

PRELIMINARY RESULTS: NOT FOR CITATION

THE EFFECT OF FINANCIAL MARKET  
REGULATION ON PARTNERSHIPS: THE CASE  
OF BRAZIL

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## PRELIMINARY RESULTS: NOT FOR CITATION

*Sources for the study of wealth and inequality in Rio de Janeiro*

Partnership contracts in the Arquivo Nacional

Contexts:

- 1870s-1880s late period of Brazilian Empire
- 1880s period of tentative institutional reforms
- 1882 Joint-stock company law reformed
- 1888 slavery abolished in Brazil
- 1889 Empire overthrown, Republic declared
- 1890 more and deeper institutional reform
- 1890-91 financial bubble (Encilhamento)

## Rio de Janeiro: Brazil's first metropolis

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1872, population 275,000 1890, population est. 422,000 (maybe as high as 500,000)

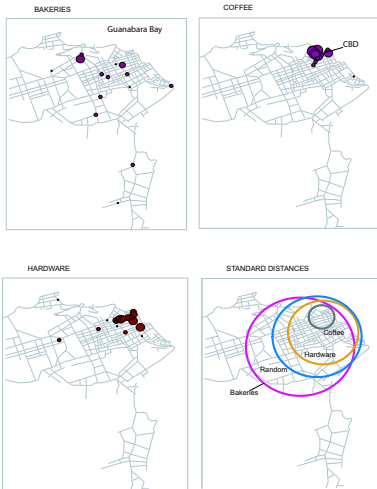
1870 Almanak Laemmert (City Directory): over 1,000 partnerships listed

1889 Almanak Laemmert: over 2,000 partnerships listed

# Spatial Distribution of Partnerships in the City

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Partnerships and Capitalization in Rio de Janeiro (1870)



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## PRELIMINARY RESULTS: NOT FOR CITATION

The Story of Bernardo Jos Ribeiro Guimares

(Contracts are complicated . . .)

*F. Loureiro and Co (formed 1888)*

- Wine imports and commissions
- Capitalized at 20,000,000 (about \$10,000)
- 2 partners
- Sociedade em comandita
- Scheduled to last for 34 months
- Guimares is the "silent" partner, contributes 10,000,000
- Annual salary of up to 2,400,000
- Half of firm profits

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### *Guimares and Ferreira (also formed 1888)*

- Household goods, tools, and medications
- Capitalized at 1000,00,000 (about 50,000)
- sociedade em comum
- Scheduled to last for 3 years
- 4 partners
- Guimares contributed 80,000.000
- But receives just half of profits
- Only Guimares and Ferreira had the right to sign notes of credit

## Question

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- How does the ability to form joint-stock companies affect the internal structure of partnerships in 19th century Brazil?
- Why should we care?
- Economic history: shed light on Brazilian partnerships, which were the main form of business organization
- Economics:
  - The determinants of firms' internal organization
  - Partnerships are central in developing economies

## 1890 regulations eased formation of JS Companies

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- 1890 unexpected regulation in Brazil substantially facilitated joint-stock company formation (Haber 1998)
- Limited-liability law: equity purchasers were no longer held liable for firms debt if firm failed.
- Mandatory disclosure: firms in stock markets had to make balance sheets public, provide financial statements, etc.

# Did the Regulations Affect Partnerships

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Limited-liability partnerships were an alternative form to corporations (e.g. Lamoreaux (1995), Guinnane et al. (2006))

Did the financial market regulations facilitating corporations affect the internal organizations of limited-liability partnerships?

Specifically, did regulations affect: the group size of limited-liability partnerships? whether the contract specified minimum duration ("Time Delimitation")?

# DATA

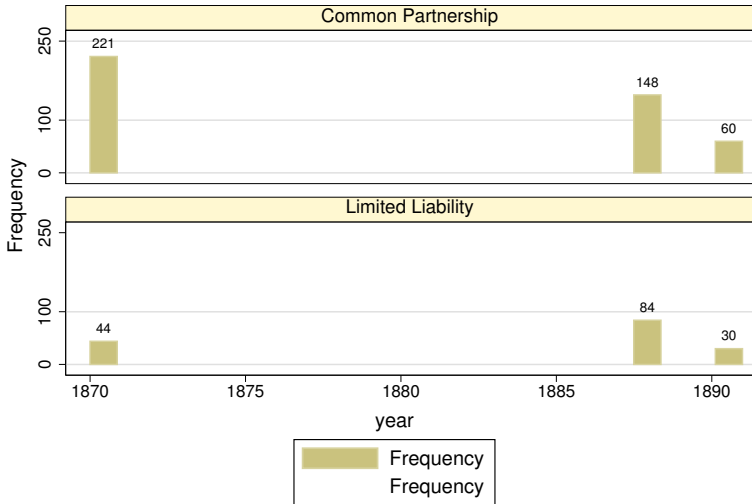
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## Work in Progress

