

# Collaboration with Research Project on “The Role of Interlocking Directorates in Historic Bank Crises in France”

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## ABSTRACT

Banking crises have never failed to mark the history of countries around the globe as they are key components of any economy. A shift in the nature of banking crises was observed in France around 1895, and the project seeks to study the change in banking networks and its role in the stabilization of the French banking system.

France experienced a major credit crisis in 1930-1931. However, the extent and implications of this crisis were never evaluated empirically due to an absence of information and data since there was no banking regulation at the time.

Although the big banks were relatively untouched during the crisis, new data from 400 small banks shows the rest of the banking system underwent two waves of panic: one towards the end of 1930 and one towards the end of 1931.

The current project seeks to expand on the analysis of the past research on bank crisis using the relatively new ‘interlocking directorates’ technique.

## Introduction

Banking crises have never failed to mark the history of countries around the globe as they are key components of any economy. Relative to the other countries of continental Europe, France experienced an early development of its financial institutions which is attributed to its early industrialization.

- The project focuses on examining the banking crises in France under the gold standard from 1873-1913 and the interwar period.

New data sheds light on the continued banking crises up until 1914. However, the size of the insolvent banks decreased greatly, starting in 1896. After the 1890s, there were no insolvencies of systemic banks until the Great Depression era.<sup>1</sup>

- A shift in the nature of banking crises was observed in France around 1895, and the project seeks to study the change in banking networks and its role in the stabilization of the French banking system.

Prof. Riva and Prof. Grandi of the Paris School of Economics, as well as other scholars, have worked to create expand the interwar database and open new perspectives for research of French bank crises.

## My Contributions

During my research assistantship for Prof. Riva, I worked remotely to carry out various data processing, computations, and analysis assignments.

My tasks consisted mainly of:

- Cleaning and harmonization of data on banks’ insolvencies; computations on data
- Cleaning and harmonization of data on banks’ interlocking directorates
- Conducting preliminary network analysis on datasets in excel working with corporations and their links across different sectors (e.g. banks, insurance, chemical and oil) and also across regions
- Testing hypotheses and prepare the data to then be able to go further in-depth with the network analysis
- Creating various scatter plots and other charts to try to find correlations between sectors and regions
- Reorganization of data of metropolitan, colonial, and foreign corporations and performed analysis to adapt the data to the statistical tests that needed to be done



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## Outcomes

With all of my assignments, I was able to automate the process using excel. I became very familiar with many excel formulas such as vlookup, countifs, ifs, and sumifs among others, creating simple and intricate ways to sort, search, and count various relevant data points.

The firms I worked on were headquartered in different regions: the metropolitan French area, colonial French territories, and finally foreign firms from all around the world.

My analysis also extended to include different types of currencies and the capital issues for each firm, dividing among regions and sectors once again. Most of the connections of interest were between metropolitan and colonial firms, and it was fascinating to see how the links were distributed over time periods such as from 1912 to 1940.

After the first month, I gained a better understanding of the project and my role. My job was to explore potential hypotheses that Prof. Grandi would discover based on her findings.

- I would conduct the initial analysis on the data that would help give a direction in future projects. I would test the hypotheses and prepare the data to then be able to go further in-depth with the network analysis if the conditions seemed favorable.

With the permission of Prof. Riva and Prof. Grandi, I was able to travel to Paris. I worked with Prof. Grandi and the team in person, strictly adhering to all safety guidelines and best practices for the final two weeks of the assistantship.

During this period, my tasks evolved to creating more graphs and charts to illustrate the evolution of different datasets throughout time periods. Towards the end, I created various scatter plots and other charts to try to find correlations between sectors and regions as the number of connections and nodes change in a given time period.

The study of this new data from the archives allowing for interlocking directorates network analysis is in process and I was happy to be able to be a part of the data management and prepare the data for further analysis.

## Importance of Interlocking Directorates

The current project seeks to expand on the analysis of the past research on bank crisis using the relatively new ‘interlocking directorates’ technique.

- Examining interlocking directorates focuses on the relationships between financial banks, insurances, industrial firms, and other sectors in France across metropolitan, colonial, and foreign regions.
- The definition of an interlock is the link created between two firms when an individual belongs to the board of directors of both corporations.<sup>2</sup>

The rationale of studying interlocking directorates within the French banking system is based on asymmetries of information issues and could be explained as follows.

- It could be easier for a firm, being it a financial or non-financial firm, to get credit from financial institutions if the firm is interlocked with these financial institutions.
- Interlocking could ensure the smooth flow of information between the lender and the borrower and thus decrease information asymmetries.
- Alternatively, interlocking could create room for the work of conflict of interest; in this case, the lender would get an excessive risk on the borrower; if the borrower defaults, contagion can spread faster and cause greater negative reactions throughout the system.

## Conclusion

In the future, I will be continuing this collaboration and providing more analysis of the current project. Prof. Grandi and I agreed that I would conduct deeper analysis and research later as I have a solid understanding of the data involved and the objectives of the research. Overall, I feel that I learned a great deal of technical skills as well as information about French economic history.

- I enjoyed learning about interlocking directorates and the insights that network analysis can provide in connected systems such as that among French businesses in the 1800s and 1900s.

It was a pleasure and an honor working with Prof. Riva, Prof. Grandi, and the rest of the team who were all extremely kind and welcoming.

## References

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## CONTACT