Chapter 4: Uncertainty in Decision-Making

# Calculating the Safety Stock

## Corresponding reading: Chapter 4, Page 1

### Purpose: Learning how uncertainty increases the inventory cost.

1. Search the internet for “how to calculate safety stock?” (a good tutorial can be found here: <https://www.logiwa.com/blog/safety-stock>).

Note: the fill rate is sometimes referred to as *service level*.

1. Write the formula for the safety stock and explain it *in your own words*. This is actually a mathematical model.
2. Determine the parameters of the model you developed in part (b).
3. Come up with an example with uncertain demand and lead time and calculate the corresponding safety stock. You can use made-up numbers for the model parameters.
4. Develop an Excel spreadsheet model that calculates the safety stock for any set of parameter values.

***Note:*** *Understanding the case and what you need to do is PART OF THE CASE. If you do not understand a specific part, or are not sure what you should do, you need to review the corresponding reading section in the text before asking for help. You might also need to do some search on the internet. That is all part of the case and your learning process.*