Exchange organisations: convergence or divergence?

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Graphs and figures at the end of the paper.

1. Introduction

During the twenty last years, the stock exchange organizations knew important upheavals. This movement started in Europe and, lately, it invested the United States. It is possible to gather the changes which have affected the stock exchange organizations according to two types: on the one hand, adoption of electronic trading systems and modifications of the microstructure of the markets and, on the other hand, the phenomenon which one usually describes as stock exchanges' demutualisation, this is their transformation into for profit companies and listed on the markets that themselves manage.

This phenomenon, with the considerable financial, political and theoretical stakes, is not yet enough studied. However, according to the main literature, the increase in the competing pressures on the stock exchanges, following "the new competitive framework" [Ansidei (1999)] within the stock exchange industry, is the engine of this process which would bring the convergence of the organizational models around that considered as most effective, the London model [cf Ramos 2004 for a review]. The new parameters of this sector are the result, on the one hand, of financial integration, consequence of the liberalization of the markets and the exploitation of new technologies, and, on the other hand, of the emergence of international investors of increasing size, increasingly directed towards the markets by the adoption of novel methods of production of financial services.

The changes of microstructure thus aim at ensuring the stock exchange liquidity desired by both the large international investors and the issuers. In addition, the changes of the organizations and of their "internal properties" would answer exclusively a logic of competitive interactions. In particular, the demutualization of the stock exchanges is justified by two arguments: on the one hand, it is about the best tool to support competition, in particular by facilitating the founding needed for the stock exchange' investments in technology; on the other hand, it makes it possible to better coordinate the agents, i.e. it makes it possible to solve more easily the conflicts among the intermediaries on a side and between the intermediaries and the stock exchanges on the other [COB (1997)].

However, this literature is, with various degrees, unsatisfactory for three reasons: first, it doesn't take enough into account the institutional environment; then, it allots an excessive role to competition between stock exchanges; finally, a good part of this literature is "intermediary free" and, consequently, it does not take into account the conflicts of interest.

The considerations which we have just formulated push towards two directions: first, we have to check the existence of a convergence-process of the organizational the stock exchanges' models in an integrated space; then, we have to study the organization of the "mutualized" stock exchanges to pose the first stakes of a comparison between two organisational modes of the stock exchanges - the public limit listed company and the mutalized organization - and to thus understand of them the respective advantages and disadvantages.

Within this framework, recent researches of neo-institutionnalist organizational economics offer heuristic tools adapted to the study of the mutualized stock exchanges: those developed for the analysis of the "hybrid organizations with network". Based on the concept of cost of transaction, the neo-institutionnalist theory explains the existence of various "arrangements" to which the exchanges proceed. In their general formulation, the transaction costs are opposite function of the frequency of the transactions (F) and direct function of uncertainty related to these transactions (U) and of the specificity of the assets used (AS) [cf equation 1].

Equation 1

$$TC = f\,[F\,(-),\ U\,(+),\ AS\,(+)]$$

Since the exchanges on a market are expensive, the agents, characterized by a bounded rationality and a propensity for opportunistic behaviors, can prefer to achieve them within another arrangement, an "integrated organization", if it makes it possible to reduce the transaction costs; the company is the typical example. Within the integrated organizations, the hierarchy thus replaces the system of price in the agents' coordination.

For a long time the neo-institutionnalist research program concentrated on these polar forms of arrangements: market and hierarchies. Recent research stressed all the importance of intermediate forms of arrangement: the hybrid organizations. These organizations form a category which includes a rather heterogeneous range of agreements between firms, but it is possible to underline the regularities which define them. First, the pooling of a certain quantity of resources which form the specific assets whose organization needs to reduce the transactions costs, but the maintenance of both property and decision rights primarily distinct between the members. The second feature characterizing the hybrid organizations is the centrality of the contract as mechanism of coordination of the agents insofar as it indicates the general courses of the agents' actions; however, these contracts are largely incomplete and thus insufficient for a satisfactory coordination. Thirdly, the members of the hybrid organizations remain in competition among them and the hybrid organizations are themselves in competition with other organizations. Lastly, hybrid arrangement installs mechanisms of uncertainty reduction, related to the transactions which it organizes [Williamson, Ménard]. These characteristics outline the principal characters of the mutual stock exchanges.

These characters make it possible the agents to profit from the advantages of an organization, without losing their decision and property rights, but by the acceptance of"dependence". The hybrid organizations thus require specific forms of governance - "authorities" - which can, on the one hand, coordinate agents keeping separate property and decision rights; on the other hand, they can solve the possible conflicts emerged for the division of the revenue created by the organization as to contain the opportunist behaviors to which the agents can be encouraged. In fact, the organization generates, through the economies of scale and the externalities, a quasi-rent.

The neo-institutionnalist economics stresses that both the forms and the "internal properties" that the hybrid organizations adopt among those possible are shaped by: the institutional environment, the degree of asset specificity needed for the course of the transactions and the uncertainty which governs the transactions. But it is only a part of the history. In fact, the asset specificity and the uncertainty related to the transactions can cause contractual risks that the organization is supposed to contain by its structure. Consequently, the management of these risks is an important variable which determine the structure of the organization. In addition, the risk is all the more large as the rationality of the agents is bounded and that they have an opportunistic behavior. Within this framework, the membership criteria are capital, because the opportunist behaviors can compromise the organization operability and "reputation", with the advantage of the concurrent organizations.

The Italian stock exchanges of the giolittian time correspond to the definition of the hybrid organizations given by the theory. Well before the *fiat* of the public authorities, trading develops within the framework of organizations created by the agents in order to reduce the transactions costs without giving up the autonomy ensured by distinct rights of decisions and property. The translation of the equation (1) in the stock exchange field makes it possible to give an account of the phenomenon.

Table1: stock exchange transaction costs.

Standard Type	Frequency (F)	Uncertainty (U)	Specific assets (AS)
Stock exchange type	- liquidity	- default risk - counterpaty risk - price discovery - frauds (insiders trading, price manipulation)	- market participants skills and organizations. - trading facilities (Palais de la Bourse) - settlement and delivery facilities (clearing houses) - telecom infrastructures (telegraph et telephones) - Stock exchange Administrative services

The specific assets make it possible to the members to centralize the trades and to profit from the positive externalities whose principal one is liquidity. The selection of the members, the standardization of the operations as well as the other rules in place to reduce uncertainty can help the members to manage the risk by thus reducing the transactions costs. In addition, the agglomeration effects make it possible to improve the competences of the intermediaries through a faster diffusion of information and innovations.

However, the neo-institutionnalists economics doesn't explain the differences noted in the properties of the hybrid organizations which coordinate the same type of transactions. Indeed the dominant literature [Williamson (1996), CH 4] predicted that, in a competing environment, the agents converge towards the organisational mode likely to offer the most possible guarantees against the contractual risks at the lower costs. However, Claude Ménard puts forward « *a puzzling and challenging observation: in many cases, different forms of hybrid organizations with diverse levels of integration coexist. Part of this puzzle can be explained by path dependence: history matters when it comes to explaining the modes of governance adopted. But this is only part of the story. More needs to be explored about this* *paradox, both on the theoretical side and in empirical studies* » In fact, Ménard (1996) studies the quality marks in the French agricultural system qnd finds three types of hybrid forms: a network decentralized and close to the market-arrangement, a strictly coordinated co-operative structure and an quasi-integrated group.

In this article, we will show that the various Italian stock exchanges at the end of the XIX c. assume heterogeneous properties and are characterized by a very different level of integration although they organize the same type of transactions, a priori subjected to the same risks, through assets of the same type within the framework of same national institutions. This process of divergence develops when "a new competitive framework" settles within the Italian Stock Exchange Industry, because of: the liberal turning of the legislation in 1882; the increasing integration of the stock exchanges by the installation of the telegraph then telephone as from 1894; the birth, during first half of the years 1890, of the "German" universal banks, strongly market –oriented. The Genoa and Milan Stock Exchange are the paradigmatic examples: the first is an arrangement close to the market and the second like a well integrated organization. These examples are all the more relevant as together the two stock exchanges centralize approximately three-quarter of the national order flow.

We explain this difference within the neo-institutionnalist heuristic framework, but we focus on the instruments of both the historian and the sociologist, following the call for by many institutionnalist economists. In fact, the methods of the historian and the sociologist allow an analysis of the institutional environments deeper than with the only instruments of the economist. In particular, we propose an analysis in terms of political economy of the markets, founded on the power struggles among the various categories of agents, embedded in local institutional environments. It is about a central prospect for the "old" institutionalism, underestimated by the revival of this theory [Powell-DiMaggio, p. 12-13 and p. 30]. It is only during the last years that it finds a renewed interest [Pagano-Volpin (2001), Ménard 2004, North 2005]. In addition, the political economy approach is particularly adapted to the stock exchange field given the strong organisational impact on the redistribution of the incomes among the categories of participants in the stock exchanges' activities [Pirrong (2000)].

The analysis in terms of political economy must be led at the local level, with regard to the relationship between the two places on the national plan. In fact, for the period that we consider the formal authority and the organisational capacities of the markets are primarily at the local level (cf section 3). Within this framework, the stock exchanges' heterogeneity reflects the different configurations of power relationships, on each place, between the heterogeneous categories of financial intermediaries which operate there. Their goal is the capture of the revenue generated by the organization: the form of the hybrid organization - and in particular the organization of the liquidity by the microstructure of market - is the mean of the distribution.

Given the equivalence of legal qualities and the similarity of the operational characters of the agents on the two places, the different power relationships on each place are the reflection of the local environments in which the stock exchanges are embedded. The discriminating phenomenon is in fact the relationship that the dominant operators on each place – the bankers - have with the public dimension of the markets, represented by the officel stockbrokers via the publication of the official list and the subsequent publicity of the concluded transactions. The various stock exchange organizations are thus the result of the different protection that the bankers of each place grant to the jurisdiction (within the meaning of Abbott) of the official stockbrokers. The extent of the official stockbrokers' jurisdiction is the principal variable of adjustment in the division of the revenue created by the organization, among the various categories of operators. In other words, the intermediaries follow different rules of action according to the environment where they operate, often in spite of the laws and of other formal rules. The local institutional environment, while establishing what is legitimate, brings to two different rationalities for the agents and thus to various interpretations of their own interest. The different reactions of the Genoa and Milan operators vis-a-vis similar problems can be interpreted in the light of the concept of habitus of Pierre Bourdieu or in the light of the concept of institutionally located rationality of Boyer. If one considers the financial center, namely the local institutional environment, like a field, then it is possible to study how the structure of the field works and differentiates rationalities of operators belonging to the same category [on the correspondence between the concept of habitus and institutionally located rationality cf Boyer 2004, ch. 3].

In addition, each stock exchange present from the organizational point of view, good and bad points which enable it to be more effective than the other on certain components of the transaction costs. That allows the combination of the comparative advantages of each stock exchange with the heterogeneous preferences of different operators (or with the various needs of the same operator). It is about a fundamental observation because it explains the coexistence of these two types of hybrid organizations that the theory cannot justify since the most efficient organization should eliminate the other.

