



Purchases Report

November 2023

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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 about 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

In November, the twelve months rolling total of purchases was higher than last year and an upward trend seems to be developing. The twelve months rolling total of production continued an upward trend. Analysis of the monthly data showed production was significantly above expectation while purchases were at their seasonal median.

Long-Term Trends

Production increased at a 27% annual rate.

Purchases rose at a 3.6% annual rate.

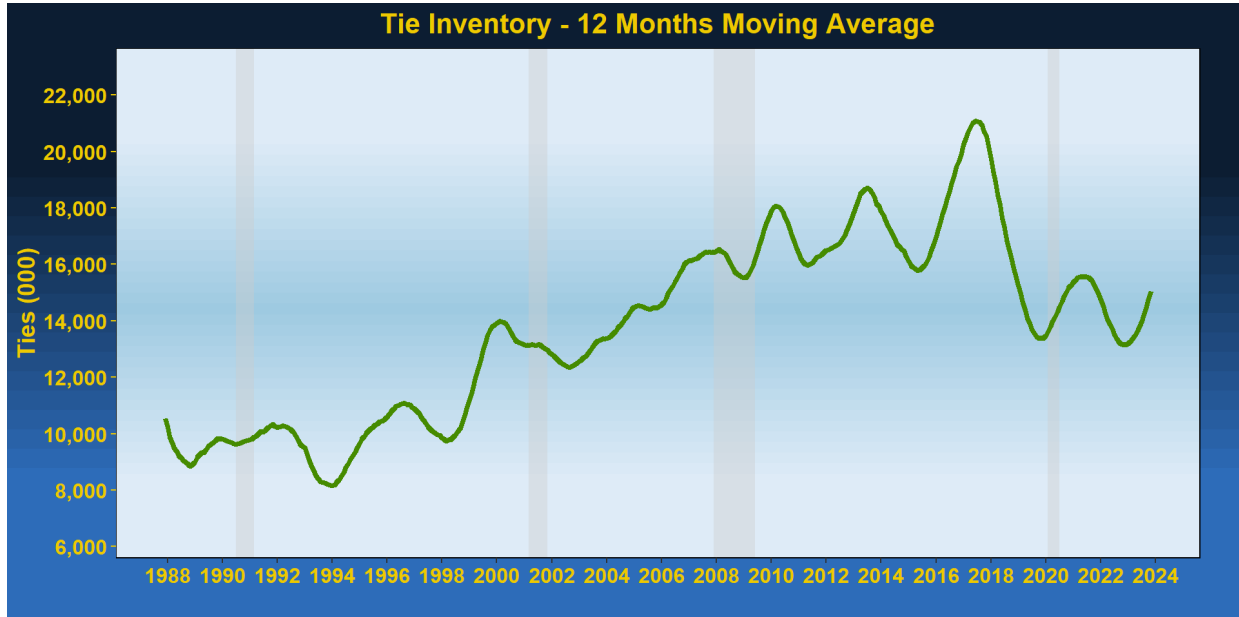
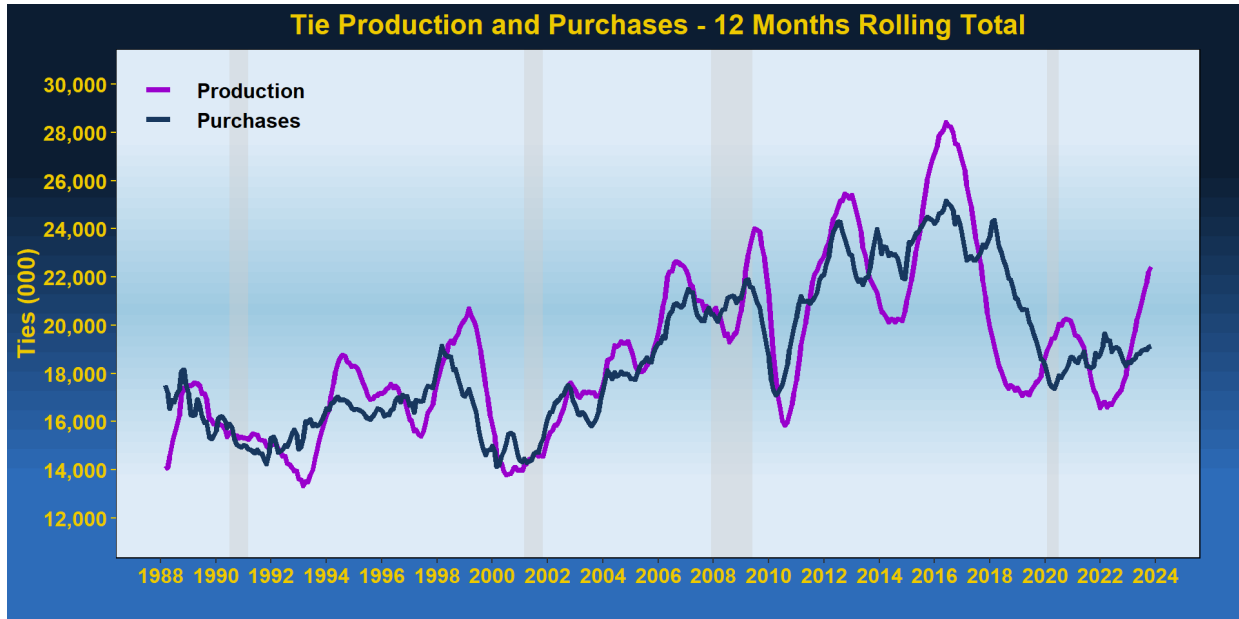
Inventory's 12 month moving average (12MMA) expanded by 14.4% from a year ago levels.

