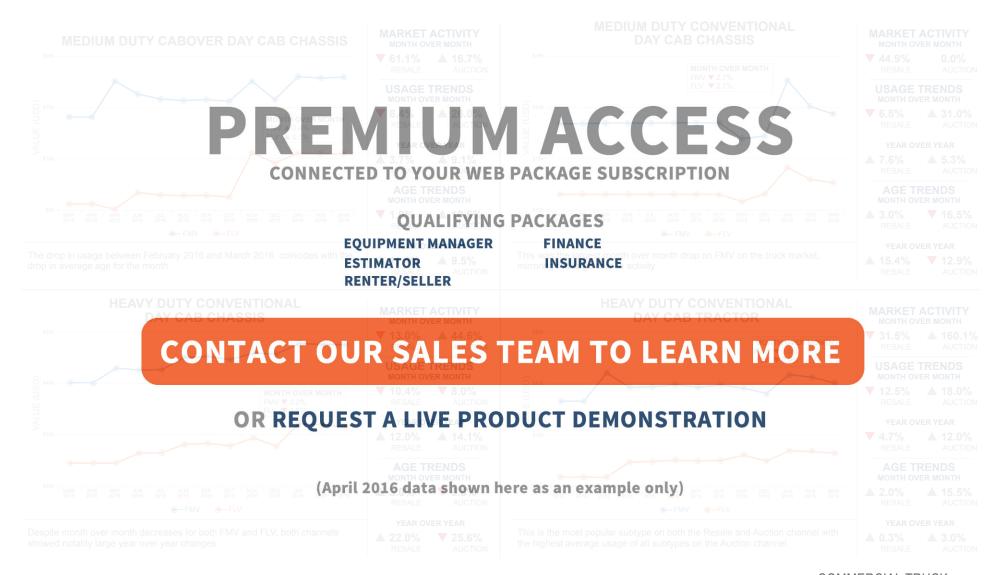
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# **APPENDIX**

### 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			



# **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:

$$P_{L} = \frac{\sum (p_{c,t_{n}}) * (q_{c,t_{0}})}{\sum (p_{c,t_{0}}) * (q_{c,t_{0}})}$$

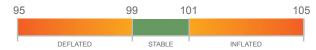
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This equation sums the product of prices in the current month and quantity of the previous month and divides that by the product of prices in the previous month and quantity in the previous month.

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<sup>™</sup> 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<sup>™</sup>, 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<sup>™</sup> 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.



# **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<sup>™</sup> 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.

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Country	Region	State/Province
USA	А	CT, DE, MA, ME, NH, NJ, MY, RI, VT
USA	В	MD, P, VA, WV
USA	С	AL, FL, GA, KY, MS, NC, SC, TN
USA	D	IL, IN, MI, OH, WI
USA	Е	IA, KS, MO, NE
USA	F	AR, LA, OK, TX
USA	G	AZ, CO, NM, UT
USA	Н	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.



# **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.

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# **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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