

RISING EXPECTATIONS :
JOINT STOCK COMPANY BIRTHS IN GREECE, 1830-1909¹

Ioanna Sapfo Pepelasis

Department of Economics, Athens University of Economics and Business

Leoforos Patisision 76

Athens 104 34

Greece

ipepelasis@aueb.gr

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ABSTRACT

Scholarship on nineteenth century Greece, a small latecomer country has neglected the national history of the joint stock company. This paper examines the conditions under which this new form of business organization was introduced in Greece. It uses a new data base to chart the demography of joint stock company births. Demography here refers to the frequency, size and sectoral composition of joint stock company births.

The main finding is that the nascent corporate sector was of multiple significance although the number of joint stock company births was miniscule compared to firm births in the non-corporate sector. Incorporation represented a large capital commitment in a capital poor country; introduced organizational advantages and provided new type of products, assisting thus the modernizing margin of the economy.

An ‘incubation’ period (1830-c.1870) - during which births were more sparse and almost exclusively in marine insurance - was followed by a period of ‘expanding horizons’ (c.1870-1909) during which joint stock company births became more dense and increasingly varied in scope. Peaks in births coincided with high expectations as a result of new opportunities. Although the state played a seminal role in the implantation of the JSC, its overall role was ambiguous.

Greek joint stock companies were mostly private firms and hence not listed on the Stock exchange. With the notable exception of public utilities which were publically listed and controlled by banks, in most start-ups company founders, even when numerous, belonged to family and or business networks of local and diaspora capital.

Key words: joint stock company, start-ups, demography, GDP, Kuznetian economic growth, state, banks, team work, nineteenth century, Greece.

JEL: N13, N43, N83.

Introduction

General references to the importance of the joint stock company as an institutional innovation in the evolution of capitalism {and modern economic growth} have been made by diverse prominent scholars; most notably Joseph Schumpeter, Simon Kuznets and Douglass C. North.² In depth analyses of this form of business organization have largely been the prerogative of the business and entrepreneurial history literatures.³ The focus, however, has been on the experience of advanced nations; much less is known about the dissemination of the joint stock company in latecomer countries.⁴ Greece, the first sovereign state in the Balkans and the eastern Mediterranean is one such latecomer for which the study of the rise of the joint stock company has been neglected.

The earliest economic analysis of the Greek joint stock (Société Anonyme) company was undertaken by Angelos Angelopoulos in his pioneering 1928 study on Sociétés Anonymes in Greece. (Henceforth, the terms Société Anonyme [SA] or joint stock company [JSC] are used interchangeably.) In 1994, Stathis Tsotsoros - in his work on the formation of Greek industrial capital - compiled a statistical database of the balance sheets of joint stock companies during the interwar period.⁵

In the last few years, a new body of historical statistics is being constructed which derives from the founding charters of joint stock company start-ups after independence in 1830. Up to now, preliminary research has focused on various outcomes such as for example, composition of company founders or corporate governance in the period up to 1909 a landmark year in the empowerment of civil society and the evolution of state reforms.⁶ This paper goes one step back. It examines the context and demography of joint stock company births. By context I mean specifically: initial circumstances under which the joint stock company was first introduced into Greece; state regulation/power over incorporation and prospective advantages this novel form of business organization offered to entrepreneurs. Demography here refers to the frequency, size and sectoral composition of joint stock company births.

By bringing the context and demography of joint stock company births to center stage, the case of Greece can acquire a position in the growing international literature which measures company births and explores possible relationships with the wider process of economic change.⁷ In a nutshell, the main conclusion reached is that joint

stock company births were simultaneously driver of economic change and a mirror/outcome of rising expectations and expanding horizons in Greece, as a result of modern state building, territory expansion and economic growth.

The paper starts with a brief overview of economy and society in the period covered. It then moves to the origins of incorporation in Greece. The powers of the state and the advantages of incorporation follow, for analytical reasons, after the core of the paper which is the analysis of the data on the demography of joint stock company births. The conclusion summarises the findings.

1. Transformations in economy and society: 1830-1909

In 1830, the newborn Greek state was a ‘mini’ agrarian kingdom’ whose population was about one third the size of the Greek communities still living under Ottoman rule.

⁸ Devastated by war and suffering intense fragmentation of both economy and polity, pockets of maritime commerce constituted the main escape route of Greece from backwardness and poverty. ⁹No industry unit or factory chimney was to be seen. Banks were non-existent. Hoarding and usury were the main financial activities. There was no modern framework of individual property rights. Most of the population was illiterate. With the notable exception of the heartland of currant production in the Western Peloponnese, subsistence agriculture prevailed and Greece was isolated from the expanding international market of the day/times. ¹⁰ Greece may have been in a situation of relative isolation, but its mercantile diaspora was at the time in the midst of its golden age as a mediator in the expanding global trade in grain, cotton, coal and other basic commodities. ¹¹ It is important, in the context of the analysis that follows to keep in mind this information on the Diaspora.

By 1909 although Greece remained a non industrial country it had become quite a different land in many respects. ¹² Territory and population had increased substantially, with the mainland incorporating the westernised Ionian islands (1864) and the region of Thessaly and Arta (1881). The standard of living and level of literacy had improved. The share of agriculture in Gross Domestic Product (henceforth GDP) had declined, while commerce and shipping expanded rapidly, along with urbanization. Subsistence economy was gradually giving way to a

mercantile type family capitalism characterised by business ventures most of which originated or were embedded in commerce.

_____Insert Table 1_____

Overall, by the beginning of the twentieth century, the Greek economy was more integrated, monetized and outward-looking, possessing strong links with the international financial market. The nation was less capital-poor, partly thanks to the growing interest of Diaspora bankers and merchants in the homeland – and usury was not so extensive.¹³ The post 1870 decline in the discount rate of the country's main banking institution, the National Bank of Greece, illustrates improving conditions.

_____Insert Graph 1_____

Indeed if a turning point can be discerned- in economic growth - it was from the mid 1860s at which point the country experienced its first industrial stirrings. Up to then Greece was struggling to recuperate from the economic devastation of the war of independence.

For the period under review, the important milestones in law came after the transition/adoption of parliamentary monarchy in 1864. On the legal front in the last decades of the 19th century customary law was superseded by a more unified legal system and the German Civil Code became a point of reference.¹⁴ Among the most important institutional changes affecting the framework of economic activity was the 1871 distribution of national estates with the consequent commodification of land and strengthening of property rights.¹⁵

In public administration a modern type of centralised state system was built *ex nihilo*. The process of the rise of fiscal and infrastructural power which strengthened from circa 1870 onwards ¹⁶ depended on two pillars: The rise of monetary tax revenues (following the abolition of the tithe and corollary tax farming in 1882 and other measures) and renewed access to the international capital market following the lifting off an embargo placed on Greek government loans which followed the 1843 foreign loan default of the government. ¹⁷.

_____Insert Table 2_____

As for the social mosaic of the country, although certain features of the Ottoman past persisted, it too had become more westernised by 1909, the year of the military

uprising of Goudi, the so-called 'bourgeois revolution'.¹⁸ For, since 1870/80 the importance in society of the professional bourgeoisie had become more pronounced and an urban working class core had come into existence.

Hence, in a nutshell, between 1830 and 1909, Greece, embarked on economic growth and embraced a number of new institutional arrangements inspired by the West which became synonymous with modernity. The joint stock company was one of these new emblems of institutional innovation.¹⁹

2. Origins of the Greek joint stock company

The first evidence of incorporation among Greeks comes from the Sociétés Anonymes marine insurance companies that had been established abroad in Livorno and Trieste by Greeks in the 1770s a decade that marked the opening of the golden age of the Greek mercantile diaspora. The communities of this internationalised diaspora, which specialised in the bulk long distance commerce and maritime transport of staples, were the first Greeks to embrace the Napoleonic Commercial Code of 1807. Later, this legal framework would underpin all incorporations in the new Greek state until the passing of the Company Act of 1920. A first translation of the Napoleonic Commercial Code was published in 1815/17 by the powerful Greek traders' coalition of Constantinople and adopted by the Revolutionary Assembly of Epidavros in 1822 during the early days of the Greek War of Independence.²⁰ As occurred elsewhere in continental Europe, this Code became the gateway for the introduction of the Société Anonyme into Greece where, until then, local enterprise had been organised solely on the basis of individual proprietorships and (in)formal partnerships.

