# **Excel Fundamentals: Formulas for Finance**

## **Important Notes on Key Functions**

Use statistical functions to perform basis statistical analysis on data sets.

Functions in the SUMIFS function family can handle multiple criteria, but only work for AND logic. They are not able to use OR logic.

The XLOOKUP function has more options and it is less prone to errors than older HLOOKUP and VLOOKUP functions.

Dates are actually serial numbers which can be formatted to appear in various date formats.

The NPV & IRR functions can only be used on cash flows that have even and regular spacing between dates.

The XNPV & XIRR functions must be used for cash flows that have uneven or irregular spacing between dates.

Use the CONCATENATE function or '&' operator to join text strings with cell contents.

The TEXT function can be used within a CONCATENATE function to modify the format of a number.

#### **Statistical Functions**

MIN	Returns smallest number in set of values.
MAX	Returns largest number in set of values.
AVERAGE	Returns average or arithmetic mean.
MEDIAN	Returns median or number in the middle.
LARGE	Returns the specific largest entry in data.
SMALL	Returns the specific smallest entry in data.

#### **Navigation** Keystroke Zoom Out / In CTRL ALT - / = Switch Between Tabs CTRL PG UP / PG DN Select Multiple Cells **SHIFT Arrow** Select to End **CTRL SHIFT Arrow** Select Row **SHIFT Spacebar** Select Column CTRL Spacebar Delete Row / Column CTRL -**Insert Row** ALT IR Insert Column ALT IC

#### **Aggregation Functions**

IF	Returns one value if true or second value if false.	
SUMIF 1	Will perform aggregation if condition is met.	
SUMIFS <sup>2</sup>	Will perform aggregation if conditions are met.	

#### **Lookup Functions**

HLOOKUP	Looks horizontally & returns values in a table array.
ROWS	Returns the number of rows in an array.
VLOOKUP	Looks vertically & returns values in a table array.
COLUMNS	Returns the number of columns in an array.
IFERROR	Returns value if expression is an error.
XLOOKUP	Searches match array & returns from second array.

#### Common Kevstroke

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Сору	CTRL C
Paste	CTRL V
Paste Special	CTRL ALT V or ALT ES
Fill Right	CTRL R
Fill Down	CTRL D
Find	CTRL F
Replace	CTRL H
AutoSum	Δ1 T =

# **Date Functions**

TODAY	Returns the current date formatted as a date.
EDATE	Changes date to same day but in a different month.
EOMONTH	Changes date to last day in a different month.
YEARFRAC	Returns the fraction of a year between two dates.
YEAR, MONTH, DAY	Returns the year, month or day from a date.
DATE	Assembles a date from a year, month and day.

Formatting	Keystroke	
Format Cells	CTRL 1	
Date Format	CTRL 2	
Strikethrough	CTRL 5	

#### **Return Functions**

SUMPRODUCT	Returns the sum of the products. Helpful for WACC.
NPV	Gives the net present value of evenly spaced cash flows.
XNPV	Gives net present value of unevenly spaced cash flows.
IRR	Gives internal rate of return for evenly spaced cash flows.
XIRR	Gives internal rate of return for unevenly spaced cash flows.

Function Keys	Keystroke
Edit Cell	F2
Repeat Last Command	F4
Lock Reference	F4 (From Inside Cell)

## **Labeling & Other Functions**

CONCATENATE / &	Joins text strings and cell contents into one text string.
TEXT	Converts a value in text to a specific number format.
ROUND	Rounds a number off to a specified number of digits.

For Mac users: ALT = Option and CTRL = Command.

Family includes SUMIF, COUNTIF, AVERAGEIF. (1) Family includes SUMIFS, COUNTIFS, AVERAGEIFS, MINIFS, MAXIFS. (2) Plural functions above can use AND logic, but not OR logic.

