

Hedging and Trade: Evidence from the First Central Clearing Counterparty*

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Abstract

Central clearing counterparties (CCPs) insulate investors against counterparty risk in securities markets. In this paper, I study the economic effects of the introduction of the first CCP, created in the Le Havre (France) in 1882 in the market for coffee futures. Introducing a CCP reduced the volatility of coffee prices in Le Havre relative to other markets. More importantly, it led to a significant reallocation of trade flows in coffee across Europe, to the benefit of Le Havre, and helped smooth coffee consumption in France. Contemplating this success, nine European exchanges adopted central clearing within a decade.

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1 Introduction

The functioning of markets can be severely disrupted when counterparty risk is high enough, as illustrated by the 2008-2009 crisis.¹ Whenever agents can imperfectly commit to make good on their contractual promises, well-designed private contracts and legal institutions can enable gains from trade to be realized. For example, collateralization in debt contracts (Hart and Moore, 1998) and a high level of creditor protection (La Porta, Lopez-de Silanes, Shleifer, and Vishny, 1998) can both help support trade. Understanding which contractual and legal arrangements allow markets to smoothly operate ultimately matters for the efficiency of economic allocations and for welfare.

In this paper, I study the economic effects of one contracting innovation: the introduction of centralized clearing for derivatives contracts. Now mandated by regulators worldwide (Duffie, Scheicher, and Vuillemeys, 2015), the use of central clearing counterparties (CCPs) in financial trade first appeared in Le Havre (France) in 1882. After two parties agree on a transaction, a central clearing counterparty (CCP) interposes itself between them and becomes a buyer to the seller and a seller to the buyer. Subsequently, investors are no longer exposed to the default risk of their original counterparty. Despite the prominence of current debates on central clearing, there remains considerable uncertainty about the benefits to be expected from CCPs. Specifically, while CCPs reduce counterparty risk (Bernstein, Hughson, and Weidenmier, 2017), they also create moral hazard for traders (Biais, Heider, and Hoerova, 2016) and can themselves fail (Bignon and Vuillemeys, 2017).

The event that I use as an experiment is the creation of the *Caisse de Liquidation des Affaires en Marchandises (CLAM)*, a CCP for coffee futures, in Le Havre in 1882. This was a significant and heavily debated contractual innovation: no such CCP had existed before.² For identification, I compare prices and real outcomes in Le Havre with those in other global markets for coffee futures (Hamburg, London and New York), which serve as control groups. An ideal feature of this setup is that I can compare not

¹For example, after the collapse of Lehman Brothers in September 2008, the market for asset-backed commercial paper collapsed (Covitz, Liang, and Suarez, 2013), and haircuts on repurchase agreements increased massively (Gorton and Metrick, 2012). Lending markets were also severely disrupted, which had direct effects on investment and employment (Chorodow-Reich, 2014).

²As detailed below, previous clearinghouses were facilitating the settlement of trades via netting, but did not substitute themselves to the original parties in trades. As such, they did not provide insulation against counterparty risk.

only the pricing of counterparty risk across markets for similar contracts, but also its effect on real outcomes, in particular trade flows and consumption. Identifying real effects of counterparty risk reduction, via central clearing, is the key contribution of this paper.

Data requirements to study the introduction on central clearing at the end of the 19th century are large. I rely on a number of archive sources. First, from several newspapers, I hand-collect data on the prices coffee futures in Le Havre, Hamburg, London, and New York, over the period from XXXX to XXXX. Second, I collect customs data about trade inflows and outflows from all the largest French harbors and from selected European harbors. Third, I also construct coffee consumption data. Finally, for additional tests, I repeat the data collection for other commodities.

As a first step, I show [Pricing of counterparty risk.]

As a second step, I show that the reduction in counterparty risk brought by the CLAM had a major effect on trade flows.

As a final step, I provide suggestive evidence that central clearing enables households to smooth consumption.

To conclude, I show that the contractual innovation brought about by central clearing had a material impact on the pricing of counterparty risk and, perhaps more surprisingly, on trade flows in Europe. [Mention that then it was imitated and adopted more broadly, but that we should still be careful when drawing conclusions for the current policy debate: at the time it was voluntarily adopted, while now you require clearing contracts that people did not want to clear.]

