The formation of coalitions in a new market: 
The case of Socially Responsible Investment in France

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Abstract:
The Socially Responsible Investment (SRI) market is a new market, which relies on extra-financial criteria. “Extra-financial” means it aims at selecting assets also on social or environmental criteria. As a consequence, it gathers very heterogeneous actors like financial actors, extra-financial rating agencies and NGOs. Given the uncertainties regarding its future development, these actors have to collaborate. We use an exponential random graph model (ERGM) to highlight the process, which underlies the formation of co-work ties in the market. Different effects are studied: the endogenous effects of the social structure, the effects of the different visions about SRI, the effects of perceived prestige, the effects of market entry date and the effects of functional interdependences. First, the structural effects confirm the existence of bounded solidarity among these actors. Second, the different visions about SRI do not shape the formation of cliques. Third, the status hierarchy intervenes in the process of coalition formation and leads to a polarization of the market. Fourth, incumbents, mainly rating agencies, and challengers, the financial actors, use opposite collaboration strategies to strengthen their positions. Whereas incumbents adopt a narrow and self-protective strategy, challengers apply an extensive collaboration strategy. Fifth, the entry date confers an advantage to market pioneers, since they best know actors and may then more easily create partnerships.
1. Introduction

Over the past decade, a new type of investment market has emerged in Europe, which uses not only financial performance criteria to assess the value of companies, but also explicitly incorporates ethical, social and/or environmental criteria (e.g. Lozano et al. 2006). Attention for extra-financial aspects first appeared in the US, where the focus is mainly on avoiding “sin stocks” (Ferone et al. 2001). However, contrary to the American case, in European countries such as France, this type of Socially Responsible Investment or Sustainable and Responsible Investment (SRI) mainly focuses on environmental and social issues along with the more classical financial ones (the so-called “triple bottom line”) (Gond and Leca 2004).

The number of actors involved in the process of SRI has risen sharply. However, since SRI is relatively new and not yet fully mature, it generates both opportunities and uncertainties for its actors, in terms of economic growth and competition. Cooperation is essential to control competition and uncertainty (Fligstein 2001). It also offers opportunities to change the direction in which the SRI should go. Some actors have taken a very principled view of their activities, while others have been more pragmatic. Hence, there is a need for constructing a political compromise (White 2002). Political influence, coalitions and cooperation are central at this stage of institutionalisation.

In this paper, we investigate the mechanism of influence through cooperation that leads to stability in this recent market of SRI. We aim at describing the ways in which actors build coalitions to strengthen their positions in the market. In this respect, we analyse the effects of various organizations in terms of role, the effects of prestige ascribed to actors and the effects of their opinion about SRI over the formation of these alliances. We start with a more extensive description of the market. We then formulate a set of hypotheses about the forms of exchange regularities for coalition formation, and the importance of prestige, function and opinion on SRI. We use a network analysis approach to sketch the regularities in local exchanges and draw conclusions regarding the social processes that underlie market stabilization.
2. Theory

2.1. The emergence and institutionalization of the SRI field

The first ethical fund appeared in France in the 80s, as the outcome of a partnership between an asset management firm and a religious congregation, to provide morally sound investment for the retirement funds of the members of the congregation. However, SRI truly started to become institutionalized in France in the 1990s, with the creation of an extra-financial rating agency, ARESE, in 1997. This first extra-financial rating agency had a central role in the emergence of the SRI market in the 1990s.

At the beginning, the main objectives of the organization were to create a reliable extra-financial rating tool suitable for financial actors to use, and to draw their attention on sustainable investment by means of this quantitative index. It was important that this tool could be directly applied in classical financial process to convince financial actors. Thanks to the presence of ARESE in numerous conferences, workshops, shows, and press interviews, its method has become widely acknowledged. The agency therefore played a major role in the SRI institutionalization (Gond and Leca 2004).

After the field got institutionalized, extra-financial rating agencies seem to have become less central for SRI. At this stage, risks are lower and the main challenge becomes to develop the market further. An asset management firm devoted to SRI, IDeAM (Integral Development Asset Management), is created in 2003. Moreover, buy-side analysts are recruited in asset management firms. Brokers and traditional providers of financial information get involved in extra-financial analysis. For example, the Enhanced Analytics Initiative (EAI) gathers international asset owners and managers to encourage, by rewarding brokers, extra-financial and long-term issue in corporate analysis.

Hence, one can define three main phases in the formation of the SRI market (emergence, institutionalization and stabilization), with different actors entering this process. From the 1980s to 1995, the first funds emerge thanks to pioneers, symbolized by congregations. From 1995 to 1999, starters, like ARESE, bring the main innovation by turning an exotic investment into an institutional field. Then from 2000, the number of funds
increased, while each asset management firm started creating their own funds. This phase saw the emergence of what we call the *followers*.

### 2.2. Aim of the SRI in France

The French SRI differs substantially from that in other countries. Investment relying on moral values is widespread in the United States. It is based on a “negative screening”, which implies excluding “sin” stocks, i.e. companies related to the industries of pornography, weapons or alcohol.

While the American ethical funds find legitimacy out of the financial logic, thanks to moral criteria, the French SRI tries to change the rules of finance from the inside, by means of integrating the triple and long-term dimensions of sustainable development into the financial ethos.

