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**STOCK PRICE REACTIONS TO RIGHTS ISSUES:
EVIDENCE FROM THE ISTANBUL STOCK
EXCHANGE (ISE)**

Engin CUN

Danışman

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Yüksek Lisans Tezi olarak sunduğum “**STOCK PRICE REACTIONS TO RIGHTS ISSUES: EVIDENCE FROM THE ISTANBUL STOCK EXCHANGE (ISE)**” adlı çalışmanın, tarafımdan, bilimsel ahlak ve geleneklere aykırı düşecek bir yardıma başvurmaksızın yazıldığını ve yararlandığım eserlerin kaynakçada gösterilenlerden oluştuğunu, bunlara atıf yapılarak yararlanılmış olduğunu belirtir ve bunu onurumla doğrularım.

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Stock Price Reactions To Rights Issues: Evidence From The Istanbul
Stock Exchange (ISE)

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İngilizce İşletme Anabilim Dalı

Bedelli hisse ihracı, bir şirketin mevcut hissedarlarına sahip oldukları oranında yeni hisseler sunduğu bir sermaye artırımı yoludur. Bedelli sermaye artırımının 1980'lerin başında İngiltere ve Amerika'da popülaritesini kaybetmesine rağmen, Avrupa'nın geri kalan bölümünde ve gelişmekte olan piyasalarda ve aynı zamanda Türkiye'de hala en çok kullanılan yöntemdir. Önceki çalışmalar, bedelli sermaye artırımı öncesi pozitif piyasa performansı tespit etmekle birlikte, artırımı sonrası olumsuz piyasa tepkisi raporlamışlardır. Olumsuz piyasa tepkisi konusunda ortaya atılan firma getirilerindeki aşırı değerlendirme sinyali teorisi en güvenilir açıklamadır.

Bu tezin amacı, İstanbul Menkul Kıymetler Borsası'nda (İMKB), bedelli sermaye artırımı kararının hisse senedi getirilerine olan etkisi konusunda ampirik bir açıklama sunmaktır. Ampirik sonuçlar, sermaye artırımı yapan firmaların, yapmayan muadillerine göre olumsuz piyasa performansına maruz kaldıklarını göstermektedir. Ancak, sermaye artırımına gitmeyen firmaların aynı dönemde sahip oldukları daha düşük fiyat performansı nedeniyle, artırımı yapan firmaların olumsuz piyasa performansını aşırı değerlendirme sinyali olarak algılamak doğru olmayacaktır. İstikrarsız ekonomik ve siyasi ortamda, İMKB genellikle kısa vadeli yatırımcılardan oluşur. Dolayısıyla yatırımcıların, sermaye artırımı kararından çok anlık piyasa koşullarına tepki vermesi için ekonomik açıdan anlamlı nedenleri vardır. Yatırımcılar, aynı zamanda, yoğun arzlar nedeniyle bedelli sermaye artırımına aşinadılar.

Anahtar Kelimeler: 1) Bedelli sermaye artırımı, 2) İkinci arzlar, 3) Aşırı değerlendirme teorisi, 4) İMKB

ABSTRACT

The Master Thesis

**Stock Price Reactions To Rights Issues: Evidence From The Istanbul
Stock Exchange (ISE)**

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A rights issue is a way of raising capital in which a company offers new shares to existing shareholders in proportion to their current holdings. Although rights issues have lost their popularity in the UK and the US in the beginning of 1980s, they are still the dominant form in the rest of Europe and emerging markets, as well as in Turkey. Previous studies have reported a negative market reaction following to the announcement of rights issues while finding a positive market performance before the issue. The theory of overvaluation signal on a firm's returns is the most credible explanation of the negative market reaction.

The aim of this dissertation is to provide an empirical explanation on the stock price reactions to rights issues, evidence from the Istanbul Stock Exchange (ISE). The empirical results suggest that issuers have suffered negative market performance relative to their counterparts of non-issuers. However, it will be not true to associate the negative market performance of issuers with the overvaluation signal due to non-issuers also have lower price performance in the same period. In the unstable economic and political environment, the ISE typically consist of short-term investors. Thus, there are economically meaningful reasons for investors to respond to the instant market conditions rather than the decision of rights issues. Investors have also become familiar with rights offerings due to the frequent issuers.

Keywords: 1) Rights Issue, 2) Seasoned Equity Offerings, 3) Overvaluation theory, 4) The ISE

LIST OF ABBREVIATION

RI:	Rights Issue
CR:	Capital Raise
IPO:	Initial Public Offerings
SEO:	Seasoned Equity Offerings
M&A:	Merger and Acquisition
ISE:	Istanbul Stock Exchange
BHR:	Buy and Hold Return
BHAR:	Buy and Hold Abnormal Return
M/B:	Market to Book Ratio
The US:	The United States
The UK:	The United Kingdoms

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INTRODUCTION

In today's economic structure it is a rule in business that companies must increase their market shares, customer satisfaction, manufacturing capacity, and marketing capability in order to survive for a long time in the market. All of these require money. Thus, firms, in some cases, issue equity to raise capital rather than get into debt.

This dissertation examines both the long-run and the short-run stock market performance, for the periods of up to 3 years, following equity rights issues, by non-financial companies listed on the Istanbul Stock Exchange (ISE) during the period of 1986 to 2007. Further, the stock price performance is also analyzed 12 months prior the rights issues due to investigating the effects of rumor of the announcement. The Turkish stock market provides a unique environment for studying rights issues because it is the dominant form for raising capital after the use of internal resources. The main focus of the dissertation is to examine rights issues evidence on the ISE.

A rights issue is the capital gain from issuing additional equity commonly used with the pre-emption rule, which requires offering shares firstly to existing shareholders in the proportion of their holdings. New shares are offered to shareholders typically at a 10-15% discount from the current market price. Shareholders are entitled to purchase new shares as well as to sell them on the secondary stock market. Rights issues are designed to protect ownership concentration from a dilution of shareholders' stakes in the firm. A magnitude part of the rights issues is exercised as underwritten rights issues, that is, using an investment bank or a sponsor in order to guarantee the shares not undertaking from existing shareholders. Another part is exercised as non-underwritten or pure rights issues. Non-underwritten rights issues have cost advantages due to the lack of cost of an investment bank (Armitage, 1998).

Because of some contradictions on the subject of the pre-emption rule, rights issues lost their popularity in the UK and the US in the 1980s, thus other offering

methods have become more popular. Rights issues, however, are the dominant form of offering additional equity in the rest of Europe and emerging markets.

In the recent study of Ngatuni et al. (2007), a negative market reaction following the rights issues is observed in the UK. They find that firms employing rights issues have 41.8% lower average return over the five-year post-issue period than those not issuing equity, matched by size and book-to-market ratios (Ngatuni, Capstaff, & Marshall, 2007). Similar results prove this finding when employing a benchmarking with non-issuing firms, matched by size and industry.

On the other hand, Ngatuni et al. (2007) find a positive market performance before the issuance of additional shares. For example, the average abnormal return of issuing firms is 31.44% above the average return of non-issuing firms, matched by size and the book-to-market, in the 16-month pre-offering period. Ngatuni et al. (2007) explain this contradiction as firms employ a rights issue at the proper time when they are overvalued. However, they state that this finding is prevalent in the period of 1986-90, when firms generally issued shares by means of rights issues; but it is not acceptable in the period of 1991-95, when firms generally opted for open offers instead of the rights issue.

Similar evidences suggest that the announcement of rights issues convey a negative signal to the market. Firms undertaking an equity issuance outperform in the period immediately prior the announcement of rights issues and experience magnitude underperformance after the announcement up to the three or five years. One explanation of negative market reaction is that firms make additional equity issue when their shares are overvalued. As Myers and Majluf (1984) pointed out that firms take advantage of asymmetric information between managers and investors, therefore they use the equity offering as overvaluation exploitation. In another study, Jensen (1986) states a notion of agency problem associated with the free cash flow hypothesis in order to explain the negative market reaction by which firms may use the equity issues to invest in negative net present value projects. Managers have a tendency to invest the firm for the benefit of their interests. This, therefore, could give rise to the long-term negative market performance. Subsequent studies have similar findings supporting these hypotheses.

This paper makes the following contributions to the extant literature. Most importantly, it is one of the unique studies that examine Turkish rights issues. There are a limited number of researches in the emerging markets on the subject of rights issues. Previous studies have mainly focused on two important economies, the United States and the United Kingdom. Hence, it will be interesting to see the reactions towards rights issues in the Turkish market which is a developing emerging market. The Istanbul Stock Exchange (ISE) is the favorable environment to test market reaction towards rights issues due to rights issues are the dominant method of additional equity issuance. Second, this study also examines the rights issues during a long-run period whereas many others investigate the stock market performance relatively during short-run periods. Pre-issuing performance, 12 months before the offering, and post-issue performance, 3 years after the offering, of issuing firms are examined over the period of 1986-2007. Since the Turkish stock market consists of mainly short-term investors and is highly volatile, it will be interesting to delve into long-term investment strategies. Third, relatively large number of data set (594 rights issues) for non-financial firms listed on the Istanbul Stock Exchange (ISE) is used. Finally, the current dissertation examines immediate/instant – stock market reactions to equity issuance along with the considering the long-term performance of the stocks.

The rest of the paper is organized as follows. Chapter I describes the concept of rights issue by summarizing Initial Public Offerings (IPOs) and Seasoned Equity Offerings (SEOs). This chapter also provides detailed explanation of market anomalies while raising capital. Chapter II views the Turkish market structure concerning the rights issues. Chapter III describes data and methodology used. Chapter IV finally concludes the paper with a summary and interpretation of the findings.

