14.09, Financial Crises: Take Home Final Exam

MIT, IAP 2016

Please find attached a handout, which is a chapter from the book, *The Courage to Act: A Memoir of a Crisis and Its Aftermath* (2015), by Ex-Fed Chairman Ben Bernanke. Please read the chapter and answer the following questions as best as you can, based on your understanding of the chapter and the material we covered in lectures. Feel free to refer to the models we covered in lectures without explaining the model. Please try to be concise in general. The whole exam shouldn't take more than a few pages.

1. On page 249, Chairman Bernanke mentions that Lehman Brothers had two financial problems. Briefly (not to exceed a few sentences) describe those problems in conceptual terms.

2. On page 252, Chairman Bernanke mentions that Lehman announced a $2.8 billion loss on June 9. Briefly explain how the losses of a financial institution could induce it to reduce positions or sell some assets. Could the sales of those assets influence their market prices? Suppose they did, and explain whether the endogenous change in asset prices would mitigate or exacerbate the institution's financial distress.

3. On page 252, Chairman Bernanke says: "Once again I worried about self-fulfilling prophecies: If concerns about Lehman's viability became sufficiently widespread, other firms would stop doing business with it and make recovery impossible." Briefly explain what Chairman Bernanke means by a self-fulfilling prophecy. Mention (not to exceed a sentence) two types of policies that have been historically used to prevent self-fulfilling prophecies of this type.

4. On page 255, Chairman Bernanke says that: "We were also concerned about the company's funding, including its reliance on about $200 billion from the tri-party repo market." Briefly describe what a repo is. What was happening in repo markets around that time? Was Chairman Bernanke correct to be worried?

5. On page 259, Chairman Bernanke says that: "We had worked together to rescue Bear Stearns in March, and we continued to believe that had been the right decision. Lehman was 50 percent bigger than Bear had been on the eve of its acquisition and at least as interconnected (its derivatives "book" was twice the size that Bear's had been). Moreover, financial markets and the economy were, if anything, more fragile now." Briefly (not to exceed a few sentences) describe what Chairman Bernanke is worried about here, using a case or a model that we discussed in lectures.

6. On page 261, Chairman Bernanke mentions a *Wall Street Journal* article that opined, "If the feds step in to save Lehman after Bear and Fannie Mae, we will no longer have

exceptions forged in a crisis. We will have a new de facto federal policy of underwriting Wall Street that will encourage even more reckless risk-taking." Briefly evaluate this opinion (not to exceed a few paragraphs). Feel free to bring in your view of the issue, and/or to rely on the empirical evidence or the theoretical arguments discussed in lectures.

7. On page 261, Chairman Bernanke says that: "But it was in everyone's interest, whether or not they realized it, to protect the economy from the consequences of a catastrophic failure of the financial system." Briefly mention one piece of empirical evidence that we have seen in lectures that supports Chairman Bernanke's claim.

8. Briefly (not to exceed a paragraph) summarize Chairman Bernanke's explanation for why Lehman Brothers could not be rescued, despite his belief that rescuing would be the right decision.

9. How did the Fed prepare for a potential fallout from the failure of Lehman Brothers. Do these preparations make sense from the lens of the models we have seen?

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