UNIVERSITY OF GREENWICH
SCHOOL OF FINANCE

MSc in Finance & Financial Information Systems

The Operating and Market Performance of Initial Public Offering (IPO) Firms in Greece.

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ABSTRACT

The operating and market performance of Initial Public Offering (IPO) firms in Greece both in the short and the long run has been puzzling for researchers. Most of them found that in the short run Initial Public Offerings give abnormal returns because they are underpriced and that in the long run their performance is rather poor. This dissertation presents a part of literature concerning the underpricing and the long run performance of Initial Public Offerings and also uses the internationally used methodology to assess both the short and the long run performance of Initial Public Offerings in the Athens Stock Exchange (ASE) for the period of 1993 to 2000.

From the empirical analysis of the Initial Public Offerings in the Athens Stock Exchange and for a sample of 34 companies that issued common stock during the period 1993 to 2000. Both the short and the long run performance of Greek IPO's same sample have been studied. The examination time intervals are 1-month, 2-months, 3-months, 6-months, 12-months, 24-

months, 36-months, 48-months after the initial offering. From the analysis has been found that for the 12-month period the returns were positive and were estimated at 21,35%, when in the 48-months period returns were negative and were estimated at -51,38%.

Finally in comparison with the international evidence it can be seen that the Greek IPO's have similar performance in the short run, with the most of the countries mentioned in the theoretical part, while in the long run the performance of those offerings do not coincide with the evidence from the international literature.

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INTRODUCTION

Until the middle of the 80's the problem of raising capital for most of the Greek companies was mainly solved by the traditional method of raising capital, which is bank loans - solution that was very expensive due to the high cost of bank money. That disadvantage of bank loans had a major impact on Greek companies in the sense that the development of new projects was impossible. It was only in the end of the 80's, when the Greek stock exchange started to wake up, that Greek companies found an alternative solution to their problem of raising capital.

The Athens Stock Exchange (ASE) has been in the process of rapid modernization since 1987 and since then more and more companies turned towards it, in their attempts to raise equity capital. In deed during 1994, 46 new companies decided to enter the ASE.

The decision of entering in the stock exchange is a very important decision in the life cycle of a

company. There are many attractions of having the shares in a company quoted in a stock exchange but there are also many costs. Even though those attractions could be reason enough to justify the considerable research interest, however the subject of initial public offerings has been of interest to researchers mostly, due to the existence of two anomalies:

- The first is the evidence that initial public offerings are underpriced. That is, the shares in companies that go public are offered to investors at price considerable below the price that they subsequently trade at on the stock market.
- The second anomaly refers to the evidence that the shares of companies that go public suffer long-run underperformance. That is, relative to other quoted companies investors appear to lose out by holding the shares of companies that have recently gone public.

STRUCTURE

The aim of this project is to examine the Initial Public Offerings (IPO's) in the Athens stock exchange

for the period 1993-2000 with a particular emphasis of the existence of those two anomalies. This project is organized as follows:

- In the first part a theoretical approach of initial public offerings is conducted, which includes information about the Athens stock exchange, description of the institution framework and listing procedures, an analysis of the cost structure of the issue and literature review of the international evidence on the IPO's underpricing and long-run underperformance.

- In the second part an empirical analysis of the IPO's in the ASE is attempted.

Finally that project end's with a comparison of the empirical findings with the international evidence and the concluding remarks.

CHAPTER ONE

The Athens Stock Exchange

Prior to 1876 an unofficial stock exchange operated in an old coffeehouse. Transactions took place mostly between merchants and ship-owners in some stock and bonds as well as dealing in gold and silver bullion.

The Athens Stock Exchange (ASE) was established in 1876 and its first legal framework was based on the French Commercial Code. In 1918 ASE changes to a Public Entity. Presidential Decree 350/24.5.1985 specifies the listing requirements for the main market. In 1988 the legal framework for the parallel stock market and for the Central Securities Depository (CSD) is established. The Stock Exchange is modernised and its Board of Directors is expanded. In 1991 the Capital Markets Commission is established as the supervisory

authority and the legal framework of the Portfolio Investment Companies and the Mutual Funds is determined. In 1995 ASE changes from a Public Entity to a Joint Stock Company and the activities of the brokerage companies are expanded. During 1997, the legal framework for the privatisation of Stock Exchange is established. Three new markets are formed: the derivatives market, the parallel market for emerging markets, and the market for fixed income securities. In 1999, the New Market is established, where shares of dynamic or innovative Small and Medium sized Enterprises, that have not been admitted in the main or parallel stock market of the ASE, can be listed.

The capital market constitutes one of the most important institutions for the development of a country's, since savings are channelled to enterprises for investment purposes.

The Athens Stock Exchange (ASE) has contributed decisively to the economic development that has taken place in the recent years in Greece. It has become gradually the (focal) point of interest, in combination with the good performance of the Greek economy and

Greek companies, as well as the improvement of the statutory framework achieved in the Greek capital market. The ASE envisages a powerful, secure and reliable Stock Exchange, while the further improvement of the market transparency and its in equal terms participation in the European capital market remain its fundamental objectives

Table 1

Development of basic figures of the ASE in the last decade:

Year	Average Daily Value Trading	Market Value (on 31/12 each year)	Number of Listed Companies	Number of Listed Shares
	ECU/Euro mil.	ECU/Euro mil		
1990	12,9	12,023.6	145	229
1991	8,0	10,450.8	159	253
1992	4,9	8,283.3	164	259
1993	9,3	11,624.5	150	232
1994	17,4	12,453.6	196	280
1995	18,7	13,440.3	215	298
1996	26,5	19,720.7	235	313
1997	75,9	31,806.3	237	302
1998	169,2	688,882.5	258	313

1999	723,8	206,601.3	294	336
2000	407,2	117,956.2	342	380

Source: ASE, Division of Dissemination of Information, Marketing Department

The ASE, through its operation, offers an organized secondary market for the trading of all listed securities. Therefore, it offers significant potential to enterprises as well as investors:

- Enterprises become capable of raising funds from the broadly investing public in order to finance their investment projects, enriching so their financing sources.

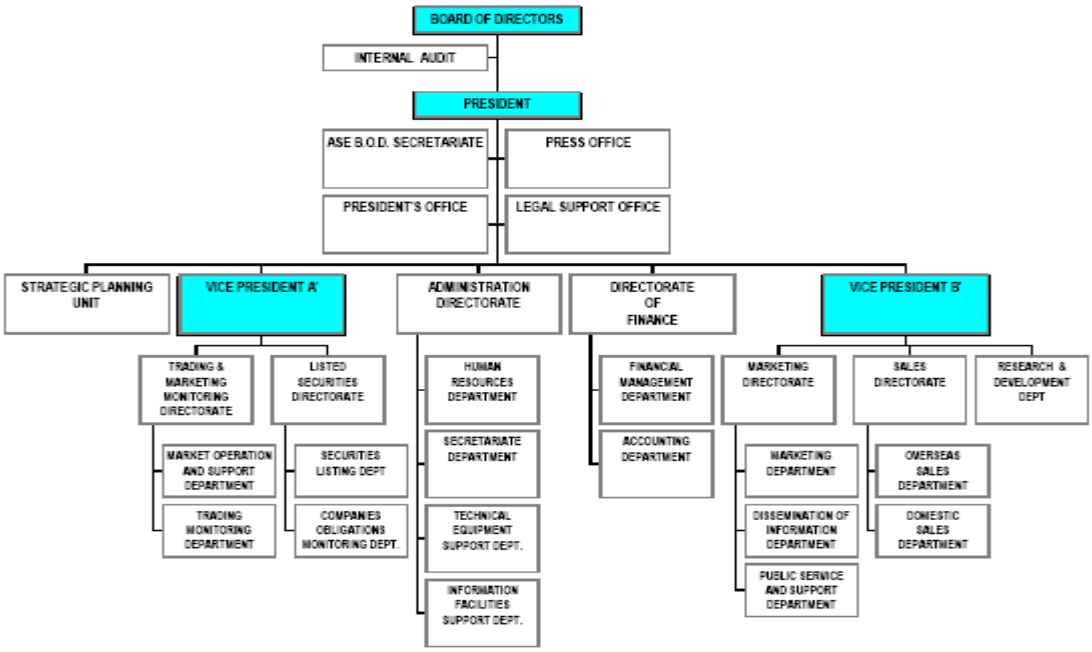
- Investors may easily liquidate, within a short period of time and at low cost, the securities they own or they can purchase securities at prices determined by the market supply and demand. Furthermore, they have, on a daily basis, a benchmark on the current value of their investments.

