

Dipartimento di *Impresa e Management* Cattedra *Global Economic Challenges*

ITALIAN INTERLOCKING DIRECTORATES:
STRUCTURE, EVOLUTION AND CROSS-COUNTRY
COMPARISONS

-Riassunto-

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INTRODUCTION

“An interlocking directorate occurs when a person affiliated with one organization sits on the board of directors of another organization” (Mizruchi, 1996). The reasons behind this situation have been speculated over time by many scholars; a uniform answer to this issue, however, is not still reached. In particular, a major separation exists between studies that consider IDs as a result of behavioral attitudes of corporations, and studies that relate IDs to the taxonomy of underlying structural characteristics. This work adopts the second approach, considering the peculiar traits of Italy in terms of corporate governance, shareholder protection, business system and state intervention.

Using the structure of interlocking directorates existent between the 250 largest Italian companies as a proxy for the Italian corporate network, this work explores how the Italian corporate network is structured in 2011 and how it has evolved over the past decade, as a result of the economic crisis and the introduction of new laws on corporate governance.

Furthermore, a long term analysis is conducted, adding the findings for 2011 to other seven benchmark years, according to data provided by Rinaldi and Vasta (2012). This trend analysis will permit to relate changes in the structure of the Italian interlocking directorates to major breakthroughs and to understand which forces play a major role in shaping companies' ties.

Finally, in order to give a stronger support to the analysis and reach more robust conclusions, the structure of the Italian corporate network is compared with the network's structure in five other countries - France, Germany, Portugal, UK and US - with different levels of shareholder protection and diverse corporate governance models and economic systems.

LITERATURE REVIEW

The first study on interlocking directorates (IDs) was conducted by the Pujo Committee interested in the Investigation of Financial and Monetary Conditions in the US (Windolf, 2002). The research unveiled strong corporate networks created around the biggest financial institutions and, consequently, the Clayton Act (1914) was issued to prohibit interlocking directorates between competing firms (Windolf, 2002). After this first study, academic research in interlocking directorates had become numerous and extensive. Therefore, in order to provide a clear idea of the main contributions on the area of IDs, the literature has been divided in three main fields of study.

A first stream of research investigates the behavioral causes and effects of interlocking directorates and summarizes the main functions of interlock ties. Mizruchi (1996) classifies the different causes stipulated over time in two groups. The inter-organizational causes relate IDs to the companies' attempt to reduce environmental uncertainties. Differently, the interclass perspective considers IDs as the result of the "oligarchic control" exercised by the business elite to foster cohesion.

Always within this field of literature, some scholars focalize on the effects of interlocking ties on corporate behavior. In this sense, Milliou (2004), investigating the effects of information flows on R&D spending, found that the total investments on innovations as well as the total output are higher under R&D spillovers, given the higher probability for the firm to fully appropriate the benefits of such investments.

A second body of literature analyzes IDs on the basis of country specific characteristics and identifies the structural conditions able to influence IDs formation. Within this field, the "law and finance" approach (La Porta et al, 1998) sees in shareholder protection the main determinant of different IDs choices, while the political

economy approach (Rajan & Zingales, 2003) shows that IDs tend to change according to the influence exercised by the State in the economy.

One of the major contributions in this second field is provided by Hall and Soskice (2001) according to which IDs' structure is determined by specific institutions present in the country, which are in turn influenced by the type of market economy adopted. The authors distinguish between liberal market economies and coordinated market economies, expecting IDs to play a greater role in countries with a coordinated economy. Similar conclusions are reached by Windolf (2002), by associating the relative importance of IDs with the taxonomy of business systems, and by Carroll and Fennema (2002) analyzing the way firms finance themselves: in the absence of efficient capital markets, companies rely heavily on bank credits. As a result, banks are strongly exposed to non-financial sectors and create IDs to exercise their voice.

Finally, more recent research emphasizes the role of transnational IDs. Kratzer and Van Veen (2011) focus on interlocks formed among European countries in order to understand if the decline of national IDs can be explained by their substitution by cross-country interlocks. Rauch (2001) investigates instead the impact of transnational networks on international trade. Weak enforcement of international contracts and inadequate understanding of cross-country differences can in fact be overcome by creating transnational networks and substituting legal enforcement by trust.

Among the three fields of literature, it is within the second one that this research is developed. The work will try to understand the role played by IDs in a country that presents peculiar characteristics in terms of ownership structure, corporate governance system and state participation and how the composition and configuration of the Italian corporate network have responded over time to the major changes affecting these traits.

