

## A Preliminary Analysis of Early Corporate Governance in Greece:

1850-1909<sup>1</sup>

Konstantinos Aivalis (ICAP SA, Athens, Greece)  
aivali11@otenet.gr

Ioanna Pepelasis Minoglou  
(Athens University of Economics and Business)  
iminoglou@aueb.gr

This paper, which is part of a wider research project on the history of the Greek corporate sector, attempts a first exploration of corporate governance patterns in nineteenth century Greece utilising a sample of 100 *Société Anonyme* (SA) start-ups (over one third of the total population of SA start-ups founded during the period under study). The four central findings of this study are:

1. There was not one uniform form of corporate governance in nineteenth century Greece. There was a mixture of structures which encompassed varying degrees of separation between ownership and executive control, as has been the case more generally (Herrigel, 2007; Boyce and Ville, 2002).
2. Corporate governance principles evolved in an *ad hoc* fashion and changes were instigated by the founders of businesses and in the absence of reforms in the legal framework, which changed fundamentally only in 1920. Banks and companies affiliated with banking/business groups were in the forefront of change.
3. The 1870s were marked by: the first bubble in the Athens Stock Exchange (1872/3); a growing involvement of *diaspora* entrepreneurship in business in Greece (1871+) which became even more pronounced with the post 1879 massive foreign capital inflows and the expansion of industries which served the public at large, such as railways. We argue that this decade was also a watershed relating to corporate governance.
4. This is evident in several indicators: the reduction in the size of the Board of Directors; changes in the method of choosing the Director; the decrease in his real pay; the increased frequency of provisions for audit and for extraordinary shareholders General Assemblies. In addition, shareholder's voting power increased, as measured by the Hilt (2007) index, but it was shared between fewer larger, shareholders.

Section 1 of the paper outlines the basic features of nineteenth century Greek economy, society and business. It also discusses the main features of incorporation and the organizational design of start-ups. Section 2, the main core of the paper, analyses our recently constructed sample of 100 charters of SA companies<sup>2</sup>, which were established between c.1850 (at which point we have the first evidence of corporate governance) and 1909, a landmark year in the formation of the national bourgeoisie.<sup>3</sup> Section 3 offers a few preliminary observations on corporate finance while Section 4 presents the conclusions.

## 1. THE SOCIO-ECONOMIC FRAMEWORK

### 1.1. Economy, Society, and the Business World

In 1830 when Greece won independence from the Ottoman Empire, it was an economically devastated land. Despite the fact that Greeks have always been a seafaring people, the majority of the population laboured within the confines of a peasant subsistence economy. The degree of monetization of the economy was very low. Barter and hoarding was widespread as there were no banks and a modern framework of individual property rights was lacking. By 1909, Greece was in some respects quite a different country: its territory and population was significantly larger<sup>4</sup> and the standard of living much higher (Kostelenos,2007). Mainly as a result of massive current exports (1873-1896) and the post 1879 unprecedented in size foreign capital inflows it was also a much more open economy (Franghiades,2007). The relative contraction of the subsistence economy, the rise of a 'mercantile'<sup>5</sup> type of family capitalism and the creation of a first, albeit small, industrial core intertwined with: a significant expansion in monetization (Thomadakis, 1985); a sharp rise in the share of services (basically commerce<sup>6</sup> and shipping) in GDP and a shift from hoarding to capital accumulation. One more indication of the emergence of a more modern economy was the rising presence of the public domain/sphere through the provision of public and *quasi*-public goods. The expansion of capitalist relations was reflected in the emergence of a working class core; the multiplication of the bourgeoisie and the creation of professional associations such as chambers of commerce and mutual assistance societies.

The 1870s were the crucial turning point in the pace of modernization of the economy. An important force in the new Greece which was emerging was the significantly increasing business involvement of *diaspora* entrepreneurs in the homeland. Indeed, prominent *diaspora* bankers ushered in the massive foreign capital inflow and 'masterminded' the 1879 foreign debt settlement and the lifting of a 36 year international embargo on loans to the Greek government. (Dertilis 2005, p. 99-100).

Nineteenth century economic change did not materialize in a political vacuum. The political system was also undergoing transformation. Greece in 1830s was in essence a pre-modern state. However, within the context of the role assumed by new small countries in the post-'Crimean War', the pace of reforms quickened and by 1909 Greece had transformed itself into an idiosyncratic, yet modern nation state. The Ottoman legacy of strong localised formations of socio-political power was eroded with the introduction of constitutional monarchy (1843) and later with a parliamentary system based on universal male suffrage (1875) and a centralisation of public administration (Kostis,2005). Moreover, property rights were more clearly defined after the land reform of 1871(Franghiades,2007).

Within this socio-economic background what were the main features of the nineteenth century Greek business world? As was the case in politics and social life, the family lay as always at the centre of business. The majority of enterprises in Greece were small and very small, family commercial (in)formal partnerships built on relations of trust. Short-termism and a low degree of division of labour prevailed even also in the realm of big business. Entrepreneurs whose business operations were of a large scale collaborated with trusted members from family and the local community. They tackled the twin problem of high risk (under the constraints of a pre modern regime with limited monetization and capital shortage) through two devices: On the one hand,

through their participation in multiple short-term commercial partnerships, some of which were set up for one specific venture. On the other hand, although each large entrepreneur would be in full charge of a personal firm, he deliberately sought not to have the exclusive ownership in his hands. Characteristically, even the wealthiest of ship-owners did not have the exclusive ownership in any one of their ships. (For a first hand personal account: see Syngros,1907/8; 1998; for presentations of personal such testimonies, see: Polemis,1991; Chatzioannou, 2003.)

Last but not least it should be underlined that *diaspora* Greeks were at the centre of the local business elite. They were both envied and admired for their wealth; their business method serving as an ideal prototype. They also became intimately engaged with the introduction of institutional innovations into Greece, as for example the joint-stock company (Pepelasis Minoglou, 2007,2008).

## 1.2. The Nascent Corporate Sector

The first evidence of incorporation among Greeks is that of the 1770s marine insurance companies in Livorno and Trieste. (Katsiardi-Hering, 1986) Within the homeland the first share (but unincorporated) companies were also marine insurance firms founded during the War of Independence in Ermoupolis by Chiots related to the *diaspora*. (Kardasis,1987) Moreover, the *ex-diaspora* member Count Ioannis Kapodistrias, as first Governor of the country (1827–1831) was the symbolic and formal mediator for the formal introduction of incorporated businesses. Among his first acts in office was to create a joint stock *Banque d'Etat (Ethniki Hrimatistiki Trapeza)*, which after a very short and unsuccessful life was dissolved in 1834. This, as well as the first SA to be founded in post independence Greece, the marine insurance company 'I Achaia' (est.1836,) and the other joint stock companies founded thereafter took the shape of the French *Société Anonyme*.<sup>7</sup>

On the basis of information provided by a new data base compiled from the founding charters of the near total population of 311 nineteenth and early twentieth century SA start-ups, certain general observations can be made regarding the characteristics of the nascent corporate sector and its position in the economy (Pepelasis Minoglou, 2007).

First, although its participation in the total population of nineteenth century business start-ups was not numerically significant,<sup>8</sup> incorporation was of crucial significance, especially in relation to the mobilisation of capital. In the absence of a mature capital market and relevant data we use as a proxy for the significance (market capitalization) of the corporate sector in the economy the ratio of the total nominal capital of SA start-ups per year over non-agricultural GDP.<sup>9</sup> Sample data indicate that this ratio averaged 3.2% in 1854, the year of the first observation and 1909. This is a substantial number, especially if we take into account that the sample represents approximately one third of the total start-ups.

Moreover, incorporation was primarily located in the *avant garde* of the economy. It was predominant in marine insurance, large-scale banking. It was the sole form of business organisation of industrial organization chosen by private companies which served the expansion of the public sphere/domain.<sup>10</sup>By this meaning private for-profit enterprises which provided public and *quasi* public goods that the state was unwilling

or unable to offer at the time, such as rail transport, other large public utilities, banks with a privilege of note issue, public interest companies.

Second, although the spread of the SA was slow, in terms of the number of start-ups per annum, the nascent corporate 'sector'<sup>11</sup> seems to have entered a phase of take-off circa the opening of the twentieth century at which point the Greek economy was experiencing its first 'economic miracle' .

Third, over time the nascent corporate sector as a whole became wider in scope and there was a higher geographical concentration in the registration of SA start-ups in the main business centres and especially Athens. From the wider perspective of the evolution of incorporation what is of most significance is that these changes together with other important shifts in internal design occurred in the 1870s, i.e. nearly 30 years before the take-off in the rate of incorporation.

Fourth, the founders of SA companies were in the main males who belonged to the country's socio economic elite. Most were already well established merchant entrepreneurs. There were quite a few members of the *diaspora*. Up to the 1870s, foreigners were few.

