

Collateral and Securitization

Research Discussion Topic for NBER Securitization Meeting (November 12, 2009)

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One of the potential benefits of securitization is that it essentially manufactures good collateral – i.e. securities that are safe and insensitive to private information related to the underlying assets. Gorton (2009a, b) argues that this feature of securitization is critical to our current banking system (traditional + shadow). There is high demand for good collateral due to the common reliance of bilateral collateral agreements to limit counterparty risk in repo and derivative markets.

Gorton (2009a, b) also argues that subprime mortgages are unique in that they produce poor collateral when securitized. They were designed to be refinanced quickly and the ability to do so relied upon house price appreciation. This uniquely made subprime mortgages sensitive to underlying asset price changes. Moreover, subprime securitizations were especially complex, which made them costly to assess once problems became apparent and sensitive to private information. There was a bank run via the repo market as concerns arose about collateral based on securitized products more generally.

The practical conditions for creating good collateral seem to be:

1. Accurate knowledge of the economic structure must be possessed by those setting the senior tranche attachment point, X (i.e. identifying the level at which uninformed investors will be protected across all uninsured states). Even with no agency problems or information asymmetry, a complete characterization of possible economic outcomes is required.
2. A system that ensures that X is appropriately chosen in the presence of agency and information considerations. For example, having the informed participants hold the tranches below X.
3. Good collateral must also represent a good investment, which requires that it be priced properly. An efficient market pricing function must charge for both systematic risks and expected losses.

Key issues/questions:

1. Were subprime securitizations unique, and if so why?
 - a. How sensitive to underlying price changes are various debt instruments? The important consideration in determining the quality of the collateral is the maximum possible price drop over the holding period, regardless of whether this is coming from information asymmetry or exposure to economic shocks. The exposure of debt and securitized products to economic shocks is predictably varying across economic states since these credit securities are nonlinear claims on the underlying assets.
 - b. Empirically, there appears to be a strong relation between investment grade corporate credit prices and those of their underlying assets. To the extent that the safest corporate bonds are sensitive to underlying asset price changes, then more junior claims should be expected to be sensitive as well. This is to be expected from the perspective of a structural model (e.g. Merton credit model), especially after asset values have fallen.
 - c. One way in which mortgage based securitizations do appear to be unique is that they often involved the re-securitizing of tranches that were well below X. This will produce poor collateral in that upon the fairly likely event that the sub-X tranches experience losses, the entire second securitization is at risk. In other words, senior tranches of CDOs comprised of mezzanine tranches of other CDOs are unattractive collateral. This should apply to any debt issued against economic assets.
2. Has there been high demand for good collateral or simply high demand for seemingly safe, information-insensitive debt offering a yield advantage over US Treasuries?
3. How accurate should we expect to be on understanding the economic structure?
4. Has the pricing of securitized products been efficient, and is it now?
 - a. Empirically, the current pricing of investment grade corporate CDX tranches appears to be more consistent with a structural model than it was prior to the crisis. In particular, there has been a substantial reallocation of the shares of the CDX protection value (value of the credit risk) away from the junior tranches towards the senior tranches.