



# Purchases Report

April 2024

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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 April, the twelve-month rolling total of purchases and production both continued their upward trend. Annual production growth outpaced purchases by 10%. Analysis of the monthly data revealed that production was significantly above the third quartile of expected values, placing it in the outlier territory. Purchases were also much higher than expected.

## Long-Term Trends

Production advanced at a 21.6% annual rate.

Purchases increased at a 7.4% annual rate.

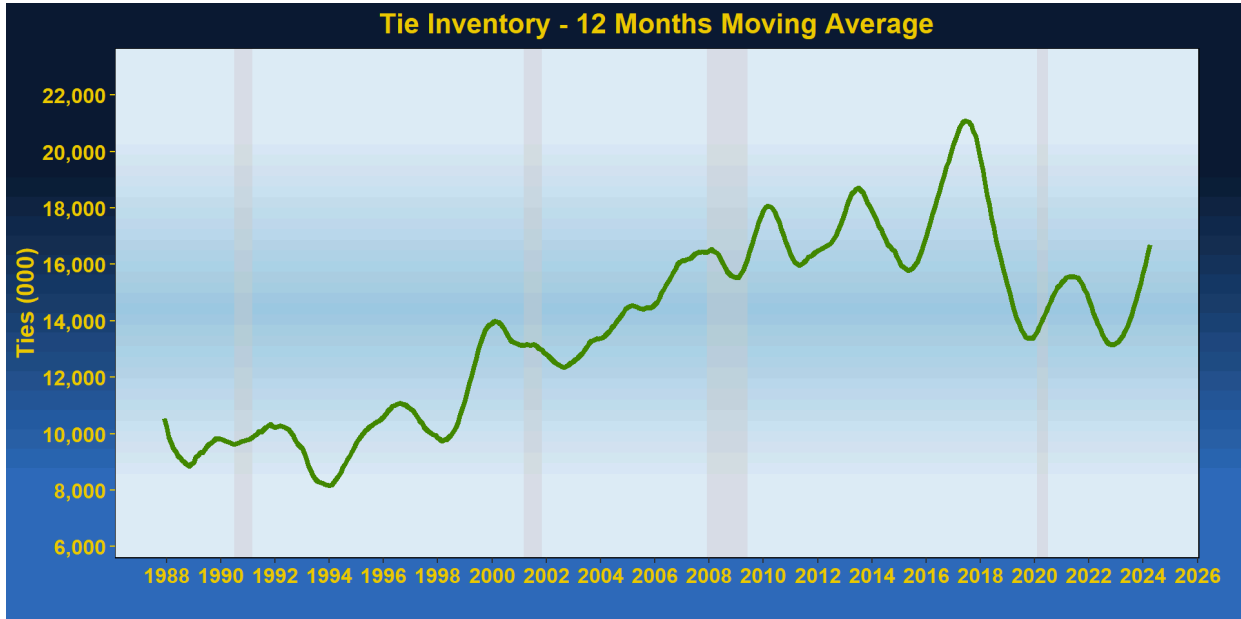
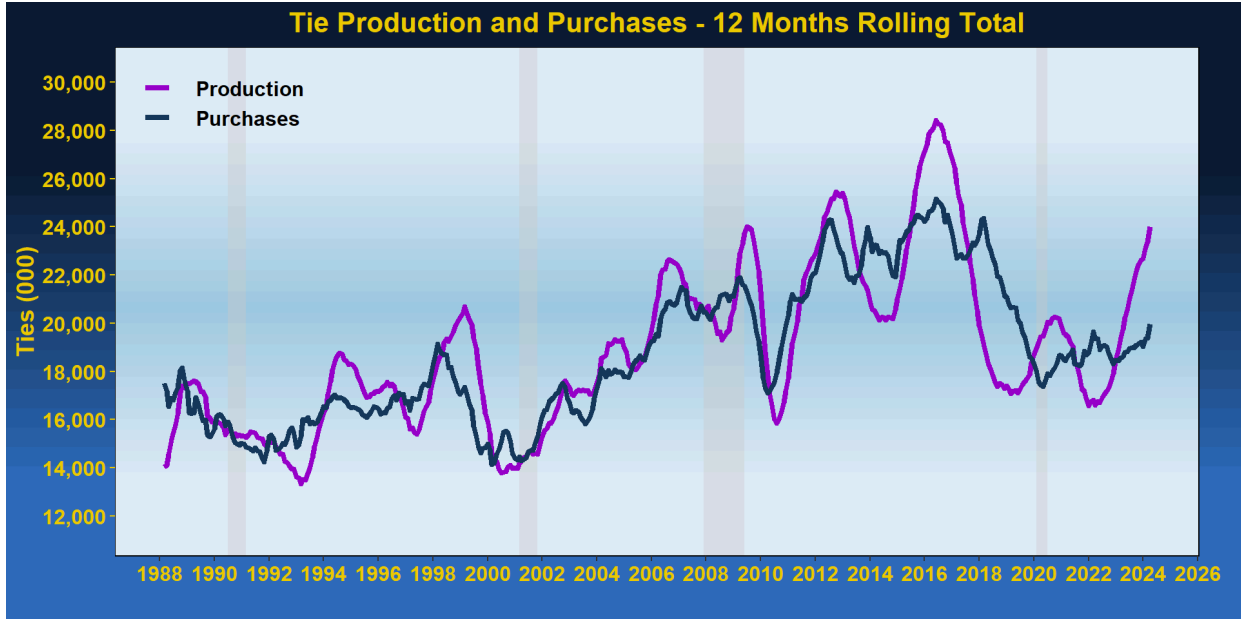
Inventory's 12 month moving average (12MMA) grew by 23.8% from a year ago levels.

