

COERCION, COPY-CATS, AND COLLEAGUES: STAFFING THE BOARD OF THE IPO COMPANY*

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Abstract

122 initial public offerings (IPOs) occurring on the Stockholm Stock Exchange from January 1996 until September 2006 have been examined to assess the impact of institutional isomorphism on the selection of directors for boards facing the transition to listed companies. A high level of union representation as well as the restructuring of boards prior to an IPO and in anticipation of legal changes gives strong support for the influence of coercive isomorphism on IPO firms. Companies within industry sectors make similar choices with regard to their directors, their choices being dissimilar from their associates in other industry groupings. This supports the concepts underlying mimetic isomorphism. Finally normative isomorphism is largely supported by the reliance of corporations on a closed group of directors with similar educational backgrounds. All in all, societal and regulatory pressures, as modelled under institutional theory, are influencing the processes of corporate governance during an IPO.

Keywords: The Board of Directors, Institutional Theory, Corporate Governance, Initial Public Offerings

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1. Why Board Structure during an IPO is Vital

An initial public offering (IPO) is a complex transition for any company. While bringing in new capital, corporations are also exposing themselves to increased attention from both investors and the public at large. In addition, traded firms must submit to a larger degree of external influence on their operations than do unlisted firms. Most changes incurred during the listing process are governance related (Burton et al., 2004; Shekar and Stapeldon, 2007). Empirical studies have shown that firms with strong governance structures receive higher initial valuations and also have better long-term operating performance than other corporations (Hartzell et al., 2004). Previous researchers have demonstrated that individuals, such as the CEO, the top management team and the board of directors, matter when it comes to the performance of IPO firms (Certo et al., 2007). The performance of any company is ultimately the responsibility of the people at the top (Finkelstein and Hambrick, 1996). It is these individuals who can attract quality underwriters and investors thus influencing the amount of capital raised at the IPO and the future growth potential of the firm (Certo et al., 2007). Given the influence of senior executives and the board, their qualifications for their roles become a signal to

potential investors. Finding highly qualified people for these positions consequently becomes a key issue in the firm's preparations before going public. Thiess (2004) and Shekar and Stapeldon (2007) have suggested that, for these and other reasons, boards are more carefully chosen at the time of the IPO. Little research has been focused on how these individuals are selected by the firm (Filatotchev, 2006; Boone et al., 2007). Filatotchev (2006:76) suggested, additionally, that "being at an early stage of the corporate governance life-cycle, the IPO provides a unique context for analysis of the board development process".

Questions about the characteristics of board members and the factors that contribute to their selection for the board have provided the impetus for the research presented in this paper. The structure of boards of directors has been examined, as presented in this paper, from the perspective of institutional theory. This is done in order to determine whether member selection is due the coercive influence of legislation and social expectation; to mimetic efforts to copy successful IPO structures; or to collegial norms and standards established within particular industries. In other words, the research question providing the foundation for this study was whether institutional theory could be used to explain at least a portion of board development.

1.1 Boards of Directors

Previous research on boards of directors has largely focused on board composition through an examination of insider/outsider ratios, board compensation or diversity versus homogeneity. Furthermore, most research on board composition is based on archival data from English speaking countries where the Anglo-American governance model is employed. Very few papers are written about smaller firms or initial public offerings particularly outside the Anglo-American system. Previous studies on board characteristics as related to IPOs have concentrated on their effect on different performance measures or organizational outcomes (Finkle, 1998; Certo et al., 2001; Certo, 2003; Li and Naughton, 2007). Each of these studies concluded that the characteristics of individual board members do matter when it comes to firm performance. Few, however, have assessed how and why the directors are chosen.

Those studies that were intended to evaluate the determinants of board structure generally assumed that increasing complexity of firm operations as well as increasing firm size triggered changes in board structure (Gillian, 2006; Boone et al., 2007; Shekar and Stapledon, 2007; Linck et al., 2008; Lehn et al., 2008). Most of these studies define board structure in terms of size of the board and/or the ratio of insiders versus outsiders. All are recent. The current study, by contrast, complements those that have gone further by, for example, considering board structure by industry, or by the presence or absence of particular investor groups or the role of the owner/manager (Shekar and Stapledon, 2007; Roosenboom, 2005; Filatotchev et al., 2005; 2006). Pettigrew in 1992 (178) encouraged researchers to go “beyond customary preoccupation with size and composition” when it comes to the board of directors. Filatotchev (2006) responded by adding other more difficult characteristics to ascertain such as ‘cognitive capacity’. In this study, board characteristics have been extended to include factors such as employee representation, educational experience and interlocking directorships.