Fifth, incorporation was driven by financial entrepreneurship. One third of SA start-ups consisted of banks and 'non bank financial institutions' (i.e. multipurpose enterprises which combined the provision of some financial services with other activities).<sup>12</sup> Moreover, from circa 1870/79 onwards banks played a vital role together with *diaspora* and foreign finance in setting up companies in knowledge-intensive and capital-intensive industries, most of which were in the public sphere/ domain, primarily railways. It must be noted here that syndicated loans raised on the international capital market financed the building and operation of the railway system by SA companies registered in Greece.<sup>13</sup> These and the other banking/business group companies lay at the very forefront of the evolving nascent corporate system and were by far the largest companies in terms of nominal capital.

The historical experience of Greece during this period complies to the finding of the twentieth century economic development literature that banking/business groups in developing economies have founded the most advanced SA start-ups in terms of capital, level of technology and links with foreign capital (Leff, 1979, 47). It is not surprising that nineteenth century Greece shared in common with less developed economies today a shallow capital market and a shortage both in capital and the local supply of entrepreneurship. In this line, the development of the Greek banking system is of paramount importance. Banks not only mobilised capital, through intermediation and attracting foreign funds, but also made their mark in introducing more hierarchical forms of business organisation. This last observation brings us to the issue of the organizational design of SA companies.

### 1.3. Organizational Design of SA Companies

Until 1920, when Greece finally introduced a Company Act (Law 2190/1920) the legal framework for incorporation was based on Articles 29-37,40 and 45 of the Napoleonic Commercial Code implanted in Greece in 1822/35.<sup>14</sup> Under the 'Code', although founding charters had to be ratified by a royal decree, little regulatory power was exercised over SA companies and they had plenty of leeway. No minimum nominal and paid up capital was posed as a precondition for their establishment; the obligation and rights of the management were not strictly defined; shareholders were given little legal protection, proper audited accounts were not required and external supervision was minimal. Initially, with the one exception of the National Bank of Greece (est. 1841) founding charters were laconic, but as time went by, although there was no change in the legal regime/framework the number of articles contained per charter increased in an *ad hoc* fashion to over sixty. Although to some extent the increase in *ex ante* organizational specifications may have been simply related to a growing need for self regulation within the nascent corporate sector, this development obviously suggests that the organizational framework of SA firms was becoming more mature over time.

The charters of the first SA companies suggest that these entities resembled large commercial partnerships in that the stipulated time horizon was short, the financial commitments demanded from shareholders and the specifications regarding other aspects of organizational design were minimal. However, the SA was not a static institution. Over the decades the designated life span of start-ups increased.

\_\_\_\_\_Insert Tables 1 and 2\_\_\_\_\_

In addition to the paid-up capital, there is evidence, that, shareholders were required to make a deposit in order that the company begin to operate<sup>15</sup>. Initially, the cash required was usually equivalent to 1/10 of the shares allocated to the shareholder. This requirement became more stringent over time and by 1900 it had become equivalent to the value of the share allotment. Moreover, there is also evidence of capital-deepening after 1878. The average nominal capital of firms increased as the corporate sector expanded into more modern and knowledge-intensive activities.

\_\_\_\_\_Insert Tables 3, 3a+b 4, 4a+b \_\_\_\_\_

Furthermore, partly as a result of the latter development and the decline in the total number of shareholders, the index of nominal capital per shareholder also rose. These trends were much more prominent in the case of banks and their affiliated companies.

\_\_\_\_\_Insert Tables 5 and 6 \_\_\_\_\_

Despite these general trends, it was also the case that the internal organization of SA start-ups throughout the period under study was not homogeneous. This was especially true regarding the shareholder base of SA start-ups. In specific, we would like to propose that in the nascent corporate sector of Greece five types of companies can be discerned. The first three were closer to the partnership type of firm and the last two were the nearest to hierarchies.<sup>16</sup>

Family based: SA start-ups that were usually small in nominal capital and always small in the number of founding shareholders. They began to appear sporadically in the 1880s and become more numerous in the opening of the twentieth century. Some

of these firms conflated into the next category as they involved in almost equal numbers family members and non-family merchant entrepreneurs.<sup>17</sup>

Merchant entrepreneurial: These were mostly medium in size in terms of nominal capital and had about ten shareholders; a combination of mostly *diaspora* prominent businessmen and/or commercial partnerships.<sup>18</sup> This type of SA first appeared in the late 1860s.

Populist: Start-ups of a rather medium size in terms of nominal capital largely based outside Athens. Each one was established by fifty to one hundred or more minority shareholders and some five to ten majority shareholders, none of which individually held more than 5 per cent of the capital. Shareholders were drawn from interlinked extended family and/or the local community networks. Almost all of such start-ups were marine insurance companies and they constituted the majority of SA start ups up to the 1870s/80s.

Banking/business group based: These were usually very large in terms of nominal capital had a small number of shareholders; largely banks and other business entities in which diaspora and/or foreign business interests were prominent. They were mostly based in Athens and although they were regular for-profit entities they provided public and *quasi*-public goods. With the exception of the *Elleniki Atmoploia* (est. 1856), they attained prominence from the 1870/80s onwards.

Publicly subscribed: SA start-ups, which were very large in terms of nominal capital and in which usually there was a small number of institutional majority shareholders (banks and/or contractors) and a large number of minority shareholders. Although the shares of such companies were listed in the Athens Stock Exchange, as was the case with the previous category, they resembled German joint-stock companies rather more than public US corporations which had a wider and more democratic shareholder base.<sup>19</sup> This category of start-ups was small in numbers and as was the case in the immediately previous category, they consisted near exclusively of privately owned firms involved in the production of public goods.

It is not the purpose here to provide an in depth answer to questions such as why SA firms took these organizational shapes and which factors determined their distribution over time and across industries. However, it must be underlined that the organisational mosaic that emerged was a reflection of the wider intermingling in society and economy of the old/traditional ways of business life with the imported innovations. On the one hand the new forms did not displace completely the old, and on the other there was interaction between the forces of tradition and modernity. In terms of their participation in the total population of SA start ups, the most numerous types of business firm organization were in order of importance: populist, merchant entrepreneurial (*cum quasi* family), banking/business group, family and publicly subscribed firms. However, in terms of their participation in total nominal capital, banks and banking/business group firms and publicly subscribed businesses were by far the dominant players.

As a closing comment to this Section it should be remarked that organizational design and corporate governance were tightly interlinked. The organizational diversity within

the nascent corporate sector impacted on corporate governance, and it is to that we now turn.

## 2. CORPORATE GOVERNANCE

### 2.1. The Sample and Methodology

Between 1830 and 1909, the total population of SA start-ups, which are recorded in the Archives of the National Bank of Greece, comprises 311 ventures.<sup>20</sup> On the basis of this list we have made a collection of the founding charters of what appears to be the total population of SA start-ups.<sup>21</sup> To examine the patterns of corporate governance employed by Greek firms in the nascent corporate sector, we selected a representative sample of 100 SA start-ups. This is quite a large sample: it accounts for 32.2 per cent of the population.

The sample is stratified according to year of incorporation and to sector of activity.<sup>22</sup> Within the different strata the sample is proportional. The following Table provides a summary of the sample characteristics.

Table 7		
The Sample: Distribution by Industry		
Industry	Firms	% of Sample
Mining and quarrying	15	15.0
Manufacturing and construction	18	18.0
Commerce	7	7.0
Railroads and other transport	6	6.0
Shipping	7	7.0
Utilities	6	6.0
Banking	10	10.0
Financial services	3	3.0
Insurance	28	28.0
Total	100	100.0

Table 8		
The Sample: Distribution by Decade/Period		
Decade/Period	Firms	% of Sample
1850-1859	8	8.0
1860-1869	25	25.0
1870-1879	10	10.0
1880-1889	13	13.0
1890-1899	11	11.0
1900-1909	33	33.0
1850-1878	43	43.0

1879-1909	57	57.0
Total	100	100.0

The following variables have been constructed using data collected from the charters and have been used in the analysis: Number of articles and subunits of charters; nominal capital invested per firm and per shareholder; stipulated life span of the company; number of shareholders; denomination, number and distribution of shares; size of the board of directors; occupation of the director; percentage of directors who were also shareholders; term of office, salary, bonus and number of shares held by the director; bonus awarded to the director; financial reporting standards, in particular, frequency of publication of financial reports; provision for financial audits; frequency of regular General Assembly provision for extraordinary General Assemblies; retained reserves as a percentage of profits.<sup>23</sup> In addition, we calculated an index of shareholders' power, which has been proposed by Hilt (2007, 7-10). Before proceeding, some methodological observations are in order.

First, although the sample contains 100 companies as already stated, the number of observations is not 100 for all of the variables. This due to the fact that sometimes charters do not provide information on all variables. This is the case for example with the provision of a bonus for the director.

Second, all amounts, which were naturally expressed in current prices, were transformed in constant 1864 Drachmas using the implicit deflator from the Kostelenos, *et al.* (2007) historical time series. Before this we transformed all amounts expressed in foreign currencies to Drachmas using the exchange rates in Dertilis (2005).

Third, statistics were computed for each variable, namely arithmetic mean, median, and standard deviation.