Related literature

This paper is at the intersection between two literatures. First, there is a literature on institutions that foster trade, in particular long-distance trade ([North and Thomas, 1973](#); [Greif, 2006](#)). As argued by [North \(1991\)](#), institutional innovations sustain trade via three channels: (i) by increasing the mobility of capital, (ii) by lowering information costs, and by (iii) spreading risk. Among such critical innovations in economic history are bills of exchange and the clearing of payments ([Börner and Hatfield, 2017](#)), control mechanisms to mitigate moral hazard problems ([Greif, 1993](#)), mechanisms to improve

price transparency (Steinwender, 2017) and insurance mechanisms (De Roover, 1945). I complement this literature by showing the role of CCPs in mitigating information problems and thereby supporting long-distance trade.³

Second, there is a literature specifically devoted to central clearing. Existing papers have focused on different questions, such as the design of CCPs (Biais et al., 2016; Koepl et al., 2012), netting (Duffie and Zhu, 2011), collateralization (Duffie et al., 2015; Menkveld, 2017; Cruz Lopez et al., 2017) and CCP defaults (Bignon and Vuilleme, 2017). The closest paper to mine is by Bernstein, Hughson, and Weidenmier (2017), who show a reducing in counterparty risk premia in the US equity market after the establishment of the NYSE clearinghouse in 1892. The main difference with my paper is that I do not focus primarily on the pricing of risk, but on real effects of introducing CCPs (trade flows and consumption). Moreover, there are also a number of differences between their setup and mine. While they study a spot equity market, I focus on a market for derivatives, where counterparty risk is arguably larger. Finally, while the NYSE clearinghouse was only offering netting services, the key novelty of the clearinghouse I study is to provide full insulation against counterparty risk.

2 Theoretical framework and hypotheses

Hypothesis 1. *After the introduction of central clearing, the volatility of prices decreases for cleared future contracts relative to non-cleared future contracts.*

Hypothesis 2. *After the introduction of central clearing, trade flows in commodities underlying cleared future contracts increase relative to commodities with no cleared future contracts.*

Hypothesis 3. *After the introduction of central clearing, consumption is smoother for commodities underlying cleared future contracts relative to commodities with no cleared future contracts.*

³In the international trade literature, a few papers study the effect of information frictions on trade flows, and show that they can be larger impediments to trade than direct costs (such as transport costs and tariffs). See Anderson and van Wincoop (2004) and Allen (2014).

3 Historical background and data

I describe the creation of the CLAM, its functioning, and the data used in the analysis.

3.1 Historical background

In the second half of the 19th century, the North-Western part of Europe was the most active trade area globally. Both free-trade policies and technological progress (steamboats replacing sailboats) boosted intra-European and transatlantic trade. A number of European harbors, shown in Figure X, were intensely competing. Le Havre, on which we focus, was the second largest French harbor, after Marseille, and the first for exotic commodities (coffee, sugar, etc.).

Long-distance trade gave rise to significant risks: First, contracting with producers in distant countries created to adverse selection and moral hazard problems. Second, after contracting, the arrival of boats was itself uncertain.⁴ To hedge price risk, over-the-counter forward contracts had existed for centuries. Starting in the 1860s, the standardization of contracts led to the creation of organized futures markets. However, even though trading was centralized, clearing and settlement was left bilateral: traders were still exposed to counterparty risk. Furthermore, while clearinghouses emerged in several markets (e.g., Liverpool), they were only offering netting services, and did not insulate traders against counterparty risk.⁵

During a global crisis in coffee markets in 1880-1881, fears of counterparty risk disrupted coffee trade (see Appendix B.1). Soon after, a group of well-established coffee traders in Le Havre assembled to create the *Caisse de Liquidation des Affaires en Marchandises* (CLAM), in the form of a limited liability corporation. Compared to pre-existing clearinghouses, the key contractual innovation of the CLAM is that it insulated traders against counterparty risk. As with modern CCPs, it substituted itself to original parties in each cleared transaction. Finally, while the successful creation of a CCP requires sufficiently many traders to participate, this seems to have been

⁴Significant efforts were made to mitigate these problems. For example, newspapers were publishing daily news on the departure and arrival of commercial boats globally, and regular news on weather conditions in producing countries. Moreover, immediately after the introduction of the telegraph, commodity prices were transmitted daily across countries (Steinwender, 2017).