1.2 Governance Models

Studies of board characteristics and corporate governance have been predominately undertaken in what are commonly thought of as “Anglo-American” or “Shareholder” systems. Governance models, then, involve a unitary board comprised of both internal executive directors and external independent directors. In the Anglo-American model, the focus of the firm is on shareholder wealth maximization. The role of the board and is, at least in part and based on agency theory, to monitor the decisions and actions of management to insure that they comply with shareholder interests. By contrast, the “European” model often involves not only a board of directors but a supervisory board and in some countries, a Works Council representing employees. It is, consequently, a

“Stakeholder” model with board members having a larger remit. That is, they are responsible not only to shareholder’s but to a broader spectrum of interested parties and must satisfy more disparate interest groups while still maintaining sufficient focus on returns to satisfy those who supply the firm’s funding. The Swedish system of corporate governance draws from both the stakeholder and shareholder models, representing a compromise that contains many of the positive aspects of both (Moerland, 1995). Sweden has a unitary single board, as in the Anglo-American model, but allows for employee representation on these boards when firms are of sufficient size. Ownership is widespread, with over 80% of the Swedish population owning shares in some form (Aktieförbundet, 2003). Although institutional investors and some wealthy families do hold disproportionately large blocks of equity there are safe-guards for minority shareholders. Capital markets are liquid and market control can be and is exercised through takeovers and mergers. Hence the Swedish model of corporate governance combines the market-orientation of the Anglo-American system with the stakeholder interests of the “European” one.

The focus on Swedish boards when examining issues related to corporate governance in this research is far from accidental. By providing evidence on board characteristics in Swedish IPOs, this work also provides a response to those who have indicated a need for new governance paradigms. Cuervo (2002:88,89) for example, condemns the “Continental European” governance system due to a “lack of a well-functioning market for corporate control” while also disparaging the Anglo-American market controlled system for the influence exercised by institutional investors with large block shareholdings. The latter potentially creating the same problems that gave rise to codes of governance in the European landscape. The results of this study will enhance the capacity of all stakeholders (entrepreneurs, managers, employees, policy holders, regulators, investors and the public) to make informed decisions regarding appropriate models of corporate governance for IPOs.

1.3 Structure

The remainder of the article is organized as follows. First, some theoretical considerations are made, then the theoretical approach chosen, institutional theory, is explained and leads directly to the development of hypotheses to be tested. The empirical material is then presented starting with background material for the study in terms of Swedish rules and regulations governing the operations of boards of directors in Sweden and is followed by descriptive statistics. Results are then provided alongside the methods used to obtain them. Finally, the conclusions that have been reached including possible spin-offs from this research are described.

2. Theoretical Considerations

Research into the effect of board composition on firm performance has been somewhat ambiguous in that some competencies have been found valuable in certain situations but not in others. Some scholars believe that this ambiguity is a result of a theoretical perspective that is too narrow (e.g. Turnbull, 1997; Hung, 1998; Gabrielsson, 2003; Fiegenger, 2005). Hung (1998:108) uses the prevalence of agency theory in governance research as an example suggesting that while the control function is important it should not outweigh “equally if not more important roles” that are performed by boards and that could be captured better utilizing other theoretical perspectives. Fried et al. (1998) found that both agency theory and institutional theory had predictive validity in regard to board choices but did not separate the two. They added the concept of power as a third potential motivator reminiscent of those who follow Foucault. All these approaches seem to be useful, selecting between them difficult.

Lynall et al. (2003:416) stated that “it is not a question of if existing theories are helpful to our understanding of boards and firm performance, but a question of when each is helpful”. This would suggest that the analysis of boards of directors would benefit from applying different theoretical perspectives in certain transitions or stages in the business life cycle as the role of the board changes. Cornelius (2005) and Lynall et al. (2003) both have found agency theory to be more applicable in the latter stages of the business life cycle as the corporation becomes more mature and complex. Since most of the previous research has focused on large public corporations the extensive use of agency theory can be understood. However, for companies in transition, particularly SMEs, agency theory seems less relevant than other perspectives. For example, external pressures as modelled under institutional theory have proven to be of particular importance in IPOs (Frye and Smith, 2003; Martens, 2003). Boards of directors as well as other governance issues have also been examined through the lens of institutional or neo-institutional theory (e.g. Aoki, 1994; Zajac and Westphal, 1996; Djelic, 1998; Fried et al., 1998; La Porta et al., 2000; Aguilera and Jackson, 2002; Certo, 2003; Chizema and Buck, 2006). At the time of the IPO, a firm is believed to be especially receptive to institutional pressures to legitimize their offering. We anticipate that some changes to board structures will result from the need to meet listing requirements, i.e. they are coerced. Other changes occur in order to meet the expectations of investors and underwriters - thus firms copy their successful predecessors. It is also probable that managers have normative expectations that influence their decisions when going public; they are pressured by their peers or colleagues. That is, the requirements of listing will force firms to make specified changes to board structures. Given the relatively early stage of development associated with IPOs and the support

given institutional theory as a tool for examining governance in general, in this study the directors of firms undertaking IPOs have been evaluated largely through that lens.