CHAPTER I

RIGHTS ISSUES

The objective of this chapter is to develop a general understanding of Rights Issues and to review the extant literature. First of all, it is useful to look at the discussions on the subject of the initial public offering (IPO) and seasoned equity offering (SEO). Other types of offerings are also described briefly in this section. Further, developments in two important markets, the United States and the United Kingdom, are explained in this chapter. After the descriptions, the question of why the market negatively reacts to rights issues offering is answered by investigating the literatures. The signaling theory associated with the information asymmetry hypothesis and the free cash flow hypothesis are used to try to figure out stock price reactions to rights issues.

1.1. INITIAL PUBLIC OFFERINGS AND SEASONED EQUITY OFFERINGS

1.1.1. Initial Public Offerings

A privately held company can typically appeals the initial public offering (IPO) for raising additional cash through going public. An IPO is the first sale of the firm's shares to the public and it is the listing of the shares on a stock exchange (Geddes, 2003). IPOs are also seen in the privatization of government owned companies by which a government transfers its ownership on the firm to the private sector (Dewenter & Malatesta, 1997). In the UK, IPOs are often called as *flotation*. IPOs have played an important role in generating resource for a company.

Companies go to the public for one of two reasons (Geddes, 2003):

- To raise capital for improving the financial health of the business
- To raise funds for existing shareholders.

Initial public offerings bring firms some opportunities. Firms gain high market value and prestige by going to the public because companies listed on a stock exchange are worth more than similar ones that are privately held. Moreover, going public generally improves the motivation of managers and workers and forces the management of the business to formulate a clear business strategy which investors and public can easily reach information about the company. On the other hand, investors have natural propensity to maximize share price after the flotation. They are satisfied with the issuing day premium and high market performance in the secondary market. Consequently, another important point after IPO is that company's shares should attain continued strong performance in the market (Geddes, 2003).

There are several studies with respect to IPOs, concluding that the performance of the equity issue is higher in the short-term by reason of underpricing, which is defined as the differences between the subscription price and the first trading day closing price. Ritter (1991) defines this phenomenon as "left money on the table" because IPOs are characterized with high levels of initial returns. Kiyamaz (2000) provided an example from Turkey in the underpricing phenomenon by means of reporting the initial trading day underpricing was 13.1% on average during the period of 1990-1996. However, for the long-term performance, issuing firms substantially underperformed among a sample of non-publicly owned matched firms. For example, Ritter (1991) found 34.47% holding period return in the 3 years after the public offerings, for the 1,526 IPOs during the 1975-84 periods in the US. However, non-publicly owned companies matched by industry and market value had 61.86% of total return in the same period. Similar findings suggest that firms experience lower long-term returns after going the public than firms not issuing equity. The underpricing and long-run underperformances occur due to the asymmetric information or over-optimism of investors when valuing IPO (Umutlu, 2008).

A number of different ways is available for a company to raise new shares. Depending on the issuer's requirement, these vary from a placing to institutional investors, and to public offers in the context of IPOs.

1.1.1.1. Public Offerings

In a public offering, an issuer is able to generate greater demand for its shares via offering them to the public. Public offering is a type of an equity issue by which shares are offered to public. There are two methods in the public offerings. These are; an “offer for sale”, where the shares are sold by existing shareholders, and an “offer for subscription”, where a company issues new shares and keeps the proceeds. Privatization is generally implemented through offer for sale method with an invitation to the public or a third-party to purchase securities of the issuer. On the other hand, offer for subscription is exercised with an invitation to the public or a third-party to subscribe for securities of the issuer not yet in issue. The share price is determined after the negotiation between the issuer and bankers, in a public offering.

Firms typically prefer to avoid the risk of offer failure by utilizing an underwriter. Public offerings are performed with the underwritten basis. The underwriter informs the investors by mainly utilizing notional newspapers. The underwriter guarantees the issuing company and assumes the risk of the share not sold to the investors. Public offering can be seen in the form of the initial or secondary offerings.

1.1.1.2. Private Placements

Companies sell their shares, not yet in issue, to specific investors (i.e., institutions) in a private placement method, thereby avoiding registration fees. Investment or insurance companies are typically making benefit of this method. Individual investors do not apply directly for shares, but can participate in a stockbroker in order to receive shares. Private placements or bookbuildings are also common method of issue by listed firms, where there is no general offer to the public or to existing shareholders, but instead, shares are offered to a specific institution or a group of institutions.

A financial intermediary purchases all shares from the issuer at a given price and then sells them to an institution. The underwriter totally assumes the risk of offer

failure. Accordingly, the reputation of the issuer is of great importance for successive offering period.

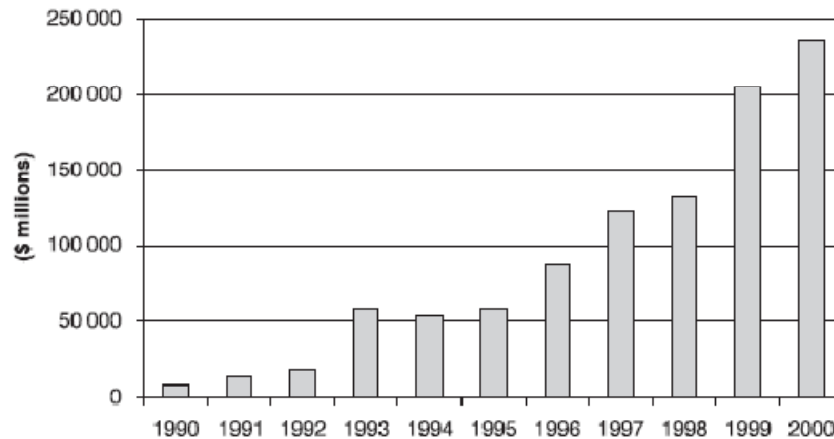
The timing of equity issue is also important factor for the company. Ritter and Welch (2002) find that companies prefer to go to the public when they think the market conditions are suitable. In this regard, the economic situations of the country, politics, legislations, and much more economic factors have an effect on the IPO decision. The stage of the company's life cycle is another important concept that affects the decision of IPOs as well (Ritter & Welch, 2002). Many companies follow a path in terms of financing of the business. The company is founded by a person or a group, generally a family, and the founders' savings typically finance the company. As the business grows, the company needs more money than the founders have, thus using debt is another way to raise equity capital. If the company is growing, it may require the financing subsequent growth stages by going to the public.

1.1.2. Seasoned Equity Offerings

For many newly offering companies, the IPO is the first transaction in a developing relationship with investors. Capital requirements entail that firms refer the equity markets after the initial offering. Another common reason for secondary offering is that existing shareholders wish to raise more cash from its investment. A secondary offering is an offering by a firm which is the issue of the firm's stock to the market after the first issuance, or by a shareholder of the firm which is the issue of the shareholder's stake, or both of them. This process is called as seasoned secondary offering (SEO) or follow-on offering. New shares are offered to investors in a wide variety of ways. General classification is listed below (Martin-Ugedo, 2003):

- Public offerings
 - Rights Issues (either underwritten or non-underwritten)
 - Firm commitments
- Private placements

As Geddes (2003) pointed out that a company whose share price has been welcomed since its IPO will have an easier job of raising capital than a company that share price is below the IPO price. In this manner, investors who want to have more shares from the IPO are more likely to be interested in purchasing more shares in the secondary offerings.



Source: Geddes, 2003, p. 212

Figure 1: Secondary Offerings in the USA

The growth in the using of secondary offerings has risen at 32 percent from 1990, and almost reached \$250 billion in 2000 in the US, as it can be seen in Figure 1. Krigman et al. (2001)'s study also shows that 28 per cent of IPO firms in the US made the first SEO within three years following the IPO between 1993 and 1995. Jagadeesh et al. (1993) claims that there is a relationship between IPO underpricing and the seasoned equity offer decision of issuing firms. The more underpriced IPO firms are more likely to undertake an SEO due to managers expect to have higher marginal returns than initially estimated.

1.1.2.1. Reasons of SEOs

Companies refer the secondary offerings in order to put into new investment, to make an acquisition of other companies, and to pay the company's debt. Accordingly the proceeds from the SEOs are invested in wealth enhancing projects.

Sometimes, companies may issue new shares for only utilizing the market opportunities when the economic structure is suitable. Masulis and Korwar (1986) delve into the reason of the US offerings and find the following results for both industrials and public utilities;

**Table 1:
The Reason of the US Offerings**

	Industrials		Public Utilities	
	# of Firms	Percentages	# of Firms	Percentages
Debt Reduction	55	14%	244	42%
Capital Expenditure	63	16%	30	5%
Mixed Use	55	14%	101	17%
Other / Not Disclosed	215	55%	209	36%
Total	388	100%	584	100%

Source: Masulis and Korwar, 1986, p.23

From the point of investors, all the same reasons are applicable to shareholders/investors. Furthermore, investors or shareholders may wish to raise cash or diversify holdings. They may also prefer not to have a strategic holding or dispose of shares received in a merger and acquisition transaction (Geddes, 2003).

1.2. RIGHTS ISSUES

Rights issues are widespread in Europe, especially in the UK. Almost all SEOs are done by the way of rights issue. Rights issues, in other saying rights offerings, can generate substantial capital resource for companies. Slovin et al. (2000) defines the rights issue as an equity offering method that allows the existing shareholders to purchase newly offering shares in proportion to their holdings with a discount relative to the current market price and in a designated time. The price and number of shares of rights issues are announced at the same time as the equity is offered.

