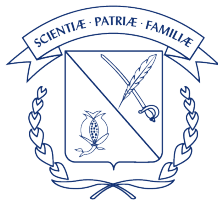


# Financial Market I

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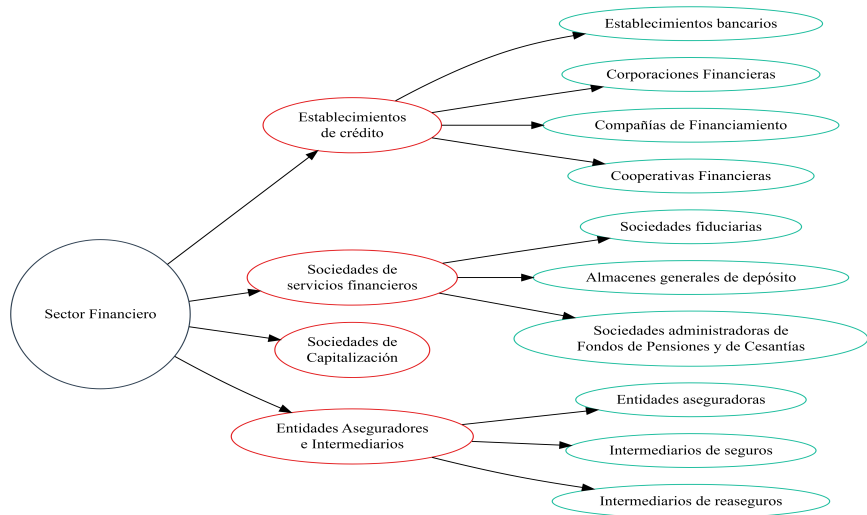
- 1 Please Read Me
- 2 Purpose
- 3 Structure of the Colombian financial system
- 4 Financial depth
- 5 Uncertainty in financial markets
- 6 Acknowledgments



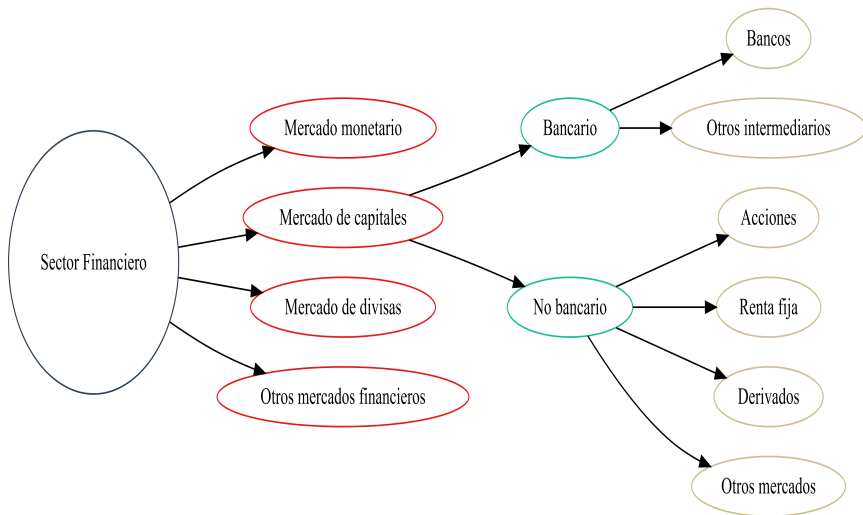
- Check the message **Welcome greeting** published in the News Bulletin Board.
- Dear student please edit your profile uploading a photo where your face is clearly visible.
- The purpose of the virtual meetings is to answer questions and not to make a summary of the study material.
- If you want to participate, 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

- 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)



**Figure 1:** Financial system structure by supervised entities (Colombia 1993)



**Figure 2:** Financial system structure by markets entities (Cardenas 2020, chap. 8, p. 264)

- *“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

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



- 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, 866)

