Third Year, Week 10, Lecture 10, 13th April 2020

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Commercial Bank Operations

(Part Two)

Left Side: Use of Funds

Note that:

The typically earning assets of a bank are loans or investments; Loans as the primary business of a bank and investments as a pure financing to the ultimate borrower.

Loans are most important earning assets. They have high yields, but they are typically not very liquid. Investment securities are more important for small banks than for large ones

The use of funds consists of:

- ❑ Cash Assets
- ❑ Bank Investments
- ❑ Bank Loans
- ❑ Leasing Financing
- ❑ Other Assets

Cash Assets

(1) Vault cash

- Physical currency and coins held in the bank's own vault.
- Counts as a proportion of the reserve requirements.

(2) Reserves at the Fed

- Required reserves per Regulations as a % of deposits.
- Excess reserves for settling transactions, check-clearing, Fed Funds transactions.

(3) Balances at other banks

- Banks, especially small, hold demand deposit balances at other banks to meet transactions.

(4) Cash Items in Process of Collection (CIPC)

- The value of checks drawn on other banks but not yet collected.

(5) Fed Funds Sold

- The excess bank reserves sold to other banks for a short period of time.

(6) Reverse Repurchase Agreements

- The counterparty positions to the repurchase agreements.
- In which the bank buys securities (usually government securities) from the borrower and simultaneously contracts to resell the same securities on a specified future date at a price that produces an agreed yield.

Bank Investments portfolio

Bank investment portfolios serve several important functions as follows:

- First, they contain short-term, highly marketable securities that provide liquidity.
- Second, they contain long-term securities that purchased for their income potential.
- Finally, they provide the bank with tax benefits and diversification beyond that possible with only a loan portfolio.

(1) Treasury securities

- Offer safety (default free), liquidity (highly marketable), collateral and income.

(2) Government Agency securities

- Provides safety and income investment
- Have somewhat greater default risk and lower marketability, as such sell at yields above comparable T-B.

(3) Municipal securities

- Probably the riskiest securities than T-B and Agency securities.
- Provide an income tax shield: As its interest is exempt from federal income tax.

Bank Loans Portfolio

Note that:

- Loans are very profitable to banks; however they take time to arrange, are subject to greater default risk, and have less liquidity than most bank investments
- Most bank loans consist of promissory notes. A promissory note is an unconditional promise made in writing by the borrower to pay the lender a specific amount of money, usually at some specified future date.
- Bank loans may be secured (Collateralized) or unsecured.
- Banks make either fixed-rate or floating-rate loans. The fixed-rate does not change over the loan's term. The floating-rate is periodically adjusted according to changes in a designated short-term interest rate, usually a Treasury rate or LIBOR.

(1) Commercial and Industrial Loans

There are ***three*** types of business loans, depending on need for funds and source of repayment.

- ***A bridge loan*** supplies cash for a specific transaction with repayment coming from an identifiable cash flow.
- ***A seasonal loan*** provides financing for the discrepancies between business revenues and expenses that are the result of the business cycle (financing the working capital).
- ***Long-term asset loans*** are financing the acquisition of an asset. Banks' long-term asset loans typically have maturities ranging between 1 and 10 years.

(2) Loans to Depository Institutions

- In which, Bank make loans to other depository institutions.

(3) Real Estate Loans

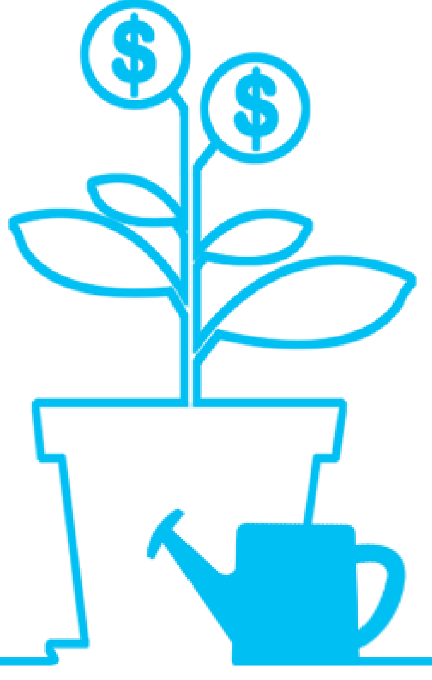
- The mortgage loans that using for finance the purchase, construction, and remodeling of both residential housing and commercial facilities. They are long-term and fixed.