In spite of the appearance of some marine insurance share companies, the first properly fledged joint stock company to be established on Greek soil was not the result of private initiative.²¹ It was founded in 1828 by Governor Ioannis Kapodistrias, an ex-diplomat of the Russian Empire who had become the first Head of State of Greece the previous year. This joint stock company was the Banque d'Etat 'Ethniki Hrimatistiki Trapeza', which after a nebulous existence would be dissolved in 1834, shortly after the assassination of its founder. Yet the idea of a joint stock bank of issue persisted and, soon after the formal adoption of the Napoleonic Commercial Code in 1835, a second attempt was made with a decree enabling the establishment of such a bank. In

the end however, no proper charter was drawn up as negotiations between the project's British backers and the state broke down.²²

The first successful Société Anonyme that was registered following independence was the marine insurance company 'I Achaia'. This was established in 1836 in the port of Patras, the country's centre for the international trade in currants – the main export item to the West. The business elite of this town had tight links with merchant entrepreneurs in the Ionian islands and the Adriatic who, as already mentioned, had been the first among Greeks to adopt the Société Anonyme as a form of business organization. Like all pre-1920 Sociétés Anonymes, 'I Achaia' operated within the legal framework provided by Articles 29-37, 40 and 45 of the Commercial Law of 1835 which was the adoption of the 1807 Napoleonic Commercial Code. This Law did not specify a minimum capital or number of shareholders and the conditions for company registration were sparse; nevertheless a royal decree was required.²³

The royal decree of this first Société Anonyme included a statement by King Otto which illustrated the great expectations from the joint stock company as a novel form of business organization. Otto presumed that this virgin enterprise would be highly profitable and declared that he 'wished' it to make contributions to the public welfare. countries of continental Europe in the post-1815 restoration, while such Cameralist type requests can be found, for example, in public documents presenting the Navigation Companies founded in the Lombardo-Veneto region in the 1830s.²⁴

In sum, the joint stock company was not implanted in a vacuum. Its origins in Greece were forged by a combination of factors related to expanding horizons: early efforts in state formation, the attempted creation of a state bank and initiatives undertaken by diaspora (linked) entrepreneurs who were already well familiar with this form of business organization.

3. Demography of Joint stock company births

The database compiled includes gross incorporation (births) of joint stock companies rather than net incorporation (births minus deaths) as, at the time, formed companies were not obliged by law to declare dissolutions. It covers the total population of 303 new SAs (i.e. not reconstitutions of existing firms) established in Greece between 1830 and 1909 and draws on information from the (royal) legal decrees of

incorporation and the 251 founding charters which have been recorded in the Greek Government Gazette and located in archives.²⁵ The methodology pursued in charting the demography of joint stock company births is based on observations derived from the following variables: date of birth, purpose of start-ups/ sector, and registered capital of start-ups. Information on sectors is available for 300 companies and for registered capital for 219 companies. Registered capital is not available at all for start-ups founded before 1840. The distribution of companies for which no such information exists not being evenly spread over time – is problematic for the analysis. Yet, the sample we have is large enough and represents a major portion of the population of births.

3.1. Aggregate Values

On average, less than four new joint stock company births occurred per annum during the period under review. Within this rather anaemic rhythm, actual incorporation was erratic.²⁶ There were years with none or only one SA company birth, whereas in particular times there were leaps and bounds. (See below for peaks) However, although no consistent upward momentum can be observed in the number of births, the 1870s were a watershed. The majority of years during which there was none or only one start-up were before 1870 and over 75% of joint stock births and all peaks in births materialized after this date. (See below section 3.3.)

The total number of 303 SA start-ups established during our period of study, seems to have represented only a small fraction of the general population of enterprise births in Greece at the time.²⁷ The majority of the latter consisted of individual proprietorships or partnerships (usually general and far less frequently of the limited liability type, i.e. Société en Commandite).

Utilizing the information we have we see that the registered capital of these 219 SA start-ups amounted to 1,082,953.426 constant 1914 drachmas.²⁸ Over 90 % of this amount materialised after 1870. In reality the total capital of incorporation was much larger. But even this known to us capital commitment was significant in the capital poor Greek economy as this sum represented 16.6 per cent of total non-agricultural GDP for the period under review and was equivalent to 60 per cent of the credit granted to private business by the leading financial institution, the National Bank of Greece over the same period²⁹

_____Insert Table 3 & Graph 3_____

In discussing the facet of aggregate value we cannot leave out registered capital per JSC start-up. For the period as a whole, the median start-up capital of Greek SA companies might have been low by western standards,³⁰ but it was nevertheless emblematic of big business in Greece. An initial sample of the material on the founding capital of partnership-based firms suggests that the median registered capital of individual corporate entities was much higher than the capital endowment of non-corporate firms.³¹

This phenomenon in itself is an indication of the fact that the joint stock company became a vehicle for the rise of large scale productive units, a sine qua non requirement of Kuznetian economic growth. Moreover, the JSC became identified with one more emblem of modern economic growth: urbanization. Over three fourths of start-ups were based in Athens and the three major ports of nineteenth century Greece: Patras, Syros and Piraeus.

3.2. Sectors

Sectoral distribution of incorporation was not evenly spread throughout the economy. Placed at the modernizing margin, it did not mirror the structure of GDP.³² For the period as a whole only 0.2% of joint stock company births were in agriculture, the largest in size sector which - with the prime exception of the Ionian islands-was largely household based.

_____Insert Table 4_____

Services accounted for over 80 % of SA start-ups. JSC births were not located in the realm of the familiar. They were concentrated -not in the traditional activities of commerce and sail-shipping.- but in the avant-garde frontier. Specifically, they dominated the emergence of early marine insurance, as well as large scale banking and had a seminal presence in the novel area of steam shipping (which can be likened to the industrialization of marine transport). Notably, railway companies (which can be likened through their steam engines to the industrialization of land transport) and organizations set up for the benefit of enhancing the 'public sector' such as the 'State Monopolies' were joint stock companies.³³

_____Insert Table 5_____

Industry, may have not been the main driver of JSC births but nevertheless it was important. Over one in ten SA start-ups were in this small but expanding sector. Mining was a main attraction among the founders of joint stock companies, many of whom as in the case of marine insurance were members of the diaspora. Manufacturing JSC births, which were slightly fewer in numbers than mining firms, were primarily located in the avant garde enclaves. Namely, metallurgy, mechanical engineering and chemical fertilizers. Food, textiles and tanning which accounted for the bulk of manufacturing in Greece at the time were almost totally absent in the population of the nascent corporate sector.³⁴

Over time the sectoral allocation of incorporation shifted. It started off as a monoculture. Until the mid-1860s, nine out of ten JSC births were in services and nearly eight out of the nine had been marine insurance companies. This early prevalence of marine insurance is linked to the perennial importance of the sea for Greek enterprise and the drive as well as the relative ease with which shipping recovered from the Greek war of independence compared to other branches of the economy.³⁵ It is also linked to the expertise in incorporation in insurance handed down by the diaspora communities. The influence of the latter can be seen in the continuation of practices initiated by diaspora marine insurance companies in Trieste, where insurance companies also functioned as discounting (unofficial financial) firms.³⁶ Despite its initial vitality, the domestic-based marine insurance sector did not last long. Around 1870, the transition from sail to steam triggered several defaults of domestic marine insurance firms. The activity was overtaken by foreign companies, and by 1872 marine insurance was almost totally eclipsed among SA start-ups.³⁷

This eclipse can only partly be explained by misfortunes in marine insurance . In parallel to this development, pull forces (to move away from marine insurance) were at play in the economy: The strongest pull forces were the industrial stirrings (c. 1867-1874); the repatriation of highly internationalised diaspora bankers (c. 1872); the growing powers of the central state c. 1875 onwards and its ability to enforce policy measures such as the strengthening of private property rights (1871); and finally, the lifting of the financial embargo on loans to the Greek state (1879).³⁸

The post 1870 widening in sectoral composition was linked to/manifested a greater commitment of incorporation to productive modernization The latter had two components: Firstly, a diversification of joint stock company births within services

towards banking, finance in general, collective action entities and public benefit organizations. Secondly, a fall in the share of services within incorporation and a rise in industry; initially mining and then manufacturing and construction of railways and other public works. It should be underlined here that prior to 1870 only six JSCs had been set up in industry. It could be argued, hence that from 1870 onwards industry with 103 start-ups became an important driver of incorporation with almost equal weight to services which accounted for 112 start-ups between 1870 and 1909. We will comment on the timing of the shift further down, but let us note here that the weight of industry within incorporation reached its peak in the 1870s.

Moving from the number of company births to registered capital, the basic observation is that sectoral distribution of the two was not identical. Disparity between them partly reflects variation in the average amount of start-up capital across sectors. Notably, although banking accounted for roughly one tenth of company births, slightly over half of total start-up registered capital was in this branch which was nearly monopolised by the presence of diaspora financiers. The median of registered capital per banking start up was nearly seven times the overall median. Railway companies accounted for fewer than 4% of JSC births and they were second in importance to banks as they provided 12.6 per cent of total recorded registered capital. Railway companies were among the largest JSC start-ups and were highly internationalised as there was a significant presence of foreign and diaspora interests among company founders.

In sum, during the period under review though joint stock company births were small in number, they represented a significant in size capital commitment in a capital poor country and were placed at the modernizing edge of the economy. Initially, they allowed the lowering of transaction costs and of business risks through the spread of marine insurance. Whereas, from circa 1870 onwards the contribution of joint stock company births was more varied/diversified and wider. Incorporation turned to enhance the rise of new economic activities in industry. It also drove the creation of an integrated national market through the expansion of monetization, finance and transportation. These were significant achievement in a country which when it was born had been no more than a disarticulated agglomeration of localised markets.