Central to this is the “positive screening”, i.e. selecting the “best-in-class” assets, in a specific sector, according to companies’ financial, social and environmental performance. This method relies on toolkits provided by specific rating firms, the extra-financial rating agencies. The latter have to cooperate with external partners, who can help them judge the sustainability of companies by providing information. As a result, heterogeneous actors are involved in SRI. For instance, an asset manager may collaborate with a Union or NGO member to acquire the social or environmental information needed in the triple bottom line principle.

### 2.3. Economic growth, political influence and legitimacy as reasons for cooperation

Since the market is still in full development, actors have the need to position themselves and the possibilities to influence market direction. Over the past decade, the number of participants in this process has risen rapidly.

Vis-à-vis market growth, competitors, suppliers and consumers can be seen as interdependent entrepreneurs (Lazega and Mounier 2002), who cooperate toward co-opting resources dependencies (Gulati and Gargiulo 1999). Since they need other actors for resources specific to their asset, organizations have to collaborate to minimize costs
and uncertainties (Williamson 1985). Following the logic of resource dependence theory, actors will also try to control competition in order to reduce uncertainty about their resources by cooperating and by building coalitions (see Fligstein 2001).

In its current form, the market is still characterized by a high level of uncertainties, regarding the direction and development of the market, which consists of only a limited part of the whole financial market in France\textsuperscript{ii}. Some actors have taken a very principled view of SRI, while others have been more pragmatic. Hence, besides the economic reasons for collaboration, there might also be strong political reasons that might help explain the formation of coalitions.

Moreover, many actors also are required to cooperate in order to gain legitimacy in this new market (Carroll and Hannan 2000). Status may then intervene in the formation of cooperative ties (see Podolny 2006).

Thus, actors have to alleviate competition, to build a consensus and to find legitimacy. The regularities among their cooperative ties with respect to prestige are important to understand how the market reaches stability. Both structural and organizational factors might drive network formation. Because of the need for collaboration, these ties are supposed to generate local regularities. These processes may be described as a form of solidarity. However, cooperation ties also depend on the characteristics of the actors, such as the type of their organization, their prestige and their date of entry into this market.

2. Hypotheses

The emergence of the SRI market may be analysed as an institutional innovation. With regard to institutional change, the neo-institutional approach emphasizes the role of institutional entrepreneurs, whose action is argued to shape the fields under construction (DiMaggio 1988). Nevertheless, this approach fails at articulating the action of institutional entrepreneurs and the institutionalization of a new field. Since entrepreneurs are embedded in a social structure, they are allegedly submitted to its coercitive,
normative and mimetic determinisms. From this point of view, it is difficult to explain how they are able to innovate and to implement a new institutional pattern (Zucker 1987; DiMaggio and Powell 1991; Boxenbaum and Battilana 2004). Rather, we adopt a “broadly conceived theory of rationality in social exchange” (Lazega and Mounier 2002), which implies that actors try to contextualize their action.

The main characteristic of a new market consists in its fluidity (Fligstein 2001). Positions in the market are fairly unstable. No player can legitimately claim to impose his or her viewpoint and to control the market; possibilities are wide open and actors seemingly stand at a crossroad. They nevertheless share a common goal, which is to make the market viable. And this goal may be only reached thanks to a successful collective action. Their survival in the market barely depends on individual action, but mainly on social mechanisms. Those mechanisms may turn into a form of “social discipline” (Lazega and Mounier 2002). In order to make collective action possible, institutional entrepreneurs invest in other entrepreneurs as peers or quasi-peers. As a result, this kind of market resembles the ideal-typical collegial form of organization (Weber 1978, Crozier 1963, Lazega 2001). Indeed, this form of organization relates to non-routine work based on formal equality between interdependent entrepreneurs and social processes of cooperation. This comparison may be useful to understand the coordination between heterogeneous actors in the market.

### 3.1. Dyadic collaboration and triadic control mechanisms

Actors in the SRI market try to influence each other, discuss and cooperate for a diverse number of reasons.

First of all, actors have an economic objective to secure and further their own organisational performance. Cooperation between actors might contribute to the reproduction of the positions of incumbents and challengers in the market and hence lead to a certain level of stability. Exchange enforces a social mechanism of bounded solidarity. Cooperation mainly occurs within cliques of peers. This preference for in-group ties fosters the cohesion of cliques, while additional ties are created. Collaborative ties are rather created in a local context of other collaborative ties. The regularities in the
cooperation network give structure to collaborative exchanges and show how particular exchanges are integrated into a broader collaborative frame that supports and reproduces the existing market stability.

Because of the novelty of the market, the shared objectives among the actors and its external pressures, we presume that the long-term common interest to some extent outweighs short-term opportunism. We might expect a high level of reciprocal willingness to influence and to be influenced by others. Hence we can anticipate a high level of collaboration to give shape to the market and its further objectives. Actors will likely try to cooperate and to join forces.

Hyp 1a: Influence is likely to be reciprocal (trying to influence and being willing to be influenced by others).

