Banking, Finance, and the Minsky's Financial Instability Hypothesis

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What Financiers Usually Do, and What We Can Learn from History

Abstract: This paper aims at presenting an historical perspective on some of the major questions raised by Hyman Minsky and his recent followers, in particular about the instability of banking practices and the diffusion of the “originate and distribute” model under the domination of securities markets. We will argue that, when dealing with these issues, one must take great care at distinguishing what is actually new and what is recurrent. Financial innovation is nothing new. Risk taking through financial innovation is not new either. Banks have been innovating constantly over the last centuries, and many of their practices that we consider as “traditional” have not always been so, and result from a long process involving trials and errors, each error usually resulting in excessive risk-taking and waves of failures. We point out that markets have survived these crises when they have been able to organize and build the institutional structure allowing the various interests involved to become consistent with each other.

Keywords: banking, stock exchange, history, crisis, innovation

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1 Introduction

This paper aims at presenting a historical perspective on some of the major questions raised by Hyman Minsky and his recent followers, in particular about the instability of banking practices and the diffusion of the “originate and distribute” model under the domination of securities markets. We will argue that, when dealing with these issues, one must take great care in distinguishing what is actually new and what is recurrent. Financial innovation is nothing new. Risk-taking through financial innovation is not new, either. Banks have been innovating constantly over the last centuries, and many of their practices that we consider as “traditional” have not always been so, and in fact resulted from a long process involving trials and errors, each error usually resulting in excessive risk-taking and waves of failures. As is now well known (Allen & Gale, 2001), competition among banks not only leads to better services at lower prices, but also frequently results in excessive risk-taking and systemic financial fragility, something which requires government intervention and justifies regulation. Neither is the interaction between banks and securities markets new: the development of tradable securities has been the solution used by banks for a long time in order to transfer to a broader and more diffuse ownership, the claims they cannot hold themselves any longer. Moreover, crises have regularly resulted from the excess speculation that was generated by this transfer (Kindleberger, 2000; Kindleberger & Lafargue, 1981; Reinhart & Rogoff, 2009; White, 1990).

In this paper, we point out that markets have survived these crises when they have been able to organize and build the institutional structure, allowing the various interests involved to become consistent with each other. Beyond the hyper-sophistication of financial products – which has been the culprit of much recent literature (e.g., Stulz, 2010) – we show that the incorporation of the securities markets and their liberalization (namely the free entry into that industry) together with the banking firms' multi-nationalization are the most original characters of recent evolutions. We suggest that the subsequent shift in the relationship between banks and markets, from a Walrasian market model based on a Durkheimian institutional arrangement to a full Williamsonian arrangement, is unable to restrict excessive risk-taking and instability. The paper proceeds as follows: In Section 2, we argue that banking has been innovating for long, and that many innovations have stimulated competition, risk-taking and crises. In Section 3, we briefly analyze some early examples of securitization and how the development of securities markets led to the speculation organized by banks. In Section 4, we examine some examples of market organization under government and/or private regulation, which allowed reducing financial risks for the economy as a whole, and then turn to the analysis of the recent institutional structures of the securities markets.

2 Banking

Today, one usually considers that banks can be defined as institutions receiving deposits and lending money. Historically, a number of banks don't even enter into such a broad definition. During the early modern period, banks – usually former well-to-do merchants – frequently lent only their own funds; furthermore, they did so by acquiring bills of exchange which they could always sell again rather than by originating the bills. Thanks to an early process of standardization, a market for these bills extended all-over Europe (de Roover, 1953; Flandreau et al. 2009a; Munro, 2003). Banks were managing portfolios of bills, very much as they do today with longer term securities, but for two major differences: bills were short-term instruments, so that interest rates fluctuations didn't bring speculation on their price; default risk caused prices to move, but didn't lead to speculation because resellers of bills were co-signatories and then remained responsible (with all previous signatories) for the payment. Nevertheless, the risk remained high because information was circulated slowly and was limited to thin networks of international merchants.

Furthermore, the development of trade led to imbalances that required some longer term finance. When banks created bills of credit (Michie, 1998), they

provided the new instrument required. Its higher risk remained decently controlled by the small number of banks involved and their strong informal relationships. Nevertheless, increasing discounting could lead to invisible (off-balance sheet) risks, since banks trading actively in bills remained responsible of their payment even without owning them anymore. Because of these characteristics, crises started spreading among banks in the late eighteenth and early nineteenth centuries, provoking economic fluctuations.

