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Joint Stock Company Births in TurbulentTimes: Greece, 1909-1929

Ioanna Sapfo Pepelasis and Konstantinos Aivalis

76 Patission Str., Athens 104 34, Greece
Tel. (++30) 210-8203911 - Fax: (++30) 210-8203301
www.econ.aueb.gr

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Ioanna Sapfo Pepelasis[*] and Konstantinos Aivalis[†]

ABSTRACT

On the basis of a new data base we map trends in the demography of incorporation (number of joint stock company births; total and median registered capital; and sectoral distribution) during 1909-1929, a turbulent phase of modern Greek history.

The main findings are that:

1. There was a cumulative take-off in incorporation. This 'transcendence' was triggered by three factors: the political empowerment of the bourgeoisie; the legal/institutional reforms which it initiated; and the substantial expansion in the territory and population of Greece. The take-off phase was also interlinked with a quickening in industrialization, a pattern of synchronicity which has not been unique to Greece.
2. During this take-off phase in incorporation there was a democratization/popularization process at work as there was a sharp decrease in the median size of registered capital per start-up and the typical joint stock company came to 'resemble' partnership based/family firms.
3. Manufacturing already from the 1910s became the number one activity of joint stock company start-ups. However, simultaneously, the nascent corporate sector showed a greater interest in the traditional segment of the economy, as commerce and shipping became respectively its second and third most important areas of activity.

JEL classification: N13, N14, N23, N24, N83, N84

Keywords: Greece, early twentieth century, political economy, corporate sector, start-ups, demography, War, Company Act, industrialization, GDP.

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[*] Associate Professor AUEB
[†] Economic Consultant

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1. Introduction

The institution known as 'joint stock company' has been studied at various levels of aggregation. At the one end of the spectrum scholars emphasize its universal features and at the other end they focus on the story of specific joint stock companies. Somewhere, in the middle, between the bigger picture and close-ups are studies which examine the corporate sector as an entity in specific countries. Traditionally these 'middle ground' studies concern core industrial nations and they focus on 'examining the internal evolution of the firm', i.e. governance and business organization.[1] However, recently some academics doing research on the middle ground are creating historical data bases which systematically explore links between the corporate sector and the broader macro context of economic change.[2]

In Greece, scholarship has traditionally focused on the study of family enterprising and networks. The absence of in depth economic studies on the history of the joint stock company is related to the 'idiosyncratic' historical path Greece followed: This latecomer country attained a relatively high level of income without 'completing' its industrial revolution and without experiencing a hegemony of the corporation and corporate culture (Louri and Pepelasis Minoglou, 2002). However, in the last few years research agendas are expanding in Greece and there is a more focused interest in institutions and institutional evolution. Within this wider context of changing perceptions/methodologies one development is the following: Taking heed from Angelopoulos pioneering economico-legal study of the Greek joint stock company (1928) and (Foreman-Peck and Pepelasis Minoglou inquiry into the supply of Greek

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entrepreneurship 2000) a research project has been created at Athens University of Economics and Business that incorporates in detail the story of the birth and evolution of the joint stock company into the study of the history of capitalism and economic growth in Greece.[3] The first data set of this project, was constructed from company charters and covers the period from national independence (1830) up to the Goudi uprising/bourgeois revolution (1909)[4]. A sequel data set has been recently constructed. This paper is based on this new data set and it charts the demography of joint stock company births (number of births, total and median registered capital and sectoral allocation of joint stock company start-ups) during the twenty one years that comprised the real take-off in incorporation (1909-1929) in Greece. In our analysis of this new data base we discuss differences in demography with the pre 1909 era and attempt to explain how and why the take-off in incorporation occurred at what was a particularly turbulent time in modern Greek history.

2. Turbulent times: A Bird's Eye View of the Political Economy of Greece (1909-1929)

The opening year of our period, 1909 was a threshold year in the history of bourgeois empowerment and state formation as a result of the so-called Goudi military uprising. (Dertilis, 1977) The end year, 1929, coincided with the beginning of the end of the first globalization era, i.e. the Wall Street crash and the first signs of drying up of the provision of foreign finance on which Greece had become highly dependent on in the 1920s (Franghiadis, 2007). In between as already noted in the text above there was sea-change. In the brief survey that follows we focus separately on: displacements; institutional reforms; trends in GDP.

2.1. Displacements, Expanding Resources, and Internal Improvement

Greece underwent sea change in the period under review. At a level of political economy, and while the 'social inclusion' vision of the 1909 Goudi uprising was beginning to produce changes in the institutional sphere and governance, the country from 1912 onwards found itself in a semi permanent state of displacement.

Within this context, two war related 'cosmogonic' events occurred, both of which moved the production possibility frontier (ppf) of the country outwards: Firstly, as a result of the acquisition of Macedonia, Northern Epirus, the Aegean islands and Crete during the 1912-1913 Balkan wars, and the acquisition of Thrace in 1919-20 the territory of the country increased from 63,211 square kilometers in 1907 to 130,999 square kilometers in 1920 and the population increased from 2.631.952 in 1907 to 5.016. 889 in 1920. (Economic Yearbook of 1929)

Insert Tables 1 and 2

Secondly, the Asia Minor military debacle in 1922 (which was the tragic outcome of the Asia Minor military campaign which began in 1919) led to the influx into Greece of 1,200,000 destitute refugees. Taking into account the exodus of muslim population from Greece, the country's population increased from 5.016. 889 in 1907 to 6.315.000 in 1929. The refugees from Asia Minor, carried the cosmopolitan and creative entrepreneurial characteristics of minority groups and greatly enhanced the pool of Greece's human capital.

Although both displacements turned Greece into a country with far more resources, in the short run a financially weak state had to face what was effectively an emergency situation. The acquisition of territories that were backward in terms of infrastructure and the urgent need to make the refugees economically productive/self sufficient made imperative a radical policy of internal improvement, namely an expansion in the physical and non physical infrastructure of the country. From 1925 onwards (and through the means of foreign borrowing) the state undertook large public works schemes e.g. land reclamation, electrification, road building, urban gas and water supply. Moreover, in 1927/8 under the auspices of a League of Nations financial stabilization plan it reformed the banking system. (For internal improvement and the banking reform from the perspective of political economy and the role of foreign finance see: Pepelasis Minoglou, 1993). In sum, the two cosmogonic displacements of the period under review, enhanced the productive capacity of the country; made imperative that the state take a more active role in the economy; and triggered even further the post 1909 momentum of progressive institutional/legal reforms. To a discussion of the latter we now turn.

2.2. Post 1909 Legal / Institutional Reforms and the Creation of an Environment more Favorable to Incorporation

The 1909 Goudi uprising/bourgeois revolution initiated a long wave of reforms in Greece which provided for better defined property rights and a more socially inclusive environment. Notable examples were: the adoption of a more progressive constitution in 1911; a law formalizing cooperatives (1914); a law for the creation and operation of chambers of commerce and industry (1914) in all prefectures; a radical land reform (voted in1917/finally applied in 1923 as a result of the refugee emergency). Also the Conseil d'État which had existed only on paper for decades was gradually re-established (1914 and 1928).

In addition to these seminal reforms there was a bottom up process at work with the cumulative spread of professional/entrepreneurial associations such as the chambers of commerce. An important innovation in the Greek business community was the creation in 1922 by the largest Greek businessmen of the time, of the Association of Joint Stock Companies. More specific and relevant for incorporation were the introduction in 1910 of the principle of income tax and the voting in Parliament of a Company Act in 1920-Law 2190. Ever since its inception in Greece the joint stock company (henceforth also noted as jsc) had been under the 'jurisdiction' of the Napoleonic Commercial Code of 1807.[5] This had provided a loose regulatory/operational framework for joint stock companies, although a royal decree was obligatory for their foundation. Prior to our period of study two failed attempts had been made to pass a Company Act (one in 1889 and one in 1896) and in 1914 there had been a third failed attempt.

In assessing the significance of Law 2190 of 1920 we must take into account that it was exceptionally frugal and basically codified de facto changes in governance and other matters of business organization which Greek company owners had already initiated on their own. (Aivalis and Pepelasis Minoglou, 2008) In addition it was soon followed by a chain of new legislation/ amendments. In 1921 the legal decree of 9/11 introduced the publication of the invitation and the minutes of the general assembly in the Greek Government Gazette. In 1923 the legal decree 177/13/8 made improvements regarding the relations of the SA with third parties and from 1926 onwards a ministerial decision became the sole requirement for the creation of a jsc.[6]

It is thus necessary to take into consideration the six year evolution of Law 2190 in assessing whatever impact it may have had on incorporation in the 1920s

In the 1920s there were also other legal developments which created a more favorable business environment for incorporation. Following the rise of tariffs in 1926(due to the legal decree of 22 December 1923) increased protection was granted to Greek industry (a main area of incorporation at the time as we will see below). According to a contemporary shrewd analyst (Charitakis,1927), pp. 163-64), the average rate of protection increased from 22%-30% to 35%-40%. Indeed, in some sectors such as paper tariffs reached 100%.. In addition, besides high tariff walls the state in the 1920s exercised industrial polices favoring the growth of larger firms, which naturally took the form of joint stock companies. One such example was tariff exemptions for imports of capital goods.

Most importantly from 1926 onwards, tax regulations favored JSCs compared with sole proprietorships and partnerships. In more detail, a very strong incentive for incorporation was given as it was specified that JSCs pay income tax only on distributed profits whereas all other companies had to pay tax on their total earnings (Angelopoulos, 1928, p.31).

In sum, the political empowerment of the bourgeoisie country and the challenges of the historical conjuncture seemed to have provoked a quickening in legal changes which enhanced the power of civil society (organizations) social inclusion, property rights and created a more favorable environment for incorporation (Kostelenos et al, 2007; Dertilis, 2011; Clogg, 1994).