SOURCES AND METHODOLOGY

The data used to develop the network analysis for the year 2011 represents the 250 largest firms by total assets incorporated in Italy. Information regarding firms' names, assets and state participation are extracted from *Le Principali Società Italiane*, the R&S-Mediobanca annual research. The dataset includes 200 non-financial firms and 50 financial firms, with the exclusion of companies 100% owned by another firm represented in the sample. An adjustment has been made in collecting the 50 financial firms: simply considering the total assets, the sample would contain only banks. In order to have a more representative sample, 25 banks and the 25 largest firms in the sector of insurance, leasing and factoring have been included. The names of the boards' members were taken from the Consob website for companies listed on the stock exchange, and from Infocamere - the Italian Chamber of Commerce dataset - for the remaining firms.

Decisions on the sample's composition are driven by the desire to obtain results comparable to those of the previous studies of Rinaldi and Vasta (2012). However, an important difference regards the inclusion of the members of the supervisory board for companies adopting the dualistic model of corporate governance. This choice reflects the 2003 reform of the Italian corporate law that allocated more powers to the supervisory board of companies adopting the dualistic board model.

In order to investigate the structure of interlocking directorates at the end of 2011, social network analysis techniques have been applied to the sample using the Pajek program. For the purposes of this analysis, neither the directionality neither the strength of the link has been taken into account. All the measures have been applied to a one-mode network resulting from the conversion of the original two-mode network and displaying only firms' links.

MAIN FINDINGS OF THE RESEARCH

The corporate network in 2011

The Italian corporate network in 2011 is divided in eight components, with 93 isolated firms and a low level of density and average degree. The configuration that is more associable to the main component is the “star”: at the center of it, a quite close group of firms is surrounded by marginal firms which, in general, share no directors between one another. Within this structure, the most central companies can dominate the “satellite” firms through an easy control over decisions and information flows (Windolf, 2002). In 2011, the most central companies are financial and manufacturing firms, as both partitions and actor centrality analyses confirm.

The analysis of the relations between partitions - represented by the sectors of activity - reveals that no industry is completely disconnected. The manufacturing sector results to be the most connected industry, followed by the financial and the residual sector. The financial sector, in particular, holds a very central position, denoting the strategic role played by banks and insurances in connecting the whole network. Similarly, the actor centrality analysis reveals that the most central sectors according to all the three measures - degree centrality, closeness centrality and betweenness centrality - are the manufacturing and the financial sector.

The top two central firms according to all the measures of centrality are Pirelli S.p.A. and Atlantia S.p.A. Interestingly, both companies maintain equity participations in other top Italian firms, participations that in many cases overlap with the presence of interlocking ties and both are reciprocally linked by cross-participations and IDs.

The analysis of the role played by state participated firms within the network reveals that of the 35 state-participated firms included in the sample, 11 are completely

isolated, while the others present at least one interlock. Interesting is the fact that state-participated firms tend to create interlocks mainly with other state-participated firms rather than with private companies.

One century of Italian corporate network

The Italian corporate network was already highly concentrated in 1913, but it was in 1927 that almost all the measures reached their peak. The period from 1913 to 1927 corresponds to the greatest diffusion of the mixed banks that, as a consequence for their long-term commitment in financing industrial firms, created strong interlocking directorates as a mean of monitor over debtor firms.

From 1927 onward, however, the density registered a sharp decrease. In this period the state created IRI (1933) in order to take over mixed banks in crisis and consequently also their participations in industrial firms. Moreover, the abolition in 1936 of the “banca mista” in favor of the specialization principle determined the separation between financial and industrial companies and consequently the end of strong ties between banks and non-financial firms. In this context, interlocks created by SOEs with private firms prevented an even sharper disintegration of the network.

From 1936 to 1960, the connectivity of the network slightly rose again and the number of isolated and marginal firms reached their lowest level. In this period the state intervention in the economy was characterized by the creation of ENI in 1953, which signaled the first step toward the nationalization of the energy sector.

The nationalization of the energy sector in 1962 marked an important breakthrough that led to the beginning of the disintegration of the Italian corporate network, as the drop registered in all the measures of cohesiveness from 1960 to 1972

shows. As a consequence, large electrical groups disappeared from the center of the network, and financial companies, together with industrial firms and state owned enterprises, regained in 1972 a central position (Rinaldi & Vasta, 2009).

The network's cohesiveness registered the sharpest drop from 1972 to 1983 and as a result in 1983, the year in which the presence of the state in the economy reached its apex, the network's density was less than half the one registered in 1913 in absence of the state intervention. Moreover, the year 1983 marks an important difference with respect to 1972 because it signs the exit of SOEs from the center of the network (Rinaldi & Vasta, 2012), in favor to a greater presence of private manufacturing firms.

From 1983 onward, the network cohesiveness continued its downward trend, but at a slower rhythm. As a result, the network in 2011 is quite disconnected, with a high number of isolated firms and a main component comprehending only 56% of total firms. In this context, the diameter breaks the general pattern. While always inversely related to the other measures of cohesion, in the last decade the diameter decreased from 11 to nine, signaling an easier flow of information within the network.