Governments accepted the creation of large banking corporations that pooled resources from many banks and were then able to provide large-scale discounting, especially when they were granted the right to issue banknotes. Note issue was a complex matter, although it entailed huge economies of scale and led banks liabilities to spread among many hands, so that bank runs could affect the entire economy. In order to boost notes circulation and to reinforce these banking corporations and sometimes to extract funding from them, governments gave various privileges to these notes (such as acceptance for tax payments or legal tender).

In centralized political regimes, competition between these banks of issue was terminated after a few decades, and the crises (such as the severe 1847 one) led the most fragile to be absorbed by the dominant ones (Banque de France or Bank of England). They became “national” banks of issue, which sometimes developed branches in important cities and unified the credit market when it was not the case already, such as in France (Leclercq, 2010; Plessis, 1985, 1998; Capie, Goodhart, Fisher, & Schnadt et al., 1994) or in Germany after its unification and the creation of the Reichsbank. In decentralized regimes, more liberal approaches to note issuance led to more dynamic banking development but also to more banking crises (Rockoff, 1975): in the United States, federal banks such as the two “Banks of the United States” were rapidly terminated by Congress, leaving banking law under state authority and leading to late monetary and financial unification. The banking system remained deeply local even after the federal banking laws of 1863–1864 and the creation of the Federal reserve system in 1913, which was motivated by these frequent and sometimes severe crises (such as in 1907). The great depression has been considered as resulting from the weakness of that banking system, in which huge interdependences among banks were aggravated by local un-diversified portfolios, leading to thousands of failures (White, 1998).

Progressively, between the 1860s and the 1940s, national banks of issue became quasi-public or public institutions, whose action had to be dedicated to monetary and financial stability and the public good rather than their own profits. They were in particular increasingly responsible for protecting the banking system against crises through lender of last resort action. This led to giving

them formal powers of regulation over the banking system and to call them central banks. It is nowadays taken for granted that they can play a useful role in counteracting crises, but it has not been the case always, and it relies on their reputation, which itself results from a long and careful institutionalization.

At the same time, the monetary market became increasingly organized and hierarchized under the central banks, and the banking system continued diversifying during the 19th and twentieth centuries, as a result of innovations in organization, information technologies (telegraph, telephone, and then telex) and in financial products. Around 1850, banks with huge deposits started to develop in Europe, thereby building networks that helped in gathering deposits and local information and providing credit to local firms. The local banks that provided credit and payment services could not compete because of higher costs. Some of them took advantage of the relatively late development of large network banks compared to the increase in demand for local banking services, and became sufficiently entrenched to survive.

Local political systems seeking autonomy *vis-à-vis* the capital cities supported the creation of mutual and cooperative banks or saving banks (Forsyth & Verdier, 2002; Verdier, 2001). Their spread was particularly important in countries such as Germany or northern Italy, where local authorities were strong and supported them (sometimes providing some guarantees or privileges), but they played a role in most Europe (A'Hearn, 2005; Galassi & Newton, 2001; Guinnane, 2002), often with the support of the central banks which wanted to reduce the competition from deposit banks and avoid an excessive centralization of credit. The local banks – either under cooperative, mutual or corporation form – have been considered supportive for the development of the industrial clusters (or districts) highlighted first by A. Marshall (Carnevali, 1995; Lamoreaux, 1996; Lescure & Plessis, 1999). This was particularly the case of those local for-profit banks that switched to local long-term lending, something they could do in better conditions than the branches of deposit banks because of their intimate knowledge of local business. Such credit was dangerous because it immobilized assets for long periods, so that local crises frequently led them to failure (which, by construction, remained local and did not involve systemic meltdown).

The same kind of risk was created on a larger scale by ambitious universal banks that appeared first in Belgium (Société générale de Belgique, 1822), later in France (Crédit Mobilier, 1852), Germany or Italy (after their unifications). These banks played an important role in boosting new industries requiring large-scale investments (such as railroads, steel, chemistry, electricity) by providing long-term loans and taking participations in their capital (Cameron, 1967). They sometimes suffered excessive risk-taking and insufficient liquidity (the Crédit Mobilier failed in 1867). This led them to separate more clearly (even when within a single legal

entity) from their commercial and investment banking activities, and to limit their direct ownership of shares (e.g., Bouvier, 1961, on *Crédit lyonnais* after 1870). At the same time, investment banks developed on a larger scale than previously in England and France. They started introducing on stock exchanges new securities such as the shares or bonds of manufacturing firms.