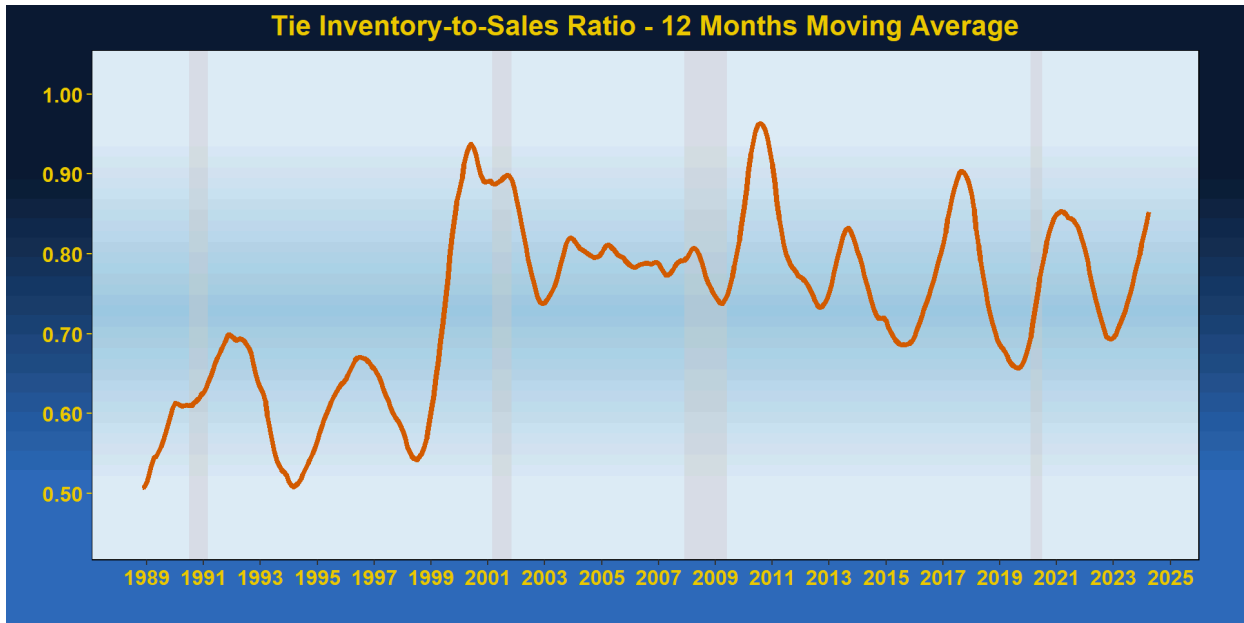
Inventory-to-Sales Ratio's 12MMA increased from 0.71 to 0.85.

### Table of Annual Observations

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

Date	Production	Purchases	Inventory	ISR
April 2023	19,748	18,601	13,477	0.71
April 2024	24,014	19,971	16,686	0.85