3. Institutional theory

Normative frameworks and social influence are central, according to institutional theory, in explaining the actions and structures of an organization (DiMaggio and Powell, 1983; Hung, 1998; Lynell et al., 2003). The organizations’ need to conform to traditional practices and customs influences its choices regarding control and coordinating systems (Gupta et al., 1994). The board of directors, as the ultimate arbiter of management actions, exercises such a control and coordinating role. How much they are influenced by societal norms, then, is important to understanding their functional approach to their job. Social rules and conventions are taken for granted (Ingram and Simons, 1995) suggesting that the choices made by organizations are not always rational (DiMaggio and Powell, 1983) as is assumed under neo-classical financial theory. Zajac and Westphal (1996), among others, have shown how societal norms have influenced boards of directors in ways that neither agency concepts nor other theories could explain. Under institutional theory the main role of the board is to make sure that the corporation conforms to its institutional environment thus creating legitimacy (Hung, 1998). In addition the composition of the board itself can be used to signal legitimacy. Shekar and Stapeldon (2007) state that the monitoring role of boards is less important in entrepreneurial firms than in large firms. Directors should facilitate firm integration to particular industries and enable access to resources and information flows. Hence, boards “regularize interactions” and “foster trust between entrepreneurs and investors” (Shekar and Stapeldon, 2007:1178). Thus the need for legitimacy is even stronger among smaller firms and make these corporations even more receptive to institutional pressures.

DiMaggio and Powell (1983) call the societal pressures that lead to corporate homogenization ‘institutional isomorphism’. They have suggested three isomorphic processes (coercive, mimetic, and normative) that constrain organizations to resemble other organizations. Coercive isomorphism refers to formal and informal pressures exerted on one organization by another on which the home-organization is highly dependent, e.g. rules and regulations set by governments to control the actions of organizations. The more dependent the organization is on another, the more important it becomes to submit to coercive pressures. When these pressures exist throughout the environment, e.g. when submitting to external legal controls, all organizations within an industry begin to resemble one another. Mimetic isomorphism, also leads to homogenization as inexperienced actors/organizations mimic successful

and more experienced actors/organizations. Mimetic isomorphism is greatest where there is the greatest uncertainty. The higher the uncertainty, the more ambiguous the goals of the organization the more important it becomes to mimic successful organizations and the stronger the similarities become between organizations within the same field. Finally normative isomorphism arises from norms created by professionals within an industry through similar training, socialization etc. This process is stronger the more closed and limited the professional field. Those adopting these norms will gain in professional status, which further encourages organizations to conform to the same standards.

Each of these processes has an effect on the composition of boards as well as the decisions made by a board of directors. Rules and regulations giving rise to coercive isomorphism exist in most countries regulating board composition, e.g. the restriction in Sweden prohibiting the firm's auditors from sitting on its board. Rules may also force the board to conform to certain regulations even though they might be costly to the corporation. Mimetic isomorphism might influence the corporation to select a board that reflects successful businesses or may influence board decisions regarding strategies; basing such decisions on the successful outcome in other corporations instead of a thorough investigation of alternatives. Should board members in particular industries be shown to be recruited from the same pool of people, those having similar training and experiences, then normative isomorphism can be assumed to be in operation among these firms.

To test the influence of these various isomorphisms on board selection in Sweden, hypotheses have been developed and are described in the next section.

3.1 Hypotheses

3.1.1 Coercive Isomorphism. Legislative initiatives alongside rules imposed by the Stockholm Stock Exchange have forced companies to restrict the participation of management and of large shareholders on corporate boards while, at the same time, requiring the representation of certain other stakeholders, particularly employees. At the same time, Swedes have avoided legislation in regard to gender representation, as exists in Norway, under an expectation that appropriate representation will occur in this society naturally. While coercive measures, whether enforced or societal, will be present in all listed companies, whether newly listed or not, such isomorphisms should appear in the data collected for this research. As a result, the first three hypotheses presented below are intended to test for coercive isomorphism in the selection of board members within Swedish corporations in the period of their IPO.

H₁: Swedish boards, with strong legislative initiatives, have more employee representatives

than boards in countries where these regulations do not exist.

The chief executive in start-up firms is usually the owner/manager. Given the nature of the new venture this person is also in control of any board formed to provide guidance to the conventional small firm (Rosenstein, 1988). However, as indicated above, Swedish governance and OMX rules prohibit the chief executive officer from acting as chairperson of the board of directors. Additionally, the Swedish rules limit the number of those on the management team who may be active concurrently on the firm's board of directors. While the directors on Swedish boards may only be appointed one year at a time (Swedish Code of Corporate Governance, 2005; 2008), the common practice throughout the majority of the EU is election for a three year renewable term (Weil et al., 2002). We have accepted the likelihood that Swedish firms comply with common EU practice in this regard providing average tenures for directors of between 3 and 6 years. As a consequence of these rules and practices, it is probable that in anticipation of public listing new venture boards are re-structured to meet legislative requirements, resulting in relatively short tenures ^[see endnote 1] for board members of companies undergoing IPOs. Thus the terms of new directors selected for their ability to contribute to the IPO process should be less than three years.