Moreover, since coordination of collaboration needs to be achieved across the market, we would expect more general patterns to emerge, in which control of resources and collaboration are central. These exchanges will often take on a triadic format. Closed networks might alleviate competition among their members in order to promote a common conception of control. Opportunism may be more efficiently defeated in closed networks (Coleman 1990). Moreover, the closure of a network ensures the respect of common interests. As a consequence, collaborative ties are likely to be often embedded in triadic closed structures. In a triad, the third party plays the role of a caution and of a watchdog vis-à-vis the two others. Granovetter noticed that when someone is cheating a friend, what appears most dissuasive is not that the friend might know, but that their common friends might know (1985). Burt tested the argument of the third parties on trust (2005): embedded ties do not systematically promote trust, but they rather tend to intensify feelings toward alters positively as well as negatively. Given the high level of trust required to get involved in co-work ties and then to accept being influenced, we might expect that collaboration occurs more likely in embedded ties.

Hyp 1b: Influence is likely to occur within the context of closed triadic configurations.
Actors cooperate to frame a common conception of the market. In this respect, exchanges do not only respond to trivial resource dependencies. The selection of exchange partners may be regarded as a relational investment (Lazega and Mounier 2002). Regularities in those investments and commitments trigger a generic social mechanism of bounded solidarity (or generalized exchange). Without this social mechanism, the market could not support collective action and would be destroyed by competition. Relational investments may be dyadic. But even those dyadic exchanges imply the existence of collective structures in which they are embedded. Social exchanges may then be viewed as long-term investments, which result in the formation of coalitions.

3.2. Visions about SRI

We expect this clustering to generate both a high level of collaboration between actors, but also a high level of segregation across groups. We claim that these clusters might be partly based on similarity in visions about SRI. Indeed, besides economic reasons for collaboration to ensure the future of the market, actors have a specific idea about the aims of the SRI market as a whole, its future, etc. that they might want to see realised.

SRI presumes a compromise between financial and extra-financial criteria, but this compromise varies according to fund managers (Penalva 2007 forthcoming). In this sense, collaborative ties are highly political. It regards sharing points of view about the objectives of SRI and building a “we”-ness identity. Actors also need to build coalitions in order to ensure the market survival and legitimacy (for the market as a whole). Hence actors are highly interdependent, since their fates are linked. They need to form coalitions to make sure that the market direction corresponds to the vision they have in mind as well as to their interest. They will try to influence others in order to see their vision of the market being realised. However, this might be more a selection process than a real influence process in many cases. Hence, actors will try to have meetings and discussions with people they consider to have the same ideas and/or might be helpful. Sharing similar visions, they will more efficiently join forces and be able to diffuse their conception of control.
Hyp 2: Cooperation will occur more often between actors with similar visions about SRI (because they either influence or select each other).

3.3. Perceived prestige of actors and strategic selection of partners

From a strategic point of view, collaboration ties might also respond to a process of social selection based on prestige and perceived influence in the market. We argue that regularities in collaborative patterns are to a large extent influenced by the strategic selection of partners who are perceived as having an important influence in the SRI market as a whole. Indeed, actors’ behaviours are driven by their awareness of political games and by reputations. Actors try to collaborate with market key players, because they aim at participating in the definition of the rules through their collaborations. Since SRI is a relatively new field, actors generally seek to influence those actors that are considered influential.

They will also choose partners according to their need for legitimation. For example, unions take part in SRI, but they lack legitimacy regarding financial aspects. Asset managers benefit from a strong legitimacy in finance, nonetheless they lack legitimacy regarding greenhouse issues. Actors are thus argued to collaborate with partners considered as key players in the field in order to offset their lack of legitimacy. Producers can improve their status thanks to partnerships with prestigious competitors, clients or third parties like intermediaries (Podolny 1993; Benjamin and Podolny 1999). Hence, collaboration strategies may more likely target influential or powerful actors.

One can think of a number of ways in which perception might influence behaviour. First of all, ego’s own perception might influence his choices toward partners. Actors will try to collaborate with those that they consider prestigious, leading to a first hypothesis about the relation between cooperation and prestige.

Hyp 3a: Cooperation is more likely to form with actors that are considered prestigious by ego.
However, the perceived influence of an actor might be biased and subjective. The perception of other actors toward the prestige hierarchy may also influence ego’s relational strategies. The question therefore is whether this perception is shared or not. If his (or her) perception is shared, ego may more likely try to cooperate with those that are viewed as important by everyone. Otherwise only ego is concerned: his (or her) interest to collaborate is lesser. This proposition relies on a distinction between one-sided and shared perceptions. It is related to the mechanism that Keynes has described to explain the importance of opinions in stock markets thanks to a comparison with a beauty contest. Orléan links the question of shared opinions to a mimetic rationality (1992, 1999).

We expect that actors have a preference for partners, who are considered as key players not only by themselves but also by others. The judgement of third parties may then trigger collaboration strategies.

Hyp 3b: Cooperation is more likely to form with actors that are overall considered as more prestigious by all relevant actors.

Since judgements generally depend on one’s direct source of information (see Granovetter 1985), we might expect that actors base their judgement about who is influential on the information provided by their partners. As soon as uncertainties prevail, recommendations by a third party may attenuate distrust (see for instance Comet 2007, Karpik 2007). Given the high level of uncertainties in the SRI market, collaborative ties are thus more likely with actors who are praised by one’s collaborators.

Hyp 3c: Cooperation is more likely to form with actors that are considered as more important by ego’s collaborators.