Fourth, the analysis of the variables mentioned above proceeds along two lines: one chronological, the other sectoral. We have computed these statistics for each decade between 1850 and 1909, as well as for the period up from 1850 to 1878 and from 1879 up to 1909. This division of the period under examination into two sub-periods proved very fruitful.<sup>24</sup> We also distinguished nine sectors, which are shown in Table 1. It should be noted that utilities include all firms in the so-called public sphere/ domain, which provide public or *quasi*-public goods, other than transport, which comprises two other separate industries.

Two tables are allocated to each of the variables. The first presents the three statistics of the per industry distribution; the second those of the per decade distribution.

## 2.2. The Rise of Corporate Governance in Greece

The term corporate governance has been approached from a number of perspectives. A wide definition being that it is the nexus of the internal and external relations of the firm. (Rehman, 2004) By the first meaning the distribution of rights among the diverse participants in SA companies: the board of directors, managers, and sharehold-



ers. These relations are often judged *vis a vis* an ideal type ‘shareholder democracy’. By external relations of the firm is usually meant the accountability to civil society and the state; an underlying desideratum being the aligning of the interests of firms with those of society. At this stage of our research, we only try to take into account as many variables as possible and comply with a wide perception of the complex process which corporate governance is.

### 2.2.1 The Birth of Professional Management Practices

#### Board of Directors

All of the charters assigned the management of the firm to a board of directors (BOD), one of whom was we would in modern jargon call the CEO.<sup>25</sup> Although the charters fail to provide a detailed job description for BOD members, it becomes clear from a close reading of them that they had supreme authority, especially the Director, over the day-to-day management of the firms, as well as over strategy and long-term planning. Of course, the role of BOD must have been very different across different company types. In family firms, the BOD must have been all-powerful, whereas, in later established SA companies shareholders had a more active role.

The size of the BOD varied between three and fifteen. The average number was nine. From 1879 onwards the ratio of the number of the board of directors to the total number of shareholders increased substantially, this being a result of the general fall in the number of shareholders per company which was related to the emergence of banking/business group based companies on the one hand and family or *quasi* family/entrepreneurial firms on the other.

\_\_\_\_\_Insert Tables 9 and 10\_\_\_\_\_

At this stage the data are not complete to allow us a thorough investigation on the extent to which BOD members were hired from the pool of shareholders, or shareholders delegated executive powers to outside professionals. However, a preliminary investigation reveals that in some cases at least, all BOD members were recruited from the shareholding body. Over time, it appears that there was a rise in the share of the total nominal capital of the firm, which was held by BOD members. The year 1880 seems to have been a turning point. Whereas in the beginning the participation of the board was circa 5 per cent of total nominal capital it now oscillated around 20 per cent, the upper limit being 80 per cent. Usually it was the case that the Director held a much larger number of shares than the other members. However, for banking/business group companies the director and each of the members of the board were allocated roughly equal amounts of shares. (Takopoulos, 2007)

Regarding the issue of payment to the board members the company statutes did not generally make any such provision. In certain rare instances they allowed for the General Assembly to determine a payment for their participation in board meetings. After 1878 an important change occurred in the company statutes. Prior to this the charters frequently named the Director, but not the other members of the board. After 1878 however, the opposite is true. This change is significant and indicates a transition from the personal/ownership based form of organisation to a managerial based typology of firms.

It is interesting that no rules and procedures were included in the charters for dismissing BOD members and the Director. Presumably, shareholders could vote for such a move in the General Assembly. Similarly, no compensation was set in the charters, not even in those, which set the Director's pay and bonus.

### The Director

The sample data provide limited information on the occupation of Directors. However, some observations can be made. Directors were typical specimens of Greek business in that they wore many hats (Foreman-Peck and Pepelasis Minoglou); at the same they differed in that unlike the general business population and the majority of shareholders, they did not declare themselves as merchant entrepreneurs and or land-owners. Those few directors who gave an occupation usually stated that they were bankers and professionals. Only in four SA start-ups was Director engaged in commercial activities.

Prior to 1878 the statutes named the first Director of the company, who almost always was a founding shareholder. However, thereafter it was most of the time stipulated that the Board of Directors in its first meeting would select one of its members as the first head of the company. This practice which was widely used for banking/business groups companies, suggests that a higher degree of professionalization was emerging and the beginning of a demarcation between the sphere of ownership and management.

In half of the cases there is no statement as to whether the director would or would not be a shareholder. In those company charters in which the director appeared also as a shareholder, the lowest percentage of shares to be held by one of them was 0.2 per cent and the highest was 19 per cent.<sup>26</sup> Ten out of a total of 49 companies for which we have data the directors had less than 1 per cent. The majority held shares did so around 1 to 5 per cent. No director is a majority shareholder with the exception of commerce which is a notoriously family based business (Chatzioannou, 2003).

\_\_\_\_\_ Insert Tables 11 and 12 \_\_\_\_\_

There was no standard term of office for the Director. The shortest term of office was three months and the highest was for life. For the first time in 1862 the term of office of the Director was not stipulated and after 1882 this practice became more and more common. Overall, the term of office was slightly shorter after 1878. The big change thereafter was that whereas up to then the term of office and the stipulated time length of SA start-ups roughly coincided in length (on average 8 and 9 years respectively), thereafter there was a large gap between the two. The stipulated time length of companies quadrupled whereas the term of office of directors actually decreased by one year. This can be seen as further evidence for the increased presence of the rise of professional managers, with greater accountability to shareholders.

In terms of sectoral diversity the following observation can be made: The highest terms of office were in railroads (20 years). The lowest were in shipping (6 years), commerce (5 years) and public utilities (5 years)! Businesses in shipping and commerce operated as family firms/partnerships with short horizons and were allocated short life spans, whereas for utilities the time lengths assigned were 50 years.

Only in a few companies in the sample (28 per cent) did the charters stipulate Director's pay. Presumably, in the other 72 per cent the salary was set by the BOD or the General Assembly. What is remarkable is that the annual salary decreased in real terms after 1878.<sup>27</sup> In some instances in which the Director was also a shareholder it was specifically declared that he would not have a salary. In this case sometimes he would be allocated a pre-specified share in the profits. In roughly one fifth of the cases (and mostly after 1878) the salary was defined by the General Assembly. This together with the fact that the level of the salary of directors from 1879 onwards correlated to the size of the nominal capital of the firm perhaps suggests two things: First, that in smaller personal/family based firms usually one of the shareholders would take upon him a managerial role as well. Second, that as time went on salaries became related to performance which was left to be assessed by the annual shareholders meetings. This observation is consistent with the policy regarding bonuses.<sup>28</sup> In only very few cases provisions for bonuses were included in the company statutes. The last time provision was given for a bonus was in 1869. The lucky person was Kyriakos Charalambides who was to receive 36% of net profits.<sup>29</sup>

### 2.2.2 Early Attempts to Solve the Principal-Agent Problem

The control of managers by shareholders is an elusive aim. Even today, where a sophisticated system of controls is in place, the problem remains acute and it is the essence of corporate governance theory. In nineteenth and early twentieth century Greece the problem was present of course,<sup>30</sup> but the attempts to find some solution were rather rudimentary and probably ineffective.

Be that as it may, it is of particular interest that right from the beginning; firms were accountable not only to their own shareholders but also to the government and society at large. The royal decrees issued for the establishment of SA firms stipulated two conditions. First that the company would observe the terms set out in its charter; Second, that it would submit a summary statement of its operations on an annual basis to the ministry of interior and to the local prefecture. The state in principle could recall the licence if the company did not operate in accordance to the charter.<sup>31</sup>

Shareholders could exert authority over directors in a number of ways: through examining the financial statements provided; by calling for an audit and after 1890 in some firms by calling for an extraordinary General Assembly.<sup>32</sup> They could voice their dissatisfaction with company directors by not re-electing them and not providing a bonus. Needless, to say as the (in)formal capital market deepened they could also sell their shares.

Shareholders had access to the accounting books at the General Assembly. The usual practice followed was that during the announcement of the distribution of dividends in the General Assembly financial information was handed out. It is notable that the term balance sheet appears for the first time in 1877. Up to that time no generally accepted

term was employed. Among the financial information provided was included information on the size of profits and the percentage of earnings that were retained as reserves. All of the firms basically published financial statements annually. In less than 10 per cent of the cases the companies issued financial statements every six months.

\_\_\_\_\_Insert Tables 17 and 18\_\_\_\_\_

A large part of the charters, namely 78 per cent, provided for internal audit of the companies' accounts. The General Assembly, which was stipulated to meet once a year, could select a committee of shareholders, usually composed of three members, to audit the financial statements provided by the company directors. Such provisions in the charter became more frequent after 1878. This may be interpreted as yet another indication for the need for greater transparency towards the end of the period under examination.

