

Ethics

- 1) Make sure you know all Standards of Professional Standards, but focus on Independence and Objectivity, Misrepresentation, Material Nonpublic Information, Preservation of Confidentiality, Loyalty, Suitability, Responsibilities of Supervisors, Disclosure of Conflicts, Priority of transactions, and Fair Dealing.
- 2) Know compliance procedures (at least two) to deter violations
- 3) Know GIPS required/mandatory standards inside and out (do not focus as much on recommended or suggested items) especially for the eight sections – LOTS of memorization.

Quantitative Methods

- 1) Know how to calculate the different measures of central tendency (arithmetic mean, geometric mean, median, mode) – be on guard for a harmonic mean question, possibly –not often asked but maybe this'll be the year.
- 2) Know the different measures of dispersion and how to calculate them- Variance, standard deviation, mean absolute deviation, range etc.
- 3) Know the difference for variance and std. deviation calculation for a population vs sample.
- 4) Make sure you know the coefficient of variation and Sharpe ratio from a qualitative and quantitative standpoint.
- 5) Know how to calculate expected return for a set of data and weights and know how to calculate HPR.
- 6) Know how to calculate correlation coefficient and covariance by the formula $r = \text{Cov}_{x,y} / (\text{std dev } x) (\text{std dev } y)$ and make sure you understand both concepts from a qualitative standpoint too.
- 7) Know how to calculate a computed t and z value. That is: (sample mean – pop mean) / std dev. Know what a z-score or t-score means.
- 8) Know the rule of thumb (1 std dev = 68%, 2 std dev = 95%...)
- 9) Know the characteristics of a normal distribution.
- 10) Know how to calculate the standard error of a population or

sample.

- 11) Know how to calculate a confidence interval : $\bar{x} \pm t_s$
- 12) Know the difference between null and alternate hypotheses.
- 13) Know how to do a one-tailed and two-tailed tests (but focus on two tailed tests)
- 14) Know Type I and Type II errors
- 15) Know the different variables of a simple regression equation, b_0 , b_1 , X_1 , Y and what they represent.
- 16) Focus on simple linear regression -- know $SST=SSR+SSE$, also know $SEE = \text{square root of } SSE / n-k-1$ and of course that $R \text{ squared} = SSR/SST$ or $1 - SSE/SST$. Don't forget: relationship between R squared and correlation coefficient.
- 17) Know how to calculate the t-score ($t \text{ calc} = \text{point estimate} - \text{hypoth value} / \text{standard error}$) and how to calculate the standard error given the t calc, hypoth value and point estimate
- 18) Know how to calculate y , given x 's in a regression equation
- 19) Know the difference between F and t-tests, when to use each
- 20) Know how to compare t calc and t critical and whether to accept or reject H_0 .
- 21) Know Roy's Safety First Criterion from a qualitative and quantitative standpoint.

Corp. Fin.

- 1) Know the formula for the WACC
- 2) Know the formula for NPV, AAR, Profitability Index and IRR and how to calculate each.
- 3) Know how to calculate DOL, DFL and DTL (degree of operating leverage...)
- 4) Know what is the Dividend Signaling Hypothesis and the signaling effects of a change in a firm's dividends.
- 5) Know the different ways to calculate the cost of equity (k_s)
- 6) Know how to calculate the cost of new equity (k_e)
- 7) Know how to calculate the EPS after a share repurchase

- 8) Know how to calculate, and the effects of, BV per share after a share repurchase
- 9) Know the advantages and disadvantages of share repurchases vs cash dividends
- 10) Know how to calculate the after-tax cost of debt and the cost of preferred shares used in the WACC formula.

Equity/Securities Markets

- 1) Know the n-firm concentration ratio and the Herfindahl index COLD including how to calculate each and the differences between the two.
- 2) Know how to calculate margin call trigger prices for a margin purchase and a short sale.
- 3) Know the different types of indices and how to calculate each (price-weighted, market cap-weighted, equally-weighted, etc.)
- 4) Know the 3 forms of market efficiency COLD and the anomalies associated with each.
- 5) Know technical analysis contrarian and follow-the-smart-money strategies COLD (do not mix up the credit and debit balances)
- 6) Know Porter's 5 forces COLD
- 7) Know how to decompose ROE using the traditional DuPont and the extended DuPont – be able to calculate each component and know what each ratio is.
- 8) Know how to calculate growth rate of a firm ($g = r_r \times ROE$) – COLD!!!
- 9) Know the factors that influence the required rate of return
- 10) Know Gordon Growth model COLD
- 11) Know 2 stage DDM COLD
- 12) Know when to use Gordon and 2 stage DDMs
- 13) Know the strengths and weaknesses of multistage growth models (at least two)
- 14) Know how to calculate P/E and how to get P/E ratio from

constant growth DDM formula

15) Know the industry life cycle stages COLD

16) Know that for margin transactions, the leverage factor is calculated as $1/\text{margin percentage}$ and that the levered return is calculated as $\text{HPR} \times \text{leverage factor}$.

