Financial, Business & Tax Environment – Some Portions

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Financial Environment

- Businesses interact continually with the financial markets.

- <u>Financial Markets</u> are composed of all institutions/procedures for bringing buyers & sellers of financial instruments together.

- The purpose of financial markets is to efficiently allocate savings to ultimate users [facilitates price discovery, liquidity, reduce cost of transacting].

Market Differences ...

- Primary Vs Secondary

- Money-market Vs Capital-market

- U.S. Vs Japanese/German markets

- Indian markets: Pre-liberalization Vs Post-liberalization

Financial Markets

- Cash flows to the firm
- Primary vs. secondary markets
  - Dealer vs. auction markets
  - Listed vs. over-the-counter securities
    - BSE, NSE, NYSE
    - NASDAQ, OTCEI

Work the Web Example

- Publicly traded companies must file regular reports with the SEBI / SEC / Similar Regulatory Authorities (a.k.a. Institutional Intermediaries)

- These reports are usually filed electronically and can be searched at the SEBI public site called EDIFAR

What Influences Security Expected Returns?

◆ <u>Default Risk</u> is the failure to meet the terms of a contract.

■ <u>Liquidity/Marketability</u> is the ability to sell a significant volume of securities.

■ Some financial assets have less active secondary markets than others

◆ <u>Maturity</u> is concerned with the life of the security; the amount of time before the principal amount of a security becomes due.

What Influences Security Expected Returns?

- <u>Taxability</u> considers the expected tax consequences of the security.

- <u>Inflation</u> is a rise in the average level of prices of goods and services. The greater inflation expectations, then the greater the expected return.

- <u>Embedded Options</u> provide the opportunity to change specific attributes of the security.

Ratings by Investment Agencies on Default Risk

Standard & Poor, Moody, Fitch, CRISIL, CARE, ICRA

Investment grade represents the top 3-4 categories.
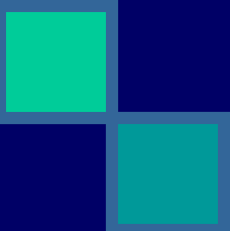*Below investment grade* represents all other categories.
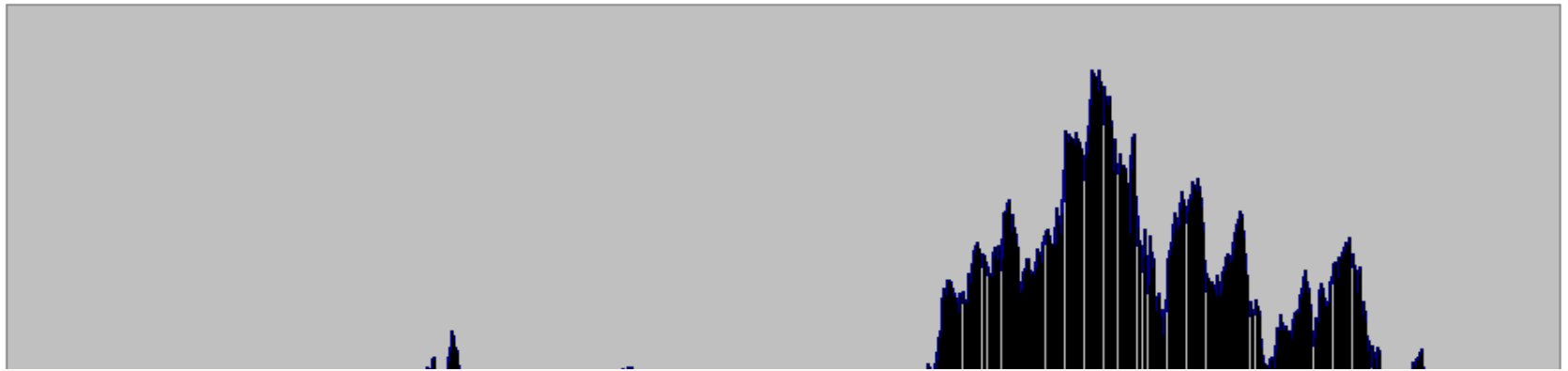
Value Creation Framework

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What is Value?