In rights offerings, companies announce the fundraising to all shareholders. Thus shareholders are entitled to purchase further shares in the proportion that they already had when the offer is announced. If the shareholders do not want to take up their rights, they can sell their rights on the stock exchange.

Rights issues were the dominant form of equity issuance in the US and the UK until the 1980s, but other offering methods (e.g., placing, public offering) have become more popular recently. However, rights issues are still the most preferred method in the emerging markets and the rest of Europe when raising capital. For example, Chinese companies use rights issues for raising long-term capital, actually more than 93 per cent of total equity during the period of 1992-95 and over 83 per cent between 1996 and 2000 were through rights issues (Fung et al., 2008).

Setting the terms and price of a rights issue is one of the most important points. As a general practice, new shares are subject to a discount to prevailing trading price on the stock exchange within the specified terms when they are issued to existing shareholders. Armitage (1998) explain that the discount is mainly determined between 15 and 20 per cent to the recent market price to encourage a higher exercise by existing shareholders. The equity offering is announced to the shareholders by sending a notification in a form of Provisional Allotment Letters (PALs) at the same time of that the issue is announced to the public. In the UK, the offer must be open for at least 21 days subsequent to the announcement. Shareholders can take up their rights or sell them in the market during this period. If existing shareholders do not want to exercise their rights, they can trade them with using the provisional allotment letter. In case the issuing price falls below the market price during this period, shareholders do not exercise their rights; consequently the company is guaranteed to receive the funds through the underwritten agreement. This is just because of the reason that no one rational investor would buy new shares when the market price is below the issuing price.

As a company offers further shares, existing shareholders have four options (Geddes, 2003). These are;

- They may take up the right that they are entitled to purchase the new shares. By this way, the shareholders maintain their proportionate interest in the company. For example, if a shareholder held 10 per cent of the company before the issue, he will continue to hold the same rate of the company after the issue.
- They may sell the rights in the market. During the issuing period, the shareholders would prefer to sell their rights which are traded on the same stock exchange.
- They may take up a proportion of their rights while selling the remainder in the market.
- They may do nothing. In this option, their rights will be sold on the last day of the issuing period with all unexercised rights on the stock market. If no one takes up the rights, a financial intermediary that guarantees the issuance process is required to purchase the shares that remained unsold.

1.2.1. Pre-emption Rights

Mainly new shares in a rights issue are offered to existing shareholders for retaining their holdings. According to the London Stock Exchange (LSE) requirements, there is a quotation about rights issues, in order to protect shareholders against the dilution of their ownership stake, through using pre-emption rights (Armitage, 1998). That is, if a firm wishes to raise equity capital, it must first offer new shares to existing shareholders. In other words, in case of rights issues, existing shareholders have the first rights to buy the newly issued shares in proportion to their holdings at a discount to the current market share price. Such limitations are not prevailed in the USA or Canada (Geddes, 2003).

The most controversial rule of rights issues is the preemption rule. Evidence shows that the UK shareholders consider important of preemption rights in rights issues and rarely waive their rights until the equity issue is small. On the contrary, shareholders of the US firms generally not prefer to exercise their rights. Thus the

US firms avoid rights issues while raising capital, instead other offering methods became popular (Korteweg & Renneboog, 2002).

1.2.2. Underwritten vs. Non-underwritten Rights Issues

Rights issues are offered to current shareholders with subscription price (at a discount to the market price) during a specified period. The shareholders have a right to buy the further shares or sell their rights as well as let the rights expire. Unsold parts of the shares cause the firm suffer some costs, including cost of issue financing and cost of missing opportunity in the positive net present value investments. In order to provide high level of take-ups, issuer firms should set a lower price than the current market price. Another way to prevent an issue from failing is to sign a stand-by agreement with a financial intermediary, buying the unsold shares at a specified price (Martin-Ugedo, 2003).

The type of rights issue could be separated into two groups in terms of hiring a financial intermediary; that is, underwritten rights issue and non-underwritten rights issue. In the underwritten rights issue, the issuing company utilizes an investment bank or a sponsor to organize the issue. Underwriters coordinate the issuing process, lead the preparation of documentation, advise the issuer on pricing of shares, and facilitate the distribution of the shares to a broad range of investors, as well as take on the risk of unsold shares. Underwriters also expedite the issuing process in order to sell as much of the issue as possible. The underwriting fee is higher because of not only the cost of marketing the shares and the cost of advice, but also the cost of bearing the risk of unsold shares (Armitage, 1998; Geddes, 2003)

The market price reaction to underwritten issues is more negative than non-underwritten issues, in the US. Underwritten issues bring an expectation to the market that a lower take-up would be occurred and consequently the firm guarantees the issuance process through hiring a financial intermediary. This expectation therefore leads up more negative market reaction to underwritten issues. However, the UK experience is different; British non-underwritten issues have more negative reaction relative to underwritten ones. Since an issue is not underwritten, the issuer

firm is always faced with financial difficulties. The British market interprets this situation as the issuer is not able to find an underwriter (Korteweg & Renneboog, 2002).

British companies mostly prefer to conduct a rights issue in an underwriting basis in which full or part of the shares are offered through a sponsor or an investment bank. Sometimes two or more sponsors or investment banks constitute a syndicate in order to mitigate the risk. In a typical underwriting contract, the issue is not purchased by the underwriter first; however, the remaining shares which cannot be sold at the expiration date are subscribed at a fixed price. This agreement is named in the US market as the standby underwriting (Armitage, 1998).

Bohren et al. (1997) observed flotation costs for industrial companies in the US and find 6% of offering proceeds on average is the cost of firm commitment, 4% on average is the cost of standby offering, and finally 1% on average is the cost of non-underwritten rights offerings that is lowest one. Eckbo and Masulis (1992) argue that issuers have a remarkable tendency towards underwritten method regardless of its significantly direct cost for the US companies. Armitage (1998) explains this situation as certification of issuer value by a reputable investment bank is more credible than obtaining the issue cheaper. Entire or part of the shares are guaranteed by an investment bank. Bohren et al. (1997) suggest that issuers tend to employ an underwriter for the certification, in case of anticipating low shareholder take-up, even if the cost of underwriting is more expansive.

Underwriting of issue is considered necessary in today's economic structure. As the business of companies has globalized, individual firms have much more capital at hand, and it needs larger distribution channels for issue.

1.3. INSTITUTIONAL DIFFERENCES BETWEEN THE UK AND THE US OFFERINGS

This section is describing the issuing differences of two largest international markets. Most of the studies on the subject of equity offerings have been touched on the differences between the UK and the US offerings.

1.3.1. The US Offerings

Rights issues played an important role in offering additional equity in the US secondary market. As noted above, existing shareholders have a right to buy new shares first in the proportion of their stakes in the firm. Most of issuing activities are done through underwritten rights in the US. Issuing firms have to apply for the Security and Exchange Commission (SEC) in advance for registering issuance (Armitage, 1998).

In the early 1980s, there were only a few companies that increase their paid-in-capital by issuing new shares through a rights issue in the USA (Eckbo & Masulis, 1992; Armitage, 1998). From that time, many companies have given preference to other issuing methods by which shareholders no longer have a right of getting newly issuing shares.

The US companies have gradually changed their structure for raising new capital from the uninsured rights offerings to standby rights issues, and finally to firm commitments (Bohren, Eckbo, & Michalsen, 1997); thus the firm commitment public offering method became the dominant method in the US offerings. According to Eckbo (2008)'s study, between 1935 and 1955, almost a half of the common stock issues were conducted with rights issues, especially standby (underwritten) rights issues. But it appears to remain a mere 2.5% rights issue for industrial companies as compared to 97.5% of firm commitments, as indicated in Table 2. Bhide (1993) interpreted this progress as the US markets are in support of dispersing ownership due to minimization of trading spreads and augmentation of market liquidity.

**Table 2:
The Percentage Rights Offers for Industrial Issuers in the USA, 1980-2008**

	Industrial Issuers		
	All Offers	Rights Issues	Firm Commitments
No. of offerings	5,890	145	5,745
Percentages	100%	2.5%	97.5%

Notes: This table, which is prepared on the basis of the study of Eckbo (2008), shows that the rights issue method has become less favored form of offering for industrial issuers in the USA, over the period of 1980-2008, having 145 rights issues out of 5,890 total offerings.

1.3.1.1. Firm Commitments

In a firm commitment, the issuing firm utilizes an underwriter for distributing the shares to the public. The agreement with the underwriter could have three options. In a best effort agreement, the underwriter plays a role as a marketing agent, bearing the risk of failure. In a stand-by agreement, the underwriter buys the unsold parts of the issuing shares. In the third option, the underwriter purchases all shares from the issuer and resells them to the individual or institutional investors who want to buy these shares, bearing the responsibility for selling the shares (Martin-Ugedo, 2003). Kumar and Tsetsekos (1993) found that only 2% of the firm commitments in the US were best efforts; non-underwritten contracts. In other words, the underwriter has to bear the risk of failure in 98% of these offerings.

Equity offering is taken place after the permission of Securities and Exchange Commission (SEC), and then the offer size and price are determined. The underwriter assumes the risk of unsold shares and guarantees the sale of a certain amount of the shares at the offer price. The underwriter, therefore, has the right to withdraw from the offer in case the low market demand is assessed (Slovin et al., 2000).