2.3. Trends in GDP and other Macro-indicators

These were times of change in the real economy in diverse ways. To begin with compared to 1909 Greece in 1929 was 1.3 times larger in territory and 2.3 larger in population. Moreover, its population was also far more literate and its urban centres more numerous. The number of cities with a population of 5,000 and over increased from 39 in 1907 to 85 in 1928.

Insert Table 3

According to the retrospective GDP estimates (Kostelenos et al 2007), overall there was some quickening in economic growth. Estimated in constant 1914 prices, the size of retrospective GDP estimates increased 1.5 times in the period under review. This GDP growth rate was rather good, given that Greece was war ridden for a decade (1912-1922). Notably, in the previous twenty years (1889-1909) GDP in constant 1914 prices had increased by only 35% and it took 30 years (1879-1909) for it to double!

However, in terms of GDP per capita there was no progress. In fact in constant 1914 prices real GDP per capita increased only slightly. Phrased in terms of the index of real GDP per capita growth (1910=100), it increased from 100 in 1910 to only 101 in 1920 and 103 in 1929. This was highly unimpressive, compared to other Mediterranean countries such as Italy, Portugal and Spain (respectively 111,101,114 in 1920 and 133,132,114 in 1929). We speculate that the standard of living indicator (index of real GDP per capita) did not improve in the period under review partly because of the relative backwardness of the annexed territories and the abrupt and big rise in the size of population in 1922.

Insert Tables 4 and 5

In terms of change in GDP structure the picture was as follows: The retrospective statistics of Kostelenos et al (2007) portray a drop in a few points in the share of agriculture in GDP, a rise in services and a rather significant fall in the share of industry. It should be noted at this point that these figures pose a problem for us, because the 1920s have been considered in the existing bibliography as belonging to the first intensive industrialization effort of Greece (1922-1939) (Louri Pepelasis Minoglou,2002). It is also known that the Balkan Wars and WWI created a situation of natural protection and there was expansion in local industry at the time. (According to contemporaneous national censuses the number of large industrial establishments in Greece were 145 in 1889, 2.0250 in 1917 and 4.000 in 1929. As for horsepower, the figures were respectively: 5.568, 70.000 and 170.000, Economic Yearbook of 1929). More recent research by Olga Christodoulaki on the interwar period confirms that industrial expansion was buoyant in the 1920s. (Christodoulaki, 1999). As we will see below in Section 4.4, the data on jsc births confirm the picture of a lively turn towards industry in Greece (aca the Greek corporate sector) already from the 1910s.

In a nutshell, this brief overview of the political economy of Greece brings into relief that the take-off in incorporation materialized in a time of multiple changes.

3. Methodological Issues

3.1. The Corporate Sector: What Size?

We are in the peculiar situation of charting the demography of jsc births without however being able to know what the exact size of the corporate sector was at the time! Below is a list which gives a rough idea of the size of the sector for the only four available dates: 1900, 1920, 1921, 1929, 1930. These figures have been compiled but unfortunately the only two sources with information do not give an identical picture. (Angelopoulos and the Economic Yearbook of 1929).

- In 1900 the known number for jscs in operation was 29. (Angelopoulos,1928)
- In 1920 it was 200 (Economic Yearbook of 1929)
- In 1921 it was 135(Angelopoulos, 1928)
- In 1929 it was 550 (Economic Yearbook of 1929)

What conclusion can we reach from the above data? In total for the period under review, although we have at hand an unclear picture it is apparent that there was a large growth in the size of the corporate sector.

One further clarification is necessary here regarding size. Ideally, we would like to know the number of firm births in the non-corporate sector. But, this is not possible as no collective body of statistics exists at the moment for individual proprietorships and partnership based firms, although they comprised the great majority of Greek firms. (This is by no coincidence, as the process of collecting and constructing such a data base for the country as a whole would need a very large team of researchers). By approximation however, on the basis of preliminary research on non-corporate births, it appears that (in the private sphere of the economy) the latter were far more numerous than jsc births and far smaller in capital endowment. Hopefully, in a later stage of our research we will be able to have a clearer picture on this issue.

3.2. Data Base and Methodology

The data base on demography is in excel form and has been constructed so that all entries have been made on an annual basis. We have followed this pattern for the Tables and Graphs that follow below. However, in the tables we have also added the following two classifications: Firstly, the subdivisions: 1909-1919 and 1920-1929. This allows us to (con)test the popular presumption/ hypothesis that the 1920 Company Act acted as the real starting point for Greek 'corporate' history. Secondly, figures for 1830-1909 as an entity and with two subdivisions: 1830-1899 and 1900-1909. This has been done in order to explore contrasts/continuities of 1909-1929 with the preceding period.

There is one more methodological issue. It is our purpose to embed incorporation in a wider context. For this reason, we search for correlations between trends in the demography in jsc births and seminal events. In this stage of research we also make a first attempt to juxtapose the trends in the demography of jsc start-ups with trends in GDP; GDP per capita; sectoral breakdown of GDP. One last comment: all values of registered capital and GDP are expressed in constant 1914 drachmas (i.e.drs).

4. Mapping the demography of joint stock company births (1909-1929)

4.1. Total number of Joint stock company births

The unprecedented upsurge in joint stock company births between 1909 and 1929 stood at a total number of 721. This was over twice the size of the total population of jsc births between 1830 and 1909.[7] The post 1909 rising trend in incorporation was cumulative. The number of jsc births between 1909 and 1919 was 148. Between 1920-1929 it was 573. However, in spite of this new momentum and although post 1909 there no longer existed gap years (i.e. years during which there was no jsc birth) there still remained one continuity with the past in that there were sharp fluctuations: Notably, the trough year (1914) had only four JSC births and the peak year (1926) had a total of 97 births!!!

Insert Tables 6a and 6b

What were the specific features and the driving forces of incorporation in each subperiod? In order to answer this question we have created a streamline table for each subperiod.

The first subperiod: (1909-1919)

As already mentioned in the previous Section, it has been generally perceived that the Company Act of 1920 marks the starting point of incorporation in Greece. However, our data set shows that a break in jsc births occurred in 1909. This break was preceded by a brief preparatory phase. For in 1907/8 we detect the start of an upswing in the level of jsc births.

Insert Table 7a

What is immediately obvious from the above table is that the 1909 Goudi uprising found the nascent corporate sector in full bloom. In 1910 an income tax was introduced and in the next two years jsc births were high. But, the highest of all level of jsc births in the first subperiod materialised towards its end (i.e. 1918/1919). Apparently, 1914, was the year with the fewest jsc births for the whole period under review and not one start-up was based in new Greece. [8] Thus, we may argue the full positive/push impact of the post 1909 socio-legal reforms and of the Balkan Wars (1912/1913) on incorporation seems to have taken a few years to unfold. We say positive impact because the Balkan Wars brought about substantial territorial acquisition as already noted and also because during them there was a larger availability of capital/savings due to the high business profits -of sea-faring Greeks and local suppliers of the domestic market. In fact, although jsc birth reached an all time low in 1914 (there year of outbreak of WWI) there was some degree in continuity as the environment of protection for local industry continued throughout WWI and there was more territorial acquisition in 1919. Hence, we may argue this is why the peak came at the end, as a cumulative process of push factors were at work![9]

The second subperiod: (1920-1929)

How can we explain the even higher fertility in jsc births in the 1920s? Was it simply a self-propelled endogenous quickening of the 1909/10s momentum? Could it be that

the assimilation of new territories/land of the previous decade (and the annexation of Thrace in 1919/1920) took time to create a drastic phillip/push forward for incorporation? Or was this even further rise in the number of jsc births connected to the 1920 Company Act (Section 2.3 in the text above) as suggested by Angelopoulos? [10] Or was it caused by one more unpredictable and exogenous factor: the 1922 refugee influx (Section 2.1. in the text above)? Or was it a combination of all three, and still more? It seems to have been the latter case.

Again as in the case for the first subperiod we have constructed a time line table.

Insert Table 7b

The 1920s opened in war dislocation. It was also the year of the Company Act and the annexation of Thrace. In this year there was a high number of jsc births, but nevertheless it was lower than that for 1918 (the peak year for the 1909-1919 period). The trough for births was 1921. Apparently, it was the refugee influx, upon the return to peace in 1922, which was the seminal factor pushing forward incorporation, to new levels instantaneously almost. The one-off net increase in the country's population by ¼ increased the labor pool, the size of the local market and the supply of entrepreneurship. Although the refugees arrived in Greece destitute they carried with them a long tradition of entrepreneurial know-how and cosmopolitanism. These features would make them more friendly to incorporation and future research on founding shareholders will hopefully substantiate our suspicion that they were major actors in incorporation as even in the 1950s Greece's major industrialists and business person were refugees or of refugee origin.

The all time peak in incorporation for the whole period under review was 1926. Namely, three years after the refugee influx and one year after the initiation of the policy of internal improvement. This all time peak also coincided with the amendment to the Company Act which removed the requirement of a ministerial decree for the creation of a jsc. It also coincided with the application of the new tariff which favored local industry, a main area of activity of incorporation as we will see in Section 4.4. In sum, a variety of factors impacted in the rate of incorporation which had (within the general context of the take-off) wide annual fluctuations. These were related to

other factors and not the annual fluctuations in GDP as over the period under review the latter followed a rather smooth upward climb. (See Appendix).

4.2. Total Registered Capital and median capital per start-up

Total

The registered capital of the total population of JSC start-ups between 1909 and 1929 amounted to 541,311,112 drs ('drs' denotes constant 1914 drachmas.) Surprisingly, this was nearly half the size of the registered capital of the near total population of jsc start-ups between 1830 and 1909. Thus, although there was a surge in the numbers of joint stock company births, in terms of total registered capital the 'significance' of the nascent corporate sector in GDP was less than in the pre 1909 era, [11]This is ironic as in the literature the conventional starting point for studying the Greek joint stock company is 1920. It is worth noting that this downward tendency was cumulative as during 1920-1929, the number of jsc births was triple the size of that for 1909-1919 and total registered capital was only 50 per cent higher![12]

Total annual registered capital of jsc start-ups had pronounced variations over time, and these were far larger than the variations in the annual numbers of joint stock company births and the annual fluctuations in GDP (See Appendix). The one year with the lowest registered capital was 1915 (2,028,689 drs) and the one year with the largest was 1927 (98,100,000 drs). A comparison over the years of the annual values of total registered capital of JSC start-ups as a percentage of non-agricultural GDP underlines even further the high volatility of the annual values of registered capital. The latter as a percentage of non-agricultural GDP fluctuated between 0.6% (1915) to 15% (1927).