(4) Agricultural Loans

They are both short-term and long-term loans to farmers to finance farming activities.

(5) Consumer Loans

- Bank loans to individuals
- Maturities from short as one month to long as 5 years for automobile loans.
- Long-term loans, which are typically paid on an installment basis, are generally secured by the item purchased, as in the case of automobile loans.
- Short-term loans are usually single-payment loans.
- Credit Cards (such as, Visa and MasterCard) guarantee a credit limit to the cardholder, with no interest is charged in full within 25 days after the monthly billing by the bank.



Leasing Financing

- A fast-growing area of business for commercial banks, that viewed by most bankers as an extension of their commercial lending activities. The item being leased includes offices, equipment, trucks and machinery.

Other Assets

- Fixed assets include real assets as furniture, equipment, and bank's real estate holdings.
- Other items are intangible assets (goodwill), prepaid expenses, income earned but not collected.
- Trading account assets, include securities held by banks for resale to investors as part of their securities dealer activities

Loan Pricing

Loan pricing is one of the most critical decisions made by a bank manager.

There are three important facets of loan pricing decision:

- First, bank must earn enough interest rate on the loan to cover the costs of funding the loan.
- Second, the rate must be sufficient to cover the administrative costs of originating and monitoring the loan.
- Third, the rate must provide adequate compensation for the credit (or default) risk, liquidity risk, and interest rate risk generated by the loan.

How could banks price their loans?

(1) The Prime Rate

- The prime rate is the rate banks charge their most creditworthy customers; other borrowers will typically quoted rates as some spread above prime, depending on their risk.
- Recently, alternative rates could be used as benchmark rates as LIBOR (London Interbank Offer Rate), Treasury rates and Fed Funds rates.
- The popular media continue to use it as a barometer of conditions in the money markets because banks are the major suppliers of commercial credit in the economy.

(2) Base-rate Loan Pricing

- Setting a base interest rate for the most creditworthy customers and then using this rate as the markup base for loans to all other customers.
- The base rate may be the prime rate, the fed funds rate, LIBOR, or a Treasury rate.
- It is expected to cover three elements (1) the bank’s administrative costs (2) the bank's deposits costs (3) provide a return to the bank’s shareholders.
- The markups include three adjustments, (1) for increased default risk above the base risk class (2) for term-to-maturity (3) for the competitive factors — a customer’s ability to borrow from alternative sources

The loan rate to a particular customer equals r_L,

$$\boldsymbol{r_L = BR + DR + TM + CF}$$

where: r_L = individual customer loan rate

BR = the base rate

DR = adjustment for default risk above base-rate customers

TM = adjustment for term-to-maturity

CF = competitive factor

(3) Nonprice Loan Adjustments

- Banks can also make non-price adjustments to alter the effective loan rate.
- Compensating balances: the minimum deposit balances that bank customers must maintain at the bank.
- Other methods are reclassifying borrowers from lower to higher credit risk classes (carrying higher loan rates), increasing the amount of collateral (lowering the default risk), and changing the maturity of the loan (moving along the yield curve).

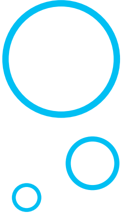
(4) Matched funding Loan Pricing

- One way that bank can control the interest rate risk of fixed-rate loans.
- Matched funding implies that fixed-rate loans are funded by deposits or borrowed funds with the same maturity.

