



SUMMARY

CONSTRUCTION

LIFT/ACCESS

AGRICULTURE

COMMERCIAL TRUCK

MARKET DATA: SEPTEMBER 2019

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

\$29,333,413,316

RESALE
\$28,984,551,023

386,396 Assets

AUCTION
\$348,862,293

17,189 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™
	VALUES	FLV	VALUES	FLV	
CONSTRUCTION \$17,103,458,506 MARKET VALUE 174,160 ASSETS	VALUES ▼ 0.4% FMV VOLUME ▲ 10.7% RESALE	▼ 12.8% FLV ▲ 14.0% AUCTION	VALUES ▼ 1.2% FMV VOLUME ▲ 0.2% RESALE	▼ 3.7% FLV ▲ 103.6% AUCTION	98.78 95 DEFLATED STABLE INFLATED 105
LIFT/ACCESS \$1,358,281,883 MARKET VALUE 44,460 ASSETS	VALUES ▼ 8.3% FMV VOLUME ▼ 9.6% RESALE	▼ 6.0% FLV ▲ 41.4% AUCTION	VALUES ▼ 1.6% FMV VOLUME ▲ 42.3% RESALE	▼ 2.5% FLV ▲ 67.3% AUCTION	98.48 95 DEFLATED STABLE INFLATED 105
AGRICULTURE \$6,639,479,301 MARKET VALUE 81,253 ASSETS	VALUES ▲ 0.7% FMV VOLUME ▼ 10.5% RESALE	▼ 4.5% FLV ▲ 17.8% AUCTION	VALUES ▼ 0.3% FMV VOLUME ▼ 4.8% RESALE	▼ 4.4% FLV ▲ 106.2% AUCTION	99.52 95 DEFLATED STABLE INFLATED 105
COMMERCIAL TRUCK \$4,232,193,626 MARKET VALUE 103,712 ASSETS	VALUES ▼ 13.8% FMV VOLUME ▼ 35.8% RESALE	▲ 7.7% FLV ▲ 26.1% AUCTION	VALUES ▼ 1.7% FMV VOLUME ▼ 14.4% RESALE	▲ 2.1% FLV ▲ 149.4% AUCTION	98.28 95 DEFLATED STABLE INFLATED 105



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How is the Price Stability INDEX calculated?

CONSTRUCTION

OVERALL

TYPE TRENDS

BRAND TRENDS

REGIONAL TRENDS

MARKET ACTIVITY

YEAR OVER YEAR

MARKET METRICS

\$17,103,458,506 MARKET VALUE
174,160 ASSETS

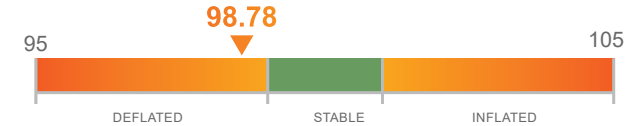
VALUES ▼ **0.4%** FMV ▼ **12.8%** FLV
VOLUME ▲ **10.7%** RESALE ▲ **14.0%** AUCTION

MONTH OVER MONTH

MARKET METRICS

PRICE STABILITY INDEX™

VALUES ▼ **1.2%** FMV ▼ **3.7%** FLV
VOLUME ▲ **0.2%** RESALE ▲ **103.6%** AUCTION



MARKET PERFORMANCE

The construction markets saw decreases of 1.2% in average FMV and 3.7% in average FLV. When compared to September of 2018, the average FMV has changed slightly, decreasing by 0.4%, while the average FLV saw a larger decline of 12.8%.

