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MSDS 6306-403

Live Session Homework 9

Analysis: UK Car Production using UKCars

When we plot, we can see a clear upward and downward trend through the cycle, however, it’s not entirely clear that the trend is seasonal. A better plot to detect this would be running the data on a monthly basis and then identifying the trend.

When we adjust, using the seasonal adjust function, we see somewhat of the same thing, in that, we see consistent upward and downward fluctuation in the line, which seems consisitent with seasonality however, this could just be adjustments for the business cycle. There is not definitive evidence using this tool of seasonality.

I adjusted the 76th observation to be +500, what we can see is that it appears that production grew dramatically during the period and then fell slightly. The timing is believable as this would have coincided with global recession and the is around the time that the tech bubble burst. The impact of having a dramatic outlier, especially when it’s false, impacts perception when reading a graph, for instance- things are growing, or things grew dramatically once upon a time and then tapered off.

The calculations and code for HON, equity are in the repository. Using the derived vol, we can see that Honeywell volatility over the long haul or (since 1991) is about 36.55776, using that reasoning, we can expect by quick proxy volatility for the stock to be somewhat in that range. However, the implied vol metrics generally use a much shorter period of time to infer or project vol over a given period.