⁵Most bilateral trades were left uncollateralized. Since most trading houses were old and well-established, a family's reputation was a substitute for collateral.

possible in Le Havre due to very close ties – including familial ties – between many of the first equity holders (see Appendix B.2). Even though central clearing was not mandatory, and had strong opponents early on, virtually all transactions were soon cleared by the CLAM.⁶

3.2 The functioning of the CLAM

Remarkably, from its very beginning, the functioning of the CLAM is similar in most respects to that of modern CCPs. After two traders agree on a transaction, they can report it to the CLAM, which becomes counterparty to each of them. Subsequently, the CLAM eases the settlement of trades, via multilateral netting, and insulates each trader against the default of its initial counterparty. Each counterparty must be a broker domiciled in Le Havre.⁷ Furthermore, the CCP cannot trade in its own name. It therefore has a matched book: for any short position with a trader, it holds a corresponding long position with another trader.

The main instrument used by the CLAM to protect itself against the default of traders is margins. Every day, the CLAM calls variation margins from traders realizing losses (based on changes in their position’s market value). Variation margins must be received within one day. Furthermore, at the inception of any trade, an initial margin is paid, to protect the CCP in case a trader defaults on variation margins. When a trader defaults on margin calls, the CLAM seeks to immediately liquidate its position, in order to return to a matched book. Potential losses arising from the liquidation of a trader’s position are first borne by this trader’s initial margins.⁸ If the initial margin is insufficient, residual losses are entirely borne by the CCP’s equity. This is essentially the only difference with modern CCPs: the CLAM did not have a default fund or other loss-sharing mechanisms between surviving members (“default waterfall”).

⁶According to numerous anecdotal evidence, refusing to clear a transaction at the CLAM was seen as a sign that a counterparty was not creditworthy. Daily margin calls by the CLAM therefore played a screening role, and were mostly opposed by the weaker traders.

⁷While this requirement reduced information problems for the CCP, it did not prevent traders worldwide from sending orders via a broker in Le Havre.

⁸For a CCP, losses arise from prices changes between the time at which a trader last posts variation margins and the time at which the liquidation of its position is complete: this is the only period of time in which the CCP does not have a matched book.

3.3 Data

First, I use a number of archive sources, described in Appendix A, to reconstruct the history and functioning of the CLAM. Among other documents, I found early rulebooks and annual reports, lists of equityholders and accounts from contemporaries on the CLAM's operations. For quantitative data, I use the *Bulletin de correspondance*, a daily newspaper published by the Exchange. It hand-collect information on prices of all quantities traded in Le Havre, as well as information on commodity prices and trading in other markets.

Second, I reconstruct yearly data on trade flows in coffee and other relevant commodities at the European level. This requires accessing each country's customs statistics separately. I collected data for Austria, Belgium, Denmark, France, Germany, Italy, Netherlands, Sweden, Switzerland, and United Kingdom (see Appendix A.2 for detailed sources). Whenever possible, I collected import and export data from 1877 to 1890, in volume. For each year, there is both country-level bilateral data (e.g., exports of coffee from France to Germany), and harbor/custom-level data (e.g., coffee exported from Le Havre, regardless of the destination).

4 Central clearing and the pricing of counterparty risk

In this section, I show that the introduction of central clearing reduced the volatility of coffee prices and made prices more informative.

4.1 Experiment

I start with a brief description of the difference-in-differences strategy. Specifically, I compare future pricing and trade flows around the introduction of the CLAM in December 1882.⁹ Coffee futures in Le Havre are treated and coffee futures in other exchanges (Hambourg, London and New York) are in the control group.