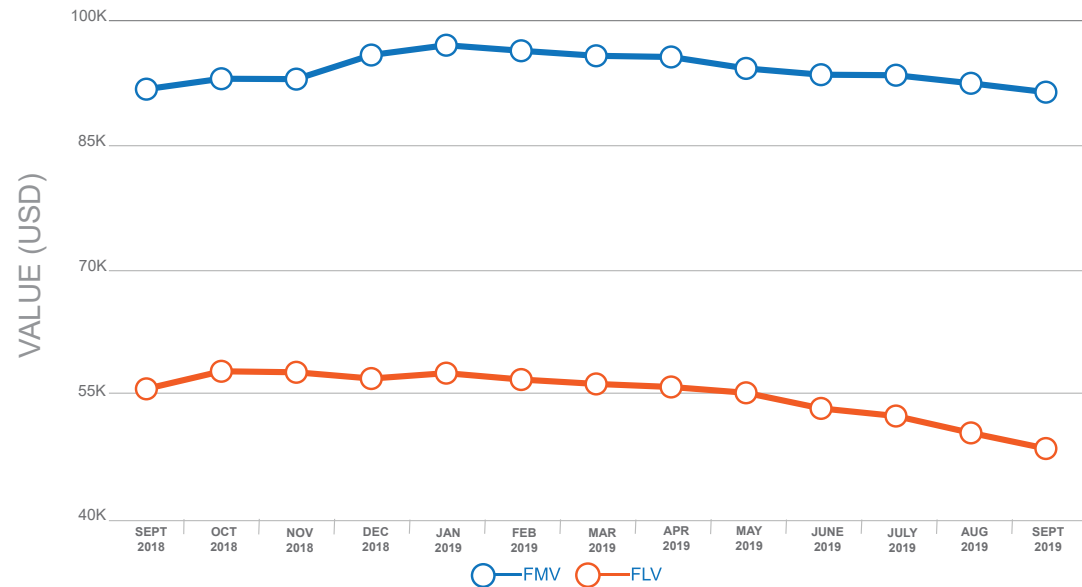
MARKET HIGHLIGHTS

- The volume on the auction channel has shot up 103.6% from August to September of 2019, while the resale channel had relatively no change in market activity over the same time period.
- The average age on both channels has dropped from August to September of 2019, with the resale channel showing a drop in average age of 4.7% and the auction channel only dropping .6% over the same time period.
- When compared to September of 2018, the average usage is up on both the resale and auction channels, up 9.8% and 2.8%, respectively.

MARKET FORECAST

We expect to see overall values continue to show slight declines during October, as well as drops in overall volume with the start of Q4 coming up.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 0.2% RESALE	▲ 103.6% AUCTION	▼ 4.7% RESALE	▼ 0.6% AUCTION	▼ 1.4% RESALE	▲ 15.0% AUCTION
YEAR OVER YEAR	▲ 10.7% RESALE	▲ 14.0% AUCTION	▲ 0.6% RESALE	▼ 3.7% AUCTION	▲ 9.8% RESALE	▲ 2.8% AUCTION



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OVERALL TYPE TRENDS BRAND TRENDS REGIONAL TRENDS

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

\$1,358,281,883
MARKET VALUE

44,460
ASSETS

YEAR OVER YEAR

MARKET METRICS

VALUES ▼ **8.3%** FMV ▼ **6.0%** FLV

VOLUME ▼ **9.6%** RESALE ▲ **41.4%** AUCTION

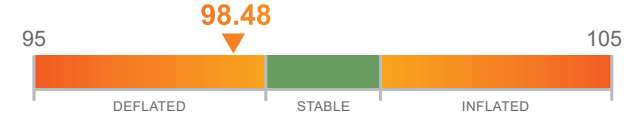
MONTH OVER MONTH

MARKET METRICS

VALUES ▼ **1.6%** FMV ▼ **2.5%** FLV

VOLUME ▲ **42.3%** RESALE ▲ **67.3%** AUCTION

PRICE STABILITY INDEX™



MARKET PERFORMANCE

The lift markets saw month-over-month decreases of 1.6% in average FMV and 2.5% in average FLV. When compared to September of 2018, the average FMV has dropped by over 8% and the average FLV has declined by 6%.

