Preview/Study guide for Final
266: Fin. Markets and Institutions
Spring 2016
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- What to bring.
  - Bring a calculator, there will be some calculations.
  - Something to write with. We'll provide the paper.
  - No other materials allowed.
- Will you have to rush? We aspire to write the exam so that most students do not feel great time pressure. Sometimes we mess up a bit either way, but generally do pretty well. You know your own pace and style, so take this for what it is worth.
- Relation to the midterms

  The final will be very similar in structure to the midterms.

  The midterm will focus on material not covered on the midterms—it will not be comprehensive.

  The material covered will include the last lecture before midterm 2, since that was not covered on the midterm.

  Note also: many ideas and concepts in the course build and continue throughout, so there will obviously be some overlap.

  As for the 'real world quantities' part, there are a bunch of facts that you need to know and run throughout the course: level of GDP, level of interest rates, etc. Any of those general facts about the world are fair game. As always, we are trying to stick to ballpark figures and broadly important facts.
- Relation to past finals

  We put up some past finals to provide you some guidance about the types of things we ask. In other years, the material in the last segment is very different from this time, however, so the actual content in the past sometimes covered stuff that we have not covered in this segment.

  Furtehr, we have spent much more time on monetary policy in this last segment than in the past. Thus, monetary policy will have a bigger emphasis on the final.

- Preview: 5 types of questions

  1 Brief definitions. The concepts to be defined will all be taken from the key terms listed on the syllabus page of the course website. You should have some sense of the level of detail we are looking for from the first midterm and old exams.

  2 Real world facts and quantities. We will be looking for approximate values, and we try to only ask about things that are of broad importance: What is the approximate value of U.S. nominal GDP? Market capitalization of equity markets in the U.S. and around the world. Size of derivatives markets relative to markets for the underlying.

  3 Deeper quantitative questions. These are typically 'story problems' requiring you to apply the financial formulas we've learned. See the comments below on formulas that you do and don't need to memorize.

  4 Short answer. These questions will require applying and explaining concepts and will be less quantitative. The news we have covered and the chapter summaries and the (nonquantitative) questions from the text that are listed on the syllabus page, as well as the past test questions, should provide a good guide. There will be at least one question drawn from the news stories on the news page of the course website.

- Equations you WILL need to know:

  – The percent change when a value goes from v_1 to v_2 is $100 \times i$ in:

$$1 + i = \frac{v_2}{v_1}$$

  – Rate per unit item. We express changes over a span of time in the rate of change stated at an annualized rate. If the change from v_1 to v_2 happens over h years (e.g., $h = 1/4$ is 3 months), the annualized rate is,

$$(1 + i) = \left(\frac{v_2}{v_1}\right)^{1/h}$$

    or stated equivalently:

$$(1 + i)^h = \frac{v_2}{v_1}$$

so that

- You will have to know and be able to sensibly use the various versions of 'the' equation:

$$\begin{aligned} PV &= \frac{FV}{(1+i)^h} \\ FV &= PV(1+i)^h \\ (1+i)^h &= \frac{FV}{PV} \end{aligned}$$

- The present value several payments coming at different times is simply the sum of the individual present values: If there are 3 payments and s_j arrives j years in the future, then

$$PV = \frac{s_1}{(1+i)} + \frac{s_2}{(1+i)^2} + \frac{s_3}{(1+i)^3}$$

- You will need to know the UIP and expectations theory summary equations:

  Expectations theory of term structure:

$$i_{10,t} \approx \frac{1}{10} \sum_{j=0}^{9} i^e_{1,t+j}$$

  In words, long-term rates equal the average of expected future short rates.

  If the current long rate is above the current short rate, short rates are expected to appreciate

  Uncovered interest rate parity (UIP):

$$i_{\$} - i_{£} = -RAP^e$$

  where RAP is the rate of appreciation in the value of the dollar versus the pound.

  In words, the expected rate of *depreciation* of the dollar equals the dollar minus pound interest rate differential.

  If the dollar interest rate is above the pound rate, the dollar is expected to depreciate in this theory.

  Remember: for both theories, the empirical reality is very often the opposite of what the theory predicts.

- Some general guidance:

  We have focused in this segment on two topics: i) bundlers: financial institutions that pool investor money and invest on behalf of the investors. ii) Monetary policy.

  The final will focus a good deal on the specifics of these 2 topics but will try to draw on the grand lessons of the course.

- Grand lessons

  But we have tried to lay out some overarching concepts or distinctions:

  Debt finance (bonds and loans) versus equity (stock) finance.

  Arm's length finance (publicly traded bonds and stocks) vs. relationship-based (bank loans) finance.

  The golden contradiction of finance:

  1. Diversify: spread your wealth over a vast array of different instruments in order to gain the risk risk reduction this entails.

  2. Don't invest in anything that you don't deeply understand and intend to monitor closely.

  All of these points arise because of asymmetric information between those who can provide and those who need financing.

  It is very costly to overcome asymmetric information by brute force (both parties learning the missing information) so institutions and regulations grow up to allow finance providers to more safely invest in a wide range of things *without* learning everything they'd ideally like to know.

  But this inevitably leads to fragility of the system. We get small scale scams and frauds; individual firms going under because of rogue traders, but also large systemic breakdown in the form of financial crises.

  The only way to avoid these problems completely is probably the Shakespeare solution: neither a borrower nor a lender be.

  But that leads to stagnation and misery.

  Thus, since the beginning organized societies, societies have groped for a set of financial instruments, institutions, norms, and regulations that balance the benefits of getting funds to those with good ideas versus the risk of financial market problems.

The finance industry is an area of great opportunity to do good and to make a good living. The key: help funds flow more efficiently (stably and safely) from potential fund providers to those who need financing.

Important innovations in this regard often lead to great wealth.

Or help design more efficient private or public sector institutions that can bolster the stability and resilience of the system.

O.K. that's the broad overarching message of the course. We'll weave that into specifics about bunders and monetary policy.

- Bundlers

  What are the major 'bundlers'? (mutual funds, ETFs, hedge funds, insurance companies, pension funds,...)

  Why do they exist (what problems to they help overcome)?

  How tightly are they regulated?

- Monetary policy

  Essence of monetary policy any time: adjust financial conditions to promote the return of employment and inflation to desired levels.

  Know the channels through which financial conditions affect the goal variables.

  Know the particulars of how policy implemented:

  - Normal times before the crisis: adjust short-term interest rates
  - Since the crisis: LSAPs and forward guidance
  - More extreme measures taken more recently: negative nominal rates and direct intervention in private credit markets (e.g., buying corporate bonds)

  Finally, understand the basics of UIP and empirical exchange rate behavior.