The will of the Genoa bankers to maintain a poor stock exchange organization, is the will of maintaining the market in the "private" sphere. In fact, this poor organization produces an opaque market as well as a market where intra-members competition is high. The market opacity and the high operators' number develop traded volumes higher than in Milan and maintain the commissions on a lower level. However, the Genoa organization produces higher transaction costs related to the higher uncertainty and implies modest or late investments in the specific assets [riva 2007]. Thus, the Genoa Stock Exchange organization creates the concrete conditions of the 1907 crisis. The instability of its model and its "bad reputation", because of the "excess of exchange" [within the meaning of Minsky] and the frauds that its organization allows, will condemn Genoa Stock Exchange. During the early XX century, central decision makers change policy vis-à-vis the financial markets: with the approach of the First World War, they need to control the financial system and the Genoa model makes it instable. In fact, the law of 1913 will impose on the Italian stock exchanges, under a narrow control of the State, a legislative isomorphism founded on the Milanese organizational model, less liquid, but more stable. This new configuration ends the organizational stock exchanges' heterogeneity. It thus signs the end of the financial markets development in Italy and will direct the financial system towards banks.

To deploy our arguments, we first describe, on the one hand, the local institutional environments of Genoa and Milan (section 2.1) and, on the other hand, the national institutional environment. Initially, we focus on the legislative framework of the stock exchange activities (section 2.2). Then, we give an outline of the Italian stock exchange history. We focus on role that the stock exchanges and the other financial institutions played there (section 3). Lastly, we approach the analysis of the Genoa and Milan Stock Exchange organizations following a plan based on our classification of the costs of transactions in the stock exchange field (cf. Tab. 1). Initially, we treat the organization of the liquidity; in other words, we study the microstructure of the market (section 4). In the second time, we approach the management of uncertainty by the two stock exchange organizations (section 5). We conclude on both synchronic (Stock Exchange of Genoa and Milan at the giolittian time) and diachronic comparison (stock exchanges like hybrid organizations and hierachies) from an agents' coordination point of view.

2. Institutional environment.

The NIE allots a fundamental role to the institutions in the choice by agents of the arrangement to organize an activity. Here, we switch from the mainstream neo-institutionalism to adhere to the "old" institutionalism. The "old" institutionalism focuses on the environment represented by the local communities while the "new" institutionalism concentrates more on the "nonlocal environment". Powell and DiMaggio explain this change by the passage of both the formal authority and the organizational capacities from the periphery to the center, at least, national. In our case of study, the organisational capacity is largely embedded in the local institutions, in particular after the liberal turning of the Commercial law of 1882 which puts the markets in the hands of local merchants. It is only in 1913 that the State controls the exchanges by a law very strict and directly applied by representatives of the public authorities which enter the authorities of the exchanges [recent calls for more research and researches on micro-institutions, Brusseau, Grief, …].

In addition, the stock exchange case is paradigmatic. The Kingdom of Italy is proclaimed in 1861. Up to that point, Italy was what Metternich calls a "geographical expression". The Peninsula is divided in various States, often subjects to foreign influence and domination. The new Italian government unifies the country by the formal "piemontisation" (piemontesizzazione) of the institutions, but the consensus to the Unification has a price: the respect of the dominant local lobbies, which maintain the control on the local economic communities. It is only at the beginning of the XXe century that governance centralization accelerates: the control of the economic and financial channels as well as the competition limitation, urged on by the instability of the configuration in place, by both nationalism and imperialism requiring a strong agents' coordination.

2.1 Local institutional environments

The Genoa and Milan financial centers represent two very different institutional environments. It is impossible to report here the complex working dynamics which led to this result, but it is possible to suggest an intuitive and synthetic explanation based on the theories which bind the level of financial development to the factorial equipment of a territory. The small territory of the Republic of Genoa is contained between sea and mountain. This topographic configuration prohibited any land investment by the simple fact that the cultivable surface is extremely reduced. This character can explain the early orientation of Genoa towards international trade and finance.

The history of the Genoa finance finds its file rouge in the Banco di San Giorgio - “the Republic of the merchants” or “the State in the State” -, controlled by a group of aristocrat bankers which hold at the same time the political and financial power. The modern-time Republic of Genoa is indeed “aristocratic” because founded on this social group as well as the economic and social resources it has. Because of the long independence and autonomy of Genoa, the social group, in spite of a partial families’ renewal in the XVIII century [Felloni], maintains strong influence on economy and politics, and perpetuates the beliefs which this influence produced. The economy of the city rests on international finance and the trade. Thus, a liberalist spirit develops, which corresponds to the interests of this class and, therefore, of the Republic. In addition, the dominating group always tended to manage the res publica according to private criteria and interests: the Banco di San Giorgio directly manages the national debt of the Republic, maintained structurally weak.

The French revolution and the Napoleonic domination of Genoa shake in-depth the political and economic institutions of the city: one of the first acts of the new French Administration quickly closed the Banco di San Giorgio, symbol of the Genoa independence. After the fall of the Emperor, Genoa try to restores its independence and a new Republic is founded. The aristocratic financial élite was weakened by the Napoleonic wars and the financial losses due to the French revolution. This new Republic is indeed called “democratic” because the aristocratic financial élite ought to seek a support in the bourgeois class, hitherto “impossible to imagine”. However, this new Republic turns quickly short. The Congress of Vienna decides that the Liguria territory will be annexed to Piemonte, in the Kingdom of Sardinia; the protests of the Genoa élites will change nothing there.

However, the Government has “to buy the consensus” and grants large autonomy whom symbol is the Free Port. Genoa upper class seeks to recover with trade and finance. Nevertheless, the aristocratic finance and the entrepreneurial bourgeoisie join in the foundation of banks, insurance and shipping companies, and so on. Economic freedom and independence vis-à-vis the central power are always the currencies of the city. The spirit of the Banco di San Giorgio impregnates the Chamber of commerce (CdC). Nevertheless, if the speech of the CdC is liberalist, the merchants' practices are not. Genoa bankers and entrepreneurs are crucial actors in the two most protected Italian industrial sectors: the food one and iron and steel industry. However, F. Nietzsche compares Genoa business and financial practices with the "acts of piracy", when he stays in Genoa during the 1880s' [Giacchero (1980), Doria (1973)]. Thanks to these methods and to the Genao financial power of the capital, Genoa is the pivotal Italian stock exchange during the XIXe century.

The Milan financial center, on the other hand, develops in a radically different environment. Occupied for a long time by foreign powers, the Milanese territory is attached to the Kingdom of Sardinia only in 1859. Previously, the Austrian domination succeeds the Spanish one and the long economic depression of the period. Since the XVIII century, the Austrian sovereigns undertake important economic and social reforms which make possible the economic development. Thanks to the wide and fertile grounds of the territory the agricultural sector drives the economy. At that time, the commercial and industrial initiatives suffer from the lack of an effective financial system. The cause is more the reserve to employ capital in operations considered as excessively speculative, (for example, the commercial credit) than the lack of. This reserve is the consequence of the Lombard preference for a stable process of capital accumulation based on the agricultural sector.

The Napoleonic experience does not change, in its essential features, the economic and social system of the city and reinforce the Lombard approach to the financial activity from both a cultural and institutional point of view. Following French lumières, the early XIX century Lombard philosophers build a cultural framework which corresponds to the economic and social context. This system is based on the ideas of both market and competition, but refuses the idea of the market as "invisible stabilizer" and coordinator. It affirms the need for a public regulation and intervention which moderate excesses of the individuals. This orientation will impregnate the Milanese financial center so much that Alessandro Polsi [Polsi (1993)], commenting on the early 1870 banking euphoria, speaks about a "Lombard way to finance" to differentiate it from the speculative provisions of the other Italian bankers, provisions which know their acme in Genoa [Dalmasso (1972), Baia Curioni (1995)].

These differences determine in the stock exchange organization a different configuration following the power struggles between the stockbrokers and the bankers within the framework of the financial center spirit. To put it simply, in Genoa the power struggles and the spirit which result from this prevented the formation of a stable and bench group of stockbrokers which can constitute an opposition to the bankers' group. On the other hand, in Milan, the same principles determined the constitution of a stockbrokers' group relatively strong, unit, and legitimate in its function of guarantor of the public and transparent dimension of the market.

Consequently, the Milanese stockbrokers enjoy negotiation power about the market organization unknown in Genoa. Thanks to this power, the Milanese brokers will obtain from CdC the installation of a stock exchange organization will enable them to secure their income. On the other hand, in Genoa, the bankers impose an organization which will enable them to extract the quasi-rent generated by the stock exchange skimming the market. The liberal Bankers' speech against the monopolies legitimates this standpoint, when the practices are detached from liberalism.

2.2 National legal environment

The Commercial Code of 1882 and the joint decree for its execution (RAP) are the legislative framework in whom evolve the stock exchange organizations for the period. This configuration, practically unchanged until 1913, innovates radically, on the formal level, the legislation of French tradition into force before: it sanctions the withdrawal of the State from the stock exchanges, after the crisis of 1873 and its consequences showed the impossibility of public effective interventions, in particular because Genoa operators and stockbrokers systematically broke the rules and are opposed to any State interference in their business.

Market-regulation by the merchants via the CdC as well as the free competition among all the categories of financial intermediaries are the principles which govern the new legislative framework. The CdC have already the capacity to work out the market rules and to manage the organization, but the marked cutting off of the national legislation increases proportionally their organizational power and their competences. In fact, the legislator excludes from the Code of 1882 any reference to the public nature of both the stock exchanges and the financial intermediation. It fixes, in rupture with the previous legislation, the principle of the complete free access to the Stock Exchange buildings. Consequently, any person can enter the building and become a direct operator, without any control of his statute.

With regard to the stock exchange intermediation, the legislator of 1882 erases from Code any reference to the stockbrokers and their regulation. It focuses only on the private responsibilities which rise from the act of intermediation, considered from all points of view like a commercial act. The stockbrokers leave their statute of public officer to take that of merchant. They thus acquire the right to make operations on their own account, to form companies with other stockbrokers, to found or to join banks and banking houses, and any other corporation. However, the path dependency imposes to safeguard a model of market directed by the orders as well as the publication of an official list. For this reason, the RAP institutes the category of the "public brokers". The qualification of "public" is allotted to any intermediary who is registered by CdC. Any person satisfying the minimal criteria provided by the RAP that CdC can implement according to their wishes can obtain the inscription. The checking of these criteria is allotted to same CdC.

The RAP allots to the stockbrokers the monopoly of the intermediation in the Stock Exchange on the listed securities, but without envisaging any specific rules to protect it from the encroachments of the competing intermediaries and free brokers. The free access to the stock exchange building and the completely opaque trading system, based on low-voice and bilateral negotiations, make impossible to the brokers any defense of monopoly which the law grants to them formally [it is impossible to prove the encroachment].