Studies investigate the reason of why the rights issues have disappeared in the US markets. Eckbo (2008) argues that although firm commitment underwriting is more expensive method than either standby or pure rights offering, it becomes the

dominant method in the US since 1980s. The main reason of disappearing rights issues is considerably related with the problem of asymmetric information and the resulting adverse selection cost, as explained in the market anomalies subject. The floatation cost of rights offers is higher when shareholders' take-ups are lower.

Kothare (1997) stated that the choice of SEO type is associated with the ownership structure. It is clear that making rights issue causes a firm to have relatively more concentrated ownership structure as compared to public offers. Smaller and relatively closely held firms prefer rights offerings in raising capital because of the protection of ownership concentration. On the other hand, industrial companies that have a well-developed economic structure shift the issuing method from rights offers to public offers, resulting in increasing dispersion of ownership concentration and increasing liquidity of shares.

1.3.1.2. Bought Deals and Accelerated Book-Buildings

There are alternative methods for raising capital apart from the firm commitment or the rights issue. As defined above, private placements are also used to raise capital, so bought deals and accelerated book-buildings are used in the USA recently as well. In bought deals, companies sell the shares to an investment bank at the same time as they are announced. Thereafter, the investment bank resells shares to its clients or just on the market, as similar application to that of placings in the UK. The difference between buying and selling price is the investment bank's profit, hence the issuer company does not pay a commission as it does in a standby rights issue. Bought deals are faster than other methods and usually take place in 24 hours. However bought deals are not appropriate for all companies due to the issuer company is required to be well known in the market and to issue a small proportion of the total shares (i.e., less than 5%) (Armitage, 1998).

Accelerated bookbuilding, a variant of a bought deal, is a suitable offering method if the issuer company is reasonably well known and has good liquidity in its shares. The issuer sells a block of shares to a specific investor group (i.e., an institution) in a short period of time rather than going through a stock exchange. The

share are placed quickly, thus the issuer has greater confidence in the risk of a change in the share price. These methods, bought deal and accelerated bookbuilding, are also named as “shelf” offers due to they are required to pre-registration with the SEC under its rule 415 (Eckbo, 2008). The rule allows firms to register all securities that they expect to issue over the next two years. Thus, shelf registration reduces the issuer’s cost and increases its flexibility of issuing time.

1.3.2. The UK Offerings

Equity issuing activity is dominated by rights issues in the UK when compared to other issuing methods such as public offerings as in the US. According to the London Stock Exchange's restriction, the first refusal of shares must be offered to existing shareholders. Differently from the US rights issue, the offer price is set at the same time when the issue is announced. Consequently there is no gap between the announcement day and the start of the offer (Armitage, 1998).

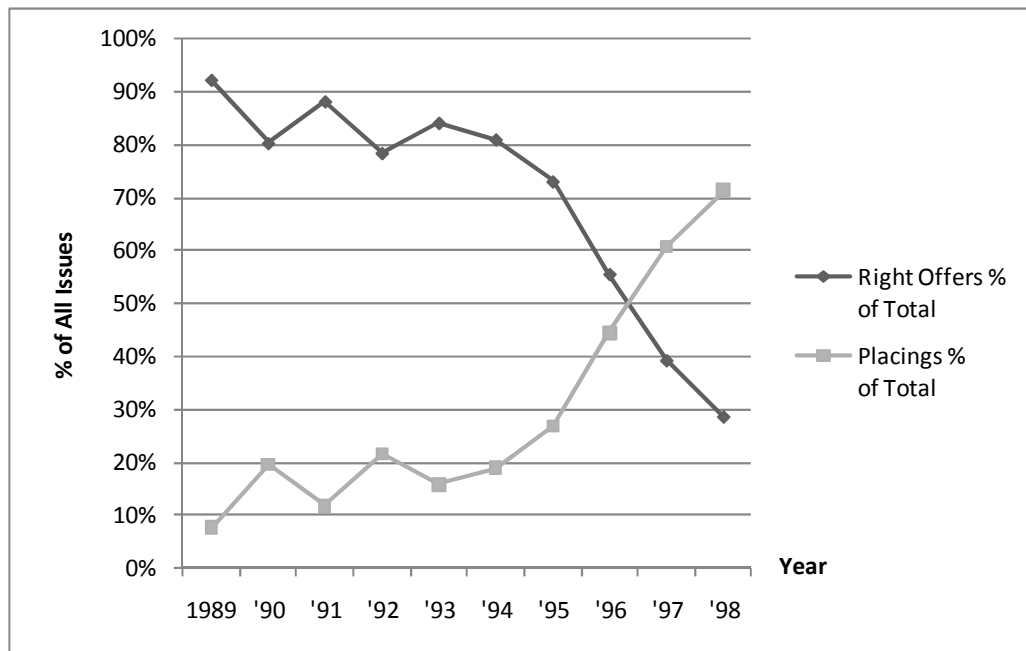
1.3.2.1. Placings

In the mid-1980s, the pre-emptive rights limitation became a controversial subject in the UK although rights issues were the most widespread method when issuing new shares until the 1990s. Many researchers believe that this limitation increase dependence on the existing shareholders and handicap new investors to attain a meaningful stake of the firm. On the other hand, some of them advocate the pre-emption rule and state that, the rule is essential for protecting existing shareholders from a potential losing of their positions. If shares are first offered to new rather than existing shareholders, there may appear a transfer of value and a transfer of control to new shareholders from the existing ones.

In the light of these arguments, London Stock Exchange changed the regulation in 1986 so as to broaden the choice of flotation method for the firms to raise equity (Slovin et al., 2000). These regulatory changes have allowed British firms more discretion to use different flotation method for altering the market reaction and the ownership concentration. As a result, the rate of rights issues was

decreasing since that time and other offering methods such as *placings* became more prevalent method among the UK companies when offering new shares to existing shareholders and new investors.

Barnes and Walker (2006) argue trends in issue method choice among British companies over the 10-year period 1989-98. They handle 868 issues of which 600 were rights offers and 268 were placings. Since other floatation methods are not taken into consideration, the proportion of the placings increased, as indicated in Figure 2. Similarly, the proportion of rights offers dramatically decreased over the sample period.



Source: Barnes and Walker, 2006, p.54

Figure 2: Trend in Rights Offers vs. Placings Choice by British Firms for the Period 1989-98

In a placing, stocks are offered to outside investors by which an underwriter purchases a part of shares from the issuing firm with a fixed price, and then sells the shares to the investors that may consist of institutional investors or individuals. The placing is not a private placement, but a public security issue is similar to a firm commitment offer in the US. However, the UK placings differ from the US firm

commitments due to size and price are determined in advance and declared in the announcement (Slovin et al., 2000).

In order to prevent the holdings of existing shareholders, it is required to call an Extraordinary General Meeting (EGM) to authorize the issue and to obtain at least 75% of shareholders approval for employing a placing. In addition, a placing should be limited to 5% of the outstanding shares of the issuer in any single year (Ho, 2005). Another restriction of placings is related to the fact that the price discount of the newly issued shares cannot be lower than 10%, unless there are other exceptional circumstances (Korteweg & Renneboog, 2002). The ownership concentration declines due to shares are sold to outside investors in a placing; in contrast, there is little change in ownership concentration in a rights issue because it is first offered to existing shareholders.

Hunt and Terry (2002) have listed three main advantageous of using a placing rather than a rights issue as follows.

- Placings have more advantageous in terms of time, because a placing can be employed faster than a rights issue. Few days are enough for employing a private placement, compared with a minimum of two months for rights issues.
- Due to a substantial discount to current share price on rights issues, placings provides firms higher price receiving than what can be achieved through the rights or public offerings.
- Reducing the risk of takeover, securities can be placed with more friendly.

Slovin et al. (2000) argue that different floatation methods convey different signal to the market finding the placing method mitigates negative effect as compared to rights issues in the UK. The placing produces positive and significant abnormal returns of 3.3% whereas the rights offer generates negative and significant returns of -3.1% for the two-day announcement period window. The results indicate that the rights issue conveys a negative signal with respect to the issuer's economic structure to the market while placings bring a positive signal. Similar findings with

regard to the positive market reaction to the placing are reported different markets where placings are used for equity issuance. For example, Ching et al. (2006) compared the two methods, the rights issue and the placing, in Hong Kong. They found positive abnormal when firms undertake a placing and negative abnormal returns when firms employ a rights issue for raising capital. However, long-term stock returns are negative for two methods.

Barnes and Walker (2006) emphasize that higher level of information asymmetry increase the probability of an issue by placings, avoiding the negative market reaction. They also found that placings are subject to smaller discounts relatively the current market price, compared as rights issues. These are some reasons of why firms have changed their structure to adopt placings when raising capital. Another is that the choice of issue method directly influences to ownership concentration. Firms preferring high concentrated ownership follow rights issue but firms wishing to alter ownership concentration make new issue by means of the other floatation methods, such as firm commitment, placing, and etc. Slovin et al. (2000) stated that high quality issuers used public offers in order to emphasize their superior quality and maintain ownership dispersion. In conclusion, there are almost 20 rights issues a year by 2006, on the analogy that there were approximately 132 rights issues a year during 1980-89 in the UK (Armitage, 2007).

1.3.2.2. Open Offers

Similar to a rights issue, an open offer is other type of equity issue to current shareholders by which the preemption rule guarantees the shareholders against dilution of their holdings. Invitation to existing shareholders is not made by means of a notification letter such as a Provisional Allotment Letter (PAL). Hence shareholders cannot trade their rights, in contrast to a rights issue where rights are sold in the stock market. Equities are privately placed before the offer is announced and then are first offered to existing shareholders on a pre-emptive basis whether or not in proportion to their existing holdings. The remaining part of share that is not subscribed from the existing shareholders is then usually placed with investing institution with a clawback option (Armitage, 1998).