3.3. Births, macro indicators and the wider environment

For the sake of completeness and as a basis for future work let us now turn to an exploration of possible statistical correlations between the trends in the aggregate value and sectoral composition of incorporation on the one hand and trends over time in available macroeconomic indices on the other.³⁹ The macroeconomic data employed are time series of per capita GDP, the size and composition of non-agricultural GDP. (Agriculture was basically non-monetized with the notable exception of currants.) No correlation was found for any of these variables. Clearly, it is possible that the scale of the phenomena we observe is incommensurate with the scale of aggregate product⁴⁰ Furthermore, company births and capital commitments may have an impact on GDP or income which occurs with a long time-lag and therefore cannot be captured by contemporaneous correlations and short time lengths (needs some reviewing). Finally, the fact that most nineteenth century macroeconomic indices pertaining to GDP are retrospective statistical estimates rather than actual data may have diminished their ability to explain contemporaneous observations of smaller scale phenomena.

We also examined possible correlation between incorporation and the following three macro indicators: the discount rate of the National Bank of Greece, bank credits provided by this bank to business and the value of external trade (imports plus exports). Again no correlations were detected.

In order to complete our examination from a methodological viewpoint, we also examine the discrete and sharp peaks in company births and in registered capital to see whether there were corresponding peaks at the same or in neighbouring time periods in non-agricultural GDP. Again here no correlation could be established.⁴¹ Such peaks are not observable in macroeconomic series such as non-agricultural GDP, which behave much more smoothly over time.

3.3.1. Peaks in Company Births and their timing

Nevertheless, if we put aside the statistical series and isolate only the peaks in JSC births we observe -in spite of non statistical correlation- an interrelationship between the trends in incorporation and what was concurrently happening in the wider

economic environment. The timing of the peaks is revealing as is the as is the timing of the non peaks.

Let us begin with by making the observation that no peak is visible prior to 1870, which can be described as the incubation phase of incorporation as JSC births were smaller in number and were of a narrower scope than thereafter. Why the absence of peaks before 1870? One factor was perhaps the lack of many opportunities. Let us note that outside shipping, the Greek economy was more or less at a standstill and struggling to recover from the vagaries of the war of independence up to the mid 1860s. Another explanatory factor is that the business community at large was not ready to embrace the JSC as a form of business organization. Let us remind here the reader that the JSC was implanted from above, by the state and members of the diapsora elite. As we know from economic history there is a time gap between the discovery or implantation of an innovation and its acceptance by society and its dissemination. Here we could probably add a third factor, this is that the institutional environment was not supportive for the spread of the JSC, and by this meaning primarily that the regime/status quo of property rights was not generally supportive for new investments.

Let us now turn to the peaks as already noted all of the peaks materialised in the so called ‘expanding horizons phase’ namely the decades between 1870 and 1909.

_____Insert Table 3_____

_____Insert Graph 2_____

The first peak (1872-3) was associated with a repatriation of some prominent diaspora bankers such as Andreas Syngros who had been based in Constantinople The reasons for repatriation wave were complex, but among the pull factors were the expansion of property rights with the distribution (i.e. privatization) of national lands in 1871 and other events which resulted from the strengthening ability of the central state to formulate and implement national policy following the introduction of parliamentary democracy in 1864 .

This first peak, -the largest in the numbers of company births - (a total of 55) - materialised towards the end of Greece’s first industrialization spurt (c.1867-1873). Mining firms came first – a total of 27 - and banking firms second –a total of 11. With respect though to registered capital banking start-ups came first with a total registered

capital of nearly 100,000,000 drs. and mining followed suit with a total registered capital of circa 50,000,000 drs.

At the core of this peak lay an intense wave of speculation in mining. Here the incentive probably being to issue shares that could be sold at speculative prices. The speculation in mining came to an abrupt end with the burst of the infamous Lavrion mine bubble in 1873, was probably associated, through a process of mimesis to a wider European phenomenon as indicated by the 1873 boom in mining shares in Germany.⁴²

The second peak (1882-3) consisted of 19 joint stock company births. The number of births was smaller than in the first peak but there was a wider diversification. It included most of the sectors of the first peak. The major new element and driver here were railways-the industrialization of land transport- which accounted for 4 start-ups and 67% of registered capital. Construction, banking, steam-shipping (industrialization of marine transport), land drainage and the provision of cultural related activities were also present here.

The second peak in company births followed a boom year in the growth rate of non-agricultural GDP, which indicated a rise in urban and semi-urban economic activity⁴³ Let it be noted here that in 1881 registered capital of joint stock company births skyrocketed –largely as a result of the creation by diaspora bankers of the Athens based ‘Bank of Constantinople’- to a singular/unprecedented 462,748,454 drs. which was over twice the size non-agricultural GDP in the corresponding year.

It also coincided with the re-entrance of Greece into the international capital market following the lifting in 1879 of the embargo which had been imposed on loans to the Greek state when the latter defaulted in 1843. Indeed, this second peak in company births coincided with a major geographic expansion of the Greek state, with the annexation of the large and fertile province of Thessaly and Arta. It is possible that the challenge to integrate these grain rich plains, which lacked any transportation and banking infrastructure, stimulated an entrepreneurial drive which the forward looking corporate sector could host. Moreover, this peak in the number of company births came one year after the peak in registered capital of JSC.

The third peak (1893) witnessed the establishment of 12 joint stock companies, in the areas of heavy and light industry, banking, steam-shipping, publishing and mutual assistance. The largest start-up was the Bank of Athens, which alone accounted for

64 % of registered capital. This peak occurred in a year renowned for the declaration of a moratorium on foreign public debt⁴⁴ However, despite the impasse in Greek public finances, the previous year had seen a boom in the growth rate of non-agricultural GDP. Moreover, there was an intense sense of achievement in the building of the new Greece. The national railway project was in full swing and the Corinth Canal, the construction of which was completed by a Greek registered SA company, was inaugurated.⁴⁵ Moreover, there was surplus capital around looking for new investments as the near twenty year boom in the exportation of Corinthian currants ended in 1893.⁴⁶

The second and third peaks were separated by a ten year interval.. The fourth peak took longer to arrive. (1907-9) and it lasted longer than the previous ones. It involved the foundation of 41 SA companies and it covered altogether many more branches than any of the previous peaks. It consisted of companies in land and sea transport, public benefit organizations, insurance, medical services, banking, mining, chemicals and fertilisers, processing of agriculture related activities, publishing, and mutual assistance societies. In terms of registered capital this peak was driven by shipping (29,200,448 drs.)and banking (14,140,705 drs.).

Significantly, this last peak was placed at the tail-end of the so-called hidden 'economic miracle' of 1905-1910, due to the expansion of shipping and other activities.⁴⁷ As is the case with the first two peaks, the timing of the fourth one suggests that large increases in company births were mostly a response to the opportunities generated by the forward movement of the economy which fed high business expectations. However, legal factors were also at work : this peak came almost a decade after the introduction of an inheritance tax in Greece in 1898, which in spite of its being less than 1 per cent 'may' have increased the attraction of the joint stock company as a tax-avoiding device . (The word may is put in quotation marks because the connection is tenuous as the interval between 1898 and 1909 was too long.

To summarize: The first peak was the largest in number of births and registered capital, but it was the narrowest of all in scope. The subsequent peaks consisted of start-ups which progressively were allocated in more and more economic branches. This can be interpreted as an indication that an evolutionary process of increasing

diversity was at work. We can hence describe the whole post 1870 period as a time thread of widening horizons in the nascent corporate sector.

However, in spite of the pattern of growing diversity in the sectoral distribution of company births at the peak episodes, apparently if we examine each peak not in terms of sectoral allocation of births, but in terms of the sectoral allocation of registered capital we discover that each peak had a signature focus. Namely, that the first peak was driven by capital registered in banks and mining; the second by capital registered in railways; the third by capital registered in banks and the fourth by capital registered in shipping and banks. The lesson that emerges is that capital registered in banks was omnipresent in all of the peaks. Banking capital was omnipresent not only because banking start-ups represented a large portion of total registered capital during the peaks, but also because banking affiliated companies (i.e. JSCs set up by banks) were also prominent among company births. By bank affiliated companies meaning companies in which banks were the major or exclusive founding shareholders.

Whatever the case, whether we are looking at sectoral allocation in terms of number of births or registered capital, the common point to be noticed regarding the peaks is that they must have been the outcome of rising expectations. Several potential relationships can be established between peaks and events in the wider politico-economic context. Rising expectations for example as a result of exogenous developments, notably an increase in territory, or because of wider signs of growth, or widening expectations as a result of improving legal framework in the economy or because of economic growth and widening economic business horizons in general. Expectations mattered and in the Greek context, the experience cum expectations of diaspora entrepreneurs also mattered. What really materialised here was a fortunate meeting of 'opportunity' with 'means' which existed beyond the boundaries of the small Greek state as the nation was larger than the former.