Consequently, the free competition among operators can play fully. The full competition had been seen by the legislator like the best financial operators' means of selection, given the inefficiency of the previous regulation: the legislative framework shifts from supervision of the operators to supervision of the operations. The Italian stock exchanges thus accommodate panoply of operators in competition on all the segments of the financial market: with the sides of the most important two professional classes, banks-bankers and stockbrokers, there are "commissionari", "remisiers", corporations, free brokers, and a crowd of private individuals who can directly trade without any statute. This configuration causes important phenomena of entry on the market, in particular during the periods of expansion, by opportunistic operators who, without financial standing and adequate competences, do business.

The governance of stock exchanges is formally drawn by the RAP of 1882, but and the real distribution of competences and the authorities' coordination are the result of the power struggles between the bankers and the stockbrokers. The Kingdom of Italy, by confirming a tradition already established in the Italian States before the Unit, entrusts the administration of the stock exchanges to CdC, under the supervision of the Ministry for Agriculture, Industry and Trade (MAIC).

The Council of the CdC discusses and approves the stock exchange regulations, then subjected to the MAIC homologation, states on the admission of the securities to the official list and is the court of last resort in the cases of infringement to the stock exchange rules. On an accounting point of view, the stock exchanges balance sheets are integrated in the CdC balance sheets: CdC fund the charges and the investments in the stock exchange organizations and they cash their revenues. Consequently, they support the deficits or, if any, they get the surpluses.

The CdC Council elects every year the members of the Deputazione di Borsa, a body created by the RAP of 1882. The Deputazione is composed by professionals of finance, and represents the CdC in the stock exchange building. It carries out the daily management of the financial institution, delivers its opinion about the admission of the securities. It is at the same time the court of appeal in the cases of stock exchange rules infringement and the arbitration court as regards disagreements between operators who do not wish support the cost and the delay of the civil courts. In Milan, the Council establishes a Stock Exchange Commission, composed by expert advisers in finance (typically, executives of financial institutions, bankers, stockbrokers) and provides it with ad hoc administrative services. It works out the stock exchange rules to be presented to the council, plans the stock exchange budget and represents the think-thank for the strategies of CdC in this field. In Genoa, these functions are filled by Deputazione di Borsa which, contrary to Milan, is composed essentially by CdC members. It has consequently a role much more important in this city than in Milan.

The stockbrokers' committee, absolute master of the official market in France, plays in Italy a much more modest role. It is elected by stockbrokers' general assembly; it does not have budgetary autonomy; it defends the corporative interests of the stockbrokers; it monitors the Stock Exchange on the ground, brings back to Deputazione the operators' infringements and judges the disagreements concerning the stock exchange transactions; finally, and more important, it states the prices to be published on the official list. According to the legislator's intentions, the commercial statute of the stockbrokers should have opened to them the doors of the CdC council and have ensured them some chairs in the Deputazione. It is not the case. The bankers, traditionally dominant within CdC, will keep for a long time the stockbrokers apart from the Councils thanks to, among other things, contradictory civil judges' decisions on this topic. With regard to Genoa and Milan, the stockbrokers obtain eligibility only at the beginning of the XX century, during significant moments of power struggles between the two professional groups.

Beyond the formal and common framework fixed by the legislation, the effective distribution of the capacities among the stock exchange authorities as their composition depend largely on the power struggles between the groups of bankers and stockbrokers on each place. The stockbrokers' power is determined by their legitimation like guarantors of the public dimension of the market, in particular through the statement of the official list prices: formally, only the prices of the stockbrokers transactions could be published on the official list, after that the stockbrokers committee certifying that they are significant. This legitimacy has a direct impact on the protection that the authorities of the exchange ensure to the brokers' jurisdiction, securing o not the rent that the law allots on the formal level to the brokers. If necessary, CdC can protect the brokers' monopoly by market-microstructure modifications and via their disciplinary powers.

3. Success and setbacks of the Italian stock exchanges in the giolittian time

The " Big Crisis " which shakes the Italian economy between the end of 1880s and the beginning of 1890s closes the cycle of expansion led by the Genoese capital and the stock exchange. During the XIXth century, Genoa is, by far, the main banking and financial center of Italy: the superiority of its stock exchange is uncontested; not only its bankers are the only ones to have a national action, but the main Italian investment banks – *Credito Mobiliare Italiano* and *Banca Generale*–, as well as the other banking institutions – among which *Banca Nazionale*, main Italian issuing institute –, are widely in Genoese hands. It is difficult for this time to set up a large-scale business without the cooperation of these institutions.

In 1888, an ample movement on the issuing market corresponds to a fall of the securities prices. The crisis in the French-Italian relations cuts an important source of funding for the Italian banking operators. The intern credit having reached its limits, the crisis starts and ravages the numerous building companies, which were created during the previous years, and the banking sector. Banks are in an unbearable position: burdened with huge shareholdings, they know a strong liquidity crisis. During the crisis, the stock exchange of Genoa is the theater of audacious operations and real frauds to allow banks, overloaded with securities, to resell them and to get back liquidity necessary for their survival. The volatility of the stock-exchange price explodes. However, the tightness of markets implies the failure of these attempts. Several bankruptcies occur: Among these, we note the ruin of the main investment banks and of an issuing bank, the *Banca Romana*. The Genoese finance undergoes enormous losses.

The Big Crisis plunges Italy in the "the most black" days of its economic history. The financial system is thrown. The financial crisis starts the economic crisis in the context of politico-financial scandals of incredible proportions: the confidence of the country is shaken, the banknotes forced course is declared. However, *the tabula rasa* provoked by the crisis open the reorganization of the system. On one hand, the new German-model-and-capital based universal banks, the *Banca Commerciale Italiana (BCI)* and the *Credito Italiano (IC)*, implant in Milan. Moreover, the creation of the *Banca d' Italia* confers order to the currency circulation. Nevertheless, this institute does not still play the role of a central bank: It is in competition with the Southern issuing banks, preserved in the name of the local interest groups which they finance, and it is in competition with the big universal banks who will refuse it the role of liquidity regulator by not agreeing to become its customers for the rediscount.

The reversal of the international cycle and the action of the new financial forces allow taking out of a crisis that could compromise the Italian economic development. The universal banks and the other banking operators play a leading role in the Italian recovering during the second half of the 1890s. These financial institutions are made the founders of the foundation of numerous limited companies or incite to the transformation in limited companies of the existing firms, facilitating the Italian participation in the second industrial revolution. Nevertheless, these banks do not forget the lessons of the past. In a coherent way with the management model of the German universal banks, they bring companies in stock exchange and "create" an active secondary market to sell the important issues of industrial securities of which they take charge: They act on the market directly as *market makers* and indirectly by the financing of the stock exchange operators, often trough heterodox ways, so that they can "carry" the securities waiting their definitive placement in the private investors' portfolios [cf. gr. 1, 2, 3, 4, 14, 15].

As a consequence, the Italian financial markets, henceforth integrated by the telegraphic network [Baia Curioni; Baia-Curioni and Fantacci], know, during the last years of the XIXth century, a relatively ordered development. In this frame, the stock exchange of Milan, until then essentially local, knows a strong development, which brings it to dispute the Genoa ranking. Indeed, thanks to both important organizational changes and the action of the universal banks, Italian stock exchanges play henceforth an important role in the Italian economic development.

During first years of the XXth century, the Italian finance development speeds up. The universal banks discover their "speculative soul", awakened by the ascent in their shareholding of Italian bankers, notably Genoese, and by the very strong competition within the sector. Between 1903 and 1906, the Italian financial system knows an accelerated development to which all the financial actors contribute [cf. gr. 1, 2, 3, 4, 14, 15]. The universal banks, who operate at the same time on the different Italian stock exchanges, multiply the foundations of limited companies, imitated by very active big bankers. To place these issues, the big banking operators finance a crowd of small and medium stock-exchange operators. These actions is necessary for the drainage of the titles issued by the big banking operators, notably in the Italian context, characterized by a weak inclination of the individual savers in the buying of industrial stocks. Actually, in 1910, Hilferding underlines all the importance of the small stock-exchange operators for the big banking operators. Financed by the bank credit, these operators can start bull movements, which attract the investors by the perspective of strong surplus [Hilferding (1961)]: Stock indexes demonstrate the power of the bull campaign which shelter the Italian stock exchanges during this period [gr. 23].

Besides, the competition between the two big universal banks, aggravated by the foundation of the *Società Bancaria Italiana (SBI)*, provokes the creation around these banking institutions of real financial and industrial conglomerates. Hilferding still underlines that the universal banks have no interest to let play the competition among the limited companies, which are its customers and so encourage the forming of cartels around them. The competition plays only among companies linked to different banking institutions. The steel-iron and food sectors, strongly protected by the commercial policy of the Government, are the most accomplished examples of this phenomenon and remain the private ground of the big Genoese bankers who preach nevertheless, in the financial domain, the free-market economy.

The big Genoese bankers are thus the protagonists of this speculative movement which, it is necessary to underline it, allows Italy to catch up advanced countries. These men – Raggio, Piaggio, Bozano, Figari, Bruzzone, Romairone – represent the heart of the system as far as they are, at the same moment, holders of important banking and stock exchange houses, administrators of numerous limited companies, administrators of banks and administrators – directly or by their representatives – of the Genoa stock exchange.

During this period, the Italian stock exchanges seem to be able to support the economic development, but each of them develops a rather particular operational dimension, determined by its organizational shape. If we focus on the stock exchanges of Milan and Genoa, the second one exercises the liquidity function by the volumes that it handles. The first one, more stable, appears as a market useful for price discovery, for cash transactions and for financing of the limited companies without links with Genoese bankers1. This configuration creates the conditions of their development as far as it gives satisfaction at the same moment to the different preferences of different operators and to the variable requirements of the same operator·

However, the liquidity of the stock exchange of Genoa, mainly based on credit, provokes spurts and crisis that disturb the Italian economic and financial system. On one hand, the stock exchange of Genoa absorbs a good part of the bank credit and risks to impose rationing on small and medium companies. On the other hand, too often, it is the theater of loud frauds as well as episodes of wild competition among the industrial-financial groups. Within the framework of the international monetary contraction of 1906-1907, the Government and *Banca d' Italia* show very clear signals to the banking operators: they have to stabilize the markets.· The two big "Milanese" banks withdraw then from the market by a reduction of the financing to the speculation. On the other hand, the Genoese operators find the means to continue their business: Genoa bankers take the control of the SBI whereas Figari creates his own banks, *Banco della Liguria*. However, these forces are not sufficient. The crisis of 1907 breaks violently this movement of speculative blooming of markets.