A question is whether the treatment is endogenous, i.e., whether pricing or trading

⁹Depitre parle du 6 novembre 1882. Check what is exact.

conditions in Le Havre can explain why a CCP was adopted there. This is unlikely for several reasons. First, the dynamics of prices was very similar between Le Havre and other markets, in part due to the existence of telegraphic connections between markets.¹⁰ I show this formally below. Second, central clearing was an important contractual innovation, and it was unclear for contemporaries what its effects would be. For example, [Depitre \(1907, p. 162\)](#) writes that “At the beginning, opinions were strongly divided in the commercial circles in Le Havre. A number of important trading houses refused to participate in the CLAM and a number of them avoided any relationship with it.” After 1882, its advantages have been debated for several decades before it was generalized in futures exchanges. For example, the introduction of a CCP in the New York Coffee Exchange was debated multiple times by the Board of Managers, but its cost was seen as too large ([Emery, 1896](#)). Similarly, the commodity exchange in Hamburg was long convinced that the costs of a CCP outweigh its benefits ([Fuchs, 1891](#)).

[Another question is what exactly is the shock: Is it that a futures markets is introduced and now you just mitigate counterparty risk? Probably not: You overall become much more able to hedge.]

For coffee price listed in an exchange i at date t , I estimate

$$Y_{i,t} = \alpha_i + \beta_0 \cdot Treated_i \cdot Post_t + \beta_1 \cdot Post_t + \epsilon_{i,t}, \quad (1)$$

where $Y_{i,t}$ is either the level or volatility of prices. Furthermore, $Treated_i$ equals one for coffee prices in Le Havre, and zero otherwise. $Post_t$ is a dummy variable equal to 1 for years t strictly after 1882. I further include one fixed effect per exchange i , to reflect the fact that different exchanges may not list the exact same grade of coffee. Exchange-specific fixed effects also capture the fact that prices may be structurally higher or more volatile in one exchange, due to the physical conditions of delivery (e.g., coffee listed in New York does not cross the Atlantic).

Coffee prices: For now I have only Le Havre I also have limited monthly data on Hamburg, but it does not seem so reliable. See if I can do better. [See which](#)

¹⁰Empirical evidence shows that the volatility of differences in commodity prices dropped after the introduction of the transatlantic telegraph in 1866 ([Steinwender, 2017](#)).

data are used in Rischbieter, Fig. 28 p. 161

Cotton prices: For now I have only Le Havre

Saindoux prices: I miss New York 1883

4.2 Price level and volatility

Narrative evidence: Finally, after a number of crises in other European commodity exchanges, policy debates on central clearing often referred to the CLAM in Le Havre as a model of organization to ensure the smooth functioning of the market. An example is given by the sugar crisis in 1905 in the Paris market, which had no CCP. Many sugar dealers failed during this crisis, and a number of market participants subsequently supported the introduction of the CCP. It is evident from the policy discussion that the CLAM in Le Havre serves as the main example to illustrate the benefits of central clearing for commodity exchanges ([Dunan, 1907](#); [Ministère du commerce et de l'industrie, 1911](#)).

Saindoux prices

Cotton prices

5 Central clearing and trade flows

In this section, I show that the reduction of counterparty risk on futures contracts in Le Havre led to a significant change in trade flows Europe-wide.

5.1 Trade flows in coffee

I start by focusing specifically on trade flows in coffee. The relationship of interest, between the introduction of central clearing and trade flows, is estimated using a difference-in-differences specification,

$$Y_{c,i,t} = \alpha_{c,i} + \beta_0 \cdot Treated_{c,i} \cdot Post_t + \beta_1 \cdot Post_t + \epsilon_{c,i,t}, \quad (2)$$

where $Y_{c,i,t}$ is a measure of trade activity for commodity c in harbor i in year t . We consistently rely on three trade activity variables: imports, exports and stocks.

$Treated_{c,i}$ equals one for coffee trade flows in Le Havre and zero otherwise. $Post_t$ is a dummy variable equal to one for years t strictly after 1882.

To estimate Equation (2), a set of commodities c and of harbors i must be defined as a control group. For commodities, we use a variety of control groups, and compare coffee trade flows to either (i) trade flows in all commodities combined or (ii) trade flows in all “colonial commodities” (i.e., the broader commodity category in which coffee is included).¹¹ Regarding harbors to be included in the control group, we use either (i) a number of European harbors for which we were able to find trade flows over the sample period or (ii) all other French harbors which were competing with Le Havre. While this second sample is more limited in scope, it has the advantage that data is more abundant and uniformly reported across harbors.¹²

[Mention that one advantage of our context is that we look at goods that are not produced in Europe. Therefore there is no issue about having lower imports or exports because of bad production, etc. In a sense we have really a pure impact on trade flows.]

