

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 (Cardenas 2020, chap. 8)

Purpose

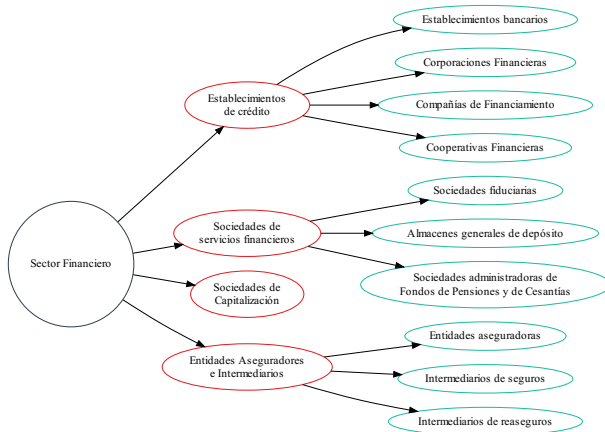
Analyze the functioning of the financial market, identifying the types of intermediaries and instruments that are part of it

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)

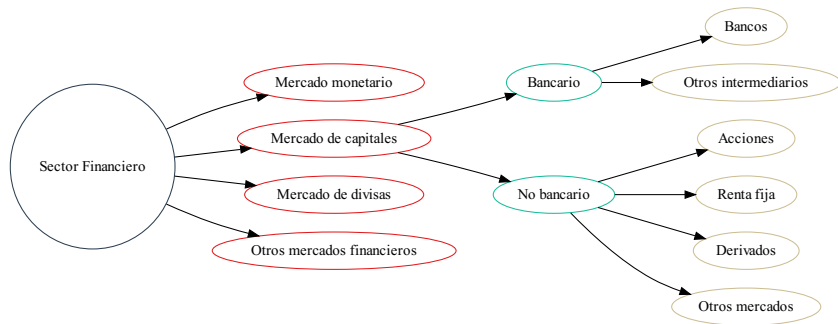
Structure of the Colombian financial system

- By supervised entities (C. de Colombia 1993)



Structure of the Colombian financial system

- By markets (Cárdenas Santamaría et al. 2013, chap. 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?¹
 - **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)

¹These indicators doesn't measure the quality of financial depth

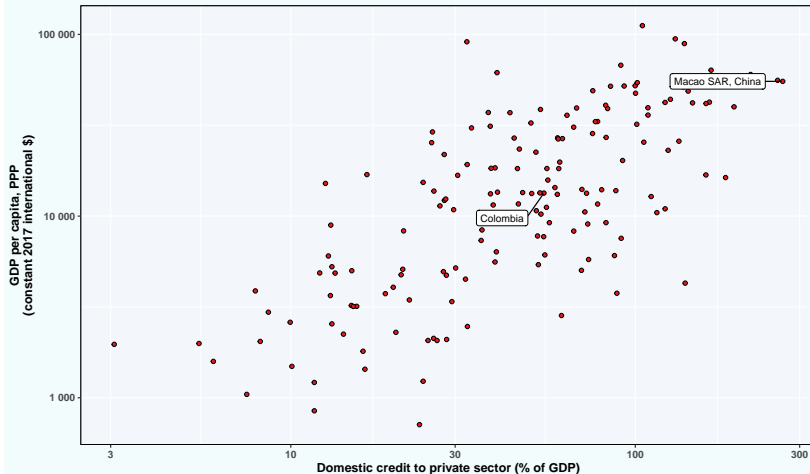
Financial depth

Financial depth vs Gross Domestic Product per-capita

Period: 2020

Axis scales: Logarithmic Base 10

Number of territories: 161



Source: World Development Indicators (WDI) – World Bank
Last update date: 2022-12-22

