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Credit markets

Transferring credit risks

- Financial innovations seeking to transfer credit risk have a long history
- Early innovations saw the securitisation of loans, especially mortgages into mortgage-backed securities
- Since the 1980s new instruments have been developed that allow to transfer credit risk more specifically
- Collaterised debt obligations were first used by Drexel Burnham Lambert Inc. in about 1987
- Credit default swaps were used by J.P. Morgan & Co in 1994

Challenges in credit markets

- The use of credit markets is the domain of institutional investors and knowledge about the evolution of credit risk over time is limited
- Determining the value of these instruments can be difficult if properties of the underlying credit risk is not known
- Often new instruments are used before they are fully understood

Hedging credit risk

- Banks or investors into bonds can hedge credit risk if they make an insurance payment in case the loan or bond is not repaid
- As the payment is to be made on default, the credit risk is transferred to the seller of this instrument
- We will see how such credit default swaps can be priced


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Credit default swaps
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Credit default swaps as insurance

- Credit default swaps are similar to insurance with a premium (spread) paid until the insurance event (default)
- The spread reflects the default risk, taking into account any partial payment that may be made in default

? Will buying credit default swaps guarantee you to eliminate any credit risk?

! The credit risk on the entity the CDS is based on, is eliminated, but a new credit risk is entered as the seller of the CDS might not be able to make the payment; assuming the seller has a low default risk, the CDS should provide good coverage

Tailoring the amount of credit risk transferred

- Banks have sought to raise additional funds by selling their loan books, but the market for loans is limited
- Collaterised debt obligations allow banks to sell loans with varying degrees of credit risk
- Some parts (senior tranches) are nearly free of credit risk, while other parts (equity tranches) retain the credit risk fully
- Investors can choose the level of credit risk they are comfortable with
- We will discuss the difficulties in valuing collaterised debt obligations


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The importance of default correlations

- The risk of CDOs depend on the default rates of the entities included and their correlations
- Information about the correlation of defaults in loans is difficult to obtain and access to data is limited

? During financial crises, the default rates and correlations of defaults typically increase, why can this be problematic for the holders of CDOs?

! If the default rate increases, the spread will increase, reducing the present value of the CDO tranche, this is exacerbated by the increase in correlation which increases losses to those holding 'safe' senior tranches; this combination can cause significant losses on what is regarded as very safe securities

Summary of key results

- Credit markets allow to transfer credit risk between investors, either in the form of insurance or through selling/purchasing securities that have exposure to credit risk
- Securities might be tailored to the extent that credit risk is sought by an investor
- Information about credit risk of individual entities is limited and data about default correlation is even more difficult to obtain
- The pricing in credit markets depends on this information and hence mispricing can be expected frequently

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