Insert Tables 8a and 8b

The 1927 peak in registered capital was not sustained. As it coincided with the beginning of the financial stabilization plan, it was followed by an abrupt fall in the next two years in spite of a rise in births. Perhaps, this was because financial stabilization itself created a fall in liquidity, which was made only worse when the first signs of US 'isolationism' appeared with the Wall Street crash of 1929.

Median

From 1909 onwards there was a democratization of this form of business organization. Namely, the increase in the number of jsc births was combined with a severe reduction in the size of the typical start-up in terms of capital. Indeed, the median registered capital of joint stock company start-ups in the period under review was only some 239,000 drs compared to the approximately 1,155,000 drs for 1830-1909.

Insert Table 9

The fall in median capital was not only sharp, it was also cumulative. Notably, in the 1920s the median capital per jsc start-up was less than half the size in the first sub-period. The highest value for median registered capital was in the first decade (1912) and the lowest value was at the end of the period under review (1928). Apparently, there was an intensification in democratization in the years prior to the outbreak of the world economic crisis. If we wish to use the language of the 1920s, contemporaries at the time were speaking of an inflation of 'smaller' start-ups.

Within this process of post 1909 democratization, there was however a polarization process at work, as there was a minority of very large companies. Notably, if we compare the start and end dates (1909 and 1929) we observe that the percentage of those companies whose capital was equal and above median was much lower in the last date. The immensity of polarization within the nascent corporate sector is also manifested by the following example: The largest start-up, the 'Christos Politis Commercial and Industrial Company' (est. 1927) had a registered capital of over 46,000,000 drs. This was over 250 times the size of the median jsc startup for the 1920s.!!!!

What is also interesting concerning this largest start-up is that its title as a firm included the name of its main shareholder. Indeed, in this take-off period for the first time in the history of the Greek corporate sector, companies had titles/names which resembled those of partnership firms as they included in their titles/names the identities of the founding shareholders. One other such example was the firm 'S.A. Economides and Bros –Paint Production Firm of Piraeus' which was founded in 1912.

It may be argued that what we described above as the popularization of the jsc also involved through a bottom-up process/spontaneously a 'familization' of the jsc, by this meaning fewer founding shareholders per start up compared to the past and an open declaration of their family identity. In a sense in the period under review, whether small or large in capital, most jsc start-ups were upgraded 'glorified partnership firms'. In a sense, a large segment of the corporate sector became as time went by captive of the family (we will return to this theme below).

4.3. Sectors

Ever since the creation of the Greek state, and throughout the period under review, most jscs (with the exception of banking and utilities) were multi-purpose entities with a low division of labor. In their charters they would declare a number of diverse activities. This multi-purpose orientation was deeply engrained in Greek business practices and was characteristic of big or small, corporate or non-corporate enterprises alike. One could argue that it operated as a safety network as the size of the local market was small and Greek business had a limited export orientation (with the exception of the currant, olive oil, tobacco trade). In addition such an orientation made sense as capital and 'technological' know how of enterprising Greeks (i.e those who remained in Greece by choice or need) appears to have been in scarce supply compared to the West.

Insert Tables 10a and 10b

On the basis of our data set for 1909-1929 we observe that usually, commercial companies would also declare other parallel activities. A soap factory for example might also process flour and be engaged in commerce. Shipping companies would also do business in insurance and or commerce. For practical purposes in our sectoral classification of jscs which follows below we have taken into consideration only the first declared purpose of the start-up.

As was the case before 1909, there were very few jsc births in the sector of agriculture (the mainstay of the Greek economy). An important difference of our period with the past is that the share of industry in the total population of jsc start-ups increased. It rose from 36.3% of the total (for the pre 1909 era) to 45% of the total. In addition, the share of services fell from 60% of the total population of jsc start-ups (for the pre

1909 era) to something under 50%. It should be underlined that the rise of industry and the fall of services was more marked in our second sub-period (1920-1929) compared to the first (1909-1919).

Insert Tables 10d and 10e

Did the 1909-1929 trends reflect/'follow' the changes in sectoral composition of GDP at the time?

Apparently the answer is no. Between 1909 and 1929 the share of industry fell from 19% to 10% of GDP whereas the share of services rose from 26% to 38% of GDP. We could thus make the argument that the nascent corporate, was moving 'against' the general tide (as presented by GDP figures). However, as already argued in Section 2.3 there was a general move towards industrialization in the 1920s, in spite of what the retrospective GDP figures suggest. Thus, a better argument to be made is that as suggested in the international bibliography, it was also the case in Greece that industrialization and the move towards incorporation were interlinked (Kuznets, 1966 and Colli et al, 2003).

Within each sector of the nascent corporate sector we observe during 1909-1929 an expanding diversity compared to the past. For example, in industry, the largest branches in number of jsc births were food processing and textiles. These were the two most popular /traditional manufacturing activities in Greece, but had until then been near absent within incorporation. However, there was also rise in tobacco manufacturing and 'second industrial revolution' branches such as paper, chemicals, electricity and cement production. It is clear that the incorporation responded dynamically to the demands of the local market: the challenges of feeding, clothing, housing and providing lighting for Greece's refugees and enlarged urban population. Thus, the nascent corporate sector was an active participant in laying the basis for the import substitution/inward looking type of industrialization which was to follow more intensively in the 1930s.

In services, whose share in the total population of jsc start-ups (as mentioned above) was declining, a similar process of diversification was at work. To start with, a traditional branch, commerce became a major and continuously expanding force

within the nascent corporate sector. However, many commercial jsc start-ups were not typical merchant houses of Greece at the time, but were emblematic of modernization. Namely, they were either international trading companies, or automobile dealers, or tobacco companies (all of which were based in the newly annexed Macedonia, an area rich in tobacco cultivation). Moreover, two totally 'new' branches were born. The two most notable examples being: tourism and cinematography.

There was also an interesting development in public goods/utilities in the nascent corporate sector. Pre 1909, jscs in this area had been very large in terms of registered capital, were based in Athens and were founded by tight –knit banking groups in which there was a strong presence of foreign business interests (especially railways). In the take-off period, on the one hand there were the very large public utility jsc start-ups which had similar features to the pre-1909 ones such as for example, Ulen (the Athens Water Company) Pepelasis Minoglou, 2002). On the other hand, a new type of public goods/utilities jsc made its appearance within the nascent corporate sector and it represented one third of public utility start-ups: These were small- medium size (largely electrification) establishments based outside Athens. This phenomenon suggests a higher degree of national integration within this segment of the nascent corporate sector and a trickledown effect. The entities outside Athens, were almost exclusively established by a rather large number of shareholders most of whom were professionals who belonged to the local elite families. We underline the word 'local' as these entities basically served the needs of local districts. They alsoare important as a phenomenon as they demonstrate one more facet of the popularization of the jsc during the take-off period.

5. Epilogue

1. In the period under review Greece underwent sea changes in the real economy and in policy orientation.

2. Extraordinary times incited 'transcendence' in business as from 1909 onwards there was a cumulative take-off in incorporation, An increasing number of company founders moved out of the ordinary and embraced the jsc - a novel form of business

organization which lowered risk taking, something which was doubly important in highly insecure times.

3. The 'transcendence' in business, the take-off in incorporation, was triggered by the following factors:

i. The political empowerment of the bourgeoisie;
ii. The legal/institutional reforms which the latter initiated both through bottoms up and bottom down processes (which brought more social inclusion, better property rights, a program of internal improvement, a better institutional environment for business and incorporation)
iii. Natural (during wars) and policy/tariff based (from 1926 onwards) import substitution
iv. The substantial expansion in the territory and population of Greece. The sudden expansion of population may have operated as a Hisrschmanian bottleneck, creating an urgency for fast and radical solutions, provoking thus to state to embark on a policy of 'internal improvement' and thus indirectly to create a more favorable environment for enterprising.

4. It is also the case that the take-off phase was also interlinked with a quickening in industrialization- as suggested by Simon Kuznets and Andrea Colli- namely this was a pattern of synchronicity which has not been unique to Greece.

5. There was a sharp decrease in the median size of registered capital per start-up. Namely, during this take-off phase, popularization' (i.e. the take –off in the number of births) materialized within a context of democratization. It was also the case that democratization also involved the multiplication of the presence of family firms among jsc start-ups and the dissemination to the country side of elite activities (as for example electrification) by jscs which were established outside Athens and were of medium-small size.

6. Dissemination and democratization within the nascent corporate sector did not mean alienation from foreign capital. On the contrary, the presence of the latter in the top jscs in terms of registered capital became perhaps even stronger, compared to the past.

7. Manufacturing became the number one activity of joint stock company start-ups. However, simultaneously, the nascent corporate sector became more embedded in the traditional segment of the economy, as commerce and shipping were respectively its second and third most important areas of activity.

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[1] For examples of these two approaches, see: Williamson (1981) Chandler, Amatori and Hikino (1997), Mickelthwait, John και Adrian Wooldridge, (2003).

[2] For example, Toninelli and Pavese (2014); Neves (2011). For a Greek version of this trend see Pepelasis (2011a).

[3] For details on data sets and outcomes of this project, see:http://www.aueb.gr/users/ipepelasis/jsc/index.htm

[4] Pepelasis (2011a).

[5] Law for 'General Commerce', 1835.

[6] Moreover in the same year a long held practice became obligatory: this was the publication of the charters of the jsc in the Greek Government Gazette (Angelopoulos,1928).

