### Price discovery and dissemination: The Genoa and Milan Stock Exchanges at the turn of the 20<sup>th</sup> century

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### Price discovery and dissemination

- Dissemination of "fair" prices (post-trade transparency) depends on:
  - Price discovery: the ability to publish abundant and high-quality financial information depends on pre-trade transparency
  - Choice of the exchange: ex-ante and/or ex-post opacity under constraint of Law
- Market organization (microstructure) matters
  - Rules of law
  - Competition
    - Within exchange if different groups at work => redistributive power of the rules
    - Among exchanges
  - Social and cultural environment

#### Italy as « late comer »

- Italy as political « late comer »:
  - « Unity » of the country in 1861
  - Unity as compromise with / between local power: autonomy of local powers
  - Turn of the 20<sup>th</sup> c., the « Italia liberale » of Giolitti and its crisis (1907)
- Italy as economic « late comer »
  - The State-led actions in the late 1870s-1880s, crisis of 1890-1893
    - Italian financial system is « tabula rasa »
    - « the dark years »: deep economic crisis; suspension of convertibility
  - The Banca d'Italia (1893), the « German » Universal banks, migrants' remittances and the international cycle
    - Fast growth: +4.2%/per year on average 1901-1907
    - Back to gold

#### Italy, the financial system at the turn of the 20th c.

- Big « German » universal banks (BCI, 1894; CI, 1895) and the others (SBI, 1904; BdL, 1905)
  - Creation of industrial groups around the banks: CC credit & loans, issues of shares, shareholding, lending to market operators, and trading...
  - German capital, but Italian Bankers as big shareholders
  - The "Italian" ways => SBI: fast external growth; aggressive strategy; heavy financing of trading on « its » firms
- Universal banks need active market to "securitize" credit
  - Primary market: Italian Exchanges (many...) list 70% of the Italian equity capital in 1906 (Baia 1995)
  - Secondary market: between 1900 and 1905, strong increase in trading activity
    - Repo: SBI, + 470% 1902-1905; BCI, + 200% 1900-1905
- Strong regional structure of the rest of the banking systems, supported by Bank of Italy
  - Tension/competition between Bank of Italy and main universal banks

## The main Italian Stock Exchanges: Genoa and Milan

- Genoa, the main Italian financial center until 1907, Milan afterwards (traded volumes)
  - Listed companies: Milan takes over on second half of the 1890s.
- Milan as "challenger" takes advantage of
  - Crisis of 1890-93 and the new Universal Banks with headquarter in Milan
  - Telegraph network from 1894 centered on Milan
  - Economic development
- At the beginning of the 20<sup>th</sup> century, Genoa and Milan handled around ¾ of the Italian traded volumes
  - Genoa, more forward trading
  - Milan, more spot trading

## The main Italian Stock Exchanges: Genoa and Milan

- This presentation will not deal with:
  - Listing policies
  - "Unofficial" markets as the Borsino (morning session in Milan), the evening session of Genoa and the publication of their prices
  - Other markets
    - Naples (quite important before Unity), Rome (more or less important at the end of the 1880s) and Turin (more or less important 1905-7)

"As far as France is concerned, it can be said that everything is concentrated in Paris: easy is therefore the surveillance of the Government, helped magnificently by the colossal interests it has created around a very small number of people.

In Italy, every stock exchange, for a spirit that could be described as regionalist, but which in reality relates to the historical conditions of Italy before its Unity, wants to be managed and regulated in accordance with the interests and habits of the cities where it is located, and it is very difficult, not to say impossible, to really achieve complete unification."

