

# Credit Risk Transfer and Bank Lending

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- There are two ways a bank can lay off credit risk

- ① Outright sale of the loan
- ② Use synthetic securities

- A Credit Default Swap:

Protection seller

who receives  
fixed payment

Protection buyer

receives a payment  
conditional on default

- In 2007, the value of the loan sales market:
- Whereas, CDS swap market

- In what way are the two ways of laying off credit risk equivalent?
- We focus specifically on control rights.
- In a loan sale, the purchaser usually gets control rights, whereas with a credit default swap even though the originating bank has no economic stake in default, they retain control rights.

# Why Control Rights are valuable

- Banks can monitor a project and decrease the default probability
- Originating bank is better informed about the value of monitoring
- Communicates information about a project through actions of selling loans or buying insurance

- Characterize equilibria which differ by information content of market transactions:
  - ① If CDS and Loan sales markets are active then there is on average inefficient (too little) monitoring.
    - ① Therefore default probabilities are too high.
    - ② Loan sales prices are less informative and therefore ex post outcomes are more volatile.
  - ② If Only Loan Sales markets are active then there is on average inefficient (too much) monitoring.
- Logic of the model suggests that banks strictly prefer to select equilibria which give them the best payoff ex ante

- $t = 0$  The loan is originated, pays off  $R^\ell$  in the good state and  $C$  otherwise.
- $t = 1$  The bank finds out
  - if the loan is better than it thought:  $p + \Delta$
  - If it has an outside opportunity and values laid off credit risk at  $\beta(R^\ell - C)$
- $t = 2$  There is a loan sale market and a credit default swap market
- $t = 3$  The owner of the loan can monitor for a fixed cost. Monitoring  $\uparrow$  success probability to  $p + \Delta$  from  $p$ , else no effect.
- $t = 4$  Everything pays off

- Going into the market, there are four types of banks: ones who know that the project is good/not and ones that need to sell/not
- The decision to sell depends on the price that a bank can get.
- A seller of protection knows that a bank that buys protection will never monitor
- A bank that buys the loan may monitor if it is sufficiently likely that monitoring adds value
- If a bank that buys the loan monitors then he will value it at the post monitoring value - cost of monitoring.

- If both the CDS and Loan Sales market are active, then there is complete pooling and all banks lay off credit risk.
- If only loan sales market are active then either all banks with a need to release regulatory capital sell loans.
- Or, if only loan sales markets are active then only one bank with a need to release regulatory capital sells loans.



- If both the CDS and loan sales markets are active, then the banks that buy loans do not monitor. There is thus inefficient monitoring and default probabilities are too high.
- If all banks who need to release regulatory capital sell loans, then there is inefficient monitoring (too much) because the banks buying the loans can't distinguish between the types of loans.
- If only one type of bank sells loans then some banks who should shed credit risk don't (inefficient allocation of capital).

- Control rights can have value but the fact that a bank wants to assign them changes their value.
- Even though the Cash flows on CDS and loan sales appear to be equivalent, ownership and what the owner knows (because it informs monitoring) matter.
- While no one ex post prefers the CDS market, ex ante the equilibria can be ranked as there is a tradeoff between monitoring efficiency and efficient use of regulatory capital.