



Munich Personal RePEc Archive

Codetermination: the Presence of Workers on the Board. A Depth Analysis

Forcillo, Donato

University of Sassari, University of Cagliari, CRENoS

25 September 2017

Online at <https://mpra.ub.uni-muenchen.de/81936/>
MPRA Paper No. 81936, posted 17 Oct 2017 20:52 UTC

Codetermination: the Presence of Workers on the Board. A Depth Analysis

Donato Forcillo

University of Cagliari and Sassari, CRENoS

Email: donato.forcillo@gmail.com

Abstract

We show the most relevant literature regarding the corporate governance system of Codetermination, which includes the presence of workers' representatives on the board. The aim is to thoroughly analyse the topic and to fill a gap present in the current literature, the absence of an updated and extensive literature review, which analyses both the theoretical and empirical perspective. This particular analysis allows one to see a clear picture of this sensitive issue of governance, mainly present in the German world, but expanding to other countries especially in northern Europe, also as a result of the recent European Union directives.

Keywords: Corporate Governance, Codetermination, Labor Representation, Workers, Human Capital

Jel classification: G34, J50, L22, M14

1. Introduction

When we speak about corporate governance, we usually think about a management system of a company whose sole aim is to optimize the wellbeing of shareholders, i.e. the subjects that confer physical capital and/or monetary into the company. The law in the United States mandates this and in the United Kingdom is the normal approach to the political governance. Therefore in these systems who generate human capital – the workers – do not have any representation on the board or be able to claim direct rights that the shareholders would normally be entitled to. An example is from the Ford Motor Company (Brealey, Myers and Allen, 2011). Henry Ford proposed to distribute a part of the dividends in favour of the workers. This was not possible because a shareholder pointed out that the company should be managed complying the interests of those who confer financial capital and a distribution of a dividend to the workers would have been a detriment to them. Nevertheless, in other countries the law and its uses are different. In Japan for example, the company is managed in the interest of the workers even if they are not physically present on the board (Allen and Gale, 2011). In Europe on the other hand, the representation of workers in some countries is provided for, especially in Germany, where the role of the worker is very important and valued in a company by the Codetermination system. But why would the shareholders want to divide their command of the company with the workers? First of all, the workers are also investors, they confer human capital rather than physical capital (Blair, 1995). Secondly, the workers' presence on the board allows the shareholders to make more profitable decisions for the company in the long run, rather than making decisions that could risk the stability of the company, with consequences such as layoffs in the case of wrongful estimates. Basically this gives more certainty of progress in business activity (Gorton and Schmid, 2000) and therefore more job security, also guaranteeing the protection of those who have invested human capital into the company (Hart and Moore, 1990). Furthermore, the non representation of employees on the board could facilitate any protesting actions and therefore blocking all or part of production (Holmström, 1999). These situations are not only costly and inefficient but also bring with them in extreme cases, a reduction value of the company (Ruback and Zimmerman, 1984). Hence for this reason the presence of workers on the board of a company should reduce strikes, an advantage that does not have those workers represented only by labour unions (Fauver and Fuerst, 2006). Another reason is that the workers have daily contact with the management of the firm and therefore are more informed than the shareholders and they can guarantee a better level of monitoring (Kleinknecht, 2015). Lastly, the presence of the workers can ensure that the company is managed with more directness because the company gives to the workers a salary and therefore is the source of their existence and that of their families (Stiglitz, 1985; Hansmann, 1990). For this reason the workers' incentive of deviating the prospective that the personal wellbeing comes before that of the firm is notably inferior compared to the shareholders. Let us think about two important events of bankruptcy that have occurred over the years: Enron and Parmalat. Enron was a company that up to the year 2000 had a market value of \$60 billion. The following year it declared bankruptcy. Parmalat in 2003 operated in 30 countries and accounted for 36,000 employees. In December 2003, it was discovered that €3.9 billion of bank deposits declared by the company did not exist. The investors found out later that the debts of the company were €14 billion. As we know there are other several cases of meltdown in the history. For this reason many researchers argue if a company should represent merely the interests of shareholders or a broader range of

stakeholders. Even the largest global public institutions are taking this into great consideration (Conchon, 2013). The European Parliament, in the Resolution of 14 June 2012 talking about the future of European company law, states: "the financial crisis has demonstrated the need for a clearer corporate governance framework which focuses more strongly on stakeholder participation".

The rest of the chapter is organized as follows: section 2 presents a historical analysis about the concepts of corporate governance and codetermination, explaining how the current system is structured. Section 3 focuses on the analysis of the theoretical aspects of the topic, while section 4 provides the main empirical studies on codetermination. Finally, section 5 concludes.

