MARKET DATA: DECEMBER 2017

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

$32,618,400,319

RESALE
$32,317,999,349
403,013 Assets

AUCTION
$300,400,970
11,270 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	MONTH OVER MONTH PRICE STABILITY INDEX ™
CONSTRUCTION $16,045,371,314 MARKET VALUE 177,095 ASSETS	VALUES ▼ 4.5% FMV ▼ 5.6% FLV VOLUME ▼ 2.9% RESALE ▲ 11.4% AUCTION	VALUES ▼ 2.3% FMV ▼ 2.4% FLV VOLUME ▲ 5.9% RESALE ▲ 56.3% AUCTION	97.64 (95 – 105; DEFLATED / STABLE / INFLATED)
LIFT/ACCESS $1,073,357,685 MARKET VALUE 35,668 ASSETS	VALUES ▼ 11.4% FMV ▼ 12.1% FLV VOLUME ▲ 47.6% RESALE ▼ 25.5% AUCTION	VALUES ▲ 0.1% FMV ▲ 0.1% FLV VOLUME ▲ 16.3% RESALE ▼ 11.5% AUCTION	100.44 (95 – 105; DEFLATED / STABLE / INFLATED)
AGRICULTURE $12,974,248,514 MARKET VALUE 139,947 ASSETS	VALUES ▼ 6.0% FMV ▲ 11.4% FLV VOLUME ▼ 6.0% RESALE ▲ 11.1% AUCTION	VALUES ▲ 0.6% FMV ▲ 0.6% FLV VOLUME ▲ 106.1% RESALE ▲ 116.7% AUCTION	100.25 (95 – 105; DEFLATED / STABLE / INFLATED)
COMMERCIAL TRUCK $2,525,422,806 MARKET VALUE 61,573 ASSETS	VALUES ▼ 5.0% FMV ▼ 1.7% FLV VOLUME ▲ 10.7% RESALE ▲ 19.3% AUCTION	VALUES ▼ 2.9% FMV ▼ 1.9% FLV VOLUME ▲ 19.6% RESALE ▲ 35.9% AUCTION	99.09 (95 – 105; DEFLATED / STABLE / INFLATED)

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

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Click here to see a sample of the Premium Market Report

Subtype Trends • Brand Analysis • Regional Price Stability

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CONSTRUCTION

OVERALL | TYPE TRENDS | BRAND TRENDS | REGIONAL TRENDS

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

$16,045,371,314
MARKET VALUE

177,095
ASSETS

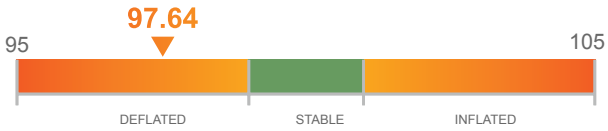
YEAR OVER YEAR MARKET METRICS

	FMV	FLV
VALUES	▼ 2.3%	▼ 2.4%
VOLUME	▼ 4.5% RESALE	▼ 5.6% AUCTION

MONTH OVER MONTH MARKET METRICS

	FMV	FLV
VALUES	▲ 5.9%	▲ 56.3%
VOLUME	▼ 2.9% RESALE	▲ 11.4% AUCTION

MONTH OVER MONTH PRICE STABILITY INDEX ™



MARKET PERFORMANCE

As predicted in December, we observed higher than typical increases in market activity. Market activity went up by 5.9% and 56.3% on the resale and auction channels from November 2017 to December 2017. Expectedly, values did not remain at stable levels. In fact, the Price Stability Index™ for December 2017 was 97.64, which is solidly in the deflated prices territory.

