CHAPTER 5 — Understanding Financial Contracts

Purpose: Understand the structure, purpose, and legal/financial implications of contracts in the financial market, including promissory notes, covenants, amortizing loans, and revolving loans.

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1. The Nature of Financial Contracts

A **financial contract** is an agreement where one party provides money now, and the other provides something of value in exchange, either immediately or in the future. The exchange is designed to be of equal value from the perspective of both parties at the time of signing.

Common types of exchanges in financial contracts:

1. **Ownership claims:**
   - Example: purchasing a share of a company with other investors.
   - Requires a written agreement specifying ownership percentages, rights, and responsibilities.
2. **Promises to make payments:**
   - Example: loans or non-cash obligations.
   - Includes agreed-upon repayment schedules and conditions.

Key insight: Even if total cash repayment exceeds the initial loan (due to interest), both parties agree that the contract's terms reflect fair value for the present exchange. This prevents later disputes over perceived fairness.

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2. Promissory Notes

A **promissory note** is a written financial contract in which a borrower promises to pay a lender a specified amount at a future date in exchange for something of value received today.

Core sections of a promissory note:

1. **Description of the promise:** What is being borrowed, interest rate, repayment schedule, total number of payments.

2. **Covenants:** Additional conditions the borrower must fulfill.
3. **Enforcement provisions:** Penalties and remedies in case of default.

2.1 Covenants

Covenants are contractual conditions imposed on the borrower to reduce risk and address asymmetric information and moral hazard.

Types of covenants:

1. **Positive covenants** — require the borrower to take certain actions.
   - Example: providing financial reports, maintaining collateral in good condition, or insuring assets.
2. **Negative covenants** — prohibit specific actions.
   - Example: limiting additional borrowing, prohibiting sale of collateral, or preventing risky investments.

Covenants protect the lender and can be extensive in business loans. Compliance may impose additional administrative costs on borrowers.

2.2 Enforcement

Enforcement provisions specify consequences if the borrower defaults or violates covenants.

- **Acceleration clause:** allows the lender to demand full repayment immediately upon default.
- Specifies late payment penalties and remedies such as repossession of collateral.

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3. Structure of a Promissory Contract

A complete promissory contract typically contains three main sections:

1. **Promissory Note:** Describes the promise, repayment schedule, interest, and basic obligations.

2. **Security Agreement:** Covenants related to collateral, including ownership, use, and protection of the asset.
3. **Truth in Lending Disclosure:** Simplifies the contract terms into plain English for the borrower; shows APR, total payments, and fees.

Secured vs. unsecured loans:

- **Secured loan:** backed by collateral.
- **Unsecured loan:** no specific collateral; lender relies on borrower's capacity, capital, and character.
- Note: unsecured does not mean the lender cannot take action if the borrower defaults.

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4. Loan Covenants in Security Agreements

Ownership of collateral: Borrower must use loan to acquire the promised item. They cannot sell or lease it until the loan and interest are fully repaid.
Use of collateral: Collateral must be maintained properly and insured against loss.
Default clauses: Specify lender remedies, such as repossession, without court intervention in some cases.

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5. Amortizing Loans

An **amortizing loan** is repaid gradually over its life through periodic payments, each consisting of **interest + principal**.

Word Math Expression for amortizing loan:

$$P = \frac{PMT}{i}\left(1 - \frac{1}{(1+i)^n}\right)$$

Where:

- (P) = Loan principal (amount borrowed)
- (PMT) = Payment per period
- (i) = interest rate per period
- (n) = total number of payments

Monthly interest calculation: if APR is annual, monthly interest rate

$$i = \frac{APR}{12}$$

Example: Loan $10,000, 5% APR, 12 months. (i = 0.05/12 = 0.004167). Compute (PMT) using the formula above in Word math.

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6. Revolving Loans

A **revolving loan** allows the borrower to:

- Borrow up to a limit, repay partially or fully at any time.
- Borrow again immediately after repayment, up to the credit limit.

Example: Credit cards are the most common form of revolving loans.

Interest calculation: Most credit cards charge interest using **average daily balance**:

1. Track daily balances on the account.
2. Sum all daily balances over the billing cycle.
3. Divide by the number of days → average daily balance.
4. Multiply by the monthly interest rate to compute interest owed.

Example:

- Billing cycle = 30 days
- Daily balances (simplified): Day 1–15: $1,000, Day 16–30: $500
- Average daily balance = ((15*1000 + 15*500)/30 = 750)
- Monthly interest = $750 \times i$
- ($i = \frac{APR}{12}$)

Advantages: flexible repayment, only pay interest on outstanding balance.
Risks: minimum payments may extend repayment period and increase total interest paid.