The ASE provides for adequate and timely information of the investing public, as well as the observance of the trading procedure, so as to secure the smooth operation of the market.

It must be emphasized that the ASE holds a dominant position as a financial center in Southeast Europe and it is the only stock exchange in the area that provide companies with the opportunity to have their securities traded and their transactions cleared in Euro currency.

Organizational structure of the ASE

The organizational structure of the ASE is presented in brief in the organizational chart below:



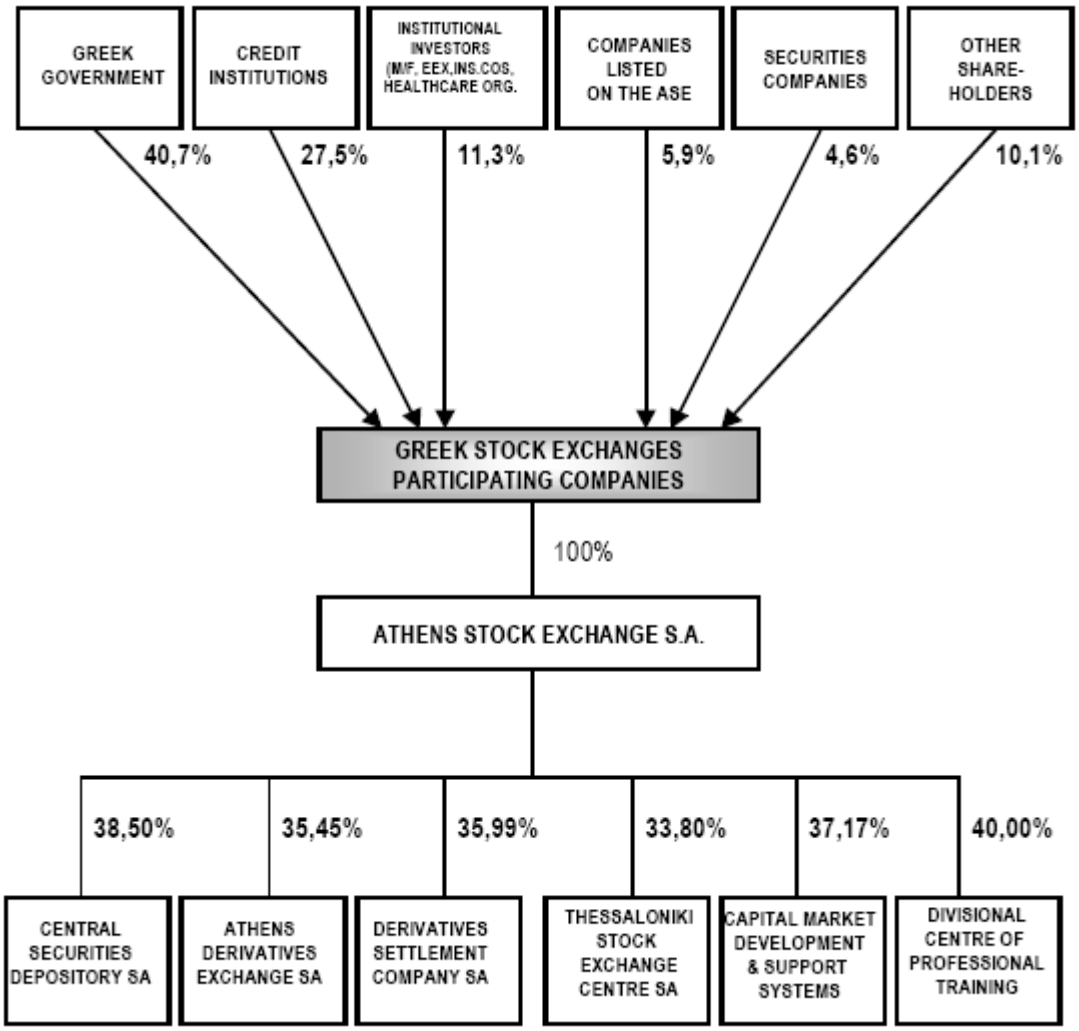
Composition of shareholders

The ASE was founded in 1876 as a regulatory independent government agency. In 1918 it was converted to a Public Law Entity. In 1995 it acquired the legal form of Societe Anonyme, with the Greek Government as its sole shareholder. The procedure of its privatization started in 1997 and continued through 1998. In the end of 1998, the Greek Government, being the major shareholder of the ASE, declared that it consents to the listing of its shares to the ASE's Main Market, under any form. In this context, it was decided to establish a holding company registered as << HOLDING COMPANY OF GREEK STOCK EXCHANGES' S.A>> (HELEX). This company was founded on 29.03.2000 and its shares were listed to the ASE's Main Market on 21.8.2000. To this day, the sole shareholder of the ASE is the HELEX.

The objective of the EXAE is its participation in companies of any legal form that develops activities relevant to the support and operation of organized capital markets. The EXAE is a holding company.

Through the ownership of 100% of the ASE's shares it owns significant percentages in shares in companies supporting the organization and operation of the Greek capital market.

The chart for the share capital composition of EXAE, to ASE, as well as for ASE participation in the companies of the group, is as follows:



LISTINGS IN ASE

Currently, five (5) different markets operate in the ASE:

i) Main Market

ii) Parallel Market

iii) New Market (NEHA)

iv) Greek Market of Emerging Capital Markets (EAGAK)

v) Secondary Listings on ASE from Stock Exchanges outside Greece.

Listing requirements

Concisely, the basic requirements for a company's listing on one of the above ASE markets are as follows:

i) For the issuing company to be listed on the Main Market, it should:

- Employ own funds amounting to at least 11,738,811.45 Euros.

- Have published, according to the law, its annual financial statements as a societe anonyme for the last 3 years.

- Have satisfactory assets' structure on the basis of its most recent balance sheet. Its financial statements must have been audited by a chartered auditor.

- Have satisfactory free float, which is considered adequate when the shares to be listed are distributed in the broad investing public (2000 investors) at a percentage of at least 25% of total amount of shares.

- Have issued, prior to distributing its shares to the investing public, a prospectus, which has been approved by the ASE Board of Directors and Capital Market Commission (for the purposes permission for public offering).

ii) For the Parallel Market, the company should:

- Employ own funds amounting to at least GRD 2,934,702.86 Euros.

- Have published its annual financial statements for the last 2 fiscal years.

- Have satisfactory assets' structure on the basis of its most recent balance sheet. Its

financial statements must have been audited by a chartered auditor.

- 80% of percentage of its shares distributed to the public, must originate from share capital increase

- Have a satisfactory free float, which is considered adequate when the shares to be listed are distributed to the broad investing public (100 investors) at a percentage of at least 20% of the total amount of shares.

- Have issues, prior to distributing its shares to the investing public, a prospectus, which, has been approved by the ASE Board of Directors and Capital Market Commission (for the purposes of supplying permission for public offering).

iii) For the New Market (NEHA) the issuing company must:

- Employ own funds amounting to at least 586,940.57 Euros.

- Have published annual financial statements for the last 2 fiscal years, which have been previously audited by a chartered auditor.

