



## Session 08

# Cashflow Valuation

Programme	: Postgraduate Diploma in Business, Finance & Strategy (PGDBFS 2017)
Course	: Corporate Valuation (PGDBFS 203)
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# Discounted Cash Flow Valuation

Discounted cash flow (DCF) valuation views the intrinsic value of a security as the present value of its expected future cash flows

- Free Cash Flow to the Firm (FCFF)
- Free Cash Flow to Equity (FCFE)

# Free Cash Flow

- **Free cash flow to the firm (FCFF)** is the cash flow available to the company's suppliers of capital after all operating expenses (including taxes) have been paid and necessary investments in working capital (e.g., inventory) and fixed capital (e.g., equipment) have been made
- $FCFF = \text{Operating Cashflows} - CAPEX$

# Free Cash Flow

- **Free cash flow to equity (FCFE)** is the cash flow available to the company's common equity holders after all operating expenses, interest, and principal payments have been paid and necessary investments in working and fixed capital have been made
- $FCFE = \text{Operating Cashflows} - \text{CAPEX} - \text{Net payments to debt holders}$

# Valuation Using FCFF & FCFE

- **FCFF** is the after-tax cash flow going to all investors in the firm, the value of the firm is found by discounting FCFF at the weighted-average cost of capital (WACC). The value of equity is then found by subtracting the value of debt from the value of the firm
- **FCFE** is the cash flow going to common stockholders, so the appropriate risk-adjusted discount rate for FCFE is the required rate of return on equity

# Present Value of Free Cashflows

- FCFF

$$\text{Firm value} = \sum_{t=1}^{\infty} \frac{\text{FCFF}_t}{(1 + \text{WACC})^t}$$

$$\text{Equity value} = \text{Firm value} - \text{Market value of debt}$$

- The value of the firm if FCFF is growing at a constant rate is

$$\text{Firm value} = \frac{\text{FCFF}_1}{\text{WACC} - g} = \frac{\text{FCFF}_0(1 + g)}{\text{WACC} - g}$$

# Present Value of Free Cashflows

- FCFE

$$\text{Equity value} = \sum_{t=1}^{\infty} \frac{\text{FCFE}_t}{(1+r)^t}$$

- The value of the firm if FCFF is growing at a constant rate is

$$\text{Equity value} = \frac{\text{FCFE}_1}{r-g} = \frac{\text{FCFE}_0(1+g)}{r-g}$$

# Example - Single Period

- Cagiati Enterprises has FCFF of \$700 million and FCFE of \$620 million. Cagiati's before-tax cost of debt is 5.7 percent and its required rate of return for equity is 11.8 percent. The company expects a target capital structure consisting of 20 percent debt financing and 80 percent equity financing. The tax rate is 33.33 percent, and FCFF is expected to grow forever at 5.0 percent. Cagiati Enterprises has debt outstanding with a market value of \$2.2 billion and has 200 million outstanding common shares.
1. What is Cagiati's weighted average cost of capital
  2. What is the total value of Cagiati's equity using the FCFF valuation approach
  3. What is the value per share using this approach



# Forecasting Free Cashflow

Estimating FCFF or FCFE requires a complete understanding of the company and the financial statements from which those cash flows can be drawn.

# Non Operating Assets and Firm Value

- Value of firm = Value of operating assets + Value of nonoperating assets
- If a company has significant nonoperating assets such as excess cash, excess marketable securities, or land held for investment, then analysts often calculate the value of the firm as the value of its operating assets plus the value of its nonoperating assets

# Sum of the Parts Valuation

- The sum-of-parts valuation is a process of valuing a company by determining what its aggregate divisions would be worth if it was spun off or acquired by another company
- The valuation provides a range of values for a company's equity by aggregating the standalone value of each of its business units and arriving at a single total enterprise value (TEV)
- The equity value is then derived by adjusting the company's net debt and other non-operating assets and expenses

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QUESTIONS  
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