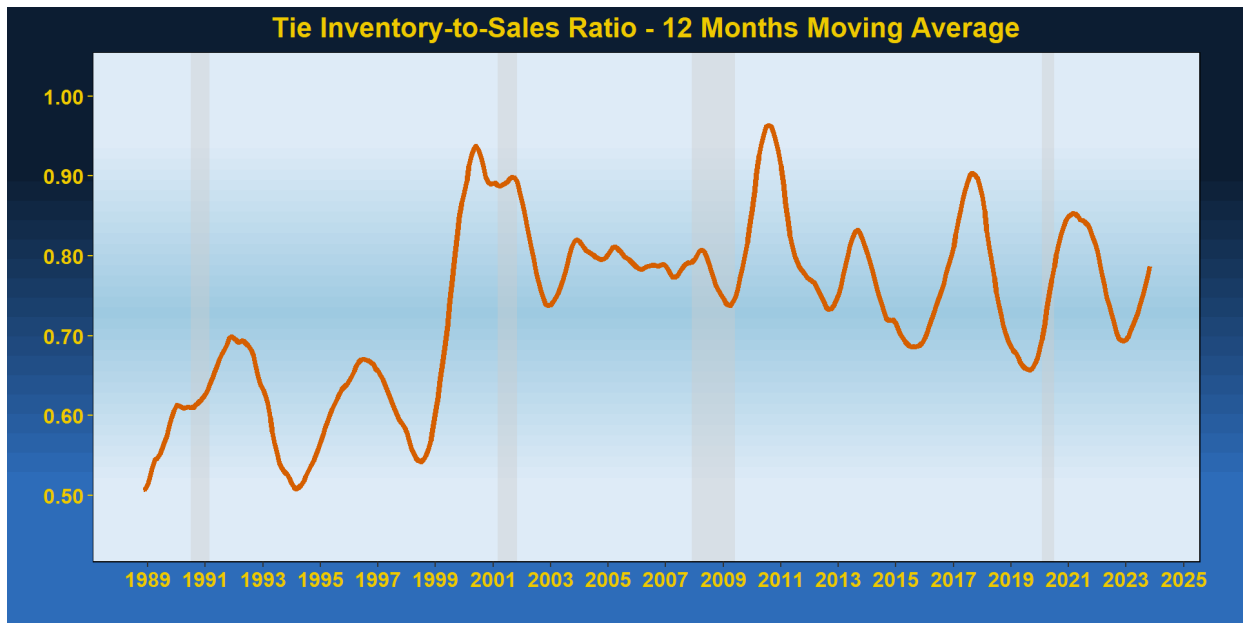
Inventory-to-Sales Ratio's 12MMA grew from 0.69 to 0.79.

Table of Annual Observations

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

Date	Production	Purchases	Inventory	ISR
November 2022	17,652	18,483	13,153	0.69
November 2023	22,420	19,145	15,045	0.79





Analysis of Quarterly Data

Production in Q3 expanded by 3.8% from last quarter and increased by 25.1% from a year ago.

For the same intervals, purchases decreased by 5.8% and grew by 3.5% respectively.

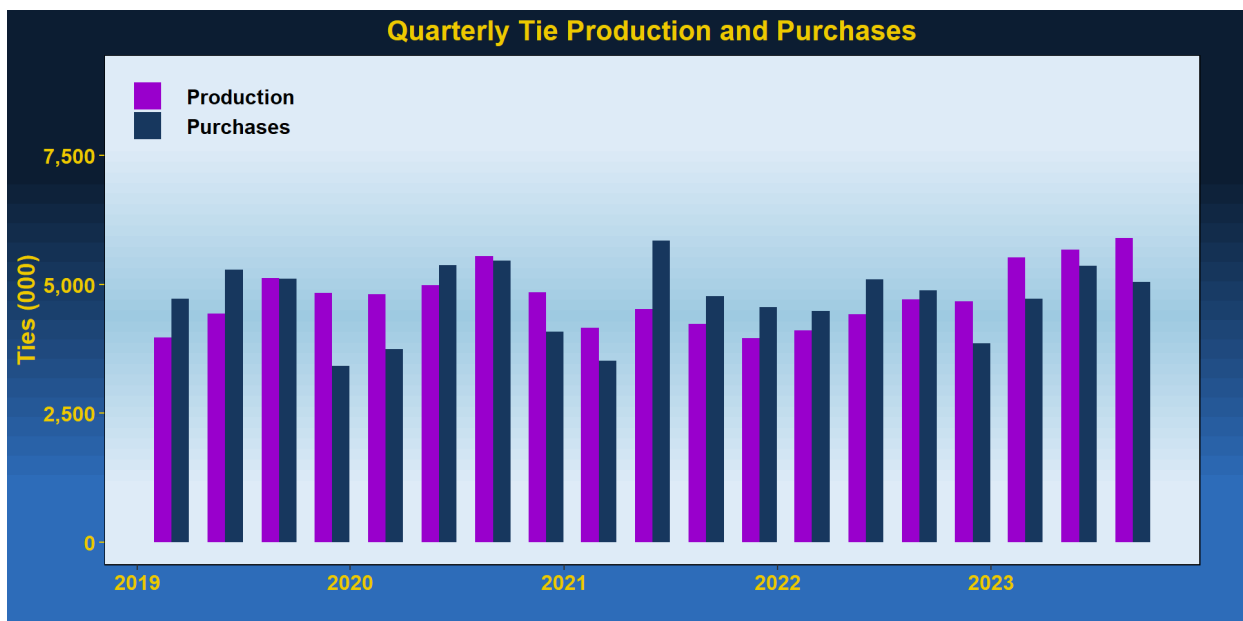
Inventory's 3MMA grew by 5.8% from last quarter and grew by 22% from a year ago levels.