- Have satisfactory free float, which is considered adequate when the shares are distributed to the broad investing public at a percentage of up to 20% of the total amount of shares.

- Submit detailed investment plan, in which all investment data with a 3-year projection must be described in detail.

- Have, issued before distributing its shares to the investing public, a prospectus which, has been approved by the ASE and the HCMC (for the purposes of supplying permission for public offering).

- Appoint at least one Market Maker.

Additionally, a company shareholder shares whose face value corresponds to at least 5% of its share capital, is committed, before submitting the listing application, not to distribute, in any way, 80% of his /

her shares one year after listing and 50% on the 2nd and 3rd year after listing.

Restrictions in share distribution to the investing public using the procedure of public offering.

1. 30% of the total amount of shares issued is distributed to domestic or overseas institutional investors.

2. The remaining 70% is distributed to non-institutional investors.

The subscription of non-institutional investors to a number of shares is satisfied according to priority, taking into consideration the following calculations:

a. If total offer revenues are less than 14,673,514.31 Euros, the total number of offered shares is divided by the number 2.000.

b. If total revenues are between 14,673,514.31 Euros and 58,694,057.23 Euros, the total number of offered shares is divided by 5.000.

c. If total revenues are greater than, 58,694,057.23 Euros, the total number of offered shares is divided by 5.000 or a larger number,

depending on the way determined by the underwriter in the prospectus.

In the case of NEHA and EAGAK, the percentage of securities distributed to registered individuals and legal entities, except institutional investors, amounts to at least 50% while it cannot exceed 70%.

Transfer from one market of the ASE to another.

Under certain conditions, it is possible for a company to be transferred from NEXA to the Main or Parallel Market of the ASE. Also, a company maybe transferred from the Parallel to the Main Market of the ASE.

iv) The Greek Market of Emerging Capital Markets (EAGAK)

EAGAK differs from the above mentioned markets regarding the listed shares, which are related to emerging markets. The Thessaloniki Stock Exchange Center (TSEC) manages EAGAK. The application for the securities to be listed in the ASE submitted to TSEC. The decision for the listing admission is made up by the ASE Board of directors.

Three kinds of securities are listed on the EAGAK :

a. Greek Depository Receipts (ELPIS)

b. Units of Greek Funds of Emerging Markets (EKAA)

c. Shares of Portfolio Management Companies of Emerging Markets (EXAA)

a. Greek Depository Receipts (ELPIS).

ELPIS are negotiable securities representing shares issued by a foreign company (underlying shares). Underlying shares may or may not be listed on a foreign stock exchange. Owner of underlying shares is the ELPIS issuer but on behalf of investors who have acquired ELPIS (ELPIS holders). Therefore, the ELPIS holder has all the rights arising from the underlying shares.

The ELPIS issuer is the central entity maker in the procedure of issuance, distribution and listing of ELPIS in the EAGAK. Issuer of the underlying shares can be any foreign company, which should:

- Employ own funds of at least 2,934,702.86 Euros.

- Have published annual financial statements for the last 2 fiscal years.

- Have a satisfactory assets' structure. Its financial statements must have been audited by a chartered auditor.

b. The EKAA units.

The EKAA are assets divided in units of equal value. They are similar to the Mutual Fund units, the fundamental difference being that EKAA units are listed on the ASE.

The EKAA Management Company is the central entity in the procedure of issuance, distribution and listing of the EKAA. At public offer, the Management Company acts as underwriter, determines the offer price of shares and has the responsibility of drafting the prospectus. At least 25% of units must be distributed to at least 2000 persons, excluding the ones that own above 2% of EKAA units.

c. The EXAA shares

The EXAA is a specific Portfolio Investment Company investing mainly in emerging markets and

which should employ capital of at least 5,869,405.72 Euros. The provisions apply to the listing of the EXAA shares in EAGAK are the same as the provisions applied to the listing of shares of Portfolio Investment Companies, in ASE. Regarding the requirements, the provisions set for share listing in ASE apply also to EXAA shares.

v) Secondary listings.

Companies which are based and operate outside Greece can be listed in one of the above markets of the ASE. Companies which are based in a EU member country can be listed on the ASE even though their shares are not listed in another stock exchange. Companies based outside EU cannot be listed in the ASE, unless they have been previously listed on the stock exchange of the country in which they are based.

The requirements that apply to the listing of Greek companies in each one of the ASE markets are similar to the listing of companies not based in Greece, with the difference being that:

- The foreign company must draft financial statements according to international accounting standards.

- The underwriter will have to present in the prospectus the differences between the greek law and the law governing the foreign company on issues concerning minority rights, dividends policy and decision making procedures on share capital increase, among others.

Foreign companies listed on one of the ASE's markets have the same obligations as the Greek ones.

CHAPTER TWO

Institutional Framework and Listing Procedures

The number of companies that are listed in a country's stock exchange are a small fraction of the total volume of the companies that exist in that country. That observation raises the question of "*why do some companies choose to use the stock market and some others don't"*. The answer to that question depends on the advantages and disadvantages that a company faces when it enters the stock exchange market. All those advantages and disadvantages are related to the existing institutional framework, the tax procedures and the general economic environment of each country.

2.1 Advantages of Entering the Stock Market

I. Overcoming Borrowing Constraints

Gaining access to a source of alternative finance to banks is probably the most important benefit for a company that decides to enter the stock market. The

opportunity to use stock markets for funds should be particularly appealing for companies with large current and future investments, high leverage and high growth. Also it is a great opportunity for companies in countries where the cost of bank money is high. Hence in such countries, by entering the company ensures lower cost of credit and larger supply of external finance.

II. Liquidity and Portfolio Diversification

Shares of private companies can be traded only by informal searching for counterparty, at considerable cost for the initiating party. Share trading on an organized exchange is cheaper, especially for small shareholders. As a result, if the initial owners raise money from that kind of investor (small investor), they factor in the liquidity of the company (advantage provided by being listed on an exchange). Similarly taking a company public provides its owners with opportunities for diversification. This can be achieved directly, by divesting from the company and reinvesting in other assets or indirectly by having the company raise fresh equity capital after the offering and acquire stakes in other companies.

III. Separation of Management from Ownership and Monitoring

In private companies usually the top manager and the owner of the company is the same person. When a company enters the stock market those two positions are usually separated resulting in the improvement of the share price of the company.

The stock market also provides a managerial discipline device, both by creating the danger of hostile takeovers and by exposing the market's assessment of managerial decisions. Moreover the shareholders of a public company can use the information embodied in stock prices to design more efficient compensation schemes for their managers.

IV. Investor Recognition

It is known that most investors hold portfolios that contain a small fraction of the existing securities; often because they simply ignore that a certain company exists. Listing on a stock exchange can help companies overcome this problem by acting as an advertisement. Hence companies that are listed in a stock exchange

have free advertisement by the financial press and the media that cover the developments in the world's stock markets.

V. Tax Advantages

In developing stock markets the financial authorities of the countries usually offer tax advantages to the companies in order to give them an incentive to enter the stock exchange. In Greece the government offers such tax advantages not only to the companies but also to the investors giving them an incentive to invest in the companies listed in the stock exchange as the will be able to increase their income without paying any additional tax.

VI. Windows of Opportunity

If there are periods in which stocks are mispriced as suggested by **Ritter (1991)** companies recognized that other companies in their industry are overvalued have an incentive to go public. To the extend that entrepreneurs manage to exploit the overvaluation of their companies by investors, one would also expect a

company to be more likely to go public when the market for comparable companies is particularly buoyant.

2.2. Disadvantages of Entering the Stock Market

I. Adverse Selection

In general, investors are less informed than the issuers about the true value of the companies going public. This informational asymmetry adversely affects the average quality of the companies seeking a new listing and thus the price at which their shares can be sold

II. Loss of Confidentiality

The rules of the stock exchanges force companies to reveal information whose secrecy may be crucial for their competitive advantage (data about ongoing Research and development, projects or future marketing strategies etc.).These rules also expose companies to the tax authorities of each country since they have to publish their financial results every year.