[7] Actually the contrast in the total number of births between our period and the pre 1909 era was even starker if we take into consideration that in 1914 a law for cooperatives was introduced and that such organizations from then on were no longer set up as joint stock companies as had been the case in the past.

[8] Only in the 1920s did Salonika in Macedonia (the main headquarter of incorporation in new Greece') make a dynamic appearance in the total population of start-ups !!!

[9] It would be interesting to research if and how Grek neutrality in WWI up to 1917 impacted on the rate of incorporation…but this belongs to alter stage of research.

[10] Indeed, Angelopoulos estimates that three quarters of jscs, which were created after 1925, were law induced i.e transformations and mergers of sole proprietorships and partnerships because of the new taxation policy.

[11] The fall of the share of total registered capital in GDP was also in part related to the fact that the national economy was also becoming more monetized.

[12] A theme to look into in a future version of the paper is that of the percentage share of foreign capital in the nascent corporate sector. Preliminary research has shown that it was perhaps higher in the 1920s than before. See Kitsios(2004).

Table 1.



Greece
1907

Sq. 63.211 km



Greece
1928

Sq. 129.880 km

Population	:	2.631.952	+ 129%	Population	:	6.039.380
Literate	:	887.815	33.7%	Literate	:	3.007.651	49.8%
Illiterate	:	1.744.137	66.3%	Illiterate	:	3.031.729	50.2%

Table 2. Production possibility frontier (PPF) like curve

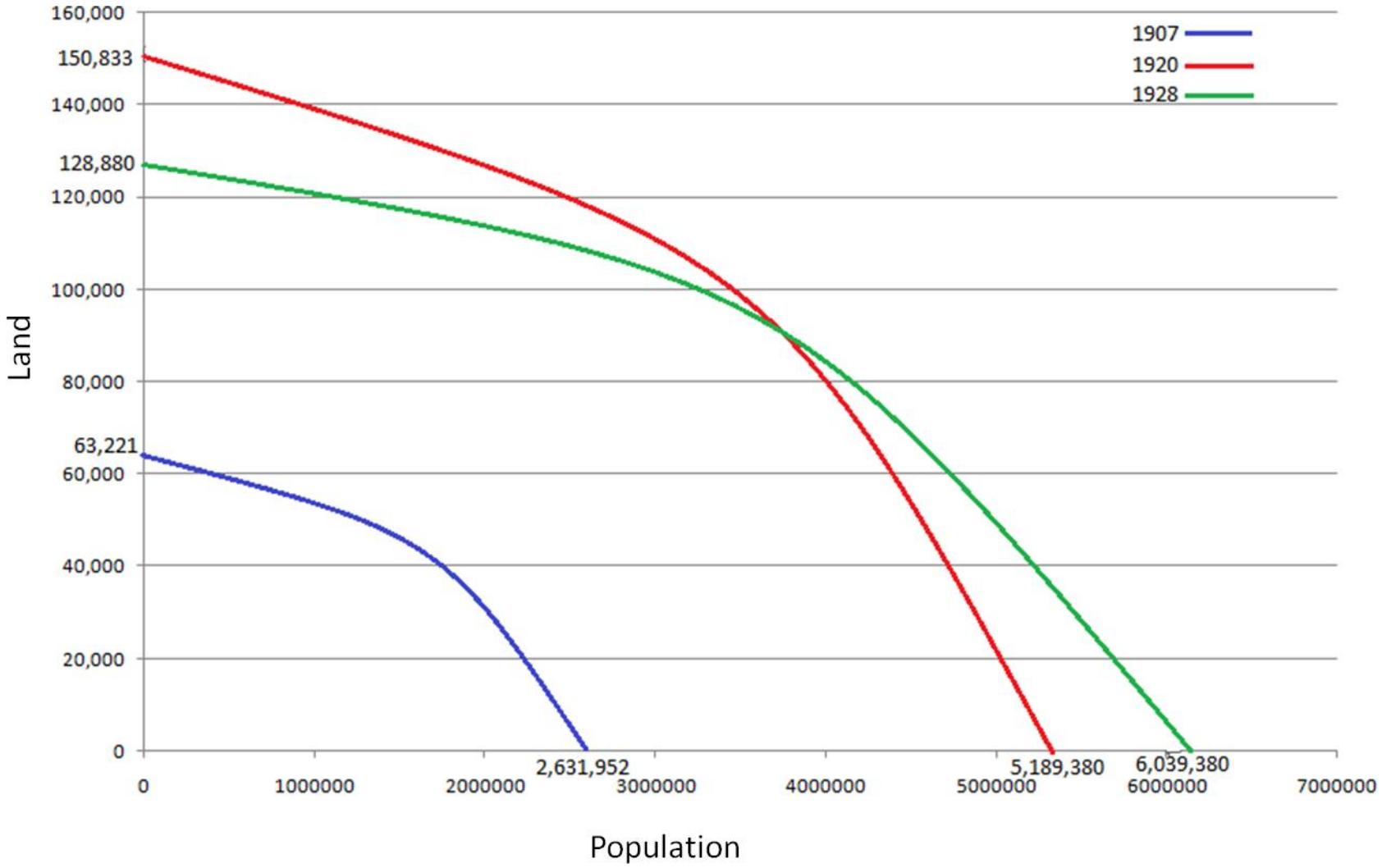


Table 3. Population shifts



Greece 1907

Agricultural Population : 76%

Urban Population : 24%

Agricultural Population : 73%

Urban Population : 27%



Greece 1920



Greece 1928

Agricultural Population : 67%

Urban Population : 33%

Table 4. Trends in GDP

Year	GDP (1914) prices)	GDP per capita (1914 prices)	Population
1833	118.348.370	164,6	719.040
1879	371.041.818	220,9	1.679.470
1889	560.106.569	256,1	2.187.208
1909	743.040.958	278,6	2,666,597
1910	745.026.736	277,6	2,684,090
1911	935.285.670	346,2	2,701,698
1912	913.393.950	335,9	2,719,422
1913	968.757.971	201,0	4,819,793
1914	1.235.786.566	256,5	4,818,245
1915	1.168.280.495	242,5	4,816,998
1916	1.174.429.854	243,9	4,816,050
1917	1.130.057.389	234,7	4,815,401
1918	1.373.319.832	285,2	4,815,049
1919	1.129.857.920	234,7	4,814,994
1920	1.410.411.674	281,1	5,016,889
1921	1.439.035.678	282,7	5,089,515
1922	1.471.597.490	247,6	5,943,000
1923	1.309.372.894	215,5	6,077,000
1924	1.484.058.299	250,6	5,923,000
1925	1.590.990.095	265,5	5,992,000
1926	1.634.905.291	268,4	6,091,000
1927	1.586.246.988	257,2	6,168,000
1928	1.729.994.082	278,8	6,204,684
1929	1.811.652.439	286,9	6,315,000

Sources: Compiled from Kostelenos et Al.

Table 5a. Nominal G.D.P.: Total value of production (in L.M.U. drs* - minimum estimate)

Year	*Agriculture*	*Industry*	*Services*	*Total*	*% agriculture*	*% industry*	*% services*	*Population*
1909	380,950,434	112,961,700	173,977,000	667,889,134	57.0	16.9	26.0	2,666,597
1910	328,017,436	121,548,200	187,939,000	637,504,637	51.5	19.1	29.5	2,684,090
1911	505,105,395	126,836,900	194,674,000	826,616,295	61.1	15.3	23.6	2,701,698
1912	455,056,026	140,753,500	199,978,000	795,787,526	57.2	17.7	25.1	2,719,422
1913	498,972,787	152,520,100	177,758,500	829,251,386	60.2	18.4	21.4	4,819,793
1914	857,706,749	141,244,600	220,443,500	1,219,394,848	70.3	11.6	18.1	4,818,245
1915	971,662,049	148,017,800	283,024,500	1,402,704,349	69.3	10.6	20.2	4,816,998
1916	1,373,952,291	181,557,000	306,022,500	1,861,531,791	73.8	9.8	16.4	4,816,050
1917	2,078,599,557	227,618,200	355,370,500	2,661,588,257	78.1	8.6	13.4	4,815,401
1918	2,668,732,184	379,402,600	1,092,541,000	4,140,675,784	64.5	9.2	26.4	4,815,049
1919	2,574,635,755	370,719,000	792,046,000	3,737,400,755	68.9	9.9	21.2	4,814,994
1909-1919	1,153,944,606	191,198,145	362,161,318	1,707,304,069	65	13	22	
1920	3,251,339,237	443,872,000	1,594,096,500	5,289,307,737	61.5	8.4	30.1	5,016,889
1921	3,434,603,438	484,520,900	2,802,057,500	6,721,181,838	51.1	7.2	41.7	5,089,515
1922	6,007,276,465	777,610,600	3,846,488,000	10,631,375,065	56.5	7.3	36.2	5,943,000
1923	10,686,337,354	1,260,466,600	4,401,158,000	16,347,961,955	65.4	7.7	26.9	6,077,000
1924	12,320,369,516	1,547,094,100	6,575,778,500	20,443,242,116	60.3	7.6	32.2	5,923,000
1925	13,191,307,750	2,030,173,700	8,426,197,000	23,647,678,449	55.8	8.6	35.6	5,992,000
1926	16,087,959,853	2,251,122,200	9,490,041,500	27,829,123,554	57.8	8.1	34.1	6,091,000
1927	17,933,887,345	2,594,254,400	9,916,812,000	30,444,953,745	58.9	8.5	32.6	6,168,000
1928	19,331,483,601	2,874,733,300	10,940,016,000	33,146,232,901	58.3	8.7	33.0	6,204,684
1929	16,731,986,974	3,024,513,100	12,123,384,000	31,879,884,074	52.5	9.5	38.0	6,315,000
1920-1929	10,816,050,139	1,571,669,173	6,374,184,455	18,761,903,767	53	7	31	

Sources: Compiled from Dertilis (2011) and Kostelenos *et al.* (2007)