3.4. Functional specialization

Besides these structural mechanisms, the organizations might be differentiated according to their role in the market.
In general, three main types of actors have to be distinguished. The **financial actors**, which are asset management companies (belonging to bank or insurance groups), create, manage and sell the funds. They stand as the final producers of SRI products. To select companies, fund managers rely on the data provided by extra-financial rating agencies. Those data may be complemented with analyses realised by their company’s own analysts, called the buy-side analysts\(^{iv}\). The **direct suppliers** provide the tools and information, which can directly be used in the financial analytical process. This category includes rating agencies and specialized professional associations. Then, the **indirect suppliers**, like NGOs, Unions or press, provide information, which may be used in financial processes. Unlike the second category, SRI is not the core business of this category of actors. Clients, which are mainly institutional investors, have also been included in this category: they are continually in touch with asset managers and may intervene in the orientation of a fund through their participation in ethics committees for instance.

These various organizations have different roles in the production chain. Organizations provide actors with resources and actors act as their representatives (Lazega 2003). We presume that the triple level of expertise required by SRI makes co-work ties heterophilic (as opposed to homophilic). Actors may need to cross the functional boundaries between organizations to acquire relevant information. Given that the triple expertise requires the interplay between different types of actors, heterophilic co-work ties should be more likely than ties between similar actors. This proposition is consistent with the argument on the strength of weak ties (Granovetter 1974), which defends that the ties bridging heterogeneous groups may bring more opportunities than in-group ties. As a result, producers, direct and indirect suppliers should coexist in coalitions. There should be no “organizational gate” in this market.

Hyp 4: Collaborative ties are likely to occur more frequently between heterogeneous organizations.

On the one hand, certain indirect suppliers, who have a strong interest in the market development, may try to influence other actors. For instance, Unions enter the debate on capitalization pension systems thanks to SRI\(^{v}\). On the other hand, financial actors, who
are prestigious actors in this market, may appear attractive in terms of collaboration for
the other market players.

3.5. Time of entering into the market

Finally, the date of entering into the market might have an impact on the level of
collaboration and influence. Although ethical funds already existed in the 1980s thanks to
pioneers, the SRI market was not really attractive until the introduction of technical and
financial related analysis by ARESE during the late 1990s. Then a wider group of
followers entered the market, mainly at the beginning of 2000s. ARESE and other actors
promoted a technical vision of SRI, instead of an ethical one, offering asset managers a
tool that they could easily understand and use.

In many ways, this group of starters benefit from a higher legitimacy, as they are
generally considered as the real founders of the French SRI market, thanks in part to their
expertise. Further, they are the most involved in gathering economic, social and
environmental information about companies. As a result, they are expected to create more
collaboration ties than others to diffuse their expertise. They may also be chosen more
often as co-workers, since they are regarded as trustworthy actors in this uncertain
context.

Hyp 5: Starters are likely to be more frequently involved in collaborative ties than other
actors.

3. Data and method

4.1. The co-work network

The SRI market is a seemingly narrow social milieu. Interviewees generally assess that it
represents about only a hundred actors, what is consistent with observations and
documentary analysis. The market supports an active social life thanks to numerous
meetings, workshops, and road shows. These events, mainly organized by pioneers or
starters, are occasions to meet for heterogeneous actors, who would not meet otherwise. They also offered an opportunity to enter the market for peripheral actors, the followers.

The methodology is based on both a qualitative and a quantitative approach. An ethnographic study of the field was conducted to prepare the collection of network data. It consisted in interviews and in a participant observation into a lobbying organization. It helped in particular set the boundaries of the SRI institutional field. This task is all the more complex with such heterogeneous organizations. First, among asset management companies, all the managers of SRI funds were listed thanks to a web search. Second, the brokers, the extra-financial rating agencies, the associations, the Unions, the NGOs and the journalists who are involved in the field were added to this list mainly from meeting observations and press releases. Then, the person in charge of SRI inside these selected organizations had to be identified. With regard to organizations specialized in SRI, several representatives were interviewed. Over a hundred names were gathered at the end. The core market players then checked the list. Despite the fact that 85 actors were interviewed face-to-face, we only use the data from 78 actors, because of non-response.

Interviewees were asked to name those, with whom they regularly work, among this list, so that they forget no one and have the same support. The following name generator deals with co-working, since it best reflects resource interdependences in the market (Lazega 2003).

“Consider the list of names below. Please indicate with whom you work regularly, that is participating together in workgroups, discussing SRI issues during meetings, forums or working lunches, exchanging opinions about the market in general, about the «way to work», about the recent developments in the market, about the aims of SRI?”

Apparently, everybody works with everybody in the market. The network presents a density of 23%, which is very important for such an interorganizational network. This high density reflects the intense social life in the field. At last, the network appears very interconnected: there is no sub-group. Actors collaborate to make the market viable and perennial. Competition or exclusion are thus not opportune, till the market gets enough stability. Actors share the same interest, regarding market survival and stabilization. In
In this respect, any support is welcome. The high level of cooperation is consistent with the collective interest at this stage (Penalva 2007 forthcoming), as illustrated in the extract below.

