# Week 5: Toolbox

# **Excel Terminology**



#### SUMPRODUCT

An Excel function which multiplies ranges or arrays together and then takes the sum of the product.

#### Variable Cell

This is a cell with a value that you are allowing to change at the outset of your data analysis.

# **Target Cell**

This is the cell that you set to a particular value (or maximise/minimise) by changing the variable cells.

# What-If Analysis

This refers to a group of data analysis tools. It allows you to experiment with different values in your Excel formulae and investigate the results.

### Constraint

A limit on the value of a particular cell.

#### Add-in

A feature which can be added to Excel to complement existing features. For example, Solver is an add-in.

# **Data Table**

A What-If Analysis tool which allows you to quickly try different values for a given Excel formula.

# Scenario

A particular set of values given to the variable cells. You can name each scenario that you create and use Scenario Manager to compare the different scenarios that you have created.

#### **Base Case Scenario**

This is the scenario where all the variable cells have the values you expect them to at the outset of your data analysis.

#### **Best (Worst) Case Scenario**

This is the scenario where all the variable cells have the most (least) favourable values from your perspective.

# Ninja Tip of the Week



Goal Seek and Solver are similar data analysis tools. However, Goal Seek is simpler and best used for quick computations, while Solver is a more powerful tool which allows you to perform more complex computations.

While Scenario Manager gives you the flexibility to choose the number of scenarios, a common technique in scenario analysis is to have a best (optimistic) case, worst (pessimistic) case and base (likely) case.