Carlo Vimercati, President of the Deputazione di Borsa, Chamber of Commerce of Milan, 1908

- Trajectories of the Exchanges determined by social and cultural history of the two markets/towns, embedded in two different states for a long time: the bankers (sociology of professions / markets à la Abbott, Fligstein, Bourdieu)
  - In Genoa,
    - « Banco di San Giorgio » culture; Chamber of commerce, the new republic of the bankers (elite of Genoa, as in the Banco); independence and autonomy; « Pirate trading » (Nietzsche)
    - Opacity to keep the state out of business (no taxes; no supervision) and to serve the interests
      of big informed bankers (dominant members of the chambers of commerce)
  - In Milan
    - "Anti-speculative" culture (from the lumières of the 18<sup>th</sup> c and "Austrian rule" (Baia Curioni, 1995)
    - The « Lombard way to credit » (Polsi, 1993):
    - Chamber of commerce: Dialogue with the state

- The "original sin" of official stock brokers (agenti di cambio)
  - After 1873 crisis, the Gov aims to strength the public dimension of markets and transparency
    - Particularly on the Genoa stock Exchange where rules were fully unapplied
  - In 1874, the Gov:
    - Legalizes forward transactions
    - enlarges official brokers' monopoly (off-exchange forward transactions)
    - introduces financial transaction tax official brokers must advance and levy => no more professional secret => ex-post "sunshine trading" (brokers and their clients)
  - Protests against the tax by brokers and others
    - Particularly in Genoa: official stock brokers' strike against the tax => no official list for 2 weeks; when the publication resumes, the list is empty... in 1874 and 1875, the brokers did not report any transactions.
    - Milanese brokers and operators contest the amount of the tax, not its principle
  - In 1876, the Gov. limits the brokers' monopoly and decreases the amount of the tax
    - Again protests: in Milan because the monopoly has been limited; in Genoa because the tax has been maintained
      - In 1877, in Genoa, one transaction per year and per broker declared; in Milan 2 transactions per day and per broker
      - In Genoa "the official list, rather than guiding the operators, misleads them" (Da Pozzo Felloni, 1964, p. 42)
  - Situation progressively improves, but the Genoa Stock Exchange never sends records to fiscal administration as per law: the fiscal administration regularly complain.

- From 1882 Commercial Code, "liberalization" of national regulation (the 1867 "Belgian" way)
  - As before, Exchanges under the authority of local Chambers of commerce
  - "Public intermediaries" (no more "agenti di cambio", but "intermediari pubblici")
    - Very light national criteria that can be improved by Chambers of commerce
    - "Open" profession (no numerus clauses)
    - New: Dual capacity; they can join partnerships and corporations
  - Public intermediaries' monopoly on transactions to publish an official list, but complete free entry into the Exchanges and no organization of trading by law => no protection of the monopoly
    - Competition within the exchange to select operators
- Competitive differentiation: when the stock exchange system is integrated by the telegraph (1894), the organizations of the two markets diverge radically

#### The two markets in 3 nutshells

#### • Before 1895

- Bilateral "low-voice" trading on the floor on both exchanges, but:
  - Milan
    - a long tradition of "regulated access" to the Exchange: only official brokers and "merchants" recognized by the Chambers of commerce
    - Respect of the "division of labor" between bankers and public intermediaries selected on "high" criteria
    - Development of a "professional group", agenti di cambio, that preserves the public dimension of the market
    - Clearing house from 1883
  - Genoa
    - Free access to the Exchange: middleman without status, operators not recognized as merchants....
    - The lowest and unchecked criteria to enter the public intermediaries profession (from 1882, equal to legal ones, but the chambers of commerce did not verify)
    - No protection of the public intermediaries' monopoly to keep the market private

#### The two markets in 3 nutshells

- Between 1895 and 1907
  - Milan
    - In 1895, the default of a public intermediary (very rare event in Milan) pushes the Chambers of Commerce to impose open-outcry trading around pits within an "enclosure (recinto)"
    - Access to the "enclosure" to public intermediaries (improved criteria) and bankers recognized by the chamber of commerce and selected on the basis of high criteria
    - Improvement of the organization and tightening of criteria of selection (particularly in 1905)

#### Genoa

- In 1898, the chamber of commerce needs revenues to balance the budget
- It creates a "reserved zone" within the Exchange (half of the floor) => "pay & enter": no controls on status and solvability
- Bilateral and low-voice trading
- Clearing house from 1899 (Universal Banks' effect)... not a big success...
- In 1906, a "hot market" year:
  - 156 operators admitted to the "enclosure" in Milan
    - 45% traded volumes according to Clearing house
  - 1.180 operators admitted to the "Reserved zone" in Genoa (20% members of the clearing house)
    - 55 % traded volumes according to Clearing house

