Master Limited Partnership Valuation

It has become common practice to value master limited partnerships on a Price to Distributable Cash Flow (DCF) basis. However, such a valuation technique, if not supported by an enterprise free cash flow process (1), is susceptible to systematic overvaluation when comparable company analysis is applied.

The following formula links enterprise free cash flow valuation to the P/DCF multiple, showing how the latter is a function of the former, much like enterprise free cash flow valuation *derives* the P/E multiple. The numerator is the standard function used in corporate valuation, while the denominator is an MLP's forward distributable cash flow.

Note how the timing of large capital expenditures (negative) and outsize net debt positions (negative) impact the intrinsic worth of capital-intensive and debt-heavy MLPs.

Forward Price / Distributable Cash Flow (P/DCF) Ratio Derived

$$\frac{\left[\sum_{t=0}^{\infty} \frac{A(t)}{(1+d)^t} - B(0) - C(0) + D(0)\right] \Big/ E(0)}{F(1)}$$

where A (t) is an Enterprise Free Cash Flow (1) at year t,

B (0) is a Total Debt at time 0,

C (0) is a Preferred Stock at time 0,

D (0) is a Total Cash at time 0,

E (0) is Weighted Average Diluted Shares Outstanding at time 0,

F is Distributable Cash Flow per Share, and

d is Weighted Average Cost of Capital (WACC).

(1) Enterprise free cash flow, or free cash flow to the firm (FCFF), is calculated as earnings before interest after taxes less net new investment (total capital spending less total depreciation) +/- working capital changes.