The idea that incorporation did not operate in a vacuum but that 'the context matters' and that several interrelationships existed with the wider environment is not new and has been expressed in a variety of contexts and works such as that of William J Haussmann."⁴⁸ Or for example Andrea Colli et al and Kuznets who see it as an outcome of modern economic growth.⁴⁹

4. Powers of the state over the joint stock company

4.1. General Conditions

Having completed the demographical analysis it is now opportune to examine the powers of the state over incorporation. As already noted in the beginning of this paper joint stock company births did not occur in a vacuum. It should be underlined that the joint stock company at the same time, it was a political artifact (creation) in that its very existence depended upon the coordinated action of law makers (and the state).⁵⁰ Legal power over the right to incorporate was fundamental. This was also the case in most of continental Europe and elsewhere, as for example in pre-1844 England, where an Act of Parliament was required to set up a joint stock company. In Greece, a SA charter became effective only when approved by royal decree. In principle, the state could recall the operating licence of a company and, in the case of mining and public utilities, it could recall the concession if the company did not comply with the stipulations of its charter. the state had three other two tools through which it influenced at a general level the activities of joint stock companies and arguably indirectly their creation. These were: taxation, welfare demands and regulation of legal forms. This was a quite a web of powers that the state could use, when it wished so, to regulate business. The rise in the fiscal demands made on joint stock companies by the state came from 1877 onwards, as a tax on distributed profits of SA companies was introduced, which is estimated as yielding at least 5 per cent of government revenue.⁵¹ The state also, again sparingly raised social welfare demands. In 1861 the insurance of mining workers against accidents was made obligatory in a sector which was eventually to be monopolised by incorporation. In 1907, the railway company 'SPAP' was required to provide a pension for its employees and two years later the stipulation was extended to other railway companies.⁵²

Perhaps the most obvious manifestation of state power lay in the former's capacity to frame the Law- the regulatory framework. The Napoleonic Commercial Code adopted in Greece provided for a loose regulatory framework in which the state role embraced licensing and taxation. There is evidence that by 1857/9, if not earlier, the ministry of interior responsible for the founding and operation of SA companies was concerned with the inability of the Code in discriminating between genuine business and fraudulent endeavours under the corporate form.⁵³ Towards the end of the century

the two main political parties, the Modernist (or Neoteric) and the Nationalist were of the view that a new legal framework was required and two attempts were made to establish a Company Act, both fruitless. A first draft law modelled on the Italian Commercial Code of 1882 was prepared in 1889 under the premiership of the modernist Charilaos Trikoupis, who envisioned Greece as becoming the financial center of the eastern Mediterranean.⁵⁴ A second draft law, this time based on the Belgian amended (in 1881 and 1886) Commercial Code of 1873, was prepared in 1896, under the premiership of Trikoupis' rival, the traditionalist head of the Nationalist Party, Theodoros Deligiannis.

Yet no change came about in the legal framework and Greece did not follow the example of other European countries that introduced Company Acts at the time. Arguably, such failure was a combination of petty rivalries between the two main parties and disagreement within the business 'corporate' elite itself as to the shape a new law should take. Furthermore, the shock of the national humiliation in the Greco Turkish War of 1897 spread demoralization in public life and slowed down even more the process of institutional change initiated from above. Thus, the momentum whereby the Greek state at birth introduced the institutional innovation of the joint stock company was not maintained. A question which further research must address is what were the games played behind the scenes by the bankers and especially the National Bank of Greece in promoting or obstructing change in the regulatory framework.

4.2. Public utilities-concessions

In the area of public utilities the dependence of the joint stock company on the state was particularly strong following the increase in the last quarter of the nineteenth century in the will and capability of the state to promote the creation of public infrastructure and services. The increase in 'desire' was related to the rise in irredentism) -the ideal of building a geographically larger and economically viable Greece. The ability of the state to expand infrastructure was connected to two historical changes in the conditions of state function: an increasing administrative centralization and renewed access to capital markets – leading to a drive for state sphere projects.⁵⁵

Previous to the 1880s most licensees and operators of concessions were foreigners or companies registered outside Greece.⁵⁶ There had been very few Greek registered

joint stock company births in public utilities, the first being the Athenian horse-drawn carriages ‘Geniki Etaireia Polyforeion’ (1860). Once the central state had regained access to the international capital market, it showed a clear preference and active support to corporate businesses set-up in Greece as opposed to companies registered abroad.

The advent of the national railway project in 1882 and the launch of electricity generation in the 1890s heralded a new era. A few western companies were granted concessions.⁵⁷ However, the state assigned the majority of large public utility projects to SA companies registered in Greece. Moreover, for (all?) those projects granted to foreign contractors based abroad – such as the gas lightening of Patras (1898) – the state stipulated that only Greek SA companies could be used as subcontractors.⁵⁸

In the sensitive area of railways, incorporation also had a strong indirect financial dependence upon the state. Five railway companies - the ‘SAP’ (Athens Piraeus Railways), ‘SPAP’, the ‘Sidirodromoi Thessalias’ (Thessaly Railways), the ‘SVDE’ (Railways of North-western Greece), and the ‘SAS’ (Athens National Borders Railway) - depended on financial contributions from the state either in the form of direct grants or through the loan capital the state raised abroad for the purpose.⁵⁹

Hence, in a nutshell the powers of the state over the joint stock company took a variety of shapes. There was quite a web of powers that the state could use to regulate business, although it may have actually chosen to use its powers sparsely or sometimes not at all. In some respects it was a positive in enhancing incorporation; in others it was constraining. Thus we might safely conclude that the role of the state was ambiguous.

5. Why incorporation? Prospective advantages of the joint stock company

Having completed the analysis on demography, the powers of the state and institutional arrangements ‘defining’ JSC births, we now have the necessary background to address the seminal question: in the first place why incorporation? i.e. what were motives/incentives for incorporation and what advantages did it offer to businesspersons?

First, a few words are necessary about the over 7,000 founders of companies who were the agents of incorporation. Foreign direct investment was limited in size in Greece.⁶⁰ With the large exception of the railways and other public works, which were established by Greco-foreign banking groups (basically diaspora led) JSC start-ups were basically founded by male members of the Greek mercantile and landowning elites and individuals belonging to their socio-economic networks. Let us note that here that the division between the two groups (merchant entrepreneurs and landowners) was not clear as local and diaspora merchant entrepreneurs – the main representatives of the rising mercantile elite - would engage in landownership and vice versa. In addition merchant entrepreneurs would simultaneously engage in other activities such as shipping and finance and vice versa ship-owners and seamen would also engage in commerce. Although the names of quite a few politicians and high level civil servants were among those registered in the lists of company founders, the Greek state basically abstained from participating directly in incorporation. At this point it should also be made clear that only a very few JSCs were listed on the stock exchange. The very great majority hence were private JSCs. In the latter case, when company founders would be numerous, the rank and file of them were not ‘strangers’ among themselves, as they would either belong to the families or business networks of those who played the leading role in establishing a particular JSC.

In the young Greek state regardless of whether it was publically listed or private, the joint stock company was certainly a symbol of modernity and in this lay part of its attraction to those who embraced it. Despite an element of imitation which made sense in a country that was striving to catch up with the West, ‘mimicry’ can provide only a partial explanation.⁶¹ The basic motivation driving the adoption of incorporation by company founders was that it offered tangible advantages. The evidence from founding charters points to the existence of a mechanism which gave the joint stock company a lead vis a vis traditional forms of business organization.

It provided limited liability and the possibility for dispersion of risk, enabled a substantial concentration (pooling) of capital resource and also allowed adequate size that could manage an internalization of costs in an environment where the infrastructures of market economy were underdeveloped. By the latter meaning the small number of banks, substantial hoarding, low monetization and the existence of a

fragmented national market, due to traditional localism and the system of internal tolls.

Incorporation also was a venue for 'team work' of a higher level in a country in which outside the extended family, general trust among members of society was low, property rights were insecure and accountability and transparency of transactions were limited. Team work involved cooperation in the management of the SA. Moreover, co-founders relied on these new entities as customers or suppliers or both for their other largely family-based business enterprises.⁶² A good example is that of marine insurance in which seamen and merchant ship-owners would embrace the joint stock company as a form of business organization: they would set up a marine insurance company in which they -and their Merchant Houses which were organized as partnerships- would be the main clients not only for insurance but also for discount business. In this way they would internalize the cost of acquiring capital and would spread the risk among a large number of shareholders, which were reaching in some cases more than 300!⁶³ Hence, the owners of a SA firm would also have transactional relations with it and they comprised a homogeneous interest group which could exercise collective control. SA were formed by Individuals and entities/banks that would then constitute a network of production and service activities. This interdependency really means that 'shareholders' were not simply 'savers' who would park their money in the equity of a company but active agents of related and interdependent activities.

It was usual for banks which would be represented on the board of directors or participate as founding shareholders in SA start-ups to simultaneously provide loans to these businesses. Such an example was the chemical and fertilizer company 'Elliniki Etaireia Chimikon Proionton kai Chimikon Lipasmaton' (1909).⁶⁴ With railways, the links went even further. The National Bank of Greece and the four other Greek-based joint stock company banks which were among the founding shareholders of the railways would also make a profit underwriting the issue of shares and bonds in order to raise capital for these firms.⁶⁵ This was also the case with the involvement of the National Bank of Greece and the Bank of EpiroThessaly in the Greek based Corinth Canal Co, the '(Elliniki) Etaireia tis Diorigos tis Korinthou' (1890).⁶⁶

In sum, although joint stock company start-ups were not in a narrow sense family firms and often had numerous founders they were embedded in family capitalism and

played a complementary role enabling entrepreneurs to diversify and expand with less risk their economic activities. Banks also controlled as shareholders a number of very large joint stock company start-ups, suggesting perhaps a Gerschenkronian strain of developmentalism in the nascent corporate sector.

