Valuing Publicly Traded Stocks using the Discounted Cash Flow Model

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This DCF tool is a simplified interface to help you generate a DCF model and ultimately arrive at a target price. To facilitate this process, our DCF interface presents you with current and historic data references to guide you through making your projections into the future.

In this initial screen, we start by building *Sales* and **EBITDA** for a 10 year projection (or explicit) period.
Options are: enter actual Sales and EBITDA figures, or enter Growth Assumptions (%), or derive each variable using Average Historical Growth of the company or the sector over a specified period of time (up to 5 years).

The Sector is automatically assigned using NAICS code, but the user can make changes if necessary.

	Date	Sales growth %		EBITDA margin %		Sales $	EBITDA $
		Company	Sector	Company	Sector		
Historic	2014-06-30	9.3	4.9	38.0	12.3	91,862	34,880
	2015-06-30	7.6	8.3	25.8	9.6	98,877	25,483
	2016-06-30	-9.7	7.2	31.4	9.5	89,252	28,039
	2017-06-30	3.7	7.2	34.6	6.2	92,591	32,017
	2018-06-30	19.3	6.7	41.1	7.5	110,429	45,347
Projected	2019-06-30	10.0		37.8		121,472	45,943
	2020-06-30	10.0		37.8		133,619	50,537
	2021-06-30	10.0		37.8		146,981	55,591
	2022-06-30	7.0		37.8		157,269	59,482
	2023-06-30	7.0		37.8		168,278	63,646
	2024-06-30	7.0		37.8		180,058	68,101
	2025-06-30	3.0		37.8		185,459	70,144
	2026-06-30	3.0		37.8		191,023	72,249
	2027-06-30	3.0		37.8		196,754	74,416
	2028-06-30	3.0		37.8		202,656	76,649

Sales and EBITDA
Capex and Deprec
Inv in Working Cap
Cash Flow
Debt capital
Beta
WACC
Target Price
Sensitivity

Project in real values▼
Perpetuity after: 10 years▼
Sector Definition▼
Consolidated: Yes
Last modification:
Other companies▼

Current Price: 110.85
Target Price: 102.41
Upside (%): -7.6

Double click over a value (in blue) to replicate it in adjacent cells

Hist   Proj

Project Sales according to:
○ Figures typed Sales
● Figures typed Sales growth
○ Average Sales growth of the last 3 Years▼ of the company
○ Average Sales growth of the last 3 Years▼ of the Sector
○ Adopt default (deactivated)

Project EBITDA according to:
○ Figures typed EBITDA
○ Figures typed EBITDA margin
● Average EBITDA margin of the last 2 Years▼ of the company
○ Average EBITDA margin of the last 3 Years▼ of the Sector
○ Adopt default (deactivated)

Source: Economatica

CAPEX and Depreciation

In this second screen, we are projecting the Capex and Depreciation figures for the company, again over next 10 years. The same set of options are made available to define your assumptions (entering actual values or using historical averages as estimates). Two ratios are available which makes it easier to arrive at Depreciation and Capital Expenditures. The ratios are: *Depreciation / Fixed Assets*, and *Capex / Depreciation*.

Source: Economatica

Investments in Working Capital

Now we come to Investment in Working Capital. To make this projection, our DCF interface provides you with **Inventories**, **Receivables**, and **Payables** as a means of calculating Investments in Working Capital.

