## Financial Ratios

### Liquidity Ratios

### Asset Management Ratios

### Debt Management (Leverage) Ratios

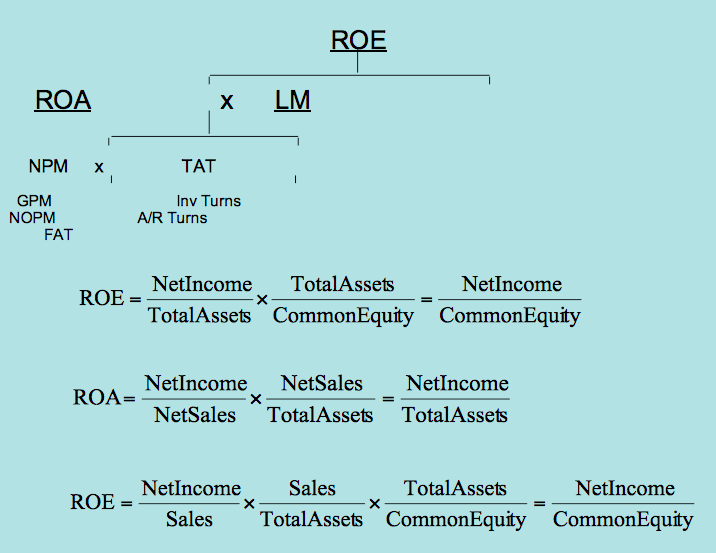
### Profitability Ratios

### Cash Flow Ratios

### DuPont Analysis

Firms ROE is split into three parts

* Expense Control: Profit Margin
* Asset Utilization: Total Asset Turnover
* Financial Leverage: Leverage Multiplier



# Time Value of Money

### Equations

### Multiple Cash Flows

### Ordinary Annuities & Annuities Due

### Perpetuities

# Interest

### Types of Yield Curves

Yield Curve - Moderate rate levels rising continuously with increasing maturity (upward sloping)

Rising Yield Curve - Low rate levels rising substantially with increasing maturity

Inverted Yield Curve - Short-term rates high and declining over entire maturity range

Flat Yield Curve - Rates are relatively constant (invariant) over entire maturity range

# Bonds

### Bond Valuation

Step 1: PV of an Annuity e.g. 20n; 3i; 30PMT; PV = $446.32

Step 2: PV of a Single Sum e.g. 20n; 3i; 1,000FV; PV = $553.68

Use the market interest rate for i

Yield-to-Maturity (YTM) – Discount rate that equates bond price to the PV of all promised cash flows.

APR = Bond equivalent yield. E.g. semi-annual is 2\*r, not EAR which would be [1+r/2)]2-1

Interest Rate Risk (or price risk) – Risk associated with price fluctuations caused by interest rate changes

Reinvestment Rate Risk – Risk associated with the rate at which coupons are reinvested

Default Risk (or credit risk) – Risk associated with issuer’s ability to make payments as specified.

# Stocks

G = Expected growth rate

LT bonds are subject to greater interest rate risk.

ST bonds are subject to greater reinvestment risk

Both LT and ST bonds are subject to reinvestment risk on coupons

## Present Value & Future Value

C = Coupon paid each period

r = Rate per period

t = Number of periods

F = Bond’s face value

Cash Flows from Operating Activities

Cash flows from company's primary business activities. E.g. Production and delivery of goods & services for sale. Reflects cash effects of transaction, which are included in the determination of N.I.

Cash Flows from Investing Activities

Cash flows from a company's activities relating to asset acquisition and disposal.

Cash Flows from Financing Activities

Cash flows from a company's activities relating to the receipt and repayment of funds provided by creditors and investors.

## Indirect Method for C.F.

NI Before Dividends

+ non-cash expenses (Depreciation, depletion, amortization)

+ decreases in assets

+ increases in liabilities

- increases in assets

- decreases in liabilities

= C.F. from Operating Activities

Purchase or Sale of Security

Securities issued or repurchased

Δ Principal on securities

Δ in L.T. Asset

= C.F. from Investing Activities

Δ in notes payable (use vs. source of cash)

Δ L.T. Debt

Preferred or Common Stock on B/S

+ Dividend Payments

= C.F. from Financing Activities