Commentary on Banking at the Crossroads by Arnoud Boot

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Overview

- Boot paper is sweeping overview of his vision of the future of "banking" and the driving forces
- Particular emphasis on impact of financial innovation enhancing the "marketibility" of the banks' banking sheet in form of securitization like MBS, CDOs, CDO²s, CDSs, etc. Increases both economic efficiency and size of banking sector.

Overview (cont'd)

- But innovations have downside (destabilization) as well as upsides. After seeing primarily upside for many years, have seen downside in recent financial crisis. This has stimulated interest in reevaluating whether benefits of financial innovation outweigh costs. Boot suggests increased instability from increased transactionability and complexity may outweigh gains.
- My comments will focus on financial innovation.

Financial Innovation

- Innovation and finance closely intertwined throughout history. As old song goes, like "horse and carriage" or "love and marriage."
- Innovation mostly driven by 1) advances in technology and 2) imposition of government regulation and other policies that interfere with efficiency in name of safety or "fairness."

Financial Innovation (cont'd)

- Innovations in all sectors at all times are risky and have costs.
 Examples:
 - Introduction of steam engine revolutionized transportation on both land (railroads) and water (steamships). But first experimenters suffered serious injuries. Faster the speed, greater the injuries.
 - Introduction of airplanes increased speed further but at heavy cost to pioneers. Higher the flight, greater the injuries.
 - In both instances costs were reduced through time below benefits and innovations survived. Innovations whose costs exceed benefits through time do not survive and disappear.
- In evaluating costs and future of innovation, should differentiate errors due to design of innovation (mechanical failure) from errors due to operation of innovation (human error). Many of problems in financial innovation appear to be human error.

Securitization

- Major financial innovation. But blamed by many for much of recent crisis and future in doubt.
- Increased marketability of bank loans and greatly expanded geographic area in which individual bank can both obtain and invest funds and number and type of counterparties.
- Securitization driven by 1) advances in computer and telecommunication technologies that reduced the cost and increased speed of data collection, storage, transmission and processing and 2) regulations restricting ability of banks to expand physical locations and bid for funds (e.g. Reg Q and unit banking).
- Connects banks more closely to capital market and increases volatility.

 In U.S., securitization started in the 1920s but major drive in the 1970s by FNMA to bypass bank branching restrictions and Regulation Q that limited residential mortgage market.
 Strengthened secondary market to offset restrictions in primary market. But could not be done without accommodating technology.

 Securitization expanded rapidly as technology permitted more and more "dicing and splicing" that permitted securities to be more targeted, but also greatly more complex. E.g.,

Scott and Taylor describe a \$1billion CDO² created by large bank in 2005 as follows:

It had 173 investments in tranches issued by other pools: 130 CDOs, and also 43 CLOs each composed of hundreds of corporate loans. It issued \$975 million of four AAA tranches and three subordinate tranches of \$55 million...Two of the 173 investments held by this CDO² were in tranches from another billion-dollar CDO – created by another bank earlier in 2005 – which was composed mainly of 155 MBS tranches and 40 CDOs. Two of these 155 MBS tranches were from a \$1billion RMBS created in 2004 by a large investment bank, composed of almost 7000 mortgage loans (90% subprime). That RMBS issued \$865 billion of AAA notes, about half of which were purchased by Fannie Mae and Freddie Mac and the rest by a variety of banks, insurance companies, pension funds and money managers.

- Technology outran our ability to understand complexities. Financial engineering run wild!
- Was major breakdown due to mechanical or human error? Can it be repaired? How?

- What is solution?
 - Ban / Prohibit. But technology does not stand still.
 - Financial engineering like other forms of engineering. In time, form will follow function.
 - Let market take course as large losses likely to prevent repeat of worst behavior by private participants, rating agencies and regulators and reduce costs below benefits even with little if any new regulation. No pain, no gain. Pain trumps regulation! Analogy is corporate junk bond market of 1980s.

Junk Bonds and Subprime Mortgage Securities

- Junk bonds of 1980s were subprime MBS of early 2000s.
- Newly developed corporate junk bonds had a high failure rate with large losses in 1980s and much hanky-panky. Leading promoter --Michael Milken - - ended in prison and leading market maker - - Drexel Burnham - - went into bankruptcy in 1990. Forecast end of junk bond. But WRONG.

Junk Bonds and Subprime Mortgage Securities (cont'd)

- Large innovation cost - market did not know how to analyze and price - - human failure.
 But served a purpose / specialty niche market.
- In time, market learned how to analyze and use safely. Now junk bonds make up about 20% of corporate bond market and widely accepted security.
- Similar future for subprime RMBS?

Securitization and Future Model for Banks?

- Shift from traditional originate to hold (OTH)(relationship banking) model to newer originate to distribute (OTD) based on securitization.
- Reasons for shift
 - Technological advances in computer and telecommunication technology that permit creation of more efficient marketable securities.
 - Ability of bank to diversify loan securities across industrial and geographic boundaries

Securitization and Future Model for Banks? (cont'd)

- Greater loan portfolio liquidity
- Can concentrate on loan origination (specialization) and earn fees.
- Bank products becoming commoditized
- But not all banks will shift to OTD.
- Drawbacks to OTD
 - Difficult to transmit credit info, particularly soft info, across large layers of securities
 - Incentive for originators and sellers to "cheat" in information transfer. Mispricing. Agency problem.

Securitization and Future Model for Banks? (cont'd)

- Innovation risk
- Engineered securities may be so highly complex that difficult to analyze thoroughly. May shift risk from those best able to bear risk to those least likely to understand it.
- Relationship business in general on decline - e.g., on-line shopping.

Net outcome

- Banks will find own niche or go out of business. Some will chose OTH, others OTD, and remainder both in combination.
- Industry will look like grocery industry

Other Banking Issues

- Many new regulations in DFA but will have only temporary adverse interference effects. Market forces and technology will win out (Much faster than Banking Act of 1933). But costly in S-R.
- Any gains in economies of scale and scope must be weighed against associated increased risk and higher cost of repair. Also lower cost of funds may be from TBTF policies than economies. Potential greater risktaking by nonTBTFs.

Misc

- Major public policy issue in finance now is that some individual institutions are so big and interconnected and financial sector so important that if something goes terribly wrong it can have terrible adverse impact on broad part of economy. Similar to nuclear meltdown in Japan. Argument for greater emphasis on safety.
- Interesting difference between European (Boot) and U.S. view of markets
 - Boot - Market discipline to supplement gov't regulation
 - U.S. - Gov't regulation to supplement market discipline Helps explain both Boot's negative outlook for market discipline and that, at times, U.S. and Europe differ on appropriate financial regulation.

Thank you