- Liquidation Value
- Operational (Going Concern) Value
- Historical Value
- Replacement Value
- Relative Value (interlinked with above)

Valuation of a asset or resource depends on two key issues:

  (a) Whose perspective are you looking at?
  (b) What is the purpose of valuation?

Ram needs your help …

Year 2001

- He has INR 40 Million of Investible Funds …
- Decides to invest in Real Estate …
- Picks Four Cities …
- Amsterdam, Boston, Chennai, and Dubai
- Picks an apartment worth INR 10 Million in each place

City	A	B	C	D
Investment in 2001	10	10	10	10

Which City-Apartment (or Investment) of Ram has created value?

City		A	B	C	D
Investment in 2001		10	10	10	10

Updated …

City	A	B	C	D
Investment in 2001	10	10	10	10
Rent in 2007	0.4	1.3	0.1	0.5
Market Value in 2007	34	11	21	7
Market Value-to-Rent Ratio	85	8.5	210	14
Market Value-to-Investment Ratio	3.4	1.1	2.1	0.7

Jargons in Corporate Context ...
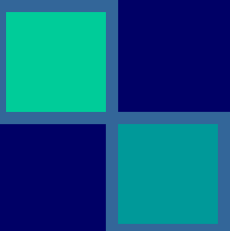
Corporate Context	A	B	C	D
Networth of the Firm (or Book Valu	10	10	10	10
Rent in 2007	0.4	1.3	0.1	0.5
Market Value in 2007	34	11	21	7
Market Value-to-Rent Ratio	85	8.5	210	14
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Jargons in Corporate Context …

Corporate Context	A	B	C	D
Book Value per Share	10	10	10	10
Earnings Per Share (EPS) in 2007	0.4	1.3	0.1	0.5
Market Price (MP) per Share in 2007	34	11	21	7
P/E Ratio	85	8.5	210	14
P/BV Ratio	3.4	1.1	2.1	0.7

Importance of Market Value

- Factors influencing shareholder value
    - Profitability
    - Growth
    - Risk
    - Capital Market Conditions
- Can we put this in a framework and find measures?

Valuation Framework ...


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Capital Market Conditions ..........> Shareholder Value Maximization