The interventions of the central decision-makers between 1907 and 1913 stop the Italian stock-exchange system that will not know any more the development reached during this "golden age". The BI, in exchange for the funding which are necessary for the banking system not to fall down, obtains that this last one recognizes it and uses it as a real central bank: the universal banks lose their "speculative soul". Then, the BI selects the small and medium stock exchange operators by a period of restrictive monetary policy. Finally, by the law of 1913, the Government blocks the stockbrokers' activity by abolishing the dual capacity and imposes an organizational isomorphism on the stock exchanges. It will supervise and control directly the exchanges by reserving the key seats in the stock exchanges authorities to officers appointed directly by the Treasury and the BI. The market-model that the Government imposes on the Italian stock exchanges is that of Milan, the most stable stock exchange. After the WWI, the Milan stock exchange will centralize the reduced Italian stock-exchange activity and marginalize the Genoa financial center.

4. The organization of the liquidity and the selection of the members

The theoretical literature on the market microstructure underlines the impact that the trading system and the number of operators have on the liquidity of a market and, by this way, on the traded volumes. However, the causal relation between volumes and liquidity are still the object of debates, notably because of the multidimensional character of the liquidity. The concept of liquidity in fact recovers at least three dimensions: the tightness, the depthness and the immediacy. It is about a fundamental element of the analysis as far as an illiquid market imposes to the operators an additional cost which is «*an important component of total transaction costs*» [Pagano-Roell (on 1992), p. 109] [Pagano-Roell on 1992 and 1996; Pagano on 1989]. In this section, we propose an outline of the rules that the stock exchanges of Milan and Genoa implement to organize the exchanges and improve their transactional efficiency. Although the legislation imposes an order-driven market following the French tradition, the the CdC organizational power leads to the implementation of two radically different trading systems.

The Code of 1882 has a different impact on the stock-exchange organizations according to their previous configurations. In this time, the securities are traded by low-voice bilateral direct contacts. However, in Milan the stock exchange, a substantial respect for the division of labor between stockbrokers and bankers, based on the social control, holds. The instrument that assures the effectiveness of this control is the selection of the members, this is the limitation to the stock exchange building access, which the legislation of before 1882 allows (access limited to the "established" merchants and to the stockbrokers). These controls allow stockbrokers to defend their monopoly against the encroachments of free brokers and other operators. On the other hand, in Genoa, the complete free access to the stock exchange building as well as stockbrokers' dual capacity are customs of the exchange, in spite of the legislation. Encroachments upon the monopoly of the agents are daily phenomena, which incite the brokers to make operations on their own account for compensation.

As a consequence, the Code of 1882 overlaps without frictions the Genoa stock exchanges practices and customs. Those practices and customs widely inspired the works of the 1882 legislator as far as the Genoa was on the one hand the most important Italian stock exchange and, on the other, the stock exchange where the crisis busts in 1873 and where, the rules that the Government took in the aftermath of the crisis are broken and refused. In the impossibility to master the Genoese operators, the Government fixed the Genoa market model in the Code. On the other hand, the new Code, with the 1882 crisis, breaks the balance of the stock exchange of Milan and blows up the *" dualism of class (dualismo di classe)"*, this is the conflict between stockbrokers and bankers. This conflict breaks the Milanese coordination mechanisms and blocks the transactional efficiency of the stock exchange during a dozen years. In fact, the dualism echoes on both the functioning and the legitimization of the stock exchange authorities. At first, the stockbrokers, because of the impossibility to defend their monopoly, refuse to form the Stockbrokers' Committee and the stock exchange works only under the supervision of the *Deputazione* which fixes the prices to be published on the official list. After a new agreement bargaining which punish the medium and small bankers, the brokers agree to form the Committee, but then the bankers refuse to participate in *Deputazione*. Only the Stockbrokers' Committee is in office.

During the early 1890 Big Crisis, the stock exchanges of Genoa and Rome are the centers of the storm as far as they had been the centers of the speculative movement that the Genoese bankers steered. Both stock exchanges are the theater of frauds and fearless speculations. From 1892, the MAIC intervenes to reestablish discipline and order by a *" peremptory invitation " (invito perentorio)* to these both CdC. They have to modify their regulations and introduce trading through open outcry auction within a pit. It would assure the market transparency. If the CdC of Rome, closer to the political power, accepts, the CdC of Genoa refuses categorically and twice to satisfy the central government. An opaque market allows in fact informed bankers and banks to extract all the possible profit from the information they have and, on the one hand and let open space to piracy practices stigmatized by Nietzsche. In other words, the big Genoese banking operators can extract a big part of the rent generated by the ad hoc organization they put in place.

After the crisis, Milan financial center can play a national role, thanks to the profound wounds of the Genoese finance, to the implementation of the direct telegraphic network between stock exchanges, and to the setting-up of the universal banks on the place. This opportunity sets the premises for the end of the " dualism of class » whereas an important stock-exchange scandal in 1895 represents the event that accelerate the reforms. Following this scandal, the CdC gives to the Stock Exchange Commission the explicit mandate to find the means to assure the discipline in stock exchange. The Commission obtains a new agreement between the parties about the sharing of the rent generated by the organization. It is the implementation of a market microstructure based on a continuous open outcry trading within a pit. The access to the pit is then reserved for the stockbrokers, on one hand, and for the banking houses selected according to patrimonial and "moral" criteria.

The Milanese authorities cannot prevent operators' free access to the stock exchange building because of the national rule. Then, they centralize the liquidity in a pit precisely because they can control the access to. It is the only mean to guarantee the stockbrokers' monopoly according the new legal 1882 frame, without punishing the bankers who continue to benefit from the direct operations. On the other hand, the small and the medium bankers are satisfied by the landmarks that the open outcry offers them for the counterpart operations. Following this agreement, the CdC obtains that the bankers sets up the Deputazione without that the Stockbrokers' Committee resigns. The agreement between the authorities is the mirror of the operational agreement among the intermediaries. The authorities set up new trading rules. Besides, the transparency assured by the new market model allow the stock exchange authorities to better supervise the trading.

However, this agreement remains strictly informal: those rules are not written. In fact, an article of the 1882 RAP prescribes that if a CdC wishes to establish a pit, it should reserve the access to the stockbrokers. It is an unacceptable scenario for the bankers. From this moment, the trading systems of the Genoa and Milan stock exchanges are radically different. This divergence will stop only with the legislative intervention of 1913.

The Genoese stockbrokers try in several ways to obtain the implementation of a market microstructure similar to the Milanese one, but unsuccessfully. Both the bankers and the other categories of intermediaries dominate the stockbrokers' group from the operational point of view. Nevertheless, the Stockbrokers' Committee tries to impose its views by resigning up for a long time (but it doesn't refuse to fix the clearing prices at every settlement day) or by changing "audience" (it addresses their claims directly to the government when this one offers it openings [Abbott]. However, the hardest attacks against the CdC never make the unanimity in the stockbrokers' group. The stockbrokers' dispositions are henceforth "Genoese": the CdC created them and maintains them by a recruitment policy corresponding to its intentions of dominion (cf. *infra*). As a consequence, the Genoese stockbrokers are afraid of a transparent market. In other words, they are less afraid of the Genoa bankers than of the State.

Beyond the trading system, the number of the participants to the market is a key variable in the explanation of the traded volumes. As a consequence, the mechanisms of selection of the participants set up by the organization play a major role. As regards the Italian stock exchanges, it is necessary to distinguish the selection criteria of access to the stockbroker's profession, status that gives automatically access to the market, and the conditions of membership for the other operators.

The stockbrokers' selection criteria play a fundamental role in the division of the stock exchange rent, but also in the determination of the power of negotiation of this professional group. Those criteria could be the means that assure both the cohesion and the stability of the group, thus its legitimacy [Abbott]. According to the financial center spirit, since the early XIXth century, these criteria are maintained very high in Milan, where until the Unity the *numerus clausus* was effective, and weak in Genoa, where since the official foundation of the stock exchange in 1854, the CdC traditionally interprets them in a very soft way.

After the bend of 1882, the CdC has the power to implement the minimal criteria of admittance to the stockbrokers' profession set up by the RAP. The stock exchange of Milan fixed and keeps the highest criteria of admittance in Italy. In fact, the criteria are constantly implemented to contain the opportunistic entries to the profession during the periods of expansion (the 1905 reform is the main example). The main points of the Milan CdC recruitment in this domain are on the one hand the progressive strengthen of the brokers' technical competence (exams of admittances and trainings) and, on the other hand, the evaluation, based on the *intuitus personae*, of the social dispositions of the candidates (the 1905 regulation states explicitly the evaluation of the "maturity" of the candidates).

On the other hand, the Genoa CdC fixes in its regulations the minimal criteria set up by the RAP, without any significant modification to 1908. Besides, the CdC of Genoa always adopts a soft interpretation of these criteria. This management of the access to the stockbrokers' profession represents, on one hand, an assurance that these operators cannot lean on the monopoly to support their dimensional growth, and, on the other hand, it prevents the brokers from defining themselves as stable and thus legitimate professional group.

As regards the access of the others operators, the Genoa CdC puts a very weak barrier to access after 1898, with the exclusive purpose to make profitable the stock exchange (cf. Riva 2007a). It decides the creation, within the stock exchange, of a *" reserved zone* » for the so-called "usual" operators. The access to this zone is granted against the payment of a small fee. The regulation of this zone is inserted into the stock exchange rules, but the CdC does not present it to the government ratification. It is afraid of a refusal according to the free access state rule. From the accounting point of view, the operation is a success: the balance sheets of the stock exchange will present systematically a surplus which the CdC will use to finance the harbor facilities. On the other hand, this measure will have in practice no impact on the operators' influx in the stock exchange. The number of operators of the reserved zone will continue to increase and will be welcomed there also number of private individuals, without any commercial status, who act as financial intermediaries. The Milan stock exchange, for budgetary problems, will ask for entrance fees to the pit higher than in Genoa, from 1906 (cf. sect. 6).

From the archival sources, it is possible to estimate the number of stockbrokers and other "usual" intermediaries operating on both stock exchanges. By "usual" operators, we mean those who pay the access to the Milanese pit and to the Genoese reserved zone. The comparison of the data for 1906 is eloquent: 1.180 operators have access to the reserved zone of Genoa against 156 operators in the Milan pit. The CdC of Genoa congratulates itself on the fact that operators of whole Italy frequent its stock exchange.

Table 2: The operators of the stock exchanges of Milan and Genoa

Year	N operators Milan	N operators Genoa	Year	N operators Milan	N stockbrokers Milan	N stockbrokers Genoa
1899	176 °	726*	1907	196*	105	162
1900	170 °	650*	1908	201*	100	180
1901	169 °	608*	1909	199*	99	200
1902	170 °	626*	1910	207*	96	192
1903	168 °	818*	1911	187*	97	182
1904	160 °	1.026*	1912	217	100	179
1905	170 °		1913		90	162
1906	156*	1.180*				

° number of associates to the Clearing house; * evaluation: receipts of the rights of entrance / mean fee. For 1899 - 1905, we proxy the number of operators by the number of associates to the Clearinghouse of Milan. The overlap of both series for the previous period demonstrates that it is a good estimate. From 1907, we propose a comparison enter the number of the stockbrokers on both places because the accounting documents of the Genoa CdC do not allow to determine the reserved zone receipts. Sources: cf. Riva (2005), p. 31.