“SRI is so new as a sector, really a breakthrough. First, it is new. Second, it is fragile. We have to be realistic: it is fragile! The principle of this kind of emerging sector is that if competitors start destroying each other, it is over. To many actors, their common interest is so to say: let’s develop the subject. For we have convictions, we believe in it… So we are developing the cake. The size of the cake is 1. Today we aim at working jointly in osmosis, in a biosphere, so that the size of the cake increases to 10. And when the size will reach 10, it will be big enough for us to live correctly. Then we could start competing! But I think the idea is: the subject must become popular, so as to become a real economic market, that is credible. So the idea is also to share experience…” An extra-financial analyst.

The co-work network comprises 1,397 ties. Among them, 32% are reciprocal. This reciprocity rate may be judged low with regard to the name generator, which implies that actors participate in the same - formal or informal - events. We might interpret this rate as proving the existence of a bias in data collection: interviewees might have forgotten to cite numerous collaborators or they could have lied. We rather claim that it is the outcome of the politicization of those relationships. When an actor cites another as being a collaborator, the latter does not systematically reckon him or her as a collaborator in return, in particular because of status inequalities. Co-working means exchanging opinions. We presume that actors only value the opinion of those who benefit from an equivalent or higher status.

4.2. The structure of reputations

All along exploratory inquiry, when asked about the market boundaries, interviewees generally stressed that only a limited number of players were actively participating in the market\textsuperscript{xii}; if SRI market gathers about a hundred players, only a handful were allegedly involved in its development. This dimension was incorporated in the analysis of co-work ties, because the perceptions toward mutual importance in the market may influence collaboration strategies. To measure the perceptions of mutual importance, interviewees were systematically asked the following question.
“Still from the list, can you tell me who you consider as one of the market key players in France? A key player refers to someone who diffuse the SRI subject, who take part in its development…”

This question differs from the name generator on co-work, in the sense that it does not relate to a resource specifically exchanged via a relationship. An actor may recognize another one as being a key player without being necessarily linked to him or her. Reputation may stem from informal discussions with other market players as well as from any media, which relates events of this market.

The answers to this question enable us to construct an indicator of status (‘reputations’). This individual index is the sum of the citations from the 78 players. The index varies from 0 to 38: 0 means that nobody considers ego as important for the development of the market, whereas 38 means that 38 interviewees (among 78) consider ego as important.

We measured a strong correlation between this index and several centrality measurements (degree, proximity and intermediarity) in the co-work network. There is a sound interdependence between reputations and collaborations. To go further, regression models were tested with the reputation index as a dependent variable. The results highlight some structural determinants of reputation. We expected that extensive and open networks would improve reputation (Burt 2005). Nonetheless, if indegree has a positive effect on reputation, indegree openness has a negative effect (see Agneessens 2006 for more details on indegree openness). Thus reputation increases with the closure of egonetworks: most reputable actors are embedded in cliques. Actors tend to accumulate resources and power within cliques, which contributes to the market polarization around a few coalitions.

**4.3. The attributes**

We measure the effects of three organizational attributes on collaborative ties: their dates of entering into the market, their roles and their visions about SRI future development. We distinguish three categories of organizations according to their dates of entry: the pioneers, the starters, and the followers (see parts 2.1. and 3.5. for more details).
Likewise, three types of organizations are differentiated according to their roles in the market: the financial actors, the direct suppliers, and the indirect suppliers (see part 3.4. for more details as well).

Moreover, actors are split in two categories according to their opinions on SRI. Those who defend an extension of SRI to the whole financial market represent two thirds of the actors: this vision of SRI became mainstream. Those who believe that SRI must keep being a market niche represent a third of the actors. To the mainstream vision, the extra-financial analysis could, and should, be integrated into financial analysis in asset management firms or in brokerage companies. As a result, rating would be no more performed by extra-financial agencies.

The attribute variables are dichotomized in models. “Pioneers” refer to the pioneers as opposed to the other categories, the starters and the followers; “Starters” refer to the starters as opposed to the pioneers and the followers. “Financial actors” refer to the financial actors as opposed to the direct and indirect actors. “Direct suppliers” refer to the direct suppliers as opposed to the financial actors and the indirect suppliers. “Vision of the market as a niche” refers to the promoters of the niche vision as opposed to the promoters of the mainstream vision.

### 4.4. The control variables

Besides we introduce several control variables in the exponential random graph model: the density in the co-work network (ArcA), the tendency to be often cited as a co-worker (In-2-star-A) and the tendency to cite numerous co-workers (Out-2-star-A).

### 5. Results

The table in Annex 2 presents the results of the exponential random graph model (ERGM) with structural, attribute and control variables.
5.1. Structural effects

The results from the ERGM corroborate our structural hypotheses. First, there is a strong tendency of direct reciprocation among co-work citations (Hypothesis 1a). To select someone as a partner implies that the latter generally names ego as a partner as well. This effect reveals the active collaboration among market players. The positive value for reciprocity indicates that actors are likely to try to influence each other; hence the propensity to cooperate. Cooperation occurs between actors, when actors in the market try to influence others and are open to being influenced by the same people. In this context, reciprocation is a condition for further successful collaborations.

Second, the in- and out-k-star effects capture the in- and outdegree distribution in the network. The positive value for the in-k-star indicates that overall actors will tend to try to collaborate with those that are also collaborating with many others, while the out-k-star effect shows that overall some actors tend to name more others as collaborators than others do. That is, some actors are trying to influence others, while this behaviour is very limited for other actors. The table below shows that this propensity varies according to the role of organizations in the market.