Get yearly data on trade flows in other European harbors: Hamburg, London, Antwerp, Liverpool

Get monthly data on stocks in European harbors, from the Bulletin de correspondance

Stocks are commodities that are imported and stored in a warehouse with the intent of being re-exported (and on which no custom duties are paid).¹³

If coffee trade increased substantially in Le Havre due to the creation of the CLAM, this must not have gone unnoticed by contemporaries. Looking for narrative evidence, I found a number of testimonies supporting my regression results. I provide several examples in Appendix B.3. First, while some trading houses in Le Havre had been reluctant to the introduction of central clearing, they were virtually all using the CLAM by 1884 (quote B.3.1). Second, external observers also noticed that the harbor in Le Havre was benefiting considerably from the presence of the CLAM (quote B.3.2).

¹¹Apart from coffee, the main colonial commodities are: sugar, cocoa, clove, cinnamon, nutmeg, pepper, tea, vanilla, tobacco.

¹²For example, the classification of commodities is the same across all French harbors.

¹³For commodities such as coffee, it was common not to warehouse stocks in producer countries (e.g., Brazil), but in consumer countries (European countries). Once the commodity is stored in a harbor warehouse, dealers observe prices in several markets and decide whether it should be used for local consumption (in which case custom duties are paid) or be re-exported to another harbor.

Finally, international observers [XXX.]

[At some point, here or in the analysis, I should discuss the precise channel: whether the CCP is providing insurance or mitigating an information friction.] **Is there really a way to distinguish between potential channels? What is the role of price transparency, relative to CP risk mitigation, relative to a liquid future market? Presumably liquidity comes from both standardization (having a futures market relative to no future) and from CP risk mitigation. Price transparency has improved a lot, but it has also arguably improved in other markets because**

5.2 Trade flows in other commodities

- Other commodities that are cleared or become cleared (cotton, indigo, saindoux)
- Spillovers: in the boats that bring coffee from producing countries (Brazil, etc.), do importers also bring more of the commodities produced in these countries? An alternative is that it hurts other imports because they substitute. Look also at the number of boats coming from Brazil or such countries.

5.3 The spread of central clearing

[Maybe use limited information from the annual reports: can I have profitability from the beginning?]

Here this section should just be about how contemporaries reacted by creating new CCPs. Mention that they could regain their position (Hamburg), but in the case of Hamburg lost it again later when the 1896 law passed.

Moreover, there is abundant evidence that the adoption of central clearing in other European exchanges was directly motivated by the willingness to replicate the success of Le Havre. A prominent example is that of Hamburg, the main competitor of Le Havre for coffee trade. [To be completed]

Contemplating the success of the CLAM, most European exchanges adopted central clearing institutions after a few years: Paris (1885, 1887), Antwerp (1887), Hamburg (1887), Amsterdam (1888), Marseille (1888), Magdeburg (1889), Reims (1890), Leipzig

(1890) and Roubaix-Tourcoing (1892).¹⁴ See also [Antwerp](#), [London](#), [Rotterdam](#), [Liverpool](#), [Trieste](#)?

6 Central clearing and consumption

- Consumption of coffee in France vs. in other European countries or in the world
- Within France: is coffee consumption smoother than consumption of other commodities? Try to look at the time series of the price elasticity of consumption before and after 1883.
- Within France: is coffee consumption smoother in areas that are presumably catered via Le Havre?
- Try to see if the quantity of coffee put in consumption by Le Havre is smoother than for other harbors

[For consumption look more into the statistics provided in the book by Graham.]

7 Conclusion

In this paper, I study the real effects of central clearing. When introduced for commodity futures in 1882 in Le Havre, central clearing significantly changed the structure of trade flows in Europe: for cleared commodities, trade flows increasingly went through Le Havre. This is because traders could hedge commodity price risk without fear of counterparty risk. This success soon led most main European harbors to also adopt central clearing. Overall, in the spirit of [North \(1991\)](#), central clearing should be seen as one important institutional innovation that helped mitigate the frictions associated with long-distance trade.

While central clearing has been heavily debated after the 2008 crisis, due to the implementation of new clearing requirements, one should be careful when drawing implications from this study.