From Q2 2023 to Q3 2023, the 3MMA of Inventory-to-Sales Ratio grew from 0.78 to 0.80. One year ago, the ratio was 0.67.

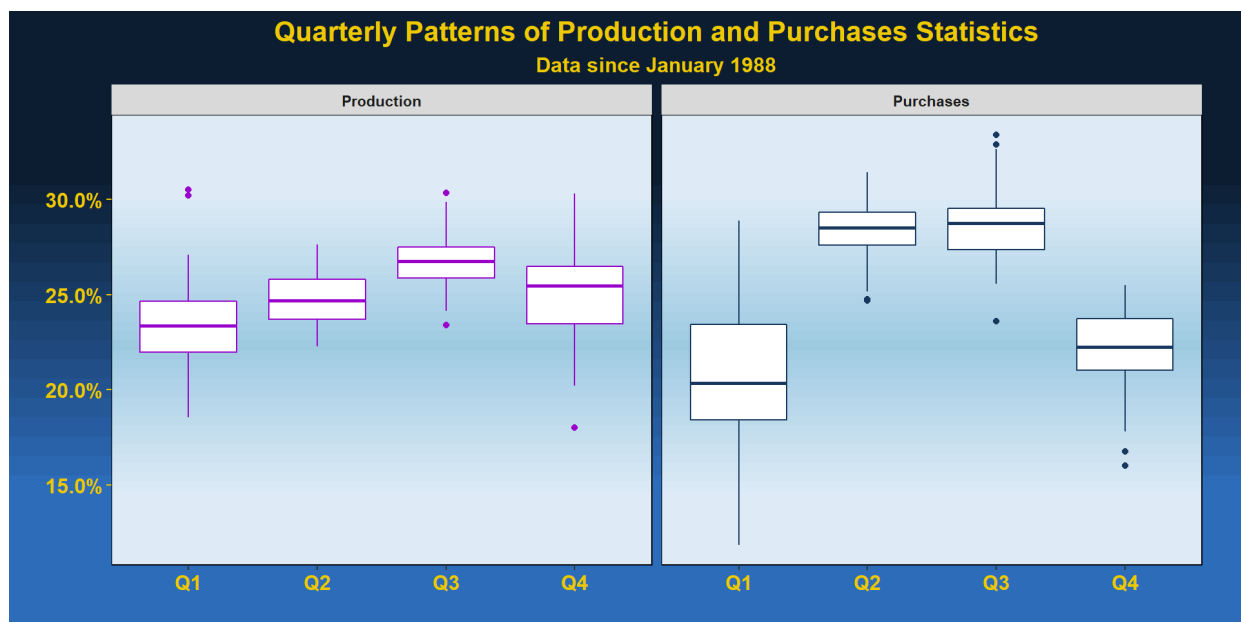
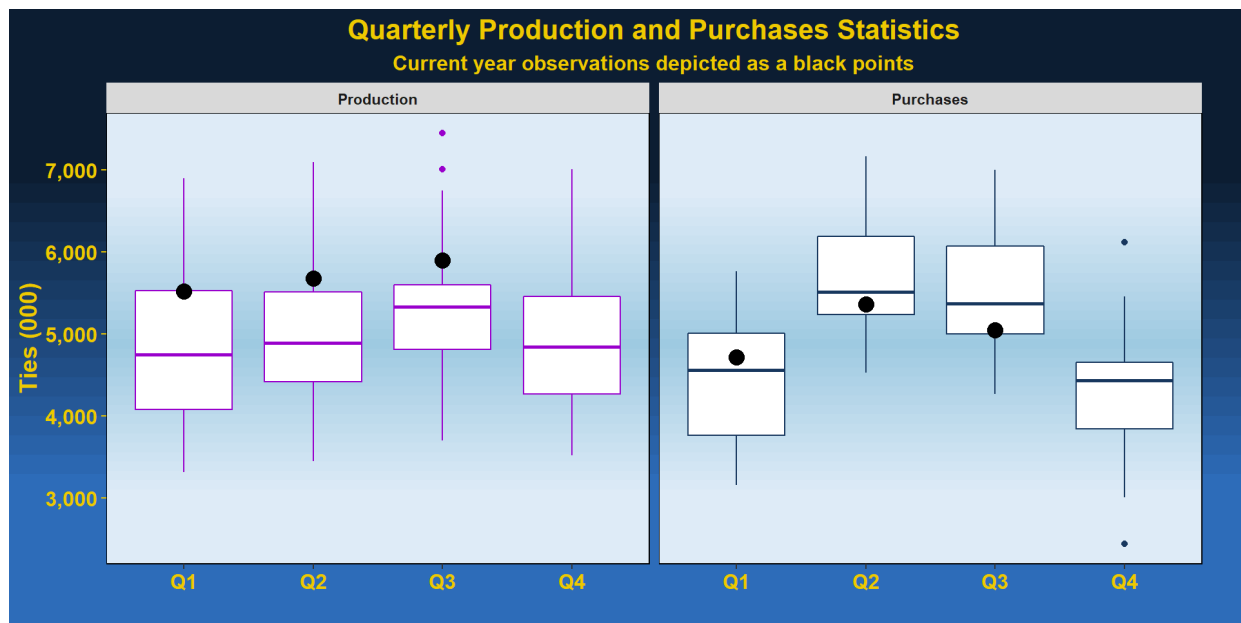
Table of Quarterly Observations

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

Date	Production	Purchases	Inventory	ISR
September 2022	4,713	4,878	12,699	0.67
June 2023	5,678	5,360	14,643	0.78
September 2023	5,896	5,047	15,492	0.80



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 (a more detailed explanation is available in the Appendix section). It also displays what the production and purchases were in each quarter of reporting year 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 dropped by 6.6% from last month and grew by 13.4% from a year ago.

