

EQUITIES & INVESTMENT ANALYSIS MAF307

EXAM SUMMARY

TOPIC 1 – INVESTMENT ENVIRONMENT & FINANCIAL INSTRUMENTS	4
FINANCIAL ASSETS - ‘INTANGIBLE’	4
BENEFITS OF INVESTING IN FINANCIAL ASSETS	4
REAL ASSETS	4
CLIENTS OF FINANCIAL SYSTEM	4
FINANCIAL INTERMEDIARIES	4
INVESTMENT BANKS	5
FINANCIAL INSTRUMENTS	5
AGENCY PROBLEM	6
MARKET EFFICIENCY	6
TOPIC 2 – SECURITY TRADING & FUND MANAGEMENT	7
PRIMARY AND SECONDARY MARKET	7
INITIAL PUBLIC OFFER (IPO) & SEASONED EQUITY OFFERING (SEO)	7
PRIVATE PLACEMENT VS PUBLIC OFFER	7
ROLE OF INVESTMENT BANKERS	8
ORDER TYPES	8
SETTLEMENT	8
MARGIN TRADING – CONCEPT & NUMERICAL PROBLEMS	9
SHORT SELLING - CONCEPT & NUMERICAL PROBLEMS	9
FUNDS MANAGEMENT	9
BENEFITS OF MANAGED FUNDS	9
TYPES OF MANAGED FUNDS	10
SUPERANNUATION FUNDS	10
LISTED MANAGED INVESTMENTS	10
ACTIVE VS PASSIVE INVESTMENT STYLE	11
OPEN END VS CLOSED END	11
FUND PERFORMANCE & FEES	11
TOPIC 3 – MACROECONOMIC & INDUSTRY ANALYSIS	13
FUNDAMENTAL VS TECHNICAL ANALYSIS	13
GLOBAL ECONOMIC CONSIDERATIONS	13
KEY ECONOMIC INDICATORS	13
FISCAL AND MONETARY POLICY	14
DEMAND & SUPPLY SHOCKS	14
BUSINESS CYCLES	14
INDUSTRY ANALYSIS	15
DEGREE OF OPERATING LEVERAGE (DOL)	15
DEGREE OF FINANCIAL LEVERAGE	16
SECTOR ROTATION	16
INDUSTRY LIFE CYCLE	17
PORTER’S MORNINGSTAR 5 FORCES	17

TOPIC 4 – FINANCIAL STATEMENT & COMPANY ANALYSIS	18
INCOME STATEMENT	18
BALANCE SHEET	19
CASH FLOW STATEMENT	19
INTER –SCREENSHOT OF THE RELATIONSHIP BETWEEN FINANCIAL STATEMENTS	20
RATIO ANALYSIS	20
LIQUIDITY RATIOS	20
ASSET MANAGEMENT/UTILISATION RATIOS	21
DUPONT ANALYSIS	21
TOPIC 5 – EQUITY VALUATION MODELS	23
INTRINSIC VALUE (IV)	23
VALUATION MODELS	23
DIVIDEND DISCOUNT MODEL (DDM)	23
NO GROWTH DDM	24
CONSTANT GROWTH DDM	24
GROWTH AND NO GROWTH COMPONENTS OF VALUE	25
SPECIFIED HOLDING PERIOD MODEL	25
MULTI STAGE GROWTH MODEL	25
PRICE EARNING (P/E) RATIO	26
P/E: NO EXPECTED GROWTH	26
P/E: CONSTANT GROWTH	27
P/E RATIO AND RISK	27
PITFALLS IN P/E ANALYSIS	27
FREE CASH FLOW EVALUATION MODEL	27
FCFF VS. FCFE	28
TOPIC 6 – ASSET PRICING FUNDAMENTALS I: RISK	29
RISK PREMIUM	29
RISK AVERSION	29
ST. PETERSBURG PARADOX	29
UTILITY FUNCTION	30
RISK AVERSION AND UTILITY	30
INVESTORS RISK PREFERENCE	30
RISK RETURN TRADE-OFF	31
INDIFFERENCE CURVES	31
MANAGING INVESTMENT RISK	32
PORTFOLIO RETURN AND RISK	33
COVARIANCE & CORRELATION	33
TOPIC 7 - ASSET PRICING FUNDAMENTALS II: CAPITAL ALLOCATION	35
PORTFOLIO DECISIONS	35
RISK FREE RATE	36
RISK-FREE ASSET	36
FINDING OPTIMAL COMPLETE PORTFOLIO	36
CAPITAL ALLOCATION LINE (CAL)	38
CAPITAL ALLOCATION WITH LEVERAGE	39
CAL WITH HIGHER BORROWING RATE	40
OPTIMAL CAPITAL ALLOCATION	41
CAPITAL MARKET LINE (CML)	42