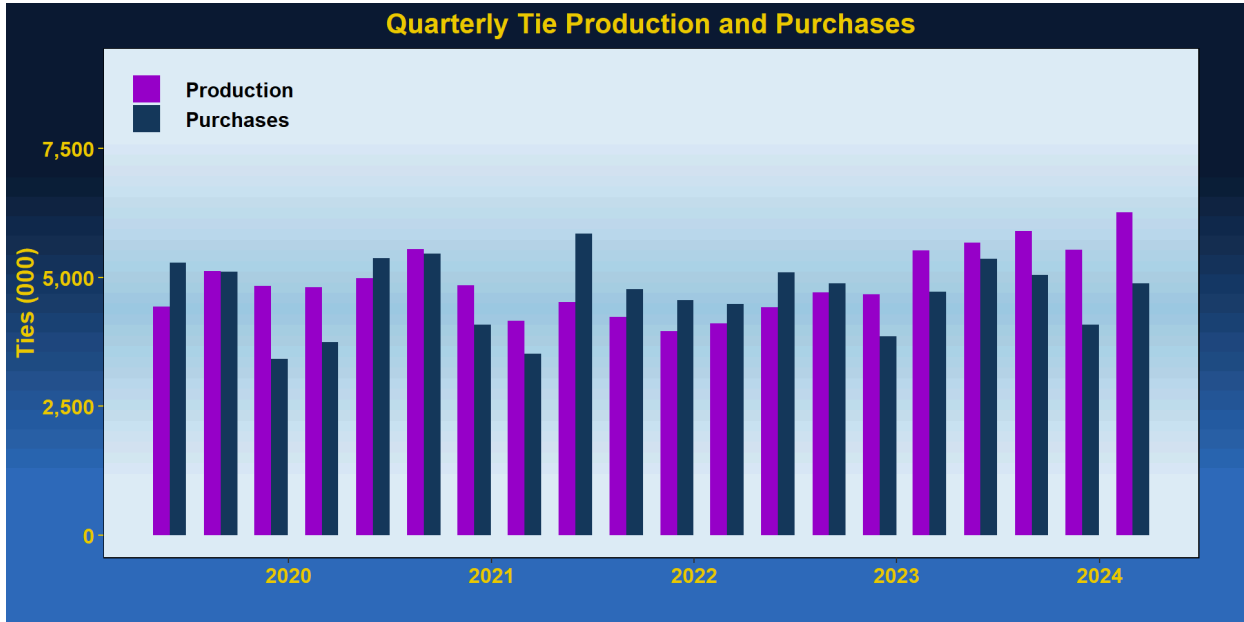


### Analysis of Quarterly Data

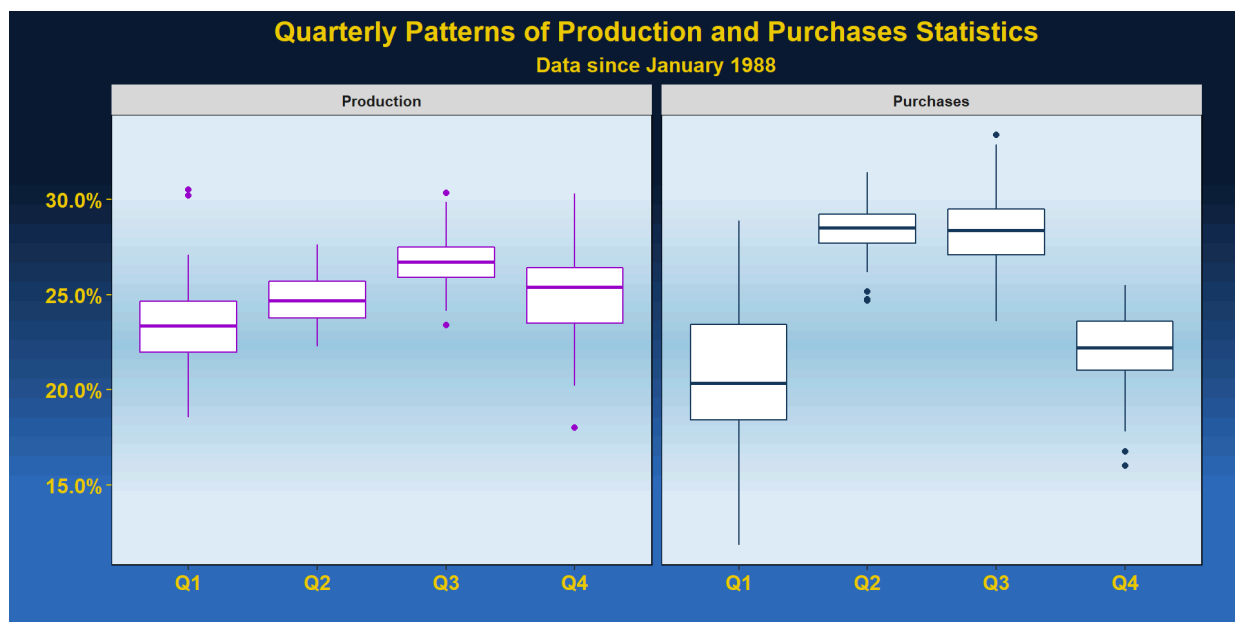
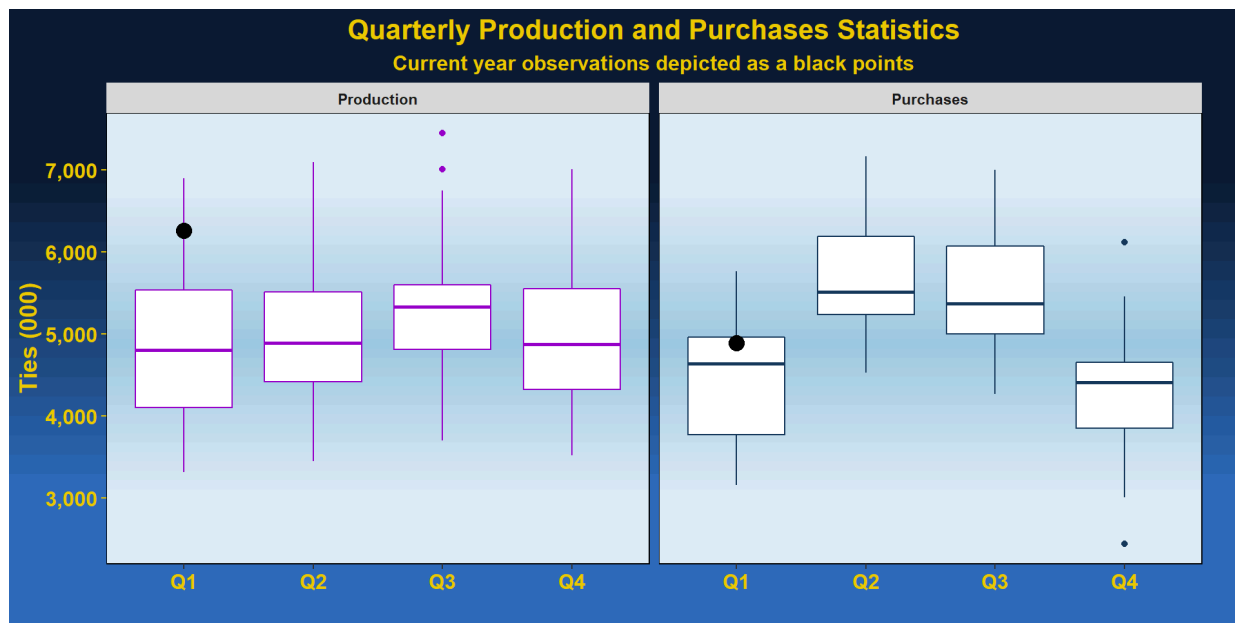
Production in Q1 increased by 13.2% from last quarter and grew by 13.4% from a year ago. For the same intervals, purchases advanced by 19.6% and grew by 3.6% respectively. Inventory's 3MMA grew by 8.1% from last quarter and increased by 27.8% from a year ago levels. From Q4 2023 to Q1 2024, the 3MMA of Inventory-to-Sales Ratio advanced from 0.86 to 0.93. One year ago, the ratio was 0.76.