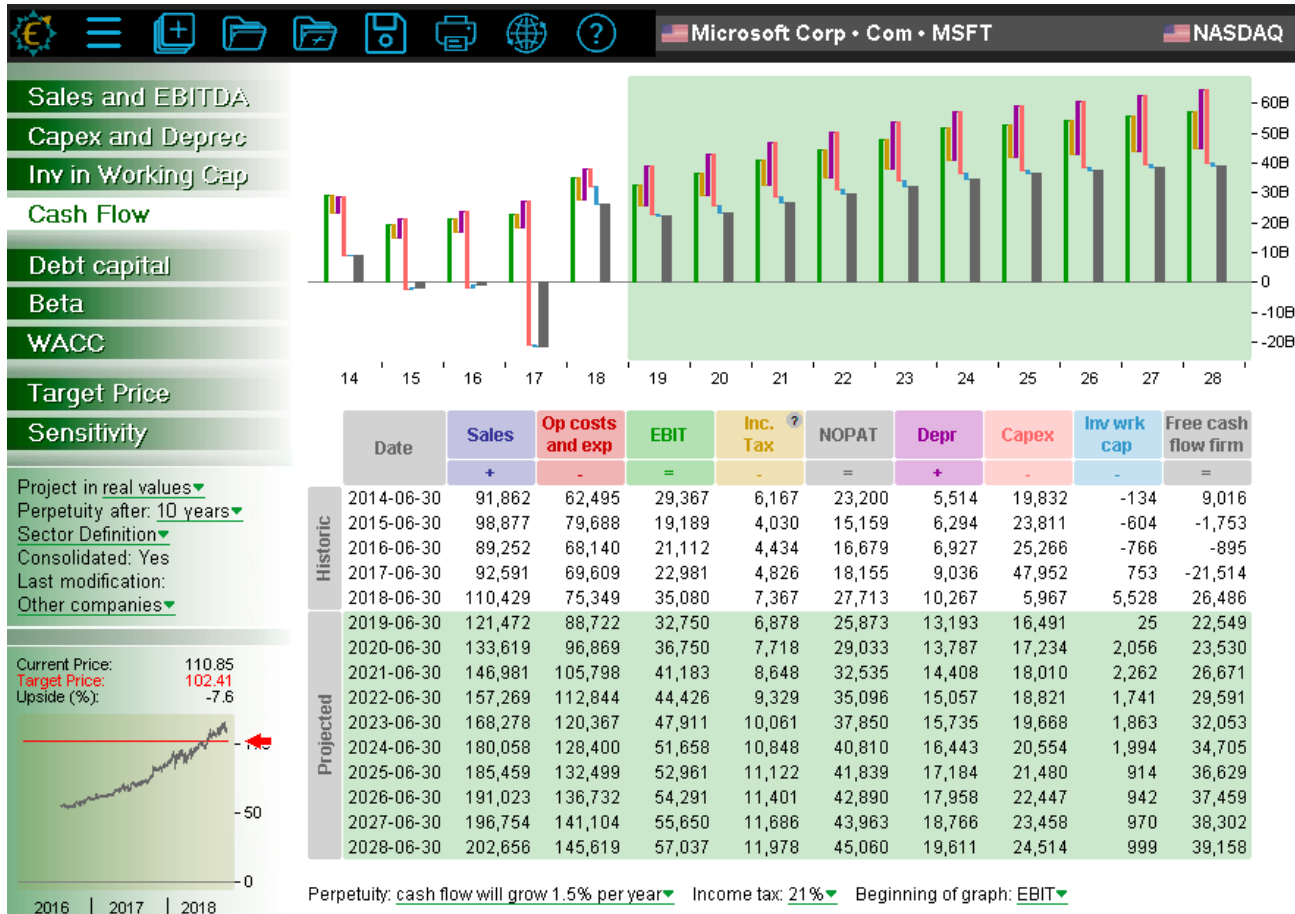Let's consult the formula used for this calculation.
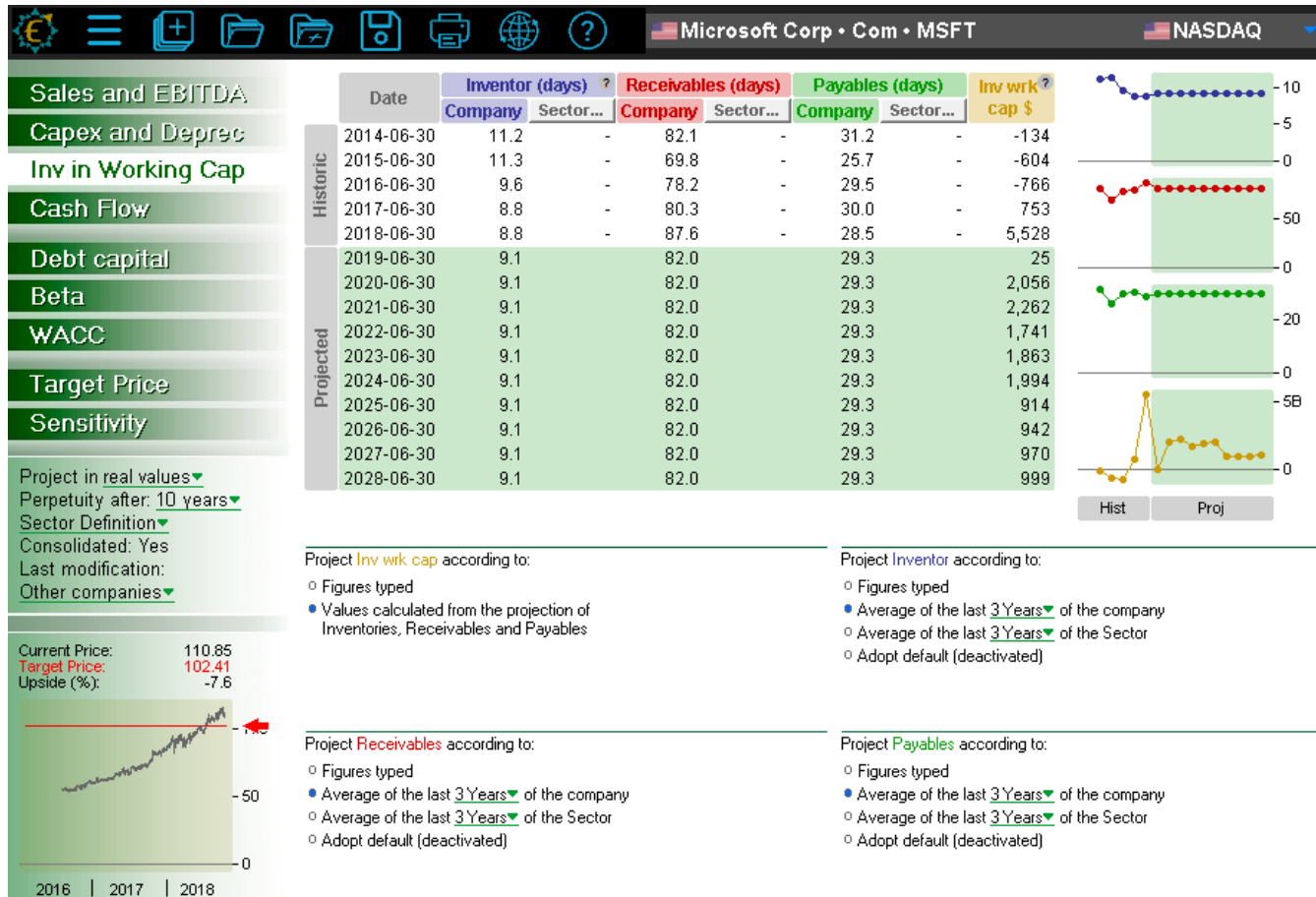
Source: Economatica