This rapid survey of bank history suggests a few conclusions: banks have always introduced innovations, which played a central role in the competition in the banking industry and frequently led to excessive risk-taking (because of inexperience and competition). These innovations were required due to changes in the economic environment (intensification of trade, transport and communication, new industries) and driven by the competition among banks. Banks survived when they were able to keep their assets liquid and obtain regular revenues from their activities, but also tried making money out of both capital gains and underwriting. This is why they were soon interested in developing markets for securities.

3 Securities

Since the late medieval period, important European banks (the Fuggers, later Genoese and “Lombard” bankers) lent to governments. In the absence (initially) of markets on which to resell their assets on governments, they soon understood that limiting their own risk-taking *vis-à-vis* sovereign default required either to control the sovereign policy, or to obtain as collateral the same securities as those owned by institutions controlling the sovereign (Chamley & Nogal, 2011; North & Weingast, 1989). Since many cities (in most Western Europe) and some major corporations such as the Banco di San Giorgio (in fourteenth century, Genoa) or the Bank of England (from the early eighteenth century) had substantial control over governments’ finance, banks lent quite safely to governments by asking for government bonds as collateral.

This process led them to be interested in the development of a market for these securities, since in contrast to other government creditors, they didn’t want to immobilize their resources in these low-return assets. As early as the fourteenth century, the Genoa bankers grouped with the Banco di San Giorgio and created a liquid securities market for Genoese public debt; this was possible, thanks to the creation of an active “monetary” market (a market for short-term funds) where it was easy and cheap to borrow by pledging public bonds or their coupons as collateral. The bankers’ aims were first to mobilize their loans to the Republic and, second, to meet the growing demand for funds by the government without reducing the pay-offs to the investors (Felloni, 2006).

This experience was repeated in England with the Bank of England and the East India Company after the “Glorious revolution”, during which these “monied companies” grouped government creditors and created a market in their shares as a substitute and precursor to the market in government securities. Earlier on, in the Low Countries of the sixteenth and seventeenth centuries, the shares of the Dutch East India Company already had a deep and liquid market, thanks to an efficient money market organized by the Bank of Amsterdam (Gelderblom & Jonker, 2004; Gillard, 2004).

In the early eighteenth century, governments and financial actors became somewhat overconfident in the capacity of securities markets to solve any problem. Over-indebted governments in England and France (the results of long wars) had turned to bankers to alleviate their fate. The South Sea Company in England proposed to buy a large share of the government debt on the hope of a substantial appreciation of its value (or decrease in interest rates), and sold its shares during the resulting bubble only to get burst soon after (Neal, 1990). In France, the Law episode rested on similar grounds, but was made even more ambitious by an attempt to replace metallic coins by bank notes that were used in order to fuel the bubble on the shares of the Mississippi Company, the owner of almost all the public debt (Velde, 2007).

These early stories show that the creation of a secondary securities market is linked to the existence of a strong monetary market and to some form of securitization applied to existing credits.

The industrial revolution accelerated these processes and oriented them more strongly towards private firms, following various patterns depending on each country’s financial development. The railroads – whose development required investing about 1% of GDP per year during various decades – allowed British firms to pioneer the issuance of shares and mostly bonds on the financial market (Michie, 1985). French ones followed soon (Hautcoeur, 2007). In both cases, investment banks with experience in selling government bonds played a key role in building the market for railroad securities. In both England and France, bubbles in railroad shares stimulated by bank credit led to profound crises, especially in 1847 (with major political consequences), when in Prussia the government played a key role in financing the network and avoided both the related financial development and crises (Campbell, 2009; Rezaee, 2010).