¹⁴Some of these early CCPs closed due to a lack of business (Paris, Marseille, Reims) or due to losses (Leipzig). See [Depitre \(1907\)](#).

2 differences: - people decide voluntarily or not - CCPs are owned by members or not

One paragraph of caution when interpreting this in the current policy debate. More research is needed on the design of CCPs to understand how they can work well. Member-owned (like the CLAM) versus for profit: this may be particularly important in a context where CCP moral hazard is potentially large.

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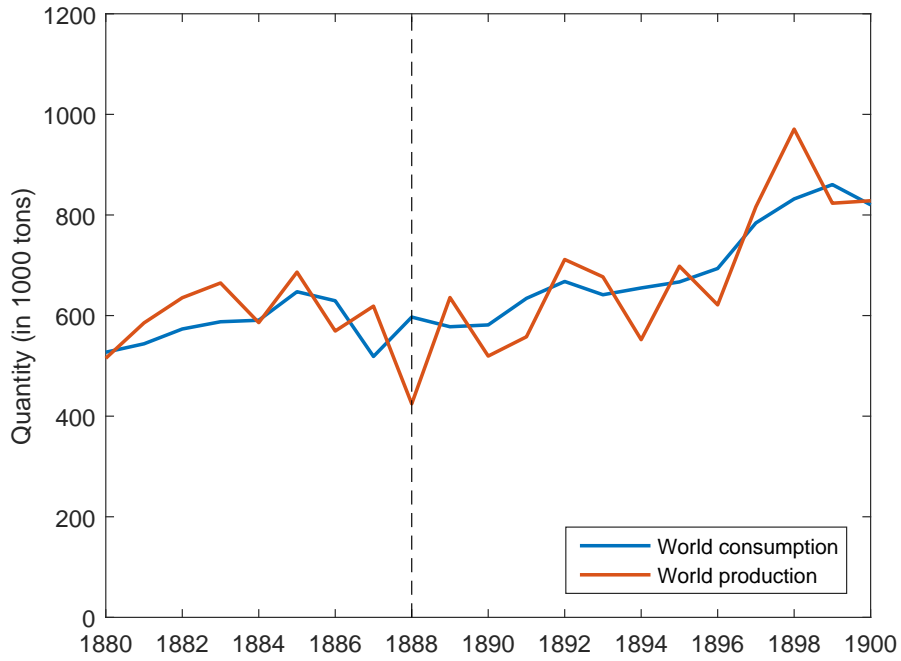
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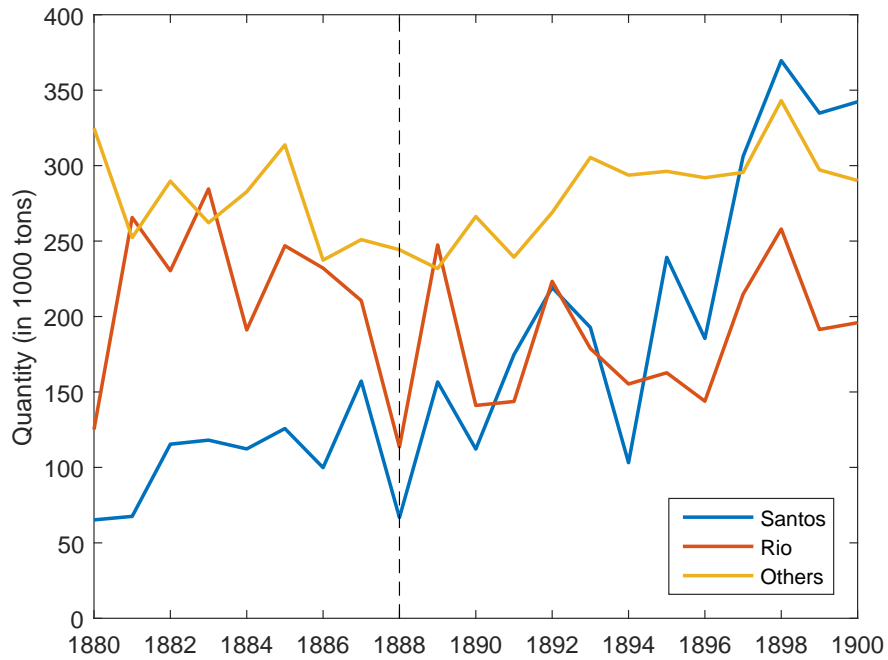
Figure 1 – World coffee production and consumption

Add caption

Panel A: Coffee production and consumption



Panel B: Coffee production by type



A Data sources

I rely on the following sources.