# Milan Stock Exchange from 1901 (floor = 700 square meters)



### Milan Stock Exchange from 1901



# Loggia de Mercanti (from 1432): 34 x 22 meters = 748 square meters



### Today



## Genoa « Financial center »

Small & medium operators

Very big operators

Small operators



« Reserved zone »: medium & large operators; entry fees

#### The two markets in 3 nutshells

- After 1907
  - 1907 crisis, a defining moment of the Italian financial history: Genoa as epicenter
  - De Ferrari brothers (medium bankers' partnership) goes bankrupt
    - Bull position on stock of Ramifera (De Ferrari's stakes in)
    - Ramifera, client of the Società Bancaria Italiana, fails
    - De Ferrari brothers, financed by Società Bancaria Italiana, fails
  - Counterparty risk: forward trading based on credit
    - Market goes down, interest rates up: others fail...
    - Domino effect: Number of operators fail
    - Società Bancaria Italiana is to fail
    - (fears of ) runs on other banks
    - Market freezing: Genoa stock exchange frozen for 5 days (settlement of May 1907)
  - Bank of Italy undertakes Financial Stability Mandate
    - Organizes a syndicate with big banks to bail out the Società Bancaria Italiana
    - · Bagehot policy otherwise: « risanamento »
    - · Bol aligns universal banks to its objectives: banks progressively withdraw from the Genoa SE
    - Organizes a syndicate to support the market: buy sound stocks... more in Milana than in Genoa (QE style)
  - The financial crisis does not become an economic crisis
    - +3.9% per year on average between 1908-1913

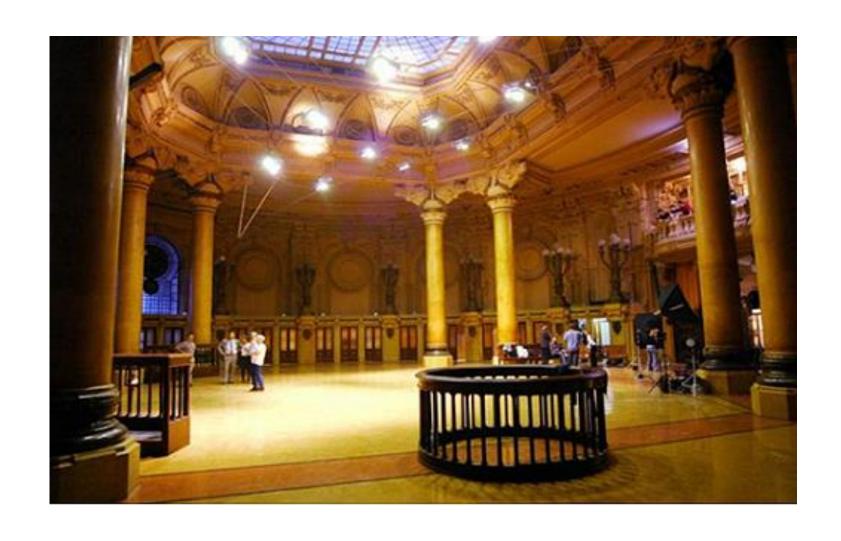
#### The two markets in 3 nutshells

- After 1907
  - Milan becomes the main Italian SE (also according to traded volumes)
  - Regulators (Gov and Bank of Italy) and press push for reforms of the exchanges... Particularly of the Genoa SE, clearly recognized as epicenter of the crisis because of its opacity and weak organization
    - Law proposal to impose the Milan market organization to all the Italian Exchanges and centralize activity
  - Genoa: if we do something, maybe we will avoid harsh national rules...
    - 1908:
      - "Inspector" of the Exchange heading 3 guards (in Milan, 10 guards)
      - Increased number of the members of the Syndicato degli agenti di cambio and Deputazione di Borsa (two institutions supposed to monitor traders)
      - Rules of the Clearing House as in Milan
    - 1909
      - More severe criteria to become "intermediario pubblico (agente di cambio)" (from law proposal)
      - More severe criteria to enter the "Reserved zone" (Italian joint stock companies + intermediary pubblici + partenerships (located in the Genoa district, "morality", opinion of the Sindacato)
    - 1912
      - the new Stock Exchange Building: 1.000 square meters, the biggest in Italy... but quite empty...; o)
      - Open-outcry trading around a pit within an "enclosure (recinto)": access reserved to intermediari pubblici and partnerships located in Genoa and selected on the basis of critieria as for intermediary pubblici
        - NO banks!
  - 1913 law: end of heterogeneity of SE; definitive centralization of financial activity in Milan.