\_\_\_\_\_Insert Tables 19 and 20\_\_\_\_\_

Another safety valve in the system was the provision in most charters (74 per cent of the total) for extraordinary General Assemblies. Such provisions in the charters increased over time and the share of sample firms which provided for such control mechanisms rose from 23 per cent before 1879 to 51 per cent afterwards. This change may be indicative of the increased realisation of the needs for more effective control of managers in the last quarter of the nineteenth century.

\_\_\_\_\_Insert Tables 21 and 22\_\_\_\_\_

### 2.2.3. Shareholder Voting Schemes

At the end of the period under study the nominal price of shares was half than what it was in the beginning. This can be seen as an indication of the popularization and the growing availability of shares to all social classes which is no doubt associated with the development of the capital market. However, this should not lead us to the conclusion that shareholder 'democracy' increased over time. In fact, the opposite seems to have been the case.

To measure the extent to which small shareholders were in a position to challenge larger shareholders we examined the voting patterns stipulated in the charters and adopted an index of the "... *potential* of a given voting rights configuration to reduce the power of large shareholders" as has been proposed by (Hilt 2007, 8-10). The index, which is fully explained in Hilt *op. cit.* is very useful in examining what the company charters stipulated with reference to the voting schemes of shareholders.

The hilt index is defined as follows:  $V_i = (1/N) \cdot \sum [v_i(n)/n]$ , where N is the total number of shares for the *i*th company;  $v_i(n)$  a function of voting rights derived from the *i*th company's charter specifying the number of votes the holder of *n* shares is entitled. Obviously,  $V_i$  can take values in the range of 0 to 1, both inclusive. If one share represents one vote  $V_i = 1$ .

As mentioned above the Hilt index takes values in the range 0 and 1: 0 indicating a fully-graduated voting scheme and indicating a system whereby each share is worth 1

vote. Obviously, the closer the value of the index is to unity the higher the power of large shareholders; whereas low index values imply that voting schemes are graduated to protect small shareholders.

Using the sample data we computed average Hilt indices for each sector and for each decade. The results are presented in Tables 13 and 14. The overall average Hilt index was found to be equal to 0.105, which is a very number compared to Hilt's own estimates for 1790-1835 of 0.63. This difference, however, may be due to differences in the samples: That of Hilt is much larger<sup>33</sup>, covers a different time period<sup>34</sup> and is differently weighted. These potential reasons aside, the differences may in fact reveal differences between the voting rights in American and Greek companies, but such an analysis is well beyond the limits of this preliminary investigation.

Looking at the Greek sample data one can discern a turning point. Again this is the year 1879. The average Hilt index for the period 1850-1878 was found equal to 0.056; whereas the value for the subsequent period, 1879-1909 was much higher 0.140. Moreover, the value of the index increases continually from 1880, apart for the first decade of the twentieth century, where a fall is recorded. This seems to imply that as the nineteenth century progressed the company charters were becoming less conscious of the need to curb the power of largest shareholders. This is consistent with the drop in the number of initial shareholders, the increase in the value of investment per shareholder, as well as the change towards more modern and complex business structures where banking/business groups had a strong presence and where foreign capital was beginning to flow in Greece. Because of these conditions, it can be argued that the relative weakening of graduated voting schemes was in response to the need of large shareholders, who increasingly were banking/business groups and who were increasingly located abroad to have closer control of their larger Greek investments.

\_\_\_\_\_Insert Tables 23 and 24\_\_\_\_\_

### 3. CORPORATE FINANCE IN AN AGE OF CAPITAL CONSTRAINTS

As discussed above, capital requirements increased substantially over time. This trend was matched by the increase in the average capital invested per shareholder. The increase was much more pronounced as the average number of shareholders per company decreased on the whole.<sup>35</sup>

The company charters do not reveal how the start-up and working capital requirements were financed. Nevertheless, it is almost certain that inheritance, marriage, ploughed back profits, family and private networks remained throughout the main source of finance for SA start-ups. Only to a marginal extent did companies resort to external sources of finance. There were a few new flotations on the Athens Stock exchange (est. 1876) for capital intensive ventures, notably railways, the Corinth Canal, and some banks. (Dertilis, 2005) Only thirteen SA start ups raised bonds and the first company to do so was in 1872.

Towards the end of the period under examination a new source of finance appeared, namely the transfer of personal assets to the SA start-ups. These assets were either real estate, or machinery, but, more important, concessions, or licences the shareholders held from the government. This for example is the case of railroads, where some part-

ners, notably foreigners transferred their right in exchange for shares. We cannot have a complete picture of start-up financing, but some interesting facts emerge from the close examination of the charters.

To start with, over time investment per shareholder increased substantially. This is not surprising given the expected increase in the degree of capital intensity in the process of economic development. However, the data also reveal a much larger and increasing standard deviation of capital per shareholder from 1870 onwards. This may be indicative of dualism within the corporate sector and is probably related to the rise of tightly knit banking/business groups consisting of few partners' and their publicly subscribed spin-offs and the post 1880 appearance of family SA companies. If we shift the focus of our analysis from chronology to sector the picture that emerges is the following: the sectors within which there was more homogeneity (and a less marked dualism) were commerce, traditionally a preserve of family business and public utilities, a preserve of banking/business groups. Pointedly the former had the lowest average nominal capital per shareholder for the period under study and the latter had the highest.

This issue is related to the changes in the valuation of shares of start-ups. Here we discern two tendencies. First, share prices steadily dropped in real terms and in 1909 the average value of shares expressed in 1864 Drachmas was half of that in 1830. Again, the 1870s were a turning point. Namely, this was the decade during which Greece experienced its first bubble (1872/3) in the intensive trading of company shares. Second, whereas prior to 1879 the median value of shares was somewhat higher than the average, in the post 1879 period the median was roughly one third the average. This suggests that although there was an overall drop in start-up share prices, a few companies had relatively very high share prices issued. This was so especially in shipping and commerce, two areas where family firms ruled. Those firms that issued shares at the lowest prices were manufacturing-construction, mining, public utilities and banking all of which began to expand in the 1870s/1880s.

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Insert Tables 25, 26, 27,28

Regarding the types of shares issued: From the total of 59 observations, in 28 companies shares were registered, in 33 companies they were issued to the bearer. In 15 cases both types were issued. The first case where it is explicitly stated whether the shares were of the first or second type was in 1856 and the share was of a registered type. The first mention of shares issued to the bearer was in 1870. Most banks railways and public utilities had shares issued to the bearer. The introduction of shares issued to the bearer coupled with the decrease in the price is probably an indicator of the growth of an informal market. For only a very few companies during our period under study were registered on the stock exchange. There was trading in shares and the bubble occurred even before the Athens Stock Exchange was set up (est.1876). All shares were common. Preferential shares were issued by a company for the first time in 1894. They appeared only in three start-ups, all of which were mining companies.

Turning now to operating capital, we note that in most of the cases the charters provided for the building up of reserves through the withholding of an average of 15 per cent of annual profits. This was probably used to finance the operation of the company and to cover future capital needs. The share of profits used for reserves de-

creased substantially after 1879, a development which must be related to the growth and expansion of the Greek financial system. Another factor at play was the marked shift of incorporation away from insurance.

\_\_\_\_\_Insert Tables 29 and 30\_\_\_\_\_

#### 4. DISCUSSION AND CONCLUSIONS

Since the data set is not yet complete, robust findings cannot be expected. Nevertheless, it is possible even at this early stage of our research to sketch our findings regarding the main parameters of corporate governance in nineteenth century Greece.

First, the nascent corporate sector was not homogenous. Diversity in organizational design (and the ways companies were set up and operated) was mirrored in the diversity of corporate governance.

Second, within this reality of diversity it is possible to discern circa the 1870s the emergence of a pattern of *ad hoc* changes (see below fifth point) initiated by banks and banking/ business groups which observed and borrowed techniques/practices from abroad. Both of these privately owned groups of organizations were in the *avant garde* of the nascent corporate sector and partly ‘placed’ in the public sphere. They responded to the needs for higher capital requirements which increased substantially in real terms, as a result of increased knowledge and capital intensity and of the need to operate in a larger and growing economy.<sup>36</sup>

It should be underlined here that this paradigm shift away from governance structures resembling those of flat organizations did not spread throughout all of the corporate system with equal force. At this point we feel that it is relatively safe to make a first speculation that family and entrepreneurial based firms were not affected to the same degree and that in them the separation between ownership and management remained less pronounced.

Third, apparently evolution in corporate governance was the outcome of a number of factors besides the increasing needs for capital deepening. It is at this moment a matter of contention of whether changes in governance practices was the result of internal or external influences. In more detail, whether such changes were introduced by entrepreneurs themselves as a result of the needs for improved governing principles in view of increased capital requirements, or whether it was a response to the trauma of the 1872/3 speculative bubble in mining and the other mini bubbles that ensued in the 1870s. Of course, it is also possible that other factors were at work: namely that there was an element of outside pressure especially following the opening in 1879 of the Greek economy to cross border capital flows. This implies that foreign business investors and their *diaspora* Greek collaborators (involved in the founding of banks and companies affiliated with business groups) had more modern concepts of governance and hence created pressure posed within the nascent corporate sector for clearer property rights, more reliable enforcement, and greater transparency.

