**Valuation Multiples[[1]](#footnote-1)
Quick Sheet[[2]](#footnote-2)**

**Enterprise Value Multiples[[3]](#footnote-3)**

|  |  |  |
| --- | --- | --- |
| **Multiple** | **Equational Form** | **g solution** |
| $\frac{EV}{Sales} $ | $\frac{ROIC-g}{ROIC\left(WACC-g\right)}\left(1-T\right)(M)$  | $\frac{ROIC\left[\left(T^{'}x EBIT\right)-\left(EV x WACC\right)\right]}{\left(T^{'}x EBIT\right)-\left(EV x ROIC\right)}$  |
| $\frac{EV}{EBITDA} $ | $\frac{ROIC-g}{ROIC\left(WACC-g\right)}\left(1-T\right)(1-D)$  | $\frac{ROIC \left[\left(T^{'} x EBIT\right)-\left(EV x WACC\right)\right]}{\left(T^{'}x EBIT\right)- \left(EV x ROIC\right)}$  |
| $\frac{EV}{EBIT} $ | $\frac{ROIC-g}{ROIC\left(WACC-g\right)}\left(1-T\right)$  | $\frac{ROIC \left[\left(T^{'} x EBIT\right)-\left(EV x WACC\right)\right]}{\left(T^{'}x EBIT\right)- \left(EV x ROIC\right)}$  |
| $\frac{EV}{NOPLAT} $ | $\frac{ROIC-g}{ROIC\left(WACC-g\right)}$  | $\frac{ROIC \left[NOPLAT - \left(EV x WACC\right)\right]}{NOPLAT - \left(EV x ROIC\right)}$  |
| $\frac{EV}{FCF\_{OPS}} $ | $\frac{ROIC-g}{ROIC\left(WACC-g\right)}\left(1-T\right)$  | $\frac{ROIC \left[\left(T^{'} x EBIT\right)-\left(EV x WACC\right)\right]}{\left(T^{'}x EBIT\right)- \left(EV x ROIC\right)}$  |
| $\frac{EV}{FCF\_{ENT}} $ | $\frac{1}{WACC-g}$  | $\frac{\left(EV x WACCC\right)-FCF\_{ENT}}{EV}$  |
| $\frac{EV}{IC} $ | $\frac{ROIC-g}{ROIC\left(WACC-g\right)}\left(ROIC\right)= \frac{ROIC-g}{WACC-g}$  | $\frac{NOPLAT- \left(EV x WACC\right)}{IC-EV}$  |
| $\frac{EV}{Units}$ | $\frac{ROIC-g}{ROIC\left(WACC-g\right)} x \frac{NOPLAT}{Units}$  | $\frac{ROIC x \left[NOPLAT- \left(EV x WACC\right)\right]}{NOPLAT x \left(EV x ROIC\right)}$  |

**Equity Multiplier Multiples[[4]](#footnote-4)**

|  |  |  |
| --- | --- | --- |
| **Multiple** | **Equational Form** | **g solution** |
| $\frac{Price}{Earnings}= \frac{MCE}{NI}$ | $\frac{ROE-g}{ROE \left(COE-g\right)}$  | $\frac{ROE \left[NI - \left(MCE x COE\right)\right]}{NI - \left(MCE x ROE\right)}$  |
| $\frac{Price}{Cash Earnings}= \frac{MCE}{CE}$ | $\frac{ROE-g}{ROE \left(COE-g\right)} x \frac{NI}{CE}$  | $\frac{ROE \left[NI - \left(MCE x COE\right)\right]}{NI - \left(MCE x ROE\right)}$  |
| $\frac{Price}{Book Value}= \frac{MCE}{BV}$ | $\frac{ROE-g}{ROE \left(COE-g\right)} x ROE= \frac{ROE-g}{COE-g}$  | $\frac{NI- \left(MVE x COE\right)}{TE-MVE}$  |
| $\frac{Price/Earnings}{Earnings Growth}= \frac{MCE/NI}{\% ∆ NI}$ | $\frac{ROE-g}{100 x g x ROE \left(COE-g\right)}$  | $\frac{ROE\left[\left(\% ∆ NI\*NI\right)-\left(MCE\*100\*COE\right)\right]}{\left(\% ∆ NI\*NI\right)-\left(MCE\*100\*ROE\right)}$  |

1. The Valuation Multiples Quick Sheet is intended to present an abbreviated presentation of the included concepts in corporate finance and is not intended to be a full or complete representation of the concepts, models, metrics or the underlying foundations from which they are built. [↑](#footnote-ref-1)
2. This material set was provided by Richard Haskell, PhD, Associate Professor of Finance, Bill and Vieve Gore School of Business, Westminster College, Salt Lake City, Utah (2017), rhaskell@westminstercollege.edu. Much of the material is referenced in Valuation Multiples: A Primer (NYU Sterns School of Business); files.richardhaskell.net/File\_Storage/Valuation%20Multiples%20Primer%20-%20NYU%20Sterns%2 [↑](#footnote-ref-2)
3. M = EBIT/ Sales; M x Sales = EBIT; T = Average Corporate Tax Rate; T’ = (1-T); D = (D+A)/EBITDA; D’ = (1-D); IC x ROIC = IC x NOPLAT/IC = NOPLAT [↑](#footnote-ref-3)
4. MCE = Market Capitalization Equity Shares = PPS x Shares Outstanding; CE = Cash Earnings = NI + (D+A); BV = Book Value Operating Assets; %∆NI = Earnings Growth = NI1-NI0/NI0 [↑](#footnote-ref-4)