The new Palazzo di Borsa (1912... when the stock market in Genoa is dead)



### The floor... today



## Translation of microstructures into prices and lists

- Lists of Genoa and Milan are different in layout, quantity and quality of information
- Differences in layout
  - Different types of price columns that evolve over time
  - Convergence at the end of the period
  - Focus on two "main" types of prices:
    - "prezzi fatti (business done)": the intermediari pubblici must declare to the Sindacato the prices and quantities of their transactions to be published on the official list
    - "prezzi nominali [di chiusura] ([closing] nominal prices)": if the Sindacato becomes aware of different prices done by other operators, then it must indicate them in the column prezzi nominali
      - One column (=> 1 price) or two columns for these prices (min and max)

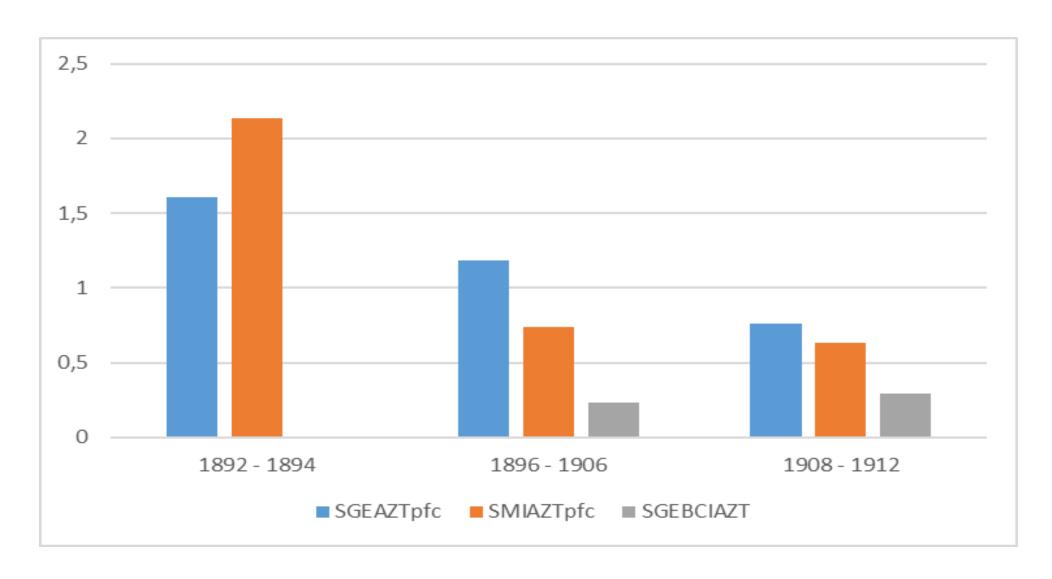
## Translation of microstructures into the price lists

- Differences in the quantity of information
  - Publication of both types of prices are much more frequent on the Milan lists than on the Genoa ones, particularly from 1895
    - Open-outcry around a pit strength the public dimension and transparency of the market
    - Limited number of operators allow for monitoring of the open-outcry (Baker, 1984)
    - Baia Curioni (2000) register an increase in volatility of the Milan Stock Exchange from 1895, but just more prices on the list because of the open outcry around a pit
  - In Genoa, not so many "prezzi fatti" ... the prices of real transactions
    - Genoa brokers to evade financial transaction tax do not declare many operations and do not send records to fiscal administration
    - Genoa brokers do not send prices done and related quantities of Italian public bonds to the Ministry of finance to compute and publish on the Gazzetta Ufficiale the average weighted price as required by law = > fiscal and juridical use of this price... false!
    - Felloni 1964 and Parodi 1966 for their monthly indices of the Genoa Stock Exchange use clearing prices... because otherwise...