UK firms generally combine a placing with an open offer because of the size restriction of the placings. In a “placing with open offer” combination, a proportion of shares are placed with an underwriter subject to recall for 21 days by existing shareholders that use their entitlements on a preemptive basis. The remainder is placed to new shareholders. The size rule for placings is not pertinent for this type of equity offerings. This procedure is also called as a placing with clawback (Ho, 2005). According to the LSE regulation, this option is associated with a condition that the price discount is not more than 10% to the current market price at announcement of the issue. This discount is smaller than in a rights issue, where it is offered a 15% to 20% discount of the market price (Barnes & Walker, 2006).

Ngatuni et al. (2007) benchmarked the average returns of firms employing a rights issue with non-issuing firms matched by size and book-to-market; and firms conducting an open offer with non-issuers matched by size and book-to-market. In this manner, they found that firms making open offers have 70.16% average return which is above the average return of non-issuing firms in the period of 1991-95 when open offers were more widespread method. Firms making rights issues had 41.8% below the post-issue performance than non-issuing firms in the period of 1986-90 when rights issues were the most-preferred methods in the UK. Open offers have a significant negative performance around the announcement day but have a positive performance in the following months.

Korteweg and Renneboog (2002) investigated the reason of why open offers are more common in the UK, instead of rights issues, while many open offers are more costly than the equivalent rights issues. The preference of an open offer is positively related to the proportion of directors' shares and growth opportunities due to a smaller discount for an open offer. Moreover, a large required investment by insiders and large market volatility makes a firm employ an open offer whereas lower book-to-market ratio and higher directors' shares induce the firm conduct a rights issue. The implication is that firms making open offers have “superior growth prospects” than firms making rights issues (Ngatuni et al., 2007; Korteweg and Renneboog, 2002); as a consequence, the choice of an open offer is welcomed by the market.

1.4. MARKET ANOMALIES

Financial literature is replete with lots of study on the subject of the market reaction of equity offerings. These studies show that rights issues in different countries have different results. For example, Eckbo and Masulis (1992) observed a negative average abnormal return (AAR) during the announcement day equals to -1.39% and -1.03% respectively for US non-underwritten and underwritten rights offers. Similarly, many researchers in the UK and the US documented a negative market reaction to the rights offering, emphasizing rights issues convey negative information to the market.

However, there are certain instances that rights issues in other markets are associated with positive abnormal returns. For example, Tsangarakis (1996) in Greece, Bohren et al. (1997) in Norway, Loderer and Zimmerman (1988) in Switzerland, Fung et al. (2008) in China find positive return following the issue. Japan, Malaysia, Korea, and Germany are also other examples that have a positive market reaction (Adaoglu, 2006).

1.4.1. Hypotheses of Negative Market Reaction

Researchers have produced many hypotheses in order to explain the negative market reaction towards equity offerings. The signaling hypothesis associated with the information asymmetry and the agency cost of free cash flow hypothesis are the most supported hypotheses in this section.

1.4.1.1. The Signaling Theory

Myers and Majluf (1984) explained the negative abnormal return on equity issues by defining the notion of signaling hypothesis. Signaling explanation involves that the announcement of new equity issue provides a signal that a firm is overvalued. On this purpose, firms take advantage of the “windows of opportunity” (Loughran & Ritter, 1995), and they are timed to exploit overvaluation of shares by issuing additional equity to the market. This theory is also named as overvaluation

hypothesis. Evidences show that firms selling stock while shares are overvalued will face with underperformance substantially.



Source: Harris, 2004, p. 311

Figure 3: Equally Weighted Relative Returns of the Top 1,000 UK Stocks

In addition to underperformance following the rights issue, firms also have outperforming share price before the issue. Harris (2004)'s study shows that a company outperforms by around 8% per annum over the two years period before the announcement of the rights issue in the UK. As shaped in Figure 3, which shows equally weighted relative returns of the top 1,000 UK stocks announcing rights issues during the period from February 1975 to January 2002, there appears to be an increasing trend immediately prior the issue, yet the company's share will underperform by around 4% per annum over the subsequent five years. Similarly, Loughran and Ritter (1995), Spiess and Pettway (1997), Bayless and Jay (2001) documented the same pattern that firms have superior performance relative to market index performance or non-issuers performance during the year before the SEO and underperform in the post-issue period. Findings support the notion that issuers take advantage of the opportunity to issue equity when the markets are overvalued (Bayless & Jay, 2001).

On the basis of signaling explanation, Myers and Majluf (1984) also put forward a hypothesis of information asymmetry between managers (insiders) and investors (outsiders). A major explanation for the negative market reaction to equity announcement is determined by the level of information asymmetry. According to their studies, managers have the superior knowledge about the firm's capital structure and future investments than that of outside investors; consequently it is more likely that managers act in the interest of existing shareholders (i.e., the adverse selection problem). Since potential investors interpret the firm's intention rationally and accordingly consider the equity issuance as a signal of overvaluation, so they choose to not invest new shares. Additionally, Eckbo and Masulis (1992), Loughran and Ritter (1995), Lee (1997), Speiss and Affleck-Graves (1995), Ngatuni et al. (2007), and many others provided support for the overvaluation hypothesis showing the evidence that post issue performance of firms employing a rights issue is underperformed for up to the five years after the announcement.

Heinkel and Schwartz (1986) emerged a model that explains the choice of method in raising equity capital in the US offerings is strongly related to information asymmetry that reveals the quality of the firm's future prospects and risk. Depending on their study, the highest quality firms employ a standby (insured) right offer due to underwriter agreement proves their high quality. Intermediate quality firms signal their true value in the choice of an uninsured right offer which causes the largest negative share price reactions. Lower quality firms typically chose fully underwritten issues in order to remain indistinguishable by investors. Likewise, Ferris et al. (1997) found a similar pattern in Japanese issuance in which the higher-quality firms attempt to avoid the adverse valuation effects while issuing new equity by hiring an underwriter in order to eliminate potential information asymmetry. These models also provide an explanation of the simultaneous existence of three financing vehicles.

Armitage (1998) defines the effect of information asymmetry on the equity issuing as follows. If the company's shares are undervalued, managers do not want to issue, because existing shareholders lose out when the future gain from being undervalued will be captured by new investors. To the degree that company's shares are undervalued; the loss of existing shareholders will be greater. On the contrary, if

the company's shares are overvalued, future loss will be assumed by the investors who buy the shares. Thus managers are more eager for issuing new shares.

Although the signaling theory explains the negative reaction to SEO announcement, there are some contradictions in which the theory is not able to define the relationship between the abnormal return (AR) on the announcement day and short or long-term underperformance. It is expected that the more negative reaction on the announcement day, the more long-term underperformance will be followed. Armitage (1998) explains this situation as investors are not able to comprehend the degree of the overvaluation on the announcement day. However the signaling theory is pertinent theory that exposes the negative reaction on the secondary offerings.

1.4.1.2. Free Cash Flow Theory

Another theory that explains the negative reaction to equity offerings is related to the agency problem associated with the free cash flow hypothesis which is proposed by Jensen (1986). He argues that when a company issues new equity, managers become disappointed with reducing the resources which were under the control of management and also reducing their power. Thus an equity issue that leads to a reduction of the managers' power would increase the agency cost. These reasons create major conflicts between managers and shareholders.

According to the Jensen (1986)'s study, managers have a tendency to invest the firm for the benefit of their interests. Since growth of the firm increases, the power of management increases as well, via increasing the resource under their control. Managers therefore choose to motivate their organization to increase efficiency of the activities generating substantial economic rents or quasi rents. These rents, which are returns in excess of the opportunity cost of the resources, produce the substantial amount of free cash flow. Jensen (1986) defines the free cash flow is a cash flow which is in excess of funds of projects that generate net present value when discounting the cost of capital. As managers opt to invest in the activities generating free cash flow instead of returning to shareholders, firms face with a negative market reaction. In that case, equity offering is perceived by the market as

excess free cash flow under the control of management (Iqbal, 2008). Lee (1997) ascertains that an SEO has triggered the free cash flow problem, consequently this problem lead up negative stock returns in the long-term period.

1.4.1.3. Issuance of Utilities and Industrial Companies

Many researches investigate the effect of offerings by separating utilities and industrial companies because of the effect of the information asymmetry. As argued by Mikkelson and Partch (1986), the strict regulations for utilities lessen the information asymmetry between management and investors. Moreover, the fact that utilizes employs equity issue much more frequently helps to investors to predict their structure.

Smith (1986) found that the two-day –around the announcement day and day before the announcement– average abnormal returns (AAR) of seasoned security offerings in the UK is -3.14% for industrial companies and -0.75% for utilities; Bohren et al. (1997) found the two-day AAR of seasoned security offerings in the US stock markets is -1.5% (significant at 5% level) for industrial companies and -1.4% (significant at 5% level) for utilities in terms of standby rights offerings; furthermore, -1.4% (insignificant) for industrial companies and 0.2% (insignificant) for utilities in terms of uninsured rights offerings. As determined by Smith (1986) and Eckbo and Masulis (1995) the findings on smaller negative market reaction to the announcement of utility issue are consistent with the adverse selection theory due to a public utility has smaller risk than an industrial issue. Similar findings also provide the same results that a smaller negative market reaction to the announcement is observed in a public utility offering than that in an industrial offering.