2. Historical analysis and actual framework

The first debate in literature about the objective of the governance's model adopted for companies took place in the 30s between Professor Berle and Professor Dodd (Hill, 2003). Even though more than 80 years have gone since then, the topic is still present today. Berle's vision (1931) is that management should operate the company in the exclusive interest of the shareholders with a purely economic perspective, in other words the maximisation of profits, a concept supported also by Jensen and Meckling (1976). Dodd (1932) sees a company as a system that merges the interests of various subjects, shareholders, workers, creditors, consumers. This shows that the company should be run by the management in the interest of all the counterparts, shareholders and stakeholders. Therefore, while in the vision of Dodd the management could adopt a decision more in the interest of the workers rather than the shareholders, providing that it brings more benefits for the company, this cannot happen according to Berle's vision. These different views today are present in laws and uses in different countries. The European Union through the use of Directives is looking to increase the participation of workers in the decisions of companies. In some countries in the EU this is already happening (e.g. in Germany, through a Codetermination system), while in other countries the workers have only indirectly representation through labour unions (e.g. in Italy). So, we have two concepts which seem similar but in reality are very different: corporate governance and codetermination, where the latter represents a particular case of the first that for its particular conformation and peculiarity has separated from the first concept over time, taking on its own meaning. According to Blair and Roe (1999) "the main difference between them is that codetermination offers social governance, whereas corporate governance provides firm-level governance". While the concept of corporate governance was born in the United States with the publication of a paper by Berle and Means (1932), that of codetermination was born twenty years later around the start of industrialization. The first legislative form was created in the coal and steel sector in 1951 with the law on Montan-Codetermination, a law that is still in force today. It foresees that every company with over 1,000 employees has the same number of representatives on the board between workers and shareholders. In the 60s a

study sponsored by the German government started to analyse the effectiveness of the workers participation policy in order to value its extension to other sectors of production. The results were positive on both parts, the shareholders placing more attention on financial return and the workers mainly focusing on the working conditions. As a consequence, in 1976, Germany decided to extend this law on Codetermination to other firms outside the coal and steel sector. The argument was that: "it would empower employees who provide the production factor and thereby enable them to become equal partners in the capitalist production process" (Blair and Roe, 1999). As represented in figure 1, a codetermination system has two distinct levels of governance: the supervisory board and the management board. The first is formed by representatives of shareholders and workers and it has the task of electing the management board, establishing the reimbursement that it receives, conducting monitoring activity and eventually removing one or more members. On the other hand, the supervisory board cannot take decision on the daily management of company activity, because this is an exclusive task of the management board. In particular, in companies with more than 2,000 employees, the shareholders' meeting elects half of their own representatives, while the other half is nominated by the workers (parity codetermination). In smaller companies, the shareholders elect 2/3 of the board members, while 1/3 is nominated by the workers (quasi-parity codetermination). In the case of parity codetermination, fundamentally is the figure of the chairman that has the right to choose in the case of equal votes between the two parties. The chairman can be chosen amongst the workers or the shareholders; when the supervisory board cannot come to a majority agreement, such decision is left to the shareholders. However, despite shareholders have this power in their hands, the majority of the decisions are made unanimously (Gorton and Schmid, 2004). Regarding the representation of the members in the supervisory board, the majority of members elected by the shareholders can be narrowed down into four categories representing the characteristics of German equity capital: other companies with an equity stake exceeding 50 percent, banks, the state, and foreign companies. Regarding the workers' representatives, the majority of places are taken up by workers from the same company and a smaller number is represented by the unions.

Before concluding this section, is important to underline three things about codetermination: first, unlike other countries that have voluntary employees' representation, codetermination in German is imposed by the law and consequently, exogenous. Second, unlike shareholders, the workers inside the supervisory board have no cash rights. Third, codetermination is different from unionisation because the workers have an important power inside the firm, in fact they can directly influence the ex-ante and ex-post decisions of the firm's operations like for instance important layoffs or surplus distribution.