III. Continuous Valuation of the Firm from the Investors

When a company enters a stock exchange its shares are constantly evaluated by the investors. That although from a point of view is good for the company because the managerial decisions are judged resulting in higher productivity it is also a disadvantage for small and shallow stock markets in which shares ca be easily manipulated by the large investors.

IV. Expenses and Fees

Going public implies considerable costs such as underwriting fees, registration fees etc. besides the initial under pricing, which is also a cost for the company since it sells its shares cheaper than they worth.

On top of initial expenses is the yearly layout in auditing, certification and dissemination of accounting information, - that the company is obliged to give when it enters the stock exchange in order to keep the investors and the authorities informed- and finally the stock exchange fees. Since many of these expenses do not increase proportionately with the size of offering, they weigh relatively more for small companies. Hence the existence of those costs of the listing procedure

suggests that the likelihood of an initial public offering to happen is positively correlated wit the company's size.

V. Dividends

When a company enters the stock market, that company is obliged to give dividends every year to its investors. These dividends are drowning from the earnings of the company. Thus the earnings of the company are reduced by that amount.

The Initial Public Offering Procedure in the Athens Stock Exchange

The procedure of initial public offerings in the ASE commences with the presentation of the mandate of the issue of the company to a financial institution, which will offer the services of the consultant for the issue. That financial institution is the intermediary, which will supervise all activities, related to the flotation, without necessarily becoming the underwriter. On the other hand the company may go directly to an underwriter who will undertake both the supervision and the obligation of the underwriting. The selection of the

underwriting syndicate depends on a number of factors such as:

- *Recommendations of the issuing company*
- *Prior relations with the lead underwriter*
- *The necessity of the existence of syndicate members with extended distribution networks*

The organization of the syndication is followed by the signing of the Underwriting Agreement, which describes the method of allocation of the stocks among the syndicate members in relation to the distribution, and the underwriting obligations. This contract also includes provisions enabling the syndicate to decide (based on a majority vote) to dismiss 60-70% of the members from the underwriting obligation.

Even though the offer price is determined from the issuer and the lead underwriter the ASE recommends, in practice, a different price which is usually lower than the initial price. For the determination of the offer price the method that is more frequently applied is the multiplication of the earnings per share through the

Price/Earnings ratio. The earnings per share usually reflect the anticipated earnings for the corresponding end of the fiscal year.

After the determination of the price, the syndicate in cooperation with the stock exchange is determining the **subscription period**, which is the time of official offer for sale of new shares to the public. During the subscription period all the investors that are interested, subscribe for the new issue. That period usually lasts three (3) to four (4) days but with some exceptions in which that period is prolonged. In some cases many investors are frequently submitting subscription applications representing a multiple of the quantity of shares that they originally wished to purchase, in order to increase their probabilities of participating in the allocation of the issue.

The stocks are allocated after the end of the subscription period and the allocation method is usually described in the prospectus and in the call for subscription. The investors that are interested in the new issue are subscribed via banks and stock brokers. The trading of the stocks starts almost one month after

the public offering. In the case that the offer fails, the underwriters are obliged to absorb the remaining pert of the stocks.

Since the underwriters offer their services to the company that is making the new issue, they retain a fee from the subscription. That fee is accounting for the underwriting risk and the distribution of the issue. Those fees vary between 2.5% and 3.0% of the offer price of the underwriting (risk) fee, while for the distribution the network fee varies between 0.5% and 1.0%. That network fee is allocated to the underwriters proportionately to the subscription covered by their distribution network. In the case that a member can not cover its portion of the issue, it can transfer this quantity to another member, paying a transfer fee (which is usually between 0.5% and 1.0% of the offer price).

Finally the initial public offering may include a private placement as a part of the issue. Private-placed stocks are frequently given to the company's management, board of directors, staff and other parties. The stocks given through private placements must not

exceed the 5.0% of the stocks placed through the initial public offering.

CHAPTER THREE

The cost of the issue

3.1 The Costs of the New Issue

The public offering of securities involves certain expenses, burdening the issuing company. There are two types of costs:

1. **The direct costs of an issue.** All direct costs are generated by the issuing company or the intermediary organisation, which assists in the issue. For example some of the direct costs are: costs of advertisements and announcements concerning the issue, stock exchange fees, legal expenses, accountancy and audit fees, underwriting and consultant fees and the less quantifiable costs of management time. Many of these costs are relatively fixed and there are considerable economies of scale. It has been found from several studies that in the US direct costs account for around 18.2% on average for small issues raising less than $5 million, falling to

6.8% for issues raising over $100 million. When it comes to underwriting fees there are different ways of paying them. In some countries these fees are paid with the spread between the offer price paid by the investors and the bid price paid in the issuing company. But in Greece this is not the case. Those fees are paid by the gross or explicit spread, which is estimated as a fixed percentage of the amount raised by the issue.

2. The second category of costs comprises the indirect costs of an issue, which are associated with the initial underpricing. That initial underpricing refers to the possible disposal of the company's shares at an offer price below that of the market price and it is usually argued that constitutes a transfer of wealth from the original owners to the new shareholders of the company.

The most important part of direct expenses is the expenses and fees of the underwriter and the issue consultant, because they effect and they are affected by the offer price. The issuing company contracts with the underwriter who in co-operation with a syndicate, manages the issue, offers advise, guarantees a certain

amount of inflow to the issuer and undertakes the allocation of the new securities to the investors. All those services conduct the offering procedure and involve certain costs, the offering costs.

3.2 Offering Costs

Although some minor differences exist in the offering procedure in different countries the main services of that procedure remain the same and so do their costs, which are:

- *Origination cost*
- *Underwriting cost*
- *Valuation cost*
- *Distribution cost*

I. Origination Cost

The origination services have as a goal the overall preparation of the issue in order to be floated into the market. Specifically they include the planning and determination of the general characteristics of the issue-type and terms of the securities-, accounting,

financial and legal analysis of the new securities and of the issuer, as well as the handling of the requisite documents and procedures required by the regulations and the legislation. The origination cost depends on a number of different factors such as the complexity of the issuing firm's activities, the complexity of the newly issued securities and the type of the offering. Thus the more difficult and time-consuming the management, planning and study of the issue the more costly is the origination service and thus the higher the origination cost.

II. Underwriting Cost

The underwriting of a new issue is the obligation that the underwriter has to guarantee that the issuer will receive a certain inflow of funds from the public offering, irrespectively of the market conditions that will prevail during the offering period.

The risk resulting from the change of the market conditions in the meantime between the contract day and the offer period is called waiting risk. In that case in which the market conditions change and the issue is not fully absorbed the underwriter may suffer damages

since he has to purchase the unabsorbed issue at the offer price. Even if the market conditions do not change it is possible that the offer price is set at a level that is not corresponding in the real value of the securities. That risk of poor assessment of the expected market price is called pricing risk. Thus the factors determining the underwriting cost are these influencing the magnitude of the waiting and pricing risk. These factors include: the time between the determination of the offer price and the offer period, the degree of uncertainty for the market price of the security, the degree of instability of the capital markets during the offering period, the quality of the information that the underwriter has for the valuation of the new securities and finally the experience and capabilities of the underwriter that are related with the valuation of the securities.

III. Valuation Cost

The valuation of new issues refers to the determination of the offer price. The underwriter has the obligation to set the offer price at the same level as the expected market price of the securities, at the

offering date. If the offer price is higher than the market price the investors will not absorb the issue. On the other hand if the offer price is lower than the market price the new investors will benefit against the old shareholders.