Free Cash Flow

This screen provides a graphical representation of the assumptions that have been submitted, as well as how using these assumptions we calculate the Free Cash Flow of the Firm.

We also can define the tax rate (defaults to 21%), and can specify how to grow Cash Flow in Perpetuity.

Date	Sales +	Op costs and exp -	EBIT =	Inc. Tax -	NOPAT =	Depr +	Capex -	Inv wrk cap -	Free cash flow firm =
Historic									
2014-06-30	91,862	62,495	29,367	6,167	23,200	5,514	19,832	-134	9,016
2015-06-30	98,877	79,688	19,189	4,030	15,159	6,294	23,811	-604	-1,753
2016-06-30	89,252	68,140	21,112	4,434	16,679	6,927	25,266	-766	-895
2017-06-30	92,591	69,609	22,981	4,826	18,155	9,036	47,952	753	-21,514
2018-06-30	110,429	75,349	35,080	7,367	27,713	10,267	5,967	5,528	26,486
Projected									
2019-06-30	121,472	88,722	32,750	6,878	25,873	13,193	16,491	25	22,549
2020-06-30	133,619	96,869	36,750	7,718	29,033	13,787	17,234	2,056	23,530
2021-06-30	146,981	105,798	41,183	8,648	32,535	14,408	18,010	2,262	26,671
2022-06-30	157,269	112,844	44,426	9,329	35,096	15,057	18,821	1,741	29,591
2023-06-30	168,278	120,367	47,911	10,061	37,850	15,735	19,668	1,863	32,053
2024-06-30	180,058	128,400	51,658	10,848	40,810	16,443	20,554	1,994	34,705
2025-06-30	185,459	132,499	52,961	11,122	41,839	17,184	21,480	914	36,629
2026-06-30	191,023	136,732	54,291	11,401	42,890	17,958	22,447	942	37,459
2027-06-30	196,754	141,104	55,650	11,686	43,963	18,766	23,458	970	38,302
2028-06-30	202,656	145,619	57,037	11,978	45,060	19,611	24,514	999	39,158