<table>
<thead>
<tr>
<th>Role of Organizations</th>
<th>Mean Indegree</th>
<th>Standard Deviation Indegree</th>
<th>Mean Outdegree</th>
<th>Standard Deviation Outdegree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Suppliers</td>
<td>23.7</td>
<td>(16.9)</td>
<td>17.8</td>
<td>(12.6)</td>
</tr>
<tr>
<td>Indirect Suppliers</td>
<td>15.9</td>
<td>(11.3)</td>
<td>16.0</td>
<td>(8.1)</td>
</tr>
<tr>
<td>Financial Actors</td>
<td>16.1</td>
<td>(13.5)</td>
<td>19.8</td>
<td>(14.5)</td>
</tr>
</tbody>
</table>

From hypothesis 1b, we expect that actors are likely to collaborate in clustered groups. Controlling for these effects, we see that actors are likely to engage in more cyclic mechanisms of cooperation. Indeed, there is a weaker but significant tendency of indirect reciprocation among co-work ties (030cA). Collaborations tend to be embedded in triadic cycles. The structure of co-work ties reflects the social mechanism of bounded solidarity,
which prevails in this market. Actors do tend to think in terms of generalized exchange and not only in terms of dyadic exchange.

5.2. Expectations regarding SRI development

Next we turn to the effects of expectations regarding SRI development on the pattern of cooperation. Because of the newness of SRI, and the uncertainty about its future development, actors are supposed to form cooperative ties with those that have similar views about SRI. However, contrary to what we had postulated in hypothesis 2, there is no tendency for actors to prefer to co-work with those that share their vision of the market. This might hint that co-work ties connect actors who defend more diverse visions than expected. It is not at odds with the idea that actors would try to build a common vision of SRI. If they had initially agreed on SRI, there would be no need for them to discuss their opinions. Disagreements rather stress the necessity for them to collaborate in order to reach a consensus.

At the same time, actors who think that SRI should remain a niche tend to name less others as collaborators. Hence, actors do not tend to select partners according to their visions of the market, but actors who defend a broader vision of SRI do collaborate more actively than others. As a result, their opinion may exert a greater influence. This phenomenon could be compared to a self-fulfilling prophecy, despite the fact that two opposite prophecies are competing in this case.

5.3. Perceived prestige

A more strategic explanation could be that actors would select those that are considered powerful in the market. First of all, hypothesis 3a states that they more likely name actors as collaborators when they see them as market key players. The results in Annex 2 show that actors indeed tend to influence those that they perceive as prominent (arc AB).

However, this does not necessarily mean that those alters are also perceived as being prominent by others. From a methodological point of view, the fact that actors directly
seek cooperation from their partners might lead to an overestimation of their importance (i.e. a recall effect).

To test this effect, we need to incorporate a parameter that represents the prestige perceived by all other actors in the network, controlling for their own rating. The in-2-star positive effect indicates that actors also prefer to collaborate with those that are perceived as being influential by others. This effect corroborates the hypothesis 3b.

In addition, we also tested whether ego tends to collaborate more with those that are considered influential by third parties, with whom ego is already linked (hypothesis 3c). This transitivity effect (T-AAB) is positive. It means that actors are indeed influenced in their choices by the perceptions of their collaborators.

Status thus plays a central role in the selection of partners. Actors tend to select partners considered as market key players, which reflects the politization of those relations. Actors mainly work with those specific market players, who could help them influence the course of the market (and who could bring them a supplement of legitimacy). Thus the status hierarchy shapes the network of collaboration. Both structures are strongly interdependent.

This phenomenon could trigger a concentration of the market. Rather, it seems to engender a polarization around a few actors. Indeed, we notice that the T-ABA effect is negative, controlling for cyclic triads (030cA). Actors tend not to collaborate with the partners of those, that they consider as prominent without collaborating with them. It reveals the existence of cliques polarized around a few prominent actors and structured by exclusive allegiances.

5.4. Types of actors: financial actors, direct and indirect suppliers

As an alternative hypothesis (hypothesis 4), we might expect that, because of the role of their organization, some actors might have a more central position in the market than others. The results clearly show that financial actors tend to think they are more collaborative than others (rsA). Though, their alleged partners do not systematically name
them as collaborators in return (rrA is not significant). On the contrary, direct suppliers tend to name less others as collaborators than other categories do.

Given functional interdependences, actors might also collaborate more particularly with specific other types of organizations. They are expected to depend more on organizations from other specializations. Because of their different contributions into the SRI process, actors are supposed to rely on other categories of organizations than on their own to do their job and to get legitimacy. However, collaborative ties do not tend to bridge different kinds of organizations. Direct suppliers even tend to name each other more often as co-workers than organizations from other categories. Agencies and associations devoted to SRI organize a lot of workgroups and conferences. They sometimes take part together in those meetings. This form of sociability may explain that they name each other as partners, whereas they are competitors.

5.5. Date of entry

Finally, attributes related to the date of entering into the market were included in the model to see whether such characteristics might explain collaborative clustering. Starters, responsible for the real emergence of the market, were expected to be more central in the co-work network. However, no effect is observed, except that pioneers name more others as collaborators. Since they have stood in the market for a longer time, they may know its actors better and thus create partnerships more easily.