It could seem surprising that more than one thousand operators can coordinate themselves within the framework of a very opaque market which, according to the national legislation, must be orders-driven. It is very likely that the Genoese operators could coordinate their actions thanks to the big banking institutions that operate in Genoa as the London dealers. The press tells the reserved zone of the stock exchange was so congested that the most important operators formed a *corner* on the Place Senerega, neighboring to the stock exchange. Besides, *Corriere Mercantile*, the main economic newspaper of Genoa, indicates that in 1906 four operators who handle about twenty stocks control the stock exchange. Although the newspaper does not diffuse their names, it is easy to recognize the four big Italian universal banks: the BCI, the IC, the SBI and Banco della Liguria. The location of the big banking operators in a precise place indicates that the other operators knew where to find them. It is thus easier to know the reference prices of the market and, if necessary, conclude an operation. Besides, this hypothesis seems to be confirmed by the publication on behalf of the Genoese subsidiary of the *Banca Commerciale Italiana*, the biggest Italian bank, of an unofficial list where the prices are indicated in terms of maximal and minimum price, what reminds the bid and ask prices of London dealers. By this means, the big banking operators, without being subjected to the dealers' constraints, can benefit not only from their private information, but also from the information which they extract from the order flow they handle thanks to their function of *market makers*.

To summarize, the stock exchange of Milan offers a relatively transparent market: (continuous open outcry in a pit by a relatively restricted number of operators. On the other hand, the Genoa stock exchange is an opaque market: low-voice private contact among a very high number of operators (fig. 1).

What is the transactional efficiency of these two organizations of the liquidity? Being given available data, the only dimension of the liquidity which it is possible to quantify is the tightness of the market. By analyzing implicit *spreads*, obtained by the method of Roll on a variable and fixed-income sample of securities, listed at the same time on both stock exchanges, Riva (2007a) demonstrate that the Milanese official market is narrower than the Genoese official market. On the other hand, if we compare the official market of Milan with the unofficial quotations of the Genoa stock exchange published by *Banca Commerciale*, we obtain an opposite result, a sign that the big banking operators enjoyed an information of a quality superior to that publicly available.

On the other hand, the depth of the marke and the immediacy can be only the object of qualitative considerations. However, the importance of the volumes negotiated in Genoa as well as printed sources of that time (newspapers and economic reviews) match in the indication of Genoa as place of exchange, particularly for forward blocks trading. As a consequence, the operators would find grater depth and immediacy than in Milan.

5. The management of the uncertainty by the organization

Transactions imply contractual risks. Those risks can increase the transaction costs. Organizations can supply tools to contain those risks, but – as Pirrong demonstrates analytically – « *specific rules and practices was not be regulated in insulation because exchange in one rule can have spillover effects* ». In other words, the organizational choices in a domain reduce the spectrum of the possible choices in the other fields of the stock-exchange organization [Pirrong (on 2000), p. 468]. As a consequence, once defined the organization of the liquidity, the possible choices in the management of uncertainty connected to the stock-exchange trades depend on the choices previously made. On the other hand, this spectrum of possibilities is also reduced by the conflicts of interest between categories of operators: indeed operators can benefit from the uncertainty connected to the complexity of the operations as well as to the limited operators' capacity to know the mutual reasons for counterparts' action, particularly on opaque markets.

The main contractual risks within the framework of the stock-exchange trades are, on one hand, the risk of default and of counterpart and, on the other hand, the risk of fraud (price manipulation, insider trading). In order to manage the default and counterpart risk, forward transactions matter because of the delay for the execution of the commitments. During this period, indeed, shocks (i. e. abrupt prices movements) can intervene and determine important losses which bring an operator to the bankruptcy. Besides, the risk of frauds and\or opportunistic behavior merits specific considerations concerning the incentives which, under certain conditions, the stock exchange administrators receive to set up ineffective rules for their prevention and for their sanction.

Beyond the type of contract concluded (forward or spot), the default risk of an operator depends on market fluctuations (i.e. abrupt movements of the prices), on its financial standing and on the risk of counterpart. Indeed, an operator can default because his counterparts default. Beyond the financial standing of the operators, the risk of counterpart depends on the institutional environment, on the duration of contracts, on the number of the market members, and on the monitoring which an operator can exercise on the other one.

In our case study, the national and local institutional environments increase these risks. From 1873, the Italian law recognizes and protects forward transactions if the operators duly settled the stamp on the stock-market transactions which the same law establishes. However, the tax aversion of the Italian operators, particularly strong in Genoa, implies that almost the totality of the contracts is clinched without written contracts and thus without the payment of the stamp. As a consequence, beyond the slowness of the justice, the courts cannot enforce these contracts. Rules and jurisprudence amplify the counterpart risk and incite operators to the opportunist behavior (speculation without risk). However, in the code countries, often the jurisprudence adapts the law to the economic practices [Stanziani 2008]. In Italy, facing this business conduct, the judges start to accept as proof of the contract not only fiscal documents, but also the business correspondence and the book-entries. Nevertheless, the nature of the stock-exchange contracts, the operators' preference for the opaqueness – notably in Genoa – and the fact that often – notably in Genoa – the operators are not merchants, often eliminate the possibility of producing these proofs.

Besides, the RAP of 1882 forbids expressly the access to the stock exchange building to the persons "notoriously" (notoriamente) insolvable, even if they are not declared bankrupt. However, it does not specify the criteria to establish this fame (how much notorious, notorious is?). On the other hand, the principle of the free access as well as the lack of operators' identification mechanisms at the entry incentive the operators' to the opportunistic behavior. An operator can refuse to pay his losses because the courts cannot oblige him; moreover, he can have access to the stock exchange building and continue his activity.

The stock exchanges of Milan and Genoa adopt different formal and informal rules to manage the contractual risks. Those rules are coherent with both the choices in the liquidity field and the local institutional environments. The Milan stock exchange privileges the implementation of *ex ante* rules, based on the members' selection, but its organization also allows it to apply ex post actual penalties. In Milan, the operators' selection reduces the probability of opportunistic behavior. The strong points of the Milanese policy are the social characters required for the entry into the stockbrokers' profession (more than the monetary guarantees represented by the security bond although only the CdC of Milan sets its level at the maximum authorized by the law), as well as the patrimonial and moral criteria to be satisfied for entering the pit.

Besides, the market-members social proximity facilitates, as Weber underlines [Weber, *Borsa*], the forming of an ethical code shared by the operators. This common understanding is impossible in the case of a strong dispersion of the members' social characters. This selection guarantees that the members have a commercial status and a financial standing that can discourage later opportunistic behavior (threat of bankruptcy) and cover the losses (thanks to the capital of the bank and to the security bond of the agent). Besides, the relatively weak number of operators and the open outcry facilitate a relatively effective monitoring of the participants' positions by other participants and stock exchange authorities. The authorities can thus intervene when they observe dangerous positions. Moreover, the level of trust among market participants has to be higher in the case of a pit-based open outcry trading system than in the case of low-voice bilateral trading system. In the former frame, an operator cannot refuse to clinch a contract with another participant accepting an order the first operator cries. On the other hand, in the latter frame, each participants is able to accept or not an order, following his estimates of the counterpart's credit.

Indeed, the authorities of the Milan stock exchange accept as proof of member's notorious insolvency a creditor's statement signed by two other witnesses of the trade (the market microstructure makes easy to find the witnesses). Quickly, also the courts accept this proof. Besides, once the insolvency is noticed, the debtor's expulsion is declared and the courts can enforce the contract.

On the other hand, by following an English approach, the Genoa CdC explicitly declares to base its counterparty risk management on the order flow division among a high number of operators, given that avoiding insolvencies and bankruptcies is impossible. This approach requires mechanisms of fast settlement to minimize the impact of a operator's default on their counterparties. The Genoa CdC did. If a private individual or a banking house is only punctually insolvent, the Stockbrokers' Committee would start the forced clearing of the ongoing forward operations, but often is stopped because the debtor contests the "notorious insolvency" requisite and the lack of proofs and wins. On the other hand, from 1901, if the insolvency concerns a banking house or a company which is in suspension of payments, then the Stockbrokers' President forms a creditors' committee which manage the consensual settlement. This procedure does not find a support in the Italian law and provokes litigations not only between debtor and creditors, but also among creditors on the amount of the debt and the debtor's assets distribution.· Actually, the insolvent could easily obtain the cancellation of the sanctions because the operators cannot deliver the proofs of the trade. However, other faults prevent the effective functioning of the Genoa risk management. On one hand, the impossibility of an effective monitoring of an operator on the others and, on the other hand, the trading concentration on the big banking operators or on the operators who, thanks to links of interests, enjoy a bank credit without proportion with their assets.

In Genoa, given the market microstructure, it is difficult to correctly estimate the counterparty's credit. The Stockbrokers' Committee often underlines those difficulties. The operators actually have no indications on the counterparty's financial standing: often they do not know him, as well as on the position which this one can have already contracted. On the other hand, the default of a big operator provokes the blocking of the stock exchange because, as often the CdC underlines, operators who do not cash, cannot pay. In that case, normally, the debtors are bailed out by the BI and by the same financing banking *markets leaders* to protect their "stand". But the bank credit has limits, which the Italian financial system meets during the international monetary tension of 1907.·

The oscillations of the market and the duration of contracts have an incidence on the participants' defaults and counterparty risk. In this frame, the implementation of trading rules plays an important role. The organization of the liquidity of the stock exchange of Milan allows it to elaborate those rules and to enforce them. The authorities set up mechanism to stop speculation as the suspension of forward transactions on securities excessively traded. Besides, the CdC tries hard to elaborate listing criteria and refuses "eruptive" stocks. It also intervenes on the duration of the forward contracts: if the maximal forward contract duration of two months is the custom in Genoa as well as in Milan ("end of current month" and "end of next month"), the CdC of Milan forbids the conclusion of operations for the end of next month until the clearing day of the current month. This measure reduces in practice the duration of the forward contracts from two months to one month. By the analysis of the Genoa and Milan stock indices volatility, it is possible to estimate this component of the risk: the volatility of the Genoa index is higher than that of the Milanese one, although the correlation is very strong. The organization of the Milan stock exchange of Milan thus succeeds in reducing the prices volatility [Riva (2005), gr. 31].

In order to the management of uncertainty, the Milan stock exchange is more successful than the Genoa one. The crashes at the Genoa stock exchange are numerous and often loud whereas the consulted sources revealed no bankruptcy of banks at the Milan stock exchange: if any, they did not disturb the market. Concerning the stockbrokers, the Milanese are rare, on the other hand in Genoa brokers' insolvencies are plethora: even the President of the stockbrokers Richini goes bankrupt…, but he does not resign up.