The rise of universal banking in continental Europe can be seen as a banks’ strategy to reach the critical size needed to create a market for secured corporate bonds. Banks first lent to firms on bilateral contracts. Then, they pooled their loans in shares and bonds and sold them in the market in order to get their money back. As the pioneer Belgian case in the 1830s shows, the success of this operation depended heavily on the existence of a liquid securities market where

investors could buy and sell securities easily and cheaply. In some cases, a securities market existed, thanks to the public debt. Where it didn't exist already, banks created it by supplying fundamental services such as underwriting, certification and liquidity provision (Ugolini, 2010). The organization of underwriting was pivotal to reach investors around the country. The certification of the securities quality based on the bank's reputation was the signal investors needed in order to overcome the barriers that asymmetric information built. Liquidity provision involved the banks directly as market makers and indirectly as lenders of short funds to speculators. In some countries such as Britain, banks would also obtain playing a key role as coordinators of creditors in case of failure (Lester, 1995); in other countries such as the United States, firms became more protected from creditors (Balleisen, 1995); everywhere, changes in bankruptcy laws were made necessary by securitization and the now high numbers of small creditors (Di Martino & Hautcoeur, 2011).

Banks' underwriting and liquidity provision played a key role in developing a market for corporate securities, but also to destabilize it. As Minsky (1975, 1982) noted, an increase in the profits' expectations of economic agents, for example because of a technological innovation, can lead to numerous new entrants in the sectors concerned. These new entrants look for funding and issue securities to raise money. Banks increase both their underwriting activities, their trading on the markets and the short-term credit to market operators, which allows for the gradual transfer of the securities from the banks and speculators to the final investors. The credit provided stimulates a bull market, which facilitates the entry of these final investors. This frequently leads to overtrading and booms that become bursts when overextended banks start facing higher borrowing costs and reducing credit, and the informed investors begin to exit from the market. Nevertheless, riding the bubble seems to be profitable for informed investors. Temin & Voth (2004) demonstrated that as early as in the beginning of the eighteenth century, the Hoare's bank, a leading West End London bank, was aware that a bubble on the South Sea shares was in progress, and nonetheless, invested in the stock for a long period and was able to make substantial profits out of this.

This dynamic also fits perfectly with the Italian case during the Giolittian era (1892–1914) when proprietary trading and lending to speculators became the most profitable business of that time. Within the context of the second industrial revolution, newly founded German-style universal banks and Italian bankers pushed firms to issue stocks to get back the money they had lent them: a form of securitization of contractual debts. To avoid the mistakes of the previous and failed Credit Mobilier-style Italian banks, new universal banks and old bankers increased credit to market operators allowing for overtrading. The high profits

generated by the subsequent bull market facilitated the entry of new banks and market operators dealing with more risky securities and taking higher risks on the market to put competitive pressures on incumbents and obtain a market share. In 1906, tensions on the international monetary market sparked the main players to reduce progressively but constantly proprietary trading and credit to speculators. Monetary distress set in. Without the main banks' support, market operators were unable to boost the market and at the end of May 1907, the crisis hit the development of Italian stock exchanges (Riva, 2007, 2009).

Thus, in spite of several excesses and scandals, banks and markets interacted in a quite smooth way, allowing for the creation of a world securities market around 1880 (Michie, 2008). This was reinforced by the relatively stable international monetary system resulting from the convergence of all currencies towards the gold standard (Bordo & Kydland, 1995; Bordo & Schwartz, 1984; Flandreau & Zumer, 2004). The possibilities of diversification that this world market offered to investors increased the resilience of the market and allowed for a subsequent diffusion of securities in Western countries (Edelstein, 1982; Le Bris, 2011; Parent & Rault, 2004).

An important explanation given for this success is the quality of the underwriters (De Long, 1991). Till now, reputation has been an important incitation for leading underwriters to issue safe securities, the bulk of defaulting issuers concentrating in second-tier underwriters' hands (Flandreau et al., 2009b). Often, these second-tier underwriters entered the market just to get profit from bull times and took the lower end of the clientele. For example, Mahoney (2001) noted that in the United States, the number of investment banks multiplied at least by a factor of three between 1914 and 1929. Moreover, hard competition among retail brokers selling securities issued by investment banks to final investors pushed the ones with more risky securities to adopt more aggressive selling techniques, destabilizing the investment banking industry. In this light, Mahoney saw the Securities Act of 1933 as a way to organize and then limit competition among investment banks and among retail brokers.

Nowadays, different reputational effects seem at work in a context unleashing free competition at all the stages of the finance industry. In the recent boom, underwriters delegated to rating agencies their certification mission (a change reinforced by the Basel II regulation, which requires ratings in order to calculate banks' capital reserves). The growing role of rating agencies in this field then diluted the responsibility of banks *vis-à-vis* their clients over the safety of the securities issued. As a consequence – and this differs from what had been the case previously – defaulting issuers are nowadays randomly distributed among underwriters, and the competition among underwriters became more aggressive and was based on prices rather than quality (Flandreau et al., 2009b). Moreover,

strong competition among retail brokers – as in the 1920s in US – pushed the less established among them to sell to investors who were unable to bear the financial products they bought.