- Detailed archival partnership records from Rio (1870, 1888, 1891)
- Information on: Names and role of partners, Nationality, Capital, Sharing Rule, Type of Business, Type of Contract (Limited Liability or Common Partnership), Time Delimitation.

Data: Number of Observations

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Graphs by LLC

# Group Size Increases Following Reforms

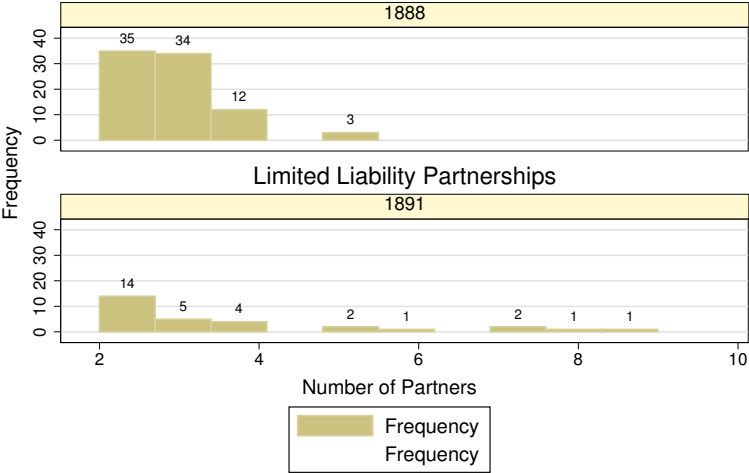
Means

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# Distribution of number of partners

## PRELIMINARY RESULTS: NOT FOR CITATION Limited Liability Partnerships

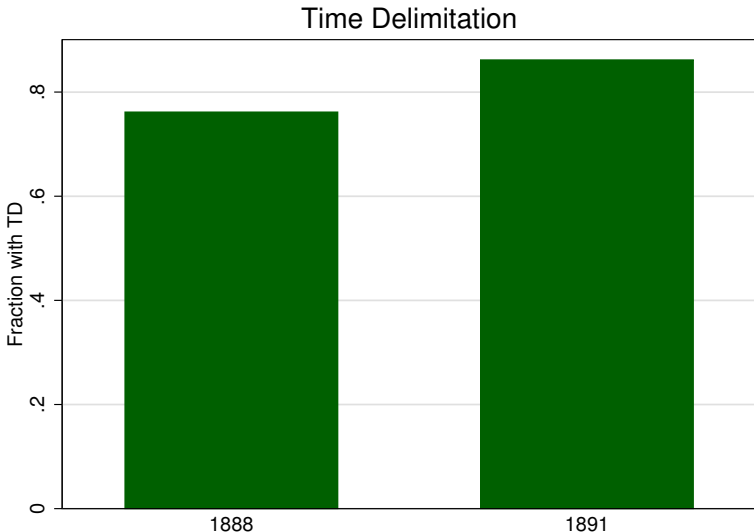


Graphs by year

# Contract Features Change: Time Delimitation

Fraction of Contracts with Time Delimitation

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## Simply time trends or Regulation Effects?

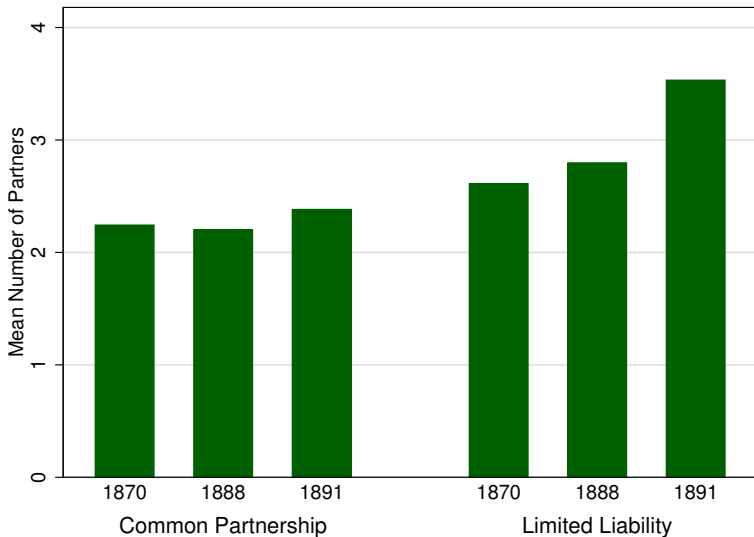
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- Compare the effect of regulation on group size and minimum duration between Limited-liability partnerships (comandita)  
Unlimited-liability partnerships (common)
- Examine time trends in limited/unlimited partnerships since 1870.