Fourth, closer ties with the international financial community may have enhanced the capital market as an institution but did not seem to have led either to a large reliance of companies on external sources of finance or to a greater dispersion of ownership. In fact, holdings became more concentrated in the corporate sector during the post-1879 massive foreign capital inflow ( Herrigel, 2007).

Fifth, hence, despite the fact that the institutional framework did not change until the Company Act of 1920, a number of factors necessitated the change in corporate governance towards a system whereby shareholders increased, at least potentially, their control over the Board of Directors and the Director. These changes can be discerned in several changes in company charters. First, the Board of Directors became smaller in size, indicating a need for more efficient and tightly knit management teams. Moreover, the Director was less frequently named in the charters, but was chosen by the BOD members. Next, with increased frequency the charters allowed shareholders to audit the accounts and call extraordinary General Assemblies. Last, but not least, the Hilt index increased. This indicates that small shareholders had increasingly less voting power.

These observations are in line with the decrease in the number of shareholders, the increased investment per shareholder, as well as the introduction of more modern and complex business structures and the expansion of the *avant garde* sector of the economy where private profit and the serving of the public interest (the widening of the public sphere/domain) coincided.

One last comment: In spite of progress in a number of fronts ( the birth of management practices, early attempts to solve the principal-agent problem and steps forward in corporate finance) corporate governance in Greece remained in a number of ways typical of what was the case in the pre modern era of business incorporation -pre 1844 for Britain (Hein,1963 ). Parenthetically, it should be noted here, that progress concerned only internal governance and did not involve a tighter external monitoring of SA start-ups by the state.

We are still in the beginning and many more features of corporate governance need to be revealed. It seems therefore appropriate to close this paper with a short list of the variables that need to be explored in the future and some of the open questions:

Variables:

1. The distribution of shares among shareholders in detail so that we can measure the exact concentration of ownership and relate this to the voting power index.
2. Voting by proxy
3. Examining the surnames, occupation place of domicile of shareholders and managers.

Open questions:

- What are the findings about the characteristics of individual shareholders and their distribution over time, especially after the 1870s and how did any changes affect governance and shareholders' voting power?

-Through what incentive schemes did the state yield its authority over private companies serving the public good such as railways?

-To what extent did the 1920 Company Act give *ex post* statutory sanction to the *ad hoc* changes in corporate governance?



The answer to this second question is important for understanding not only the evolution of corporate governance in Greece but also the dynamics of institutional change.

-How can the Greek case be placed in the growing international literature on comparative corporate governance (as for example Morck and Steier, 2005; Guinnane, Harris Lamoreaux and Rosenthal,2007), and what new does it have to teach us regarding the conventional dichotomy between civil code and common law countries?

-Could it perhaps be argued that in similarity to Germany and Japan (Basken and Miranti,1997) in the Greek case a corporate governance system emerged which was secretive and which served the interests of a select few banking (and affiliated) institutions?

## TABLES

Table 1				
Statutory Company Life: 1850-1909				
First observation: 1854				
Distribution by Industry				
Industry	Firms	Average (years)	Median (years)	Standard Deviation (years)
Insurance	27	15	5	25
Commerce	7	21	20	15
Manufacturing and construction	16	26	30	11
Utilities	4	75	75	28
Shipping	7	22	20	16
Financial services	3	48	50	28
Banking	9	28	30	15
Mining and quarrying	10	40	50	14
Railroads and other transport	4	28	30	15
<b>Total</b>	<b>87</b>	<b>28</b>	<b>20</b>	<b>24</b>

Table 2				
Statutory Company Life: 1850-1909				
First observation: 1854				
Distribution by Industry				
Decade/Period	Firms	Average (years)	Median (years)	Standard Deviation (years)
1850-1859	8	10	5	8
1860-1869	22	8	5	5
1870-1879	7	18	15	9
1880-1889	12	54	40	32
1890-1899	10	31	30	15
1900-1909	28	39	30	22
1850-1878	37	10	10	7
1879-1909	50	41	30	24
<b>Total</b>	<b>87</b>	<b>28</b>	<b>20</b>	<b>24</b>

Table 3		
Total Capital Invested: 1850-1909		
First observation: 1854		
Distribution by Industry		
<i>(GDR. constant 1864 prices)</i>		
<b>Industry</b>	<b>Firms</b>	<b>Total Capital</b>
Insurance	26	30,642,749
Commerce	5	1,105,402
Manufacturing and construction	17	11,544,559
Utilities	6	10,243,305
Shipping	6	12,056,301
Financial services	2	10,377,882
Banking	8	23,131,316
Mining and quarrying	15	11,546,382
Railroads and other transport	5	55,081,666
<b>Total</b>	<b>90</b>	<b>165,729,562</b>

Table 4		
Total Capital Invested: 1850-1909		
First observation: 1854		
Distribution by Decade/Period		
<i>(GDR. constant 1864 prices)</i>		
<b>Decade/Period</b>	<b>Firms</b>	<b>Total Capital</b>
1850-1859	8	10,592,800
1860-1869	23	24,872,782
1870-1879	10	10,376,815
1880-1889	11	58,406,798
1890-1899	10	25,654,448
1900-1909	28	35,825,919
1850-1878	41	45,842,397
1879-1909	49	119,887,165
<b>Total</b>	<b>90</b>	<b>165,729,562</b>

Table 3a				
Capital Invested per Firm: 1850-1909				
First observation: 1854				
Distribution by Industry				
<i>(GDR. constant 1864 prices)</i>				
Industry	Firms	Per Firm Capital	Median	Standard Deviation
Insurance	26	1,178,567	964,258	1,230,692
Commerce	5	221,080	239520	157,539
Manufacturing and construction	17	679,092	332,856	1,108,128
Utilities	6	1,707,218	1,550,128	968,183
Shipping	6	2,009,384	1,684,646	1,495,772
Financial services	2	5,188,941	na	7,222,959
Banking	8	2,891,415	1,894,342	2,452,918
Mining and quarrying	15	769,759	366,914	875,224
Railroads and other transport	5	11,016,333	7,361,384	13,376,210
<b>Total</b>	<b>90</b>	<b>1,841,440</b>	<b>784,635</b>	<b>3,992,529</b>

Table 4a				
Capital Invested per Firm: 1850-1909				
First observation: 1854				
Distribution by Decade/Period				
<i>(GDR. constant 1864 prices)</i>				
Decade/Period	Firms	Per Firm Capital	Median	Standard Deviation
1850-1859	8	1,324,100	1,286,213	840,722
1860-1869	23	1,081,425	370,131	1,302,795
1870-1879	10	1,037,682	469,524	1,612,837
1880-1889	11	5,309,709	1,918,770	9,893,006
1890-1899	10	2,565,445	1,065,143	3,700,780
1900-1909	28	1,279,497	732,328	1,750,356
1850-1878	41	1,118,107	670,749	1,285,827
1879-1909	49	2,446,677	798,399	5,230,422
<b>Total</b>	<b>90</b>	<b>1,841,440</b>	<b>784,635</b>	<b>3,992,529</b>

Table 3b					
Total and Per Firm Capital Invested: 1850-1909					
First observation: 1854					
Distribution by Industry					
<i>(GDR, constant 1864 prices)</i>					
Group	Firms	Total Capital	Per Firm Capital	Standard Deviation	Median
Banks	8	23,131,316	2,891,415	2,452,918	1,894,342
Bank affiliates	15	56,540,624	4,711,719	2,061,512	9,295,838
Other	78	109,188,938	1,399,858	2,144,384	636,711
<b>Total</b>	<b>90</b>	<b>165,729,562</b>	<b>1,841,440</b>	<b>3,992,529</b>	<b>784,635</b>

Table 4b				
Capital Invested per Shareholder: 1850-1909				
First observation: 1864				
Distribution by Industry				
<i>(GDR, constant 1864 prices)</i>				
Group	Firms	Average	Median	Standard Deviation
Banks	7	303,419	68,966	468,749
Bank affiliates	15	442,453	366,914	498,373
Other	75	130,096	23,177	308,313
<b>Total</b>	<b>86</b>	<b>170,048</b>	<b>27,308</b>	<b>350,696</b>

Table 5				
Capital Invested per Shareholder: 1850-1909				
First observation: 1864				
Distribution by Industry				
<i>(GDR, constant 1864 prices)</i>				
Industry	Firms	Average	Median	Standard Deviation
Insurance	26	23,502	9,005	39,380
Commerce	5	19,195	21,775	13,756
Manufacturing and construction	16	148,318	37,535	384,355
Utilities	6	415,850	383,057	376,491
Shipping	6	231,813	159,998	292,355
Financial services	2	868,221	na	1,199,022
Banking	7	303,419	68,966	468,749
Mining and quarrying	14	98,120	40,724	108,718
Railroads and other transport	4	606,003	443,928	620,360
<b>Total</b>	<b>86</b>	<b>170,048</b>	<b>27,308</b>	<b>350,696</b>