H₂: Swedish companies undergoing the IPO process will have directors whose terms as members of that board have been less than three years.

Prior to the September 2006 change of government in Sweden, legislative initiatives requiring gender representation on boards of directors of listed corporations were being considered (Westman, 2002). In 2002 the Government threatened to legislate mandatory female representation on corporate boards if the numbers did not increase (Leijonhufvud, 2002). Business leaders commonly anticipated such directives and acted prior to the passage of such legislation (Leijonhufvud, 2006). These conditions provide grounds for a final hypothesis regarding the existence of social suasion and coercive isomorphism.

H₃: IPOs occurring after 2002 will have a higher proportion of female directors than earlier IPOs in Sweden.

3.1.2 Mimetic Isomorphism. Despite positive expectations, the degree of uncertainty surrounding an IPO is high. To maximize the potential for a positive outcome, firms would be expected to copy those within their own industry who have successfully undergone this experience. Thus they would be expected to have similar levels of profits reported, similar turn-over and a similar make-up of directors on their boards. These expectations can be tested as indicated in the following hypotheses.

H₄: Firms within an industry classification and approaching an IPO will be more alike in terms of the characteristics of their boards of directors

(such as the size of the board and the age or experience of board members) than will firms outside their industry classification.

The underwriter engaged in an IPO has a major influence on the IPO process as a whole, and the offer price in particular. Previous research has concluded that the reputation of the lead underwriter has an influence on the investors' valuation of the firm (Carter et al., 1998; Howton, 2006). The selection of an underwriter for an IPO, therefore, is likely to be influenced by the reputation of lead underwriters gained through previous successful IPOs. That is, an element of mimetic isomorphism will also be apparent in the choice of underwriter. Thus the following hypotheses:

H₅: Firms going public will choose their lead underwriter based upon underwriter reputation.

3.1.3 Normative Isomorphism. Normative isomorphism arises when the pool of professionals within a field is relatively closed. That is, within an industry, participants would tend to conform to the same standards due to experiential similarities such as education at the same institutions or training in the same disciplines. There is, additionally, more likelihood for normative isomorphism to arise if the pool of professionals drawn to board membership is small. Given the size and distribution of Sweden's population and the concentration of business headquarters in population centers, the pool of professionals to be selected as board members is likely to be small, closed and to have received similar training. Thus three hypotheses have been developed to test for normative isomorphism among firms approaching IPOs in Sweden.

H₆: Overlap will exist among those selected as directors in Swedish firms approaching an IPO.

H₇: Members of boards of directors within an industry classification and approaching an IPO will have attended similar if not identical educational institutions.

H₈: Members of boards of directors within an industry classification and approaching an IPO will have achieved similar if not identical professional qualifications.

To test these eight hypotheses, a large amount of data has been collected and organized as described in the next section.

4. Empirical Material

4.1 Rules and Regulations Regarding Swedish Boards

According to regulations in Sweden a board of directors can consist of one or more members as decided by the shareholders' meeting; for publicly traded firms a minimum of three board members is required (Aktiebolagslag, 2005:551). In cases where there are 25 or more employees, the employee's union is entitled to at least two board positions. Half of the

board members of Swedish corporations must live within the European Union and board members have to report share ownership in the corporation. In publicly traded corporations the CEO may be a board member but is not permitted to serve as a chairperson. The auditor of the corporation is not allowed to sit on the board. Those corporations that aspire to join the Stockholm Stock Exchange (OMX) are subject to further regulatory restrictions concerning board membership. When listing on the OMX, board members are reviewed by the exchange for their general suitability (Stockholmsbörsen – Noteringskrav med handledning, 2006). Only one of the board members can be part of the company's top management and at least half of the board members must be independent (defined as not having any direct or indirect business relations or other extensive financial relations with the corporation). Among the independent directors, at least two must also be independent of any large shareholders in the corporation (defined as holding, directly or indirectly, 10% or more of the ownership of the firm). Furthermore, at least one of these two has to have had a minimum one year's experience as a board member in another listed corporation during the previous three years. Upon listing, board members who have not yet taken part in OMX listing training, provided by the Stock Exchange, are required to do so regardless of experience. The Swedish Code of Corporate Governance was built on the concept of 'comply or explain' which is the most common concept employed in codes of corporate governance in Europe. This means that the code does not necessarily have to be followed so long as deviations are presented and explained in the company's annual report. The code is directed at corporations listed on the OMX or other authorized exchanges provided the corporations have a market value over three billion SEK. Following this code is voluntary for smaller corporations. The Swedish Code of Corporate Governance has been heavily influenced by European traditions and has adopted or adapted elements of codes found in other EU countries although it has its foundation in Swedish laws and regulations. According to the code the composition of the board should reflect versatility, a broad knowledge base and should strive for proportional gender representation. "Creat[ing] transparency towards shareholders, the capital market and society in general" was a motivation behind the development of the code (Swedish code of corporate governance, 2005:8).