*error rate: +/- 7.5 to 10%

Table 5b. Nominal G.D.P.: Total value of production (in L.M.U. drs* - maximum estimate)

Year	*Agriculture*	*Industry*	*Services*	*Total*	*% agriculture*	*% industry*	*% services*	*Population*
1909	391,214,444	132,961,200	186,864,500	711,040,145	55.0	18.7	26.3	2,666,597
1910	339,635,378	142,737,700	201,860,500	684,233,578	49.6	20.9	29.5	2,684,090
1911	509,560,800	149,801,900	209,094,500	868,457,200	58.7	17.2	24.1	2,701,698
1912	470,470,725	166,675,500	214,791,500	851,937,725	55.2	19.6	25.2	2,719,422
1913	513,102,645	180,164,100	190,926,000	884,192,745	58.0	20.4	21.6	4,819,793
1914	863,351,683	159,904,600	228,922,000	1,252,178,283	68.9	12.8	18.3	4,818,245
1915	977,095,981	168,042,800	293,910,000	1,439,048,781	67.9	11.7	20.4	4,816,998
1916	1,381,355,609	205,177,500	317,792,500	1,904,325,609	72.5	10.8	16.7	4,816,050
1917	2,088,243,197	259,180,200	369,038,500	2,716,461,898	76.9	9.5	13.6	4,815,401
1918	2,682,187,149	434,879,600	1,134,561,500	4,251,628,249	63.1	10.2	26.7	4,815,049
1919	2,594,620,177	424,970,000	822,509,000	3,842,099,177	67.5	11.1	21.4	4,814,994
1909-1919	1,164,621,617	220,408,645	379,115,500	1,764,145,763	63	15	22	
1920	3,271,413,005	506,945,000	1,655,408,000	5,433,766,005	60.2	9.3	30.5	5,016,889
1921	3,458,132,464	554,352,900	2,909,829,000	6,922,314,364	50.0	8.0	42.0	5,089,515
1922	6,043,706,908	890,757,100	3,994,430,000	10,928,894,008	55.3	8.2	36.5	5,943,000
1923	10,767,216,438	1,431,583,600	4,570,433,000	16,769,233,038	64.2	8.5	27.3	6,077,000
1924	12,402,857,019	1,761,896,600	6,828,693,000	20,993,446,619	59.1	8.4	32.5	5,923,000
1925	13,275,759,435	2,310,851,200	8,750,281,500	24,336,892,135	54.5	9.5	36.0	5,992,000
1926	16,192,841,403	2,557,014,700	9,855,043,500	28,604,899,602	56.6	8.9	34.5	6,091,000
1927	18,051,026,512	2,955,360,900	10,298,228,000	31,304,615,412	57.7	9.4	32.9	6,168,000
1928	19,457,512,256	3,273,465,300	11,360,786,000	34,091,763,556	57.1	9.6	33.3	6,204,684
1929	16,856,667,251	3,449,437,600	12,589,668,000	32,895,772,851	51.2	10.5	38.3	6,315,000
1920-1929	10,888,830,245	1,790,151,355	6,619,345,455	19,298,327,054	51	8	31	

Sources: Compiled from Dertilis (2011) and Kostelenos *et al.* (2007)

*error rate: +/- 7.5 to 10%

Table 6a. Number of joint stock company births and registered capital of start-ups: 1830 – 1929

Year	Number of births	Registered capital	Mean	Median
1830-1909	303	1,082,953,426	4,944,993	1,153,846
1900-1909	78	215,028,265	3,308,127	1,041,667
1909-1919	148	215,297,283	1,454,711	485,319
1920-1929	573	326,013,829	568,960	198,939
1909-1929	721	541,311,112	750,778	238,806

Table 6b. Number of joint stock company births and registered capital of start-ups: 1909-1929 *(in constant 1914 drs)*

Year	Number of births	Registered capital	Mean	Variance	Variance (coefficient of variation)	Median
1909	13	19,236,129	1,479,702	2,875,451	1.94	332,903
1910	5	5,224,719	1,044,944	891,472	0.85	786,517
1911	12	11,197,802	933,150	1,056,063	1.13	434,066
1912	15	40,283,783	2,685,586	3,568,323	1.33	1,666,667
1913	9	41,084,024	4,564,892	7,619,324	1.67	568,182
1914	4	2,500,000	625,000	920,598	1.47	225,000
1915	6	2,028,689	338,115	381,282	1.13	286,885
1916	7	20,675,000	2,953,571	3,596,482	1.22	1,250,000
1917	19	18,949,580	997,346	1,224,897	1.23	840,336
1918	32	44,736,961	1,398,030	1,795,825	1.28	527,778
1919	26	9,380,597	360,792	310,588	0.86	298,507
1909-1919	**148**	**215,297,283**	**1,454,711**	**2,788,067**	**1.92**	**485,319**
1920	29	12,056,316	415,735	476,984	1.15	236,842
1921	13	6,831,899	525,531	604,546	1.15	421,941
1922	16	7,856,903	491,056	612,973	1.25	266,030
1923	32	9,820,822	306,901	697,314	2.27	158,103
1924	51	17,429,441	341,754	408,213	1.19	214,900
1925	88	41,840,475	475,460	636,513	1.34	265,252
1926	97	74,693,946	770,041	1,873,531	2.43	289,687
1927	77	98,130,678	1,299,139	5,785,842	4.45	190,134
1928	86	31,632,523	367,820	594,855	1.62	154,400
1929	84	25,720,826	306,200	670,702	2.19	167,785
1920-1929	**573**	**326,013,829**	**568,960**	**2,300,360**	**4.04**	**198,939**
1909-1929	**721**	**541,311,112**	**750,778**	**2,433,223**	**3.24**	**238,806**

Table 7a. Timeline of number of joint stock company births per annum and dates of exogenous events and legal/policy changes in the first subperiod

Year	Number of Births	Exogenous events	Wider Legal /institutional change	Legal /policy changes with direct impact/relevance for incorporation
1909	13	The bourgeois revolution		
1910	5			Introduction of Income Tax
1911	12		New Constitution	
1912	15	Balkan War		Creation of anatural environment for protection of local insustry
1913	9	Balkan War, expansion of geographical frontiers		This continues
1914	4	WWI begins, Greece officially keeps neutrality,		This continues

		northern Greece		
1915	6	The allies were allowed to establish a military base in northern Greece		This continues
1916	7	This continues		This continues
1917	19	Greece officially enters WWI		This continues
1918	32	WWI ends		This continues
1919	26	Asia Minor Military Campaign		

Table 7b. Timeline of number of joint stock company births per annum and dates of exogenous events and legal/policy changes in the second subperiod

Year	Number of Births	Exogenous events	Wider Legal /institutional change	Legal /policy changes with direct impact/relevance for incorporation
1920	29	Annextaion of Thrace Continuation of Asia Minor Military Campaign		Company Act
1921	13	Continuation of Asia Minor Military Campaign		First ammendment to Company Act
1922	16	Military Defeat in Asia Minor Refugee influx		
1923	32		Land reform Act	
1924	51			
1925	88		Initiation of policy of internal	

			improvement.	
1926	97			Second amendments to Company Act New Tariff: Policy of protectionism
1927	77		League of Nations Financial Stabilization Plan	
1928	86		Continued	
1929	84		Continued	

Table 8a. Number of joint stock company births and registered capital of start-ups: 1830 – 1929

Year	*Number of births*	*ToRegistered capital*	*Mean*	*Median*
1830-1909	*303*	*1,082,953,426*	*4,944,993*	*1,153,846*
1900-1909	*78*	*215,028,265*	*3,308,127*	*1,041,667*
1909-1919	*148*	*215,297,283*	*1,454,711*	*485,319*
1920-1929	*573*	*326,013,829*	*568,960*	*198,939*
1909-1929	*721*	*541,311,112*	*750,778*	*238,806*

Table 8b. Registered capital of joint stock company start-ups and their share in non-agricultural GDP:1909-1929*(in constant 1914 drachmas)*

Year	Number of companies	Registered capital	Non –agricultural GDP	Share of registered capital in non-agricultural GDP M
1909	13	19,236,129	319,225,446	6.0
1910	5	5,224,719	361,685,588	1.4
1911	12	11,197,802	363,777,655	3.1
1912	15	40,283,783	391,086,918	10.3
1913	9	41,084,024	385,842,015	10.6
1914	4	2,500,000	366,550,092	0.7
1915	6	2,028,689	359,005,311	0.6
1916	7	20,675,000	307,611,142	6.7
1917	19	18,949,580	247,525,396	7.7
1918	32	44,736,961	488,193,098	9.2
1919	26	9,380,597	351,516,824	2.7
1920	29	12,056,316	543,431,146	2.2
1921	13	6,831,899	703,671,421	1.0
1922	16	7,856,903	640,068,839	1.2
1923	32	9,820,822	453,461,894	2.2
1924	51	17,429,441	589,672,442	3.0
1925	88	41,840,475	705,133,452	5.9
1926	97	74,693,946	689,769,860	10.8
1927	77	98,130,678	651,853,229	15.1
1928	86	31,632,523	721,030,188	4.4
1929	84	25,720,826	860,816,327	3.0

Table 9. Joint Stock Company start-ups below median, median and above median percentage

Year	Median	Above (%)	Equals (%)	Below (%)
1909	332,903	46	23	31
1910	786,517	40	20	40
1911	434,066	42	17	42
1912	1,666,667	47	7	47
1913	568,182	44	22	33
1914	225,000	25	25	50
1915	286,885	50	0	50
1916	1,250,000	43	14	43
1917	840,336	21	37	42
1918	527,778	47	6	47
1919	298,507	35	23	42
1920	236,842	48	10	41
1921	421,941	38	15	46
1922	266,030	50	6	44
1923	158,103	38	22	41
1924	214,900	45	10	45
1925	265,252	49	7	44
1926	289,687	42	9	49
1927	190,134	51	4	45
1928	154,400	49	7	44
1929	167,785	42	12	46