Analyzing, Managing and Pricing Credit Risk

Five "Cs" of Credit:

In attempting to quantify a customer's default risk characteristics, banks typically analyze the five (Cs) of credit:



Character

Character (willingness to pay): reflects a borrower's integrity, credit history, and past business relationship with the bank.

02

Capacity

Capacity (cash flow): analyzes a borrower's income statements.

03

Capital

Capital (wealth or net worth): looks at a borrower's balance sheet or residual wealth (e.g., stock or landownership).

04

Collateral

Collateral (security for the loan): refers to assets that can be taken by the bank and liquidated if a loan is not repaid.

05

Conditions

Conditions (economic conditions): refers to the economic downturn or credit crunch.

Credit scoring

Credit scoring is an efficient, inexpensive, and objective method for analyzing a potential borrowers character.

Credit scoring involves assigning a potential borrower a score based on the information in the borrower's credit report.

Credit scoring based on the information in the borrower's credit report:

(1) the borrower's payment **history**,

(2) the **amount** owed,

(3) the **length** of the borrower's credit **history**,

(4) the extent of **new debt** by the borrower, and

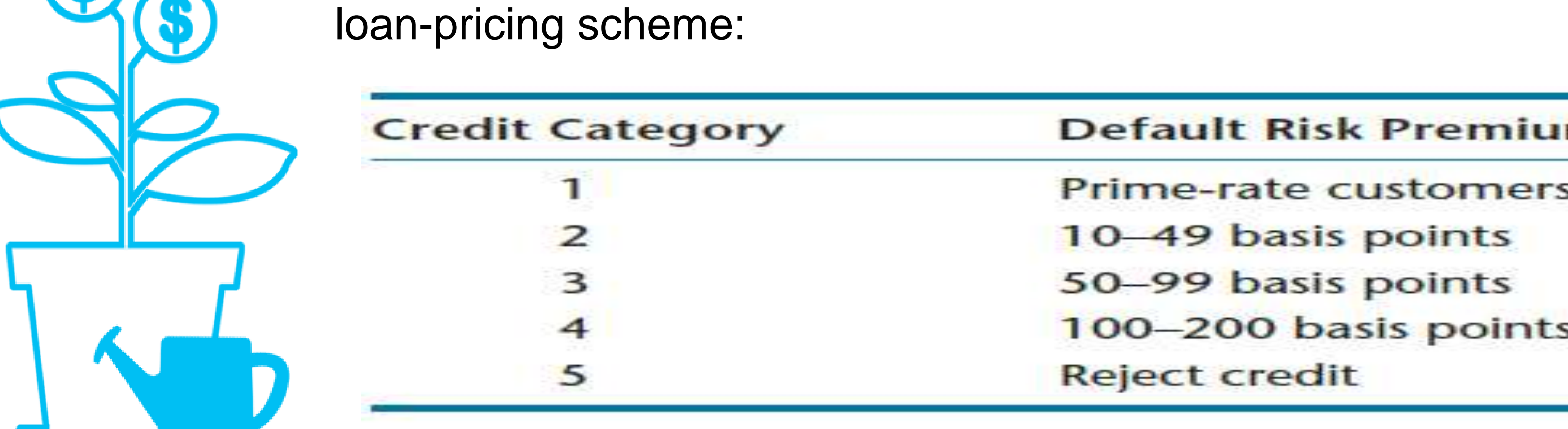
(5) the **type** of **credit** in use.

Default risk premiums

Once the five Cs are analyzed, a customer is assigned to a credit-rating category.

The default risk premium for each category is determined from an analysis of the bank's credit losses over several business cycles.

For example, a bank with five credit categories may use the following loan-pricing scheme:



Credit Category	Default Risk Premium
1	Prime-rate customers
2	10–49 basis points
3	50–99 basis points
4	100–200 basis points
5	Reject credit

Thank you