**Table of Quarterly Observations**  
*Production and Purchases Quarterly Sum, Inventory and ISR - 3MMA*

Date	Production	Purchases	Inventory	ISR
March 2023	5,524	4,714	14,325	0.76
December 2023	5,530	4,086	16,936	0.86
March 2024	6,263	4,886	18,313	0.93



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 grew by 10.5% from last month and advanced by 36.4% from a year ago.

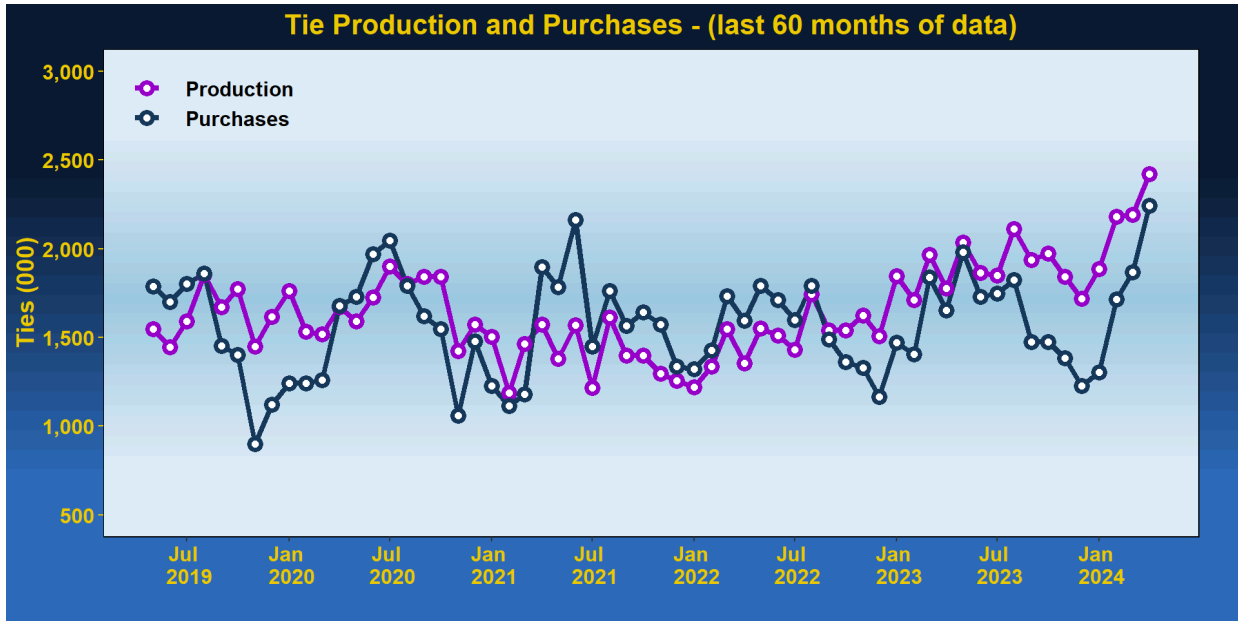
For the same time intervals, purchases expanded by 20.2% and increased by 35.9% respectively.

Inventory levels increased by 1% from last month and grew by 28% from a year ago levels.

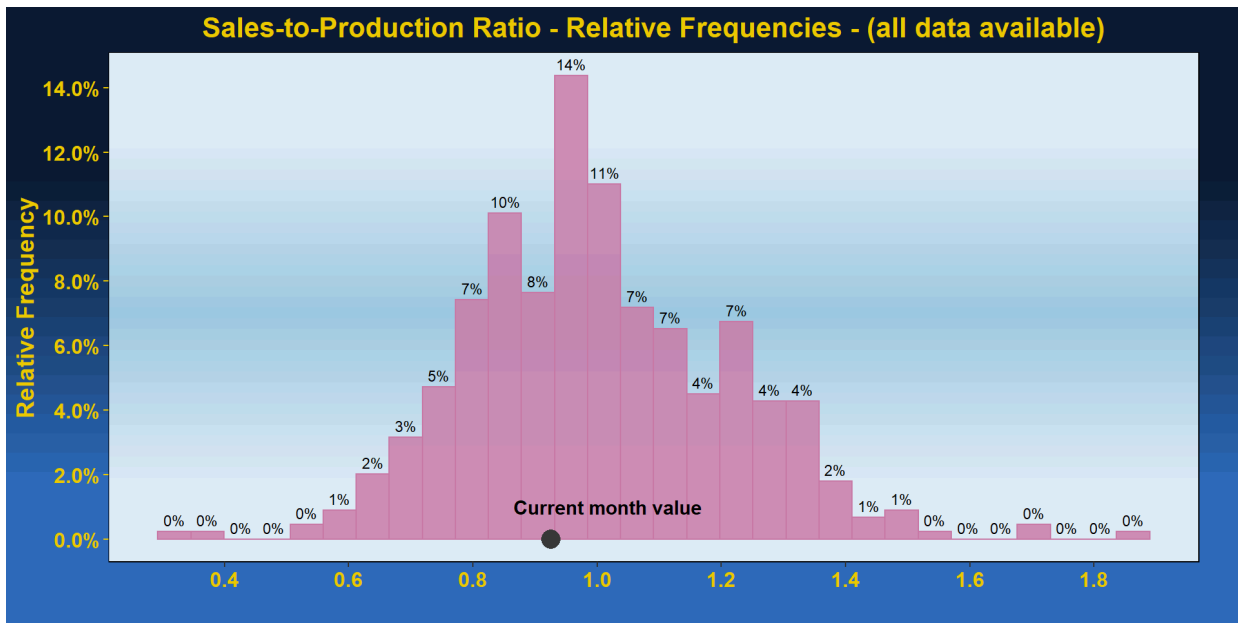
From month ago, the Inventory-to-Sales Ratio came down from 0.94 to 0.93 and from year ago the ratio grew from 0.78.