Table 10a. Sectoral distribution of jsc births and registered capital of start-ups : 1909-1929

Sector / Branch	**Number of jsc births**	**Share** *(%)*	**Registered capital** *(in 1914 constant drachmas)*	**Share** *(%)*
Agriculture	10	1.3	2,764,836	0.5
Mining	22	2.9	12,132,278	2.2
Total agriculture-mining	***32***	***4.3***	***14,897,113***	***2.8***
Food processing	55	7.5	31,703,264	5.9
Distilling	16	2.1	7,961,235	1.5
Textiles	48	6.7	26,914,336	5.0
Clothing	11	1.5	5,682,298	1.0
Leather processing and goods	12	1.6	3,963,393	0.7
Paper	10	1.3	8,170,741	1.5
Chemicals	26	3.5	16,127,907	3.0
Non metal ores	24	3.2	13,245,647	2.4
Metal products except machinery	10	1.3	6,958,958	1.3
Other	33	5	11,550,559	2
Total manufacturing	***245***	***33.9***	***132,278,338***	***24.4***
Electricity and water supply	32	4.6	32,038,214	5.9
Total utilities	***32***	***4.6***	***32,038,214***	***5.9***
Construction	42	5.6	16,487,299	3.0
Engineering companies	9	1.2	1,144,348	0.2
Total construction	***51***	***6.8***	***17,631,646***	***3.3***
Total industry	***328***	***45.3***	***181,948,199***	***33.6***
Wholesale	124	16.6	85,910,486	15.9
Retail	11	1.5	1,907,453	0.4
Other commerce	16	2.5	8,838,183	1.6
Total commerce	***151***	***20.6***	***96,656,122***	***17.9***
Transportation	67	9.1	120,961,113	22.3
Communications		0.1	MΔ	MΔ
Total transportation and communications	***67***	***9.2***	***120,961,113***	***22.3***
Hotels	9	1.2	2,771,894	0.5
Athletic activities and recreation	8	1.1	2,162,628	0.4
Total tourism and recreation	***17***	***2.3***	***4,934,522***	***0.9***
Publishing	13	1.9	1,728,288	0.3
Cinema production	4	0.5	407,765	0.1
Real estate	11	1.5	4,459,258	0.8

Consultation provision	3	0.4	459,486	0.1
Other professional services	1	0.1	15,440	0.0
Technical support of companies	1	0.1	231,750	0.0
Education	2	0.3	307,519	0.1Total
Health services	4	0.7	546,712	0.1
Art	2	0.3	116,572	0.0
Lotteries	1	0.1	289,687	0.1
Activities of organizations	4	0.7	164,926	0.0
Total other services	***46***	***6.6***	***8,727,401***	***1.6***
Total services (financial services not included)	***281***	***38.7***	***231,279,159***	***42.7***
Banks	46	6.2	74,894,765	13.8
Insurance	17	3.2	11,817,229	2.2
Other financial services	10	1.3	2,064,250	0.4
Total financial sector	***73***	***10.7***	***88,776,244***	***16.4***
Undefined sector/branch	7	0.9	24,410,398	4.5
Total	**721**	**100.0**	**541,311,112**	**100.0**

Table 10b. Sectoral distribution of jsc births and registered capital of start-ups : 1909-1919

Sector/ Branch	**Number of jsc births**	**Share** *(%)*	**Capital** *(in constant 1914 drachmas)*	**Share** *(%)*
Agriculture	2	1.4	610,681	0.3
Mining	11	7.4	7,996,502	3.7
Total agriculture - mining	***13***	***8.8***	***8,607,183***	***4.0***
Food processing	8	5.4	7,720,319	3.6
Distilling	5	3.4	3,716,036	1.7
Textiles	2	1.4	656,716	0.3
Clothing	1	0.7	8,197	0.0
Leather processing and goods	2	1.4	62,295	0.0
Paper	3	2.0	2,772,483	1.3
Chemicals	9	6.1	11,182,017	5.2
Non metal ones	6	4.1	6,159,384	2.9
Metal products except machinery	1	0.7	238,806	0.1
Other	7	4.7	3,540,135	1.6
Total manufacturing	***44***	***29.7***	***36,056,388***	***16.7***
Electricity and water supply	5	3.4	5,437,994	2.5
Total utilities	***5***	***3.4***	***5,437,994***	***2.5***
Construction	2	1.4	2,299,791	1.1
Engineering companies				
Total construction	***2***	***1.4***	***2,299,791***	***1.1***
Total industry	***51***	***34.5***	***43,794,174***	***20.3***
Wholesale	22	14.9	15,318,936	7.1
Retail				
Other commerce	4	2.7	5,249,793	2.4
Total commerce	***26***	***17.6***	***20,568,728***	***9.6***
Transportation	20	13.5	81,090,263	37.7
Communications				
Total transportation and communications	***20***	***13.5***	***81,090,263***	***37.7***
Hotels	2	1.4	1,120,241	0.5
Athletic activities and recreation	1	0.7	149,254	0.1
Total tourism and recreation	***3***	***2.0***	***1,269,495***	***0.6***
Publishing	4	2.7	591,331	0.3
Cinema production	1	0.7	163,399	0.1
Real estate	1	0.7	895,522	0.4

Consultation provision	1	0.7	333,333	0.2
Other professional services				
Technical support of companies				
Education	1	0.7	109,890	0.1
Health services				
Art	1	0.7	32,680	0.0
Lotteries				
Activities of organizations	2	1.4	34,577	0.0
Total other services	***11***	***7.4***	***2,160,732***	***1.0***
Total services (financial services not included)	***60***	***40.5***	***105,089,219***	***48.8***
Banks	9	6.1	24,096,552	11.2
Insurance	13	8.8	10,527,544	4.9
Other financial services				
Total financial sector	***22***	***14.9***	***34,624,096***	***16.1***
Undefined sector/branch	2	1.4	23,182,612	10.8
Total	***148***	***100.0***	***215,297,283***	***100.0***

Table 10c. Sectoral distribution of jsc births and registered capital of start-ups : 1920-1929

Sector/ Branch	**Number of jsc births**	**Share** *(%)*	**Registered capital** *(In constant 1914 drachmas)*	**Share** *(%)*
Agriculture	8	1.4	2,154,155	0.7
Mining	11	1.9	4,135,776	1.3
Total agriculture - mining	***19***	***3.3***	***6,289,931***	***1.9***
Food processing	47	8.2	23,982,945	7.4
Distilling	11	1.9	4,245,199	1.3
Textiles	46	8.0	26,257,620	8.1
Clothing	10	1.7	5,674,101	1.7
Leather processing and goods	10	1.7	3,901,098	1.2
Paper	7	1.2	5,398,258	1.7
Chemicals	17	3.0	4,945,890	1.5
Non metal ones	18	3.1	7,086,263	2.2
Metal products except machinery	9	1.6	6,720,152	2.1
Other	26	4.5	8,010,424	2.5
Total manufacturing	***201***	***35.1***	***96,221,950***	***29.5***
Electricity and water supply	27	4.7	26,600,220	8.2
Total utilities	***27***	***4.7***	***26,600,220***	***8.2***
Construction	40	7.0	14,187,507	4.4
Engineering companies	9	1.6	1,144,348	0.4
Total construction	***49***	***8.6***	***15,331,855***	***4.7***
Total industry	***277***	***48.3***	***138,154,025***	***42.4***
Wholesale	102	17.8	70,591,551	21.7
Retail	11	1.9	1,907,453	0.6
Other commerce	12	2.1	3,588,390	1.1
Total commerce	***125***	***21.8***	***76,087,394***	***23.3***
Transportation	47	8.2	39,870,850	12.2
Communications	0	0.0	0	0.0
Total transportation and communications	***47***	***8.2***	***39,870,850***	***12.2***
Hotels	7	1.2	1,651,653	0.5
Athletic activities and recreation	7	1.2	2,013,374	0.6
Total tourism and recreation	***14***	***2.4***	***3,665,027***	***1.1***
Publishing	9	1.6	1,136,957	0.3
Cinema production	3	0.5	244,366	0.1

Real estate	10	1.7	3,563,736	1.1
Consultation provision	2	0.3	126,152	0.0
Other professional services	1	0.2	15,440	0.0
Technical support of companies	1	0.2	231,750	0.1
Education	1	0.2	197,628	0.1
Health services	4	0.7	546,712	0.2
Art	1	0.2	83,893	0.0
Lotteries	1	0.2	289,687	0.1
Activities of organizations	2	0.3	130,349	0.0
Total other services	***35***	***6.1***	***6,566,669***	***2.0***
Total services (financial services not included)	***221***	***38.6***	***126,189,940***	***38.7***
Banks	37	6.5	50,798,213	15.6
Insurance	4	0.7	1,289,684	0.4
Other financial services	10	1.7	2,064,250	0.6
Total financial sector	***51***	***8.9***	***54,152,148***	***16.6***
Undefined sector/branch	5	0.9	1,227,786	0.4
Total	**573**	**100.0**	**326,013,829**	**100.0**

Table 10d. JSC births per category of economic activity: 1830-1929

	1830-1900	1900-1909	1909-1919	1920-1929
Agriculture	4	3	2	8
Insurance	67	5	13	4
Banks	35	9	9	37
Other financial services	6			10
Commerce	20	11	26	125
Sea transport-shipping	16	8	20	47
Land transport-railways	11	1		
Collective action	18	4	?	?
Public utilities	7	3	5	27
Other services	8	3	11	35
Mining-metallurgy	47	13	11	11
Manufacturing	49	14	44	201
Construction	12	4	2	40
TOTAL	300	78	143	545