# Group size increases more in limited liability partnerships,

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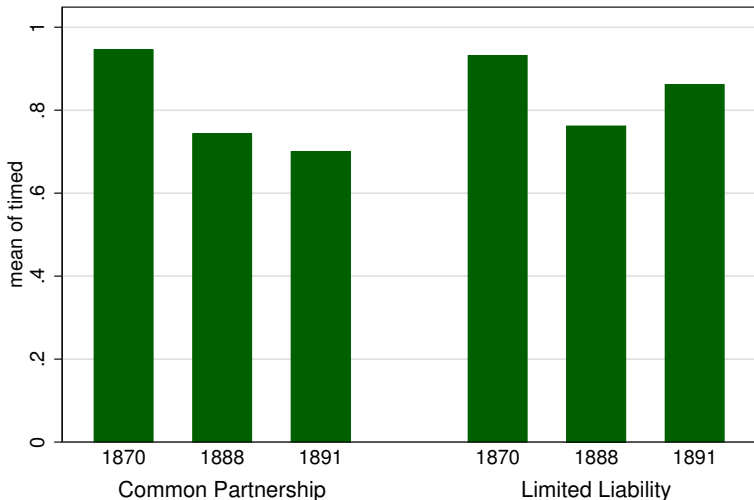
and more after regulations



# Fraction of contracts with Time Delimitation

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Time Delimitation



## Difference-in-Difference regression analysis: 1888-1891

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Doing the previous analysis in regression: Compare LLC and CP firms in 1888 (before) and 1891 (after)

Run the following diff-in-diff regressions:

$$Y_{it} = \alpha + \beta D_t + \gamma LLC_{it} + \delta D_t * LLC_{it} + \varepsilon_{it}$$

for both partnership size and contract characteristics

## DD Analysis: 1888-1891

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|             | Number of Partners             | Time Delimitation              |
|-------------|--------------------------------|--------------------------------|
| LLC         | 0.595***<br>(0.119)<br>(0.000) | 0.019<br>(0.059)<br>(0.753)    |
| 1891 Dummy  | 0.181<br>(0.133)<br>(0.176)    | -0.043<br>(0.066)<br>(0.515)   |
| 1891*LLC    | 0.555**<br>(0.228)<br>(0.016)  | 0.143<br>(0.114)<br>(0.211)    |
| Constant    | 2.203***<br>(0.072)<br>(0.000) | 0.743***<br>(0.036)<br>(0.000) |
| R-Squared   | 0.181                          | 0.009                          |
| Sample Size | 322                            | 321                            |

## Pre-Trends: DD Analysis (1870-1888)

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|             | Number of Partners             | Time Delimitation               |
|-------------|--------------------------------|---------------------------------|
| LLC         | 0.369***<br>(0.095)<br>(0.000) | -0.014<br>(0.056)<br>(0.806)    |
| 1888 Dummy  | -0.042<br>(0.061)<br>(0.498)   | -0.202***<br>(0.036)<br>(0.000) |
| 1888*LLC    | 0.226*<br>(0.124)<br>(0.069)   | 0.033<br>(0.073)<br>(0.657)     |
| Constant    | 2.244***<br>(0.039)<br>(0.000) | 0.946***<br>(0.023)<br>(0.000)  |
| R-Squared   | 0.134                          | 0.075                           |
| Sample Size | 497                            | 497                             |

## What Next ...

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- Include other variables in analysis
- Enlarge sample (for 1891 in particular).
- Collect data for 1885.
- Information on *total* evolution of partnership types (use City Directories)

## Feedback Needed...

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- What is the mechanism at work?
- Is collecting panel data worth it?
- How to incorporate GIS data?