**Table of Monthly Observations**

Date	Production	Purchases	Inventory	ISR
April 2023	1,777	1,652	14,450	0.78
March 2024	2,193	1,867	18,313	0.94
April 2024	2,423	2,244	18,492	0.93

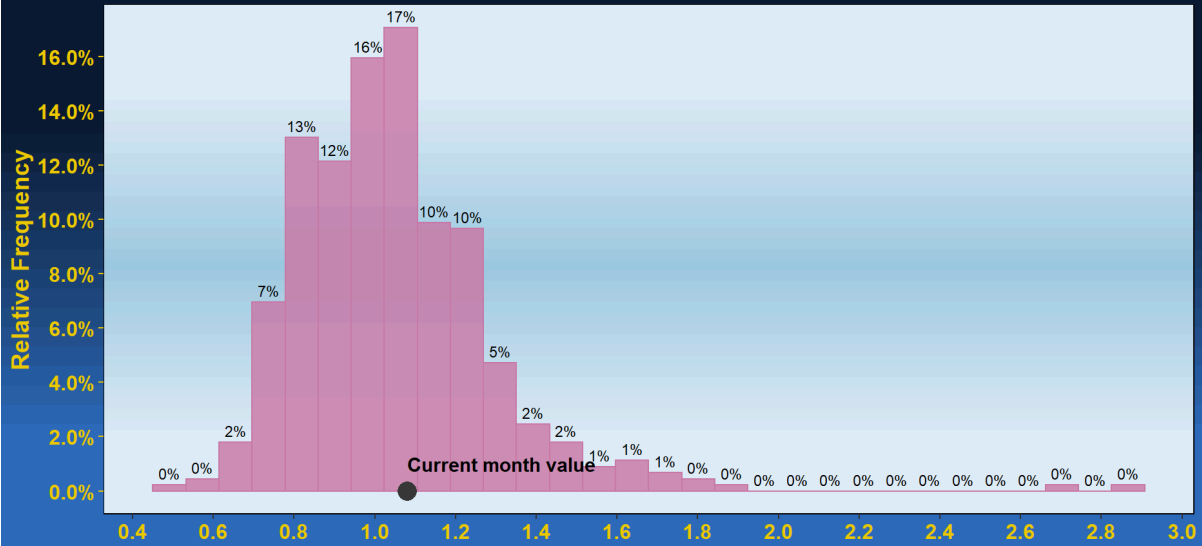


Sales-to-Production Ratio shows the replenishment/diminishment of inventory. Ratio above one signals diminishment and ratio below one replenishment of inventory stock.



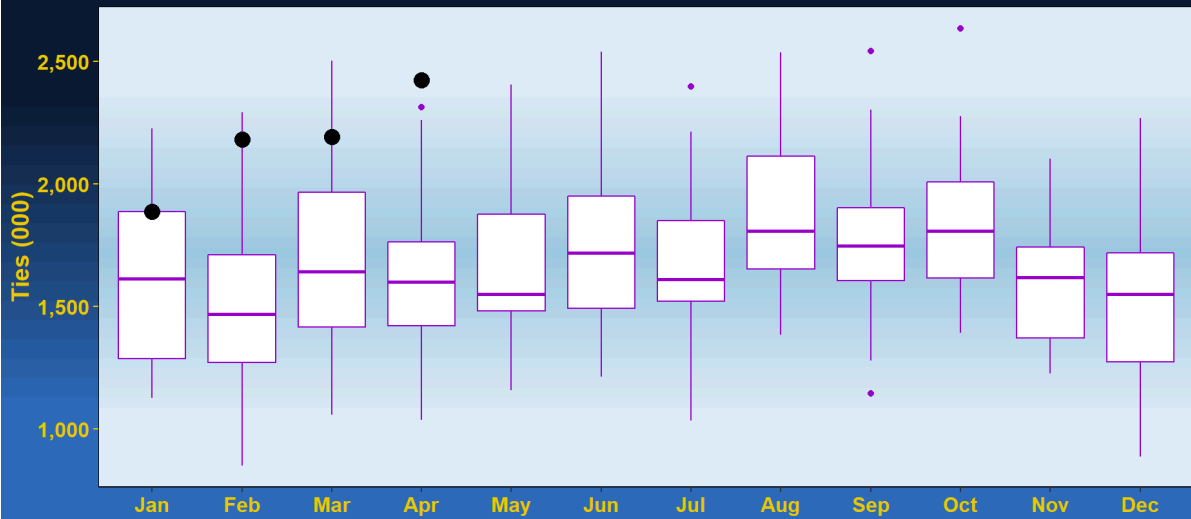
The following graph tells the same story as the graph above, just the ratio is reversed - Production-to-Sales Ratio.