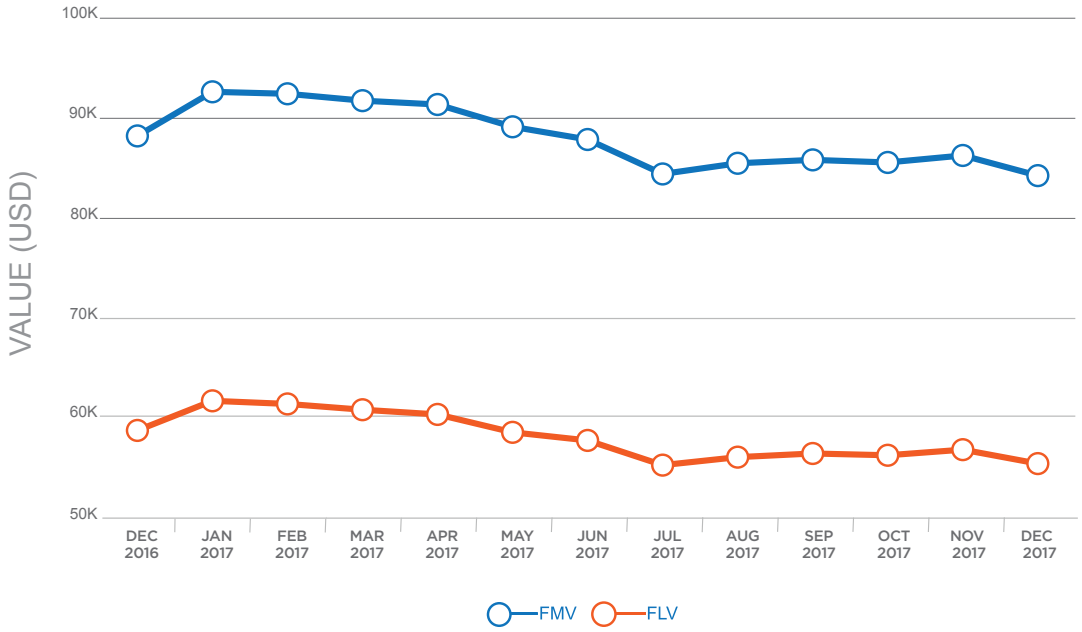
MARKET HIGHLIGHTS

- The large increase in monthly market activity on the auction channel corresponded with a large increase in utilization.
- Auction market activity increased in December 2017 alongside jumps in average age and usage–an indication of de-fleeting against the newer models appearing on the resale channel in the same month
- Notably, newer equipment with lower average utilization was listed on the resale channel, opposite the pattern displayed on the auction channel.

MARKET FORECAST

Large increases in market activity are due primarily to seasonal trends as end-of-year dispositions take place. This trend may continue for another month or so as the construction market adapts. We expect values to trend down and market activity to increase in January 2018.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 5.9% RESALE	▲ 56.3% AUCTION	▼ 0.3% RESALE	▲ 12.5% AUCTION	▼ 0.8% RESALE	▲ 10.3% AUCTION
YEAR OVER YEAR	▼ 2.9% RESALE	▲ 11.4% AUCTION	▼ 4.1% RESALE	▲ 1.7% AUCTION	▼ 14.4% RESALE	▲ 10.1% AUCTION

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LIFT/ACCESS

OVERALL | TYPE TRENDS | BRAND TRENDS | REGIONAL TRENDS

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

$1,073,357,685
MARKET VALUE

35,668
ASSETS

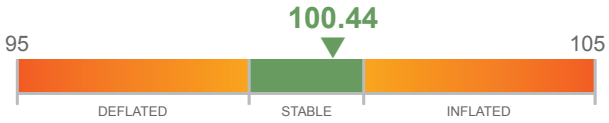
YEAR OVER YEAR MARKET METRICS

VALUES	▼ 11.4% FMV	▼ 12.1% FLV
VOLUME	▲ 47.6% RESALE	▼ 25.5% AUCTION

MONTH OVER MONTH MARKET METRICS

VALUES	▲ 0.1% FMV	▲ 0.1% FLV
VOLUME	▲ 16.3% RESALE	▼ 11.5% AUCTION

MONTH OVER MONTH PRICE STABILITY INDEX ™



MARKET PERFORMANCE

After seeing an almost 4% decline in values during November, December values remained even as compared to November. Resale market activity increased in December after seeing decreases in November, while auction market activity deceased for December after increasing in November.