4.2 Data

IPOs listed on the Stockholm Stock Exchange (OMX) from January 1996 until September 2006 have been investigated in order to test the hypotheses developed above. During this time period there have been approximately 260 new listings on the OMX and of these approximately 130 are initial public offerings, as described by OMX classifications. Basic information

regarding these IPOs, such as listing price, date, industry sector and size of listing, was retrieved. To learn more about these IPOs, prospectuses were gathered either from the companies themselves, various underwriters or public authorities. For this study it has been possible to assess 94% of the prospectuses during the selected time period. The rest of the IPOs in this

period (6%) have been excluded due to changes in organizational form such as buyouts, reorganizations, mergers and acquisitions that limited access to relevant material. Data have been compiled regarding accounting information from the latest annual report at the time of the IPO as well as any information available on board members.

Table 1. Board member characteristics examined

Gender	Coded 0 for male and 1 for female.
Age	Refers to the age of each board member, continuous variable
Tenure	Refers to the period of time the director has held his or her position on the particular firm's board.
Founder	Founder of the corporation or immediate family of the founder.
Other board memberships	Indicates whether the board member also holds other directorships in other firm.
CEO positions	Indicates that the individual board member is employed as a CEO in either this firm or elsewhere.
Degree	Educational training received including degrees in Business, Engineering, the Sciences (including medicine), Law, and "Other" which included those in, for example, education, philosophy and languages
University attended	University attended when attaining their highest qualification, not whether a university was attended. Classified based on the Swedish national university ranking from the Swedish Chamber of Commerce, 2007.
Share ownership	Indicates whether board members have ownership in the firm.
Option ownership	Indicates whether board members own stock options in the firm.

To test the hypotheses, material on board member characteristics, such as gender, age, or qualifications such as tenure, other board memberships and CEO positions, degree and university attended have been collated. Table 1 gives a further description of the variables selected for analysis. After collecting data on individual board members a second data set was created by combining the information^[see endnote 2] about board members (719 people) associated with each corporation having undertaken an IPO. The latter, combined board data has excluded those members that were personnel representatives as atypical. These directors, elected by employees, are selected to represent employees rather than for the other contributions they may bring to board deliberations. Both data sets have then been subjected to a number of different statistical tests depending upon the purpose of the analysis. For example chi-square tests and analysis of variance (ANOVA) were used when analyzing for possible differences between independent groups such as industry classes. Chi-square analysis was used to deal with categorical variables (the majority considered herein), and ANOVA was considered more suitable when testing continuous variables such as age and term spent on the board.

4.3 Descriptive Statistics

Of the 122 IPOs for which data were collected and assessed, 79 were listed prior to 2000 while 43 were

listed in 2000 or later. Fifty-seven were Stockholm based companies; the remainder had headquarters outside Stockholm; four had headquarters outside Sweden. The majority of companies (83%) were international in scope, a practical necessity for most companies operating in Sweden. One industry sector, information technology, is slightly overrepresented, making up 37% of the corporations examined. This is, in all probability, due to the time period sampled which spans the IT-bubble in the late 1990's. The vast majority of the firms (80%) employed fewer than 500 individuals with a minority employing between 500 and 30,000 people. The mean employment statistic is, as a result, skewed. The inclusion of thirteen companies, eleven of whom employed between 1,000 and 10,000 and two of whom employed between 16,000 and 30,000 people has resulted in a considerably larger mean than median. Out of the 122 corporations 57.5% are classified as small or middle-sized enterprises (SMEs) under the EU-definition^[see endnote 3]. The OMX is comprised of a large number of smaller corporations together with only a small number of large corporations. This exchange make-up is reflected in this study. Additionally, 88% were O-listed, as would be expected given that most Swedish corporations start on the O-list and only move up to the A-list as the corporation grows^[see endnote 4]. As of October 2007, both the A and O lists have been replaced by Nordic lists and indexes.

The size of the boards examined were largely (73%) within the normal range (having between 5 to 7

directors) although this mean is pulled slightly to the higher side given a few firms with a greater number (8 or 9 board members and one with 12 directors on the board). In previous studies (Rosenstein 1988) the average board size at IPO was found to be expanded from an average of 3 to 5 directors up to 7 at the time of listing. Our mean of 6.5 members, appears to support that earlier assessment. However, excluding employee representatives on the Swedish boards the average board size is 6 members. The age of board members were relatively normally distributed between 40 and 60, with a mean of 50 years of age. The corporations examined do not provide us with a normal distribution in terms of their financial position.

The size of the IPO varied with half raising less than 150 million SEK. Table 2 is used to present the financial descriptors in the sample. However, the introductory price of shares for these IPOs was normally distributed with a mean of 72.27 SEK and a standard deviation of 36.51 SEK. The total capitalization of these companies was, in general, low, under 500 million SEK, most (80%) being under 1,000 million SEK. As was the case with the number of employees the mean is skewed due to the size make-up in the sample. A small number of corporations capitalized at between 10,000 million and 80,000 million SEK.