Table 6				
Capital Invested per Shareholder: 1850-1909				
First observation: 1864				
Distribution by Decade/Period				
<i>(GDR, constant 1864 prices)</i>				
Decade/Period	Firms	Average	Median	Standard Deviation
1850-1859	8	12,841	10,288	6,969
1860-1869	23	21,335	9,103	27,501
1870-1879	10	91,339	20,318	205,660
1880-1889	11	350,112	218,295	494,982
1890-1899	8	362,348	119,222	503,300
1900-1909	26	244,897	107,879	413,114
1850-1878	41	36,752	9,824	104,580
1879-1909	45	291,496	114,057	442,725
<b>Total</b>	<b>86</b>	<b>170,048</b>	<b>27,308</b>	<b>350,696</b>

**Sample TABLES 7 AND 8 ARE IN THE TEXT**

Table 9  
 Number of Shareholders and the Size of the BOD: 1850-1909  
 First observation: 1854  
 Distribution by Industry

<b>Industry</b>	<b>Firms</b>	<b>Shareholders</b> <i>(average)</i>	<b>BOD Members</b> <i>(average)</i>	<b>Ratio</b>
Insurance	25	88	9	0.10
Commerce	3	14	7	0.50
Manufacturing and construction	4	40	7	0.18
Utilities	1	8	26	3.25
Shipping	7	Na	na	na
Financial services	0	36	7	0.19
Banking	5	46	8	0.17
Mining and quarrying	9	20	7	0.35
Railroads and other transport	1	13	7	0.54
<b>Total</b>	<b>55</b>	<b>56</b>	<b>9</b>	<b>0.16</b>

Table 10  
 Number of Shareholders and the Size of the BOD: 1850-1909  
 First observation: 1854  
 Distribution Decade/Period

<b>Decade/Period</b>	<b>Firms</b>	<b>Shareholders</b> <i>(average)</i>	<b>BOD Members</b> <i>(average)</i>	<b>Ratio</b>
1850-1859	8	101	9	0.09
1860-1869	24	67	12	0.18
1870-1879	9	53	7	0.13
1880-1889	2	12	7	0.58
1890-1899	2	34	8	0.24
1900-1909	10	9	7	0.78
1850-1878	41	71	10	0.14
1879-1909	14	13	7	0.54
<b>Total</b>	<b>55</b>	<b>56</b>	<b>9</b>	<b>0.16</b>

Table 11				
Company Shares held by Director: 1850-1909				
First observation: 1854				
Distribution by Industry				
Industry	Firms	Average (%)	Median (%)	Standard Deviation (%)
Insurance	23	2.2	1.5	1.6
Commerce	4	7.7	5.5	8.2
Manufacturing and construction	8	4.2	1.8	5.4
Utilities	1	0.2	0.2	-
Shipping	4	2.7	2.6	2.3
Financial services	0	Na	na	na
Banking	6	1.5	0.8	1.4
Mining and quarrying	2	1.3	1.3	0.5
Railroads and other transport	1	3.0	3.0	-
<b>Total</b>	<b>49</b>	<b>2.9</b>	<b>1.5</b>	<b>3.6</b>

Table 12				
Company Shares held by Director: 1850-1909				
First observation: 1854				
Distribution by Decade/Period				
Decade/Period	Firms	Average (%)	Median (%)	Standard Deviation (%)
1850-1859	7	1.4	1.0	1.1
1860-1869	20	3.3	2.7	4.0
1870-1879	7	1.2	1.0	0.9
1880-1889	4	5.7	3.0	7.5
1890-1899	5	2.3	1.5	2.1
1900-1909	6	3.7	2.8	3.0
1850-1878	34	2.5	1.4	3.3
1879-1909	15	3.8	1.8	4.3
<b>Total</b>	<b>49</b>	<b>2.9</b>	<b>1.5</b>	<b>3.6</b>



Table 13			
Directors' Term of Office: 1850-1909			
First observation: 1854			
Distribution by Industry			
Industry	Firms	Term of Office (average, years)	Statutory Com- pany Life (average, years)
Insurance	26	8	16
Commerce	3	6	9
Manufacturing and construction	5	10	23
Utilities	1	5	50
Shipping	1	5	5
Financial services	0	na	na
Banking	7	11	25
Mining and quarrying	2	9	15
Railroads and other transport	1	20	20
Total	46	9	18

Table 14			
Directors' Term of Office: 1850-1909			
First observation: 1854			
Distribution by Decade/Period			
Decade/Period	Firms	Term of Office (average, years)	Statutory Com- pany Life (average, years)
1850-1859	7	4	8
1860-1869	20	8	9
1870-1879	7	16	20
1880-1889	3	12	27
1890-1899	2	5	28
1900-1909	7	7	57
1850-1878	34	9	10
1879-1909	12	8	44
<b>Total</b>	<b>46</b>	<b>9</b>	<b>18</b>

Table 15				
Company Director's Annual Salary: 1850-1909				
First observation: 1856				
Distribution by Industry				
<i>(GDR, constant 1864 prices)</i>				
Industry	Firms	Average	Median	Standard Deviation
Insurance	18	5,607	5,814	1,036
Commerce	2	5,626	na	1,074
Manufacturing and construction	2	4,771	na	1,973
Utilities	1	5,007	na	na
Shipping	1	4,424	na	na
Financial services	1	2,446	na	na
Banking	0	Na	na	na
Mining and quarrying	2	3,168	3,168	620
Railroads and other transport	1	8,586	na	na
<b>Total</b>	<b>28</b>	<b>5,304</b>	<b>5,561</b>	<b>1,428</b>

Table 16				
Company Director's Annual Salary: 1850-1909				
First observation: 1856				
Distribution by Decade/Period				
<i>(GDR, constant 1864 prices)</i>				
Decade/Period	Firms	Average	Median	Standard Deviation
1850-1859	5	4,786	4,857	1,359
1860-1869	16	5,792	6,057	796
1870-1879	4	5,272	4,886	2,647
1880-1889	0	Na	na	na
1890-1899	1	3,376	na	na
1900-1909	2	3,727	na	1,811
1850-1878	25	5,507	5,571	1,323
1879-1909	3	3,610	3,376	1,296
<b>Total</b>	<b>28</b>	<b>5,304</b>	<b>5,561</b>	<b>1,428</b>

Table 17			
Financial Reporting Standards: 1850-1909			
First observation: 1854			
Distribution by Industry			
Industry	Firms	Semi-Annual Statements (%)	Annual Statements (%)
Insurance	28	7.1	92.9
Commerce	7	0.0	100.0
Manufacturing and construction	16	12.5	87.5
Utilities	5	0.0	100.0
Shipping	7	0.0	100.0
Financial services	3	66.7	33.3
Banking	9	22.2	77.8
Mining and quarrying	13	0.0	100.0
Railroads and other transport	5	20.0	80.0
<b>Total</b>	<b>93</b>	<b>9.7</b>	<b>90.3</b>

Table 18			
Financial Reporting Standards: 1850-1909			
First observation: 1854			
Distribution by Decade/Period			
Decade/Period	Firms	Semi-Annual Statements (%)	Annual Statements (%)
1850-1859	8	25.0	75.0
1860-1869	22	4.5	95.5
1870-1879	9	11.1	88.9
1880-1889	11	18.2	81.8
1890-1899	11	9.1	90.9
1900-1909	32	6.3	93.8
1850-1878	39	10.3	89.7
1879-1909	54	9.3	90.7
<b>Total</b>	<b>93</b>	<b>9.7</b>	<b>90.3</b>

Table 19			
Provisions for Shareholders' Audit: 1850-1909			
First observation: 1854			
Distribution by Industry			
Industry	All Firms	Firms with Provisions	Ratio (%)
Insurance	28	22	78.6
Commerce	7	7	100.0
Manufacturing and construction	18	14	77.8
Utilities	6	5	83.3
Shipping	7	2	28.6
Financial services	3	2	66.7
Banking	10	8	80.0
Mining and quarrying	15	14	93.3
Railroads and other transport	6	4	66.7
<b>Total</b>	<b>100</b>	<b>78</b>	<b>78.0</b>

Table 20			
Provisions for Shareholders' Audit: 1850-1909			
First observation: 1854			
Distribution by Decade/Period			
Decade/Period	All Firms	Firms with Provisions	Ratio (%)
1850-1859	8	5	62.5
1860-1869	25	20	80.0
1870-1879	10	7	70.0
1880-1889	13	8	61.5
1890-1899	11	9	81.8
1900-1909	33	29	87.9
1850-1878	43	32	74.4
1879-1909	57	46	80.7
<b>Total</b>	<b>100</b>	<b>78</b>	<b>78.0</b>

Table 21			
Provisions for Extraordinary Shareholders' General Assemblies: 1850-1909			
First observation: 1856			
Distribution by Industry			
Industry	All Firms	Firms with Provisions	Ratio (%)
Insurance	28	11	39.3
Commerce	7	4	57.1
Manufacturing and construction	18	17	94.4
Utilities	6	5	83.3
Shipping	7	6	85.7
Financial services	3	1	33.3
Banking	10	10	100.0
Mining and quarrying	15	14	93.3
Railroads and other transport	6	6	100.0
<b>Total</b>	<b>100</b>	<b>74</b>	<b>74.0</b>

