



Interview Questions for MSFE students

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1. Write pseudo-code to price a European option with Monte Carlo
2. Was the market up today?
3. What do you think of the trade deficit of the U.S.?
4. How should we measure your performance?
 - (a) in an interview for a trader position
 - (b) in an interview for a risk-manager position
 - (c) in an interview for an analyst position
 - (d) in an interview for a financial engineer position
 - (e) in an interview for an asset manager position
5. Long-term interest rates are higher in the US than in Japan; what does it tell us about the Yen exchange rate?
6. Who is your career model in finance?
7. Who was the chairman of the Fed before Bernanke?
8. (For foreign students) Does the IMF or the World Bank have an important role in your country? What organization(s) do people prefer?
9. What will you invest in a few years down the road when you have money to invest?
10. How would you model the prepayment option embedded in several loans, like mortgages?
11. What is the difference between the federal funds rate and the discount rate?
12. Do you see any policy change from Greenspan to Bernanke?
13. In the subprime loan crisis why would the American taxpayer want to bail out

deadbeats?

14. In what parts of the country are house prices rising?
15. Why was there a raise in private equity in the US in the last 10 years?
16. What precipitated the fall of Enron?
17. What happened to the Societe Generale in Jan-Feb 2008?
18. Why are banks in the U.S. not universal banks?
19. You are an asset-liability manager in a bank. What is your primary focus?
20. Suppose you have an option on Google's stock and an option on Burlington Northern Santa Fe stock (BNS). They are both at-the-money. Which one is more valuable?
21. What numerical method would you use to price a mortgage-backed-security? Why?
22. What numerical method would you use to price a European call?
(This is a trick question)
23. What is the most important theorem in finance?
24. Do you prefer Fabozzi's books or Hull's? Why?
25. What is an ADR?
26. What are the main financial centers in the U.S.? Where are you looking for a job?
27. Who was involved in the LTCM debacle?
28. What is the difference between a forward and a future?
29. What software would you recommend us to get to better do your job?
30. What would you prefer between a trader position and a risk manager position?
31. (For asset manager position) Do you believe in market efficiency? If yes, why do we need anybody to fill the position we are interviewing you for?
32. (For risk manager position) Should we hedge completely the transactions on the trader books? What is a good trade-off between complete hedge and no hedge?
33. Who is the financial engineer of the year?

34. Do you want to become a CFA? Why? Why not? When?
35. What annual conferences would you like to go to if we had the budget?
36. (For treasury position on the buy side) What attracts you to the buy side?
37. What did Robert Citron do wrong?
38. Do you think the currency desks in Europe hired or fired during the first few years of 2000? Why?
39. Describe how a CDO is structured.
40. How would you calculate the NPV of a risky loan? Should you adjust the payment (numerator) or the discount (denominator)?
41. Suppose you have to calculate the value of a large bank portfolio. You have a massively parallel computer. How would you organize the calculations? (Many answers possible)
42. Do you add value by diversifying your portfolio? More specifically, suppose each security is worth \$1000. You pick 100 securities. Is the total value of the portfolio higher for a diversified portfolio than a non-diversified portfolio?
43. What is the benefit of diversifying a portfolio?
44. Why do banks exist?
45. What are the major employers for financial engineers in Southern California/California?
46. Against what other school graduates do you compete to get jobs?
47. Why did you choose CGU?
48. We do not have a term structure model to value our fixed-income portfolio. What model would you recommend and why?
49. What is the difference between a hedge fund and a mutual fund?
50. What models of credit risk do you know? Develop.
51. We need to build up our infrastructure to track portfolio value and risk. What software would you recommend for the building blocks: Algorithmics, Bloomberg, KMV? Moody

52. Have you heard of the following software for Asset/Liability Management: Kamakura, Sungard, QRM,...
51. How do you know that a Monte Carlo simulation returns the right result?
52. Describe different ways to calculate Value-at-Risk: Riskmetrics, Monte Carlo, ...
53. Suppose you use a one-factor model. How many instruments do you need (in theory) to hedge a portfolio.
54. Describe the main sources of risk a financial institution has.
55. How would you hedge against operational risk?
56. What are the major factors affecting the prepayment of mortgages?
57. What will (did) happen to the mortgage market when federal agencies extend(ed) the limit of conforming loans from \$417,000 to more than \$700,000?
58. Who would you hedge against a crash in housing prices? (Answer: the CME offers contracts)
59. Who do insurers insure themselves against risk?
60. When you get the position and are asked to interview candidates, what questions will you ask?