BFF3841 CREDIT ANALYSIS & LENDING MANAGEMENT
SEMESTER 2 2019

WEEK	CHAPTER	PAGE
1 Origination	1 Fundamentals of Credit Risk	1
	2 Governance	5
	3 Checklist for Origination	7
6 Credit Assessment I	4 Measurement of Credit Risk	9
	5 Dynamic Credit Exposure	12
	6 Fundamental Credit Analysis	14
7 Credit Assessment II	7 Alternative Estimations of Credit	17
	8 Securitisation	20
8 Portfolio Management I	9 Credit Portfolio Management	26
	10 Economic Capital and Credit Value at Risk	30
9 Portfolio Management II	11 Regulation	36
	12 Accounting Implications of Credit Risk	40
10 Mitigation & Transfer I	13 Mitigating Derivative Counterparty Credit Risk	43
	14 Structural Mitigation	46
	15 Credit Insurance, Surety Bonds, and Letters of Credit	51
11 Mitigation & Transfer II	16 Credit Derivatives	57
	17 Collateral Debt Obligations	61
	18 Bankruptcy	65

Chapter 1: Fundamentals of Credit Risk

Credit risk: the possibility of losing money due to the inability, unwillingness, or nontimeliness of a counterparty to honour a financial obligation

- Losses from credit risk involve an obligor's inability to pay a financial obligation
    - When the scheduled payment becomes due and the company does not have enough funds available so it defaults
    - Commercial disputes over the validity of a contract and if the dispute ends up in litigation and the lender prevails, there is recovery of the amount owed and ultimate losses are lessened/avoided
    - Monies not repaid on a timely basis could lead to interest income foregone or working capital finance charges occurred by the lender
- Can be linked with political risk → obligors doing business in different countries may have both the ability and willingness to repay, but their governments may force currency conversion of foreign currency denominated accounts without warning
- The longer the term of a contract, the riskier it is → time is risk

3 concepts associated with the inability to pay

- Insolvency: the financial state of an obligor whose liabilities exceed its assets
- Default: failure to meet a contractual obligation, such as through non-payment
- Bankruptcy: when a court steps in upon default after a company files for protection under either Chapter 11 or Chapter 7 of the US bankruptcy laws
    - Bankruptcy proceedings may end in either a restructuring of the obligor's business or in its dissolution if the business cannot be restructured

3 fundamental questions to address for each transaction generating credit risk:

- (1) What is the amount of credit risk? How much can be lost or what is the total cost if the obligor fails to repay or perform?
- (2) What is the default probability of the counterparty? What is the likelihood that the obligor fails to pay or perform?
- (3) How much can be recovered in case of bankruptcy? In the case of non-payment or nonperformance, what is the remedy and how much can be recovered, in what time frame, and at what expense?

Types of transactions that create credit risk:

- Lending: cash outflow up front with promise of later repayment at a scheduled time
- Leases: piece of equipment made available by an entity to another entity that commits to making regular payments in the future
- Account receivable: sale of a product or a service without immediate cash payment
- Prepayment of goods and services: failure of a counterparty in terms of delivery time and quality may lead to loss of advanced payments
- Deposits: large corporates worry that the banks with their deposits may default
- Contingent claim on assets: if insurer fails to pay a claim
- Derivate exposure: counterparty's financial distress results in loss of money

Credit Type	Losses Result From	Loss Type
Loaned money	Nonrepayment	Face amount
	Slow repayment	Time value of money
	Dispute/enforcement	Frictional costs
Lease obligation	Nonpayment	Recovery of asset, remarketing costs, difference in conditions
Receivables	Nonpayment of goods delivered or service performed	Face amount
Prepayment for goods or services	Nondelivery	Replacement cost
	Performance on delivery not as contracted	Incremental operating cost
	Slow delivery	Time value of money
	Dispute/enforcement	Frictional costs
Deposits	Nonrepayment	Face amount
		Time value of money
Claim or contingent claim on asset	Nonrepayment/Noncollection	Face amount
	Slow repayment/Slow collection	Time value of money
	Dispute/enforcement	Frictional costs
Derivative	Default of third party	Replacement cost (mark-to-market value)

Who is exposed to credit risk?

- Financial institutions: face the most credit risk exposure
- Banks: because they are in business to extend credit, banks have the largest credit portfolios and possess the most sophisticated risk management organisations
    - Their appetite for credit risk has declined over the years, as margins are low and regulatory capital requirements high
    - Loans and lines of credit are the largest sources of credit risk for a bank
        - In order to further reduce the credit risk exposure that these loans present, banks are increasingly turning to the capital markets to hedge the exposure created in extending the credit
        - Banks lend money or securities against the provision of collateral → if the borrower cannot repay or give back the securities, the lender can sell the collateral, thus reducing or eliminating losses
        - When volatile financial markets, collateral value can decline quickly
    - Derivatives business also generates a large credit risk exposure for banks
- Asset managers: huge amounts of money to invest
    - Collect money from individuals and institutions and invest it in order to meet the investors' risk and return objectives.
    - Have to pay very close attention to the creditworthiness of a counterparty that has the potential to reduce the performance of their fund, including causing losses to their clients.
- Hedge funds: huge amounts of funds to invest
    - Investors invest in riskier financial instruments
    - Hedge funds play a proactive role to maximize their recoveries, as a result of their investment in risky debt
    - Hedge funds employ resources to identify entities that may default → enter into transactions that make money in cases of financial distress

- Insurance companies: exposed to credit risk in their investment portfolio and reinsurance recoverables
    - If the insurer makes poor investment decisions for their policyholders, the insurers may suffer damage to their reputation and jeopardise future business opportunities
    - Reserves set aside will be inadequate to cover losses, and insurers' capital would be tapped → insurance companies transfer some of the risks they originate to reinsurers
        - Insurers who originate policies and collect policyholder premiums transfer part of the risk by buying a policy and paying a premium.
        - For small and frequent losses, credit risk stems from the time lag of reinsurers verifying claims
        - For catastrophic losses, reinsurers may have inadequate resources to make payments
        - Need to distribute risks among many reinsurers
        - Reinsurance recoverable: the contingent claim that the insurer has on the reinsurer
- Pension funds: sponsors invests funds on behalf of pension beneficiaries
    - A significant portion of these funds is invested in credit risky assets
- Corporates: credit risk is a by-product of their operations
    - Credit risk management is outside of their core competency
    - The bankruptcy of a customer creates negative publicity and can have a negative effect on the corporation's stock price performance and raises questions about the quality of its operations.
    - The biggest source of credit risk for a corporate is account receivables
        - Sales are generally not paid in advance, and thus corporates have effectively extended short-term credit to their customers
    - Credit scores that summarise the most relevant criteria to assess the probability of getting paid can complement raw data
    - Options to mitigate this credit risk exposure:
        - Buy insurance on their receivables, and an insurer indemnifies them in the event they are not paid
        - Sell their receivables to factoring companies, which provide cash and credit insurance at the same time.
        - Foreign transactions can be secured by documentary credit.
    - Corporates have significant amounts of cash to invest
        - Build war chests that they can use when business opportunities arise
        - Diversify their deposits across banks, knowing that, ultimately, no bank is "too big to fail"
    - For certain industries, derivative trading activities is another source of risk
        - Counterparty's inability to make or take delivery of the commodity
    - Large corporates that produce expensive equipment and lease them to clients face the risk that clients default on their repayments
- Individuals
    - Making advance payments for services
    - From investment activities → selection of the mutual fund to invest in
    - Money deposited at banks