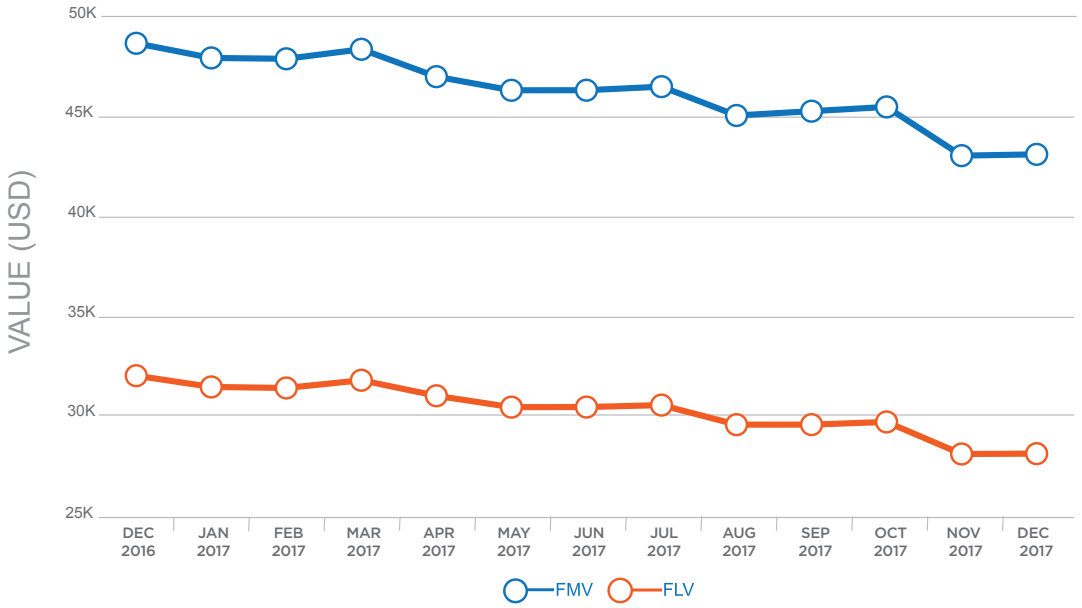
MARKET HIGHLIGHTS

- The overall market value and the number of assets decreased again in December, as compared to November, dropping 5.2% and 6.9%, respectively.
- Year over year values for both the auction and resale channels have declined by over 11%. This could be due to the increasing supply as the equipment is utilized more in the growing rental markets.
- Average age increased in both channels from November to December, while average utilization remained even. Year over year average age and utilization are up about 5%, which could be one of the factors for the 11% decrease in overall values from last year.

MARKET FORECAST

As we look forward to the new year, we should see overall values decline slightly to start the year. Overall volume for January should decline in anticipation for the February and March auctions.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 16.4% RESALE	▼ 11.5% AUCTION	▲ 0.6% RESALE	▲ 9.6% AUCTION	▲ 0.2% RESALE	▼ 0.9% AUCTION
YEAR OVER YEAR	▲ 47.6% RESALE	▼ 25.5% AUCTION	▲ 4.2% RESALE	▲ 6.6% AUCTION	▲ 6.1% RESALE	▲ 2.3% AUCTION

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AGRICULTURE

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

$12,974,248,514
MARKET VALUE

139,947
ASSETS

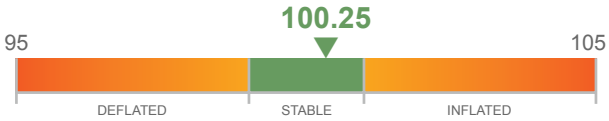
YEAR OVER YEAR MARKET METRICS

VALUES	▼ 6.0% FMV	▲ 11.4% FLV
VOLUME	▼ 6.0% RESALE	▲ 11.1% AUCTION

MONTH OVER MONTH MARKET METRICS

VALUES	▲ 0.6% FMV	▲ 56.3% FLV
VOLUME	▲ 106.1% RESALE	▲ 116.7% AUCTION

PRICE STABILITY INDEX ™



MARKET PERFORMANCE

Compared to last month, market conditions have transition from marginally deflated into the stable zone. This means that equipment values are moving in the appropriate direction towards market equilibrium. As first quarter approaches stable to slightly inflated values are not uncommon.