Debt Investments

1) Know the key aspects of all the debt instruments discussed in Study Session 15 and 16 such as asset backed debt, municipal bonds, sovereign debt, high-yield debt, bullet bonds, serial bonds, floating rate bonds, CMOs, MBSs, mortgage pass-throughs, etc.

2) Know all the concepts we went over in class regarding price-yield curve, duration, convexity, callable bond and non-callable bond.

3) Know how to calculate effective duration

4) Know the market segmentation, pure expectations and liquidity preference theories and how they explain different shapes of the yield curve.

5) Know how to explain YTM, spot rates, static spread (zero volatility spread) and OAS.

6) Know that option value = $zvs - \text{OAS}$

7) Know the two forms of prepayment risk - extension and contraction risk as we discussed in class for CMOs.

8) Know external credit enhancements for ABS.

9) Make sure you can understand and can explain the difference between a cash arbitrage CDO and synthetic CDO and the different tranches (senior, mezzanine, equity) that I went over in class.

10) Know the different forms of credit risk (default, credit spread and downgrade risks).

11) Know the difference between par bond, premium bond and discount bond and the relationship between YTM, coupon yield and current yield for each (which is greater, less, etc.).

- 12) Know repayment provisions on bonds such as call provisions, put provisions, sinking fund provisions, and refunding provisions.
- 13) Know the difference between amortizing and non-amortizing securities.
- 14) Know which types of bonds have more interest rate risk (higher/lower coupon, short/long term to maturity).
- 15) Know how to calculate the yields I went over in class (current, YTM, etc.)
- 16) Know what is accrued interest, clean price, full price of a bond.
- 17) Know how to calculate bond equivalent yield and annual equivalent yield and how to tell which bond is better on a BEY or AEY basis.
- 18) Know spot rates and how to calculate the price of a bond given a series of spot rates.
- 19) Know how to calculate and explain absolute yield spread, relative yield spread and yield ratio.
- 20) Know how to calculate a forward rate given a series of spot rates and how to calculate a spot rate given forward rates.

Financial Statement Analysis

1. Know the difference between LIFO and FIFO effects on B/S and I/S and Statement of Cash Flows and ratios. Remember that $COGS = BI + P - EI$
2. Know the effects of changing from straight line to accel. dep or vice versa on ROA, ROE, D/E ratio, net income, future depreciation, current depreciation, etc.
3. Be able to adjust financial ratios for off-balance sheet financing such as sales of accounts receivable with recourse, take-or-pay contracts, cap. leases, etc.
4. Know leases primarily from lessee perspective but be ready for 1 or 2 questions from lessor perspective. Know the sales type lease reports

profits and has higher assets at inception; earlier profits, same total CF, and less CFO during lease term...

5. Know the different revenue recognition methods (there are 5 of them).
6. Know the differences between the percentage of completion and the completed contract methods for LT contracts and their impact on the financial ratios and the financial statements.
7. Know the DEC items (above or below the NICO) – discontinued operations, extraordinary items, etc., what they are and their effect on NICO and Net Income.
8. Know the construction of the Statement of Cash Flows under the direct and the indirect method and how to classify an activity as part of CFO, CFI, CFF.
9. Know a premium, par and discount bond and whether CFO, CFF will be overstated or understated for each bond.
10. Know the terminology for deferred taxes and how a DTL and DTA arises (is Income Tax expense greater than / less than income taxes paid?). Also know the ways an analyst can treat DTLs.
11. Know the difference between capitalizing vs expensing an expense and what is the impact on I/S and B/S as well as Statement of Cash Flows and financial ratios.
12. Know the 3 and 5-components of duPont, be ready to calculate and analyze
13. Know how to calculate growth rate ($g = RR \times ROE$).
14. Go over ratios -- current, quick, A/R turnover, average collection period, a/p turnover, inventory turnover, payables payment period, TAT, Fixed asset turnover, gross profit margin, net and operating profit margins, ROA, ROE and D/E, LTD/Total capital, D/A and interest coverage ratios.
15. Go over EPS calculations (basic and diluted) and know impact on numerator and denominator of options/warrants, convertible debt and convertible preferred shares.
16. Know what an impaired asset is and its impact on financial

statements and financial ratios.