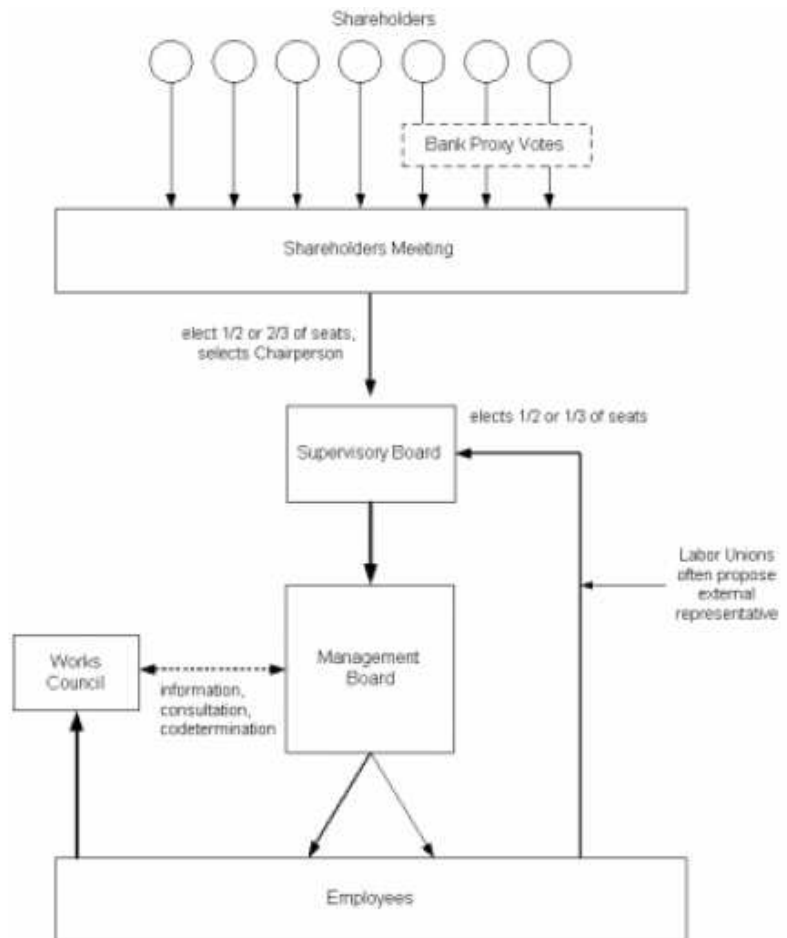


Figure 1 (Jackson et al.,2002). German Codetermination system.

3. Conceptual issues

To study, analyse and fully understand the functionality of the codetermination system as a model of governance in a company, it is useful to compare it with the most widespread model, the Anglo-American one. Particularly in the US and UK, shareholders' interest comes first and managers have a fiduciary duty to shareholders. In these countries there is a one-tier structure and firms can elect a single board of directors and not a dual board as in Germany, where the firm is run in the interest of stakeholders. So, in the US and UK the board invests both managerial and supervisory activities in a single entity traditionally divided between the executive directors and non-executive directors both elected by the shareholders. In Germany, however, the shareholders appoint only the supervisory board which in turn nominates the management board. This is an important first difference between these two systems of

governance. A second important difference is the size of the board that has been an important issue in the financial literature (see e.g. Adams, Hermalin and Weisbach, 2010). The boards of the most listed companies have in average 11.93 members in the UK (Jungmann, 2006), 10.8 members in the US and 22.7 in Germany, 17.1 from the supervisory board and 5.6 members from the management board (Block and Gerstner, 2016). So, Anglo-American boards are much smaller than their German counterparts. The literature regarding the optimal size of a board in terms of performance of the company is conflicting. Eisenberg et al. (1998) argues that a board that is too big cannot adequately manage a company due to problems in communication and bigger coordination costs. Lublin (2014) comes to a similar conclusion with a study on board size and profitability of the biggest American companies, claiming that the value of a company that presents a smaller board is higher than 8.5% of competitors. The reasons behind this result are different, from a greater flexibility and frequency of board meetings, to a greater and more effective management monitoring and the easiness of replacement in the case of negative company performance. Also other data on board size seems to suggest that firms with smaller boards tend to outperform similar companies with larger boards in Asia (Mak and Kusnadi, 2005) and the United Kingdom (Guest 2009). On the other hand, other researchers have a different view. Kaplan (1994) suggests that the supervisory board is more effective in changing the management when the performance of a company is low, having closer contact with workers. Dalton et al. (1999) and Coles et al. (2008) argue that an ampler board can give better suggestions and advice improving the performance of the company. Jungmann (2006) compares smaller boards in the UK with bigger boards in Germany finding that there are not any particular differences that can give any strategic advantage to one or other system. It is clear that researchers do not have a unanimous position regarding this topic. If it could be true that a bigger board can create greater problems of coordination, it could also be true that a more varied presence of subjects different to shareholders in the board, each with a different background and information on the company, can benefit in a positive way in managing the company in a longer period. The absence of a unanimous position in research occurs also for the concept of codetermination. On one side there is an area of researchers who argue that the interest of workers on the board has great contrast towards that of shareholders. In fact, for the shareholders the primary interest is the monetary return of their investments, whereas for the workers the interests lie in their job role and their salary (Hansmann, 1990). Moreover, it is argued that the presence of workers could delay decisions in terms of planning and innovation of processes, looking to maximise their own interests and not those of the shareholders (Pejovich, 1978). Another element is that the presence of workers in the board requires competences in finance and corporate strategy that often they do not have and therefore, they are retained not qualified to cover such a role (Huse et al., 2009). In addition, according to Williamson (1975) it is not possible to reach an effective model of governance through a system of codetermination because it is imposed exogenously by the law. If it were efficient, then the shareholders would voluntarily adopt this model. Jensen and Meckling (1979) also support this view, and their opinion is very clear: "If codetermination is beneficial to both stockholders and labour, why do we need laws which force firms to engage it? Surely, they would do so voluntarily. The fact that stockholders must be forced by law to accept codetermination is the best evidence we have that they are adversely affected by it". On the other hand, there are researchers who believe the advantages deriving from codetermination surpass the disadvantages (Boneberg 2010). Levine and Tyson (1990)