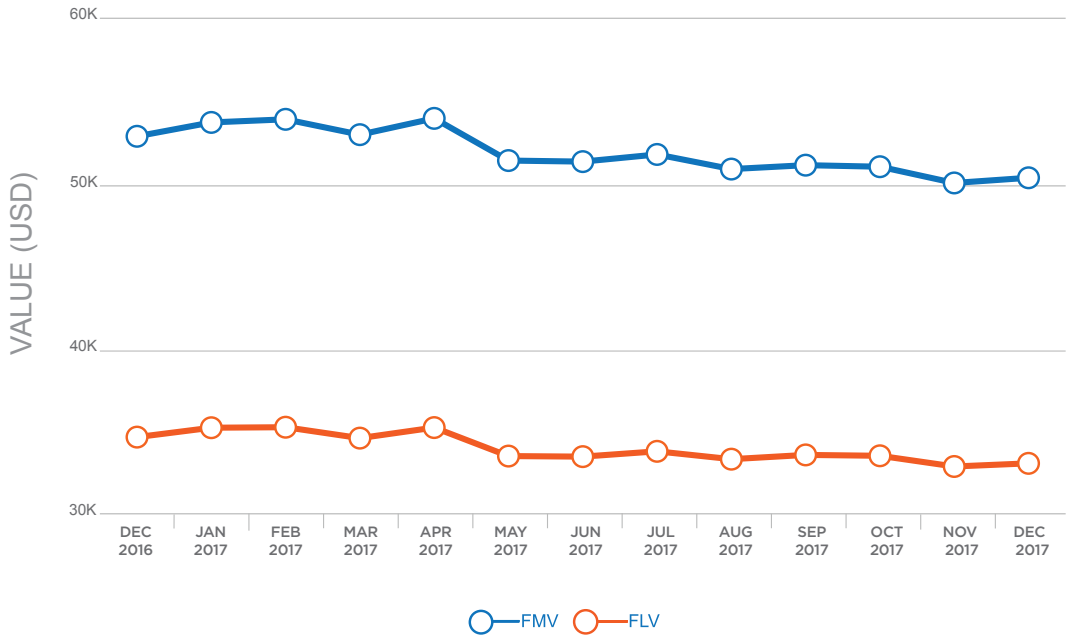
MARKET HIGHLIGHTS

- Volume changes can be attributed to seasonality. As the first quarter approaches planting season will inspire positive volume changes.
- Although volatility in agricultural equipment is not that common, expect to see increased market activity with planters as planting season approaches.
- The average age decreased across both auction and resale channels from November to December. Year over year changes indicate gradual increases of age.

MARKET FORECAST

Looking ahead expect to see steady gradual increases in values. The first quarter of the year typically is when companies start looking at their budget and plan to start buying and selling equipment.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 106.1% RESALE	▲ 116.7% AUCTION	▼ 4.4% RESALE	▼ 2.2% AUCTION	▲ 25.3% RESALE	▼ 73.7% AUCTION
YEAR OVER YEAR	▼ 6.0% RESALE	▲ 11.1% AUCTION	▲ 0.7% RESALE	▲ 2.1% AUCTION	▲ 29.3% RESALE	▼ 40.7% AUCTION

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COMMERCIAL TRUCK

OVERALL | TYPE TRENDS | BRAND TRENDS | REGIONAL TRENDS

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

$2,525,422,806
MARKET VALUE

61,573
ASSETS

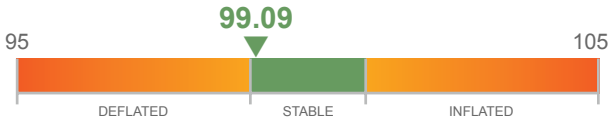
YEAR OVER YEAR MARKET METRICS

	FMV	FLV
VALUES	▼ 5.0%	▼ 1.7%
	RESALE	AUCTION
VOLUME	▲ 10.2%	▲ 19.3%

MONTH OVER MONTH MARKET METRICS

	FMV	FLV
VALUES	▼ 2.9%	▼ 1.9%
	RESALE	AUCTION
VOLUME	▲ 19.6%	▲ 35.9%

MONTH OVER MONTH PRICE STABILITY INDEX ™



MARKET PERFORMANCE

As 2017 came to a close, both FMV and FLV were down from both November and the start of the year. For the past 3 consecutive years, FMV fell in December prior to first of the year increases. The resale channel's volume has been quite inconsistent year over year with a 19.6% month over month increase this December but a 23.8% month over month drop December of 2016 which resulted in a 10.2% year over year increase.