The literature underlines the conflicts of interests which can appear from intermediaries' multipositionality: Milan and Genoa bankers are at the same moment the administrators and the main consumers of services produced by the stock exchange organization [Pirrong (on 1995), Pirrong (on 1999), Pirrong (on 2000), Di Noia (on 1998), Davis – Neal (on 2005)]. For example, Pirrong analytically shows that a mutual stock exchange managed by its members, if these last ones are heterogeneous enough and if the stock exchange has a strong market power, can deliberately adopt inefficient rules, that is to say harmful to the other members and to the investors, as far as these rules allow the dominant intermediaries to extract more rent. On the other hand, the Pirrong's reference to the economic heterogeneity of the members reminds the Weber's social heterogeneity. The unequal social status among the stock exchange operators implies phenomena of collective opportunistic behavior (the members of a group tend to unburden the responsibility of the stock exchange dysfunctions on the others) as well as differences in the interpretation of the concept of interest; the economic heterogeneity (cost structure) explain the differences among operators in the way they make profit and in supporting various organizational architecture. It is easy to foresee that the dominant intermediaries manage to impose the implementation of rules that allow them to extract the most of the organizational rent. Nevertheless, the result is a sub-optimal management of the market. The greater heterogeneity among market participants in the Genoa stock exchange explain why this is the theater of huge and frequent manipulations of the market. In Milan, the organizational “level of integration” (this is the intensity of discipline principle within the organization) is higher than on Genoa thanks to more participants’ homogeneous economic and social background.

Actually, *de jure* the structures of stock exchange governance are the same on both the financial centers and on both places the bankers participate in. Nevertheless, in Genoa the economic and social inequality among the operators, skillfully maintained by the dominant operators, is higher than in Milan: this configuration determines the implementation of ineffective rules which allow the frauds stigmatized by the press and the central regulators. So, the authorities of the Genoa stock exchange are accused of participating in the "bullish madness" (*gazzarra aumentistica*) and of encouraging the " black bands " (*bande nere*) which shake the financial market.

In this frame, a typical procedure is the following one: one (or some) banker found a corporation; he places on the market a limited number of securities. Then he creates an artificial demand, thanks to the accommodating operators that he finances by the credit; the prices thus rise rise; attracted by the increase, non-informed investors substitute their demand the accommodating operators’ one; the banker sells then the rest of the securities on the market and realize immediate profits. From then on, for the banker, the future of the company, often a cash shell, is irrelevant. On the other hand, the banker could decide to run the business. In this case, by a simple influence on a decision of the industrial company, he can create among shareholders anticipations affecting stock prices. The banker can then change his decision: by this ways, he displaces the market and cashes important profits trading on the company stocks.

On the other hand, during these euphoric years, the stock exchange of Milan does not register such a scandals. On the contrary, the CdC of Milan often receives the eulogies of the government for the order of its stock exchange and presses the MAIC so that it approves the rules reform which it elaborates to strength its market.

As a consequence, if the design of the stock exchanges governance structures is important in the prevention of opportunist, it is only a part of the history. The same structures propped up in two different institutional environments, can lead to very different results: the power relationships based on the economic and social inequality among the operators within the framework of a given institutional environment, play a major role.

On the other hand, the bad reputation of the Genoa stock exchange, stigmatized by the economic and financial press, supplies a sound argument to central regulators to rage on the stock exchange of Genoa after the 1907 crisis. As a matter of fact, if Genoa has an advantage in the organization of the liquidity, Milan has an advantage in the management of the uncertainty and of the costs that are associated to it (fig. 2).

6. Conclusion: stock exchanges organizations

In this paper we showed that the forms of the stock-exchange organizations depend widely on the institutional environment where they are embedded. In spite of a competitive and integrated financial environment, the stock exchanges market models diverge, contrary to the theoretical prediction. In our case study, the power relationships, locally situated, between the categories of rival operators draws the organization. After 1882, the national legal environment states the State retreat and the operators' heterogeneity, and opened the way to opportunistic behavior and to conflicts of interest. The stock exchange local authorities then manage the opportunistic behavior and the conflict of interest according to the environments where they were embedded. By this way, they shape the form and the properties of the organizations. On the other hand, we showed that the different organizations present different comparative advantages. The combination of these comparative advantages with the heterogeneous preferences of the heterogeneous operators, explain the survival of different organizational forms. Besides, in our case study [for France, Hautcoeur-Riva 2008], the stock exchange organizational heterogeneity facilitates the development of the financial market.

The homogeneity imposed by the 1913 law stopped this development following the evolution of Italian political “regulation” [in the Boyer’s sense] of the economy. Then, if the power relationships shape the hybrid organization, the level of integration, and the consequent market stability, is a function of the members’ socioeconomic homogeneity.

Besides, the stock exchanges demutalization, begun during the 1980s, opens an ample research topic. It splits the hybrid organization: the stock exchange central services are integrated within a hierarchy; the transactions between this new hierarchy and the new clients (former members) take place on a market. Among the main motives advanced to justify their incorporation, literature underlines a better resolution of the conflicts of interests among operators on the one hand, and between operators and companies of market, on the other hand. Nevertheless, the incorporation changes radically the stock exchange mechanism of operators’ coordination. This function is now largely delegated to the market and it, at least, from a double point of view. First, as "clients", the intermediaries can choose their trading platform according the estimate of the ratio price/quality of the service. Then, the suppression of the “one member one vote» rule, in force for the mutual stock exchanges, would allow new hierarchy to resolve more easily the conflicts between intermediaries: within a limited company, the decisions are taken by whom holds a sufficient percentage of shares, bought on the market according to the anticipated benefits (concept larger than dividend)/price. The relationships between intermediaries and stock exchanges would be described within the framework of the agency theory. However, the problem is complicated by two elements: on one hand, the shareholders can be big customers of the stock exchange and, on the other hand, the overlap between shareholders and customers is far from being complete.

The recent adventures of the demutualized stock exchange, within the framework of the industry consolidation, ask the question of the efficiency of this new arrangement in the coordination of the divergent interests of stock exchange management, shareholders and clients. Unified social sciences can clarify these stakes.

Figure1 Liquidity organization

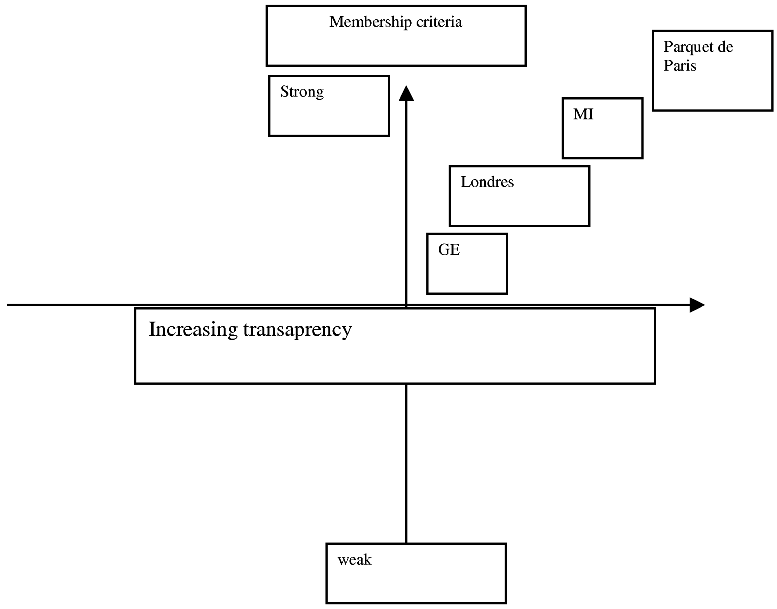
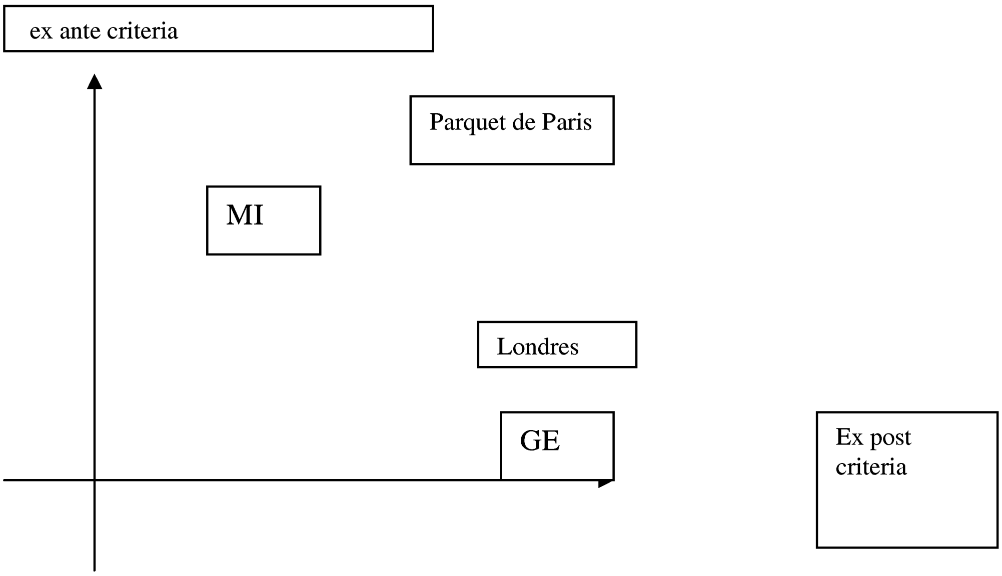
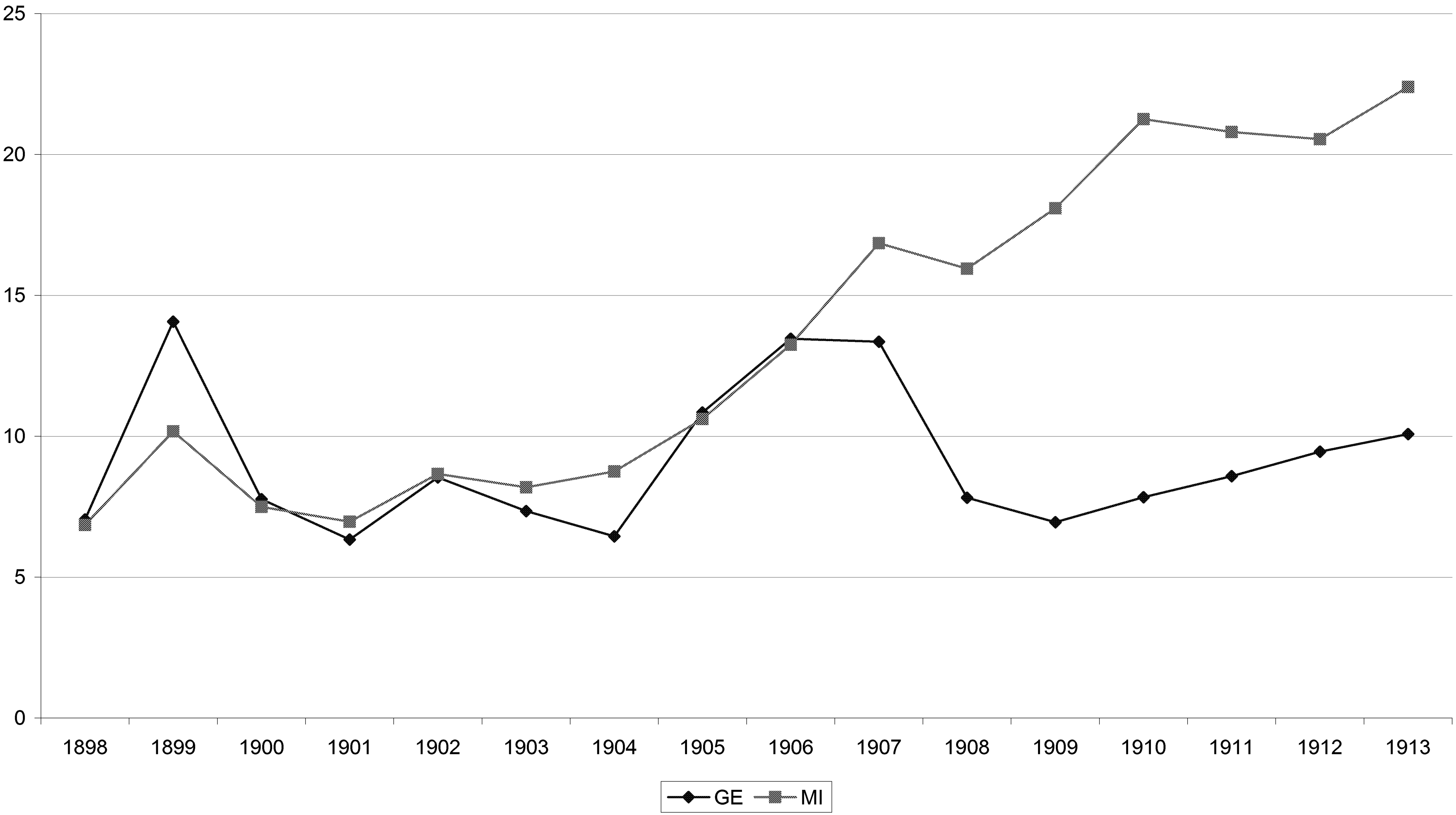


