

# Financial Market

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# Please Read Me

- 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.
- This presentation is based on (Cárdenas Santamaría et al. 2013, Chapter 8)

# Purpose

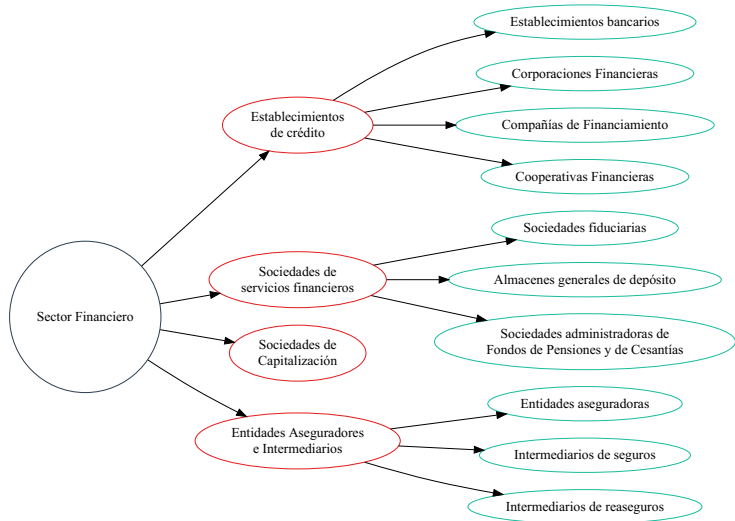
Analyze the functioning of the financial market, identifying the types of intermediaries and instruments that are part of it

# Structure of the Colombian financial system

- The financial system is the set of entities whose main function is to channel the money of savers to those who wish to make investments
  - We are only going to focus on supervised financial entities. Therefore entities outside the law or unregulated are not going to be analyzed
  - Also ponzi schemes, pyramids or unregulated investment scheme are not analyzed.
    - However if you are interested in this topic check out (Carvajal et al. 2009) and (Hofstetter et al. 2018)

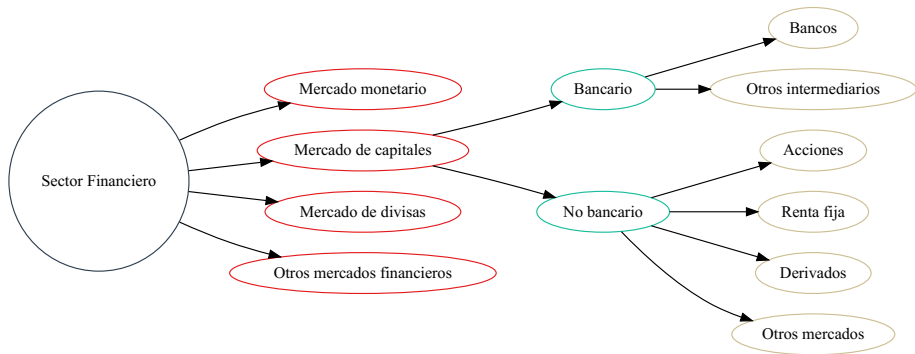
# Structure of the Colombian financial system

- By supervised entities (C. de Colombia 1993)



# Structure of the Colombian financial system

- By markets (Cárdenas Santamaría et al. 2013, Chapter 8, p 321)



# Financial depth

- “Financial depth captures the financial sector relative to the economy. It is the size of banks, other financial institutions, and financial markets in a country, taken together and compared to a measure of economic output” (Bank 2016)
- How it is measure using quantity indicators?<sup>1</sup>
  - **Domestic credit to private sector (% of GDP)**
  - **Market capitalization of listed domestic companies (% of GDP)**
    - Share price times the number of shares outstanding (including their several classes) for listed domestic companies
- According to the literature the “evidence suggests that both financial intermediaries and markets matter for growth and that reverse causality alone is not driving this relationship” (Levine 2005, p 866)

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<sup>1</sup>These indicators doesn't measure the quality of financial depth



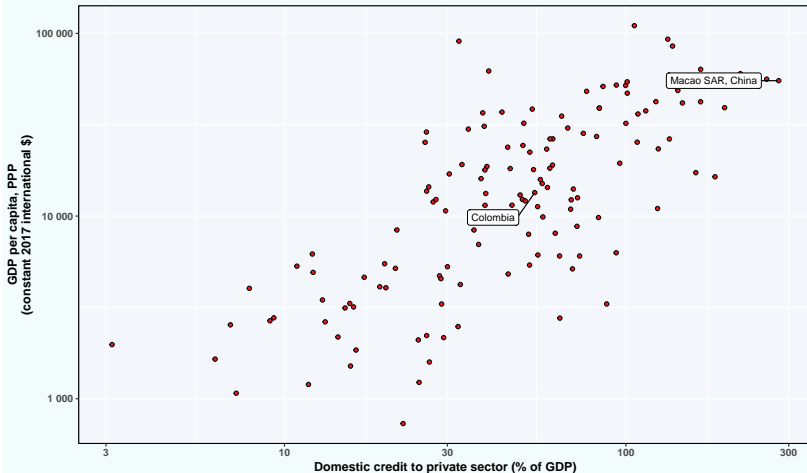
# Financial depth

## Financial depth vs Gross Domestic Product per-capita

Period: 2020

Axis scales: Logarithmic Base 10

Number of territories: 135



Source: World Development Indicators (WDI) – World Bank  
Last update date: 2021-09-15