The assessment of the expected market price of the securities assumes the assessment of the correct intrinsic value of the securities as well as the real supply and demand conditions during the offer period. If the variability of the market price or the instability of the capital markets is high then the collection and interpretation of the relevant information will be more difficult and demanding and hence the valuation of the new securities will be more costly. Also the sooner the determination of the offer price relatively to the offer period the harder becomes the valuation of the new securities.

IV. Distribution Cost

The distribution services refer to the organisation of the efforts for informing and attracting the investors to subscribe for the new issue and the final allocation

of the new securities to the investors. For that reason the syndicate members should have the facilities and the access to investors with available funds for new securities.

The factors that contribute to the formulation of the distribution cost are: the average purchase volume per investor and the cost of capital that is invested by the underwriters- until the final liquidation of the shares- for the case that the issue is not fully absorbed and they have to purchase the remaining securities. But the most significant factor is the relation between the offer and the market price. If the offer price proves to be lower than the market price during the offer period the demand will be high and the issue will be oversubscribed, lower the distribution cost. On the contrary if the opposite proves to be happening then the demand will be low and the disposal of the securities will demand a more intense and costly effort.

3.3 The Offer Price

The determination of the correct offer price is very important in an initial public offering procedure. Both the issuing firm and its underwriters face potential costs if the offering price is set too high or too low.

Ideally the offer price has to be set equal to the market price. In this case the explicit spread reflects the expected offering cost at an offer price equal to the market price. If the offer price is below the true market price then the underwriting has been done with less risk than expected and the allocation of the shares has been done with less effort and cost but the issuer's existing shareholders will experience an opportunity loss. On the other hand if the issue is priced too high it may be unsuccessful and the allocation would require higher costs and effort.

The final offer price is usually determined by both the issuing firm and its underwriters. From the perspective of the issuing company the objective is the maximisation of the returns from the offering of the securities to the market. That suggests that the determination of the offer price either too high or too

low is not in its best interest, even in the case that is accompanied by a lower offering cost, as when the offer price is set below the market price. That underpricing of the new issues works in favour of the issuing firm only if the offer price (which is lower than the expected market price) results to net returns higher than the corresponding returns of an offer price equal to the market price. From the underwriters' point of view, we can see that it also in their best interest to price the new securities fairly. When a firm goes public the buyers know relatively little about that firm's operations; hence they would rely on the judgement of the underwriter about that firm. Thus the underwriter has a short-run incentive to price high but it has also a long-run incentive to, make sure that the customers will not pay too much in order not to lose them from future deals. Thus as long as the underwriter plans to stay in business for long-time it is in their self-interest to price fairly.

There has been an extensive volume of studies which examine the pricing of the IPO's and most of them suggest that an underpricing exist. **Ibbotson (1975)** found that unseasoned equity issues in the US

typically have been offered at 11% below their true market price and the several studies that followed confirmed his findings. Underpricing indications also exist for many other countries and for various offering procedures. Thus we can safely conclude that the underpricing of IPO's is a very common and international phenomenon. In Chapter 4 a more extensive analysis of the underpricing and the related literature will be conducted.

3.4 The Cost of Initial Public Offerings in the Athens Stock Exchange

The costs of the IPO's in Greece are slightly different from the offering costs that we analysed previously.

In the ASE the fee of the issue consultant covers the cost of the origination services. Thus the role of the underwriter is limited in the valuation, underwriting and distribution services of the new issue, with part of the distribution to be undertaken by the issuing firm (the issuing firm is bearing the costs of advertising and attracting the investors to subscribe).

The method of allocation of the new securities is also different in the ASE. The underwriter does not have the direct control of the allocation but it has the obligation to purchase the unabsorbed part of the securities in the case of low demand. That prevents the underwriter from forming a correct opinion about the demand of the new issues and thus from setting the right offer price, resulting in an increase of the pricing risk. Moreover because the determination of the offer price is done two or more weeks before the offer period the waiting risk is higher. Therefore the underpricing is more costly.

Furthermore because the listing and the beginning of the trade for the new securities in the ASE is done one month after the offer period additional costs may exist for both underwrites and investors. Thus underwriters face a higher distribution cost in the case that the new issue is not fully absorbed (because they have to wait for a long period of time before being able to liquidate their securities) and investors face a decrease in their liquidity (because they have to keep the securities for long time before being able to trade them).

Finally we can conclude that the existence of these peculiarities in the offering procedure in the ASE contributes to the increase of IPO's costs in the Greek stock market.

CHAPTER FOUR

LITERATURE REVIEW

4.1 Operating Performance.

Jain and Kini (1994) found in their research that IPO firms statistically face a significant reduction of their operating performance and the operating cash flows at year 0 (year of introduction in the stock market), +1, +2, +3 compared to the year -1 (last year before the introduction). Research also records reduction of the operating performance following the introduction. These findings occur from the analysis of the published financial statements and from the analysis of the industry segment ratios. It is important to say that the operating performance of IPO's exceeds that of the industry segment for every year during the period from year -1 to year +3, but their difference reduces constantly after the introduction and becomes statistically insignificant after year +1.

The study of Jain and Kini describes a positive relation between the operating performance and the

percentage of the stock capital remaining to the initial stockholders after introduction. These findings state that the maintenance of a high percentage of initial stockholders reduces the possible problems of representation created in the multistock firms.

4.2 Market Performance.

Examining the above findings it is clear that an important question emerges. Is the course of the financial price of the share following the introduction in the stock market related to the operating performance of the Firm at the same period of time?

According to the share returns right after the introduction Jain and Kini found no relation between the operating performance and the initial financial performance of the (percentage change of the share price from the subscription price to the first financial price).

According to the studies examining the market performance for a bigger period of time (from 1 to 5 years) findings for the importation of shares to stock

markets reveal negative market performances for the years following the introduction.

Ritter (1991) states that during the period of three (3) years after introduction, shares of the relative firms noted an average performance of 34,47% in addition to the performance of 61,86% proportionate firms which has already been traded to the stock market. This finding is conventional and collates to the one of Loughran an Ritter (1995) in which the mean financial performance during a period of five (5) years following the introduction is 15,7%, while the corresponding mean performance of proportionate firms already trading is 66,4%.

4.3 The case of manipulating Financial Statements.

The Financial Statements Manipulation case suggests that firms manipulate their Financial Statements before the introduction in the stock market. Of course, manipulation can not hide the true condition of the firm for a long time and soon the deterioration of her financial condition reveals. So the case of manipulation foresees declination of the operating

performance of the firm during the period following the introduction of the firm in the stock exchange market.

Findings of Jain and Kini (1994) and DeGeorge and Zeckhauser (1993) referring to the IPO's to the stock markets, substantiate a declination of the operating performance after the introduction which is consistent to the financial reporting manipulation case.

Instead, the deficiency of substantiation of such operating performance reduction states that firms do not manipulate their Financial Statements before entering the Stock Exchange Market. Issuing Houses and independent auditors have interest to present the true financial condition of the firms, constraining the ability of the firms to a misleading presentation of their financial condition.

4.4 Operating performance after the introduction and course of the share price.

4.4.1 Short run Performance of IPO's

The high initial financial performance observed in IPO shares is usually credited to the condition of

incomplete informing in the stock market, especially the IPO firms.

Perhaps the best known asymmetric information model of initial under pricing is Rock's (1986) 'winner's curse'. Rock assumes that both the issuing firm and its underwriters are completely uninformed about the true value of the shares on offer, whereas some-but not all-investors are perfectly informed. Thus there are two groups of investors:

1. Informed investors, who are prepared to incur costs to assess the aftermarket performance of the offering and they avoid subscribing to IPO's that they expect to be overpriced

2. Uninformed investors who do not commit resources to acquire information and apply to every issue. For an uninformed investor receiving a large allocation is 'bad news' because it will be probably an allocation to an overpriced offering and they would realise negative returns. Thus an uninformed investor would be enticed to participate in the market only if IPO's are offered at a discount.