Figure 2 Uncertainty management

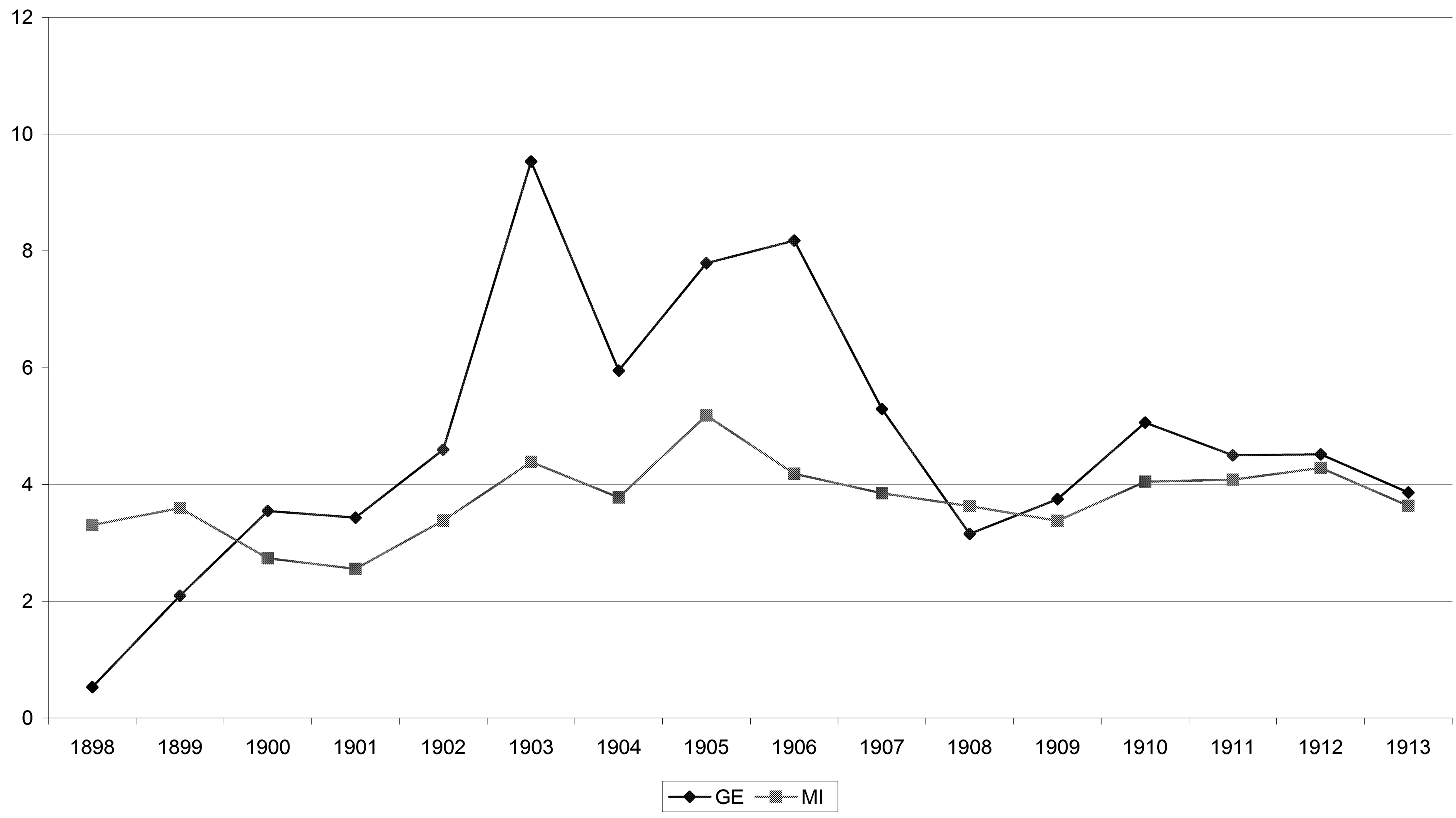


1. Liquidations mensuelles à la Bourse de Milan (ml £)

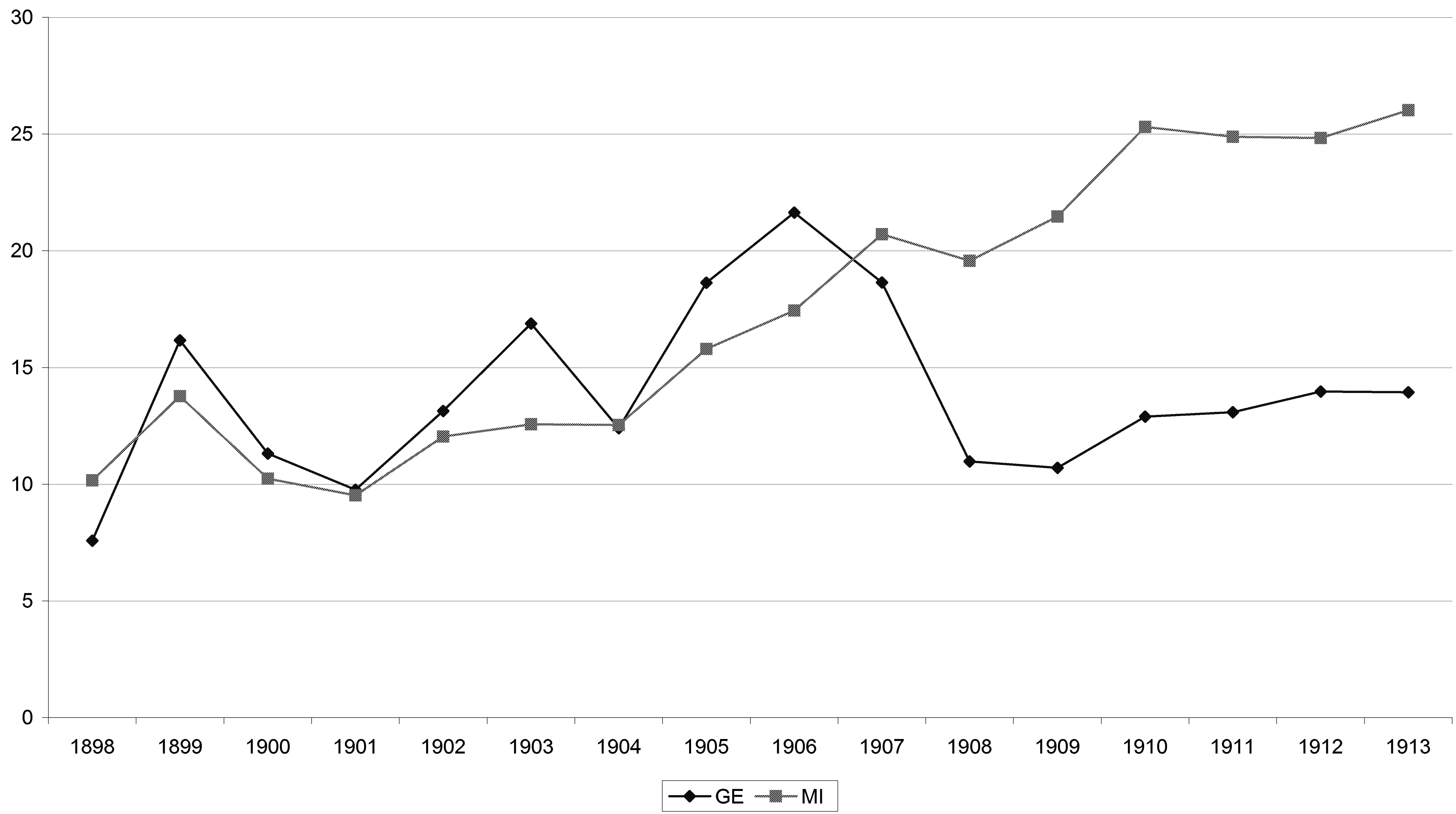
2. Liquidations journalières - base annuelle (M £)