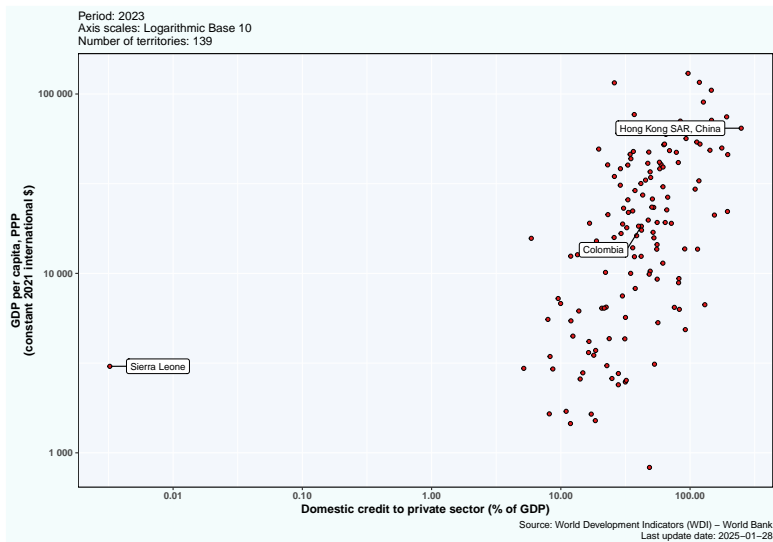
- The financial system provides 5 broad categories of financial functions that can affect resource allocation and economic growth (Levine 2005, 870)
  - **Producing information and allocating capital** (Levine 2005, 870–72)
    - Financial systems enhance the collection and processing of information about potential investments.
    - This allows for better assessment of projects and more efficient allocation of resources that foster economic growth.

- The financial system provides 5 broad categories of financial functions that can affect resource allocation and economic growth (Levine 2005, 870)
  - **Monitoring firms and exerting corporate governance** (Levine 2005, 872–75)
    - Financial institutions, particularly banks and investors, play a role in monitoring the activities of firms they finance.
    - This helps to ensure that managers act in the best interests of shareholders and that capital is used efficiently.

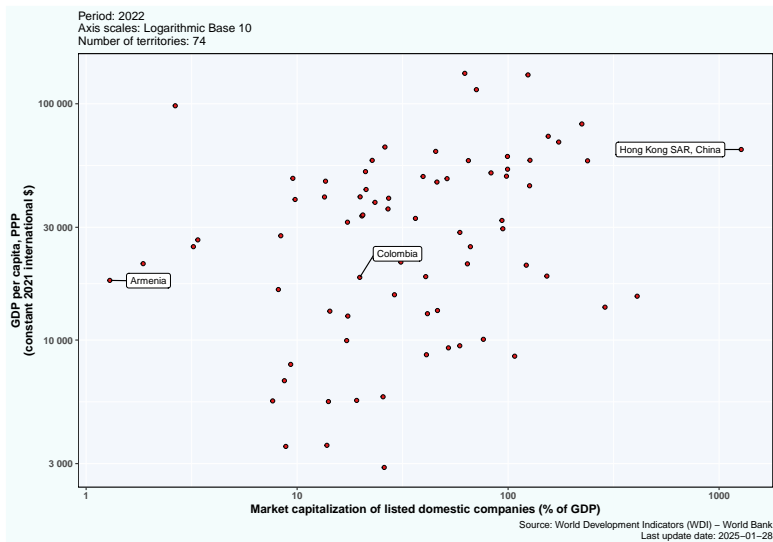
- The financial system provides 5 broad categories of financial functions that can affect resource allocation and economic growth (Levine 2005, 870)
  - **Risk amelioration** (Levine 2005, 875–79)
    - Financial systems reduce the negative impact of risk by enabling diversification, risk transfer, and liquidity.
    - This encourages investment and innovation, fostering economic growth by making risky but productive ventures more viable.

- The financial system provides 5 broad categories of financial functions that can affect resource allocation and economic growth (Levine 2005, 870)
  - **Pooling of savings** (Levine 2005, 879–80)
    - The financial system gathers dispersed funds into large capital pools, enabling substantial investments that individuals alone couldn't make.
    - This process reduces transaction costs, facilitates large-scale projects, and efficiently allocates capital, driving economic growth by channeling savings into productive ventures.

- The financial system provides 5 broad categories of financial functions that can affect resource allocation and economic growth (Levine 2005, 870)
  - **Easing exchange** (Levine 2005, 880–81)
    - The financial system reduce transaction costs and facilitate trade allowing for smoother economic interactions.
    - This increases efficiency, promotes specialization, and expands markets, contributing to economic growth.



**Figure 3:** Financial depth vs Gross Domestic Product per-capita



**Figure 4: Financial depth vs Gross Domestic Product per-capita**



- 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
  - **Information asymmetry:** in an exchange one party has more or better information than the other
    - **Adverse selection**
    - **Moral hazard**

- **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

- **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, 63)
  - In the context of financial markets **moral hazard** occurs when debtors take riskier actions that increase the probability of default

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- To the **Business Science** and **R4DS Online Learning** communities where I learn **R** and  **$\pi$ -thon**
- To the **R Core Team**, the creators of **RStudio IDE**, **Quarto** and the authors and maintainers of the packages **tidyverse**, **wbstats**, **tidyquant**, **ggrepel**, **lubridate**, **knitr**, **kableExtra**, **readxl**, and **tinytex** for allowing me to access these tools without paying for a license
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