Table 22			
Provisions for Extraordinary Shareholders' General Assemblies: 1850-1909			
First observation: 1856			
Distribution by Decade/Period			
Decade/Period	All Firms	Firms with Provisions	Ratio (%)
1850-1859	8	3	37.5
1860-1869	25	11	44.0
1870-1879	10	9	90.0
1880-1889	13	11	84.6
1890-1899	11	11	100.0
1900-1909	33	29	87.9
1850-1878	43	23	53.5
1879-1909	57	51	89.5
<b>Total</b>	<b>100</b>	<b>74</b>	<b>74.0</b>

Table 23		
Shareholders' Power Index : 1850-1909		
First observation: 1854		
Distribution by Industry		
Industry	Firms	Index
Insurance	25	0.0826
Commerce	7	0.3041
Manufacturing and construction	18	0.1068
Utilities	5	0.0324
Shipping	7	0.0388
Financial services	3	0.3717
Banking	8	0.0118
Mining and quarrying	15	0.0524
Railroads and other transport	5	0.2371
<b>Total</b>	<b>93</b>	<b>0.1052</b>

Table 24		
Shareholders' Power Index : 1850-1909		
First observation: 1854		
Distribution by Decade/Period		
Decade/Period	Firms	Index
1850-1859	7	0.0271
1860-1869	22	0.0809
1870-1879	10	0.0232
1880-1889	11	0.1380
1890-1899	11	0.2900
1900-1909	32	0.0900
1850-1878	39	0.0565
1879-1909	54	0.1403
<b>Total</b>	<b>93</b>	<b>0.1052</b>

Table 25				
Number of Shares per Firm: 1850-1909				
First observation: 1856				
Distribution by Industry				
Industry	Firms	Average	Median	Standard Deviation
Insurance	28	2.449	1.000	5.070
Commerce	6	15.635	1.750	31.757
Manufacturing and construction	18	13.058	2.500	25.989
Utilities	6	20.472	13.750	20.331
Shipping	7	22.741	6.000	35.762
Financial services	2	12.000	na	11.314
Banking	9	30.722	10.000	36.029
Mining and quarrying	15	8.557	3.000	11.599
Railroads and other transport	5	23.780	10.000	23.207
<b>Total</b>	<b>96</b>	<b>12.783</b>	<b>3.000</b>	<b>22.796</b>

Table 26				
Number of Shares per Firm: 1850-1909				
First observation: 1856				
Distribution by Decade/Period				
Decade/Period	Firms	Average	Median	Standard Deviation
1850-1859	8	1,823	1,500	1,836
1860-1869	24	1,979	400	4,034
1870-1879	10	5,160	2,500	7,204
1880-1889	11	13,227	5,000	9,211
1890-1899	10	22,990	7,500	32,140
1900-1909	32	23,005	10,000	30,093
1850-1878	42	2,690	1,000	4,783
1879-1909	47	20,973	7,500	27,898
<b>Total</b>	<b>96</b>	<b>12,783</b>	<b>3,000</b>	<b>22,796</b>

Table 27				
Nominal Share Price: 1850-1909				
First observation: 1856				
Distribution by Industry				
<i>(GDR, constant 1860 prices)</i>				
Industry	Firms	Average	Median	Standard Deviation
Insurance	27	842	999	329
Commerce	6	626	133	1.160
Manufacturing and construction	16	147	82	135
Utilities	6	187	157	180
Shipping	6	1.463	253	3.063
Financial services	2	268	268	350
Banking	8	203	189	146
Mining and quarrying	14	206	176	144
Railroads and other transport	5	228	199	134
<b>Total</b>	<b>90</b>	<b>499</b>	<b>223</b>	<b>895</b>

Table 28				
Nominal Share Price: 1850-1909				
First observation: 1856				
Distribution by Decade/Period				
<i>(GDR, constant 1864 prices)</i>				
Decade/Period	Firms	Average	Median	Standard Deviation
1850-1859	8	860	902	221
1860-1869	25	837	929	575
1870-1879	10	193	200	54
1880-1889	11	236	183	172
1890-1899	10	123	80	103
1900-1909	26	436	82	1.490
1850-1878	43	692	780	525
1879-1909	47	323	82	1.110
<b>Total</b>	<b>90</b>	<b>499</b>	<b>223</b>	<b>895</b>



Table 29		
Statutory Reserves: 1850-1909		
Percent of Profits		
First observation: 1854		
Distribution by Industry		
Industry	Firms	Average (%)
Insurance	23	25.3
Commerce	7	17.7
Manufacturing and construction	17	12.4
Utilities	5	7.4
Shipping	5	13.0
Financial services	1	10.0
Banking	5	8.0
Mining and quarrying	11	9.8
Railroads and other transport	4	5.0
<b>Total</b>	<b>78</b>	<b>15.5</b>

Table 30		
Statutory Reserves: 1850-1909		
Percent of Profits		
First observation: 1854		
Distribution by Decade/Period		
Decade/Period	Firms	Average (%)
1850-1859	5	26.0
1860-1869	19	27.3
1870-1879	5	13.0
1880-1889	9	7.1
1890-1899	11	12.8
1900-1909	29	10.0
1850-1878	29	24.6
1879-1909	49	10.1
<b>Total</b>	<b>78</b>	<b>15.5</b>

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1. Law for ‘ General Commerce’, Decree of 19 April/11 May 1835 Article 19, and Commercial Code, Articles 29 to 37, 40 to 41 and 45 in Hellenic Republic, Ministry of the Government , Codification Department, *Continuous Code of Law Making*, Volume 11, *Commercial Law*.

2. The following selected issues of the Greek Government Gazette:

(abbreviations: RD: Royal Decree; G.G.: issue of Greek Government Gazette)

RD 2/9/1854, GG 38, 29/9/1854; RD 17/3/1856, GG 11, 4/4/1856; RD 11/2/1856, GG 7, 7/3/1856; RD 2/5/1857, GG 18,19/6/1857; RD 1/10/1858, GG 54, 29/11/1858; RD 24/4/1859, GG 19, 27/5/1859; RD 28/11/1860, GG 59, 24/12/1860; RD 2/12/1859, GG 4, 26/1/1860; RD 24/11/1860, GG 58, 17/12/1860; RD 17/11/1860, GG 57,13/12/1860; RD 25/12/1861, GG 13, 5/3/1862; RD 10/1/1862, GG 14, 7/3/1862; RD 8/11/1861, GG 3, 23/1/1862; RD 18/8/1862, GG 53, 9/10/1862; RD 31/7/1862, GG 49, 13/9/1862; RD 8/11/1861, GG 10, 17/2/1862; RD 31/5/1862, GG 35, 4/7/1862; RD 14/2/1862, GG 23, 26/4/1862; RD-, GG 7, 5/2/1864; RD -,

GG 9, 24/2/1864; RD 21/1/1865, GG 13, 20/2/1865; RD 11/2/1865, GG17, 8/3/1865; RD 22/6/1865, GG 41, 23/8/1865; RD 12/11/1865, GG 1, 5/1/1866; RD 5/3/1866, GG 41, 13/5/1866; RD 30/9/1866, GG 68,31/10/1866; 22/6/1866, GG 54,