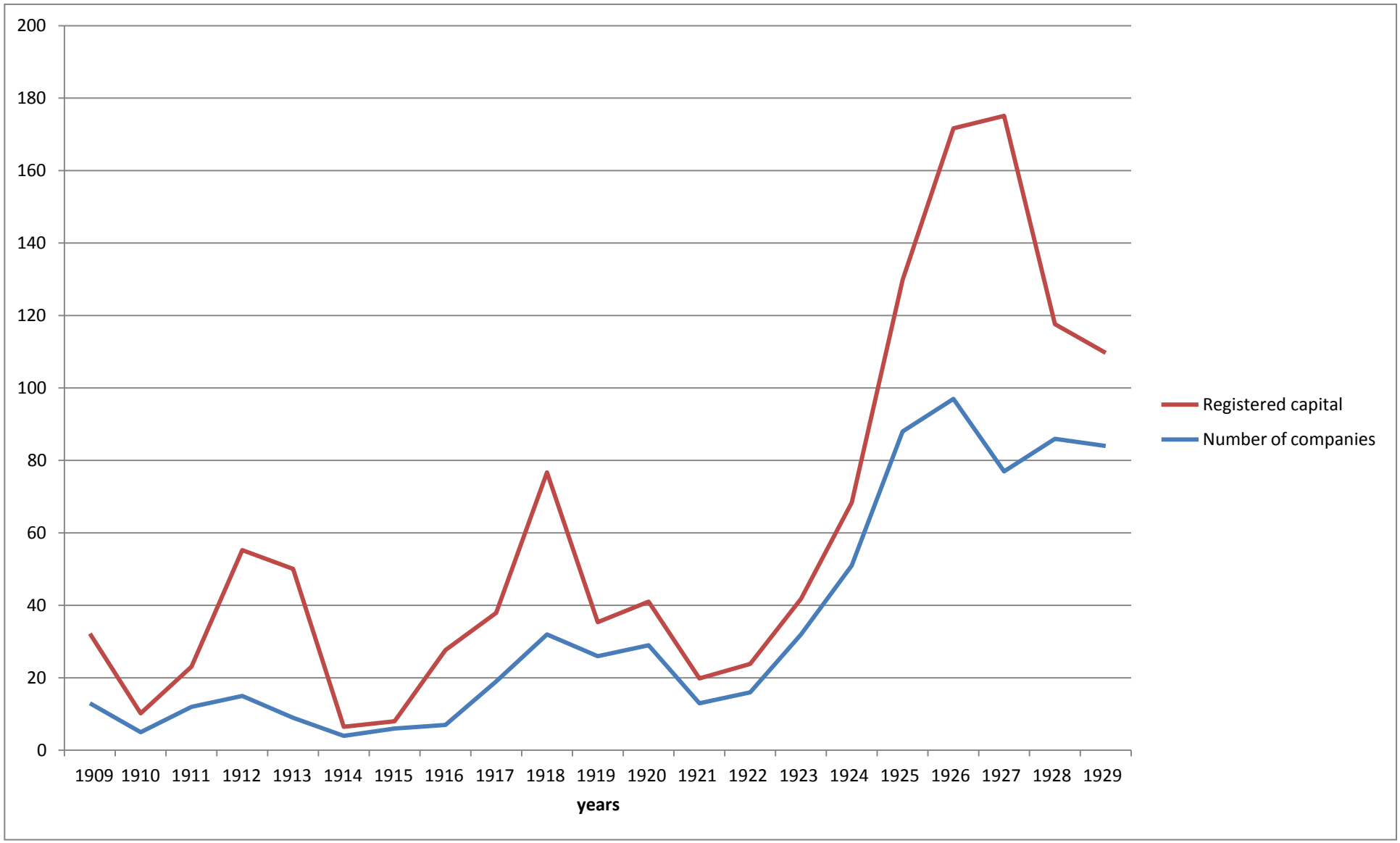
Table 10e. Sectoral composition of registered capital of JSC start-ups: 1840-1929

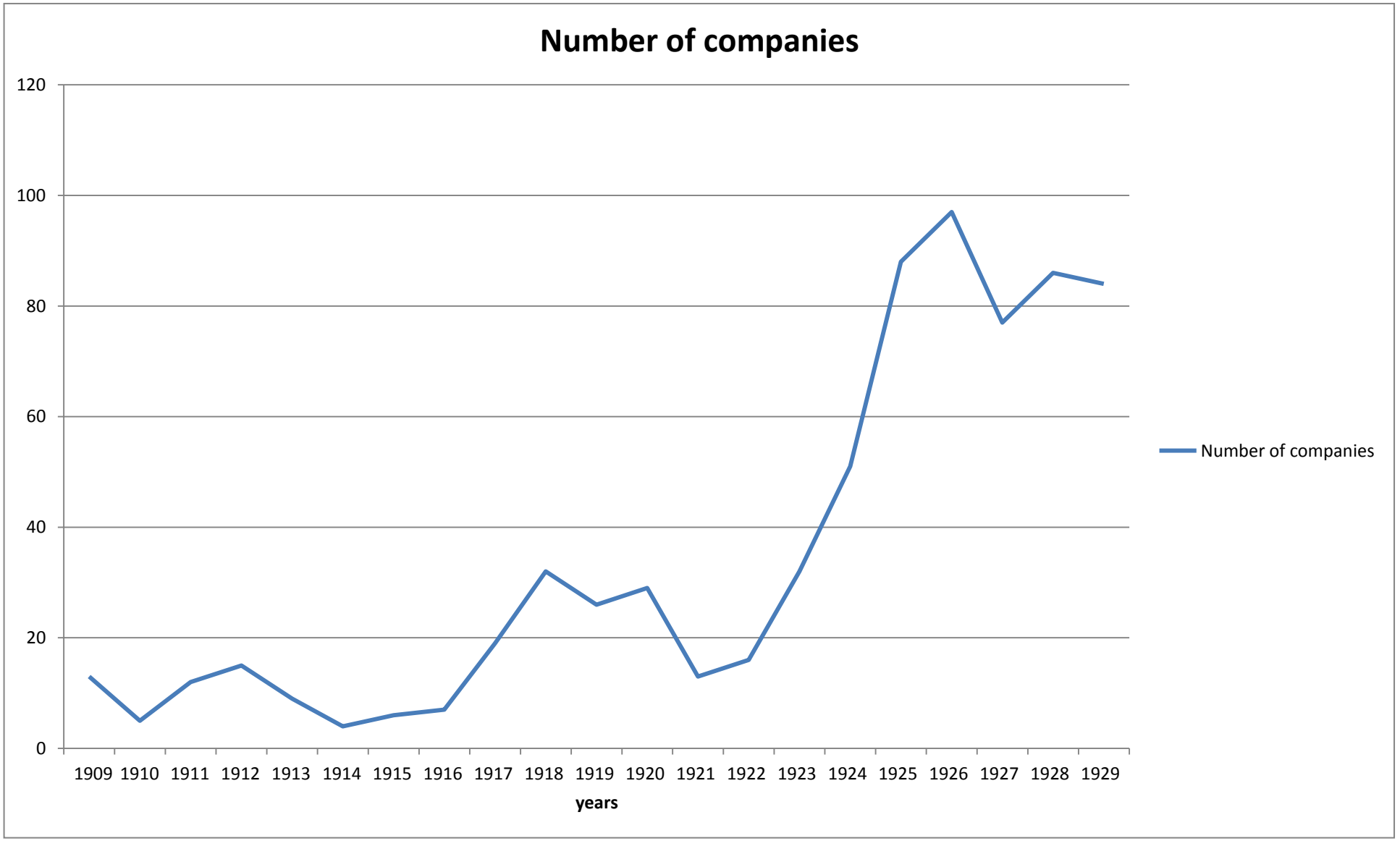
* including financial sector

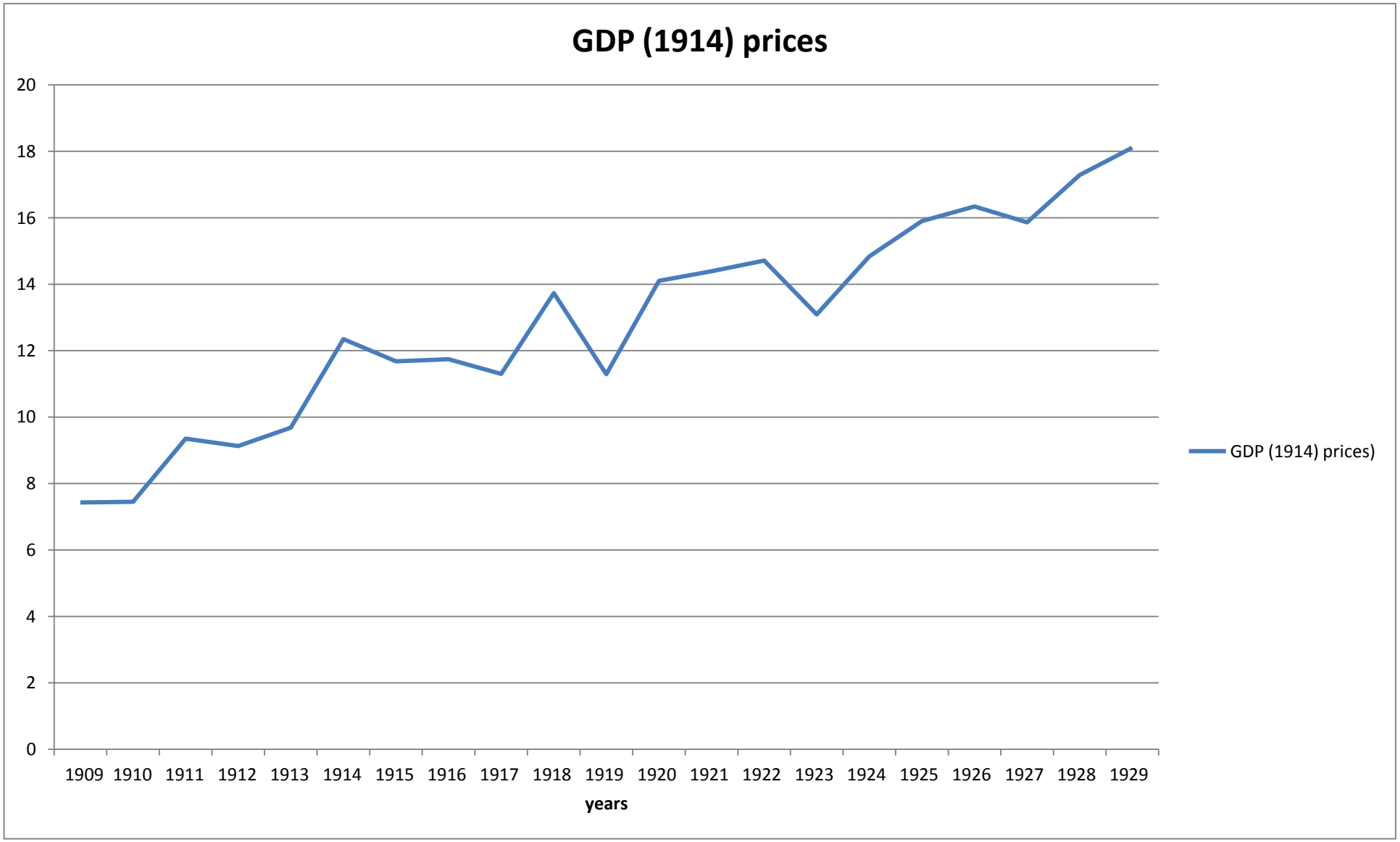
** rest of percentage = not defined sector/branch