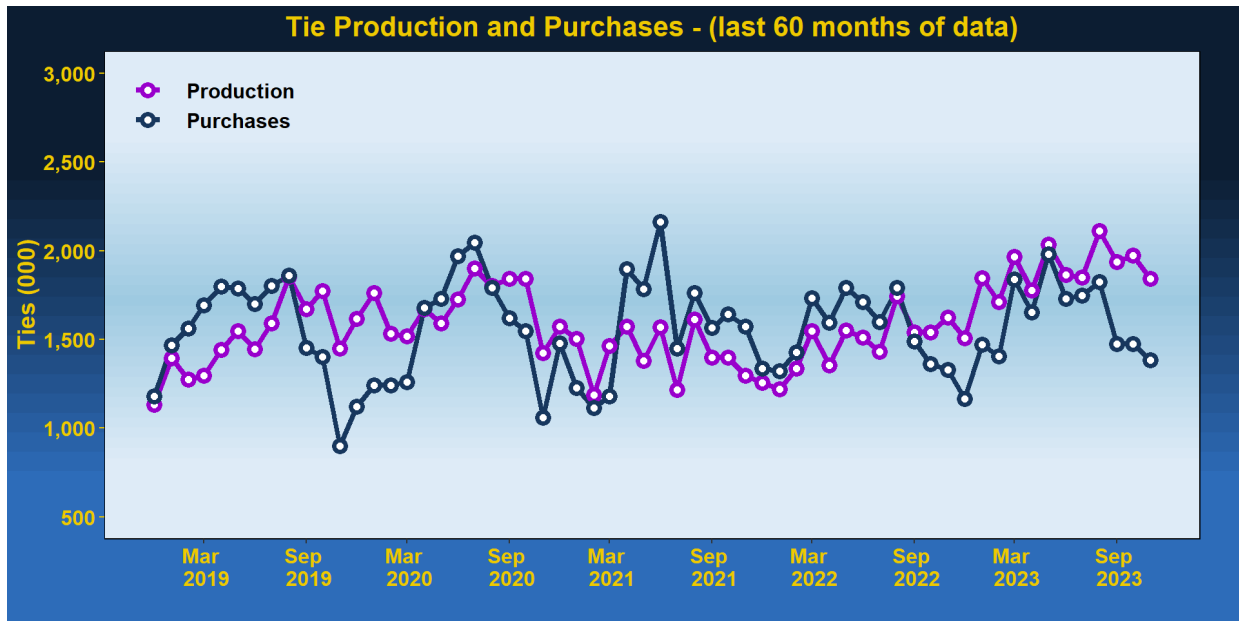
For the same time intervals, purchases dwindled by 6.1% and advanced by 4.2% respectively.

Inventory levels expanded by 2.9% from last month and grew by 24.9% from a year ago levels.

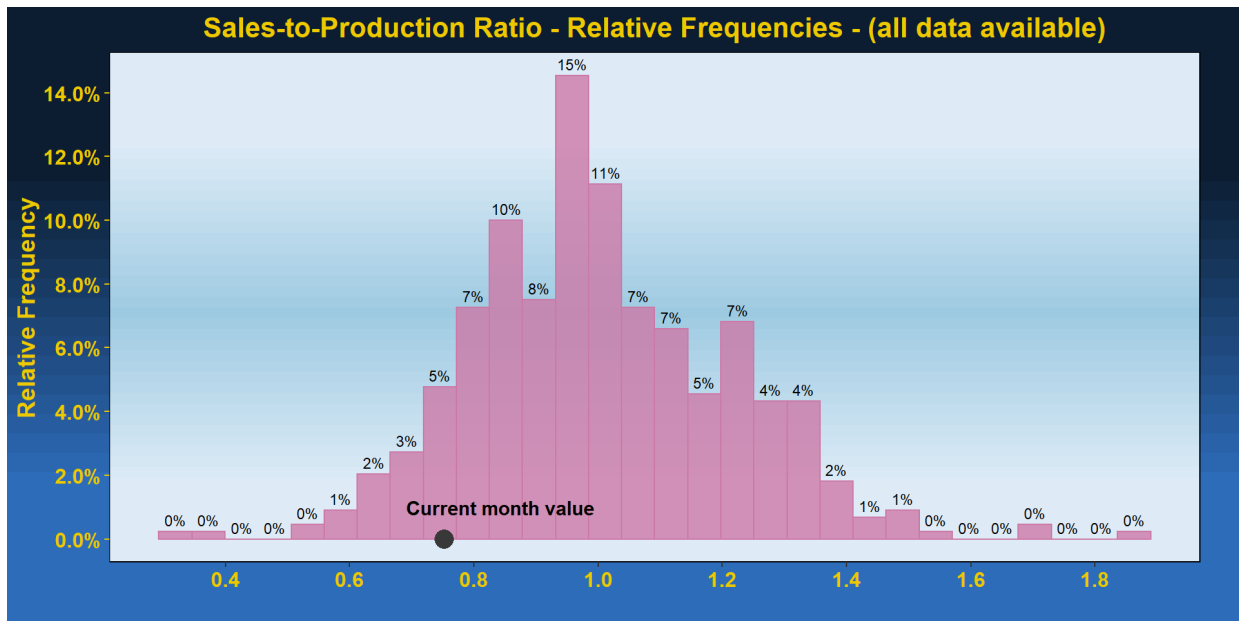
From month ago, the Inventory-to-Sales Ratio expanded from 0.84 to 0.86 and from year ago the ratio expanded from 0.71.

