



Purchases Report

October 2018

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Important notes:

As of November 2016, unless explicitly specified otherwise, RTA uses 3-month moving average for reporting on inventory (including historical data), hence, affecting calculated values of purchases and Inventory-to-Sales Ratio. In this way, any exaggerations that might be manifest in monthly purchases data, due to regular inventory counts by members, are not emphasized.

Highlighted areas in the graphs represent time of recessions.

Explanation how to read box plots and histograms can be found in the Appendix section.

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Disclaimer: The data and report presented herein are based solely on RTA member monthly reports on production and inventory. Occasionally, members send corrections to previously submitted data. If and when these corrections are received they are incorporated at that time. Users of this report should note while all care is taken to accurately compile the data submitted by member companies, that no warranty is made as to the accuracy of any RTA member reports.

Highlights

Through September, tie production has been in declining trend. While purchases also have a declining trend, the rate of decline is lower (Long-Term Trends - Production and Purchases graph). This has a profound affect on inventory levels. The Inventory-to-Sales ratio is very close to be extreme low range (Analysis of Monthly Data - ISR Histogram).

Long-Term Trends

In October, production fell at a 19.8% annual rate.

Purchases decreased at a 6.2% annual rate.

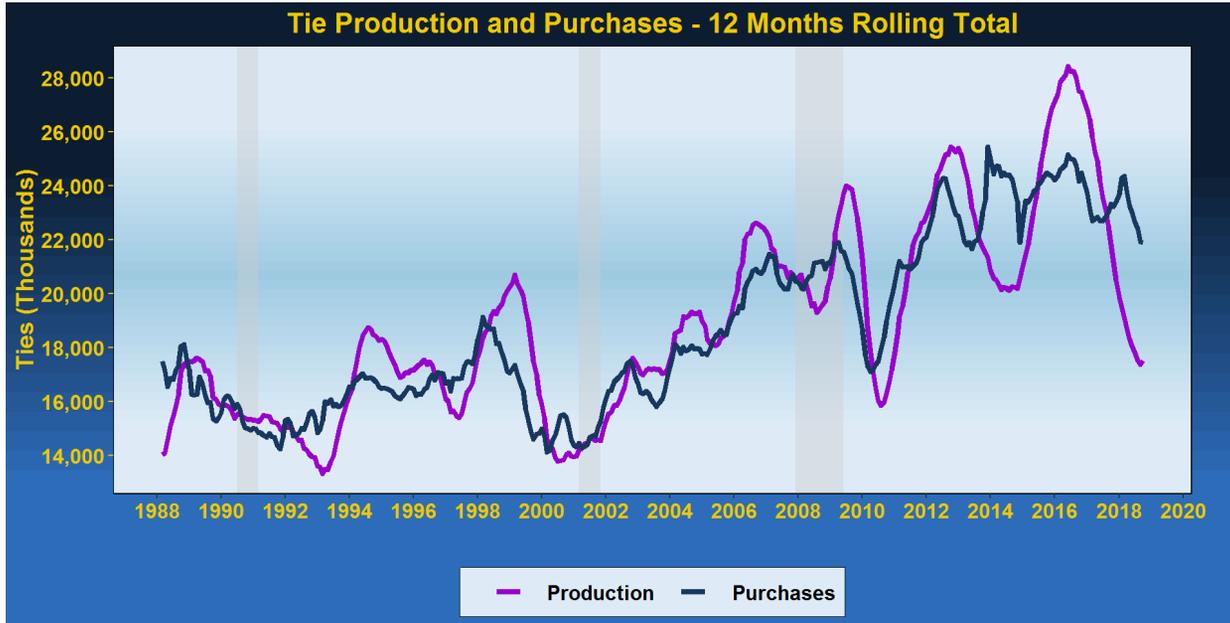
Inventory's 12 month moving average (12MMA) decreased by 21.9% from year ago levels.