support the presence of workers on the board, because this gives them more responsibility, more motivation and therefore more involvement in business decisions. Freeman and Lazear (1995) suggest that the system of codetermination allows a better exchange of information between the board and workers. So, during any periods of crisis, codetermination allows a reduction of any probability of strikes and therefore a greater cooperation between shareholders and workers. Kleinknecht (2015) emphasizes that a greater diversity of a board can bring better decisions, increasing the quality of monitoring and making better decisions in the long run for the company, without thinking merely of short term profit. Kluge and Wilke (2007) supporting the Lisbon Strategy of European Union based on active workers' participation, underline that countries with participation rights for employees, on average perform better in the rankings of the World Economic Forum's Business Competitiveness Index (BCI) than those without this type of right. In particular, in Europe (see figure 2 from Conchon, 2013), in 19 countries employees have the possibility to have their interests represented in the administrative and management bodies, 14 of them with widespread participation rights. Countries like the UK, Belgium and Italy are exceptions. In Italy for instance there is the possibility to choose a two-tier structure, with a management committee (consiglio di gestione) and a supervisory council (consiglio di sorveglianza), but it differs from the German structure because labour representation is not mandatory (Mallin, 2006).

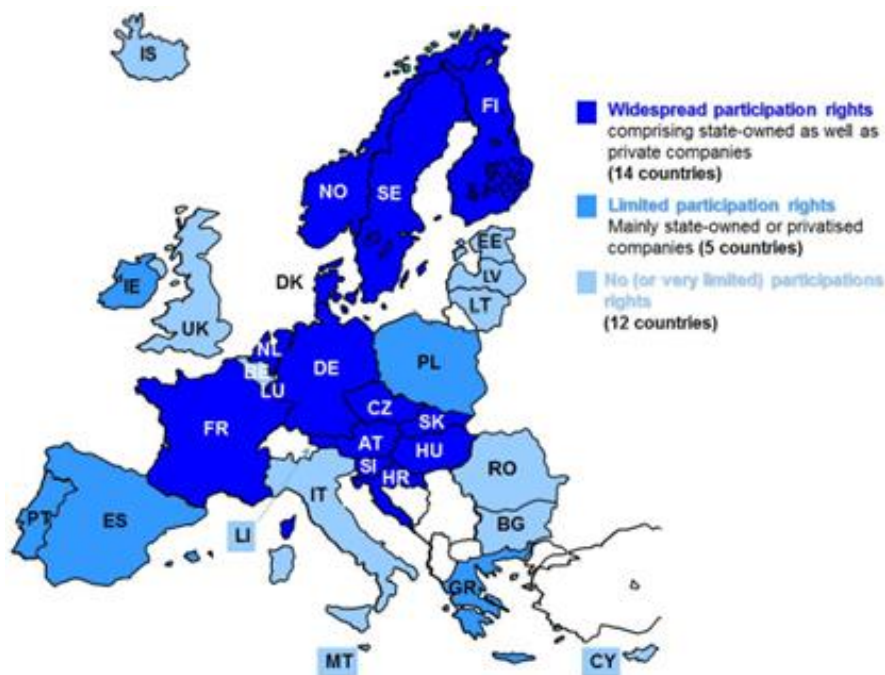


Figure 2 (Conchon, 2013). Labour representation at the board level in the EEA.

The topic on the size and composition of the board and therefore the possibility of choosing a board that foresees the presence of workers is becoming a major theme. In fact, recently the EU's adoption of the structure of *Societas Europaea* (SE) has led many European countries to change their national law, giving to the firms the possibility to choose among different board structure (Belot et al. 2014). It should also be noted a notable gap in the literature, the absence of a mathematical model that explains the functionality of a board in a system of governance of codetermination. Actually, there are various models that explain the functionality of the Anglo-American board, but the same does not happen for the German board. Forcillo (2017a) attempts to take the first step in this direction comparing the single board, typical of Anglo-American firms, with the German system of codetermination.

4. Empirical studies

There are only a few studies about the effects of the German system of codetermination and no one has been done comparing American and German firms (Block and Gerstner, 2016). In the area of empirical studies this is an important gap in the literature. It is interesting to note that also the empirical results regarding this particular type of governance are often contradictory, with particular reference to the effects in terms of productivity and profitability. Cable and FitzRoy (1980) for example, analyse 42 companies in West Germany in 1974-1976, finding that a majority of worker participation in company activity increases the productivity. With reference to the same period of analysis (1976 represents the year of the extension to companies outside the coal and steel sector, in the equal representation of workers and shareholders in the board), FitzRoy and Kraft (1993) analyse the performance of 68 companies, finding that change to the codetermination system reduces the average of productivity to 19,7% and increases the immobilism and job security. Nevertheless, a later study by the same researchers in 2005 on a greater number of companies, 179 in total, finds that the extension in 1976 to the parity codetermination had brought positive effects of productivity to the bigger companies. Freeman and Lazear (1995) support that codetermination increases productivity because the workers are more involved in the decisional process and therefore they have more incentive to work harder, but this reduces the profitability as a consequence of raised salaries that the workers require due to the larger work load. Similar results derive from a study by Boneberg (2010). Baums and Frick (1998) analyse the impact of the parity-codetermination using the methodology of event study without any significant statistical findings. Renaud (2007) examines the firms present in the German Financial Database between 1970 and 2000, analysing the differences in terms of productivity and profitability. The results indicate that with the transition from a quasi-parity to a parity-codetermination, there is an increase in the value of both indicators. Petry (2009) otherwise, studying a sample of 140 firms before and after 1976, highlights a negative impact on the wellbeing of the shareholders with particular reference to a decline in the value of the share price. In addition, using another sample of 90 companies between 1998 and 2008, he underlines that firms that announce an increase in the number of representatives of employees in the board, endure a negative effect on the value of their share; vice-versa occurs for the firms that announce a reduction in the number. Analysing the change from a system of quasi-parity to that of parity codetermination and the impact that this had in terms of productivity,