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



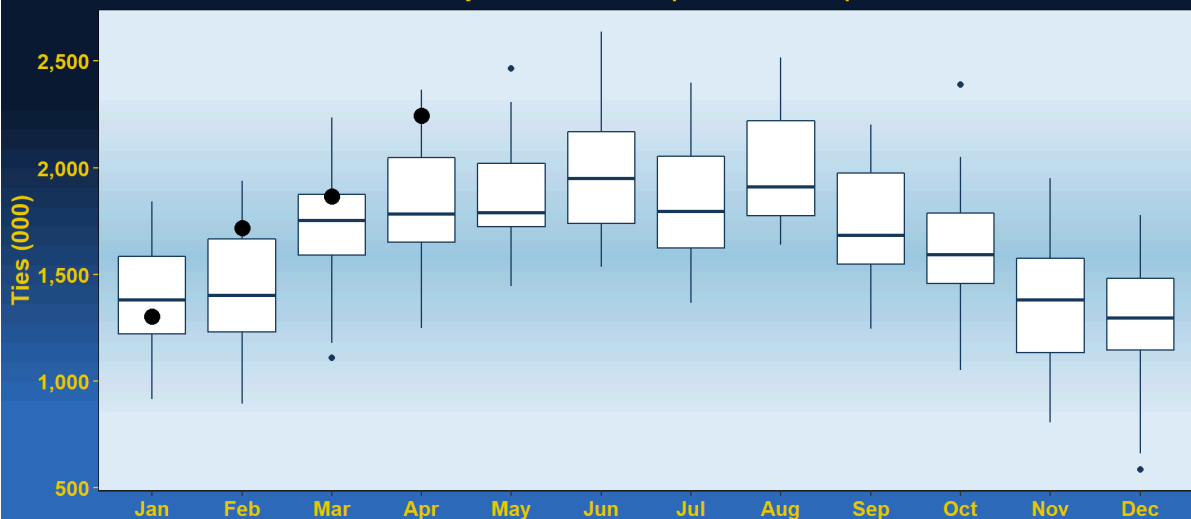
### Monthly Production Statistics - (data since 2000)

Current year observations depicted as a black points



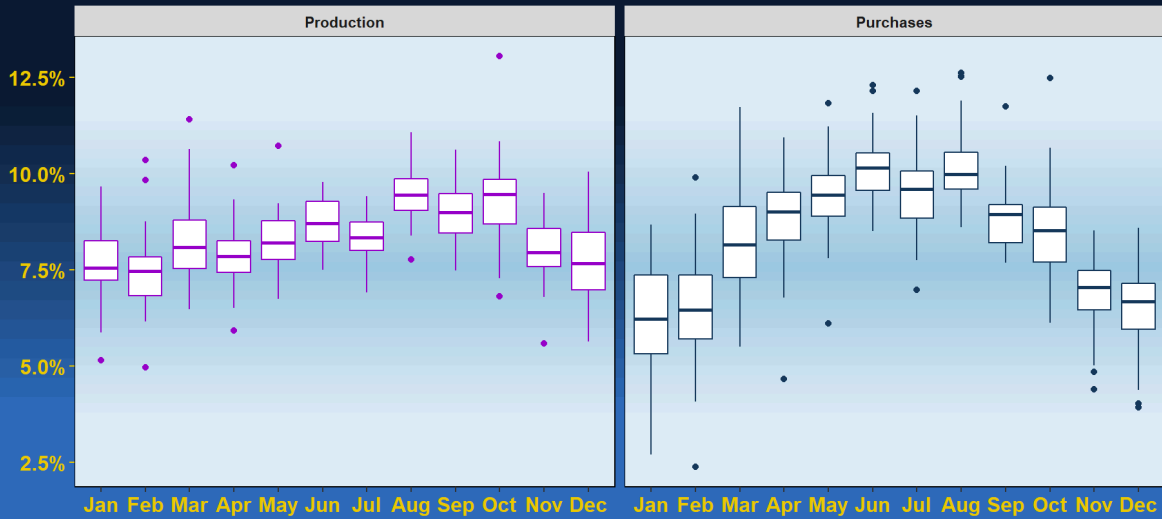
### Monthly Purchases Statistics - (data since 2000)