# Financial depth

## Financial depth vs Gross Domestic Product per-capita

Period: 2020

Axis scales: Logarithmic Base 10

Number of territories: 62



Source: World Development Indicators (WDI) – World Bank  
Last update date: 2021-09-15

# Uncertainty in financial markets

- Financing is essentially the exchange of a sum of money today for a promise to return more money in the future. Therefore it is not surprising that such exchange can be problematic (Cárdenas Santamaría et al. 2013, p 325)
  - **Information asymmetry:** in an exchange one party has more or better information than the other
    - **Adverse selection**
    - **Moral hazard**

# Uncertainty in financial markets

- **Adverse selection** occurs when it is not possible to identify the quality of a product for a party that participates in a transaction. Therefore bad products are sold with good products where the consequence is that bad products take off good products from the market (Wilson 1987)
  - In the context of financial markets **adverse selection** occurs when an increase in interest rates induces good debtors to stop requesting loans, so that only those individuals with a higher probability of not paying the loan end up requesting loans (Cárdenas Santamaría et al. 2013, p 327)

# Uncertainty in financial markets

- **Moral hazard** is “any situation in which one person makes the decision about how much risk to take, while someone else bears the cost if things go badly” (Krugman 2009, p 63)
  - In the context of financial markets **moral hazard** occurs when debtors take riskier actions that increase the probability of default (Cárdenas Santamaría et al. 2013, p 328)

# Principal instruments “Mercado no intermediado”

- **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)

# Principal instruments “Mercado no intermediado”

Interest rates: TES zero coupon – 10 years

Periodicity: Daily



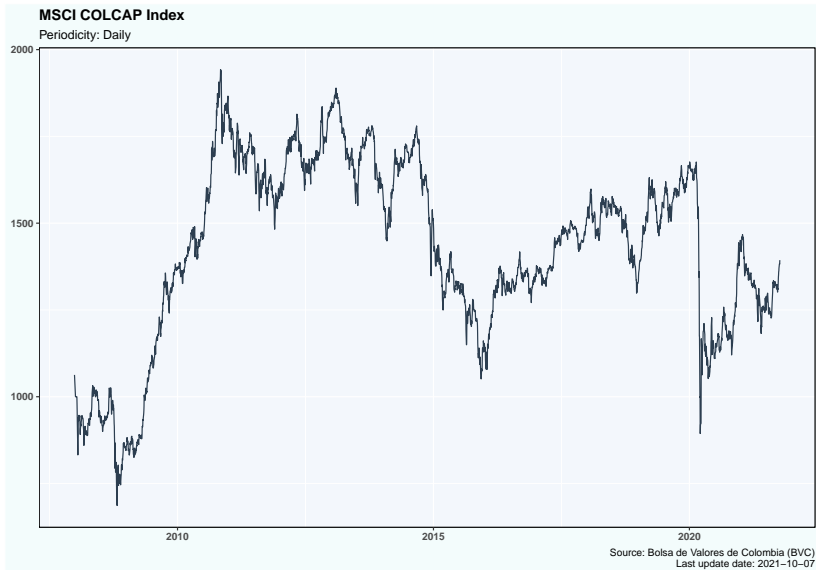
Source: Banco de la Republica  
Last update date: 2021-10-07

# Principal instruments “Mercado no intermediado”

- **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



# Principal instruments “Mercado no intermediado”



# Banking market or “Mercado Intermediado”

- **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

# Banking market or “Mercado Intermediado”

- **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

# Banking market or “Mercado Intermediado”

- **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)** (S. F. de Colombia 2021, chap. 31)

# Banking market or “Mercado Intermediado”

**Table 1:** Supervised banking establishments

Type	Code	Abbreviate Name	NIT
1	1	Banco de Bogotá	860002964-4
1	2	Banco Popular	860007738-9
1	6	Banco CorpBanca	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	Banagrario	800037800-8
1	49	AV Villas	860035827-5
1	51	Credifinanciera S.A.	900200960-9

Source: Superintendencia Financiera de Colombia

Last update: 2021-09-10

# Banking market or “Mercado Intermediado”

**Table 2:** Supervised banking establishments

Type	Code	Abbreviate Name	NIT
1	51	Credifinanciera S.A.	900200960-9
1	52	Bancamía S.A.	900215071-1
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

Source: Superintendencia Financiera de Colombia

Last update: 2021-09-10

# Banking market or “Mercado Intermediado”

Deposit and lending interest rate in Colombia

Period: 1986–2020



Source: World Development Indicators (WDI) – World Bank  
Last update: 2021-09-15

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