Table of Monthly Observations

Date	Production	Purchases	Inventory	ISR
November 2022	1,625	1,329	13,170	0.71
October 2023	1,971	1,475	15,988	0.84
November 2023	1,842	1,385	16,445	0.86

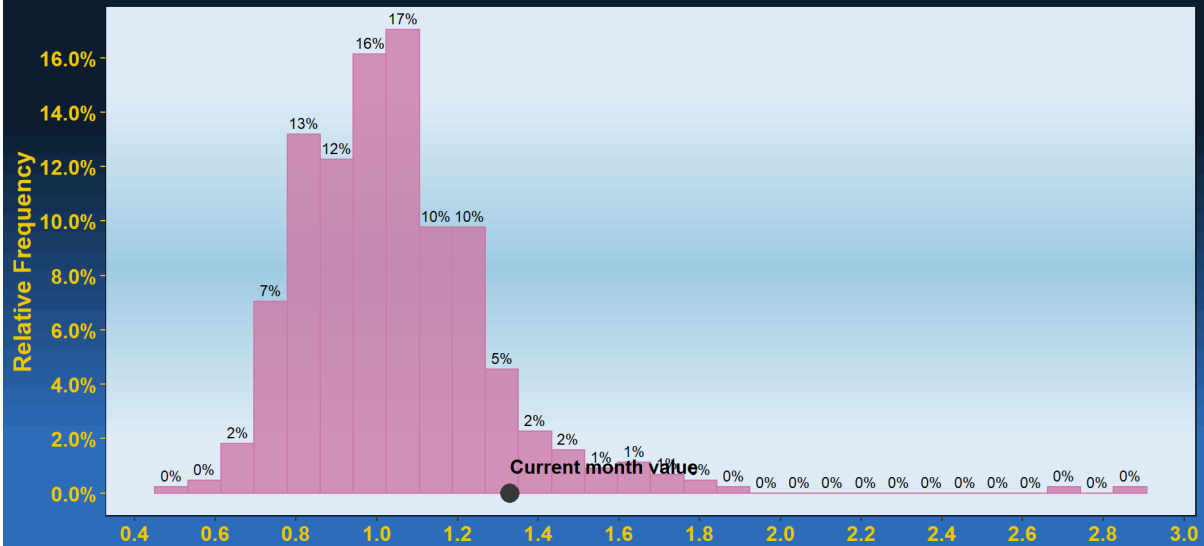


Sales-to-Production Ratio shows the replenishment/diminishment of inventory. Ratio above one signals diminishment and ratio below one replenishment of inventory stock.



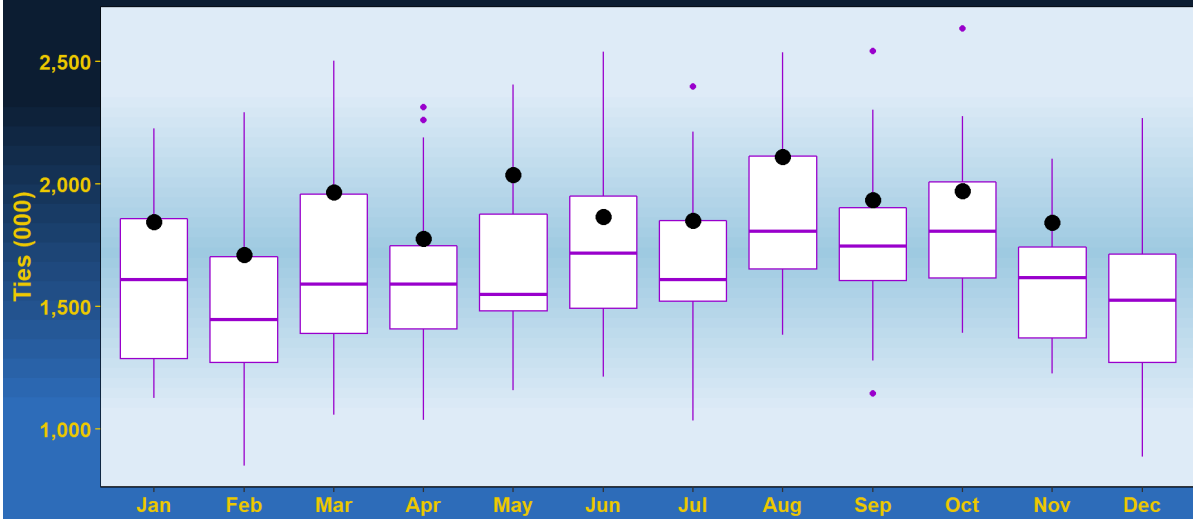
The following graph tells the same story as the graph above, just the ratio is reversed - Production-to-Sales Ratio.