TOPIC 8 - ASSET ALLOCATION FUNDAMENTALS III: OPTIMAL RISKY PORTFOLIO	42
INVESTMENT RISK – SYSTEMATIC VS NON-SYSTEMATIC	43
TWO SECURITY PORTFOLIO: RETURN	43
DIVERSIFICATION	43
ROLE OF CORRELATION IN PORTFOLIO RISK DIVERSIFICATION	44
MINIMUM – VARIANCE COMBINATION	44
EFFICIENT PORTFOLIOS – EFFICIENT FRONTIER	44
OPTIMAL RISKY PORTFOLIO	45
OPTIMAL RISKY PORTFOLIO IN PRESENCE OF RISK FREE ASSET	46
OPTIMAL COMPLETE PORTFOLIO	46
SEPARATION THEOREM	47
TOPIC 9 - ASSET PRICING MODELS: CAPM, APT & FACTOR MODELS	48
ASSUMPTIONS	48
MARKET EQUILIBRIUM	48
CAPITAL ASSET PRICING MODEL (CAPM)	48
BETA – SYSTEMATIC RISK	49
SECURITY MARKET LINE (SML)	49
SML & ALPHA	50
CML vs SML	50
SINGLE INDEX MODEL	51
ARBITRAGE PRICING THEORY (APT)	52
APT AND CAPM COMPARED	52
TOPIC 10 – EVALUATION OF PORTFOLIO PERFORMANCE	53
DOLLAR WEIGHTED VS TIME WEIGHTED RETURN	53
ARITHMETIC VS GEOMETRIC AVERAGE	53
ABNORMAL PERFORMANCE	53
RISK ADJUSTED MEASURES	54
REWARD-TO-VOLATILITY RATIO (SHARPE RATIO)	54
EXCESS RETURN TO BETA RATIO (TREYNOR RATIO)	55
JENSEN’S ALPHA	55
INFORMATION RATIO	55
M ² MEASURE	55
WHICH MEASURE IS APPROPRIATE	56
LIMITATIONS	57
MARKET TIMING	57
PERFORMANCE ATTRIBUTION PROCESS	57

Topic 1 – Investment Environment & Financial Instruments

Financial Assets - ‘intangible’

- Claims to income; Derived from real assets; Mostly intangible
 - E.g. Stocks and bonds

Benefits of investing in financial assets

- **Consumption Timing**
 - postponement of consumption – time value of money
- **Risk Allocation**
 - repacking of business risk
- **Separation of Ownership & Management**
 - facilitates diversification, liquidity and professional business management

Real Assets

- Assets used to produce goods and services.
- Mostly tangible in nature.
 - E.g. Buildings, Plants, Machineries

Clients of Financial System

- **Clients:** Household sector; Business Sector; & Government Sector.
 - **Surplus Spending Unit:** $\text{income} > \text{consumption} + \text{investment on real assets}$
 - **Deficit Spending Unit:** $\text{income} < \text{consumption} + \text{investment on real assets}$

Financial Intermediaries

- Financial Intermediaries (Banks, Investment Companies, Credit Unions)
 - Channelize surplus funds of household sector to business sector;
 - Enjoy economies of scale & specialization;
 - Minimise Search and Negotiation cost;
 - Improve liquidity of Investments;
 - Diversify risk;
 - Earns spread, charges service fees etc.

Investment Banks

- Help businesses to raise capital by selling financial securities to the public;
- Manage public issues of Stocks and Bonds;
- Cost effective service;
- Certification; &
- Charges service fees.

Financial Instruments

- **Money Market:** short term, highly liquid debt market; primarily for Government & Business Sector
 - Treasury Note
 - Short term Government borrowing
 - Discounted security
 - Certificate of Deposit
 - Time deposit with bank
 - May not be withdrawn on demand
 - Denomination \$50,000 to \$100,000
 - Commercial Paper
 - Sort term unsecured debt issued by big companies
 - Bank Accepted Bills
 - Bills of exchange endorsed (accepted) by banks
 - Allows customers to use banks credit rating
 - Banks charge fees
 - Discounted security with active secondary market
 - Repos (Reverse Repos)
 - Usually overnight borrowing using government security as collateral
- **Bond Market:** longer term debt market
 - Treasury Bond
 - Longer term Government Debt
 - Semi Government Bond