Essentially, the announcement of the capital raise should be viewed as good news for the investors because companies generally choose to increase their paid-in-capital so as to implement new investment, buy new facilities as well as get out of debt. According to standard corporate finance theory, companies employ additional shares issuance in order to get net present value (NPV) (Armitage, 1998). Thus, it is not plausible to expect that the announcement of SEOs brings on negative abnormal

return. In China, the most important example of emerging markets, Fung et al. (2008) documents positive abnormal returns and interprets this situation as “*Positive cumulative abnormal returns show the optimistic prospects conveyed through rights issue plans*”. In contrast, there are lots of studies that document negative market reaction in the UK and the US. The empirically supported explanation of the negative reaction is that the announcement of rights issues signals overvaluation to the market. Armitage (1998) also states that the long-run underperformance following issue both in the US and in the UK implies that companies are successful in timing of issue when they are overvalued.

1.4.1.4. Implication for the Purpose of Equity Issuance

Studies have also investigated the reason of equity issuance in an attempt to determine the long-run performance can be differentiated in terms of the proposed use of funds raised from rights issues. Mostly being notified reasons of equity issuance are corporate acquisition, investment and debt reduction. Although the evidence shows that the stated reason of funds raised could affect the short-term return among the announcement day, however, there is no strong evidence to suggest that long-term underperformance is influenced by the specific reason (Slovin et al., 2000; Ngatuni et al., 2007). Hence, researchers do not find substantial evidence that the long-term underperformance following issue is statistically related with different intended uses for the issue.

However Harris (2004) argues that the performance of rights issues is contingent on the purpose of capital raise. In order to better understand why stock price of the firm will be underperformed after the rights issue, he classifies the purposes of the issue into three groups as issues that were intended to reduce debt, issues that were made the fund acquisition, and issues that were made to fund growth. As a result, he finds that firms needed funds to reduce debt have, on average, experienced poor stock market return of 5% per annum before the announcement of rights issues over the prior five years. On the contrary, firms made the issue to fund acquisition or finance growth projects have outperformed by around 15% per annum before the announcement over two years period (Harris, 2004). Nevertheless, firms

in all three categories exercise similar underperformance path in the five year period after the rights issue. Findings suggest that firms making a rights issue to fund for acquisition or growth raise capital in order to exploit overvalued share price, in contrast, firms making a rights issue to reduce debt issue new equity in order to restructure the balance sheet.

1.4.2. Long-term Underperformance

Another empirical finding in the subject of seasoned equity offerings is that issuing companies exercise the long-term underperformance following the issue over the three or five years period.

Investigating the differences between issuer and non-issuer firms' returns, Loughran and Ritter (1995) found poor long-term return for the firms conducting IPOs or SEOs. For this purpose, they handled a sample of 4,753 operating companies going public and a sample of 3,702 companies employing seasoned equity offerings over the period of 1970 to 1990 in the United States. Firms making IPO underperformed, on average, 5% and firms conducting SEO obtained 7% rate of return during the 5 years period after offering. They also made benchmarks of the returns with non-issuing firms in the same market conditions and the same holding periods. Thus, they reported the underperformance of 12% per year for IPOs and 15% for SEOs. Jagadeesh (2000) documented that firms that issued seasoned equity exercised lower long-term performance in the years following equity offerings while conducting several different benchmarks over a 25-year period and found that issuing firms underperformed between 4 per cent and 6 per cent in the five year period. Jung et al. (1996) and Speiss and Affleck-Graves (1995) found similar underperformance results for three and five years after the issue.

Levis (1995) argued how the aftermarket performance of IPO firms influences subsequent performance of reissuing activities via investigating British stock markets. Evidence suggests that the following equity performance is significantly related to the firms' early market performance in the stock market. If a firm has a good market performance after initial offering, it is more likely to reissue

additional equity capital in the secondary market. Furthermore, the IPO firms having higher initial returns are more rapidly making the reissuing decision for raising capital.

Iqbal (2008) ascertains the negative market reaction to rights issues in the sequence in which a firm makes multiple issues in the UK. He argues that the market responses differently to frequent equity issuing in comparison with infrequent issuing. For this purpose, he examined 569 rights issues (more than two rights issues) made by 243 industrial and financial firms over the 1988-98 periods in the UK. He found that average abnormal return (AAR) for industrial firms is -1.65% which is statistically significant at the 1% level and for financial firms is -1.23% which is statistically significant at the 5% level. For the full sample AAR is -1.60% at the 1% level.

Looking at the rights issues in a sequence, Iqbal (2008) found that the industrial firms offering more than two rights obtain the average AAR of -2.26% (significant at 1%) at the first issue, -1.34% (significant at 5%) at the second issue, -0.82% (insignificant) at the third issue, and finally -0.73% (insignificant) at the fourth issue. The multiple financial issuers have the similar AAR pattern to that of industrial ones. The result shows that British stock market reacts more negatively to the first or infrequent rights issues. However this negative reaction is diminishing in the subsequent rights issues, furthermore it becomes insignificant at the third issue or followings (Iqbal, 2008).

Iqbal (2008) also argued that the information availability is increased in the subsequent rights issues in a sequence, as compared to earlier ones. It means that the information asymmetry shows a falling tendency in the following issues. Hence, the increasing quality of information leads to relatively lower negative market reaction and higher levels of take-ups (more than 90%).

CHAPTER II

RIGHTS ISSUES IN TURKEY

This chapter of the dissertation examines the evidence of rights issues in the Turkish stock market and provides detailed information about rights issues in Turkey. The Turkish stock market is recognized as an example of growing emerging market, which includes an increasing number of publicly traded companies and strong foreign participation. Although the usage rate of rights issues has been decreasing in developed markets, for example, in the US, the UK, and Japan, rights issues are still prevalent in smaller market capital. European markets, however, utilize the rights issues for raising capital with both underwritten and uninsured methods (Bohren, Eckbo, & Michalsen, 1997). The Turkish market thus provides an opportunity to study the performance of companies that exercised a rights issue because it is dominant form of new equity issues by listed firms.

2.1. TURKISH EVIDENCE OF RIGHTS ISSUES

In Turkey, companies have an option to increase equity through selling one of capital market instruments by means of rights issues or bonus issues, as well as enforcing the merger & acquisitions (hereafter M&A). For the initial public offerings, a firm which wishes to go to the public is obliged to meet provisions of related communiqué of Capital Market Law and to apply for an equity issue to the Istanbul Stock Exchange (ISE). Shares are therefore required to be registered with the Capital Markets Board to be offered to the public. Companies typically have two options to issue additional shares. The first method, named as bookbuilding method, is directly to sell the existing shares to the public via collecting demands of investors for shares using one of the offering methods; “fixed price”, “price bids”, or “price range”. The second method, “sales on stock exchange” or “sale without bookbuilding”, requires increasing capital and selling additional shares through

restricted pre-emptive rights to shareholders without collecting any demand from the investors. However, companies can also use these two methods together.

Thereafter the company deals with an investment bank in order to guarantee a minimum return after shares are sold to the public. The issuer company and the investment bank can negotiate the price and the size of the offering. The last step is the offering shares on the stock exchange. In the pre-emptive offerings, shares are first offered to existing shareholders. If the shares are not fully taken up from the shareholders, the remaining part of unsold shares is then offered to the public.

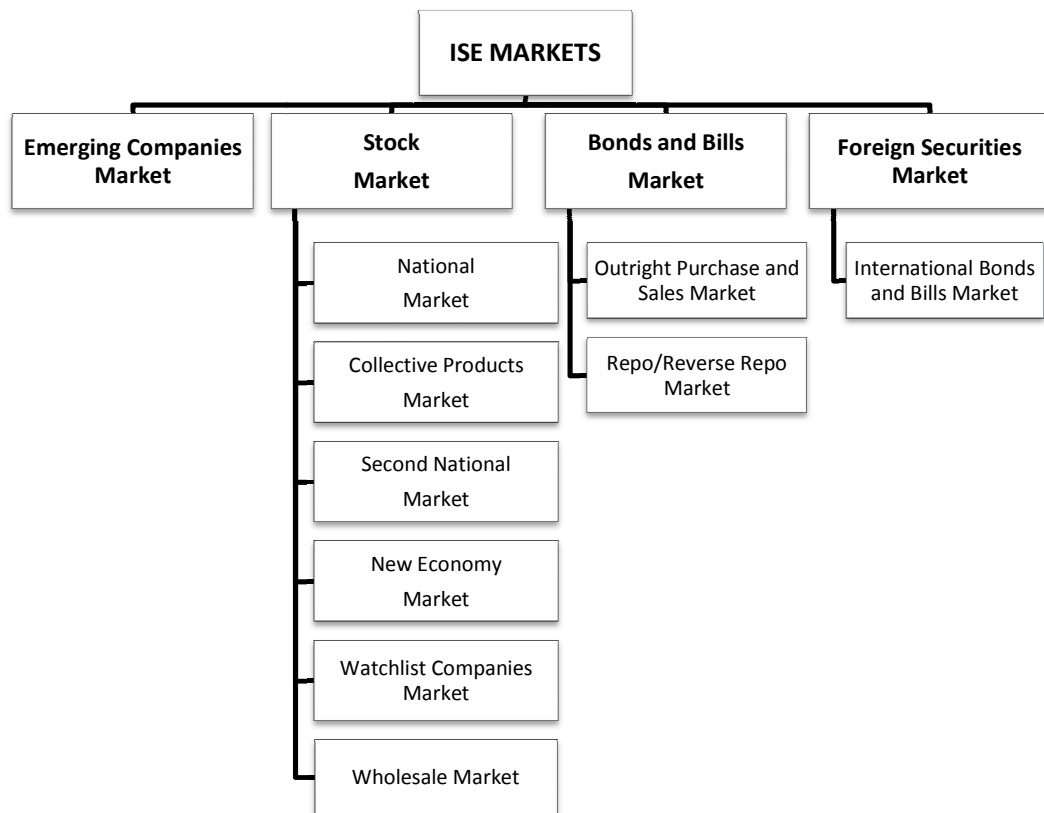
2.1.1. The Institutional Structure of the ISE

After the implementation the legal framework and regulatory agencies for a stock market in 1980s, The Istanbul Stock Exchange (ISE) was established in 1986, with \$13 million annual volume of trade and 42 stocks. (Muradoglu & Aydogan, 2003) The Istanbul Stock Exchange is the only stock exchange market in Turkey where allows investors to trade in equities, bonds and bills, revenue-sharing certificates, private sector bonds, foreign securities and real estate certificates as well as international securities. The Turkish stock market was opened to foreign investors without any restriction in 1989, with the decree no.32. This regulation provides a momentum for the Turkish economy. After that time, market participants were typically composed of institutional investors and the number of foreign funds. In 1994, computer aided trading procedures were implemented and all transactions are traded by a computer-assisted system. (Annual Report of the ISE, 2009).