The causes for the decreased cohesion in 2001 and 2011 seem to be different from those responsible for the weakening of the network after 1972. First of all, the reduced importance of the domestic market for many Italian firms, in contrast to a greater attention toward export, can have acted as a disincentive to national interlocks. Secondly, the Consolidated Act on Finance enacted in 1998 to grant a more effective corporate governance system, introduced limits to the accumulation of functions by the members of the supervisory board of companies listed on the stock exchange. Moreover, the *Manovra Salva Italia* enacted in 2011 explicitly forbids to members of the board of directors and supervisory boards of financial firms to exercise similar

functions in competing companies. Differently from previous regulations, this Decree is moved by a new concern related to the ability of IDs to ultimately alter competition.

This different concern is also reflected in the latest approach of the European Commission when approving mergers and acquisition processes. In fact, more and more often the EU makes the approval of an M&A dependent on the breaking of interlocking directorates with other competing firms. Exemplary was the case of the acquisition of INA by Generali Assicurazioni in 2000. The process was allowed only after the members of the board of directors of Generali left the board of directors of other insurance firms. According to the European Commission, it was not the M&A process per-se to alter the competition, but instead the “structural and/or personal links between competitors” (Case M. 1712 Generali/INA; 12 January 2000; CEE).

Cross-country comparisons

The average degree of the Italian interlocking directorates has been compared with those of France, Germany, Portugal, UK and US, countries with different market economies, corporate governance systems and state intervention. The UK and the US are two examples of liberal market economies, while Germany is the prototype of coordinated market economies (Hall and Soskice, 2001). By contrast, Italy, France and Portugal take on a more ambiguous position, given the strong intervention of the state.

Germany has always presented the highest cohesion. This is not surprising, given that in Germany cooperation, cartels and informal agreements were not only frequent, but also accepted and even protected by the legislator, at least until 1956 when the first German antitrust law was issued (Windolf, 2002).

More surprisingly is instead the increase that the average degree registered in the

US from 1937 onward. This increase, even if moderate, signals a positive attitude of US companies toward IDs, especially if we take into consideration the efforts that the US Antitrust Commission historically made in preventing interlocking directorates. Even if the US and the UK are traditionally classified as liberal market economies, US companies have a greater tendency to create interlocks than their British counterparts.

Another interesting aspect is the increase in the cohesiveness of the French network between 1928 and 1938, a period when all the other countries registered a downward trend. Windolf (2012) interprets this trend as the result of a protective policy adopted by private French companies in order to avoid the state intervention when the Front Populaire ruled and many nationalization processes started.

In Portugal, the average degree assumed from 1913 to 1983 a trend similar to that registered in Italy, even if at a lower level. However, from 1983 onward, the reversal of the trend caused the degree in both countries to converge in 2011. The increase in network cohesiveness in Portugal was promoted by three factors: the new laws that at the beginning of the 1980s allowed the private sector to invest in industries previously reserved to the state, the integration within the EU and the greater liberalization of the economic system (Da Silva & Neves, 2013).

In general, the connectivity of European networks at the end of the Twentieth Century was on average much lower than the one registered at the beginning of the 1990s. This can be interpreted as the result of different forces. Firstly, the increase in the magnitude of international trade and the corresponding reduced importance of domestic markets may cause firms to lose interest to interlock with other national companies. Secondly, the new approach of the European legislators may have discouraged the formation of interlocks which in the future could be banned.

CONCLUSION

The cohesiveness of the Italian corporate network varied considerably over the last century. As a result of the decreasing trend started in 1960, the Italian corporate network in 2011 is less cohesive and inclusive than ten years before.

Over time, changes in the Italian interlocking directorates' structure reflected the role played by two actors. The first one is represented by the mixed banks, which until the beginning of the 1930s were strongly involved in the share capital and board of directors of non-financial firms. The second one is the state, and in particular state owned enterprises, that by creating interlocks with private firms were able to maintain substantial network cohesiveness even after the dismantling of the mixed banks.

By contrast, recent changes in corporate networks are the result of completely different drivers. In particular, the introduction of new corporate laws and the rising concern of possible anti-competitive effects of IDs - an approach that is completely new for Europe - not only explain the recent reduction in the Italian corporate network, but can predict a further disintegration of ID ties at the European level.

In a cross-country perspective, no clear conclusion can be drawn regarding the effects of state intervention on network cohesiveness; these effects seem to depend on how the intervention is implemented. Moreover, although some differences can be identified between liberal market economies and coordinated market economies, the major drivers for corporate interlocks seem to be the corporate governance model and the level of shareholder protection.

Finally, the converging thesis stipulated by some scholars seems to be confirmed by the cross-country comparisons. The cohesiveness of interlocking directorates' network in all the benchmark countries is in fact lower in 2011 than in 1927.

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