This rush over six centuries of relationship between banks and markets seems to show that markets need banks as banks need markets. The crux of the matter is then likely to be the organization of the competition, i.e., the socio-institutional structures of financial markets.

4 Exchanges

Historical experience shows that the opportunities for speculative behavior and then the risks incurred by the banks depend to a large extent on the socio-institutional organization of the markets on which they operate. This is in consistent with the theoretical insights, suggesting that relaxing the hypotheses of perfect competition and perfect information, competition can be disruptive and may lead to excessive risk-taking, so that it must be framed by rules shared by market participants. In contradiction with these results, in the recent period, the settings of financial structure reflected an unlimited faith in the coordinating virtues of competition not only among financial operators but also among markets, as the movement towards deregulation and liberalization of banks and exchanges shows. The theory on which these policies have been based emphasizes that, market prices being the best way to coordinate agents' actions, price-based competition would also provide better transparency and enhance market liquidity, which would reduce the cost of capital for issuers and foster economic growth. Instead of this virtuous circle, unregulated competition led to financial crisis, like in various former cases.

The common wisdom presents history as a progress towards increasing competition and more efficient markets, thanks to technological progress and (merchants') control over governments allowing for a decrease of their costly interventions. In fact, tensions between the benefits of private speculation and its costs have always existed, as we have shown above; in several cases, these tensions have been successfully, but always temporarily, solved by the organization of markets.

The biggest and highly informed financial institutions do prefer trading in opaque and decentralized markets to maximize their informational rents. Otherwise, on transparent and centralized markets, the costly information they cumulate would spread immediately among the other market participants throughout their trades. If these institutions originate a predominant share of

traded volumes, the markets themselves become opaque. To avoid being systematically skimmed by professional investors, small investors could exit the market (Coffee, 2002). The history of the organization of stock exchange is the most useful to make clear that point.

Stock exchanges – like most markets – have almost always been regulated. In the very early days of Genoa, the access to the market was articulated with being a Genovese merchant and a member of the ruling plutocracy, which put some social restrictions to acceptable behaviors. When it was not the case, as in England and France in the early eighteenth century, the first large bubbles appeared, and led to regulations. For example, the first substantial stock market regulation was implemented in 1724 in France (Romey, 2007), when the main rule imposing a centralized and public price fixing was established in order to guarantee transparency. Access restrictions were also imposed, not only to sell exchange seats to provide government with revenues, but also to create a solidarity (at least in reputation) among owners of comparable assets, and, more importantly, to facilitate the development of common rules and practices within a clearly defined group of core-traders. In all exchanges, provisions and rules also appeared, which restricted actors' behaviors in order to attract more clients and boost reputation. For example, in London, bankers were excluded from the exchange, and market makers (jobbers) were separated from brokers in order to reassure clients about possible conflicts of interest.

Yet, financial history has shown that market regulation is not at odds with thriving financial activities. A variety of different systems definitely fostered intensive and stable development of financial markets. But that variety is hampered by maintaining a balance between opaque and transparent trading: when the former dominates the latter, financial markets as a whole can suffer from “over-trading” leveraged by the financial institutions themselves (Minsky, 1982, 1975). While the biggest market participants certainly benefit from this imbalance, over-trading jeopardizes the stability of the financial system to the detriment of all financial agents and, more seriously, of society as a whole (Kindleberger, 2000). Fernand Braudel (1988, 1979) has brilliantly shown how the tensions between the two systems are actually inherent to capitalism. The dominance of private markets over public markets may then be seen as a relevant indicator of economic “financialization” and the pre-eminence of main financial practitioners. In contrast, a strictly complementary dual system composed of opaque over-the-counter (OTC) markets,¹ relegated to block trading

¹ An over-the-counter (OTC) market is an off-exchange market where operations are made bilaterally among traders, without centralization or disclosure.

and to the exchange of tailored contracts between professionals, and public regulated markets can contribute to satisfactory and orderly development of financial activities.