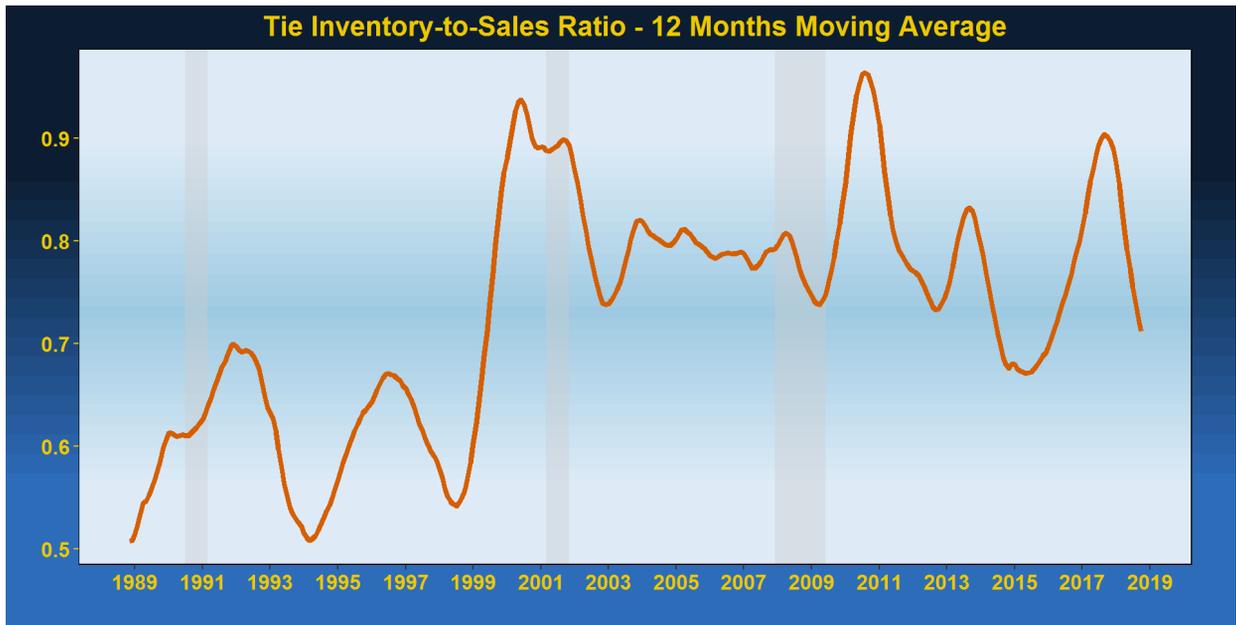
Inventory-to-Sales Ratio's 12MMA dwindled from 0.9 to 0.71.

Table of Annual Observations

Production and Purchases are 12 months rolling totals, Inventory and ISR are 12MMA

Date	Production	Purchases	Inventory	ISR
October 2017	21,843	23,342	20,700	0.90
October 2018	17,518	21,898	16,167	0.71





Analysis of Quarterly Data

Production in Q3 grew by 5.3% from last quarter and fell by 13% from year ago.

For the same intervals, purchases expanded by 0.1% and declined by 15.5% respectively.

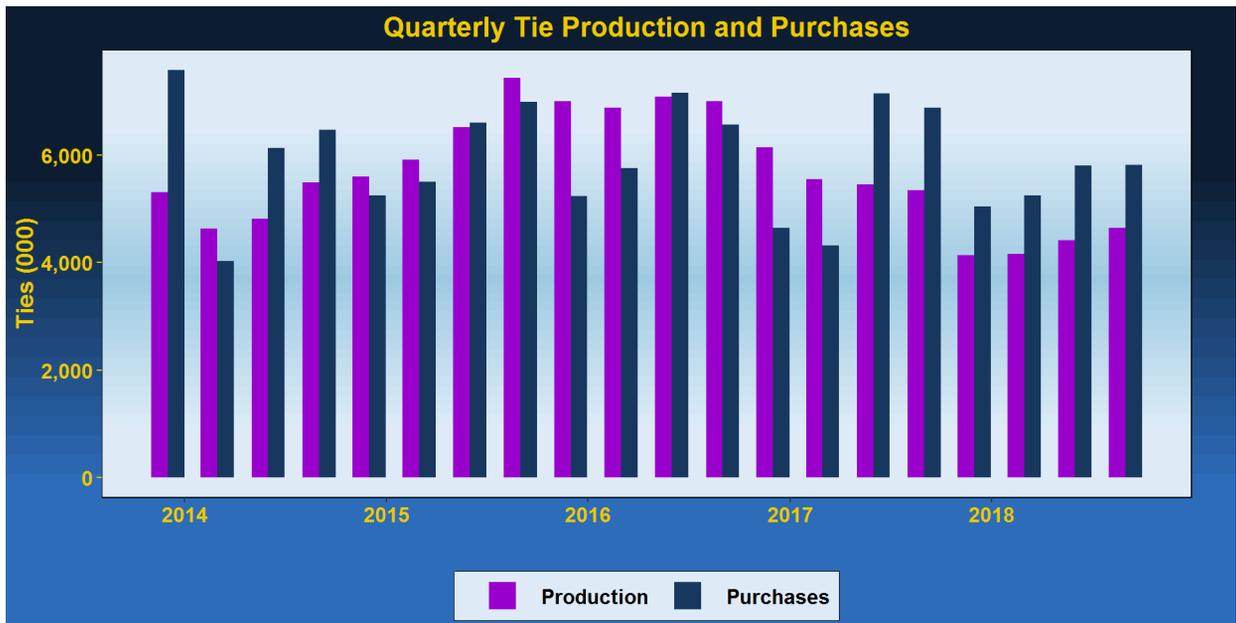
Inventory's 3MMA dwindled by 7.4% from last quarter and dwindled by 23.2% from year ago levels.

3MMA of Inventory-to-Sales Ratio dwindled from 0.69 to 0.66. Year ago, the ratio was 0.84.

