



SUMMARY

CONSTRUCTION

LIFT/ACCESS

AGRICULTURE

COMMERCIAL TRUCK

MARKET DATA: APRIL 2019

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

\$31,109,041,737

RESALE

\$ \$30,953,803,156

392,174 Assets

AUCTION

\$155,238,581

6,691 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 <i>EquipmentWatch</i>	h Intelligence online.			
MARKET ACTIVITY	YEAR OVER YEAR	MONTH OVER MONTH			
CONSTRUCTION \$16,566,410,364 172,465	VALUES A 7.0% A 17.6% FLV	VALUES ▼ 0.2% ▼ 0.7% FMV FLV	PRICE STABILITY INDEX ™ 99.39 95 105		
MARKET VALUE ASSETS	VOLUME ▲ 2.4% ▼ 39.0% RESALE AUCTION	VOLUME ▼ 10.8% ▼ 52.0% RESALE AUCTION	DEFLATED STABLE INFLATED		
LIFT/ACCESS \$1,167,108,562 39,537 MARKET VALUE ASSETS	VALUES ▼ 1.0% ▼ 0.3% FLV VOLUME ▲ 16.3% ▼ 26.6%	VALUES ▼ 1.6% ▼ 1.8% FMV FLV	99.23 95 ▼ 105		
	RESALE AUCTION	RESALE AUCTION	DEFLATED STABLE INFLATED		
### AGRICULTURE \$9,647,940,257	VALUES ▲ 0.5% ▲ 19.3% FLV VOLUME ▼ 33.9% ▼ 53.0%	VALUES ▼ 1.0% ▼ 0.6% FMV FLV VOLUME ▼ 27.8% ▲ 1.5%	95 99.30 105		
	RESALE AUCTION	RESALE AUCTION	DEFLATED STABLE INFLATED		
\$3,727,582,554 80,823 MARKET VALUE ASSETS	VALUES ▼ 14.1% ▲ 4.9% FLV VOLUME ▼ 35.2% ▼ 12.9%	VALUES	99.76 95 9 105		
	RESALE AUCTION	RESALE AUCTION	DEFLATED STABLE INFLATED		



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TYPE TRENDS

BRAND TRENDS

REGIONAL TRENDS

How is the Price Stability INDEX calculated?



MARKET PERFORMANCE

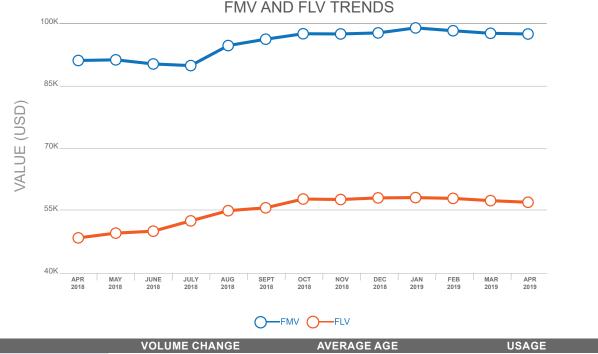
Both FMV and FLV declined again in April, this time dropping by 0.2% and 0.7%, respectively. Year-over-year values remain higher in both resale and auction markets.

MARKET HIGHLIGHTS

- Average age increased in resale markets for both monthover-month and year-over-year, while average utilization was the opposite with decreases in both timeframes.
- Market activity declined in both resale and auction markets, with auction dropping by over 50% month-over-month. Resale market activity did increase when looking at April compared to last year.
- From March to April, the overall number of assets decreased by over 13%, while overall market value decreased by 14% month-over-month.

MARKET FORECAST

Following last year's trend in May, we should expect to see FMVs slightly drop or remain even, while FLVs should increase. Resale market activity should continue to decline, while auction should increase.





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NEXT TYPE TRENDS



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MARKET PERFORMANCE

FMV and FLV in the month of April both saw notable decreases, going down 1.6% and 1.8%, respectively. This coincided with drops in both resale and auction market activity.

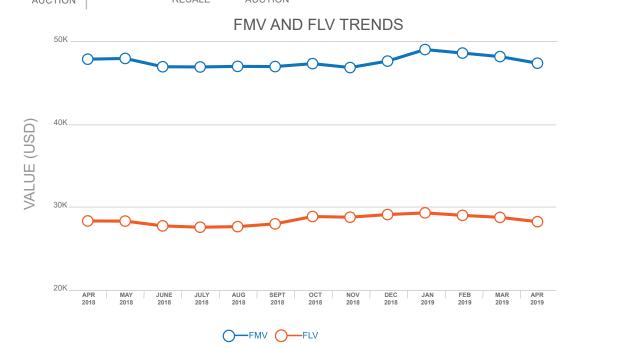
MARKET HIGHLIGHTS

- In addition to the month-over-month decline, FMV and FLV in April have both decreased compared to April 2018.
- In both channels, average asset age has decreased, and average usage has increased.
- Compared to March, the total number of lift assets on the market in April decreased 20.5%, and total market value decreased 19.7%.