profitability or share value, it is easy to note that the results obtained often contrast among themselves, not showing a common vision among researchers on this topic. Two of the most important recent studies in terms of codetermination are surely those conducted by Gorton and Schmid (2004) and by Fauver and Fuers (2006). The first study examines a sample of 250 of the biggest companies in Germany in the non-finance sector between 1989 and 1993, with the intent of comparing the effect of worker representation on the board of firms that present a quasi-parity codetermination with those that present a parity codetermination. The results show that companies with an equal representation of workers and shareholders on the board trade at 31% stock market discount and on average have a 55% greater salary than firms with 1/3 representation. The main explanation for this effect is that the workers alter the objective function of the company, maximizing their own salary. So, for instance in the case of external shock, they obtain part of the shareholders' surplus without understanding the exigencies of the shareholders that requiring the reconstruction of the company and eventual layoffs. The study of Fauver and Fuers is partially in contrast with this analysis. They examine a sample of firms listed in the stock exchange in Germany in 2003, demonstrating that within certain levels, the representation of workers on the board could increase the effectiveness of the company and its market value. They hypothesize an inverted U-shaped relation between firm value and employee representation. More precisely, in the first part of the curve, the presence of workers on the board gives two big advantages to the firm. There is a greater flow of information at the lower levels of the firm where the workers are, up to the high levels in the board. This therefore improves the decisions made. A second advantage originates from a better monitoring on the manager, protecting also the interests of the minority shareholders. Nevertheless, in the second part of the inverted U-shaped, the workers could acquire too much power thinking more about their salary than the value of the firm and creating a situation where the subjects that have to monitor in reality are those that need to be monitored. This analysis is also discussed by Forcillo, 2017a. In particular, he assumes the presence of a U-shaped between the choice of the codetermination structure and the single board with a high level of private benefits in the hands of the large shareholder. The presence of an inverted U-shaped instead is linked to the benefits that workers and firm could obtain in a system of codetermination, as Fauver and Fuers hypothesise. In the first part of the curve, there is an increase of benefits for the company and workers, in terms of more involvement in business operations, minor probability of layoffs and strikes. However, the workers have a monitoring cost to pay to allow for such benefits, a cost that is not supported in the single board. If this cost is low, the workers prefer a codetermination system as the benefits outweigh the disadvantages. When the cost becomes too high, the workers prefer the sole board because a high monitoring cost has a negative effect on their expected gains. Jungmann (2006) examines the financial performance (with four measures: loss for the financial year, loss of profits, abnormal negative share price performance and a dividend cut or omission) of 25 companies listed on the stock exchange between 1994 and 2003 in the UK and Germany. The objective is to conduct an analysis between these financial performances and the structure of their board, verifying the behaviour of the subjects that conduct monitoring in the case of poor performance obtained by the company. The conclusion is that it is not possible to designate a superiority to a type of governance, but in reality both of them have aspects that could be improved. For example, in the sole board the members have the problem of conducting managerial activity and, at the same time, monitoring this activity. This complication is not

present in the codetermination system, having two distinct boards that conduct these two tasks separately. On the other hand, the supervisory board presents the problem of obtaining clear information that has not been filtered by the management board, a problem not present in the one-tier system because despite some members of the board are executive directors and other non-executive directors, they all have access to the same type of information. Huse et al. (2009) conduct a study with regarding the presence of workers on the board using a data set of Norwegian firms. What they claim in their study is the importance of valuing not 'if' the workers can contribute to the board but 'how' they can do it. Through the results obtained, they suppose that the workers are able to give specific contribution with particular reference to corporate social responsibility and strategy control. More recently, a study by Kleinknecht (2015) that analyses data of 726 firms in Europe in the pre-financial crisis period, 2006-2008, sustains that the effectiveness of the board and participation of the workers depend on the business cycle and from the external context where the firm lies in the market. This is because the workers generally are risk averse of new investments out of the normal functions of the firm and this could cause a lower company value in periods of boom and economic growth, but at the same time, could represent security during periods of recession. The results in fact show that on average the level of Tobin's Q is lower in firms that foresee the presence of workers on the board, but these firms lose minor value during periods of recession. This is due to the fact that workers being less risk averse than the shareholders could adopt a serious growth policy over a long period, without assuming too many risks to obtain profits in the short run, one of the main reasons for the last financial crisis (Kirkpatrick, 2009). It is interesting to note that the same effects of workers' participation on the board have not been found in the works councils, because they are not able to influence the ex-ante strategic choices of the firm.