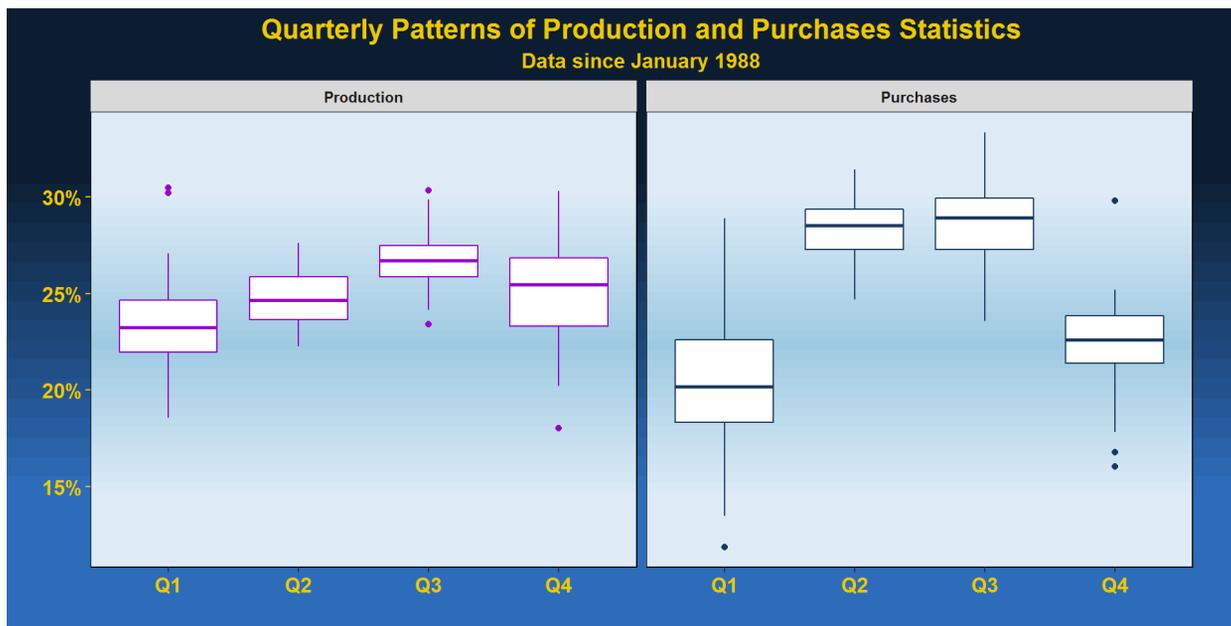
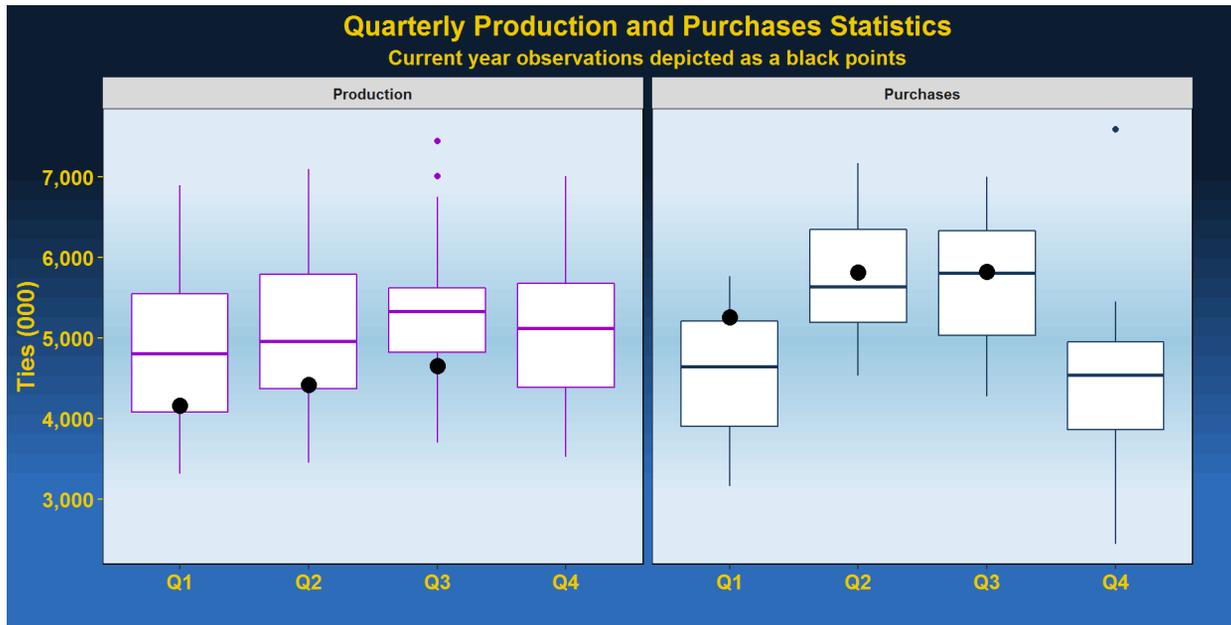
Table of Quarterly Observations

Production and Purchases Quarterly Sum, Inventory and ISR - 3MMA

Date	Production	Purchases	Inventory	ISR
September 2017	5,346	6,893	19,226	0.86
June 2018	4,414	5,816	15,826	0.70
September 2018	4,649	5,824	14,651	0.67



Quarterly pattern of production and purchases uses data from January 2000. The top graph shows data analysis within each quarter. It shows the median, upper quartile and lower quartile boundary (more detailed explanation is available in the Appendix section). It also displays what the production and purchases were in each current quarter represented by black points in relation to quarterly statistical values. The second graph shows the contribution of each quarter to the total annual production and purchases.