Current year observations depicted as a black points

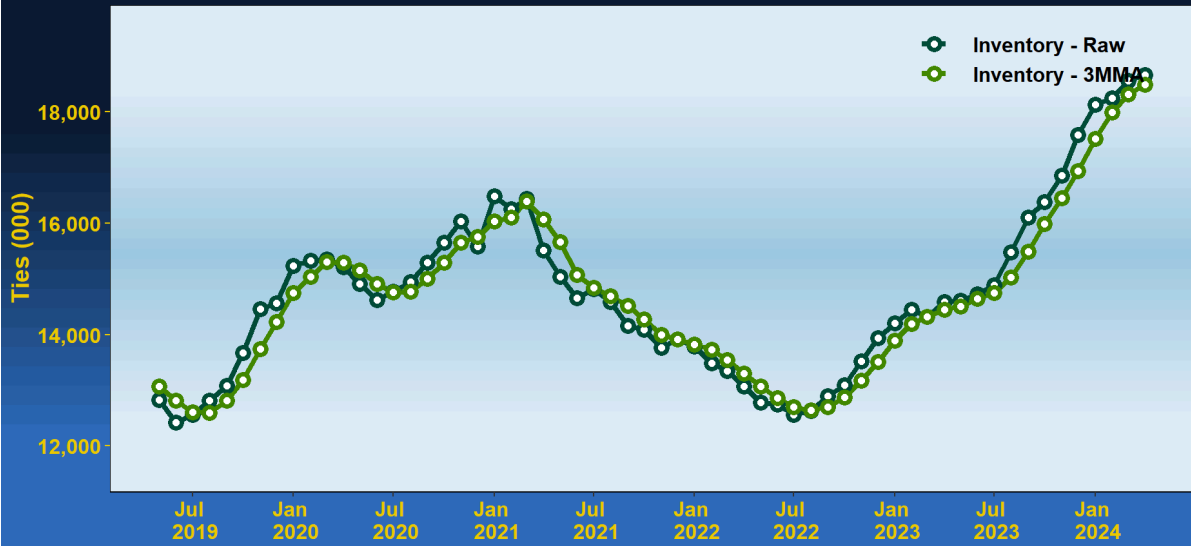


### Monthly Pattern of Production and Purchases Statistics - Percent of Annual Total

Data since January 1988

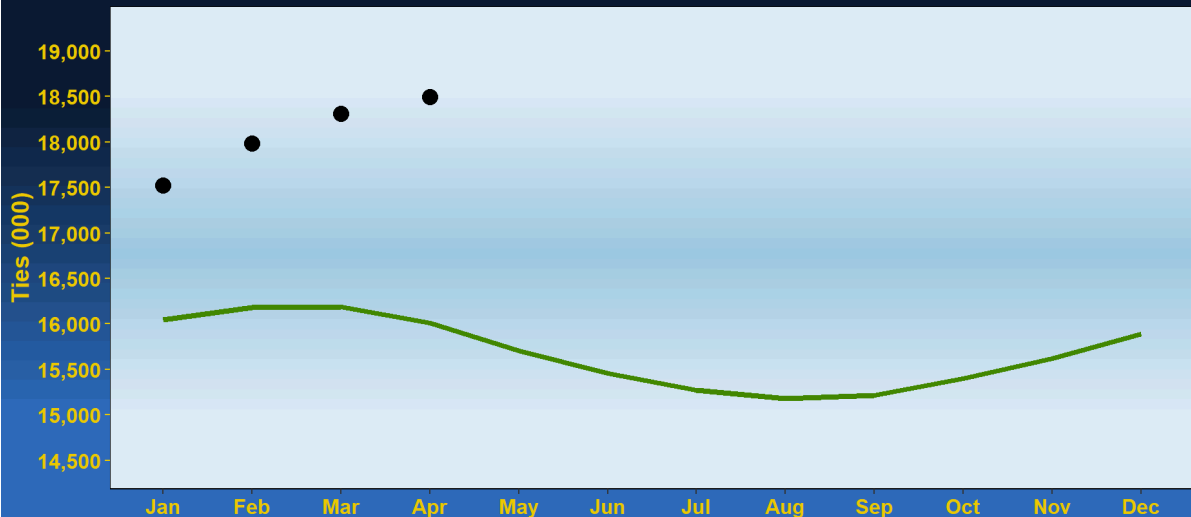


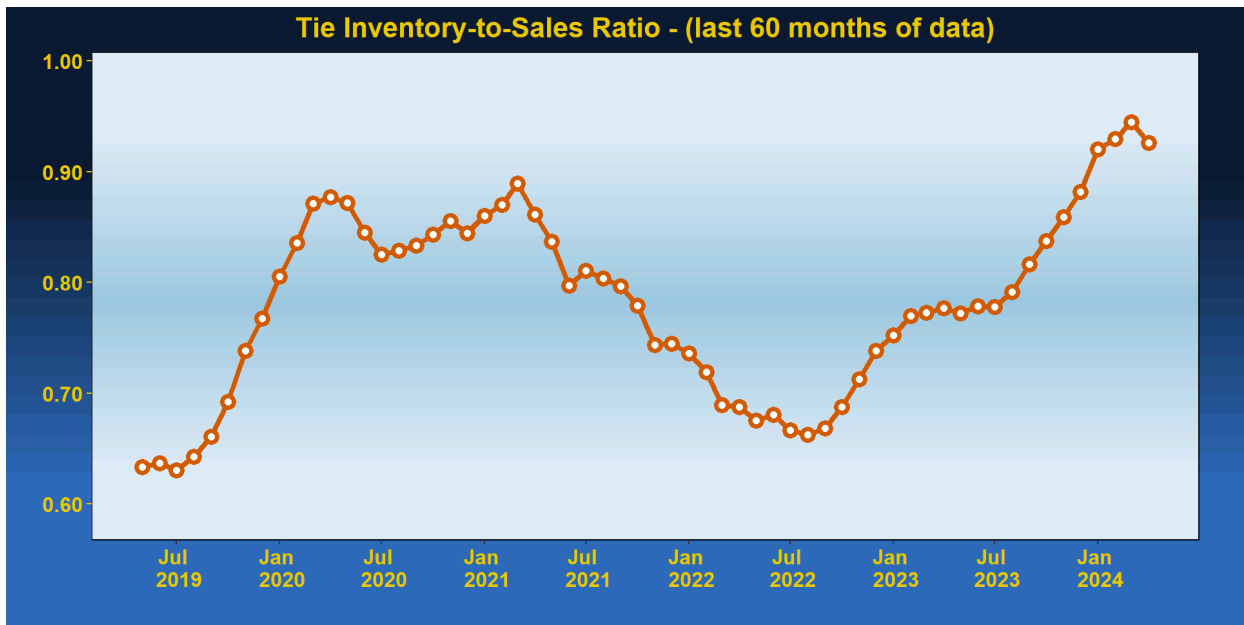
### Tie Inventory - Raw Monthly and 3MMA Data - (last 60 months of data)