To summarise, from the start of the new millennium, different studies focus mainly on quantitative indicator, like productivity and profitability, and on the change in 1976 from a quasi-parity codetermination to a system of parity codetermination. Nevertheless, despite the variety of studies most results are often contrasting, highlighting that at the moment, there is not a clear picture of the economic effect of codetermination on company performance and that a univocal view of this phenomenon is still lacking.

5. Conclusions

Analysing the theoretical and empirical literature, we cannot say which is the best system between codetermination and the single board (today the system of governance most widespread). From a theoretical point of view, some researchers claim that the Anglo-American board has the advantage of being smaller and therefore, allows faster decision making, more flexibility and more frequent meetings of the board. At the same time, however, the question arises setting on a single board the activity of choice of investment decisions for the company and the monitoring part, a limit that does not have the system of codetermination. Also from the empirical point of view, the results are often incongruent and the adoption of the codetermination system highlights positive, negative, or even neutral results.

To answer whether it is better to prefer the governance system of codetermination or not, therefore, we should not rely solely on statistical or monetary analysis. The workers'

satisfaction, as well as the implementation of democratic principles in the economic system depend on the values and ambitions that our society wants to improve. Then, the question we should ask has to be: does the government want a company that is managed in the exclusive interest of the financial capital holders, or a company that represents also the interests of the human capital holders, such as the workers? If the corporate governance system creates disparities among agents of the firm, there would be more sociological considerations and/or political issues to do. These political issues involve questions such as "what kind of society do we want to live in?" (O'Connor, 2000). If we talk about a socially optimal governance system, in fact, we should talk about obtaining the social optimum for the whole system, rather than an individual profit, benefit, or other quantitative measures. Clearly, further analysis and research activities need to be addressed regarding the presence of workers in the system of corporate governance.

References

- Adams, R., Hermalin B.E., Weisbach M.S, (2010). The role of boards of directors in corporate governance: A conceptual framework and survey. *Journal of Economic Literature*, Vol. 48, pp. 58-107.
- Addison J.T., Schnabel C., (2009). Worker directors: a German product that didn't export? *IZA Discussion Paper No. 3918*.
- Allen F, Gale D., (2001). Comparing financial systems: a survey. *Cambridge, MA: MIT Press*.
- Barca F., Becht M., (2001). The control of corporate Europe. *Oxford University Press, Oxford*.
- Baums T., Frick B., (1998). Co-Determination in Germany: The impact of court decisions on the market value of firms. *Economic Analysis*, Vol. 1, pp. 143-161.
- Becht M., Bolton P., Roëll A., (2002). Corporate governance and control. *NBER Working Paper No. 9371*
- Belot F., Ginglinger E., Slovin M.B., Sushka M.E., (2014). Freedom of choice between unitary and two-tier boards: an empirical analysis. *Journal of Financial Economics*.
- Berle A.A., (1931). Corporate powers as powers in trust. The *Harvard Law Review*, Vol.44, pp. 1049-1074.
- Berle A.A., Means G.C., (1932). The modern corporation and private property. *Transaction Publishers, New Brunswick and London*.
- Bermig A., Frik, B., (2010). Board size, board composition, and firm performance: empirical evidence from Germany. *SSRN Electronic Journal*.
- Blair M.M., (1995). Ownership and control. Rethinking corporate governance for the twenty-first century. *Brookings Institution Press, Washington D.C.*
- Blair M.M, Roe M.J., (1999). Employees and corporate governance. *Brookings Institution Press, Washington D.C.*
- Block D., Gerstner A., (2016). One-tier vs. two-tier board structure: a comparison between the United States and Germany. *Comparative Corporate Governance and Financial Regulation*.
- Boneberg F., (2010). The economic consequences of one-third co-determination in German supervisory boards: first evidence for the service sector from a new source of enterprise data. *Working Paper Series in Economics, No.177, University of Lüneburg*.
- Brealey R.A., Myers S.C., Allen F., (2011). Principles of corporate finance. *McGraw-Hill, 10th edition*.