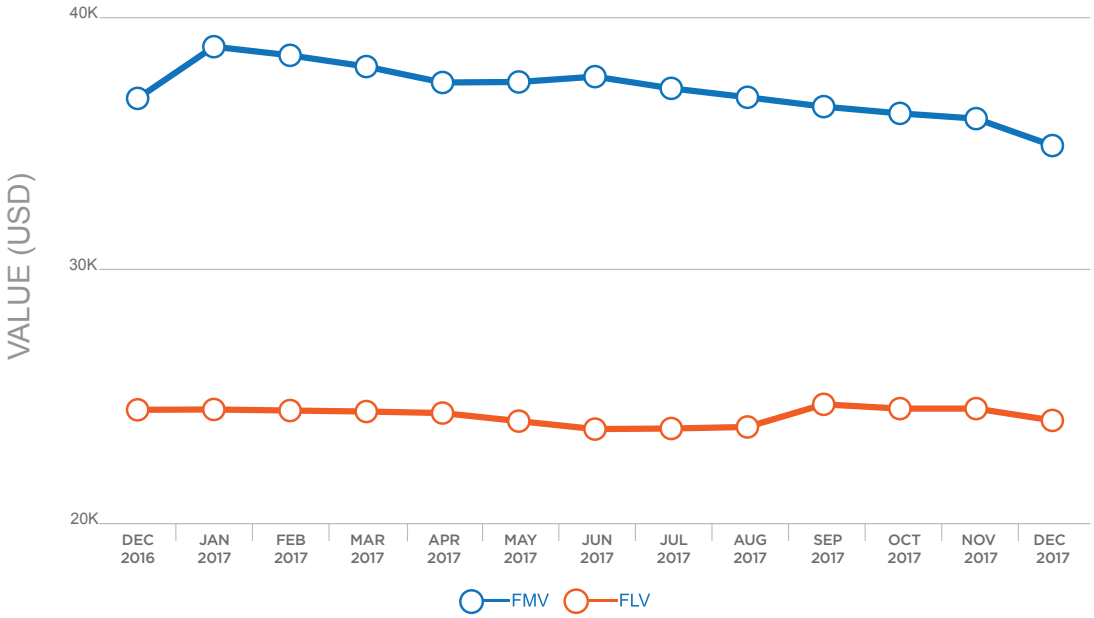
MARKET HIGHLIGHTS

- Auction channel volume increases during December with 2016's 157.4% month over month jump and this year was no exception with a 35.9% increase, resulting in a year over year growth of 19.3%.
- With volume increases come market share changes as the average age on both resale and auction channels dropped between November and December, but were still up in comparison to December 2016.
- Average usage for the resale channel dropped month over month and year over year while the opposite occurred for auction despite similar changes on volume and average age signifying the difference between the types of trucks found on resale versus auction.

MARKET FORECAST

January can show variability in pricing as it has done in previous years, so expect an overall decline in FMV and FLV with a few subtype level increases.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 19.6% RESALE	▲ 35.9% AUCTION	▼ 7.8% RESALE	▼ 3.0% AUCTION	▼ 3.4% RESALE	▲ 12.9% AUCTION
YEAR OVER YEAR	▲ 10.2% RESALE	▲ 19.3% AUCTION	▲ 12.4% RESALE	▲ 26.7% AUCTION	▼ 14.1% RESALE	▲ 35.8% 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:

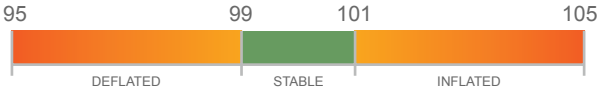
$$P_L = \frac{\sum(p_{c,t_n}) * (q_{c,t_0})}{\sum(p_{c,t_0}) * (q_{c,t_0})}$$

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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