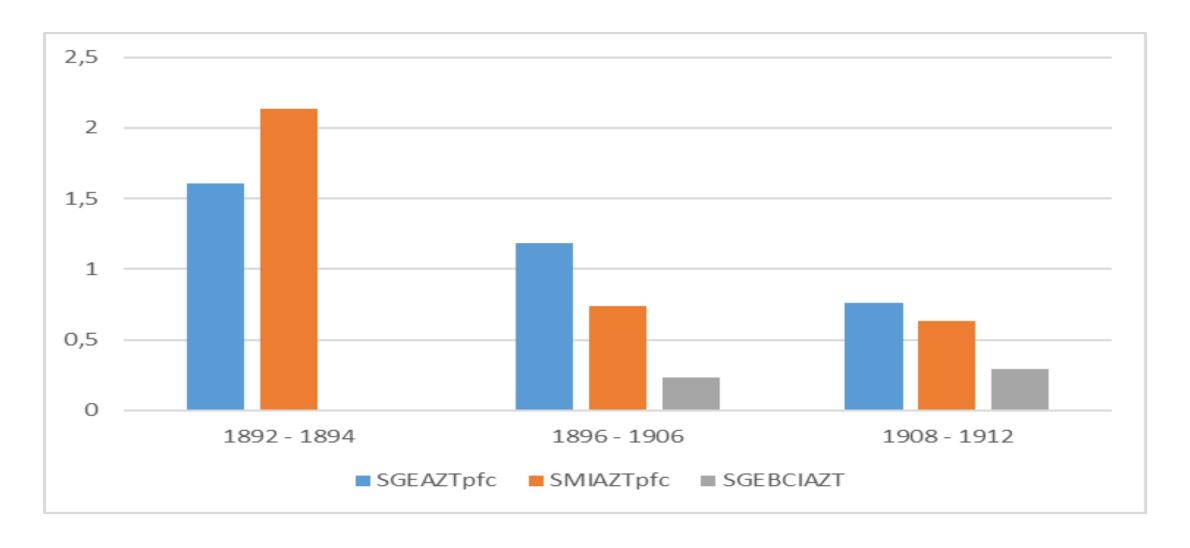
## Translation of microstructures into the price lists

- Differences in the quality of information
  - The informational quality of the Genoa list was poor
  - The Banca Commerciale Italiana was the biggest Italian bank and biggest market operator: : information is valuable when the others have not
    - In Genoa, the biggest player of Piazza Senarega
    - The activity on its own account (repo and proprietary trading) as source of valuable information on an opaque market
    - Order flow from clients as additional source of valuable information
    - To attract order flow from (new) clients, it publishes its own list of the Genoa Stock Exchange
      - Prices as bid-ask spreads because the Banca Commerciale acts as market maker
    - the Crédit Lyonnais, the biggest world bank, buys the list published by the Banca Commerciale, not the official lists.... Because of the better quality of the information
  - Spreads are current measure of transaction costs of the Exchanges
  - Computing spreads from equilibrium prices => Roll (1984)
    - Very tentative: very small sample; no quantitative analysis
    - Cross-listed securities