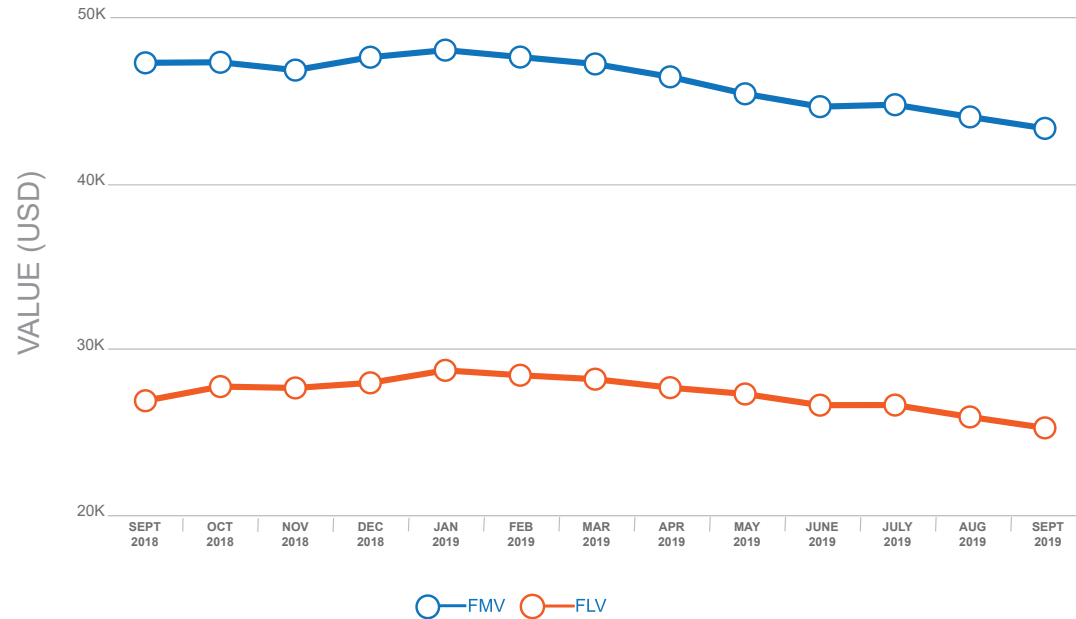
MARKET HIGHLIGHTS

- Market activity increased by over 42% on the resale channel, while the auction channel saw an increase of over 67%. Resale market activity was down almost 10% when compared to last September.
- The resale channel saw slight drops in average age and utilization from August to September, while the auction channel saw an increase in average age and a decrease in average utilization in the same timeframe.
- From August to September, the overall number of assets and overall market value increased by over 46%. This large increase is likely due to the completion of the summer construction season.

MARKET FORECAST

When looking forward to the October market trends, we might expect to overall values to drop slightly as the equipment keeps flooding the markets. Market activity should remain high as construction season begins to come to a close.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 42.3% RESALE	▲ 67.3% AUCTION	▼ 2.8% RESALE	▲ 4.0% AUCTION	▼ 1.6% RESALE	▼ 3.9% AUCTION
YEAR OVER YEAR	▼ 9.6% RESALE	▲ 41.4% AUCTION	▼ 5.2% RESALE	▼ 5.8% AUCTION	▼ 1.3% RESALE	▲ 13.4% AUCTION



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How is the Price Stability INDEX calculated?