In France, the landmark period of financial expansion that began under the Second Empire and lasted until the 1930s coincided with a dual market structure. Stock exchange members, or “agents de change,” subject to close ministerial oversight, operated on the *parquet* – the regulated market – and ensured transparency, low transaction costs, certain trade execution and publication of the official list; while the *Coulisse*, an unregulated OTC market, provided professional traders with greater opportunities for speculation but with much higher risk (Gallais-Hamonne, 2007; Hautcoeur, 2007; Hautcoeur, Rezaee & Riva 2010; Hautcoeur & Riva, 2012; Lagneau-Ymonet & Riva 2011). The *Parquet* imposed strict membership criteria, which were reinforced by the guild-like practices of its 60 members who developed full solidarity among them and shared beliefs on how to run business. Over the nineteenth century, this setting proved to be successful in managing risks originated by speculations on derivatives. These operations represented the vast majority of the traded volumes at the Paris Bourse throughout the century, in spite of the lack of legal recognition. To bear the risks, the Bourse had to develop two adaptive strategies, which reinforced one another. First, it designed a transparent market, tight trading rules, robust settlement and delivery system as well as in-depth monitoring mechanisms. Second, it made the brokers’ group increasingly homogeneous to make the monitoring easier and to develop a common perception of the rules, which in turn facilitated their enforcement (Lagneau-Ymonet & Riva, 2011; Riva & White, 2011).

These structures led to a well-developed and relatively stable market where no investor suffered losses because of a broker’s default. On the other hand, the free entry to the *Coulisse* led to the formation of a heterogeneous group of fragile and over-competitive traders: risk-taking and hard speculative behavior provided a less stable but innovative market. On the whole, the complementarities between the two allowed the Paris financial center to thrive (Hautcoeur & Riva, 2012).

In Italy, a similar separation existed between the stock exchanges of Milan and Genoa. During the Giolittian era, the financial markets developed promisingly around the Milanese Bourse, comparable to Paris’s *Parquet*, and the Genovese Bourse, similar to the *Coulisse*. The large share of trading from informed investors as well as the lack of a superior juridical status for the transparent market allowed the Genovese opaque market to dominate the Milan transparent one. Genoa’s domination over Milan explains the severity of the 1907 stock market crisis, while the Stock Exchanges Act passed in 1913 imposed the Milanese model on all Italy’s stock exchanges, curtailing market activities for an extended period (Riva, 2007, 2009). Before the 1913 regulation,

entry was limited in Milan where not only the Italian highest formal criteria were stated but also the belonging to the Lombard financial world was taken into account. In Genoa, the biggest informed operators took advantage of the free entry to this very opaque exchange to scream the smaller ones. In 1906, the number of traders at the Genoa exchange was more than ten times the Milanese traders' number. The Italian experience shows that proper linkage between the OTC and official markets is not only necessary, but it is also hard to find.

In the United States, most fixed-income business moved from the New York Stock Exchange to the OTC market in the 1940s under the influence of institutional investors, who dominated this type of trading. Yet, lower trading costs and higher transparency prompted smaller issuers and investors to stick with this Big Board constituted by large institutional investors despite lower liquidity (Biais & Green, 2007).

Since the surge in the 1960s of cross-border financial transactions executed outside incumbent exchanges, private non-transparent markets have steadily gained ascendancy over public financial exchanges. In Europe, the rapid expansion of the Euromarkets that began in the 1960s impacted first and foremost on national financial systems, governed since the Second World War by tight international capital controls (Baker & Collins, 2005; Schenk, 1998; 2005). The monetary disorder that marked the subsequent decade convinced governments to wage an all-out war on inflation (Feiertag, 2001). In search of non-inflationary solutions for the financing of the economy, France and other countries designed and implemented financial deregulation policies (de Boissieu, 1998; Hautcoeur, 1996; Pérouse, 1980), pursued by successive governments since the late 1970s. However, until the 1990s and the creation of a "financial common market" in the wake of European Monetary Union, this movement did not reach an European impetus (Jabko, 2006; Posner, 2009). Deregulation was supposed to make easier for companies to raise capital directly and, above all, for governments and agencies to raise funds through a public sector debt market that was liquid and hence attractive to international institutional investors (Feiertag, 2001; Lordon, 1997). At the same time, the banking firms' concentration and multi-nationalization processes led to an increase of the market share of the biggest banks (James and Kobrak, 2009). The dominance of very large banks made overall traded volumes migrate to OTC markets. Moreover, the long-lasting process of banking internalization disembedded the financial institutions from their country and thus weakened their ties with the market of origin, diluting responsibilities.