If-as Rock further assumes - the primary market depends on the participation of uninformed investors, in the sense that informed investors demand is insufficient to take up all the shares on offer-something must be done to keep uninformed investors in the market. Hence the answer to that problem is underpricing. That underpricing must be enough to compensate uninformed investors for the allocation bias but also the informed investors for the costs of acquiring their information.

4.4.2 Long run Performance of IPO's

From the literature on the underpricing of initial public offerings an investment strategy has been assumed, which the investor sells the shares-allotted him in the offering in the early aftermarket in order to profit from the discount at which the shares were offered. But there is a question that arises in that point which is *what will happen in the long run?*

The efficient market hypothesis would suggest that initial public offerings must perform neutrally thus

yielding neither abnormal profits nor excess losses. Early studies that investigated this question only in the first few months of trading found that no abnormal performance could be detected in their samples, evidence that is consistent with the efficient market hypothesis. However later studies found evidence of negative abnormal performance over longer time horizons (3 to 5 years) which is an indication that initial public offerings underperform the market over the long run.

Ritter (1991) in his study found evidence of IPO's long-run underperformance. He used a sample of 1,526 US companies that entered the market between 1975 and 1984 and examined their performance for the three first years of trading. He found that those companies underperformed a matching- firm index by 27.5% since the average three-year return for those companies was 34.5% while the average return for the matching index was 62%. Ritter offered three possible explanations:

1. First he found that the negative performance could be attributed to bad luck or coincidence.

2. Second because it is difficult to control correctly for risk over long-time horizons the negative performance can arise from the wrong assessment of the IPO's risk. Thus the poor returns maybe less if they are adjusted for the true risk.

3. Finally he found that the underperformance can be attributed to overoptimism and fads in the stock exchange (explanation that is strongly supported from the author). With the term fad he refers to market conditions where many investors act irrational and they are buying securities because they seem to be popular as investment. Thus if companies could time their flotation to coincide with periods of faddishly high expectations among investors it is possible to have a very good explanation for the long-run underperformance of IPO's.

Moreover, Ritter in his study found that the lower returns are appearing in the category of new, innovative companies' evidence that suggests that investors are usually overoptimistic about the potential of new companies.

Loughran and Ritter (1995) studied companies that issued stock during 1970 and 1990 and also documented that those companies have had been poor long-run investments for investors. During the five years after the issue investors had received average returns of only 5% per year while if they had invested at the same time in a nonissuing firm with the same market capitalization and holding it for an identical period they would have had earned an average return of 12% per year. They also found that an investor-based upon the realized returns- would have had to invest 44% more money on the issuers than in the nonissuers of the same size in order to have the same wealth five years after the offering date.

Loughran and Ritter in their study gave a number of possible explanations for the poor performance of issuing firms but concentrated on two of them which they though that was the most important. In the first one they relate underperformance to the kind of benchmark employed in each sample. They found that the measurement of the long-run performance is very sensitive to the benchmark used in each case. The second, more important one is based on the assumption

that firms take advantage of windows of opportunity by choosing to offer their securities when the prevailing price to earnings ratios reflect optimistic expectations about the value of the companies potentials. Thus they found that IPO's are poor performers in the long run due to misevaluation at the time of going public.

Finally in their study they have also documented that wealth losses -of a similar magnitude to those experienced in IPO's- can be found also in seasoned equity offerings in the US, 'leaving a question open, of whether there is a positive relationship between the SEO's and IPO's negative performance.

In a later study **Brav and Campers (1997)** also investigated the long-run performance of IPO's in a sample of 934 ventured-backed IPO's from 1972 to 1992 and 3,407 nonventured-backed IPO's from 1975 to 1992. From their results they documented the existence of severe underperformance of IPO's but they also found that ventured-backed IPO's outperformed nonventured-backed IPO's when using equal weighted returns.

The major explanation of their study -as in the previous studies also-for the IPO's long-run underperformance is that investors may systematically be too optimistic about the prospects of the firms that are issuing equity for the first time, thus creating high returns in the beginning and negative returns in the long-run.

Although their study was concentrated mainly in the IPO's performance they also found that the underperformance phenomenon is not exclusively an IPO effect but it is a characteristic of small, low book-to-market firms regardless of whether they are IPO firms or not.

Another answer to the underperformance phenomenon -that was not used in the previous studies - was found by **Ruud (1993)**. The author suggested that underwriter's price support theory might account for any change in the price that the share will experience in the long run. **Weiss Hanley, Kumar and Seguin (1993)** also in their study supported that explanation for the IPO's underperformance. Using a sample of 1,523 US companies they extended Ruud's findings and

documented that stabilization has a significant impact on the after-market price of initial public offerings causing substantial losses in the long run. Thus investors may find that they have purchased shares at artificially inflated prices -from the underwriters- and subsequently suffer losses.

Although most of the research done on IPO long-run performance is concentrated to the US, similar studies on other countries have also shown that this phenomenon does not exist only in the US but in other countries also. **Levis (1993)** using a sample of 712 IPO's listed in the London stock exchange in the period between 1980 and 1988 showed that IPO's in the UK underperformed a number of relevant benchmarks in the 36 full months of public listing following their first day of trading.

Levis also in that study tries to find the answers to three questions that have been left unresolved from the previous studies-especially that of Ritter (1991). Those questions are, first, is the underperformance phenomenon a sample specific phenomenon or does apply to other offerings over different periods? Second,

is the underperformance continuing after the 36-month period? and third, is there a relation between the long-run performance and the first day returns?

His answers to those questions are that, first the underperformance phenomenon is not a sample specific phenomenon, second that it extents beyond the 36-month period [something also reported by Loughran and Ritter (1995)] and finally, that the initial return is not a good indicator of the aftermarket performance, since it was obvious from his model that firms with the highest initial returns had the worst aftermarket performance.

Keloharju (1993) used a sample of 80 IPO's issued between 1984 and 1989 in Finland. From this sample he found that negative returns were present after the tenth (10) month of trading. **Kunz and Aggarwal (1994)** used a sample of 42 stocks that were issued in the Swiss market between 1983 and 1989. The authors also reported negative returns, for the three-year period, but only in the case that the purchase of the shares was made at the first day's closing price. Finally another study that was conducted by **Ljungqvist (1997)** for German IPO's in the period

between 1970 and 1993 provides evidence of the long-run IPO's poor performance for Germany

Finally we can conclude on the IPO's underperformance phenomenon that although the evidence supports its existence, and although there are several explanation that can be used to explain it, researchers do not know yet with certainty what causes initial public offerings to perform poorly in the long run.

PART TWO

CHAPTER FIVE

Sample Description and Methodology

5.1. Sample Description

The investigating sample includes 34 Initial Public Offerings and the corresponding entries in the Athens Stock Exchange market for the period from 1993 to 2000. Sample includes entries of common shares in the ASE. As main source of data used in the study were the Prospects and Annual Reports and web sites of the firms, annual and monthly statistical bulletins of the Athens Stock Exchange and the web site of ASE (www.ase.gr). Moreover a number of financial journals, magazines, and newspapers and relevant web sites in order to obtain a more complete view of the subject.

TABLE 2
ANNUAL ENTRIES IN ASE
CAPITAL RAISED FROM IPO'S
Period 1993-2000

Year	Number of Entries	Capital Raised(drh)

1993	10	20.780.100.000
1994	46	93.740.106.000
1995	20	22.242.331.400
1996	20	97.261.764.000
1997	14	20.562.972.000
1998	27	738.348.471.500
1999	46	1.658.905.284.000
2000	50	807.960.077.700
Total	**233**	**3.459.801.106.600**

5.2 Methodology

Empirical research of this study demands the analysis of the Financial Performance of the IPO's stock shares, as well as the analysis of the Operating Performance of firms before and after the introduction in the stock market.

5.2.1 Market Performance

For the calculation of the market performance the shares price referred in the ASE Daily Report were used. Market performance is calculated to Raw Returns.