CONCLUSION

The main findings are as follows. The gross rate of incorporation varied significantly from year to year and, overall, this was a slow process. Although the joint stock company was marginal in the total population of business start-ups, it represented a sizeable capital commitment in the economy of the time. Statistical correlations between incorporation and macroeconomic indices were explored but proved fruitless. Nevertheless a bi-directional mechanism seems to have been at work. On the one hand, the peaks in the rate of incorporation were found in the tail-end years of marked upturn in economic activity. On the other hand, joint stock company births - in addition to conferring private advantages to their creators - claimed a role in the changing structure of GDP and acted as a platform for the appearance of new branches such as modern banking and railways for example which were important for economic growth and the expansion of the market.

It has been shown also that the diaspora and the state were seminal in the introduction of the JSC into Greece. But whereas the first continued to play a primary role in the expansion of the nascent corporate sector, the role of the state was ambiguous and became more passive over time. Although obviously events such as the 1871 land reform -which enhanced property rights- and the growing powers of the central state in the last quarter of the nineteenth century were helpful – indirectly - in enhancing initiatives for incorporation, the simple negative fact is that the introduction during the period under study of legal changes by design beyond the introduction of the Napoleonic Commercial Code did not take place; hence no active change in Law can be deemed as a driver in the observed changes in the rate and form of incorporation.

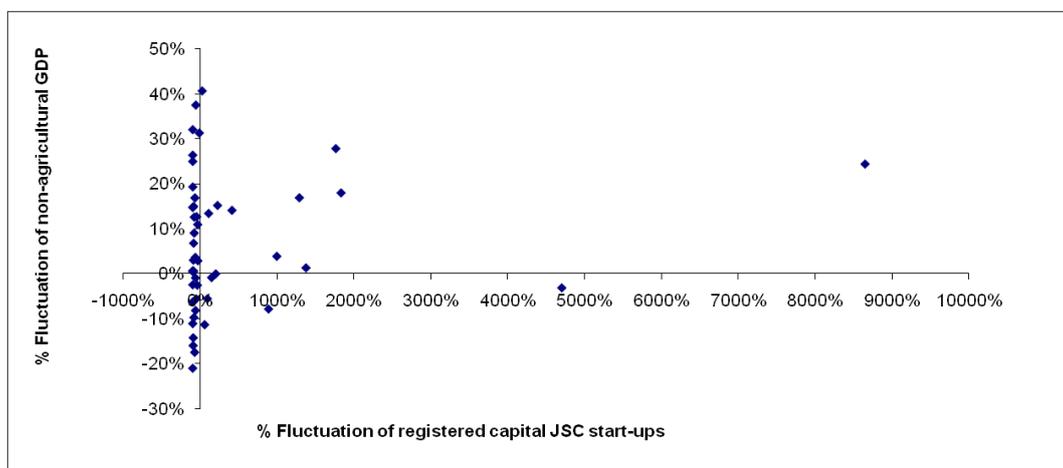
An ‘incubation’ period (1830-c.1870) - during which births were more sparse and almost exclusively in marine insurance - was followed by a period of ‘expanding

horizons' (c.1870-1909) during which joint stock company births became more dense and increasingly varied in scope. The rate of annual JSC births was erratic in both periods. The role of the state was ambiguous. Peaks in births coincided with high expectations as a result of new opportunities and either potential or real economic growth.

Greek joint stock companies were mostly private firms and hence not listed on the Stock exchange. With the notable exception of public utilities which were publically listed and controlled by banks, in most start-ups company founders, even when numerous, belonged to family and or business networks. Although however few start-ups can be classified strictly speaking as family firms, they were however complementary to and in interaction with the traditional sphere of family business. Merchant entrepreneurs, who were the largest group of investors in the JSC, turned to this form of business organization, in order to minimize risk either when investing in capital intensive projects and or when these projects were technology/knowledge intensive and were at the modernizing frontier of the economy.

From an international perspective, the erratic pace of incorporation observed, the fact that its path resembled a wave like process (rather than a smooth evolutionary one), the absence of a 'proper' Company Act , the pre-eminence of the joint stock company in the avant garde segment of the economy are not all unique to Greece. Neither is the role of banks in the emergence of the corporate sector unusual; a variety of such examples exist in the international bibliography. What is historically specific to Greece is the combination of these features and the presence of the business diaspora. Truly, incorporation in the young Greek state acted as the most advanced interface among local, international and business does not simply involve corporate form developments within a small latecomer nation. The case of Greece presents a specific twist as it is of relevance also to the study of the role of diasporas in globalization and the dissemination of new institutions.

APPENDIX



TABLES

TABLE 1
SELECTED MACRO INDICATORS, BENCHMARK YEARS

	1830	1870	1909
Territory (klm ²)	47,516	50,211	63,201 ¹
Population	753,400 ²	1,457,894	2,631,952 ¹
Urban Population	—	18%	28%
Literate Population	—	18% ¹	33%
Share of non Agricultural Sectors in GDP	19.6% ³	29.96%	36.31%
GDP per Capita in drachmas	209.5 ⁴	207.6 ⁵	285.3 ⁶
Exports plus Imports per Capita in drachmas	11 ⁷	130	122 ⁸
Monetary circulation in million drachmas	11.6 ⁹	64.8	171.6
Revenues from taxes in million drachmas	19 ¹⁰	35.7	110.4

¹ Figure is for 1907

² Figure is for 1828

³ Figure is for 1833

⁴ Figure is for 1832-1842

⁵ Figure is for 1863-1872

⁶ Figure is for 1903-1912

⁷ Figure is for 1851

⁸ Figure here is for 1908. It should be noted here that following the accession of the large region of Thessaly and Arta in 1881 a part of external trade became internal.

⁹ Figure is for 1842.

¹⁰ Figure is for 1833.

Sources: Compiled from Dertilis, *History* and Kostelenos et al, *Gross Domestic Product*.

TABLE 2
CONDITIONS AND IMPORTANT MILESTONES IN ECONOMY AND SOCIETY *

	1830-1860	1860-1870	1870-1880	1880-1900	1900-1909
State formation	Obligatory primary education (1834) Creation of the National Bank of Greece(1841)	Accession of Ionian islands(1864)	Intensification of centralization of state machinery	1881 Accession of Thessaly and Arta Construction of public works under French Naval Mission 1884-1890.	
Political sphere	Absolutist Monarchy (1832/3) Constitutional Monarchy (1844)	Royal Republic Universal franchise(1864)	Introduction of principle of Parliamentary majority(1875)	Rise of collective action	Goudi Uprisal (1909)
Legal sphere	Byzantine Hexabiblos basis for civil code		Draft of French Italian Saxon inspired Civil Code (1874)	German Civil Code as point of reference	
Fiscal sphere	Ottoman system of taxation (Tithes and tax renting) Budgetary arbitrariness		Tax on profits of SACOS(1877) Tithe tax is abolished (1881)	Imposition of International FinancialControl(1898) Introduction of inheritance tax (1898)	Introduction of income tax (1910)
Property rights	Predominance of customary law State holds extensive tracts of land No property rights for peasants		Distribution of national lands Property rights for peasants (1871)		

* The period under review has been divided into four subperiods. The length of each subperiod is determined by the richness/wealth of events. For example the first is the longest as it was not so rich in the number of structural changes.

Sources: Clogg, *A Concise History*; Dacoronia, “The Evolution of Greek Civil Law “; Dertilis, *History* ; Kostis, “Formation”.

TABLE 3
AGGREGATE VALUES OF J S C BIRTHS
(Number of observations for number of jsc births =303
(Number of observations for registered capital of jsc start-ups=219)

	Total number of JSC births	Total registered capital	Registered capital provided in Foreign Exchange	Mean registered capital per JSC start-up	Median registered capital per JSC start-up	Median registered capital per JSC start up converted into Pounds Sterling
1830-1839	5	Not known				
1840-1849	12	14,361,669	0	3,590,417	2,271,954	122.807
1850-1859	12	20,331,450	0	1,848,314	1,598,214	69.930
1860-1869	46	58,789,578	8%	1,367,199	1,058,873	29.268
1870-1879	79	179,704,494	25%	3,667,439	1,089,565	28.966
1880-1889	42	518,200,868	70%	18,507,174	2,668,009	81.271
1890-1899	29	76,537,103	32%	4,028,269	1,485,149	41.783
1900-1909	78	215,028,265	50%	3,308,127	1,041,667	29.586
1830-1909	303	1,082,953.426	562.829.333	4,944,993	1,153,846	34.483

Sources: Compiled from selected issues of *the Greek Government Gazette*: 1830-1909.