Analysis of Monthly Data

Production expanded by 6.3% from last month and increased by 10.1% from year ago.

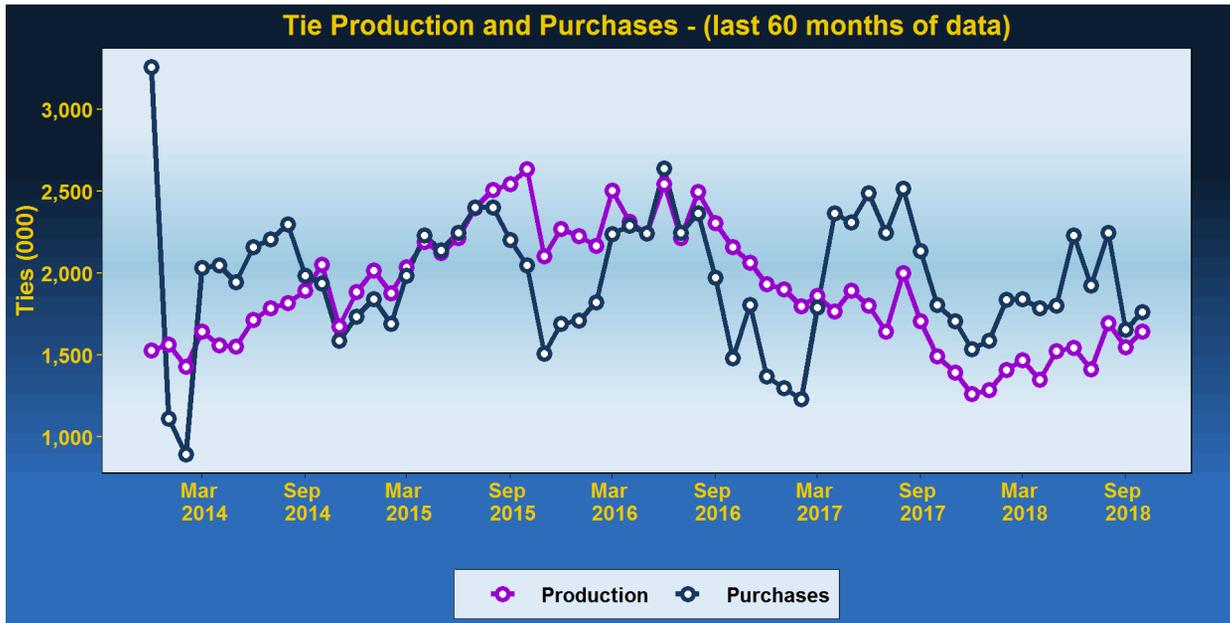
For the same time intervals, purchases increased by 6.4% and dropped by 2.4% respectively.

Inventory decreased by 0.8% and dwindled by 23.2% from year ago levels.

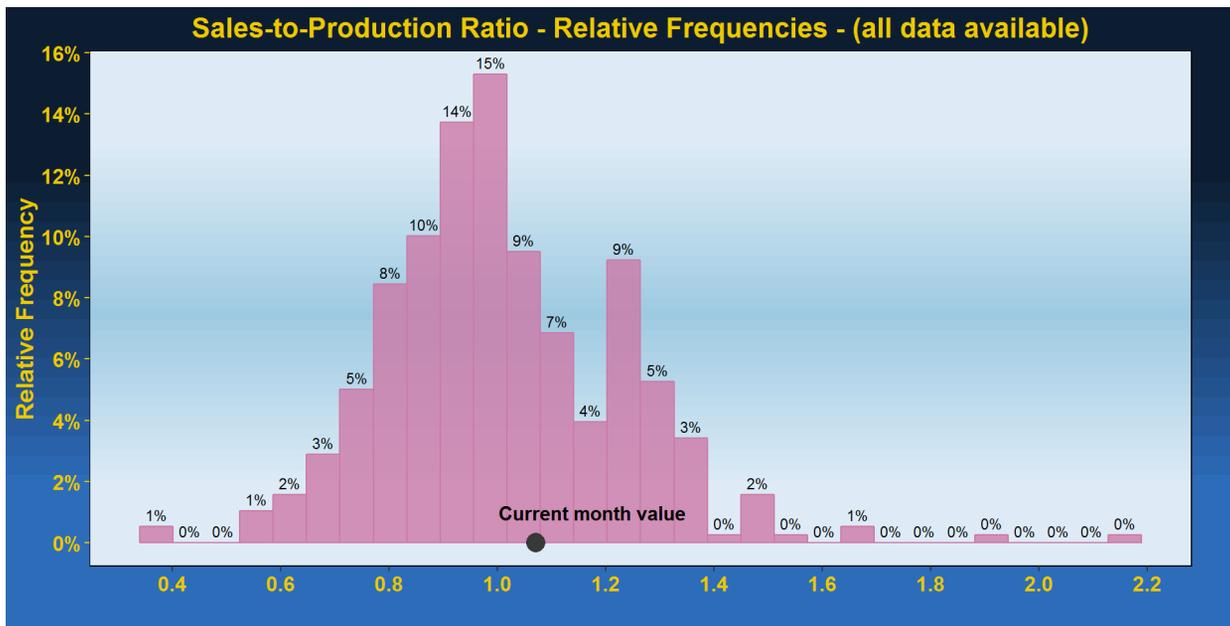
From month ago, the Inventory-to-Sales Ratio declined from 0.67 to 0.66 and from year ago, the ratio fell from 0.81.