Raw Returns are the performances counting on the comparison of the share price at a random time ***t*** with her price in a later time ***t+k***, where k is the days of negotiations intercede. Based on the initial price of entry various initial returns are calculated to the following referring points:

1. One (1) month later from entry (21st day of negotiation)
2. Two (2) months later from entry (42nd day of negotiation)
3. Three (3) months later from entry (63rd day of negotiation)
4. Six (6) months later from entry (126th day of negotiation)
5. Twelve (12) months later from entry (250th day of negotiation)
6. Twenty four (24) months later from entry (500th day of negotiation)
7. Thirty six (36) months later from entry (750th day of negotiation)
8. Forty eight (48) months later from entry (1000th day of negotiation)

This is the way to calculate the raw returns the first month of negotiation, second month of negotiation, three months etc. For example, Raw Return of the first (1) month is calculated as follows:

$$\frac{(\text{Share Price the } 21^{st} \text{ day of negotiation} - \text{Entry Price})}{\text{Entry Price}} \cdot 100$$

Coincident types applied for periods covering the first (1) month, the first two (2) months, the first three (3) months, the first six (6) months etc, until the first forty eight (48) months.

5.2.2 Operating performance

Operating Performance of the IPO firms is calculated with the following financial ratio: Percentage change (from time ***i*** to time ***j***) of the quotient of the **Total Operating Results** to **Sales**.

As Total Operating Results described Operation Profits before taxes, interests and depreciations. This definition, used extend in the reference bibliography, corresponds satisfactory to the need of a measure to reflect the ability of a firm's assets (so the engaged capital) to create cash flows. The definition of operating performance where Total Operating Results

divided with sales so as to be possible the comparison of firms with different sizes. The use of sales in the denominator, in addition to the total assets which could also be used, has the advantage of creating a ratio of Operating Performance which is not affected by the inflation level.

Moreover, the assets elements of the Greek firms are not comparable diachronically because they are very often altered virtually due to the readjustments of the book value of the fixed assets. This ratio constitutes a form of profit margin and so the rate of change reflects the improvement of the Operating Performance of the firm.

CHAPTER SIX

Empirical Findings

6.1 Market Performance

6.1.1. Share returns based on the Initial share price.

Table 2 presents the Raw Returns based on the share price at the end of first day of negotiation, for different time periods (1 month, 2 months, 3 months until 48 months). Raw returns from the first day of negotiations of the IPO' shares to the end of the first month (1) reaches 53,13 %.These findings makes obvious that the IPO shares are related to big initial positive returns. This conclusion agrees to the conclusions of previous studies about IPO firms in the Greek stock market [Kazantzis and Levis (1995), Papachristou and Panagos (1995), Papaioannou and Travlos (1995) and Tsetsekos (1995)].

Table 2 shows that stock returns remain positive for a period of 12 months after the introduction. So, as

a result initial investors gain positive returns for a period covering one (1) year. But, according to Table 2 the returns from the end of the second (2) year until the end of the fourth (4) year are negative reaching -51,38% at the end of the period under examination.

TABLE 3
STOCK SHARE RETURNS(based on the Initial Price) FROM IPO'S IN ATHENS STOCK EXCHANGE (1993-2000)

Months after Import	Number of Firms	Return %
1 month	34	53,13
2 months	34	53,70
3 months	34	25,61
6 months	34	14,77
12 months	34	21,35
24 months	34	-18,31
36 months	34	-43,73
48 months	34	-51,38

Table 3 presents share returns, based on the initial price, for periods of one, two, three and four years, classified by year of subscription. Returns of first (1) year has been positive for entry years 1993, 1996, and 1998 with return 206,68%. During year 1994

and 1999 the ASE had increasing tendency and gave extremely high returns. But for years 1995, 1999 and 2000 where all stock shares had already reached their maximum returns the previous years and started to decline in abnormal negative returns.

Years 1995, 1996 and 2000 can be characterized as normal because Athens Stock Exchange made some adjustments that have been necessary after the General index explosion the previous years.

Years 1998 and 1999 are characterized by enormous returns reaching at some cases 206,68%. After September 1999 Stock Market begins a great fall losing almost 70% of the General Index value. That is the explanation for the continuous negative returns for IPO's entering the market the years 1999 and 2000.

TABLE 4

FINANCIAL RETURNS DURATION OF 1,2,3,4 YEARS by YEAR OF INTRODUCTION FROM IPO'S IN ASE(returns are calculated based on the Initial Price) (1993-2000)

Year of Introduction	Number of Firms	Return %
Returns of 1st year		
1993	2	79,07

1994	6	-3,60
1995	0	0
1996	1	41,78
1997	0	0
1998	6	206,68
1999	8	-19,64
2000	11	-48,66
Returns of 2nd year		
1993	2	26,46
1994	6	4,32
1995	0	0
1996	1	108,56
1997	0	0
1998	6	94,66
1999	8	-71,83
2000	11	-73,01
Returns of 3rd year		
1993	2	-14,63
1994	6	8,52
1995	0	0
1996	1	57,41
1997	0	0
1998	6	-25,04
1999	8	-74,93

2000	11	-74,23
Returns of 4th year		
1993	2	-15,15
1994	6	-7,44
1995	0	0
1996	1	82,18
1997	0	0
1998	6	-36,89
1999	8	83,83
2000	11	-78,38

6.1.2. Share Returns based on the share price at the end of the first (1) month of negotiations.

Table 4 presents stock returns of IPO firms shares based on the share price at the end of the first (1) month. Because of the maximum daily variability limit (8% - 10%) of shares prices in the ASE, it is considered that shares of new entries obtain their balanced share price at the end of the first month of negotiations and not from the beginning.

The performance of IPO's is negative after the third (3) month and continues the negative course that reaches -51,49% at the end of the fourth year of negotiations.

Similar is the findings at table 5 where negative returns prevail except of minor exceptions because of the positive ASE's General Index mentioned above. That means that IPO firms are of "low quality" and subscribe to ASE with pretty expensive valuation.

TABLE 5

FINANCIAL RETURNS (based on the Stock Price at the end of the first month after the Introduction) FROM IPO'S IN ATHENS STOCK EXCHANGE (1993-2000)

Months after Import	Number of Firms	Return %
1 month	-	-
2 months	34	6,11
3 months	34	-6,48
6 months	34	-6,67
12 months	34	-0,15
24 months	34	-25,89
36 months	34	-51,17
48 months	34	-51,49

TABLE 6

FINANCIAL RETURNS DURATION OF 1,2,3,4 YEARS by YEAR OF INTRODUCTION FROM IPO'S IN ASE(returns are calculated based on the Share Price at the end of the first month after the Introduction) (1993-2000)

Year of Introduction	Number of Firms	Return %
Returns of 1st year		
1993	2	-54,14
1994	6	-4,98
1995	0	0
1996	1	53,13
1997	0	0
1998	6	158,79
1999	8	-40,53
2000	11	-49,88
Returns of 2nd year		
1993	2	-68,25
1994	6	3,44
1995	0	0
1996	1	125,25
1997	0	0
1998	6	93,18
1999	8	-80,14
2000	11	-73,41
Returns of 3rd year		
1993	2	-78,81
1994	6	8,92
1995	0	0
1996	1	70,00
1997	0	0
1998	6	-36,95
1999	8	-82,16
2000	11	-75,15
Returns of 4th year		
1993	2	-78,72
1994	6	-7,69
1995	0	0
1996	1	96,75
1997	0	0
1998	6	-41,62
1999	8	-90,06
2000	11	-79,79

6.2. Operating Performance

Table 6 presents the finding referring to the Operating Performance of the IPO firms. The table is referring to the percentage change of the quotient of **Total Operating Results** to **Sales** at time periods of three years before introduction (t=-3) until one year before (t=-1), as well as t=-1 until t=+1 etc. t=-1 until t=+4 years after the introduction (t=0).