Perpetuity: cash flow will grow 1.5% per year▾   Income tax: 21%▾   Beginning of graph: EBIT▾

Source: Economatica

Capital Structure and Cost of Debt

This screen guides us through providing our projections for Capital Structure (defined as Debt/(Debt + Equity)), and the cost of debt (derived from the financial expenses as reported in the company's Income Statement). As we've seen throughout, we can either use the historic references provided by the system or enter our own values.

Source: Economatica

BETA

This is the final step required in defining our projections: Project the unlevered beta and the system will employ the capital structure assumptions in the Debt Capital Screen (reviewed earlier) to calculate the levered beta.
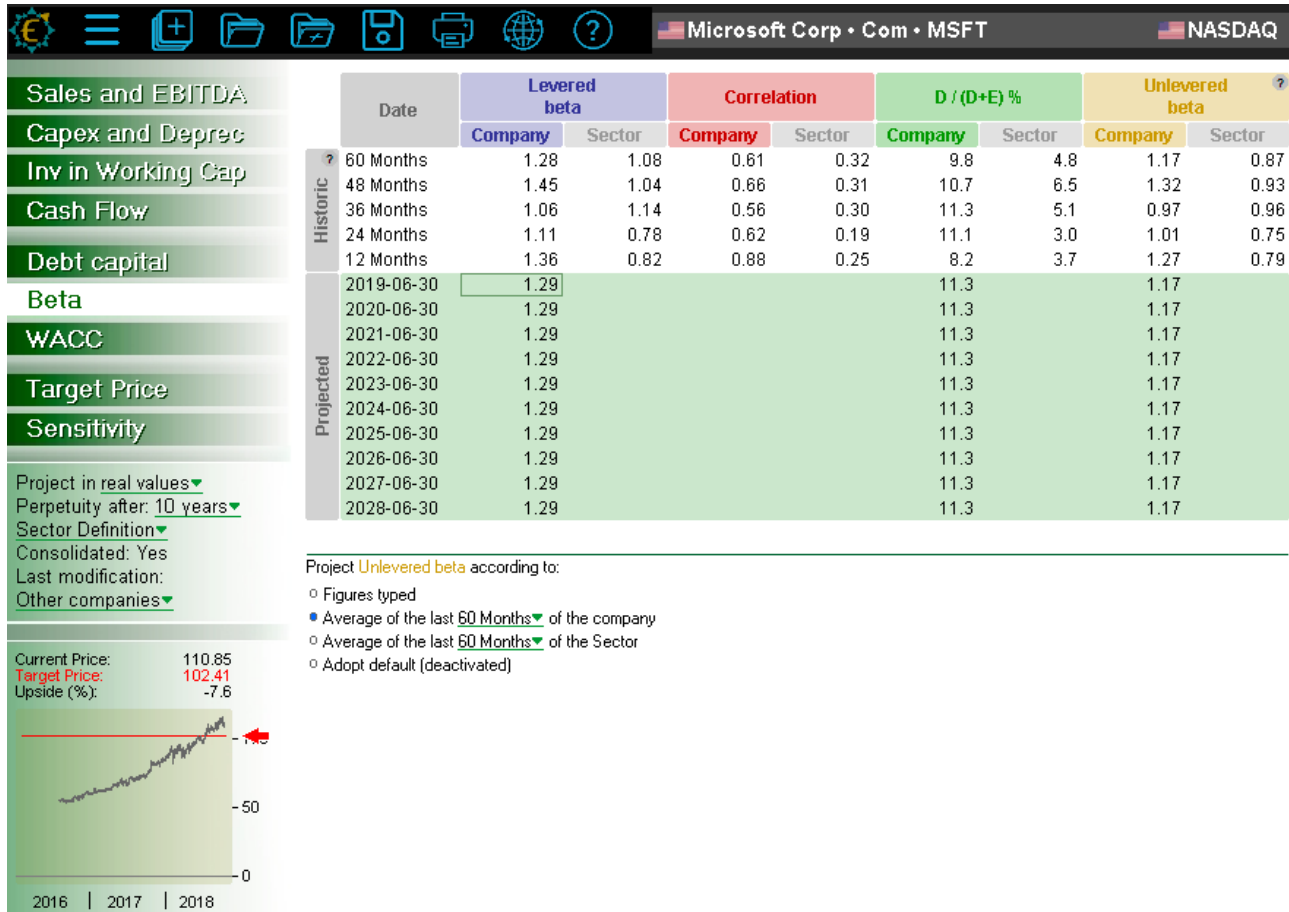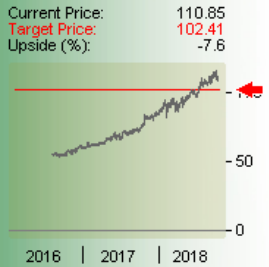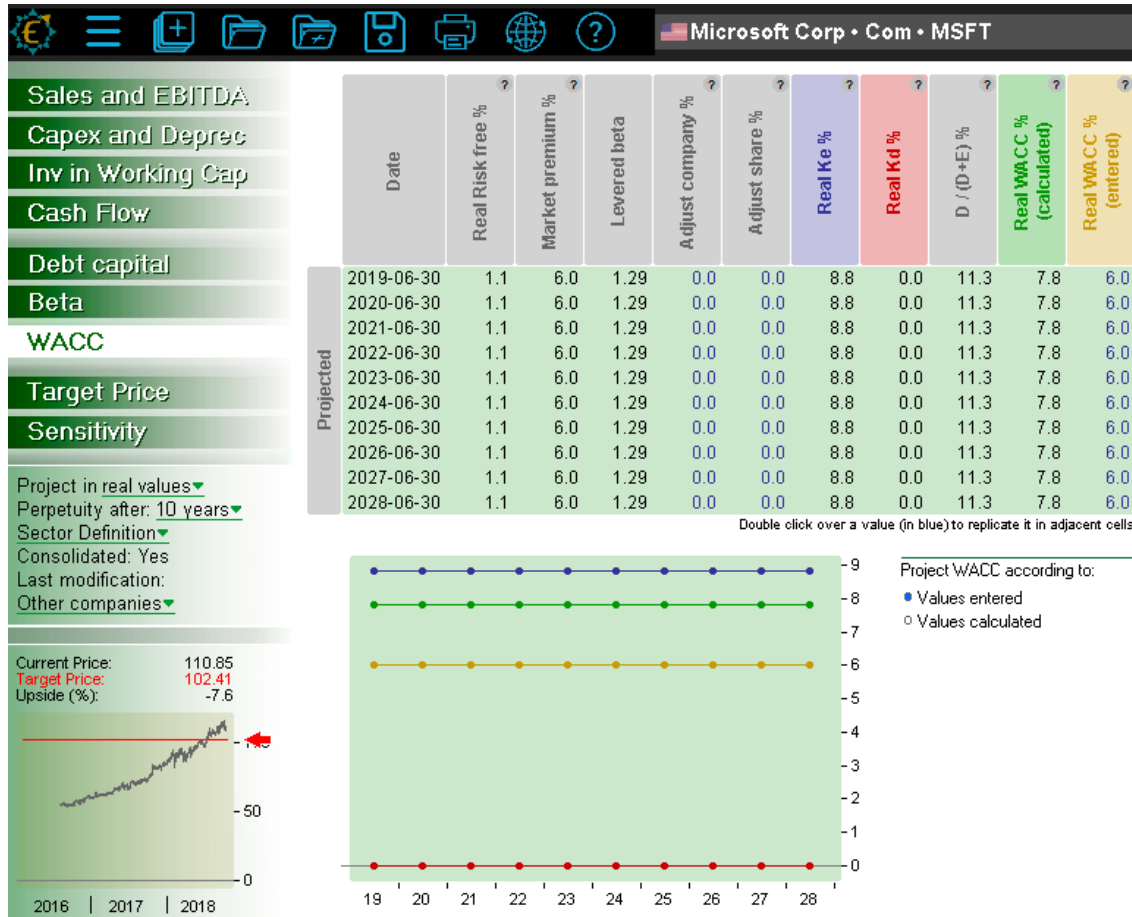

Source: Economatica

WACC (weighted average cost of capital)

A Summary Table providing the calculation of WACC based on the assumptions defined in the preceding steps, and uses the **Risk Free Rate** and **Market Premium** as inputs to calculate **Cost of Equity**.

