

CPBM[®]

CERTIFIED PRIVATE BANKING MANAGER[®]

Session 3 & 4 - Risks & Financial Mathematics

Presentation Order

- Systematic v/s Unsystematic
- Different Types of risk
- Risk Measurement Tools
- Time value of Money



Systematic
Risk

vs



Unsystematic
Risk

#1. Meaning



Risk/Threat
associated with the market or
the
segment as a whole.



Hazard
associated with specific
security, firm or industry.

#2. Impact



Large
number of securities in the
market.



Restricted
to the specific company or
industry.

#3. Controllability



Cannot be controlled.



Controllable.

#4. Hedging



Allocation of the Assets.



Diversification of the Portfolio.

#5. Types



Interest
Risk and Market Risk.



Financial
and Business specific Risk.

#6. Responsible Factors



External.



Internal.

#7. Avoidance



Cannot
be Avoided.



Can
be avoided or resolved at a
quicker pace.



Types of risk an Investor Faces

Systematic Risk

Equity and Debt

- Inflation Risk
- Currency Risk
- Political Risk

Debt

- Interest Rate /
Reinvestment Risk

Unsystematic Risk

Debt

- Liquidity Risk
- Credit Risk

Equity and Debt

- Business Risk
- Operational Risk

Portfolio Risk

- Concentration Risk
- Horizon Risk
- Longevity Risk

Portfolio Level Risk

Concentration Risk

- Sector
- Security

Horizon Risk

Longevity Risk



Risk Measurement Tools

Risk Measurement Tools

Standard Deviation

Deviation from its own past standards

Higher the number more the risk

Applicable to Equity & Debt both

Beta

Measures risk compared a diversified equity index

Higher the number more the risk

Applicable to Equity

▄ Risk Adjusted Ratio

Sharpe

(Portfolio Return
minus Risk Free
return) / Std. Dev
of the Portfolio
Returns

Higher the number
more superior the
risk-adjusted
returns

Applicable to
Equity & Debt both

Treynor

(Portfolio Return
minus Risk Free
return) / Beta of the
Portfolio Returns

Higher the number
more superior the
risk-adjusted
returns

Applicable to
Equity

Alpha

Portfolio Return
minus Index
Return

Higher the number
better the
performance

Applicable to
diversified equity
schemes

Financial Mathematics

Know your numbers



Thank You