Money and Banking
Lecture 11: Shadow Banking System I

Gu, Xin

School of Finance
Zhejiang Gongshang University

Outline

Introduction: What is Shadow Banking System?

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- Asset-backed securities provide long-term funding, compared with bank's assets.
- Investment banks provide liquidity services, and so forth.

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- It has no heavy regulations on such a system.
- In the following two lectures, we discuss shadow banking system through the lens of financial crisis of 2007-2009.

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Originate-and-Hold Business Model

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- The leverage ratio asset/equity is 2:1.

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- This is the conventional *originate-and-hold* business model.
- To balance between return and risk, bank lending is fairly prudent.

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- Increasing in bank capital, enhancing *solvency* of banks, but lowers return on equity.

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  3. how to address *asymmetric information* for investors?
- It ignites the transformation of mortgage industry business model from "originate-and-hold" to *"originate-to-distribute"*.

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- So, there is a market for mortgage sales.
- How to make a sale? *Securitization* is one way to make a sale.

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- What is *securitization*?

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- Thus, those securities are called *mortgage-backed securities* (MBS).

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- Banks that *originate* mortgages now could *distribute* to a third party, i.e., *originate-to-distribute*.

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- To increase market share of this lucrative market, banks compete with other monoline businesses (just do mortgage business) by lowering lending standards.

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- Fannie Mae and Freddie Mac are not allowed to securitize those mortgages.
- But market will find a way out.

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- SPV is an independent company and is setup as a *bankruptcy-remote entity*. It means that if SPV goes under, debt holders cannot claim payback from those asset originator, in this case, that commercial bank.

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- Investors now can use rating to do investments.

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- When junior securities paid off, equity or toxic securities investors get paid.

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- If \$2 million more loss happened, junior investors lose everything, but senior investors are safe.

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- No worry. Pool different junior securities from different SPVs together.

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- Juniors from CDO can be pooled again with other to form CDO-square. The trick used here again is *diversification*.

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- Higher default risk of underlying assets in CDS requires higher premium payment from CDS sellers.

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- This kind of CDO is called *synthetic CDOs*, compared with *cash-flow CDOs*.

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- Securitization makes long-term assets - mortgages financed by long-term securities - MBS and CDOs.

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- Who provides liquidity in those market?
- *Investment banks*, e.g., Bear Sterns, Lehman Brothers, Merill Lynch, Morgan Stanley, and Goldman Sachs, top five investment banks on Wall Street prior to financial crisis of 2007-2009.

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Investment Banks: Liquidity Provider

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Investment Banks: Liquidity Provider

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- Interesting, with securitization, credit supply chain is extended from banking industry to nearly all financial industry.
- Thus, end borrowers are more efficiently to raise funds from end investors.
- However, the story does not end here. *Liquidity transformation* in securitization process now falls onto *liquidity provider* - investment banks.