The Risk Free Rate and Market Premium can be consulted on a different screen and can be adjusted as well by the user.
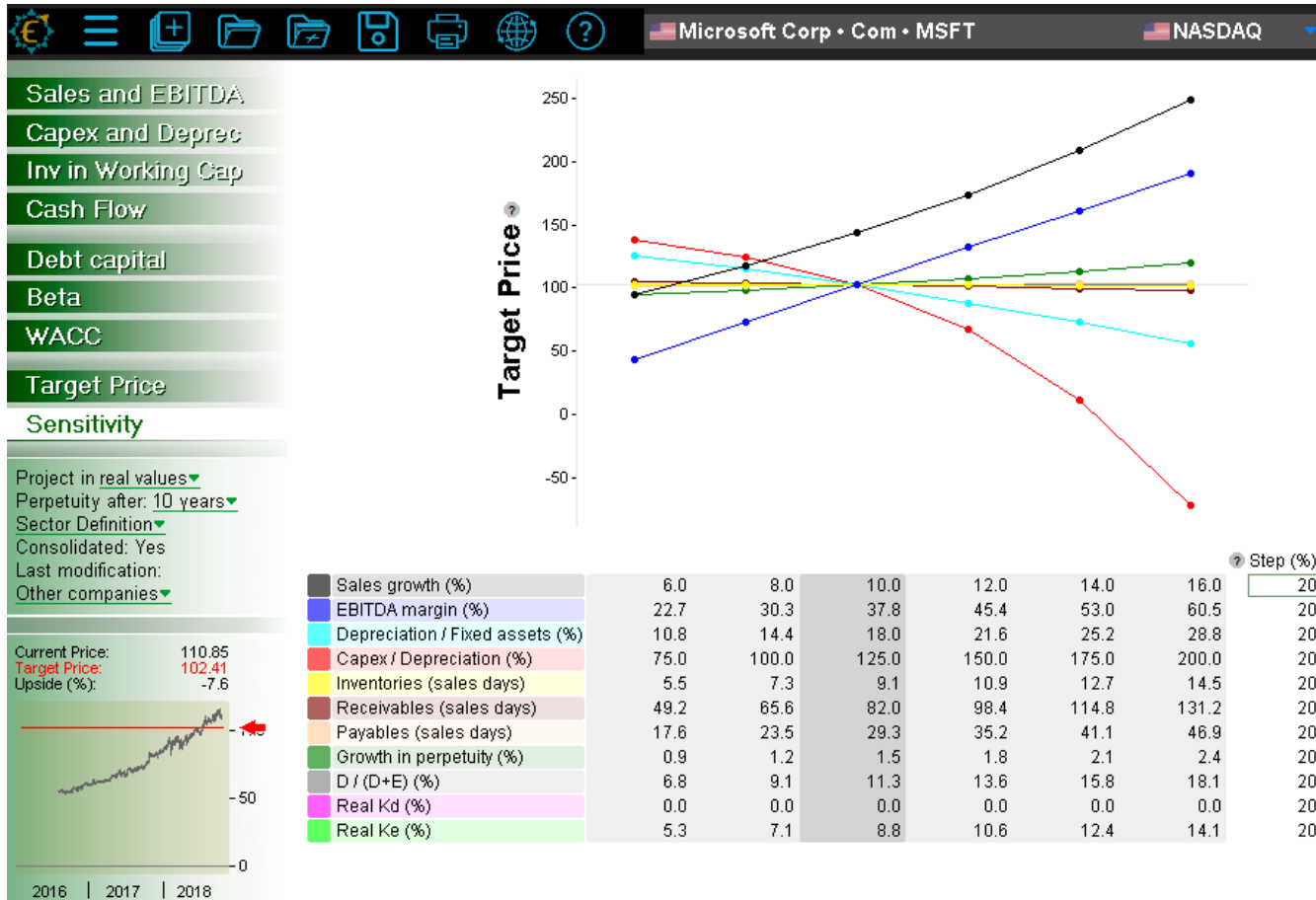