Table of Monthly Observations

Date	Production	Purchases	Inventory	ISR
October 2017	1,492	1,804	18,914	0.81
September 2018	1,545	1,654	14,651	0.67
October 2018	1,643	1,760	14,534	0.66

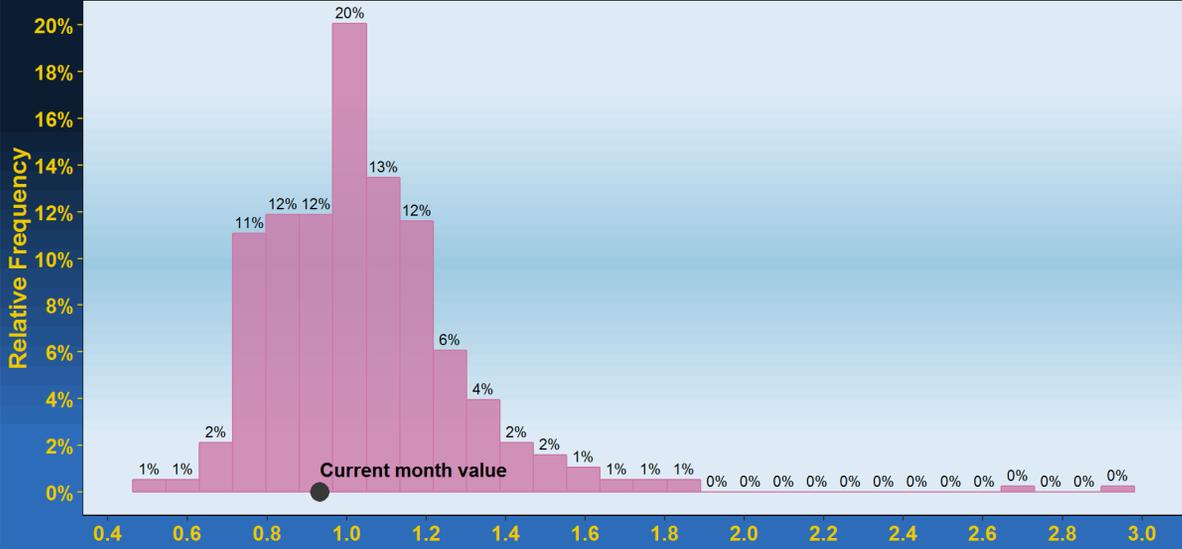


Sales-to-Production Ratio shows the replenishment/diminishment of inventory. Ratio above one signals diminishment and ratio below one replenishment of inventory stock.



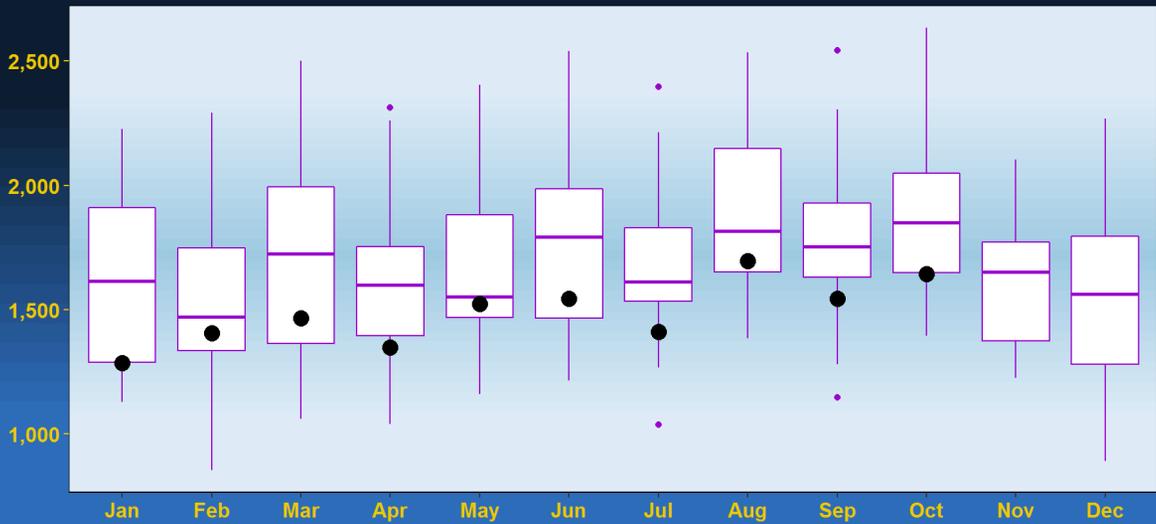
The following graph tells the same story as the graph above, just the ratio is reversed - Production-to-Sales Ratio.