TABLE 4
PANEL A
SECTORAL COMPOSITION OF GDP : 1840-1909

BENCHMARK YEAR	AGRICULTURE	SERVICES	INDUSTRY	TOTAL
1840	84%	14%	2%	100%
1850	75%	21%	4%	100%
1860	72%	22%	6%	100%
1870	70%	20%	10%	100%
1880	68%	22%	10%	100%
1890	64%	25%	11%	100%
1900	60%	25%	15%	100%
1909	56%	26%	18%	100%

Sources: Compiled from data in: *Kostelenos et al, Gross Domestic Product.*

TABLE 4
 PANEL B
 SECTORAL COMPOSITION OF REGISTERED CAPITAL OF JSC START-UPS
 (Number of observations = 219)

	AGRICULTURE	SERVICES	INDUSTRY	TOTAL
1840-49	0.0%	99.4%	0.6%	100.0%
1850-59	0.0%	83.7%	16.3%	100.0%
1860-69	0.0%	98.1%	1.9%	100.0%
1879-79	0.0%	63.3%	36.7%	100.0%
1880-89	0.0%	95.4%	4.6%	100.0%
1890-99	0.0%	78.9%	21.1%	100.0%
1900-09	1.0%	81.9%	17.0%	100.0%
1840-09	0.2%	86.2%	13.6%	100.0%

Sources :Compiled from selected issues of the *Greek Government Gazette* : 1830 – 1909

TABLE 5
 PANEL A
 JSC BIRTHS PER CATEGORY OF ECONOMIC ACTIVITY
 (Number of observations = 300)

	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-89	1890-99	1900-1909	1830-1909
Agriculture					1			3	4
Insurance	4	9	10	31	4	3	1	5	67
Banks	1	2		4	11	3	4	9	34
Other financial services					4	1	1		6
Commerce				3	2	2	2	11	20
Sea Transport- shipping			1	1	3	2	1	8	16
Land Transport- Railways				1		6	3	1	11
Collective Action					1	7	6	4	18
Public Utilities				1	2	1		3	7
Other Services				1	1	2	1	3	8
Mining- mettallurgy				1	29	2	2	13	47
Manufacturing			1	1	17	9	7	14	49
Construction				2	1	4	1	4	13
Total	5	12	12	46	76	42	29	78	300

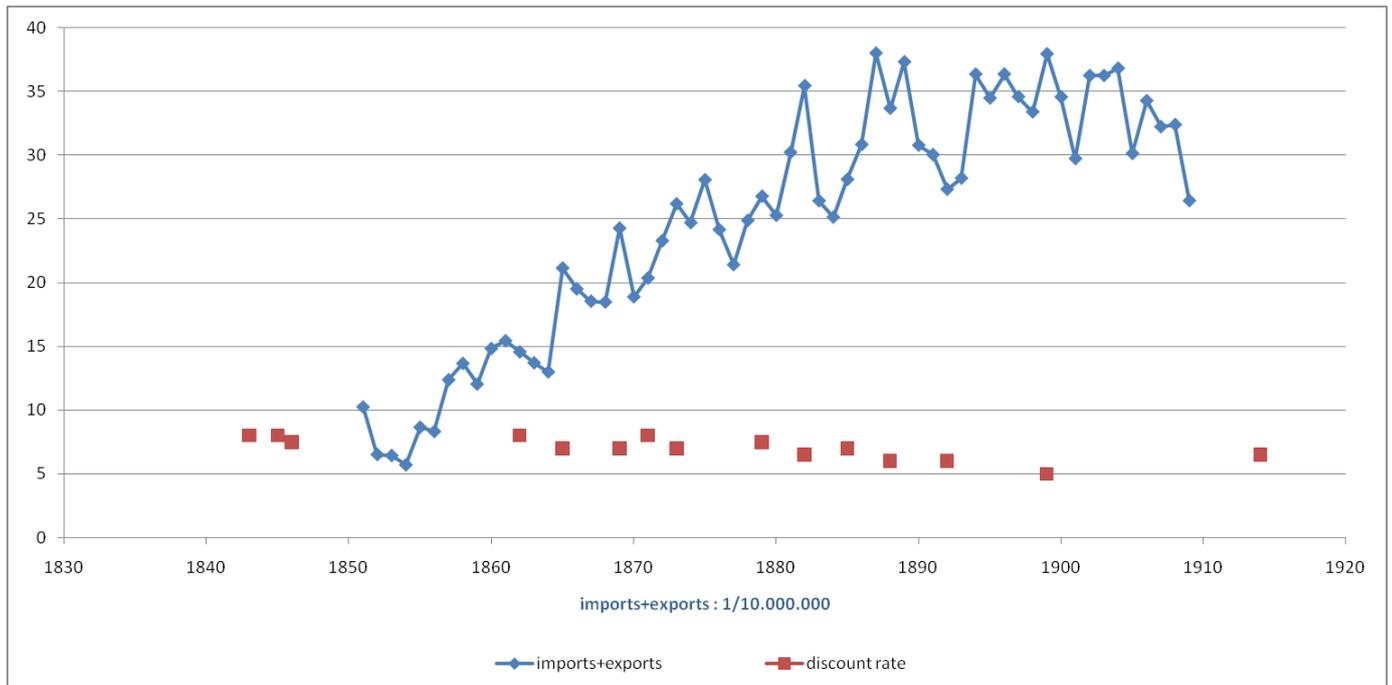
Sources: Compiled from selected issues of the *Greek Government Gazette*: 1830-1909.

TABLE 5
PANEL B
REGISTERED CAPITAL OF JSC START-UPS PER CATEGORY OF
ECONOMIC ACTIVITY
(Number of observations=219)

		1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1840-1909
Agriculture	Mean	.	.	.	.	.	.	1,128,648	1,128,648
	Median	.	.	.	.	.	.	1,128,648	1,128,648
	Sum	.	.	.	.	.	.	2,257,295	2,257,295
	Col.Sum%								0.21%
Insurance	Mean	652,604	1,498,193	1,574,433	5,275,789	1,118,750	7,547,170	2,690,731	1,812,679
	Median	652,604	1,177,632	1,297,101	5,275,789	1,118,750	7,547,170	2,272,727	1,297,101
	Sum	652,604	13,483,740	47,233,005	5,275,789	1,118,750	7,547,170	8,072,193	83,383,251
	Col.Sum%								7.70%
Banks	Mean	6,809,783	.	2,235,140	11,413,616	121,025,879	13,428,756	7,776,632	22,385,699
	Median	6,809,783	.	2,200,820	7,065,789	24,096,386	13,428,756	6,639,758	7,661,538
	Sum	13,619,565	.	6,705,421	102,722,540	363,077,636	26,857,512	46,659,793	559,642,467
	Col.Sum%								51.68%
Other Financial Services	Mean	.	.	.	2,355,263	397,727	.	.	1,376,495
	Median	.	.	.	2,355,263	397,727	.	.	1,376,495
	Sum	.	.	.	2,355,263	397,727	.	.	2,752,990
	Col.Sum%								0.25%
Commerce	Mean	.	.	1,143,534	52,390	7,844,968	54,348	4,404,008	3,721,609
	Median	.	.	417,667	52,390	7,844,968	54,348	303,336	322,581
	Sum	.	.	3,430,602	52,390	15,689,935	54,348	44,040,083	63,267,358
	Col.Sum%								5.84%
Sea Transport-Shipping	Mean	.	3,532,895	90,797	1,177,632	5,637,784	1,386,139	4,507,627	3,770,494
	Median	.	3,532,895	90,797	1,177,632	5,637,784	1,386,139	2,352,941	2,352,941
	Sum	.	3,532,895	90,797	1,177,632	11,275,568	1,386,139	31,553,389	49,016,419
	Col.Sum%								4.53%
Land Transport-Railways	Mean	.	.	176,066	.	17,166,833	7,674,419	10,309,278	12,409,963
	Median	.	.	176,066	.	6,193,182	3,488,372	10,309,278	6,136,364
	Sum	.	.	176,066	.	103,000,997	23,023,256	10,309,278	136,509,596
	Col.Sum%								12.61%
Collective Action	Mean	.	.	.	.	.	.	.	.
	Median	.	.	.	.	.	.	.	.
	Sum	.	.	.	.	.	.	.	.
	Col.Sum%								0.00%
Public Utilities	Mean	.	.	51,884	1,044,750	.	.	7,970,675	4,342,234
	Median	.	.	51,884	1,044,750	.	.	1,204,819	868,898
	Sum	.	.	51,884	2,089,499	.	.	23,912,024	26,053,407
	Col.Sum%								2.41%