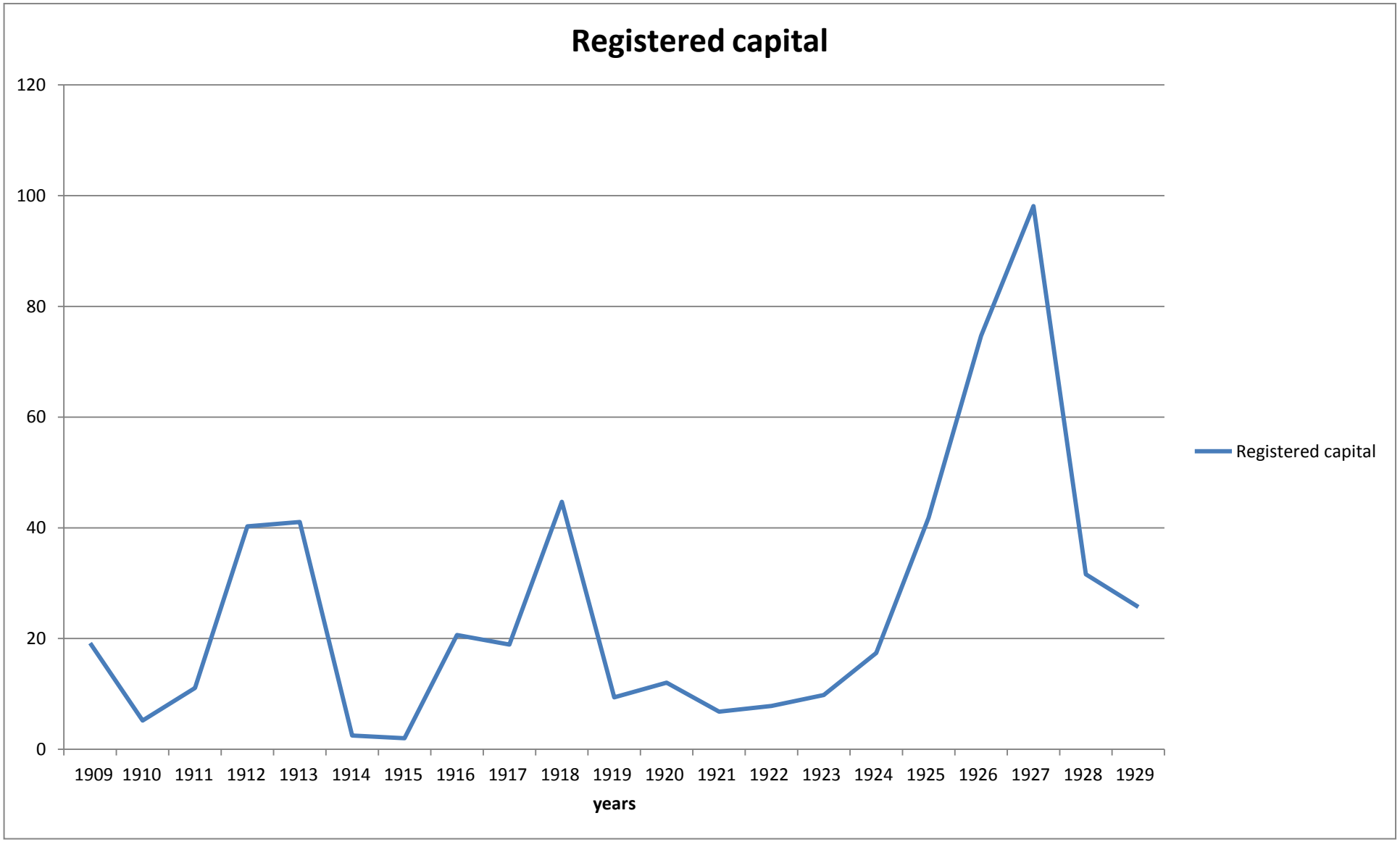
	Agriculture	Services	Industry	Total
1840-1909	0.2%	86.2%	0.6%	100%
1900-1909	1%	81.9%	17%	100%
1909-1919	4%	64.9%*	20.3%	89.2%**
1920-1929	1.9%	55.3%*	42.4%	99.6%**
1909-1929	2.8%	59.1%*	33.6%	95.5%**

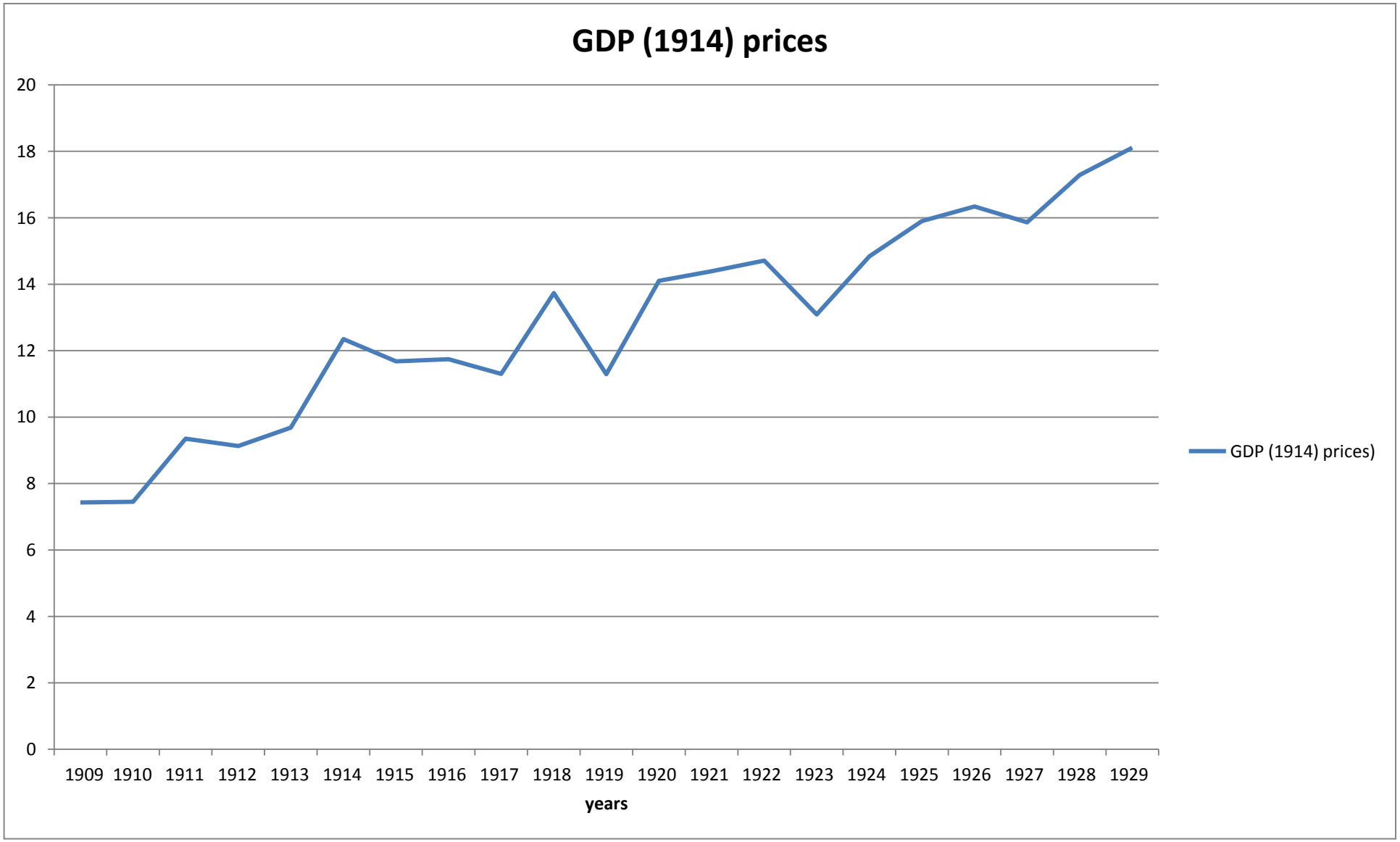
Appendix


200
180
160
140
120
100
80
60
40
20
0
1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929
years
Registered capital
Number of companies


Number of companies
120
100
80
60
40
20
0
1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929
years
Number of companies


GDP (1914) prices
20
18
16
14
12
10
8
6
4
2
0
1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929
years
GDP (1914) prices)


Registered capital
120
100
80
60
40
20
0
1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929
years
Registered capital


GDP (1914) prices
20
18
16
14
12
10
8
6
4
2
0
1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929
years
GDP (1914) prices)