- Cable, J.R., FitzRoy F.R., (1980). Productive efficiency, incentives and employee participation: Some preliminary results for West Germany. *Kyklos*, Vol. 33, pp. 100-121.
- Clarke T., Chanlat J.f., (2009). European corporate governance: reading and perspectives. *London and New York Routledge*.
- Coles, J.L., Naveen D.D, Naveen L., (2008). Boards: does one size fit all? *Journal of Financial Economics*, Vol.87, pp. 329-356.
- Conchon A., (2013). Workers' voice in corporate governance: a European prospective. *Trades Union Congress*.
- Dalton, D. R., Daily C.M, Johnson J.L., Ellstrand A.E., (1999). Number of directors and financial performance: a meta-analysis. *Academy of Management Journal*, Vol.42, pp. 674-686.
- Dodd E.M., (1932). Corporate managers trustees? *The Harvard Law Review*, Vol.45, pp. 1145-1163.
- Dow G.K., (1993). Why capital hires labor. A bargaining perspective. *The American Economic Review*, Vol.83 pp.118-134.
- Du Plessis J.J., Grobfeld B., Luttermann C., Saenger I., Sadrock O., Casper M., (2007). German corporate governance in international and European context. *Springer-Verlag*.
- Eisenberg T., Sundgren S., Well M., (1998). Larger board size and decreasing firm value in small firm. *Journal of Financial Economics*, Vol. 48, pp. 25-54.
- Faleye O., Mehrotra V., Morck R., (2005). When labor has a voice in corporate governance. *NBER Working Paper Series*.
- Fama E., (1980). Agency problems and the thoery of the firm. *Journal of Political Economy*, Vol.88, pp. 288-307.
- Fauver L., Fuerst M.E., (2006). Does good corporate governance include employee representation? evidence from German corporate boards. *Journal of Financial Economics*, Vol.82, pp. 673-710.
- Ferreira D., Kirchmaier T., (2013). Corporate boards in Europe: size, independence and gender diversity. *Boards and shreholders in European listed companies*, pp.191-224.
- FitzRoy F.R., Kraft K., (1993). Economic effect of codetermination. *The Scandinavian Journal of Economics*, Vol.95, No.3, pp. 365-375.
- FitzRoy F.R., Kraft K., (2005). Co-determination, efficiency and productivity. *British Journal of Industrial Relations*, Vol.43, pp.233-247.

- Forcillo D., (2017a). Codetermination: the necessary presence of workers on the board. A mathematical model. *PhD dissertation, University of Cagliari and Sassari.*
- Forcillo D., (2017b). One-tier board versus two-tier board and social welfare. *PhD dissertation, University of Cagliari and Sassari.*
- Freeman, R.B., Lazear E.P., (1995). An economic analysis of works councils. *In: Works Councils: Consultation, Representation and Cooperation in Industrial Relations. University of Chicago Press, pp. 27-52.*
- Ginglinger E., Megginson W., Wazin T., (2011). Employee ownership, board representation, and corporate financial policies. *Journal of Corporate Finance, 17 868-887.*
- Gorton G., Schmid F.A., (2000). Class struggle inside the firm: A study of German Codetermination. *Working paper series, Federal Reserve Bank of St.Louis.*
- Gorton G., Schmid F.A., (2004). Capital, labor, and the firm: A study of German Codetermination. *Journal of the European Economic Association, Vol. 2, No.5, pp.863-905*
- Grossman, S.J., Hart O.D., (1986). The costs and benefits of ownership: A theory of vertical and lateral integration. *Journal of Political Economy, Vol.94, pp.691-719.*
- Guest P. (2009). The impact of board size on firm performance: evidence from the UK. *The European Journal of Finance, Vol. 15, pp. 385-404.*
- Gugler K., (2001). Corporate governance and economic performance. *Oxford University Press, Oxford.*
- Hansmann, H., (1990). When does worker ownership work? ESOPs, law firms, codetermination, and economic democracy. *Yale Law Journal Vol.99 No.8, pp.1749-816.*
- Hart O., Moore J., (1990). Property rights and the nature of the firm, *Journal of Political Economy, Vol.98, pp. 1119-58.*
- Hermalin, B.E. (2005). Trends in corporate governance. *Journal of Finance, Vol. 60, 2351-84.*
- Hermalin, B.E., M. Weisbach (2003). Boards of directors as an endogenously determined institution: a survey of the economic literature. *Economic Policy Review Vol.9, pp.7-26.*
- Hill J., (2003). Corporate governance and the role of the employee. *In Paul J.G., Patmore G. Partnership At Work: The Challenge Of Employee Democracy, Australia: Pluto Press, pp. 110-121.*
- Holmström B., (1999). Managerial incentive problems. A dynamic Perspective. *Review of Economic Studies, Vol.66, pp.169-182.*

Hopt, K., J., (1994). Labor representation on corporate boards: impacts and problems for corporate governance and economic integration in Europe. *International Review of Law and Economics* Vol.114, pp. 203-14.

Hoshi, T., (1998). Japanese corporate governance as a system. In Hopt K.J., *Comparative Corporate Governance. The State of the Art and Emerging Research* (Clarendon Press, Oxford).

Huse M., Nielsen S.T., Hagen I.M., (2009). Women and employee-elected board members, and they contribution to board control tasks. *Journal of Business Ethics*, Vol.89, pp.581-597.