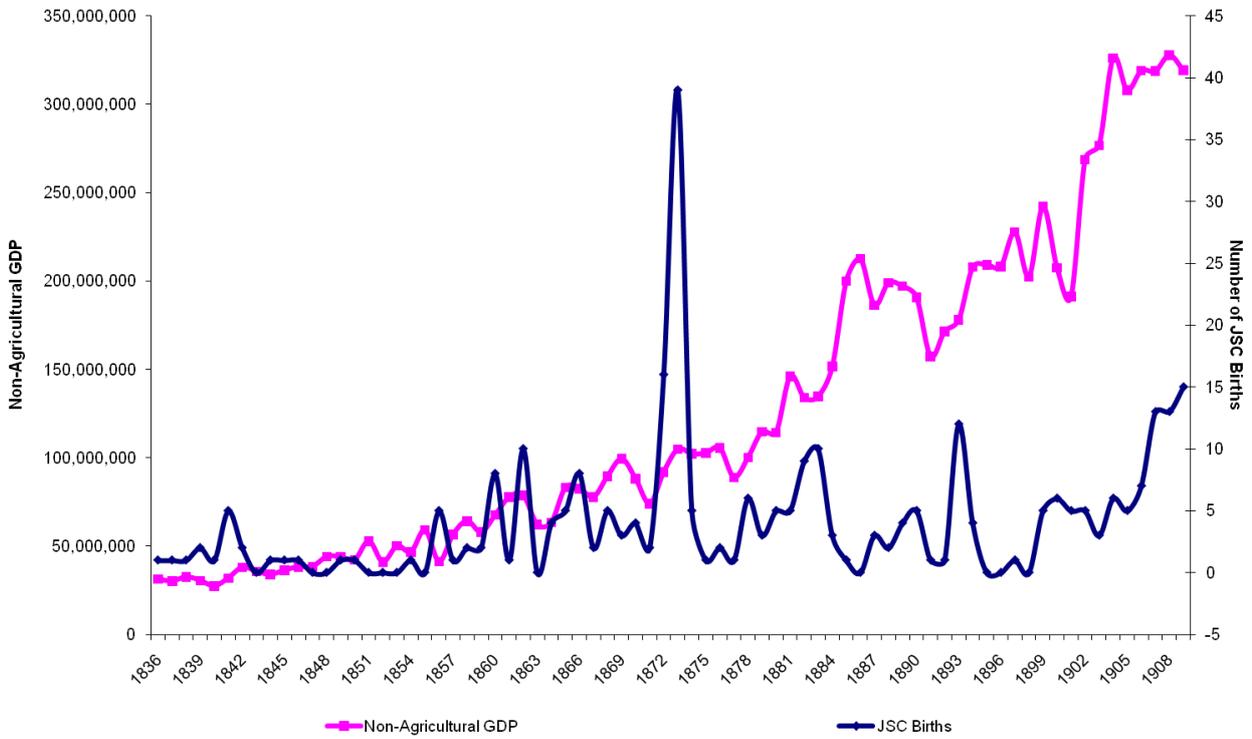
Other Services	Mean	.	.	.	.	.	1,485,149	3,877,758	3,279,606
	Median	.	.	.	.	.	1,485,149	337,079	911,114
	Sum	.	.	.	.	.	1,485,149	11,633,275	13,118,423
	Col.Sum%								1.21%
Mining-metallurgy	Mean	.	.	710,317	2,348,709	2,356,908	2,418,831	1,358,507	2,030,515
	Median	.	.	710,317	1,014,493	2,356,908	2,418,831	1,150,033	1,106,580
	Sum	.	.	710,317	58,717,736	4,713,816	4,837,662	16,302,084	85,281,616
	Col.Sum%								7.87%
Manufacturing	Mean	.	3,314,815	90,797	840,603	546,614	566,021	1,116,686	882,960
	Median	.	3,314,815	90,797	467,199	487,013	285,149	562,935	491,031
	Sum	.	3,314,815	90,797	6,724,828	3,826,299	3,962,147	15,633,599	33,552,485
	Col.Sum%								3.10%
Construction	Mean	89,500	.	150,344	588,816	3,775,035	7,383,721	1,163,813	2,162,932
	Median	89,500	.	150,344	588,816	4,148,412	7,383,721	1,138,721	1,123,596
	Sum	89,500	.	300,689	588,816	15,100,141	7,383,721	4,655,252	28,118,118
	Col.Sum%								2.60
Group Total	Mean	3,590,417	1,848,314	1,367,199	3,667,439	18,507,174	4,028,269	3,308,127	4,944,993
	Median	2,271,954	1,598,214	1,058,873	1,089,565	2,668,009	1,485,149	1,041,667	1,153,846
	Sum	14,361,669	20,331,450	58,789,578	179,704,494	518,200,868	76,537,103	215,028,265	1,082,953,426
	Col.Sum%								100.00%

GRAPHS



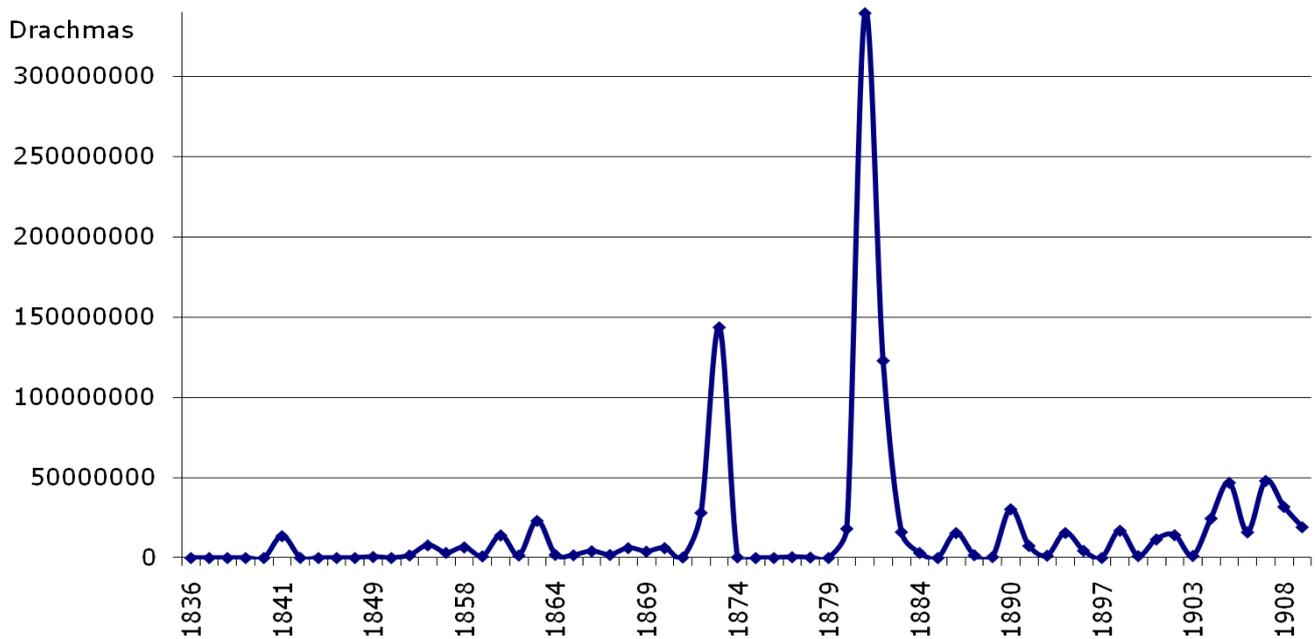
GRAPH 1: TRENDS IN TRADE AND DISCOUNT RATE (OF THE NATIONAL BANK OF GREECE)

Sources: Compiled from Dertilis, *History*, Vol. 2.
 The unit of account for trade is drachmas.



GRAPH 2: NON-AGRICULTURAL GDP and JSC BIRTHS

Sources: Compiled from Kostelenos et al, *Gross Domestic Product* and selected issues of the *Greek Government Gazette*: 1830-1909.



GRAPH 3: REGISTERED CAPITAL OF JSC START-UPS

Sources: Compiled from selected issues of *the Greek Government Gazette*: 1830-1909.

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² Schumpeter, “Creative Response”, p. 151; Kuznets, *Modern Economic Growth*, pp. 158-59; North and Thomas, *Rise of the Western World*, pp 17, 155.

³ Williamson, “Modern Corporation” pp. 1537-43; Mickelthwait and Wooldridge in *Company*, pp 8-9; Pagano, ‘Legal persons’, pp: 117-24.

⁴ Notably for Britain there is a large bibliography Indicatively, see: Walker, “History of the Joint Stock Company”; Shannon, “The coming of General Limited Liability”; Hunt, *Development*; Payne, *Early Scottish Limited Companies*. For the USA there also exists an important historical literature. See: Lamoreaux, “Partnerships”. Finally, within Anglo-Saxon business history a strand of the literature, has set the example of examining at an aggregate level company births and constitutions. See: Freeman, Pearson ,Taylor, “ Politics of Business”.

⁵ Angelopoulos, *Sociétés Anonymes*; Tsotsoros, *Formation of Industrial Capital*. Moreover, some other more general studies have explored various facets of the Greek Société Anonyme see: Dertilis, *History*; Dritsas “ Naissance”; Hadziiossif, *Elderly Moon*; Karavas, *Theoretical and Practical Textbook*; Kostis, *History*; Vaxevanoglou, *Greek Capitalists*.

⁶ Aivalis and Pepelasis Minoglou, ‘Preliminary Analysis’; Pepelasis, ‘Entrepreneurial Typologies’.

⁷ For the international historical literature on joint stock company start-ups and interlink ages to macro-indicators see for example: Hausmann, “Entrepreneurship”.

