

## Sensitivity analysis

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- How sensitive is the optimal result to the parameter values? In this case the demand values are uncertain, because the demands depend on our customers' needs, which they probably do not even know themselves very accurately beforehand. So, our values are only educated guesses by our sales department.
- Let us assume two scenarios:
  - 1) One of our products is a winner/loser in the market place. Therefore sales of that product at all markets increase/decrease in the same ratio.
  - 2) One of the market areas is experiencing an economic boom/recession. Therefore sales of all products at that market increase/decrease in the same ratio.
- For both scenarios:
  - How big a change can take place before the optimal solution (factory/product setup) changes?
  - How much does one lose by sticking to the original factory/product setup?
  - Analyse and evaluate the sensitivity and make conclusions!