              Profitability <---> Risk <---> Growth

    Sales Turnover    Profit Margin
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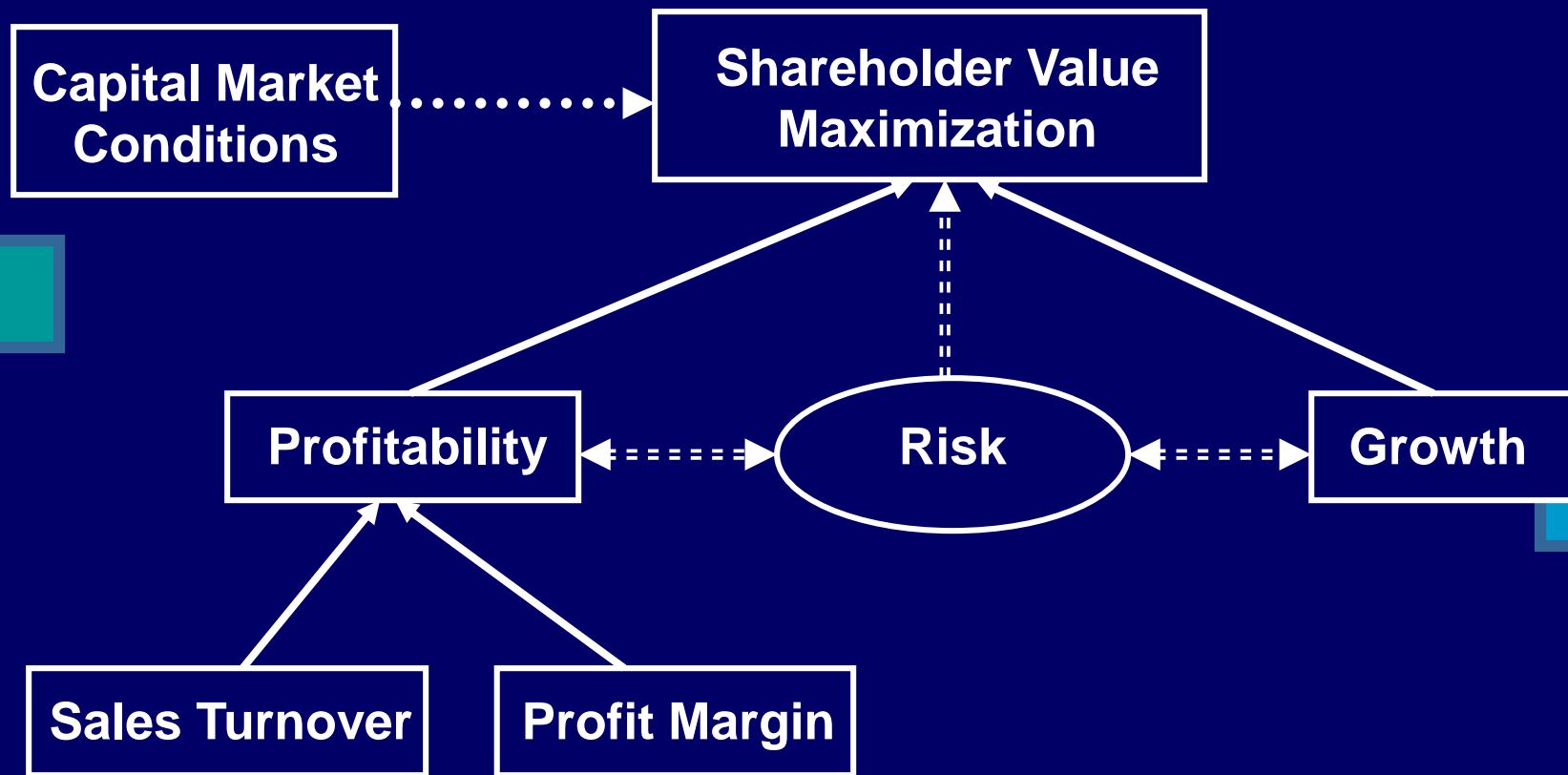
Source: Doctoral Dissertation, title '*Financial Performance and Diversification Strategy of Indian Business Groups*', Indian Institute of Management Calcutta, March 2001, http://ssrn.com/abstract=1021148 .

Value Maximization Measures

- If 'n' is the number of equity shares

- Earnings Per Share (E.P.S.) = PAT/n

- Market Capitalization = (Market Price per share) x n

- Book Value of Equity (BV) = NW/n

- Price-to-Earnings Per Share (P/E Ratio)

= Market Price per Share/EPS = Market Capitalization/PAT

- Price-to-Book Value Per Share (P/BV Ratio)

= Market Value per Share/BV per share

= Market Capitalization/Net Worth

Shall we value some firms …

- Infosys Technologies

Market Price is 1,187 and P/BV ratio is 5.0

- Colgate Palmolive

Market Price is 385 and P/BV ratio is 32.1

- Maruti Suzuki

Market Price is 565 and P/BV ratio is 1.9

- Tata Motors

Market Price is 173 and P/BV ratio is 0.7

- Essar Shipping

Market Price is 35 and P/BV ratio is 0.5

- Shree Rama Multi Tech

Market Price is 3 and P/BV ratio is < 0.05

Shall we value some firms ...

07/01/2009	Price	BV	P/BV	EPS	P/EPS
Infosys	1187	236	5.0	88.0	13
Colgate Palmolive	385	12	32.1	18.5	21
Maruti Suzuki	565	291	1.9	53.0	11
Tata Motors	173	233	0.7	33.0	5
Essar Shipping	35	72	0.5	4.8	7
Shree Rama Multi Tech	4	78	0.0	-41.0	(0)

Shall we value some firms ...