6. Discussion

This analysis enables to describe the structural mechanism of bounded solidarity that shapes the social fabric of the SRI market. There is a tendency to collaborate actively in the market. Further, actors do prefer to collaborate within cliques. Instead of a concentration of the market, this leads to its polarization because of a phenomenon of exclusive allegiances, linked to the effect of status hierarchy on collaborative patterns. This mechanism of bounded solidarity (and its counterpart of exclusion) contributes to the formation and the reproduction of coalitions in the market.
Moreover, those coalitions do not rely on different visions of SRI. Expectations regarding the future development of SRI may differ within cliques. What we rather observe is that the promoters of an extension of SRI to other financial markets have a much more active relational strategy of collaboration than those who view SRI as a market niche. The latter represent a minority in the market. The mainstream vision, which is related to a more financial logic, is becoming prevalent in the market (Penalva 2006). Actors are more and more convinced by this wider and financial vision, whereas the SRI market was created in the 1980s to remain a niche. Hence, actors do not select partners according to their vision of SRI. Financial actors in particular still need the actors who support the niche vision to strengthen the market. Though actors who support the mainstream vision tend to influence the rest of the market more actively. Eventually, financial criteria may thus prevail over extra-financial criteria; SRI may lose a part of its peculiarity in order to spread its reach.

To take into account the nature of organizations shows that financial actors try to use collaborative ties in order to challenge the dominant position of rating agencies (direct suppliers). They have adopted a very active relational strategy meant to reinforce their position in the market. In return, direct suppliers tend to collaborate with each other to maintain their incumbent position in a market that conforms more and more to financial rules, with the spread of the mainstream vision. Since financial actors are challenging their expertise, direct suppliers, especially rating agencies, try to legitimate their ratings so as to resist to this competition. While financial actors adopt an extensive relational strategy, direct suppliers adopt a defensive strategy and try to collaborate with each other.

7. Conclusion

The analyses highlight the complex social process of coalition formation in the context of a new market. The starting structural hypotheses would have induced that this market undergoes a process of centralization: the market network would have become more and more cohesive, thanks to reciprocation and generalized exchange, and at the same time more and more hierarchical, with the tendency to cluster according to the status pecking
order. Though these hypotheses are verified, the tendency of centralization is not, because other effects intervene in the process. The status pecking order yields two conflicting effects: an effect of attraction toward prominent actors and an effect of repulsion toward the partners of the prominent actors with whom one does not collaborate. It does shape the network positively by triggering new collaboration ties as well as negatively by dissuading the creation of other ties. Since influence and legitimacy are at stake in collaborative ties, those ties must be regarded as long-term investments and commitments. The effect of repulsion could therefore be sketched as a phenomenon of exclusive allegiances. As a consequence, the market network experiences a process of polarization, instead of centralization. The process of coalition formation relies on both solidarity and exclusion.

Moreover, combined with a strategic analysis (see Crozier and Friedberg 1977, Lazega 2001), the network analysis enables to better understand the political dimension of those collaborative strategies. In a fast-changing context, actors attempt to strengthen their positions in the market. At an earlier stage of the market evolution, rating agencies stood in a leading position because of an expertise that they successfully legitimated. The financial actors are currently challenging this leading position, by the means of integrating the SRI expertise inward (Penalva 2007 forthcoming). Incumbents and challengers adopt opposite collaboration strategies to tackle this competition. The financial actors tend to develop extensive partnerships, which are not always reciprocated. On the contrary, the direct suppliers adopt a narrow and self-protective strategy: they tend to create less collaboration ties than others and to privilege partners from their own specialization, i.e. their competitors. These opposite strategies also explain that the promoters of the broad financial vision about SRI develop more collaborative ties than the promoters of the niche vision.

Both incumbents and challengers are competing for legitimacy, but differently: incumbents try to consolidate their legitimacy thanks to in-group solidarity, whereas challengers try to increase theirs through an active strategy of influence. Regression models show that indegree openness has a negative effect on reputation: actors in a position of brokerage tend to be less reputable. However, after trichotomizing the variable of indegree openness, we observe that two opposite strategies increase
reputation: to be embedded in closed networks and, to a lesser extent, to have structural holes in one’s network. The U-shape relation between reputation and indegree openness corroborates the results of the ERGM. We may then conclude that network analysis and strategic analysis are complementary, insofar as the U-shape relation between reputation and indegree openness only becomes meaningful in the light of the competition between incumbents and challengers.
References


Annex 1: Basic ERGM configurations considered

A=Co-work; B=Perceived prestige

\[
\begin{align*}
\text{Arc-A} & \quad \text{Reciprocity-A} \\
\text{In-2-star-A} & \quad \text{Out-2-star-A} \quad \text{Transitive-Triad-A} \\
\text{Arc-AB} & \quad \text{Out-2-star-AB} \quad \text{In-2-star-AB} \\
\text{T-ABA} & \quad \text{T-AAB} \quad \text{T-BAA}
\end{align*}
\]
### Annex 2: Results from the ERGM (using pnet)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Standard error</th>
<th>Errt statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>ArcA:</td>
<td>-5.506743</td>
<td>0.853160</td>
</tr>
<tr>
<td>In-K-StarA(2.00):</td>
<td>0.448585</td>
<td>0.300734</td>
</tr>
<tr>
<td>Out-K-StarA(2.00):</td>
<td>0.586722</td>
<td>0.379543</td>
</tr>
</tbody>
</table>