The ISE was recognized as one of the member of international stock markets in the world. For example, the Securities and Exchange Commission (SEC) declares the ISE as a designated offshore securities market in 1993 and Japan Securities Dealers Association (JSDA) designated the ISE as an appropriate foreign investment market for the private and institutional Japanese investors in 1995 (Annual Report of the ISE, 2009).

There are three main markets at the ISE, Stock Market, Bonds and Bills Market, and Foreign Securities Market. National Market, the main stock market of

the ISE, is the market where includes companies satisfying the pre-requirements of the ISE regulation. The most important criteria of the national market requires the daily average trading volumes of a company to be above 1% of the total average trading volume of the national market companies and the daily average number of contracts to be 4% of the total daily average number of contracts of the companies traded on the national market. The main indicator of the stock market is ISE-100 Index which includes 100 companies selected from among companies listed on the national market, depending on market capitalization, daily trading volumes and daily number of contracts. As of 1997, the ISE began to exhibit different sector and sub-sector indexes on the basis of prices of companies operated in these sectors.



Source: Handbook of Markets and Operations of the ISE, 2010, p.26

Figure 4: Structure of the ISE Markets

Apart from the National Market, the stock market also includes Second National Market, New Economy Market, Watchlist Companies Market, and

Wholesale Market. Companies that fail to meet minimum circulation criteria on the national market are transferred to the second national market. Thus the aim of the second national market is to provide a reliable and transparent environment for small and medium size companies as well as the companies that fail to meet the listing requirements to trade on the national market. The collective products market, launched in November 2009, is the market for trading of the stocks of investment trust, real estate investment trust, venture capital trust, and participation certificates of exchange traded funds. The new economy market provides an organized market for technology companies, such as telecommunications, information systems, electronics, Internet, computer manufacturing, hardware, software, and media in order to meet their financing needs. The watchlist companies market was established with an aim to trade of stocks of companies under scrutiny for a special reason, for example suspected stock transactions, inconsistent or untimely information to public, failure to comply with the existing rules. These companies are observed closely and dismissed from the related market temporarily or permanently for protecting investors' right. Finally, the wholesale market was established for the transactions of stocks in large quantities (Handbook of Markets and Operations of the ISE, 2010).

After the establishment, the Turkish stock market has shown remarkable development in terms of both trading volume and number of listed companies. Thus, the number of companies traded on the exchange was 325 firms (233 firms of them were at the National Market) and the total market capitalization was US\$ 236 billion (ranking as the tenth largest market among emerging markets) at the end of 2009. The total traded value of the Turkish stock market has reached US\$ 316 billion whereas the daily average traded value has reached US\$ 1.32 billion in 2009, increasing 45 per cent compared to previous year. Total amount of funds raised through the ISE from its foundation to the end of 2009 was recorded as US\$ 45 billion. Prices are determined on a "multiple price-continuous auction" which is required to match buy and sell orders on the basis of time and price. Considered as one of the top seven emerging markets of the world in terms of traded value, the ISE implements a healthy trading environment for domestic issuers and investors as well as for foreign participants. The ISE also provides dissemination of detailed

information about firms listed on the stock exchange for investors or researchers (Annual Report of the ISE, 2009).

2.1.2. Rights issues vs. Bonus Issues in the ISE

Bonus issues are the type of issues that companies raise equity capital without any payment to be made by existing shareholders. Shares issues for this transaction are free shares. Bonus issues are typically financed by using internal resource and stock dividends in Turkey. The method of internal resources refers the capital gain from selling firm's assets, buildings, equipments, or other real estates. On the other hand, a stock dividend, perceived by investors as "splits", is an offer of additional shares of stocks to shareholders in proportion to their current stocks rather than cash (Adaoglu, 2006). As of 1995, companies have been entitled to disseminate dividends by means of stock dividends, which is an alternative of cash dividends declaring from the net profit after tax. By distributing stock dividends, companies have the opportunity to retain company earnings (Yilmaz & Gulay, 2006). The value of the total shareholding remains the same after the stock dividend, though the quantity of shares held by each shareholder increases. Retained earnings and/or distributable profits, such as a revaluation fund, are used for financing of stock dividends. The revaluation fund is an equity account which is derived from the inflation adjustment of fixed assets. Under the high inflation rate, most of the Turkish corporations have declared stock dividends converting the revaluation fund and retained earnings to paid-in-capital in order to obtain acceptable debt to paid-in-capital ratio due to corporations are limited to issue debt up to 600% of paid-in-capital. (Muradoglu & Aydogan, 2003). Therefore bonus issues are mostly preferred in emerging markets such as China, Australia, Greece, and India as well as Turkey, because of high inflation rate.

A rights issue, which is an offer of new equity in exchange for cash, may take two forms, i.e. pre-emptive rights issues or restricted rights issues to shareholders (non-preemptive rights issues). As Gonenc and Hermes (2008) pointed out, rights issues are subject to new issues of equity resulting in the paid-in capital account augmentation of the firm's equity; otherwise bonus issues do not increase the firm's

total equity value due to they are financed by retained earnings or revaluation funds of fixed assets.

If a firm announces a rights issue, shareholders are entitled to exercise their preemptive rights. According to Turkish regulations, a preemptive rights issue is announced in 15 days following the registration. Shareholders have the option either to exercise their rights or to sell them in the market, within at least 15 and at most 60 days. The rights coupon market that shareholders can sell their rights implemented in the beginning of 1993 in the ISE. The remaining part of shares that shareholders did not exercise shall be offered to the public. Thus, the characteristic of the rights issues in the ISE are typically uninsured rights issues (Adaoglu, 2006).

The ISE firms generally increase paid-in capital by means of a rights issue together with a bonus issue in the same period. Adaoglu (2006) defines this situation as “sweetened” offering and investigates the market reaction to both “unsweetened” and “sweetened” rights offerings in the Istanbul Stock Exchange. In his study, plain rights offerings are called as “unsweetened” whereas rights issues with simultaneous distribution of bonus issues are called as “sweetened” rights offerings. After eliminating some issues, 22 “unsweetened” rights offerings and 75 “sweetened” rights offerings are studied for the period 1994–1999. The results show that “unsweetened” rights offerings have a large negative abnormal return of -7.1% (CAR from 0 to +5 day). In contrast, for “sweetened” rights offerings, where rights issues accompanied by bonus issues, he reports a positive market reaction of 2.0% for the first three days during the announcement period. According to the results, firms offering “sweetened” rights have “better operating performance, cash position, investment opportunities and dividend policy relative to the corporations issuing ‘unsweetened’ rights offerings”. The “sweetened” rights offerings convey positive information to investors while “unsweetened” do not. In most cases, rights issues are accompanied by bonus issues making the offering more attractive (Adaoglu, 2006).

2.1.3. Rights issues vs. M&A in the ISE

Merger and Acquisition is another method for solving liquidity problems usually resulting in consolidations. While a merger is a combination of two companies so as to form a new company, an acquisition is the transfer one company to another without forming a new one. General objective of M&A is to gain market share, to increase revenue, or to develop new technologies. Studies on merger and acquisition report that the merger announcement implies positive stock price reactions.

Since Turkey faced economic and social difficulties as it suffered from multiple debt crises in the 1980s and 1990s, the Turkish economy experienced high inflation rate, and therefore investors obtained high nominal rates of returns on their investments. In the time period implemented disinflationary program, investor began to seek new investment instruments due to the decrease in the inflation rate. Therefore the Turkish economy experienced a plenty of merger and acquisition mostly in the early 2000s, the period of low inflation (Kirkulak & Demirkaplan, 2008).

The declaration of merger and acquisition typically effects the market positively so the post-merger stock returns are positive and significant (Kirkulak & Demirkaplan, 2008) whereas many studies report significant negative performance following the rights issue announcement. Kirkulak & Demirkaplan (2008) also suggest that the pre-merger stock performance is higher than post-merger performance due to investors are aware of M&A decision before the official declaration and percieve the rumor as a positive development for the company.

CHAPTER III

DATA AND METHODOLOGY

3.1. DEVELOPMENT OF HYPOTHESES

This paper examines the rights issues of Turkish non-financial firms traded on the Istanbul Stock Exchange (ISE) during the period of January 1986 to June 2007. Turkish market is appropriate environment for evaluating long-term performance of rights issues because rights issues are still dominant method for issuing additional equity, in contrast to higher markets where other issuing methods are the dominant form.