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



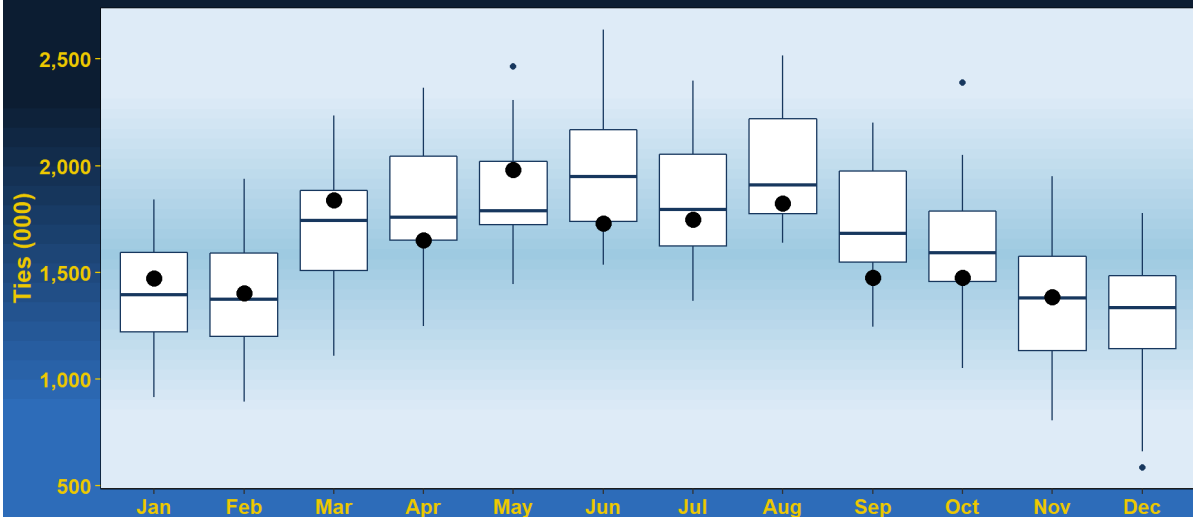
Monthly Production Statistics - (data since 2000)

Current year observations depicted as a black points



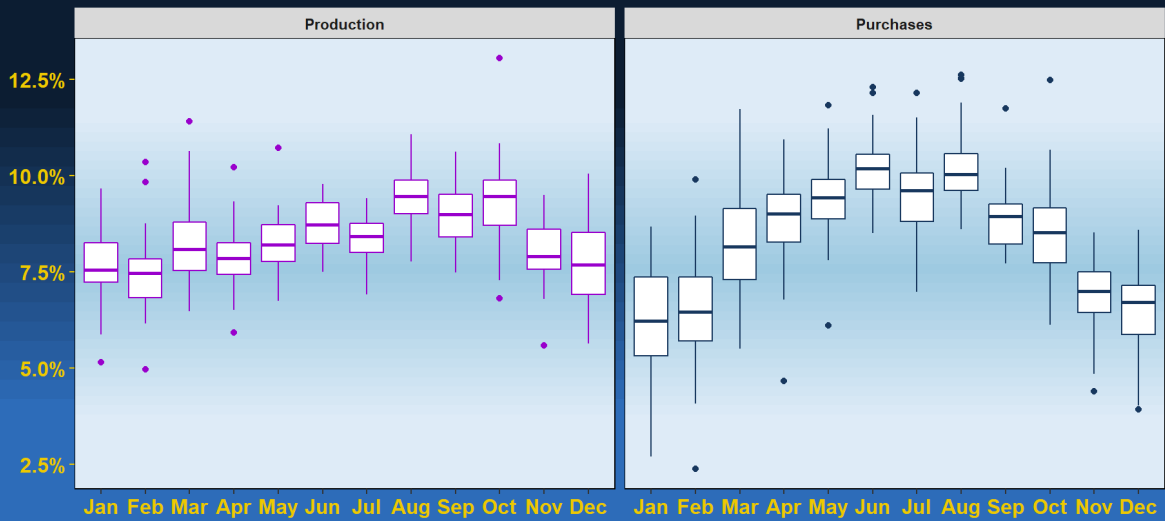
Monthly Purchases Statistics - (data since 2000)