21/7/1866; RD 7/7/1868, GG 40, 4/9/1868; RD 31/8/1868, GG 44, 4/10/1868; RD 22/9/1869, GG 42, 11/10/1869; RD 16/12/1869, GG 1,16/1/1870; RD 11/12/1869, GG 12, 31/3/1870; RD 8/12/1870, GG 7,17/3/1871; RD 17/8/1871, GG 50, 20/11/1871; RD 25/3/1871, GG 30, 15/7/1871; RD 10/8/1872, GG 46, 25/11/1872; RD 31/5/1872, GG 36, 20/8/1872; RD 15/3/1872, GG 26, 7/7/1872; RD 23/6/1872, GG 38, 15/9/1872; RD 5/4/1872, GG 32, 31/7/1872; RD 13/2/1872, GG 26,7/7/1872 ; RD 17/4/1872, GG 17, 15/5/1872; RD 20/2/1882, GG 12, 2/3/1882; RD 15/3/1882, GG 28, 24/4/1882; RD 14/4/1882, GG 82, 21/8/1882; RD 10/12/1882, GG 199, 21/12/1882; RD 26/4/1882, GG 61, 6/7/1882; RD 13/6/1883,GG 259, 4/7/1883; RD 9/7/1883, GG 279,16/7/1883; RD 10/10/1883, GG 428,14/10/1883; RD 10/9/1884, GG 365, 13/9/1884; RD 27/10/1887, GG 294, 28/10/1887; RD - , GG 128, 29/5/1887; RD 13/1/1889, GG 14,17/1/1889; RD 31/3/1889, GG 90, 6/4/1889; RD 13/8/1890, GG 206, 17/8/1890; RD 27/6/1890, GG 159, 2/7/1890; RD 6/3/1893, GG 51, 8/3/1893; RD 20/4/1893, GG 75, 20/4/1893; RD 14/4/1893, GG 85, 11/5/1893; RD 11/11/1893, GG 219, 11/11/1893; RD 30/11/1893, GG 231, 10/12/1893; RD 19/3/1894, GG 34, 8/4/1894; RD 19/8/1894, GG 68, 25/8/1894; RD 21/9/1894, GG 81, 5/10/1894; RD 14/3/1897, GG 36, 21/3/1897; RD 10/3/1900, GG 12, 14/3/1900; RD 20/6/1901, GG 40, 2/7/1901; RD 31/12/1900, GG 5, 26/1/1901; RD 26/2/1902, GG 9, 26/2/1902 ; RD 22/1/1902, GG 5, 4/2/1902 ; RD 2/6/1904, GG 155, 12/7/1904; RD 10/7/1904, GG 157, 15/7/1904; RD 19/7/1904, GG 179, 9/8/1904; RD 8/11/1904, GG 253, 15/11/1904; RD 8/11/1905, GG 225, 16/11/1905; RD 8/11/1905, GG 220, 11/11/1905; RD 3/8/1905, GG 154, 3/8/1905; RD 5/3/1906, GG 69, 16/3/1906; RD 16/5/1906, GG 124, 26/5/1906; RD 30/12/1905, GG 2, 4/1/1906; RD 25/5/1907, GG 103, 28/5/1907; RD 8/9/1907, GG 176, 13/9/1907, RD 22/3/1907, GG 58, 2/4/1907; RD 8/3/1907, GG 82, 30/4/1907; RD 1/5/1907, GG 87, 5/5/1907; RD 22/11/1907, GG 242, 29/11/1907; RD 19/7/1908, GG 200, 23/7/1908; RD 10/8/1908, GG 219, 20/8/1908; RD 5/12/1908, GG 307, 20/12/1908; RD 30/12/1907,GG 3, 7/1/1908; RD 29/4/1908, GG 120, 19/5/1908; RD 29/8/1908, GG 234, 8/9/1908; RD 10/9/1909, GG 230, 7/10/1909; RD 24/3/1909 GG 81, 8/4/1909; RD 22/4/1909, GG 121, 3/6/1909; RD 20/7/1909, GG 191, 27/8/1909; RD 17/5/1909, GG 117, 29/5/1909; RD 13/2/1909, GG 42, 17/2/1909;

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<sup>2</sup> Other than that of the National Bank of Greece (est. 1841), which is not included in the sample as it was an extraordinary case in the context of nineteenth century Greece.

<sup>3</sup> For the Goudi military league uprising in 1909 and its significance for bourgeois consolidation see: Mavrogordatos, 2003/4.

<sup>4</sup> During the period under study the territory of Greece increased from 47,516 km<sup>2</sup> to 63,211 kms, i.e about 30%.

<sup>5</sup> By mercantile here meaning that: commerce and short horizons predominated in business, and that there being a low division of labour, merchants were merchant-entrepreneurs and did not preoccupy themselves only with trade.

<sup>6</sup> For example, in 1920 the share of the (labouring population) in commerce was 9.30 per cent compared to 2.69 per cent for Bulgaria and 10.37 per cent for France. Haritakis (1931). Part One: 19.

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<sup>7</sup> See Law for ‘ General Commerce’, Decree of 19 April/11 May 1835 Article 19, and Commercial Code, Articles 29 to 37, 40 to 41 and 45 in Hellenic Republic, Ministry of the Government , Codification Department, *Continuous Code of Law Making*, Volume 11, *Commercial Law*.

<sup>8</sup> The majority of Greek firms were single proprietorships or partnerships, i.e; horizontal business organizations. Even for horizontal business organizations of a large size such as individual proprietorships and (general or limited) partnerships a quantitative and aggregate data has yet to be constructed. The data is not easily accessible . However, at the moment one can gain a first glimpse of the founding documents of some of these enterprises and their activities in the National Bank of Greece Archives, Legal (Court) Affairs Series 40, Section 8 ‘Legalization’, For example, Files: 1235,1246,1315,1440, 2421.

<sup>9</sup> The estimates for GDP based on the retrospective figures in Kostelenos et.al (2007).

<sup>10</sup> By this meaning here banking/business group based and publicly subscribed companies. See below: 1.3.

<sup>11</sup> The quotation marks are used in this first mention of the corporate sector to denote that at the time there was no such thing as a coherent corporate sector.

<sup>12</sup> In some cases, non-bank financial enterprises were firms which specialised solely in finance although their name/title suggested otherwise.

<sup>13</sup> All railways were owned and operated by private companies prior to 1913. Also all public utilities and public interest companies were private companies although the state was a shareholder in a few of them (as for example the National Bank of Greece and the ‘Elliniki Atmoploiki Etaireia’.

<sup>14</sup> See reference 7 above.

<sup>15</sup> There is such evidence from 1849 onwards. However, it is unlikely that the practice was common before that.

<sup>16</sup> For the notion that the evolution and plurality of forms of industrial organization can be represented by a continuum/ line at the one end of which is the individual (market) and at the other bureaucratic hierarchies, see: Colli, 2003.

<sup>17</sup> One such hybrid is the dairy firm *Glykovrisi* set up in Athens in 1887 by three members of the Soutsos family and four other prominent members of the *diaspora*. Other examples are: Merchant entrepreneurial-*quasi* family firms, for example *Elliniki Oinopoiitiki Etaireia I Korpia* (1882), *Elliniko Mihanopoieio Vassiliades* (1889).

<sup>18</sup> ‘Filemporiki Etaireia’, est. 1869 in Pireaus. See also: ‘Elliniki Vamvakourgiki Etaireia’ est. 1881 in Pireaus, ‘Etaireia Anthrokoryheion ‘ est.1882 in Kymi.

<sup>19</sup> It must be noted here that in the few cases that banks invested in the first two categories of start-ups they would always be the dominant stakeholder and hence in these cases the distribution of shares was not equitable.

<sup>20</sup> The figures also include chambers of commerce and mutual-help associations. Incorporation was the leading form of organisation for such entities.

<sup>21</sup> The great majority of these charters was published in selected issues of the Greek Government Gazette. ( Primary Sources). Some few founding charters have been deposited in handwritten form at local Notarial Archives. At this stage of research we have been able to collect those founding charters that were deposited at the Athens and Ermoupolis.

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<sup>22</sup> We have no basis to know the *actual* activities of the firms. However, we have classified them in different industries according to the activities mentioned in the charters. If more than one business lines were mentioned, we used the first as the main one.

<sup>23</sup> The following publications were used as a starting point/example for the selection of variables to be used in the sample: Freeman, Pearson and Taylor (2005) and Todd (1932).

<sup>24</sup> It has already been mentioned that 1878 is a seminal year in that Greece reached a settlement with foreign debtors and had again access to the international capital markets. Moreover, after that year *diaspora* entrepreneurs begin to invest more seriously in Greece.

<sup>25</sup> We call this principal agent Director.

<sup>26</sup> In the total population this share reached 35per cent.

<sup>27</sup> This observation should be treated cautiously because of the very small number of observations.

<sup>28</sup> The bonuses took the form of cash or shares.

<sup>29</sup> He was the Director of 'I Filemporiki', a commercial company set-up in 1869. He was also receiving an annual salary of GDR4,424 in 1860s prices, which was below the sample mean value.

<sup>30</sup> See for example the literature, scientific and journalistic, that evolved after the first Greek stock market bubble in 1872/3. See: Dertilis, 2005.

<sup>31</sup> It will be very interesting if we could find case in which the government revoked the liscence. However, such information is not available at the moment.

<sup>32</sup> Before that date only the board of directors could call for an extraordinary General Assembly. From a preliminary exploration of the data regarding this variable it appears that usually around 20 per cent of the shares were required in order to hold a General Assembly. However, there was a wide variance and the range extended from one fifth to one half of the shares.

<sup>33</sup> It contains charters from 812 corporations.

<sup>34</sup> 1790-1825.

<sup>35</sup> For the period covering 1830-1909, the maximum number of shareholders in an individual SA start-up was four hundred and sixty three (Archangellos, 1870) and the minimum was three. Initially, the average number of founding shareholders per start-up was ninety three. However, it steadily dropped and in the 1890s it fell to about ten and stabilized at this rate up to the end of our period of study. The drop in numbers was related to two antithetical trends: On the one hand the rise in very large SA companies founded by banking/business groups (syndicates) from 1880 onwards and the post 1900 upsurge (perhaps as a result of the introduction of the inheritance tax in 1898) in 'tiny' family based SA start-ups (Pepelasis Minoglou , 2007) .

<sup>36</sup> The population of increased from approximately 1 million in 1850 to 2.6 million in 1909, mostly as a result of new lands becoming part of the kingdom. At the same time real GDP per capita doubled. See Kostelenos, *et. al.* (2007).