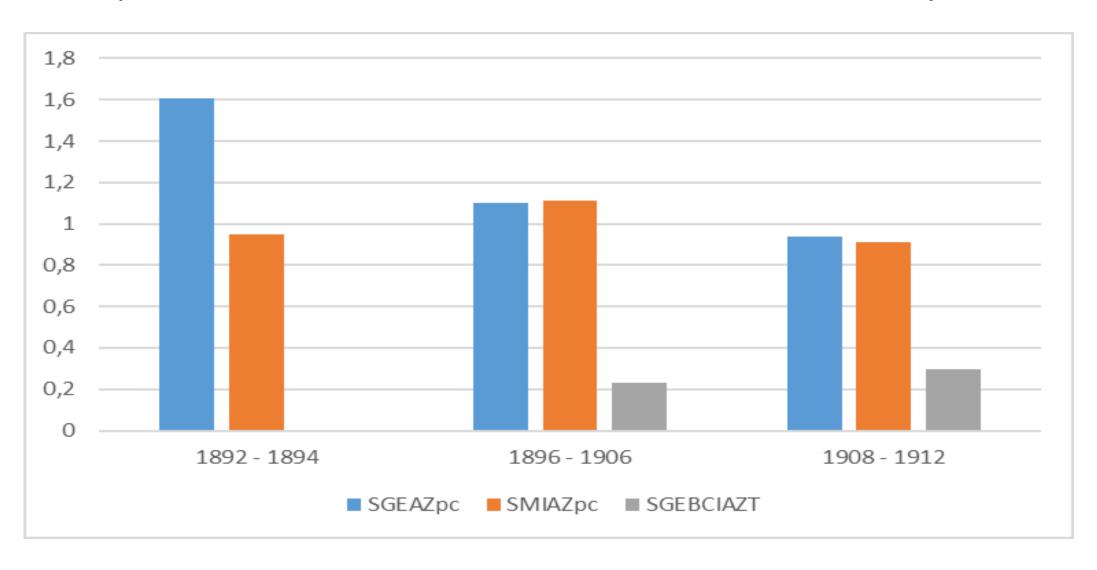
### Sample of cross-listed shares: prices done



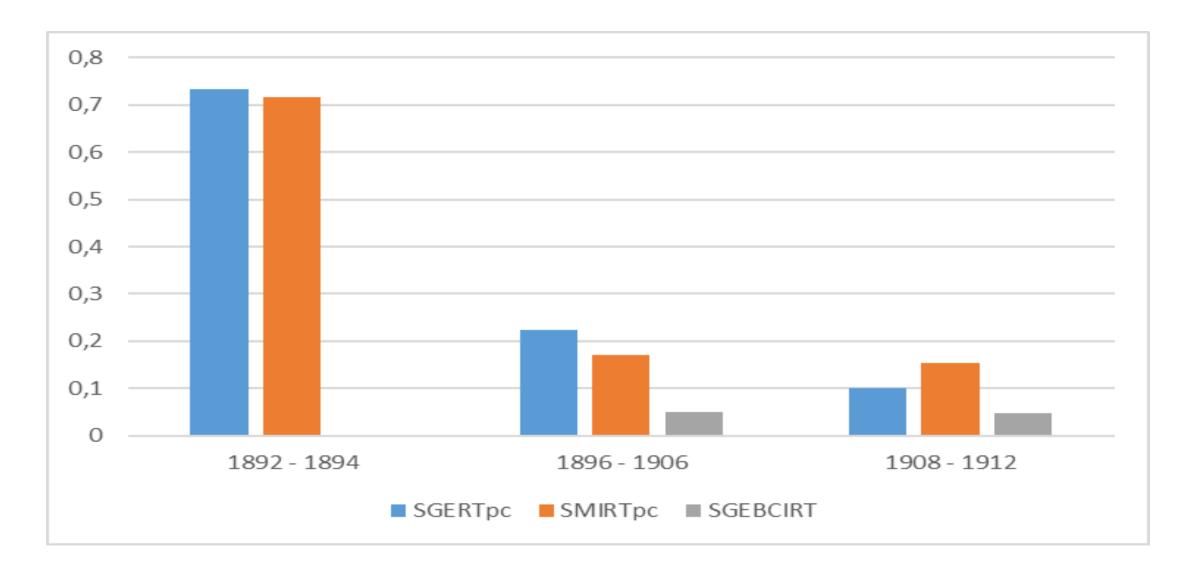
### Public bonds: prices done



### Sample of cross-listed shares: nominal prices



### Public bonds: nominal prices



#### Conclusions

- Transparency as output of competition
  - On the same floor among different professional groups
  - Between exchanges

• In opaque markets, some players can see very well and enjoy the sight!