AGRICULTURE

OVERALL TYPE TRENDS BRAND TRENDS REGIONAL TRENDS

MARKET ACTIVITY

YEAR OVER YEAR

MARKET METRICS

VALUES ▼ **0.7%** FMV ▼ **4.5%** FLV
VOLUME ▼ **10.5%** RESALE ▲ **17.8%** AUCTION

\$6,639,479,301
MARKET VALUE

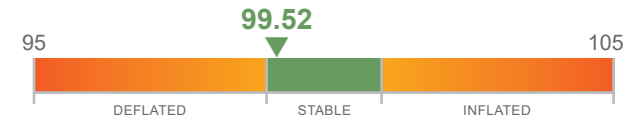
81,253
ASSETS

MONTH OVER MONTH

MARKET METRICS

VALUES ▼ **0.3%** FMV ▼ **4.4%** FLV
VOLUME ▼ **4.8%** RESALE ▲ **106.2%** AUCTION

PRICE STABILITY INDEX™



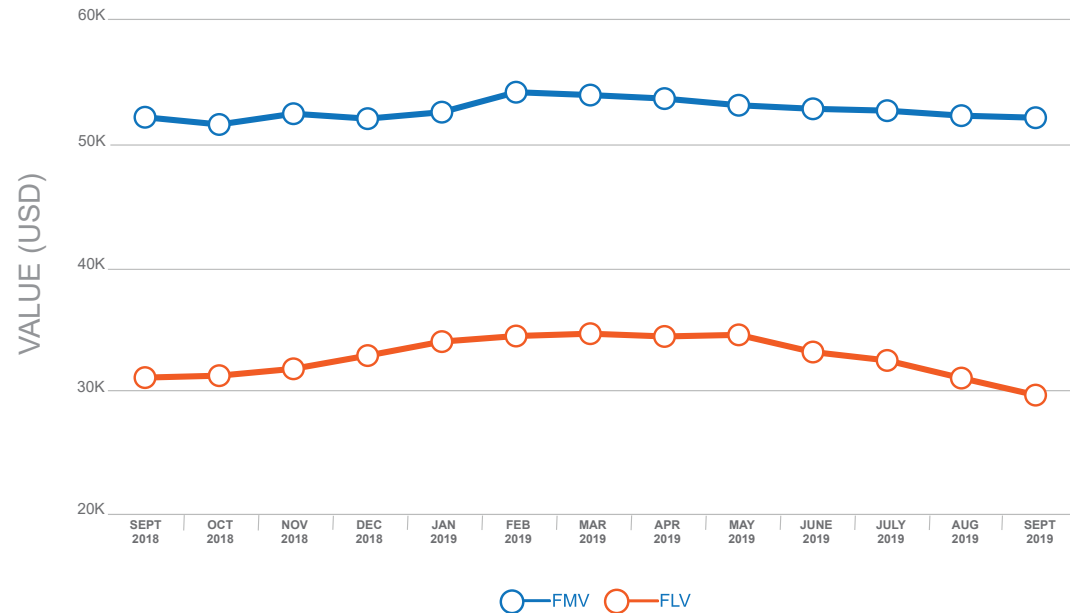
MARKET PERFORMANCE

From August to September 2019, we saw a stable market with a Price Stability Index value of 99.52 and an average FMV change of -0.3%. This is very similar to what we saw in the month prior and we expect to see a stable market around this time of the year. The average FLV trend continued, dropping 4.4% month-over-month and 4.5% year-over-year, which could be explained by the volume increases we saw on the auction channel.

MARKET HIGHLIGHTS

- As expected in the previous market report, auction market activity increased in September 2019 not only month-over-month, but also year-over-year, indicating that agricultural equipment is showing a stronger presence on the auction channel.
- Average age of equipment on the auction channel decreased month-over-month and year-over-year, showing that equipment with lower age was brought onto the auction channel.
- Month-over-month average usage on the resale channel moved in the opposite direction as year-over-year usage, while month-over-month usage decreased in the auction channel. This could mean that the equipment used for harvesting could have been recently brought onto the resale channel.

FMV AND FLV TRENDS



MARKET FORECAST

As harvesting season is getting close to conclusion for the year in most parts of the country, we expect to see higher volume on the resale channel, but may not see it in the auction channel since we saw a large increase in volume in September 2019. A stable or inflated market is expected to be seen in October.

	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▼ 4.8% RESALE	▲ 106.2% AUCTION	▼ 12.8% RESALE	▼ 16.9% AUCTION	▲ 5.3% RESALE	▼ 1.2% AUCTION
YEAR OVER YEAR	▼ 10.5% RESALE	▲ 17.8% AUCTION	▼ 14.7% RESALE	▲ 0.5% AUCTION	▼ 8.6% RESALE	▲ 4.6% AUCTION



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OVERALL

TYPE TRENDS

BRAND TRENDS

REGIONAL TRENDS

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

\$4,232,193,626
MARKET VALUE

103,712
ASSETS

YEAR OVER YEAR

MARKET METRICS

VALUES ▼ **13.8%** ▲ **7.7%**
FMV FLV

VOLUME ▼ **35.8%** ▲ **26.1%**
RESALE AUCTION

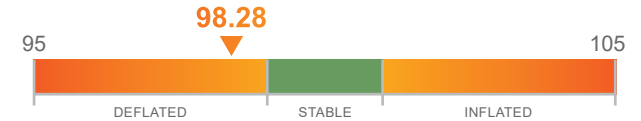
MONTH OVER MONTH

MARKET METRICS

VALUES ▼ **1.7%** ▲ **2.1%**
FMV FLV

VOLUME ▼ **14.4%** ▲ **149.4%**
RESALE AUCTION

PRICE STABILITY INDEX™



MARKET PERFORMANCE

It is that time of year when the FMVs drop month-over-month while auction channel volume increases and brings FLV up with it. The auction channel volume increase month-over-month was 149.4% in September 2019, up 26.1% over September 2018, bringing year-over-year FLV increases of 7.7%.