Table 2. Descriptive statistics

More information on descriptive variables is given below to demonstrate the nature of the corporations included in the study. The number of observations (varying due to missing values), means, standard deviations, minimum, median and maximum values are given. The 'introduction price' is the offer price before trading. The value of equity, total assets, turnover and operating profit is the number given in the last reviewed financial statement before the IPO. The number of employees is the average of employees employed during the year reviewed in the last financial report before the IPO and board size is the number of board members on the board as listed in the prospectus.

	N	Mean	σ	Min	Median	Max
Introduction price, SEK	122	72,27	36,51	13,00	64,00	190,00
Equity, MSEK	118	644,04	3207,42	-317,80	53,35	32893,00
Total assets, MSEK	117	2177,33	8403,61	5,19	161,40	76604,00
Turnover, MSEK	118	1573,32	5972,84	0,00	230,25	52121,00
Operating profit, MSEK	117	145,07	945,88	-5316,00	20,00	5946,00
Employees	119	933,15	3309,60	3,00	164,00	29546,00
Board size	122	6,48	1,56	3,00	6,00	12,00

As can be seen in Table 2 the median is, in several cases, notably lower than the mean as a result of the large number of smaller corporations in the data set together with the few larger corporations. Since the sample is skewed in terms of the size of corporations, size and age have been controlled for in the statistical analysis. The largest corporation included in this analysis could be considered an outlier potentially skewing the results of an analysis of a sample population. Given that the analysis includes the whole population of IPOs during the period being examined it does not bias our results. Therefore, that firm has been retained in this descriptive analysis of board variables for newly listed firms on the OMX. It has also been retained in the statistical analysis used to obtain the results presented below.

5. Results

Union representation on boards is generally considered untenable due to potential conflicts between the interests of shareholders and those of workers. Despite this, some form of partnership between management and labour has been attempted in various countries through such devices as the Dutch Works Council and voluntary participation even in Anglo-American corporations. According to Kluge and Stollt (2006), out of 27 EU countries, employee participation on boards of directors remains limited.

Where it does exist, employees generally participate through a dualistic structure with a management board and a supervisory board (16 of the 27). Six countries have legislated for employee participation on monistic boards of state owned corporations and, with the exception of Ireland and Romania where such representation is limited, no employees are included on private company boards. Romania's employee representative's act in an advisory capacity only. Two countries, Sweden and Luxembourg have monistic board structures and employee participation on these boards. In Luxembourg, provided the company has over 1000 employees, 1/3 of directors are to be drawn from their ranks. In Sweden, for similar sized companies, 3 employees are to be allowed on the board provided they do not then comprise the majority. Additionally, in Sweden, smaller listed companies with more than 25 employees must allow two employee representatives to participate on the board (again subject to a majority provision). Descriptive statistics alone demonstrate that while employee representatives are not required on boards, the prescription that they be allowed has had an influence on board construction. Almost a third (31%) of the boards in this data set had union representatives participating in the governance of the firm providing some support for the first hypothesis.

Given the need to reconstruct governance procedures as firms develop from the owner/manager

mode to listed companies, it was anticipated, in the second hypothesis, that the duration of time spent as members on their respective boards would be shorter than the terms of board members associated with firms which had been listed for a longer period. In the sample 41% of the directors had joined their respective boards during the previous year or later. The median term spent on the board for corporations in this dataset is two years^[see endnote 5]. Vafeas (2003) found, when investigating US listed corporations, that the average median tenure was 13.35 years. In comparison, average board tenure for Dutch corporations has been found to be 15.85 years, in the UK average tenure is as low as 6.84 (Glunk *et al.*, 2001). Comparing these figures with our results supports the second hypothesis that average board tenure is considerably higher for listed corporations than for those in the process of going public, where the tenure is, indeed, less than three years for most directors.

The third hypothesis covered the concept of gender inclusion. Given the lack of normality in the

distribution of percentages of female directors on the boards in the sample, a Mann-Whitney test of significance was used to determine whether the proportion of females on IPO boards had changed as suggested in the third hypothesis. The test revealed a highly significant difference between IPOs up until 2002 and those that occurred after 2002. It was in 2002 that the Government indicated an intention to legislate mandatory female representation on corporate boards (Leijonhufvud, 2002). The average (mean) proportion of female directors went from 3% prior to 2002 to a substantially higher proportion of 17% for IPOs occurring between 2003 and 2006. Leijonhufvud (2006) suggested that this alteration in board structure was a direct result of Swedish listed corporations anticipating legal changes regarding gender quotas. The strong results given by the Mann-Whitney test, as can be seen in table 3, as well as the previous indications by Leijonhufvud (2006) support the third hypothesis.

