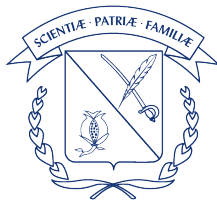


# Financial Market II

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- Check the message **Welcome greeting** published in the News Bulletin Board.
- Dear student please edit your profile uploading a photo where your face is clearly visible.
- The purpose of the virtual meetings is to answer questions and not to make a summary of the study material.
- If you want to participate, please fill out the following survey: Primer corte 30% > Learning Activities > Tu opinión sobre la economía colombiana
- This presentation is based on (Cardenas 2020, chap. 8)

Analyze the functioning of the financial market, identifying the types of intermediaries and instruments that are part of it

- **Fixed income (Renta fija):** provides returns in the form of regular interest payments and repayments of the principal
  - Títulos de tesorería (TES)
    - Debt securities issued by the national government and administered by the Banco de la República.
    - The national government use this instrument to finance its activities
  - Certificados de Depósito a Término (CDT)



**Figure 1:** Interest rates TES zero coupon (COP, 1, 5 and 10 years)

- TES zero coupon

- Actual bond price:  $P$
- Nominal value:  $NV$  where  $P < NV$
- Term:  $n$
- Interest rate:  $i$

$$P = \frac{NV}{(1+i)^n}$$

$$(1+i)^n = \frac{NV}{P}$$

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

- An example: TES zero coupon
  - Actual bond price:  $P = 600000$
  - Nominal value:  $NV = 1000000$
  - Term:  $n = 10$

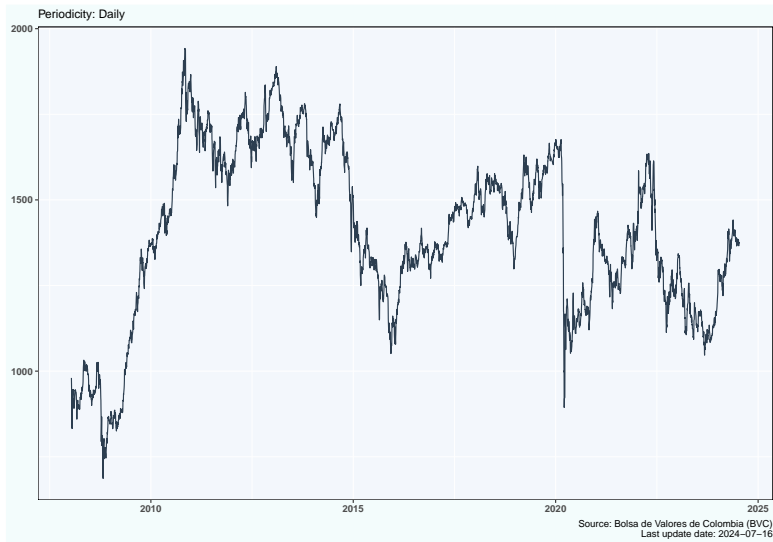
$$\begin{aligned}i &= \left(\frac{NV}{P}\right)^{\frac{1}{n}} - 1 \\&= \left(\frac{1000000}{600000}\right)^{\frac{1}{10}} - 1 \\&\approx 0.0524 \text{ (5.24 \%)}\end{aligned}$$



- **Equity (Renta variable):**

- Shares/Stocks

- These instruments are issued by companies to raise funds from the general public
    - They represent a fractional ownership in the company that issue them
    - If the company does well, its value may increase, and the value of your shares may also rise. You can then sell your shares for a profit. If the company performs poorly, the value of your shares may decrease, and you could lose money.
    - Some companies share their profits with shareholders by paying dividends.
    - The decision to pay dividends or reinvest the profit rests with the company's board of directors. Whether a company pays dividends or reinvests its profits depends on its specific circumstances and strategic goals.



**Figure 2: MSCI COLCAP Index**

- **What is a bank?**

- *"A bank is an institution **whose current operations** consist in granting loans and receiving deposits from the public" (Freixas and Rochet 2008, p 1)*
  - Therefore the core activities of banks are related to deposits and loans

- **What functions banks perform?** (Freixas and Rochet 2008, p 2)

- Offering liquidity and payment services
- Transforming assets
- Managing risks
- Processing information and monitoring borrowers

- **Offering liquidity and payment services** (Freixas and Rochet 2008, p 2-4)
  - Banks offer short term credits to companies and individuals and have created networks that facilitate the transfer of funds between the bank accounts of economic agents
- **Transforming assets** (Freixas and Rochet 2008, p 5-6)
  - **Convenience of denomination:** banks collect small deposits to offer large loans
  - **Quality transformation:** bank deposits offer better risk-return characteristics than direct investments
  - **Maturity transformation:** banks transform securities with short maturities, offered to depositors, into securities with long maturities, which borrowers desire

- **Managing risks:**

- **Credit risk:** it is related to the the probability that a loan is no repaid
- **Interest rate risk:** it is related to the difference between deposit rates, which change more, and lending rates, which are more stable
- **Liquidity risk:** it is related to the difficulty a bank has in selling a loan compared to the ease with which a depositor withdraws his savings

- In the case of the Colombian context the framework to manage risks is known as **Sistema Integral de Administración de Riesgos (SIAR)** (Colombia 2021, chap. 31)

**Table 1:** Supervised banking establishments

Type	Code	Abbreviate Name	NIT
1	1	Banco de Bogotá S.A.	860002964-4
1	2	Banco Popular	860007738-9
1	6	Itaú; Banco Itaú.	890903937-0
1	7	Bancolombia	890903938-8
1	9	Citibank	860051135-4
1	12	Banco GNB Sudameris	860050750-1
1	13	BBVA Colombia	860003020-1
1	23	Banco de Occidente	890300279-4
1	30	Banco Caja Social S.A.	860007335-4
1	39	Banco Davivienda	860034313-7
1	42	Banco Colpatria	860034594-1
1	43	BANCO AGRARIO DE COLOMBIA o BANAGRARIO.	800037800-8
1	49	AV Villas	860035827-5
1	51	Banco Credifinanciera S.A.	900200960-9
1	52	Bancamía S.A.	900215071-1

Source: Superintendencia Financiera de Colombia

Last update: 2024-07-17

**Table 2:** Supervised banking establishments

Type	Code	Abbreviate Name	NIT
1	53	Banco W S.A.	900378212-2
1	54	Bancoomeva	900406150-5
1	55	Finandina Bic o Banco Finandina Bic o Finandina.	860051894-6
1	56	Banco Falabella S.A.	900047981-8
1	57	Banco Pichincha S.A.	890200756-7
1	58	Coopcentral	890203088-9
1	59	Banco Santander	900628110-3
1	60	Banco Mundo Mujer S.A.	900768933-8
1	62	Mibanco S.A.	860025971-5
1	63	Banco Serfinanza S.A.	860043186-6
1	64	Banco J.P. Morgan Colombia S.A., (la "Sociedad")	900114346-8
1	65	Lulo Bank S.A.	901383474-9
1	66	Banco BTG Pactual Colombia S.A.	901491551-0
1	67	BANCO UNIÓN S.A. (en adelante el "Banco" o la "Sociedad")	860006797-9
1	68	BANCO CONTACTAR S.A.	901702583-3

Source: Superintendencia Financiera de Colombia

Last update: 2024-07-17



**Figure 3:** Deposit and lending interest rate in Colombia



# Acknowledgments

- To my family that supports me
- To the taxpayers of Colombia and the **UMNG students** who pay my salary
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- To the **Linux kernel community** for allowing me the possibility to use some **Linux distributions** as my main **OS** without paying for a license



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