Current year observations depicted as a black points

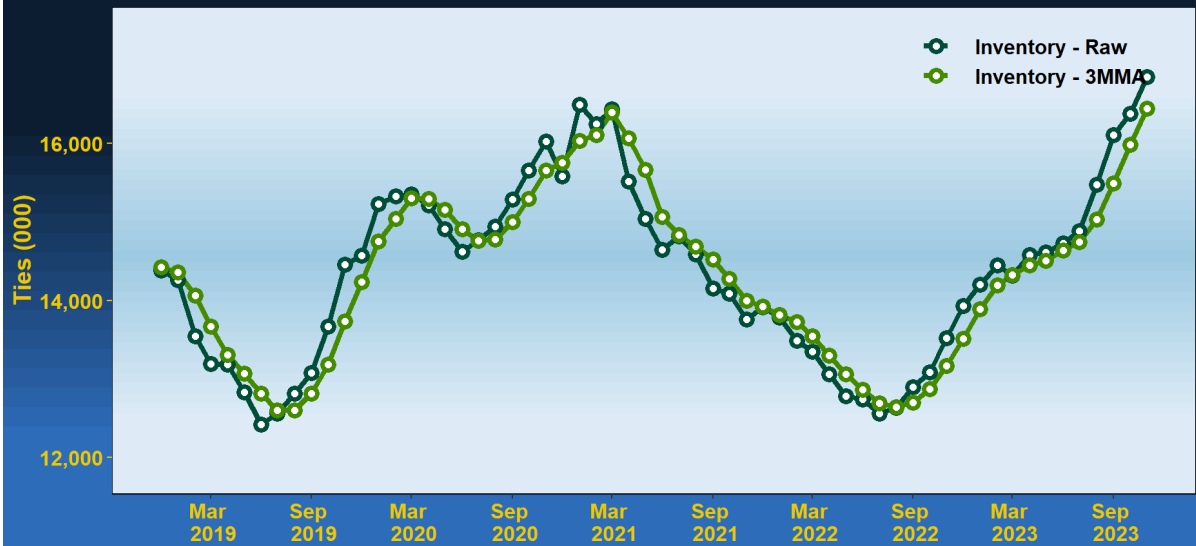


Monthly Pattern of Production and Purchases Statistics - Percent of Annual Total

Data since January 1988

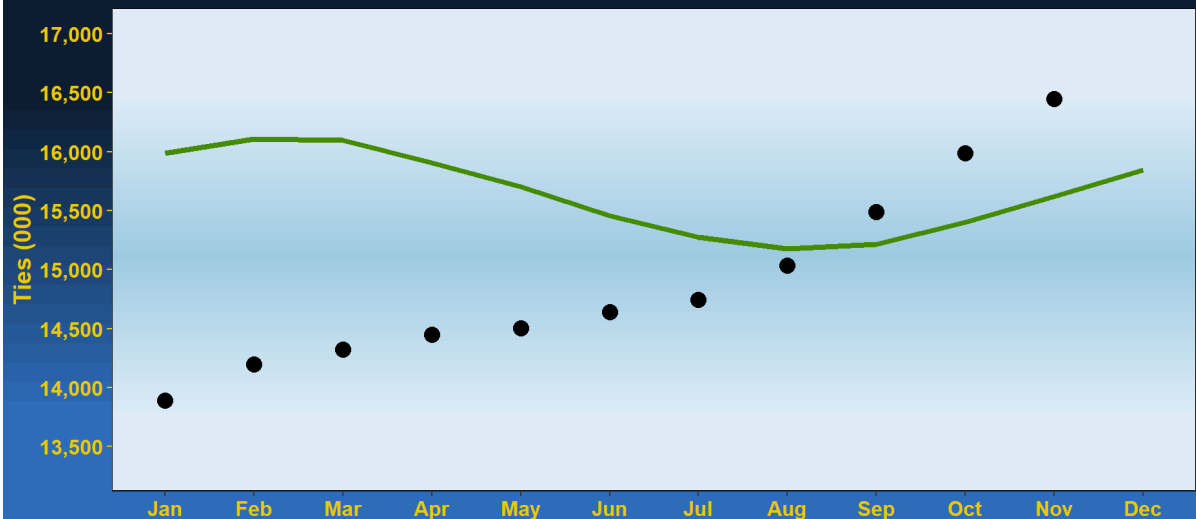


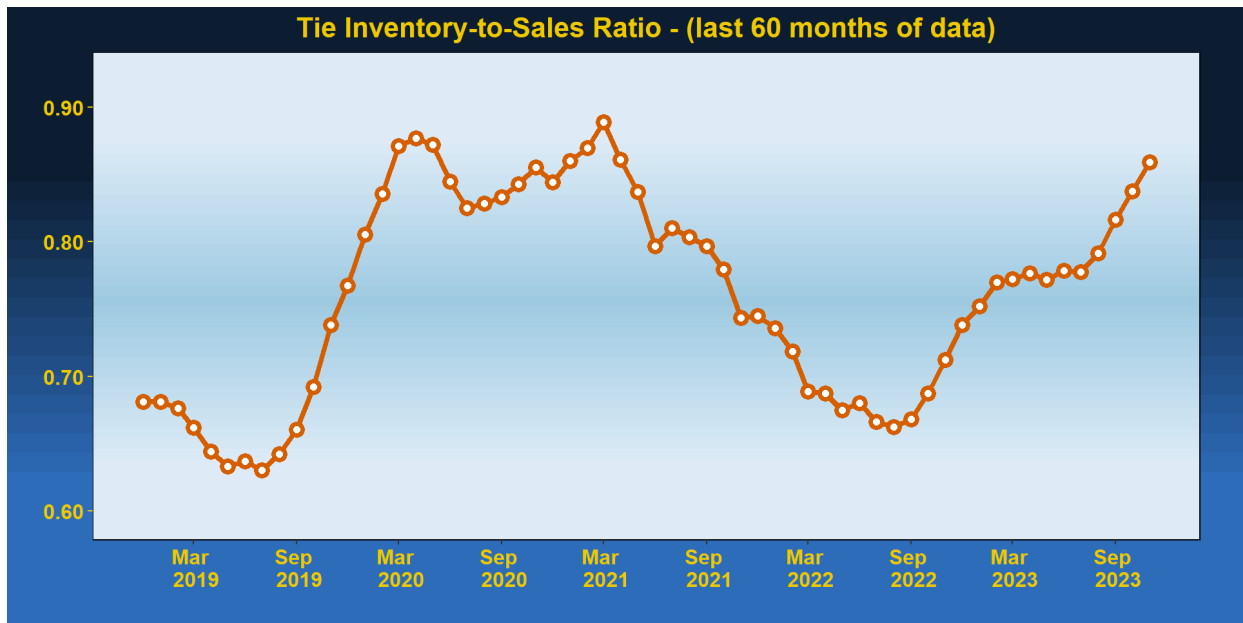
Tie Inventory - Raw Monthly and 3MMA Data - (last 60 months of data)