Source: Economatica

Target Price

This screen is designed to take us through the calculation of the Target Price, starting from the Present Value of Cash Flow. As reference, it also provides key ratios derived from the current price and the newly calculated Target Price. In addition, the ratios corresponding to the sector can also be displayed side-by-side.
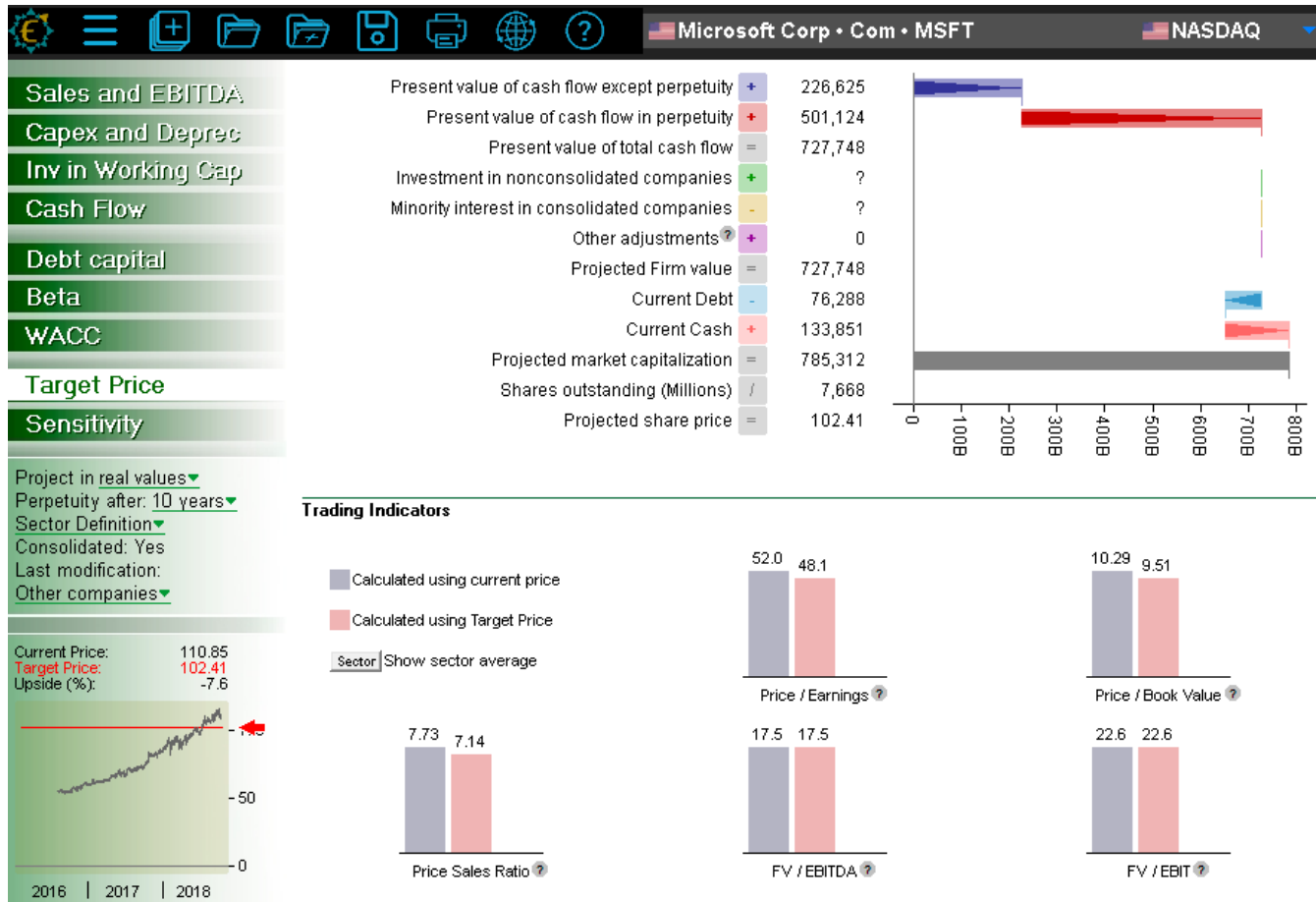
Source: Economatica

Sensitivity Analysis

Key screen which illustrates the Target Price sensitivity relative to each component projected. This is a "what-if" analysis, indicating how deviating from our projections can influence the target price calculation.

Source: Economatica