#### Structural patterns

- Reciprocity: 2.205811 0.158300 0.047
- 030cA: 0.088368 0.018640 0.071

#### Vision of the market as a niche

- rsA (sent choice): -0.237673 0.089392 0.068
- rrA (received choice): 0.195799 0.103786 0.041
- rbA (both): 0.220207 0.186668 -0.001

#### Reputations

- ArcAB: 2.753618 0.155312 -0.010
- ReciprocityAB: 0.555777 0.151077 0.001
- In2StarAB: 0.013087 0.005813 0.021
- Out2StarAB: -0.015067 0.007660 0.059
- TABA: -0.052495 0.016277 0.055
- TAAB: 0.179789 0.012272 0.046
- CAAB: -0.096355 0.013527 0.043

#### Financial actors

- rsA: 0.330846 0.098093 0.002
- rrA: -0.114010 0.132886 0.030
- rbA: 0.041972 0.157790 -0.026

#### Direct suppliers

- rsA: -0.232992 0.111869 0.060
- rrA: 0.183746 0.118111 0.011
- rbA: 0.535703 0.187382 -0.032

#### Pioneers

- rsA: 0.316259 0.103924 0.082
- rrA: -0.146856 0.143268 0.064
- rbA: 0.075098 0.186556 0.068

#### Starters

- rsA: 0.092960 0.107477 -0.038
- rrA: -0.233735 0.132057 -0.011
- rbA: 0.074471 0.156330 -0.057

A=Co-work; B=Perceived prestige
A third, more recent type of SRI is shareholder advocacy, which is mainly found in the United Kingdom. Shareholders are encouraged to exercise more dialogue with or control on the management of companies and, if necessary, to sanction the board of directors by voting against it.

It represents lesser than 1% of the amount of French assets.

Uncertainties do not only weigh on transactions between producers and consumers, but also on the definition of products. In the typology of Podolny (2006), egocentric uncertainties affecting producers are opposed to altercentric uncertainties affecting consumers. At this stage of market formation, uncertainties in the production process prevail over uncertainties on transactions.

As opposed to sell-side analysts, who work in broker organizations.

As a result of recent legislation, Unions are implied in the management of pension capitalization funds in France. SRI thus became a privileged investment for those funds, since it integrates social issues to assess the performance of companies.

The inquiry method (exploratory inquiry and survey) and data were built and collected by Elise Penalva for her PhD in 2004 and 2005 (Penalva 2007 forthcoming).

The websites of the AMF, the French SEC, and SRI associations were in particular useful.

with a maximum of three.

To make sure no one was missing and to prevent non-response, the list was deliberately wide (130 names). It included a few foreigners, who occasionally came to France to participate in the SRI market. A few members of the list refused to answer the survey, because they did not feel concerned.

“En regardant la liste ci-dessous, pouvez-vous me dire avec qui vous travaillez régulièrement, c’est-à-dire que vous partagez à des groupes de travail, vous réfléchissez sur le sujet ensemble au cours de discussions de travail, dans des forums ou dans des déjeuners d’affaires, vous partagez des opinions sur le marché en général, sur la façon de travailler, sur l’actualité de ce marché, le but de l’ISR ?”

“L’ISR un secteur tellement neuf, vraiment pionnier. Premièrement, il est neuf. Deuxièmement, il est fragile, il faut être lucide c’est fragile ! Le principe sur ce genre de secteur naissant, c’est que si les concurrents commencent par se détruire, cela va pas loin. Donc le principe commun à beaucoup d’acteurs, c’est de se dire : On développe le sujet. C’est aussi par ce qu’on a un peu de conviction, on y croit… Donc on développe le gâteau, on a un gâteau qui fait un coefficient 1. L’objectif aujourd’hui, c’est plutôt de travailler en osmose, en biosphère, pour faire que le gâteau soit à 10. Et quand le gâteau sera à 10, et bien il sera tellement gros, qu’on pourra déjà vivre correctement. Et là on pourra peut-être commencer à faire de la concurrence ! Mais je crois que l’idée est là, c’est déjà de faire en sorte que le sujet prenne, pour que ce soit un vrai marché économique crédible. Donc l’idée c’est aussi de mutualiser les expériences…”

During the above ten extended interviews that were conducted, interviewees usually included themselves in this group of key players.

The question of recognition as being considered as a relational resource might be discussed. In a context where legitimacy is rare, recognition may be viewed as a valuable resource for actors, insofar as it increases their status. Blau highlighted a central phenomenon in social exchange, showing that a gift that could not be directly reciprocated were then paid back with recognition (1964). In this market open to new entrants and gathering very heterogeneous actors, we may expect that this phenomenon underlie social exchanges.

This result may be due to both the impact of centrality on visibility and to the way this index is constructed. Indeed, interviewees have been asked to name key players after being asked to name their co-workers. There
may then be a methodological bias linked to the proximity of these two sociometric questions in the questionnaire.

\textsuperscript{xvi} This last effect is however limited: to add the openness variable in models enables to explain only 1\% of reputation variance more.