17. Know the different depreciation methods and their impact on the financial statements and ratios.

18. Know and understand the LIFO reserve and how to calculate it and its impact on the financial statements.

19. Know what is Free Cash Flow and how it differs from CFO on the Statement of Cash Flows.

Economics

1) Know what inflation is and how to calculate the inflation rate.

2) Know the three types of unemployment.

3) Know the different schools of macroeconomic thought (Keynesian, Classical, and Monetarists) – know what each theory says and where they agree and where they disagree.

4) Know the time lags of fiscal policy and the different automatic stabilizers.

5) Know PPP -- law of one price, absolute PPP, relative PPP and formulae

6) Know the three ways that the Fed can control the money supply and how to calculate the deposit expansion multiplier and the difference between the actual and potential deposit expansion multiplier.

7) Know that a currency will appreciate/depreciate based on relative income growth rates, relative rates of inflation and changes in real interest rates.

8) Know interest rate parity which says that countries with high nominal interest rates will have their currencies sell at a forward or discount to prevent arbitrage

9) Know how to calculate the forward premium or discount on a currency vis-à-vis another currency (focus on the currency in the denominator).

10) Know the difference between a direct and indirect quote and

whether a currency is appreciating or depreciating.

11) Know elasticity of demand and supply COLD and how to calculate them. Know whether it is a highly elastic, inelastic or unitary elasticity.

12) Know the difference between accounting and economic profits.

13) Know the law of diminishing returns and what it is.

14) Know the different competitive models (pure competition, monopolistic competition, monopoly, and oligopoly) and their characteristics as well as what they say about economic profits in short and long run.

15) Know the Marginal Revenue Product for inputs and how it relates to price.

16) Review the reading on the Supply of and Demand for Productive Resources mostly for terminology and concepts.

17) Make sure you know ATC, AVC, AFC, curves well and how they relate to MC curve.

18) Know the constant returns to scale, diseconomies of scale and economies of scale in the long-run.

Portfolio Management

1) Know how to calculate $E(R)$, std dev and variance for two asset portfolio COLD!!!

2) Know the efficient frontier and how to select the optimal portfolio

3) Know how to explain systematic and unsystematic risk, beta, the CML, CAL and SML

4) Know two differences between SML and CML

5) Know how to determine if security is undervalued/overvalued relative to SML

6) Know the assumptions behind the CAPM

****7) BE READY FOR AN IPS (Investment Policy Statement) for an individual investor—review the 2 objectives and 5 constraints well...

Derivatives

- 1) Know future and forwards – advantages and disadvantages of each and the characteristics of each contract.
- 2) Know FRAs, qualitative and quantitative and who made/lost money and how much. Know how to calculate the gain/loss and when it will be paid.
- 3) Know the law of one price and what it is.
- 4) Know put-call parity COLD and how to manipulate it and determine whether the put, call, stock, bond are overpriced, underpriced or properly valued and what strategy you would undertake and to calculate the arbitrage profit.
- 5) Know the difference between American and European options.
- 6) Know the upper and lower bounds for European puts and calls and American puts and calls.
- 7) For FRA know that the long position in FRA is the party that would borrow. If LIBOR ends up above forward rate in FRA, long side has right to borrow at below market rates and receives a payment.
- 8) Know caps and floors and when to use them and how.
- 9) Know the effect of each variable on a call option (asset price, volatility, time, etc.)
- 10) Know interest rate, currency and equity swaps as we did in class – Remember: LIBOR is paid in arrears...
- 11) Know swaptions COLD!!!

Alternative Investments

- 1) Know ETFs – what they are and their advantages and disadvantages
- 2) Know the three approaches to valuing real estate and how to

calculate the value of the property under all 3 approaches (cost, sales comparison and income method).

3) Know how to calculate NOI.

4) Know risks of hedge funds and different types of hedge funds

5) Know the aspects of open-end and closed-end funds and what are 12 b-1 fees.

6) Review collateralized commodities futures position material – just in case.