Table 3. Test statistics, two independent-samples test

	Percentages of females on the board
Mann-Whitney U	237.500
Wilcoxon W	6232.500
Z	-5.239
Asymp. Sig. (2-tailed)	.000

The support provided for the three hypotheses together indicates that coercive isomorphism is an influential factor when going public.

To test for the degree of mimetic isomorphism, hypotheses four and five were developed. The assumption underlying the fourth hypothesis was that for firms within the same industry there would be a higher degree of similarity between boards of directors than there would be for firms in disparate industries. The first steps in this evaluation were to separate firms by industry classification. Where particular industries (energy, materials, telecommunication services and consumer staples) were represented by a low number of corporations (1-4), limits on the statistical analyses that could be applied resulted in their elimination from testing for industry differences. The analysis below is thus performed on the remaining five categories; industrials, consumer discretionary, health care, financials and information technology. Chi-square analysis was used to examine whether specific characteristics associated with individual board members differed between industries. Each variable was tested individually with the results shown in Table 4. This approach was selected given that the variables to be assessed were nominal in nature. The two continuous variables (age and tenure) were assessed with ANOVA.

Table 4 shows that of the ten variables considered in relation to industry sector, eight were considered significant at the 5% level. These results indicate that homogeneity regarding director characteristics is larger within each industry sector than in the market as a whole, confirming the fourth hypothesis in regard to mimetic isomorphism. However, as the age and size of the corporation are conceivably correlated with industry categories, further analysis has been undertaken to examine these variables in more detail. The age of directors does not seem linked to the age of the corporation and is, instead, linked to industry classification as hypothesized. For example, those directors on boards in the health care and financial sectors are older than other directors despite the fact that the corporations tested within these sectors are at different ends of the spectrum on the age scale. The information technology corporations examined were also relatively young and these, too, had young board members, probably due to the relatively larger retention of founders on the board. Tenure on boards, experience as a board member elsewhere, share and option ownership do not seem to be correlated with the age of the corporation but may have some correlation with company size.

Table 4. Industry sector differences tested amongst board members

	Pearson Chi ²	df	Asymp. Sig. (2-sided)		
Gender	5.734	4	.220		
Founder of the corporation	18.841	4	.001 *		
Other board memberships	13.184	4	.010 *		
CEO positions	3.251	4	.517		
Share ownership	25.487	4	.000 *		
Option ownership	45.243	4	.000 *		
Degree	131.872	18	.000 *		
University attended	29.271	18	.045 *		

	Sum of squares	df	Mean square	F	Sig.
Age					
Between industries	1,026.422	4	256.606	3.614	.006 *
Within industries	45,155.955	636	71.000		
Total	46,182.378	640			
Tenure					*
Between industries	266.677	4	66.669	2.831	.024
Within industries	14,320.122	608	23.553		
Total	14,586.799	612			

*Significant at 0.05

Share and option ownership by directors is more common among the smaller corporations and more common in the health care and information technology sectors. More experienced directors were associated with the financial sector. All in all further examination still supports the fourth hypothesis that directors of corporations within an industry classification are more similar to each other than to those directors in other industry groupings.

The fifth hypothesis, also testing mimetic isomorphism, was based upon the assumption that the choice of underwriter is determined by their reputation. For the purpose of this study, market share as primary underwriter in the Swedish IPO market has been used as a proxy for underwriter reputation. This is similar to approaches employed in previous IPO research (e.g. Megginson and Weiss, 1991; Bodnaruk et al., 2007). A simple correlation (Pearson) analysis revealed a significant ($p < .05$) relationship between the year of the IPO and the reputation of the lead underwriter. With a correlation coefficient of 0.18, newer IPOs do have a lead underwriter with a higher market share, lending support for the fifth hypotheses and greater weight to the influence of mimetic isomorphism among firms undertaking an IPO.

The influence of normative isomorphism on boards at the time of the IPO was examined through three separate hypotheses. In the first, hypothesis six, a potential overlap amongst directors is suggested. That is, there was an expectation that the same pool of individuals had been called upon by firms going public. In this study 66 names (just over 10% of the board members) are reoccurring in the data two to four times. This is in line with previous studies undertaken in Sweden where the reliance on a single pool of potential directors has been confirmed. Jonnergård and Kärreman (2004) asserted that interlocking

directorships were common within the country. A total of 969 positions were filled by only 694 people (data from 1994-1999). In this study there were 719 board directorships filled by 638 people. This supports the sixth hypothesis that there is a degree of overlap in the pool of professionals available for board positions in newly listing IPOs.

The other hypotheses regarding the influence of normative isomorphism (H_7 , H_8) were more difficult to test given the limitations of data on the educational attainments of directors available in prospectuses. Additional data was, therefore, gathered through the internet and through direct contact using a mail survey and e-mails. It was possible to find information about degrees obtained for 296 directors (41% of the board members in the sample) and the university issuing those degrees for 200 of those directors, or 28% of the total board members in the study. Thus the analysis that follows is based on a smaller data set than previous analyses.

