



Adjustments to Convert Equity Market Value to Enterprise Value

This backtest data set contains the adjustments we make to convert equity market value to [Enterprise Value](#). This data set contains point-in-time data. See below.

This data is available through our [API](#) in the [Market Value to Enterprise Value Reconciliation endpoint](#). Historical data provided through the API is best-available data as of today, not the point-in-time data presented in this backtest data set.

Backtest Dataset General Information

See our [detailed documentation](#) explaining the fields in a backtest dataset file.

Economic Rationale for Enterprise Value - Why Enterprise Value Matters

Enterprise Value is the value of the firm to all stakeholders. Enterprise Value should reflect all claims on cash flows or assets of the business. While the Enterprise Value concept has been part of fundamental research for centuries, it has failed to enter more mainstream areas of equity research because of the difficulty in calculating it consistently and accurately across large numbers of companies. Our [Robo-Analyst technology](#) allows us to scale the most sophisticated calculation of Enterprise Value across thousands of companies.

Equity Market Value to Enterprise Value Calculation

In general, we make 10 types of adjustment to convert equity market value to Enterprise Value:

Market Value of Basic Equity

- Excess Cash
- Net Assets from Discontinued Operations
- Fair Value of Unconsolidated Subsidiary Assets (non-operating)
- Net Deferred Tax Liability
- Net Deferred Compensation Assets
- + Fair Value of Total Debt
- + Fair Value of Preferred Capital
- + Fair Value of Minority Interests
- + Value of Outstanding ESO After-Tax
- Pensions Net Funded Status
- = **Enterprise Value**

Excess Cash is cash that is not required for the operations of the business. For most companies, we estimate the amount of required cash to be 5% of sales. Excess Cash is the cash above the required amount. More [details](#).

Net Assets from Discontinued Operations are the net assets held for sale by a company. We remove these discontinued operations assets from invested capital for a more accurate picture of how much operating capital a business has on hand to generate NOPAT. More [details](#).

Fair Value Non-Operating Unconsolidated Subsidiaries is the fair market value (when available, otherwise, book value) of companies in which the parent company has significant control, usually owning between 20%-50% of the business and where poor disclosure forces us to treat unconsolidated subsidiary assets as non-operating and remove them from invested capital. More [details](#).

Net Deferred Tax Liabilities are the result of differences between GAAP accrual accounting and tax policy. Net Deferred Tax Assets (DTAs) artificially raise reported assets and do not help generate operating profit while Net Deferred Tax Liabilities (DTLs) are like a source of interest-free financing. We remove the impact of DTAs and DTLs from our calculation of invested capital. An example of a Reported Net Deferred Tax Asset is a tax loss carry-forward. More [details](#).

Net Deferred Compensation Assets are employee compensation delayed until a later date. The assets held for these plans are used to compensate employees in the future, not to generate profits for the company. As such, they should not be factored into the calculation of a company's return on invested capital. More [details](#).

Fair Value of Total Debt is the fair market value (when available, otherwise, book value) of all debt for the company, including off-balance sheet debt for operating leases. The fair value of a company's total debt is the current amount the company would need to pay to retire the debt and settle the claims of the creditors. This fair value of debt is subtracted from shareholder value because the firm would need to settle these claims before it could return any cash to shareholders. More [details](#).

Fair Value of Preferred Capital is the fair market value (when available, otherwise, book value) of all preferred capital for the company. More [details](#).

Fair Value of Minority Interests is the fair market value (when available, otherwise, book value) of all minority interests in the company. Minority interests (or non-controlling interests) are a significant but non-controlling ownership of a company's voting shares. We subtract the fair value of the minority interest liability from shareholder value in our DCF model as the minority interest shareholders have the rights to that portion of the cash flows. More [details](#).

Value of Outstanding ESO After-Tax is a liability based on future share dilution as employees exercise their options and add to the total number of shares outstanding. Using the Black-Scholes model, we account for the fair value of all outstanding employee stock options and subtract this value from the present value of future cash flows in our discounted cash flow model and economic book value calculation. More [details](#).

Pensions Net Funded Status are the net overfunded status of a company's pension and post-retirement plans is included on the balance sheet. When a company's pension plans are overfunded, the excess assets are not being actively used to create revenue. Overfunded pension assets are similar to excess cash, and should not be included in the calculation of return on invested capital. More [details](#).

Data Value Data Fields - The following data fields are columns in the data set. All values are reported in ones units.

Datapoints that are impacted by stock price changes are marked with an asterisk (*) in the table below.

***Equity Market Value to Enterprise Value Adjustments***

Name	Datapoint	Example (AGN 2017)
Market Value of Basic Equity	EQUITY_MARKET_VALUE*	\$50,519,205,034
Excess Cash	EXCESS_CASH	\$5,713,065,000
Net Assets from Discontinued Operations	ASSETS_DISCONTINUED_NET	\$81,600,000
Fair Value of Unconsolidated Subsidiary Assets (non-operating)	ASSETS_FIXED_UNCONSOLIDATED_ADJUSTED	\$11,500,000
Net Deferred Tax Liability	DEFERRED_TAX_NET_ADJUSTED	-\$6,033,300,000
Net Deferred Compensation Assets	ASSETS_DEFERRED_COMPENSATION_NET	\$112,400,000
Fair Value of Total Debt	DEBT_ADJUSTED	\$31,034,677,606
Fair Value of Preferred Capital	STOCK_PREFERRED_ADJUSTED	\$4,929,700,000
Fair Value of Minority Interests	INTEREST_MINORITY_ADJUSTED	\$16,000,000
Value of Outstanding ESO After-Tax	ESO_TRANCHE_VALUE_AFTER_TAX*	\$207,521,826
Pensions Net Funded Status	PENSION_FUNDED_STATUS_ADJUSTED	-\$141,600,000
Enterprise Value	ENTERPRISE_VALUE*	\$86,963,439,468



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Value Investing 2.0: Diligence Matters: Technology is Key to Value Investing With Scale

Accounting data is only the beginning of fundamental research. It must be translated into economic earnings to truly understand profitability and valuation. This translation requires deep analysis of footnotes and the MD&A, a process that our [robo-analyst technology](#) empowers us to perform for thousands of stocks, ETFs and mutual funds.



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