⁸ Gallant, *Modern Greece*, 34.

⁹ Clogg, *Concise History*, Gallant, *Modern Greece*, 34-40; Dertilis, *History*

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- ¹⁰ For indices of economic progress between 1880 and 1909, see: Dertilis, *Social Transformation*, pp.235-45.
- ¹¹ Baghdiantz McCabe, Harlaftis, and Ioanna Pepelasis Minoglou, *Diaspora Entrepreneurial Networks*.
- ¹² Early, because industrialization was still in its initial phases. Agriantonis, *Origins*; Kuznets, *Modern Economic Growth*.
- ¹³ Haritakis, *Greek Industry* pp. 3-40; Franghiadis, *Greek Economy*, pp 83-109; Thomadakis, *Credit*, pp.77-151; Kostis, *History*, pp. 17-38.
- ¹⁴ Dacronia, “Evolution of Greek Civil Law”; Clogg, *Concise History*, chapter 3, pp.47-81.
- ¹⁵ Namely, the lands previously held by Ottomans and which had come into state ‘ownership’ following the war of independence. See: Petmezas, *Greek Agricultural Economy*, pp.23-56; Franghiadis, *Greek Economy*, pp. 24-6.
- ¹⁶ Papageorgiou, *Greek State*, pp112-162; Mavrogordatos, “Political Developments”, pp.9-12; Lyrintzis, “State”, p.90.
- ¹⁷ For terminology see: Mann “Autonomous Power” and O’Brien, “Formation”. For Greece see: Kostis, “Formation”. For The rise in revenues from taxes see the last row in Table 1. For a general overview of nineteenth century political economy, which however takes a stance emphasizing obstacles to growth, see: Psalidopoulos and Stasinopoulos, “A liberal Economist”.
- ¹⁸ Dertilis, *Social Transformation*.
- ¹⁹ For concept of latecomer country see Gerschenkron, *Economic Backwardness*.
- ²⁰ Katsiardi-Hering, *Greek Community*; Gekas, “Sector”.

²¹ Sklavenitis Traders' Coalitions, pp; 67-75; Karavas, *Theoretical and Practical Textbook*, p. 13.

²² For first share, but what appear as unincorporated, marine insurance companies see: Kardasis, *Syros*, pp195-97,345-56, 419-22; Koutsis, *Evolution*, pp.14-16.

²³ See: Resolution Z of February 2 1828, *Efimeris tis Ellados*: 38-9; Valaoritis, *History*, pp.1-5; Kyrkilitsis, *Banks*, pp.3-4.

²⁴ Karavas, *Theoretical and Practical Textbook*, pp.13-14.

²⁵ For Cameralism see: Schumpeter, *History*, 159-60. I wish to thank Guiseppe De Luca for bringing the Italian case to my notice.

²⁶ All the legal decrees for the founding of the 303 SA start-ups were published in the Greek Government Gazette. Of the 251 founding charters used in our data base, 228 were published in the Greek Government Gazette and 23 were discovered in the Notarial Association of Athens (in the archives of the nineteenth century notaries: Ioannis Androulakis; Georgios and Ioannis Antoniadis, Gerasimos Afentakis, Antonios Bournias, Diogenis Diogeneidis, Ilias Glykofrydis, Georgios Gryparis, Stefanos Kondylis, Argyris Peppas, K.Pitaris) and two were in the General State Archives of Ermoupolis.

²⁷ These findings fit the general observations on business start-ups of Thurik and Wennekers. "Linking Entrepreneurship".

²⁸ No compilation exists at a national level of the births of non corporate firms which form historically the majority of enterprises in Greece. These types of firms were by law required to register at their local commercial court. A preliminary sample derived from the port of Ermoupolis on the Cycladic island of Syros, reveals the

following information. Whereas in the year 1850 a total of 29 non-joint stock company firms/partnerships were established for all of the decade of 1850 in the Cyclades, the total number of SA births in the Cyclades was only five (all in Ermoupolis). Furthermore, for four sample years in the 1890s (1890, 1893, 1894, 1895) a total of 24 non-joint stock companies/partnerships were created in the Cyclades, whereas for the whole of the 1890s there were only one SA births, again only in Ermoupolis. Source: Catalogue of the registered commercial (non joint stock company) firms in the islands of the Cyclades derived from the source: Companies ‘Etairikon’ 1837-1946 State Archives, Ermoupolis.

²⁹ Henceforth wherever the term ‘drs. is used, what is meant is constant 1914 drachmas.

³⁰ As estimated from the figures given in Dertilis, *History*.

³¹ See again Table 3, column 2.

³² The founding charters of 67 partnership based firms established between 1903 and 1922 have been discovered at the Judicial Series of the National Bank of Greece. These were small companies in terms of registered capital. Twenty of these partnerships had a registered capital of under 10,000 drachmas. Most were general partnerships, but the largest firm was the limited (liability) partnership company ‘Sklavounis and Simitis’ which was established in Piraeus in 1908 and its registered capital was 388,889 drachmas. National Bank of Greece. Judicial Series. A1, S40 Subseries 8, Legalizations, Files: 1235, 1246, 1315, 1440, 2421, 1443.

³³ For sectoral distribution of GDP see: Table 4 .Thurik and Wennekers. “Linking Entrepreneurship”.

³⁴ For the last two sectors see below: The Rise of the Public Economic Space.

³⁵ It should be underlined that not all modernizing initiatives were occupied by the joint stock company. For example, few steam engine based factories were SA companies as was the case elsewhere at the time. Angelopoulos *Sociétés Anonymes*, p. 19.

³⁶ Dertilis, *History*, chapter on marine insurance.

³⁷ Gekas, *ibid.*

³⁸ Kardasis, *Syros; From Sailing Ships*.

³⁹ Dertilis, *History*.

⁴⁰ The macro economic figures in the analysis are drawn from the historical statistics in: Kostelenos et al, *Gross Domestic Product*, pp. 33-118, 159-180 and CD Rom; Dertilis, *History*, Vol.2 pp.1053-1157, Dertilis, *Taxes*, pp. 105-171, 234-297.

⁴¹ Future research of course may turn to more sophisticated forms of analysis such as regression analysis and autoregressive models.

⁴² In the appendix we show the summary graph concerning registered capital.

⁴³ Yiannitsis, “Foreign Direct Investment”, p.239 and Angelopoulos, *Sociétés Anonymes* pp.15-6; Kindleberger, *Financial History*, pp 195-96.

⁴⁴ See again Graph 2.

⁴⁵ The first default was in 1843 and as a result of it the Greek state was excluded for the international capital market for 36 years.

⁴⁶ Papayiannopoulou, *Corinth Canal*, pp. 37-42.

⁴⁷ Franghiadis, *Greek Economy*.

⁴⁸ Dertilis, *History*, pp 863-891; Kostis, *History*, pp. 17-38.

⁴⁹ Haussman ‘Entrepreneurship’, pp 36-44.

⁵⁰ This argument has taken various forms. For example it is present in the literature that argues that legal persona (one of which is the joint stock company) have played an important role in economic development. See Pagano, “Legal persons”. From a different perspective Persson has underlined the ‘beneficial consequences occurring at a later stage’ and the ‘efficiency enhancing properties’ of institutions, one of them being the joint stock company. Persson, *Economic History*, pp. 74, 76,90. From another strand that of the study of family business it has been argued that the dissemination of the joint stock company is connected to industrialization. See Colli et al.

⁵¹ Gamble and Kelly, “The Politics of the Company”, pp.21-50; Persson, *Economic History*, p. 74; Pagano, ‘Legal Persons’, 119-21.

⁵² Syrmaloglou, *Taxation*, pp.216-27.

⁵³ *Economic Yearbook*, Part 5, p.323.

⁵⁴ Anastasopoulos, *History*, pp. 153-57.

⁵⁵ Tricha, *Charilaos Trikoupis*, p.36.

⁵⁶ Clogg, *Concise History*, p.71.

⁵⁷ Papayianopoulou, *Corinth Canal*, p. 24; Yiannitsis, “Foreign Direct Investment”, pp.248-49.

⁵⁸ For the two exceptions of foreign based companies in large public works: the Paris based ‘Société Internationale du Canal Maritime de Corinthe’ (1881) and the French and later British ‘Lake Copais Co. Ltd’ (1867). Papayiannopoulou, *Corinth Canal* and Melios “Copais”.

⁵⁹ Pandelakis, *Electrification*, pp.56-7.

⁶⁰ Papayiannakis, *Greek Railways*, pp.135-173.

⁶¹ Yiannitsis, “Foreign Direct Investment”, pp. 237-38.

⁶² Gershenkron, *Economic Backwardness*.

⁶³ Here the term ‘team work’ is closely related to the term ‘team production’ which is used in a contemporary context for US public corporations in: Blair and Stout, “Team Production”.

⁶⁴ The largest such company being ‘Archangellos’.

⁶⁵ For other such examples see: Hadziiossif, *Elderly Moon*, pp. 209-10,221-34.

⁶⁶ Papayiannakis, *Greek Railways*, 94-134.

⁶⁷ Papayiannopoulou, *Corinth Canal*, p.90.