Given the data available, it would appear that the Stockholm School of Economics has educated the largest proportion of directors (20%) all of whom obtained business degrees. A major in business is also the most common educational attainment among all directors (45%). The second most common degree is engineering (28%). Medical degrees were only found within the health care sector while business degrees were more widespread. Obtaining a degree from a higher ranked university was more common within the industrials sector. As shown in Table 4, there is a significant difference ($p < .05$) between industries when it comes to the degree held by directors as well as the universities issuing those degrees. This lends credence to the seventh and eighth hypotheses.

6. Conclusions and Further Research

Investors and researchers believe that boards influence the profitability of firms. The characteristics of individual board members as the time of the IPO send signals to investors about the quality of the offering. Whether, understanding this, firms preparing for an IPO are subject to isomorphic pressures in the selection of their boards has been the subject of this research. By collecting information on Swedish firms that have gone public over the past ten years, the authors hoped to be able to examine the extent that board membership was predicated on isomorphic factors. The OMX provided a number of unique characteristics which made this analysis easier than would have been possible using more traditional databases. For example, Swedish authorities keep a broader range of statistics that are publicly available (such as directors' salaries and grades). Additionally, the number of participants is relatively limited, allowing the researchers to contact individuals when publicly available data was incomplete.

The hypotheses developed, based on institutional theory, were supported. By limiting the data base to newly listing firms, it was possible to examine elements of institutional isomorphisms more closely than would otherwise have been possible. That is, support for regulatory mechanisms influencing the selection of directors for newly listed firms appears to be confirmed. For example, the restructuring of board membership shortly before the IPO supported the coercive hypothesis. Additional support for this hypothesis is provided in the EU report by Kluge and Stollt (2006). The limitation of the database to newly listed firms was even more useful when examining mimetic and normative hypotheses. Further data collection, particularly data that could reveal information comparing successful and unsuccessful IPOs and the respective make-up of their boards; or data comparing the boards of IPOs within an industry with those of established companies in the industry would be useful. However, there is support for the assertion that mimetic isomorphism holds given the degree to which boards in similar industries are similar to each other but not to the boards of other industry sectors. Firms also tend to base their choice of lead underwriter upon the reputation established through previous successful IPOs. Finally, normative isomorphism is supported, with regard to the closed pool from which directors are drawn, the degrees held and universities attended.

These results extend our understanding of criteria used for the selection of board members in IPO firms. It is not enough to simply examine the number of insiders and outsiders on a board. Rather, knowledge about firm governance has been increased through an examination of the isomorphic factors influencing firms in their selection of board members at the time of the IPO. Regulatory and social expectations provide coercive pressures that feed into selection criteria. Seeking legitimacy, firms act as copy-cats applying

the same criteria in board selection as their previously successful brethren. Finally, at least in the relatively small and closed pool of potential board members drawn upon in Sweden, collegial norms are applied in the determination of appropriate characteristics to be held among the members of an IPO board of directors.

Sweden's code of corporate governance, Sweden's cultural milieu and the provisions for board membership represent differences that may make the application of assumptions and strategies derived from research in other countries inappropriate. Therefore, when examining the characteristics of board members issues such as the salary levels of Swedish corporate board members, which are substantially beneath those of their counterparts, (Carlsson, 2007) have to be considered when addressing director's motivation and/or recruitment.

Some issues have arisen, as a result of this research, that suggest fruitful avenues for further study in the future. For example, the dearth of females with directorships in Sweden is contrary to expectations. Another significant (at the 1% level) variation among female and male board members has been found in the data regarding the distribution among personnel/employee representatives. Among all boards of directors examined only 6.7% of members were female but among union representatives the females accounted for 27.4%. Among non personnel representatives as few as 4.6% of the directors were female. Why these differences should exist and whether legislation such as that in Norway ^[see endnote 6] redresses the gender problem could be usefully pursued by those interested in gender studies in business. This union connection between representatives and gender would also be of interest to researchers in labour economics. In extending this work, comparative studies between IPOs and listed firms would clearly be beneficial in determining the extent to which institutional isomorphisms influence firm choices, not only in Sweden but in other markets as well.

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Endnotes

¹ According to Grundvall *et al.* (2003) the IPO process takes at least one year, further emphasising the short term membership of directors on their respective boards.

² That is, percentages of board members in each firm were compiled based upon their individual characteristics. Thus board membership could be examined across all boards or by company groupings.

³ Within the EU, SMEs are defined as corporations with 10-249 employees and an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million (The Commission of the European Communities 2003). Seventy-one percent of the corporations in the sample meet at least one of these criteria.

⁴ The OMX A-list is reserved for larger corporations who can comply with a greater level of restrictions than those who are on the O-list.

⁵ The average (3.71 years) is elevated by a low number of board members with very high tenure, one having spent as much as 35 years on the same board. As a result, the median figure better represented the data.

⁶ Since January 2006 boards of corporations listed in Norway must consist of at least 40 % females (Ringborg, 2007).