- Zee Telefilm (in 1999, 2002, and 2008)
  - Dec-1999 was period when stock market was on a bull run especially for IT and Media sectors … then (?)
  - Profitability (+, –, and 0)
  - Growth (+, –, and 0)
  - Risk (–, –, and 0)
  - Capital Market Conditions (+, –, and 0)
- Result: Prices moved from 1900 to 70 to 180
- P/BV moved from 22 to 0.7 to 3
- *Note: In 2006, Zee Tele was split into Zee Entertainment and Zee News*

Shall we value some firms ...

Conclusions:

(a) Fundamental analysis works;

(b) The relationship between value and the underlying financial factors works;

(c) The relationship is stable over time; and

(d) Deviations from the relationship are corrected in a reasonable period of time.

(e) The most important is to fully understand the business dynamics

For more, please refer to: Damodaran On Valuation by Aswath Damodaran' John Wiley & Sons: 1994

India's Tyre Sector

Performance Measure	Apollo Tyres	Falcon Tyres	TVS Srichakra	Vikrant Tyres
Growth Measure (CAGRTA)	12.56	11.10	18.72	32.43
Profitability Measure (ROA)	9.80	9.48	15.58	7.90
Profit Margin Measure (NPM)	3.36	2.51	5.30	2.83
Asset Utilization Measure (STA)	1.53	1.97	2.15	1.44
Risk Measure (VROA)	0.11	0.22	0.11	0.33
Market-to-Book Value Ratio	1.03	0.40	1.44	0.83
Tobin's Q Ratio (approximate)	0.84	0.62	1.05	0.77
Sales	1323	99	140	377
Market Capitalization	291	7	30	46

Note:
1. **Data Source for Computation: CMIE-PROWESS**
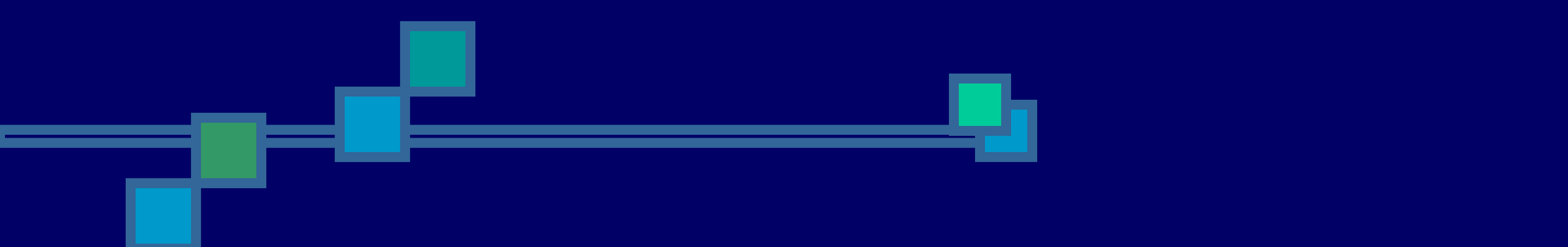2. **Time Period of Study is FY 1997-2000 (mean of 4 years)**