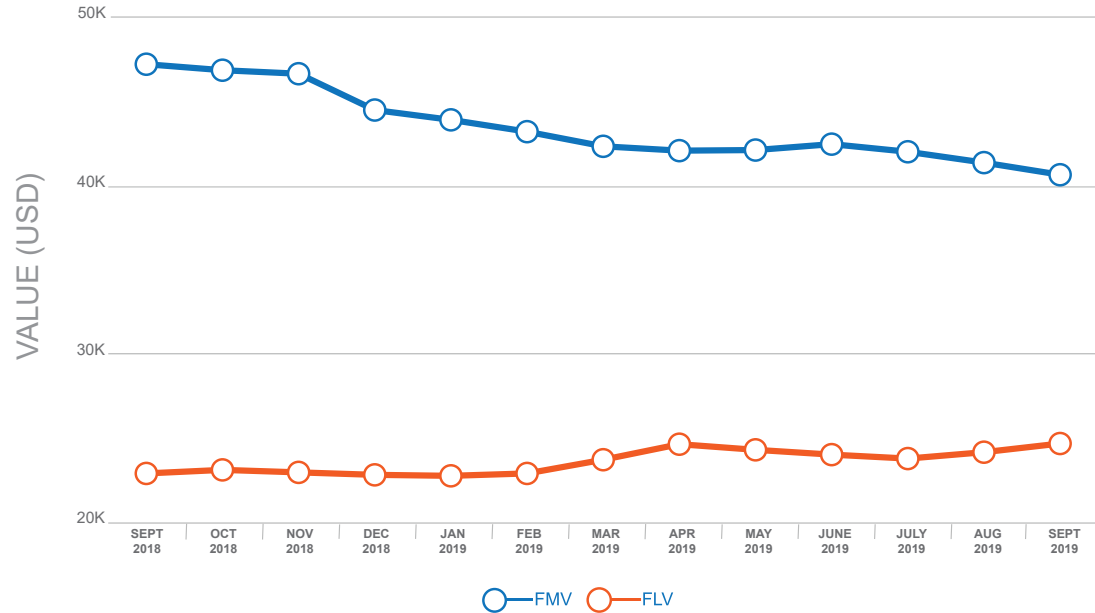
MARKET HIGHLIGHTS

- While the average age on the resale channel dropped 4.5% in September compared to August 2019, the average usage increased 0.9% as market activity dropped 14.4%. This indicates the trucks remaining on the lots were newer and had higher mileage than seen in the previous month.
- Even though the average usage on the auction channel increased 1.3% between August and September 2019, the average usage compared to September 2018 was down 10.3%, meaning the 26.1% year over year volume increase brought lower mileage, yet older trucks to the channel.
- As FMV continues to decline, the auction channel increases for volume and FLV bring the two channels closer together than they have been in the past 12 months.

MARKET FORECAST

With less sales volume on the resale channel recently, FMV should continue to drop before a leveling-out at the end of year the auction channel should continue its current increases into the next month.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▼ 14.4% RESALE	▲ 149.4% AUCTION	▼ 4.5% RESALE	▲ 0.7% AUCTION	▲ 0.9% RESALE	▲ 1.3% AUCTION
YEAR OVER YEAR	▼ 35.8% RESALE	▲ 26.1% AUCTION	▼ 20.0% RESALE	▲ 11.4% AUCTION	▲ 1.4% RESALE	▼ 10.3% AUCTION



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:

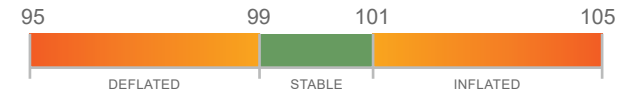
$$P_L = \frac{\sum(p_{c,t_n}) * (q_{c,t_0})}{\sum(p_{c,t_0}) * (q_{c,t_0})}$$

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.



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, NY, 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.



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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