This "incremental change" (in Streeck & Thelen, 2005 terms) not only underpinned the growth of trading in transnational private financial markets, but also spread the matching ideology that markets coordinate their own effective self-regulation. Large financial institutions have always found in their interest to

pretend that opaque, lightly supervised (i.e., “self-regulated”) financial markets are more efficient because they bring down transaction costs. Leaving aside these material interests and their *ad hoc* justifications, it is clear that the rapid growth of financial transactions sparked a radical change in the “private” nature of the markets where they take place. Markets were private insofar as trading information was not readily available. Nonetheless, they belonged to nobody. Since deregulation, the adjective “private” no longer applies solely to the unavailability of trading information, it describes the markets themselves, which have become for-profit “market undertakings” owned by the largest financial intermediaries (Lee, 2010). In terms of legal status, capital ownership and operating philosophy, therefore, they are not so much private as privatized.

This metamorphosis has also affected incumbent exchanges. Long organized on a mutual basis, they were run as monopolies – particularly in continental Europe – by virtue of their quasi-public dimension (de Larminat, 2010; Lagneau-Ymonet, 2009; Riva, 2007, 2009). Starting with the Big Bang in London in 1986, the main European bourses have demutualized (Lagneau-Ymonet & Riva, 2010; Michie, 2009). In addition to adopting privatized status and becoming profit-driven private companies, they put themselves up for auction at the beginning of this century on the markets they operated. This dual process of corporatization and privatization was supposed to transform exchanges into “real” companies that could compete fair and square with private transnational trading platforms. Demutualization ought to have made easier to resolve the problems of governance that mushroomed, as international competition, domestic deregulation, and technological progress undermined the old market-wide arrangements between intermediaries and exchanges. In addition, going public was supposed to allow exchanges to raise the capital they needed to pay for technology investments (Ansidei, 2001; Ramos, 2006, 2003). In this set-up, competition between demutualized bourses and alternative trading platforms would generate greater liquidity than mutually owned exchanges, making possible to build a “genuine” market-based financial system. The demutualization of stock exchanges did substitute a fully merchant relationship between the market and its operators for a socio-institutional tie. *Ad hoc* membership rules surrounded by informal criteria were the premise ensuring a common vision of a common fate, often backed by the exclusivity of that tie, among market participants. The Exchange as an institution then strengthened the tie by shaping operators’ beliefs and practices during their careers and allowed for learning of regulations and shared interpretation of.

This move towards privatized trading and securities markets, underway for several decades, culminated in November 2007, with the entry into force of the European Market in financial instruments directive MiFID (Hautcoeur, Lagneau-Ymonet & Riva, 2010). Bourses morphed from institutions organizing public

competition between financial intermediaries into private companies competing with one another and with their main users to provide intermediation services. Unfair competitive pressures push regulated and transparent markets deprived of superior legal position to weaken the market rules and their enforcement. This led the market infrastructure as a whole towards opaqueness within the framework of private markets. MiFID replaced the Walrasian market model based on a Durkheimian institutional arrangement with a Williamsonian arrangement (Streeck, 2009) intended to usher in a kind of “market for markets”. In consequence, markets went from being forums for public competition to privatized players in private competition. In the United States, the National Market System regulation is fairer than MiFID, since it imposes common disclosure rules and links all American exchanges. Furthermore, the Dodd-Frank Act increases transparency on a substantial proportion of the derivatives OTC markets. On these two grounds, Europe lags behind.

5 Conclusive remarks

The historical perspective serves as a reminder that the orderly development of financial activities hinges on the fair balance between organized and OTC markets. Moreover, the demutualization and incorporation of the exchanges and the liberalization of the stock exchange industry have disrupted the institutional tie between the exchanges and their operators. Furthermore, the transnationalization of the banks, the loss of their certification activity, and their ownership of the exchanges dilute the responsibility of the banks and pervert the markets. This perspective may not provide a miracle solution for balancing the two types of organization and finding new socio-institutional ties between market and operators, but it does remind us that if the public authorities fail to restrain the self-interested preferences shown by the largest market participants for more opaque and less strictly regulated trading systems, linking operators to their markets of reference, the next crisis could prove disastrous. For this reason, the ongoing convergence towards increasingly privatized and internationalized trading systems should be refused outright.

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