Can we connect this to Costs or EVA …

Cost of Capital

Shareholder Value Maximization

EVA

MVA

Profitability

Risk

Growth
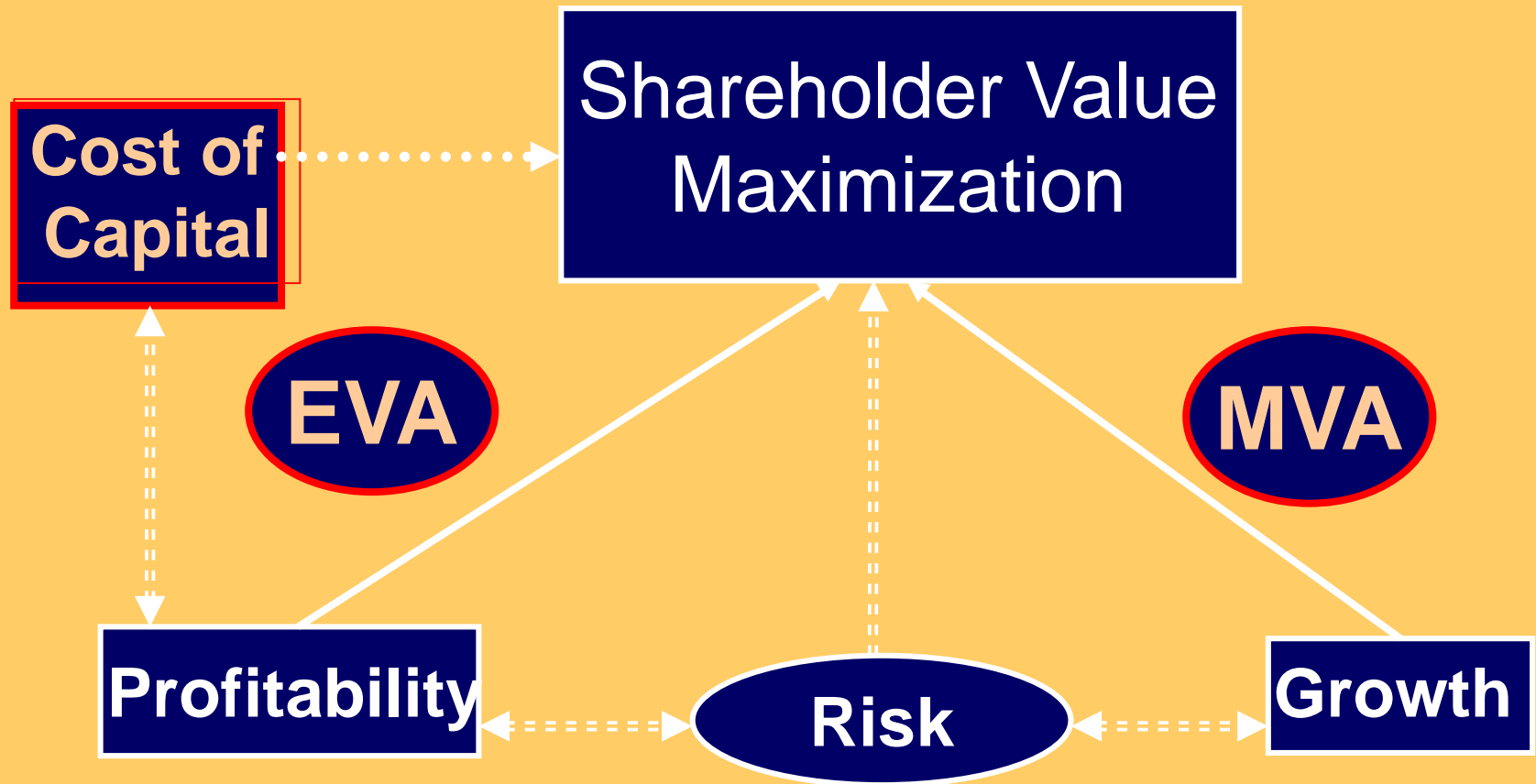
➔ Market Capitalization = EVA + Present Value (of Future EVAs) …

➔ Market Capitalization = EVA + MVA …

The Four Different Categories		Example
EVA Positive	MVA Negative	?
EVA Positive	MVA Positive	?
EVA Negative	MVA Positive	?
EVA Negative	MVA Negative	?

		Remarks
EVA Positive	MVA Negative	Firms not able to adjust to environment changes
EVA Positive	MVA Positive	
EVA Negative	MVA Positive	Firms with value accumulation or future dependent
EVA Negative	MVA Negative	Organizations with a different goal (not SVM)

What was the purpose of this discussion?

- Accept Market Capitalization as the goal (of the firm)

- Understand the factors driving Market Capitalization; and the way they do it

- Link EVA, MVA, NPV and Capex to the Valuation of the Firm

- Next Sessions: Statement of Cash Flow Analysis