Jackson J., Höpner M., Kurdelbusch A. (2002). Corporate governance and employees in Germany: changing linkages, complementarities and tensions. *Oxford University Press*.

Jensen M.C., Meckling W.H., (1976). Theoy of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, Vo.3, No.4, pp.305-360.

Jensen, M.C., Meckling, W.H., (1979). Rights and production functions: An application to labor-managed firms and codetermination. *Journal of Business* Vol. 52, pp.469–506.

Jungmann C., (2006). The effectiveness of corporate governance in one-tier and two-tier board systems. Evidence from UK and Germany. *ECFR*, Vol.3, No.4: pp. 426-474.

Kaplan, S.N., (1994). Top executives, turnover, and firm performance in Germany. *Journal of Law, Economics & Organization* Vol. 10, pp. 142-159.

Kirkpatrick, G. (2009). The corporate governance lessons from the financial crisis. *OECD Journal: Financial Market Trends*.

Kleinknecht R.H., (2015). Employee participation in corporate governance: Implications for company resilience. *European Journal of Industrial Relations*, Vol.21, pp.57-72

Kluge N., Wilke P., (2007). Board-level participation and workers' financial participation in Europe. State of the art and development trends. *European Trade Union Institute for Research, Education and Health and Safety*.

Kluge N., Vitols S., (2010). The crisis: catalyst for stronger worker participation in corporate governance? *European Trade Union Institute*.

Kose J., Senbet L., (1998). Corporate governance and board effectiveness. *Journal of Banking and Finance*, Vol.22, pp. 371-403.

La Porta, R., Lopez-de-Silanes, F., A. Shleifer (1999). Corporate ownership around the world. *Journal of Finance*, Vol. 54, pp. 471-517.

- Levine, D., Tyson, Laura D., (1990): Participation, productivity, and the firm's environment. In: *Blinder, A.S.,: Paying for Productivity. Brookings Institution, Washington D.C., pp. 183-243.*
- Lower M., (2009). Employee participation in corporate governance: an ethical analysis. In *Employee Participation in Governance, Cambridge University Press, pp.92-128.*
- Lublin J.S., (2014). Smaller boards get bigger returns. *Wall Street Journal, August 26.*
- Macey, J.R., Miller, G.P., (1995). Corporate governance and commercial banking: a comparative examination of Germany, Japan, and the United States. *Stanford Law Review Vol.48, pp. 73–112.*
- Maher, M., Andersson, T., (2000). Corporate governance: effects on firm performance and economic growth. *Discussion Paper, OECD, Paris.*
- Mak Y. T., Kusnadi Y., (2005). Size really matters: further evidence on the negative relationship between board size and firm value. *Pacific Basin Finance Journal, Vol. 13, pp. 301-308.*
- Mallin A., (2006). Handbook on international corporate governance: country analysis. *Edward Elgar Publishing.*
- Milton H., Raviv A., (1988). Corporate governance: voting rights and majority rules, *Journal of Financial Economics, Vol.20, pp. 203-235*
- O'Connor, M.,(2000). Labor's role in the american corporate governance structure. *Comparative Labor Law & Policy Journal Vol.22, pp. 97-134*
- Pejovich, S., (1978). Codetermination: A new perspective for the West. In: *The codetermination movement in the West. Labor participation in the management of business firms. Lexington, pp. 3-22.*
- Petry S., (2009). The wealth effects of labor representation on the board: Evidence from German codetermination legislation. *Working paper, University of Cambridge.*
- Renaud S., (2007). Dynamyc efficiency of supervisory board codetermination in Germany. *Review of Labour Economics and Industrial Relations, Vol.21 pp. 689-712.*
- Roberts D.J., Van den Steen E., (2000). Shareholder interests, human capital investments and corporate governance. *Stanford Graduate School of Business, Working Paper No. 1631.*
- Roe M., (2000). Political preconditions to separating ownership from corporate control. *Stanford Law Review Vol. 53 pp. 539-606.*
- Ruback R.S., Zimmerman M.B., (1984). Unionization and profitability: evidence from the capital market. *The Journal of Political Economy, Vol. 92, No.6, pp.1134-1157.*

Shleifer, A., R.W. Vishny (1997). A survey of corporate governance. *Journal of Finance Vol. 52*, pp. 737-783.

Simons R., Kluge N., (2004). Workers' participation at board level in the EU-15 countries. Reports on the national systems and practices. *Hans Böckler Foundation/European Trade Union Institute*.

Stiglitz J., (1985). Credit markets and the control of capital. *Journal of Money, Credit and Banking, Vol. 17*, pp. 133–152.

Wilkinson A., Gollan P.J., Marchington M., (2010). The Oxford handbook of participation in organizations. *Oxford University Press*.

Williamson, O.E., (1975). Markets and hierarchies: analysis and antitrust implications: A study in the economics of internal organization. *Collier Macmillan Publishers, Inc., New York, NY*.

Yermack, D., (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics Vol.40*, pp. 185-211.