Production-to-Sales Ratio - Relative Frequencies - (all data available)



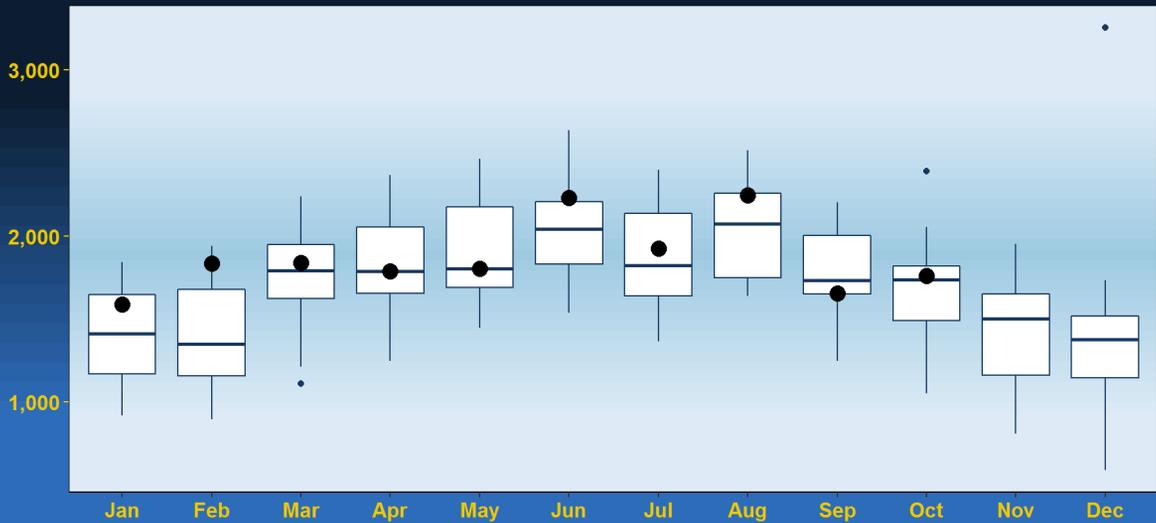
Monthly Production Statistics - (data since 2000)

Current year observations depicted as a black points



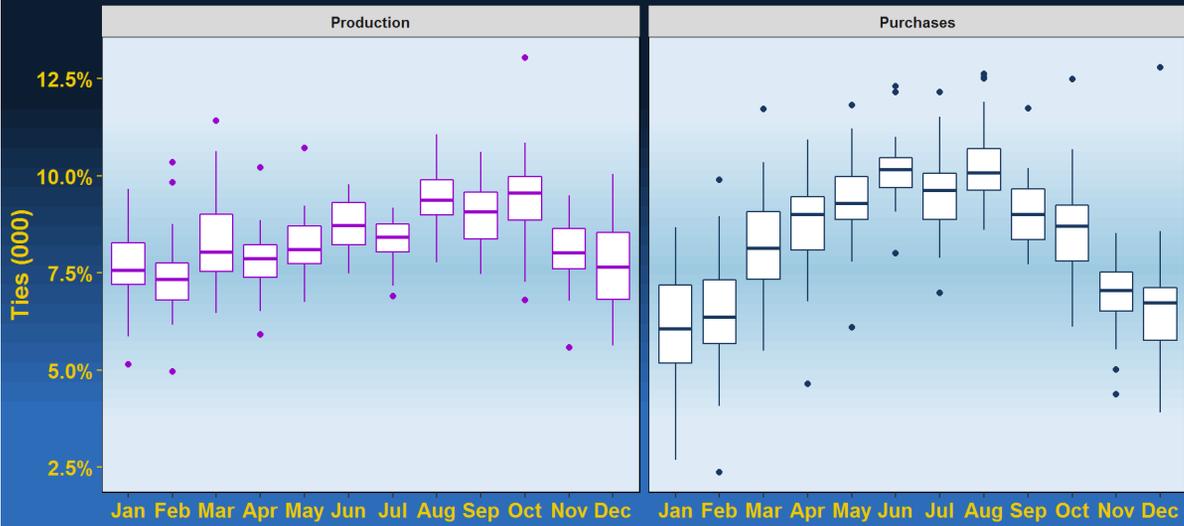
Monthly Purchases Statistics - (data since 2000)