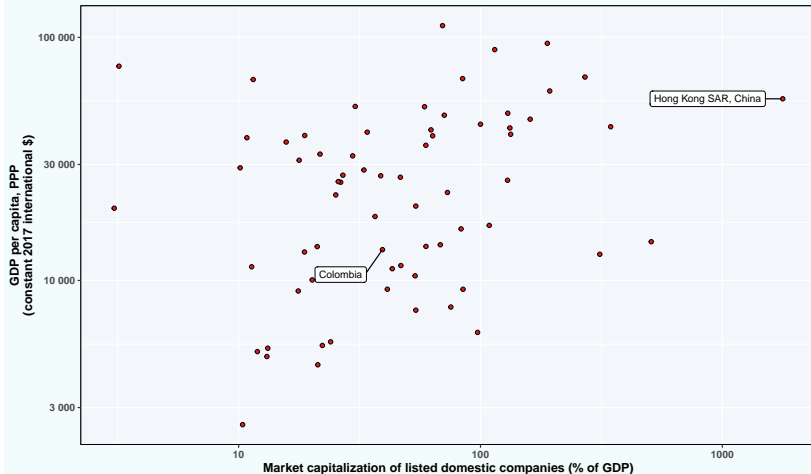
Financial depth

Financial depth vs Gross Domestic Product per-capita

Period: 2020

Axis scales: Logarithmic Base 10

Number of territories: 68



Source: World Development Indicators (WDI) – World Bank
Last update date: 2022-12-22

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)

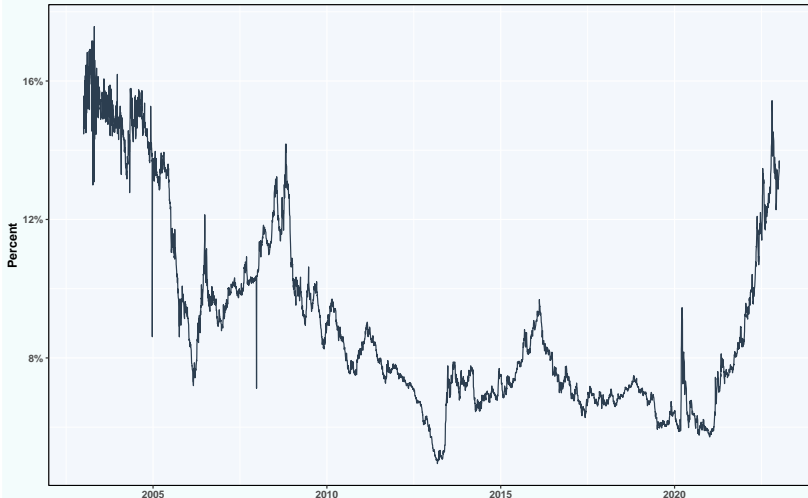
Principal instruments “Mercado no intermediado”

- **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

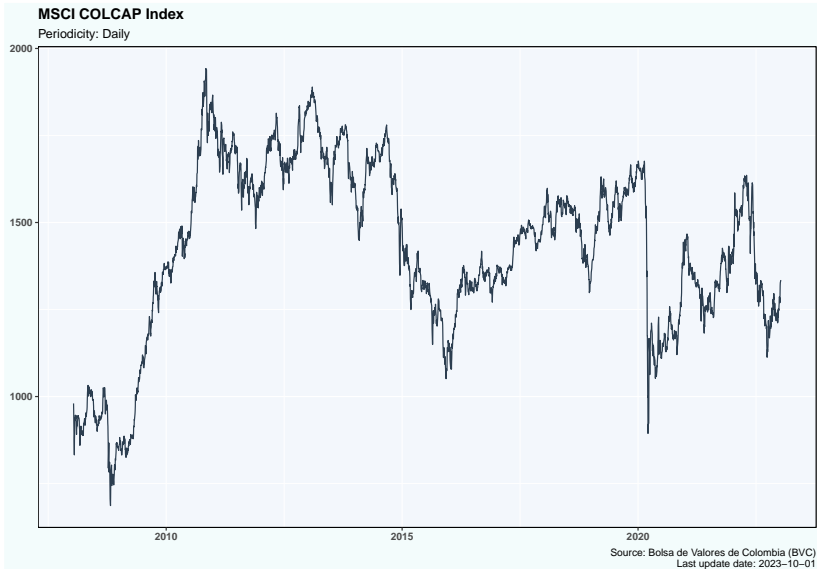


Source: Banco de la Republica
Last update date: 2022-01-10

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: 2023-01-10

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
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

Source: Superintendencia Financiera de Colombia

Last update: 2023-01-10

Banking market or “Mercado Intermediado”

Deposit and lending interest rate in Colombia

Period: 1986–2021



Source: World Development Indicators (WDI) – World Bank
Last update: 2022-12-22

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