A.1 Archive sources

- **Archives municipales du Havre** (Le Havre): I obtain price data from the *Bulletin de Correspondance de la Bourse du Havre* (collection starting in 1880; reference code: *PER012*). I also consult a daily local newspaper, the *Journal du Havre* (reference code: *PER071*), for general information about the local environment in the 1880s. I also consulted several boxes and files related to coffee trade, but information is very limited, due to the destruction of most archives in Le Havre during World War II bombings.
- **Archives départementales de Seine-Maritime** (Rouen): From the archives of the notary Cheuret (Pierre, Léon; reference codes: *2E64\169* to *2E64\327*), I obtain the first rulebook of the CLAM, minutes from general assemblies, as well as the legal acts founding the corporation (including a detailed list of shareholders with their equity stake, in file numbered *2E64\225*).
- **Archives nationales du monde du travail** (Roubaix): Contains the version of the CLAM's rulebook as revised in 1884, and extracts from annual reports from 1883 to 1890 (reference code: *65AQ-A-614*).
- **Centre des archives économiques et financières** (Savigny-le-Temple): Contains a complete collection of the *Tableau général du commerce de la France*.

A.2 Data on commercial flows

Yearly data on commercial flows at the good level are obtained country by country from the following sources. Unless mentioned otherwise, data is collected from 1877 to 1890.

- **Austria**: Nachrichten uber Industrie, Handel und Verkehr aus dem Statistischen Department im K.K. Handelsministerium [Semble disponible a la BNU de Strasbourg](#)
- **Belgium**: *Tableau général du commerce de la Belgique avec les pays étrangers*, published by *Ministère des finances*. [Manque 1882 to 1885 et 1889-1890 \(a few additional numbers at Bibliotheque Mazarine\)](#)

- **Bremen:** *Jahrbuch für bremische Statistik*, a la BNU de Strasbourg
- **Denmark:**
- **France:** *Tableau général du commerce de la France avec ses colonies et les puissances étrangères*, published by *Direction générale des douanes*. **OK complet**
- **Germany:** *Handel des deutschen Zollgebiets mit dem Auslande in: Statistisches Jahrbuch für das Deutsche Reich* **OK complet**
- **Hamburg:** See *Handelskammer Hamburg*, mentioned in bibliography by *Rieschbieter A la BNU de Strasbourg: Statistischer Auszug und verschiedene Nachweise in Bezug auf Hamburgs Handelszustände et également: Hamburgs Handel*
- **Italy:** *Movimento commerciale del Regno d'Italia*, published by *Direzione generale delle gabelle*. **OK complet**
- **Netherlands:** *Jaarstatistiek Handel – Koninkrijk der Nederlanden statistiek van den in-, uit- en doorvoer*, published by *Departement van Financiën*. **OK complet**
- **Norway:** *Norges Handel*. **OK complet**
- **Spain:**
- **Sweden:** *Bidrag till Sveriges officiella statistik - Utrikes handel och sjöfart* **OK complet**
- **Switzerland:** *Annales du commerce extérieur*, published by *Ministère de l'agriculture et du commerce*.
- **United Kingdom:** *Trade and Navigation; Accounts Relating to Trade and Navigation of the United Kingdom for Each Month* **Still need to find it**

A.3 Sample

The sample comprises the following harbors and land border customs. The latter are indicated in italic.

- **Austria:**
- **Belgium:**
- **France:**

- **Germany:**
- **Italy:**
- **Netherlands:** Amsterdam, Dordrecht, Hansweert, *Maastricht*, Rotterdam, *Venlo*.
- **Sweden:** Carlskrona, Gefle, Göteborg, *Gränsen mot Norge*, Halmstad, Helsingborg, Landskrona, Malmö, Norrköping, Stockholm, Sundsvall, Warberg, Ystad.
- **Switzerland:**
- **United Kingdom:**

A.4 Additional references

Add references that do not deserve to be in the main bibliography.