The percentage change of the Operating performance from year -3 until year -1 is positive to the mean and the median as well. But it is clear that for changes from year -1 to years 1, 2, 3, 4 there is an increasing negative percentage change reaching -69,57% and -47,65% respectively. The findings strengthen the theory of manipulation of the Financial Statements.

TABLE 7
PERCENTAGE CHANGE OF THE OPERATING PERFORMANCE OF IPO FIRMS IN ASE (1993-2000)

	FROM YEAR (-3) TO YEAR (-1)	FROM YEAR (-1) TO YEAR (+1)	FROM YEAR (-1) TO YEAR (+2)	FROM YEAR (-1) TO YEAR (+3)	FROM YEAR (-1) TO YEAR (+4)
Median	8,17%	-35,66%	-35,01%	-57,21%	-69,57%
Mean	38,77%	-42,18%	-45,74%	-52,73%	-47,65%
Std Deviation	-0,23	-0,06	0,09	0,12	0,54
Kurt	-0,20	-0,87	0,08	-0,18	0.84

Skewness	-0,17	-0,63	-0,13	-1,13	-1,68

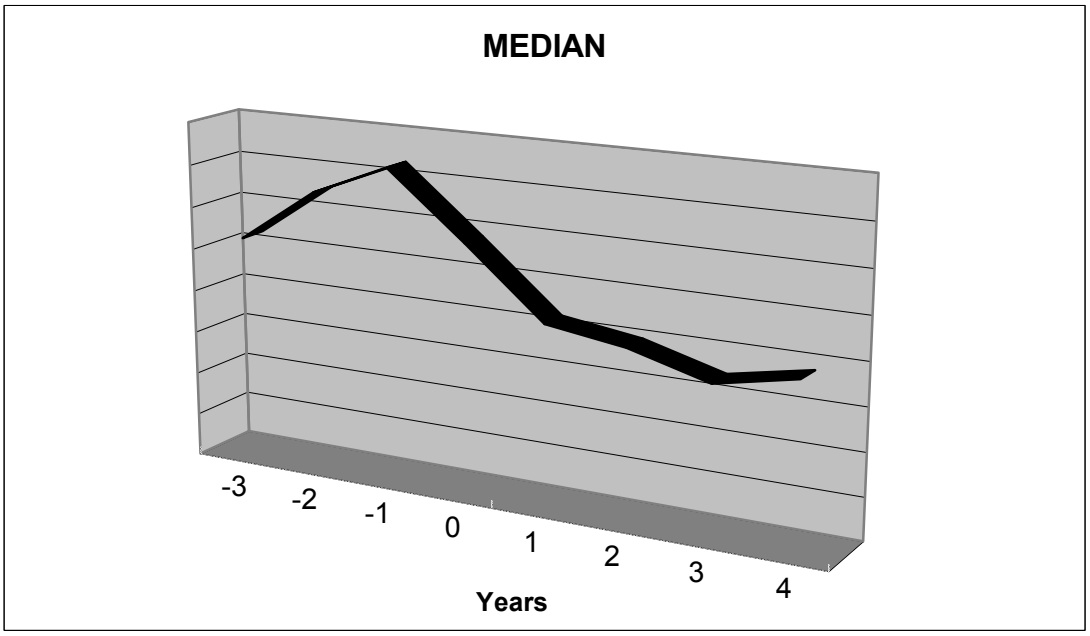


Chart 1

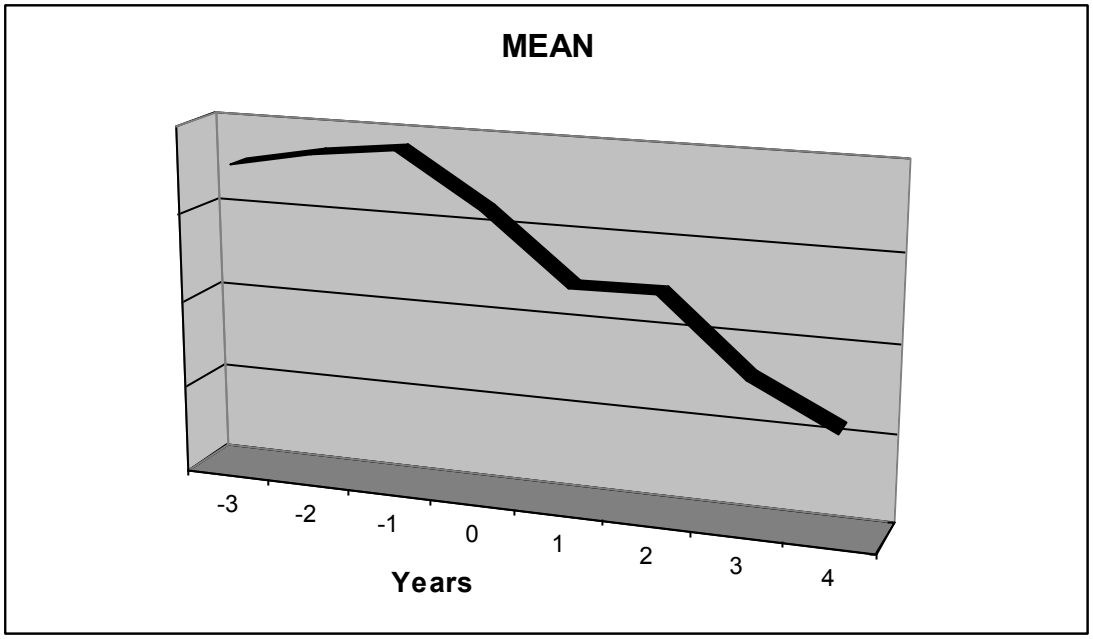


Chart 2

CONCLUSIONS

The performance of IPO's has enjoyed increasing interest in many countries mostly after 1980. Almost without exception in all the examined countries the same two phenomena appear to exist which are, first the initial underpricing of the new issues and second the poor, in some cases negative, performance over both the short and the long term performance over the first few years of the trading. It is really surprising that these two phenomena are consistent across countries with very different institutional, legal, regulatory, historical and cultural frameworks.

The operating and market performance of initial public offerings is the subject of this dissertation which is based on the Greek IPO market.

From the empirical analysis of 34 IPO's in the ASE, for the period between 1993 and year 2000, it has been found that Greek companies offered their common stock at prices below their true market value. That is a clear indication that Greek IPO's were underpriced and

they had a return of the first (1) month of negotiation of 53,13%. The calculated returns based not on the initial price but at the share price at the end of the first month strengthens the theory of underpricing. It is considered that shares of new entries obtain their balanced share price at the end of the first month of negotiations and not from the beginning. That phenomenon resulted in higher returns for the investors, lower capital proceeds for the companies that made the offerings and finally lower risk for the underwriters. So the investors buying IPO shares at their introduction price will have positive returns until one (1) year after subscription price.

In the long run performance area the empirical analysis showed that IPO returns were negative for the period after the 12-months until 48-months of negotiations with mean returns reaching -51,38%. The findings of the empirical analysis verify the various theories about the long term underperformance of the IPO firms.

The empirical analysis of the operating performance of the IPO's shows that during the period from year -3 to year -1 the mean percentage change is

38,77%. From year -1 to year +1 until year +4 the percentage is continuously negative. The evidence found from the analysis strengthens the manipulation theory with the covering of the underwriters.

Finally as can be seen from the quantitative analysis of that study, investors that purchase the new issues at their offer price have high returns for one month after the introduction but the short and the long term returns appear to be extremely dangerous because of the negative percentages. The market performance of the IPO's depending heavily on the operating performance of the IPO's at the same period.

APPENDIX

Because of the huge data gathered for this Dissertation **Appendix** is in an envelope at the Administration office of TEI in Kavala and it is available upon request.

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