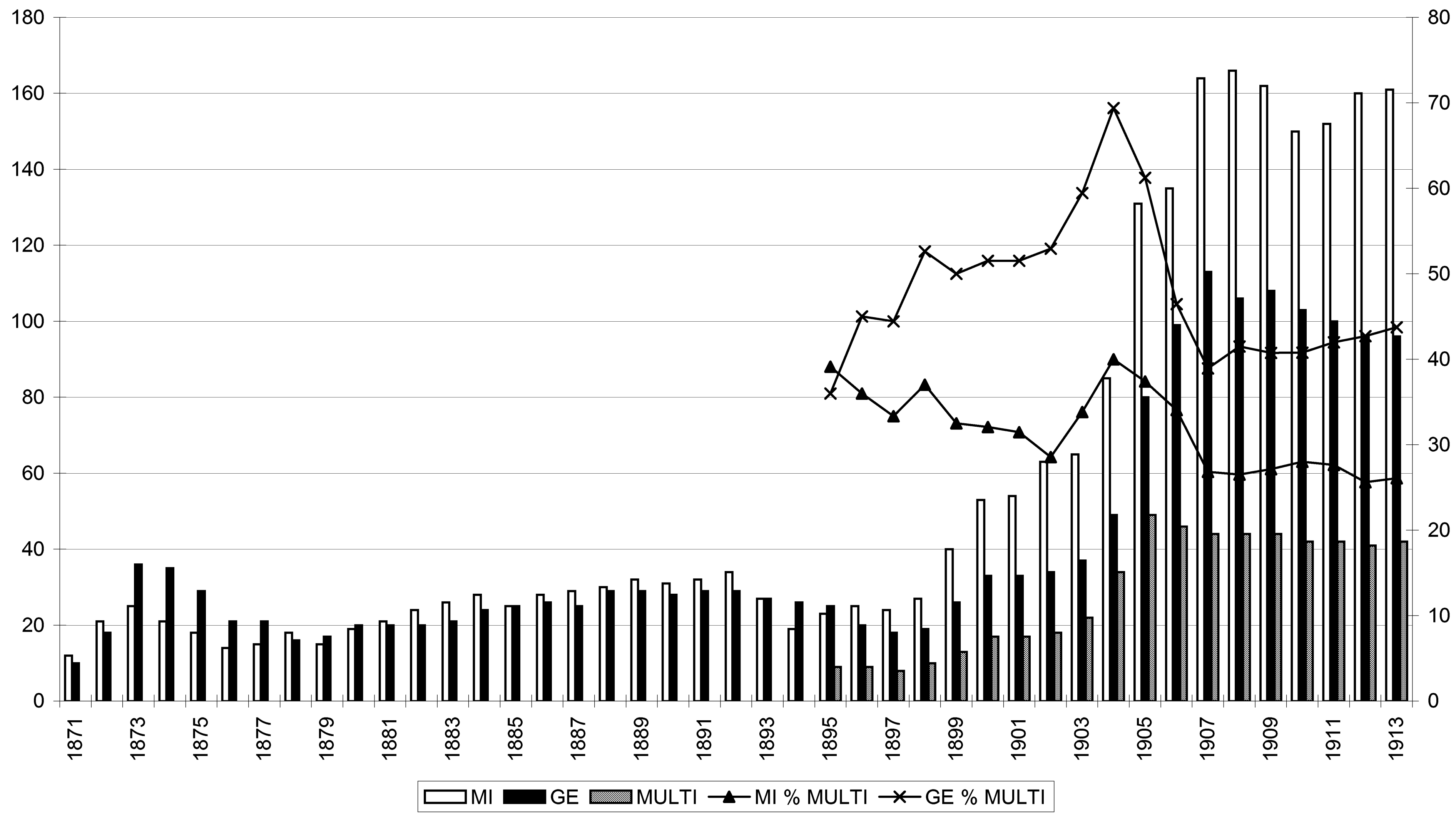
3. Liquidations mensuelles - base annuelle (M £)



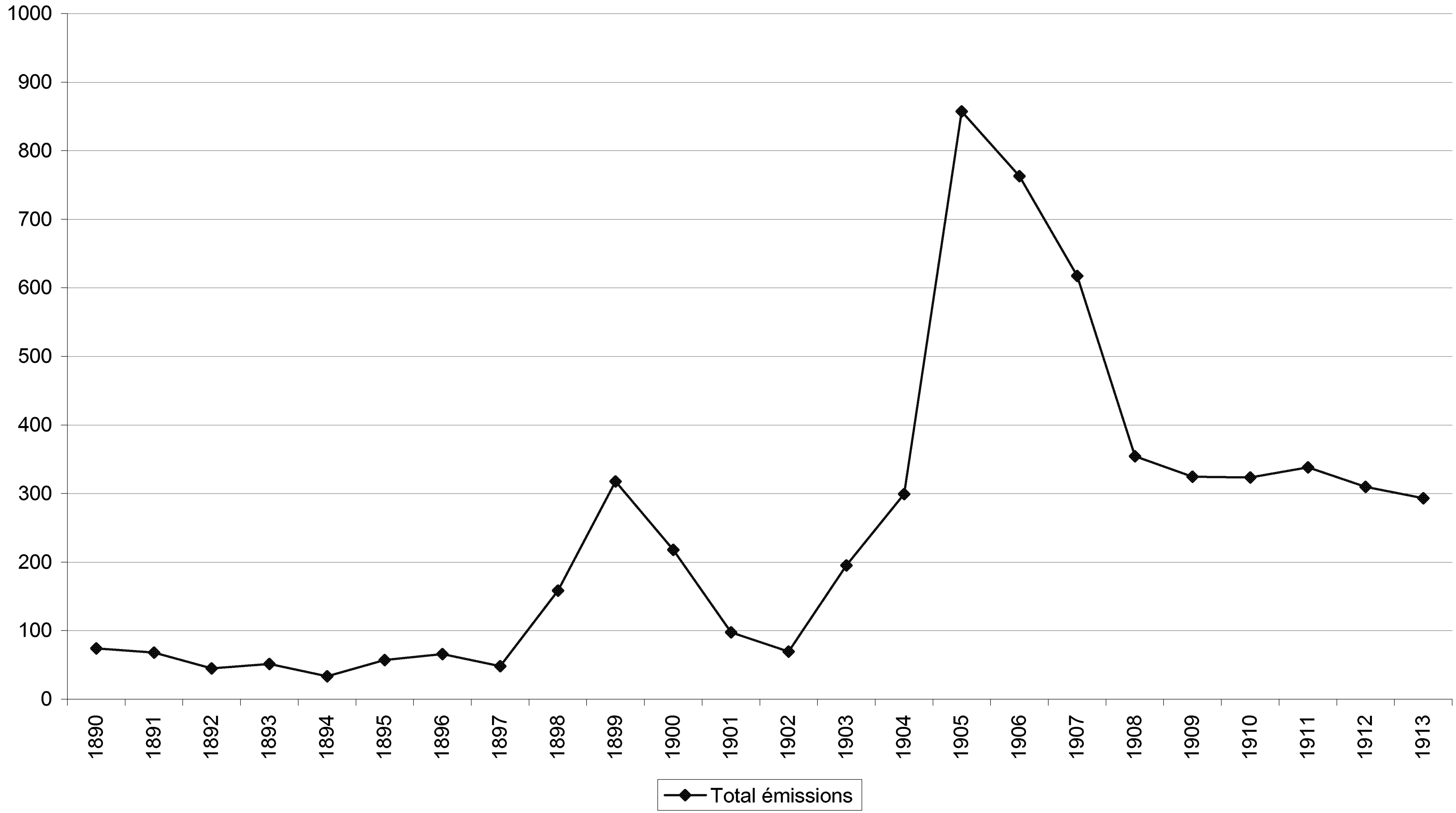
4. Volumes totaux traités par les CH - base annuelle (M £)



14. Nombre de sociétés cotées et multicotées

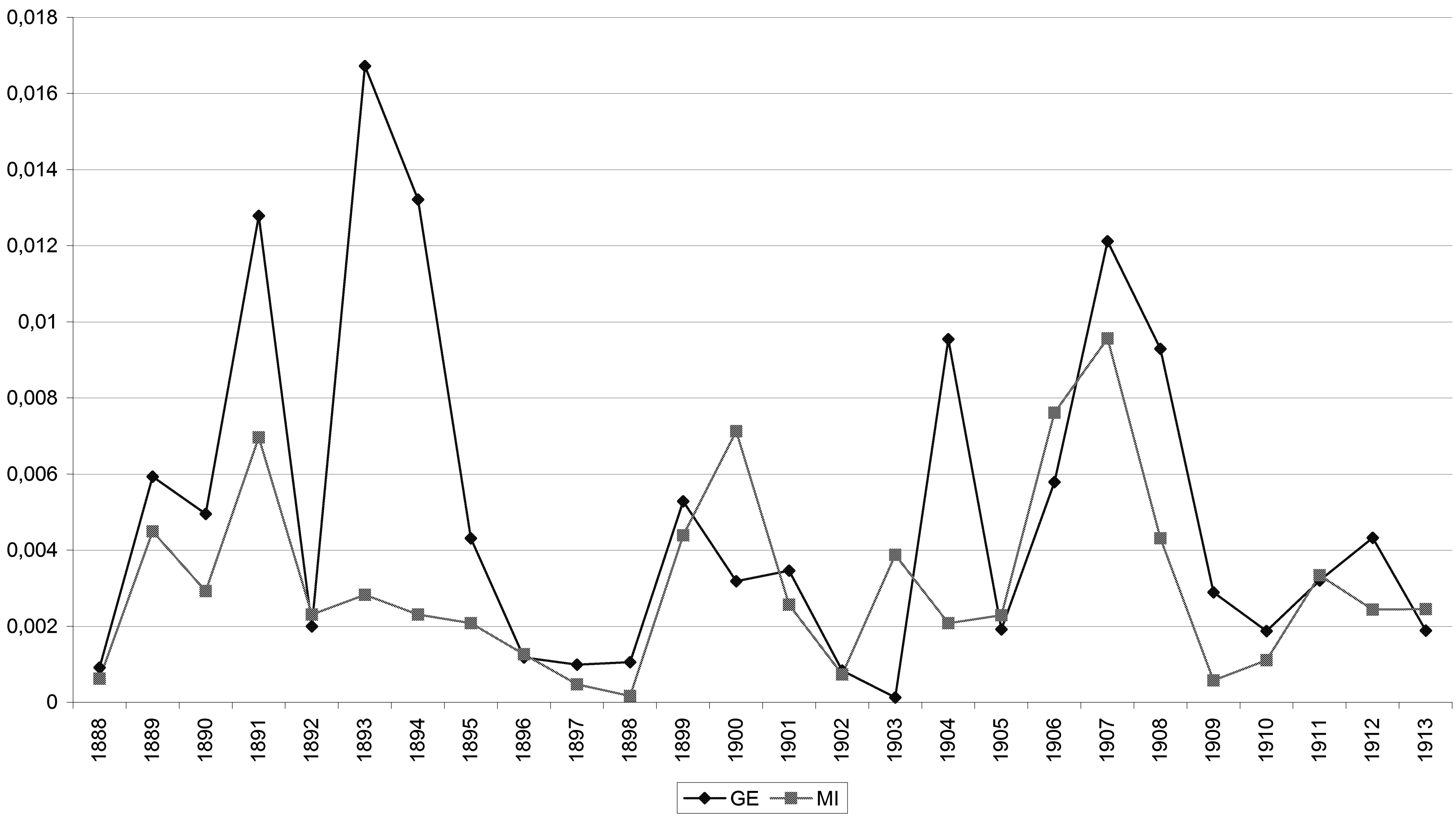


15. Montant total des émissions d'actions en Italie (ml £)



23. Indices généraux actions

31. Semivariance de l'indice générale actions



37. Résultats des entreprises de marché de Gênes et Milan (£)