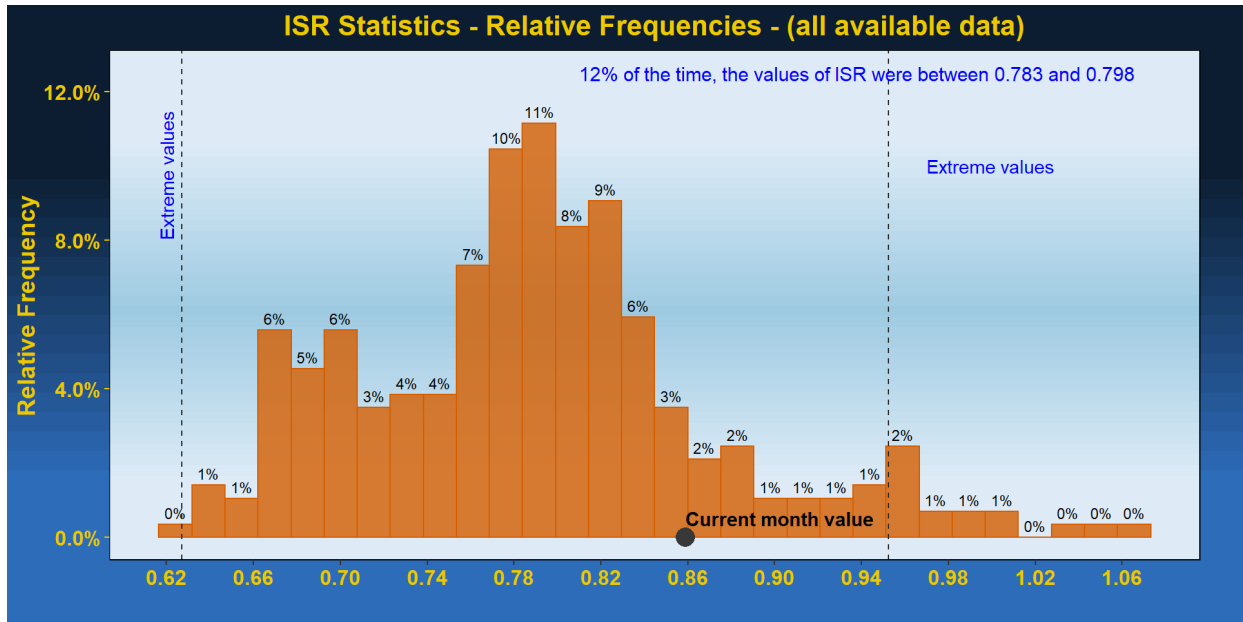
Monthly Patterns of Inventory - (data since 2000)

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





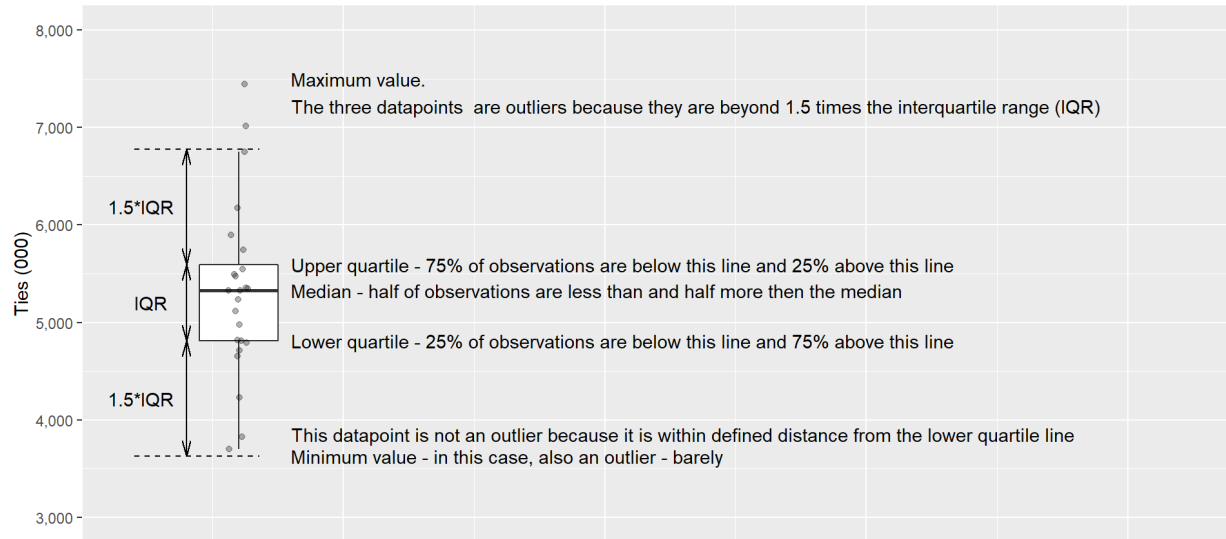
Inventory-to-Sales Ratio (ISR) histogram of relative frequencies shows the monthly ISR data distribution and the black point represents the value for the current reporting month.



Appendix

Box Plot Explained

Underlying data displayed as 'jittered' points



Histogram of Relative Frequencies Explained

