

FINAL EXAM TOPICS

Macro Finance

1. Balance budget in theory and in practice
 - Evaluation of budget balance (expectations, dimensions)
 - Different indicators (accrual, cash-flow, structural balance)
 - Anti-cyclical and procyclical fiscal policy
2. General principles of taxation
 - Goals of taxation
 - Structure of taxes by economic function
 - Deadweight lost, demand elasticity, and lump-sum tax
3. The concept of public debt
 - Interpretation of public debt (Classical views, Keynes, Buchanan)
 - Structure of debt (maturity, denomination, ownership)
 - Characteristic of measurement

Fixed Income Securities and Management of Market Risk

4. Bond pricing and yields
 - fixed-income securities characteristics, Treasury bonds, Government securities, corporate bonds, and innovation in the bond market
 - bond pricing: determination of clean and dirty price
 - bond yields: current yield, yield to maturity, yield to call
 - impact of default and credit risk on bond pricing, CDS and CDO
5. Yield curve, terms structure of interest rates
 - yield curve theories, interest rates under certainty and uncertainty
 - determination of spot and forward rates
 - theories of Term Structure
 - management of bond portfolios
6. Management of interest rate risk in bonds
 - duration and convexity of bonds
 - management of linear and non-linear interest rate risk in bonds
 - VAR methods and models, backtesting, stress testing and scenario analysis to interest rate risk in bonds

Foundations of Risk Management

7. Concept and measurability of risk

- risk and uncertainty, risk map, risk categories
- risk measures (σ , β , VaR)
- Methods of calculating VaR

8. Liquidity risk

- Liquidity risk definition and measurement methods
- Liquidity indicators used for macroprudential policy purposes
- Liquidity stress tests

9. Scenario analysis and Stress tests

- Definitions, characteristics
- Procedures, stages
- Different structures, approaches

Corporate finance

10. Corporations

- Aims of corporations
- Corporate governance
- Stakeholder groups and stakeholder management

11. Time value of money

- The concept of the interest rate and the risk premium
- Present and future value of cash flows (lump sum, annuity, perpetuity)
- The effect of compounding on the present and future value of cash flows

12. Capital budgeting

- Process, basic principles, and useful concepts (e.g., sunk cost)
- Project categories and interactions
- Investment decision criteria (NPV, IRR, PI, EAA)

Investments

13. CAPM and other factor models

- Efficient Market Hypothesis (origins, strength, etc.)
- Markowitz model, CAPM assumptions, beta, CAPM-model
- Other factor models, French-Fama 3 and 5 factors, etc.

14. Fundamental analysis

- Macroeconomic and industry analysis (macro, business cycles, sector rotation, etc.)
- Equity Valuation Models (Comparables, P/E problems, CAPE, DDM, Gordon, Reinvestment, PVGO, Free Cash Flow Valuation Approaches)
- Financial Statement Analysis (Key financial Ratios, EVA, Ratio analysis, DuPont system, etc.)

15. Portfolio management and performance evaluation

- The Margin of Safety, Kelly Criterion, Stop-loss rules, tools of stock selection
- Portfolio management as an activity (players, processes, indices-benchmarks, active vs. passive management, etc.)
- Performance evaluation (goals, content, process, attribution, etc.)
- Measurement of portfolio risk (standard deviation, tracking error, Sharpe, Treynor, Jensen, Information ratio, etc.)

Credit and operational risk management

16. Credit risk modeling and PD-LGD-EAD estimation approaches

- Data gathering
- Univariate & multivariate analysis
- PD estimation and calibration
- LGD-EAD estimation fundamentals

17. Credit risk management processes at Banks

- Risk strategy and organization
- Three lines of defense, 4-eyes principle, remuneration, capital management
- Lending and credit risk management (underwriting, monitoring, collection&workout, restructuring, collaterals, and limits)

18. Operational risk management framework

- Loss data collection
- Self-assessment and scenario analysis
- Key risk indicators
- Capital requirement calculation basics

Valuation of Enterprises

19. DCF valuation

- Correcting, analyzing, predicting statements, calculating the business cash flow
- The process of cash flow-based valuation, DCF valuation methods (FCFF, APV, FCFE, EVA, RI)
- Estimating the different types of cost of capital: methods, sources, challenges

20. Alternative methods

- Contrasting comparable transaction and market multiple methods
- Grouping of multiples, selecting peers
- Asset-based valuation methods

21. M&As

- Categorizing and measuring synergies
- Applying discounts and premiums
- Interpreting the results of different methods: Finding the realistic transaction price range