Current year observations depicted as a black points



Monthly Pattern of Production and Purchases Statistics - Percent of Annual Total

Data since January 1988

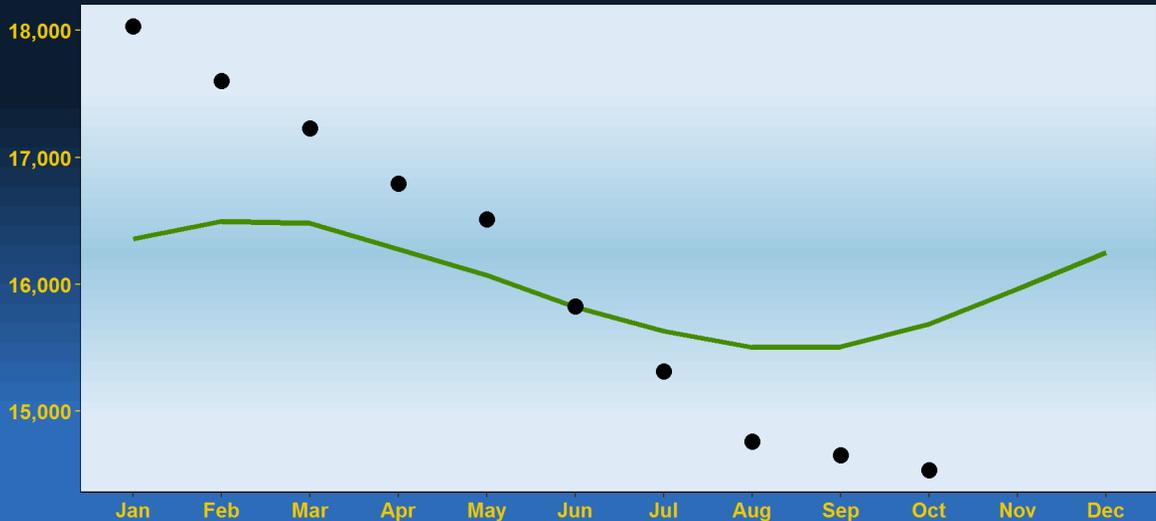


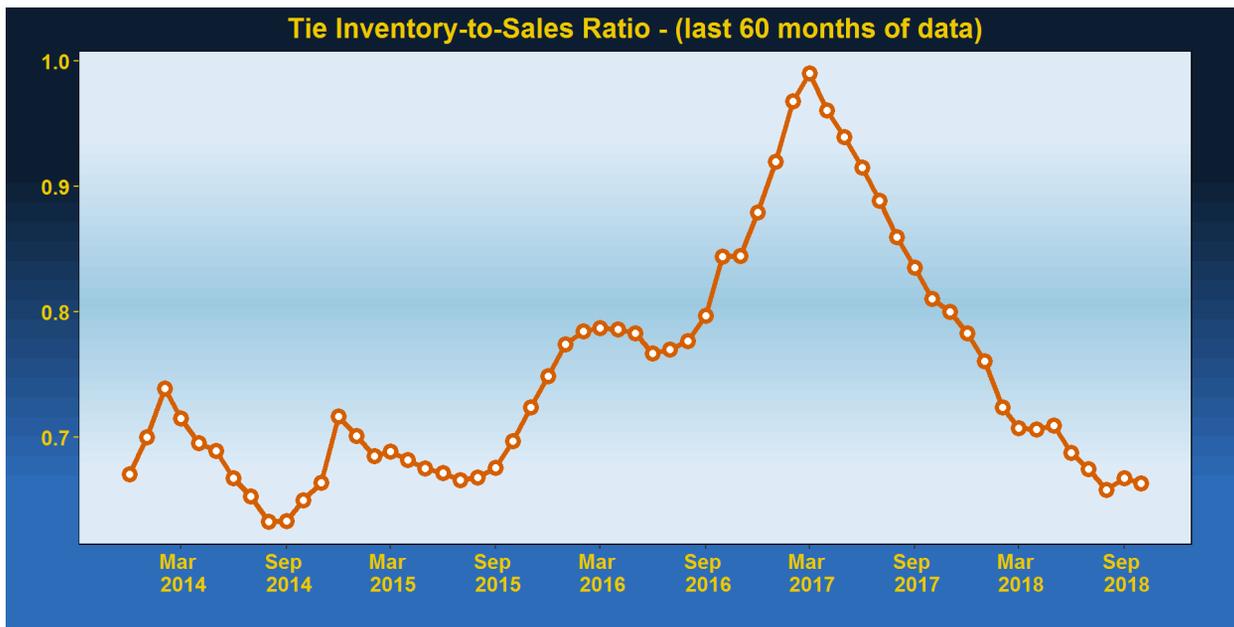
Tie Inventory - Raw Monthly and 3MMA Data - (last 60 months of data)