B Additional historical background

This appendix presents additional historical background. Section [B.1](#) describes the crisis that led to the creation of the CLAM. Section [B.2](#) introduces the founders of the CLAM, and shows how close connections between them may have helped overcoming coordination problems. Section [B.3](#) reports a number of views by contemporaries on the CLAM.

B.1 The 1880 coffee crisis

[Try to document the 1880 coffee crisis in Le Havre.]

Voir aussi: [Le Havre \[Texte imprimé\] : journal quotidien, politique, commercial... \(BnF\)](#)

Regarder “[Compte-rendu des travaux de la Chambre \(Chambre de commerce du Havre\) ”](#) à la BnF: 1881 à 1886 sont manquants dans Gallica: Semblent avoir des lacunes sur les années qui m’intéressent. Voir si les archives municipales ou départementales les auraient.

General Assembly of 8th December 1882: “Mr. DAMAMME demand ensuite la parole sur l’article 4 et critique le chiffre du dépôt qu’il trouve trop élevé: c’est trop de verser 8 francs par tierçon de saindoux; la société a des adversaires, et il faut les attirer et non les éloigner. Mr PLATE présente également des observations dans le même sens. Mr LANGER ajoute que les conditions sont trop dures: on n’aura pas de clients ! On les éloignera. Mr LENORMAND répond

que la société est avant tout une société financière: les membres de l'assemblée sont actionnaires avant d'être négociants ou courtiers; il faut envisager l'intérêt général de la société et non l'intérêt particulier de chaque actionnaire; si on diminue le dividende, cette diminution pourra être avantageuse pour les contractants, mais désavantageuse pour la société et les actionnaires: on doit faire l'essai dans les conditions proposées; si le conseil d'administration voit qu'il y a des modifications à faire, il n'hésitera pas à les proposer, il agira toujours au mieux des intérêts de la société.

According to [Sayous \(1898\)](#), the CLAM was created after excellent crops and in expectation of bad crops. Coffee dealers took a large position betting on a price increase, and importers lacked funds to import coffee. The fear of counterparty risk was high, and no one was willing to importers without solid guarantees. The solution was found in the establishment of the CLAM.

B.2 The founders of the CLAM

[Show how very strong ties between brokers may have helped solving coordination problems.]

People present at the notary on November 6th, 1882: Louis Alfred Pochet, Charles Eugène Lionnet, Edouard Senn, Emmerick Julien Bernard Lenormand, Adolphe Victor Coesme, Francis Joseph Hoffmann.

General Assembly of 8th December 1882: President is William Iselin. Speech: "J'ai encore à vous annoncer que le conseil a choisi Mr. Lenormand comme vice-président, et Mr Durand comme secrétaire, et que Mr. Laude a été nommé directeur."

"Si vous acceptez le règlement tel qu'il est, la Caisse de liquidation fonctionnera lundi prochain"

General Assembly of 25th March 1885: Jules Roederer replaces William Iselin as board member. During this general Assembly, Georges Pochet is president of the board.

According to the statutes of the CLAM, none of the equity holders can have more than 10 votes in the general assembly, even if they have more than 10 shares. This looks consistent with the idea of not giving too much weight to one member relative to all other members.

29 May 1883: Lenormand donne pouvoir à Macleod et Dennis pour gérer son affaire.

B.3 Contemporaries' view on the CLAM

This appendix provides narrative evidence supporting our regression results.

B.3.1 Use of the CLAM

“No law, no local rule require anyone to register futures transactions at the CLAM; however, all serious businessmen in Le Havre use it. Through their daily actions, for more than 20 years, they give a strong support to the statute of the CLAM, they recognize that its discipline is not uselessly tough [...] and very few of the critiques would dare engaging in a bilateral transaction that would not be centrally cleared.” (De Rousiers, 1903, p. 172)

B.3.2 Success of the CLAM

“It is not disputable that the creation of the CLAM significantly contributed to maintain the preponderance and to foster the commercial development of the harbor of Le Havre.” (Depitre, 1907, p. XXX)

Maybe I can find quotes from the various documents of the National assembly on clearing.