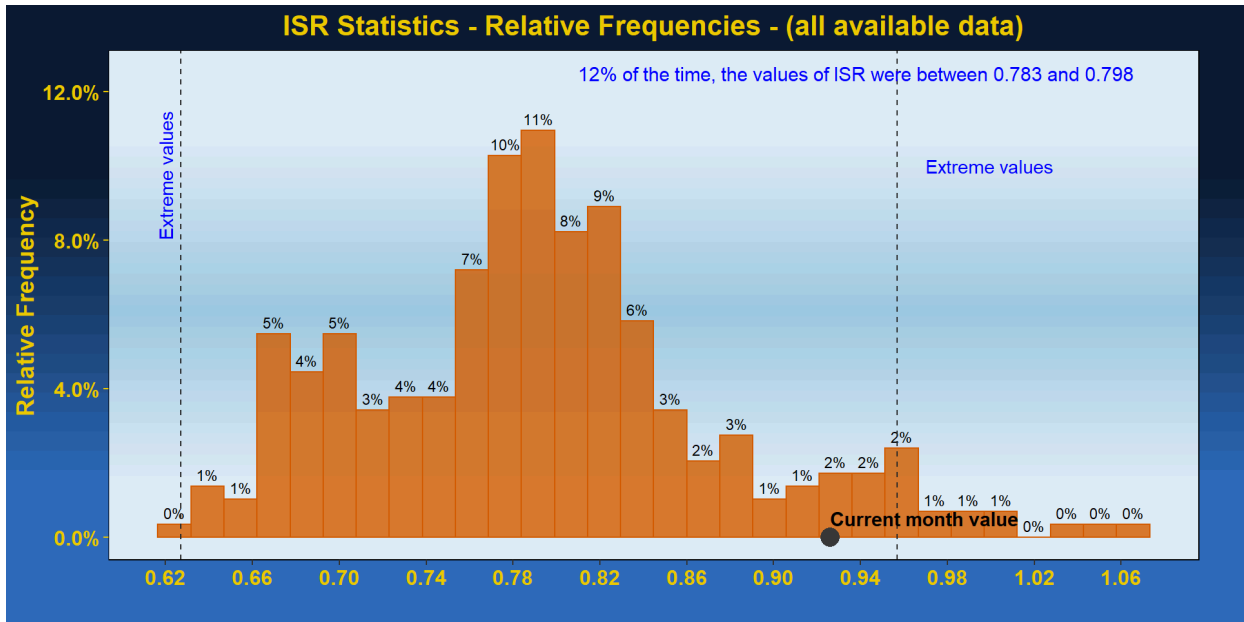
### Monthly Patterns of Inventory - (data since 2000)

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.

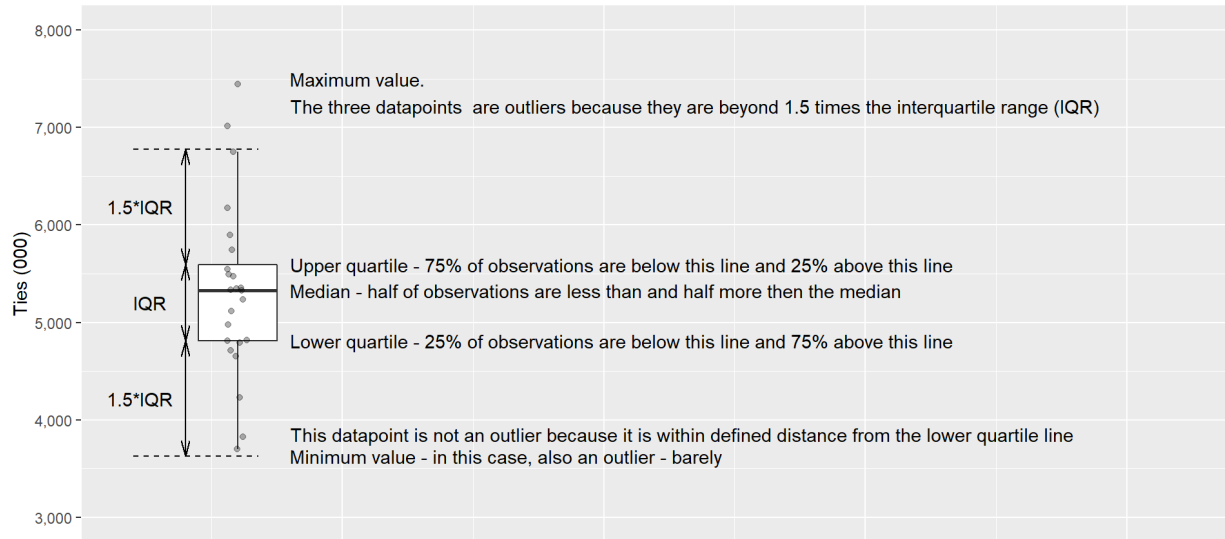




# Appendix

## Box Plot Explained

Underlying data displayed as 'jittered' points



## Histogram of Relative Frequencies Explained