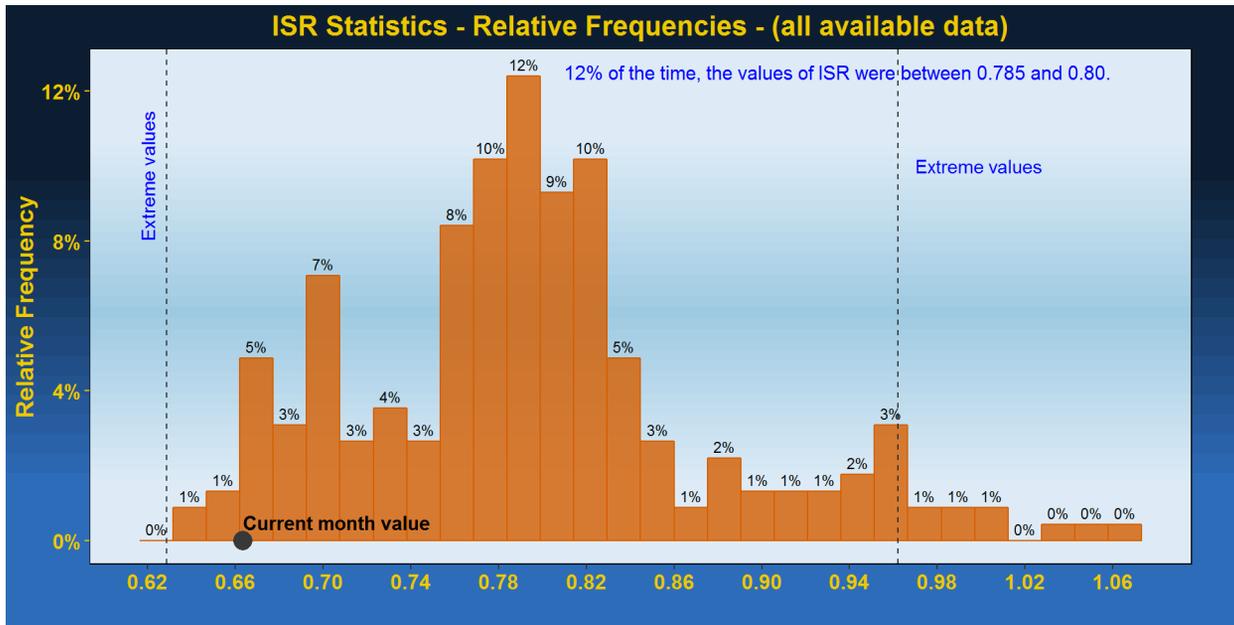
Monthly Patterns of Inventory - (data since 2000)

Monthly average depicted with solid green line, current year observations depicted as a black points



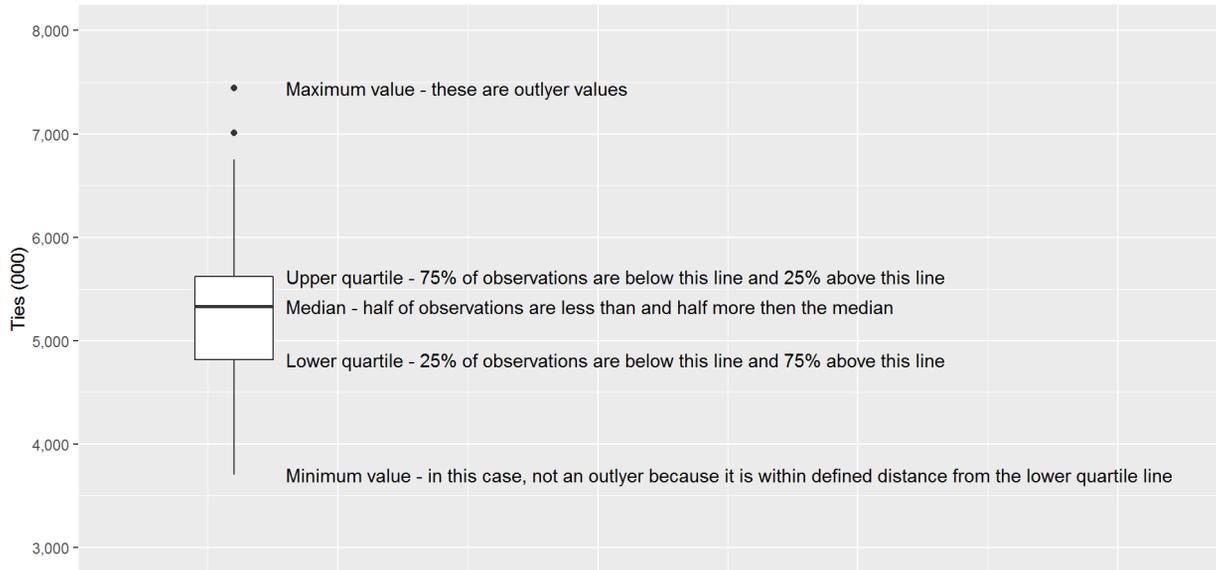


Inventory-to-Sales Ratio (ISR) histogram of relative frequencies shows the monthly ISR data distribution and the black point represents the value for current reporting month.



Appendix

Box Plot Explained



Histogram of Relative Frequencies Explained