MARKET FORECAST

In May, volume in both channels should see slight decreases, and FMV and FLV both should increase.

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LIFT/ACCESS

NEXT TYPE TRENDS



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MARKET PERFORMANCE

As expected, average FMV and FLV for agricultural equipment decreased slightly from March to April 2019. After high increases in market activity through March, resale and auction activity regressed back to standard levels. Although the month-overmonth metrics are volatile, most major increases and decreases reflect normal course corrections after a strong March showing.

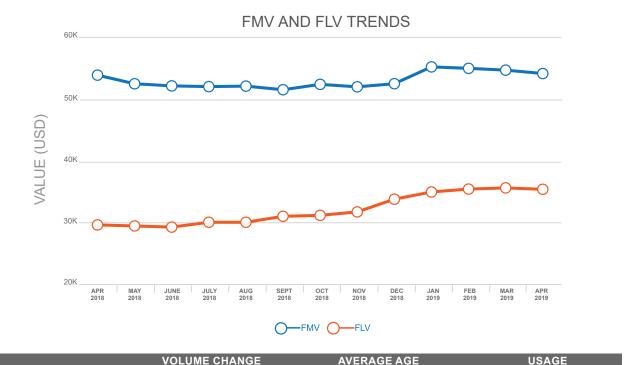
MARKET HIGHLIGHTS

- Auction activity for every equipment type except combines decreased significantly in April 2019 after the surge in March. This contributed to high variance in average age and usage on the auction channel.
- Surprisingly, average usage for equipment listed on the resale channel declined nearly 10% in April 2019, which would typically be offset by increases in average FMV. Instead, average values declined by about 1%.
- Average FMV and FLV both fell slightly in April 2019, dropping by 1% and 0.6%, respectively. This marked the first time since January 2019 that values on both channels have moved in tandem.

MARKET FORECAST

It often takes time for structural and sectoral changes in the North American agriculture industry to have an impact in used equipment markets. As such, even with the potential for adverse macroeconomic factors growing, we anticipate standard seasonal trends through May and June 2019.

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TYPE TRENDS



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MARKET PERFORMANCE

Average FMV for used commercial vehicles continued to decline, dropping another 0.6% in April 2019. However, this is expected given the high demand (and backlog) for new Class 7 and 8 vehicles in North America. Average FLV and auction activity normalized in April 2019 after a seasonally-strong month in March.

MARKET HIGHLIGHTS

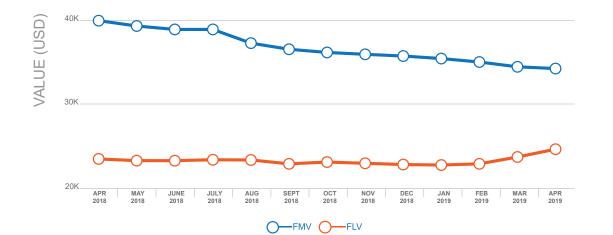
- Average FMV for trucks on the resale channel declined significantly in April 2019 from a year prior in 2018, with a 14% average drop.
- The average age on the resale channel held relatively steady from March to April 2019, but fell nearly 17% newer than a year prior in April 2018.
- Both resale activity and auction activity contracted in April 2019, even as average FMV decreased slightly and average FLV increased.

MARKET FORECAST

Although declining average FMV and increasing average FLV are trending towards convergence, anticipate returns to a strong gap between the two channels over the summer of 2019.

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	VOLUME	CHANGE	AVERA	GE AGE	US	AGE
MONTH OVER MONTH	▼ 7.3% RESALE	▼ 48.8% AUCTION	▲ 0.4% RESALE	▼1.3% AUCTION	▲ 1.0% RESALE	▲ 12.5% AUCTION
YEAR OVER YEAR	▼ 35.2% RESALE	▼ 12.9% AUCTION	▼ 17.3% RESALE	▲ 17.0% AUCTION	▲ 4.4% RESALE	▲ 25.2% AUCTION

COMMERCIAL TRUCK





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			



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:

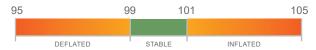
$$P_{L} = \frac{\sum (p_{c,t_{n}}) * (q_{c,t_{0}})}{\sum (p_{c,t_{0}}) * (q_{c,t_{0}})}$$

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.



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	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.



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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