Evidence of the market reaction to the announcement of rights issues shows that companies, undertaking a rights issue, are associated with negative abnormal returns on average following the announcement due to the announcement conveys negative information to the market. In other words, shares of issuing companies underperform compared to market index returns in the long-term period after the announcement (Loughran & Ritter, 1995; Speiss & Affleck-Graves, 1995). On that account, this thesis claims that the Turkish market negatively reacts to the announcement. Consequently firms on the ISE have a similar pattern founded in previous evidences.

H_1 : The announcement of rights issues does not affect returns of issuing firms negatively in the post-issue period.

If the Hypothesis 1 is rejected, the result of the sample conveys that the announcement of rights issue has a negative effect to Turkish investors after the announcement. Evidence from the US and the UK, and other markets suggest that firms making rights issue will face with underperformance for a period of time after they announce new equity issue. For example, in his study Iqbal (2008) tested the

hypothesis of “*the UK market reacts negatively to rights issues announcements*” and found that overall response of the market to rights issues is negative and statistically significant at the 1% level.

In the light of previous findings, it is expected that firms undertaking a rights issue obtain relatively lower stock market performance in the Turkish stock market after the announcement. It is possible that the hypothesis of information asymmetry and therefore overvaluation exploitation can explain some or all of the lower performance around the rights issue in Turkey. Hence the returns of issuing firms is going to be observed in post-issue period up to 3-year in order to test Hypothesis 1.

The study also claims that investors are informed about the decision of rights issue before the announcement is officially declared, as it is explained in the information asymmetry theory. The reason of testing Hypothesis 2 is to investigate whether there is any evidence of abnormal performance in the pre-issue period which is a signal of subsequent rights issue. According to the signaling theory, firms utilize a rights issue to exploit overvaluation thus one could expect that the issuer have significantly positive returns before the announcement. Nevertheless, a downtrend of the returns in an early date from the announcement may be seen because investors had unofficial information of the rights issue. That is, investors, being aware of the rights issue decision, begin to destock before the announcement day.

H₂: Before the announcement, there is no significant positive return on stock of issuing firms which is the signal of exploitation overvaluation.

A number of studies have examined long-term performance of stocks undertaking SEOs in the post-announcement period through applying several different benchmark methods on stocks (see Loughran and Ritter, 1995; Levis, 1995; Jagadeesh, 2000; and others). These studies have documented poor share price performance of issuers as compared to non-issuer firms. Under the assumption that the announcement of rights issues affects following performance of issuers, one could expect issuers have a worse performance than non-issuers have. On that account, another goal of the dissertation is to extend the analysis to the Turkish

market and to have the benchmark the returns of issuers and matching non-issuer firms in the post issue period, thereby testing the Hypothesis 3.

H₃: The returns of firms making rights issues are equal to the returns of matching non-issuing firms in the post-announcement period. In other words, there is no any difference between the performance of issuers and the performance of matching non-issuers.

If the Hypothesis 3 is rejected, the result of the sample suggests that the announcement of the rights issue also brings on the negative market reaction in the ISE. It means that matching non-issuer firms have a better performance than issuers in the post-issue period.

In order to better understand the post-announcement performance of issuing firms, it will be useful to look at the returns of the issuing firm in the pre-announcement period. Some researches state that firms generally employ the rights issue when they want to exploit overvaluation. Thus, another reason for testing Hypothesis 4 is checking the returns of issuing firms whether or not they have significantly better performance than matching non-issuer firms, as it emerges in the overvaluation-exploitation theory.

H₄: The differences between the returns of issuing firms and the returns of matching non-issuer firms are significantly equal to zero, in the pre-announcement period.

Two benchmark hypotheses described above help us to comprehend both pre-announcement and post-announcement performance of firms making the rights issue thereby benchmarking the returns of issuing firms and the returns of matching non-issuer firms.

3.2. DATA

Data set of the study consists of firms that employ rights issues and are listed on the ISE. Issues by financial firms, such as banks, investment, insurance, and

property companies, are excluded from the sample due to they do not have a compatible financial reporting system and structure with industrial companies. A 12-month period is used to estimate pre-issue performance and a 3-year period is used to estimate post-issue performance. Total time of period, therefore, covers 48 months.

The sample of rights issues was gathered from 1,714 capital raises that took place over the period 1986-2007 (until June), as reported in the Capital Raise Table files on the official website of ISE (www.imkb.gov.tr). Closing prices of the stocks were carefully retrieved from the website of Analiz Investment Research (www.analiz.com).

Total quantity of rights issues, during the sample period of time, was 1,260 rights issues for both financial and non-financial firms in the ISE. After eliminating rights issues conducted by financial firms, the sample of the study was obtained as 884 rights offerings, of which 737 is pre-emptive rights issues, 128 is non pre-emptive rights issues, and 19 is exercised with two methods together.

However the final sample size of this paper is different. The sample size of rights issues decreased due to either the lack of data of some firms or missing closing price of some issuing dates. These poor data availability provided a final sample of 594 out of 884 (67% of the total) rights issues.

3.3. METHODOLOGY

In this section, method of calculation is described in detail. Buy-and-hold returns (BHRs) approach is used in the dissertation in order to assess market performance of firms employing rights issues for a period extended from 12 months before the announcement of rights issues up to 36 months after the announcement.

3.3.1. Buy and Hold Return (BHR)

Two main methods, typically, are used in the literature to measure long-term abnormal return of the stocks. Buy and hold abnormal returns (BHARs) and cumulated abnormal returns (CARs) are the most prevalent methods to measure

stock market performance for a portfolio. While some of researchers have argued for the use of CARs, others have favored the use of BHARs. Ngatuni et al. (2007) use the BHARs method in their study and explain the reason as follows:

“The CAR method involves the periodic rebalancing of portfolios that, as a practical investment strategy, would incur relatively high transactions costs that could significantly affect the returns available to investors. The BHAR method involves compounding the firm’s returns without periodic rebalancing, and represents the wealth effect to investors in a more realistic way.”

In this dissertation the calculation method of Buy-and-Hold-Return (BHR) is used to assess stock price performance both pre and post issue period. The method of Buy-and-Hold-Abnormal-Return (BHAR) is also used to assess benchmarking results, deriving from benchmarking of the return of issuers and the returns of non-issuers.

Daily stock returns of non-financial firms are drawn from examining the data provided by the website of Analiz Investment Research (www.analiz.com) on not-adjusted price of the stocks. This raw data is used for calculating the buy and hold returns after adjusting the returns¹. For stocks that are delisted prior to three-year period or daily returns are not available up to three-year, holding period returns and holding period abnormal returns are computed up to the delisting date or the last date where available returns are discovered.

To measure stock price reaction to rights issues, BHRs are formulated as follows.

$$BHR_{iT} = \prod_{t=\tau}^T (1 + R_{it}) - 1 \quad (1)$$

Where τ to T is the holding period and R_{it} is the market-adjusted return of firm i in day/month of t . This formula measures the total return from a buy and hold

¹ Adjusted returns of stock i are computed as $Ar_i = (r_{it} - R_t)$, where r_{it} is the not-adjusted return of the firm i on the day of t , and R_t is the ISE National Market Index on the same day.

strategy in which equity is purchased at the first day of the period and held it until the date of T .

It is then computed the average equally weighted holding-period returns for each period in the sample as follows;

$$ABHR_T = \frac{1}{N} \sum_{j=1}^N BHR_{jT} \quad (2)$$

Where $ABHR_T$ indicates the percentage (average) buy and hold return on the period T based on the mean of BHRs for N observation. Average buy and hold returns are used to evaluate the short-term and the long-term performance of stock returns both before and after the announcement of a rights issue.

3.3.2. Buy and Hold Abnormal Return (BHAR)

BHAR is used for evaluating the benchmark results and to compute as the differences between the actual and the expected BHRs. Actual BHR is the return of the firms making rights issues whereas the expected BHR of the issuing firms is the return of matching non-issuing firms. The computing method of actual BHR is given above; by the same token, expected BHR is computed as follows.

$$E(BHR_{iT}) = \prod_{t=\tau}^T (1 + E(R_{it})) - 1 \quad (3)$$

Where τ to T is the holding period and $E(R_{it})$ is the expected return of firm i in day/month of t . The expected returns are the returns of non-issuers, which are selected according to the benchmarking methodology.

From the formula of (1) and (3), BHAR for the firm i is computed as the difference between the actual and expected BHRs;

$$BHAR_{iT} = \prod_{t=\tau}^T (1 + R_{it}) - \prod_{t=\tau}^T (1 + E(R_{it})) \quad (4)$$

Finally, the average buy-and-hold-abnormal-return, which stands for ABHAR, is computed.

$$ABHAR_T = \frac{1}{N} \sum_{j=1}^N BHAR_{jT} \quad (5)$$

Where, $ABHAR_T$ indicates the percentage (average) buy and hold abnormal return on the period of T calculating from the mean of BHARs for N quantities of rights issues.

3.3.3. Test of Significance

To obtain significance levels of returns for each period, the t-statistics for ABHARs are calculated as given below².

$$t_{ABHAR_T} = \frac{ABHAR_T \sqrt{N}}{\sigma_{ABHAR_T}} \quad (6)$$

Where, $ABHAR_T$ and σ_{ABHAR} are the cross-sectional mean and standard deviation of the BHAR for the sample of N rights issues in the period T . With the same conclusion, t-statistics for BHRs were calculated through adding ABHRs for each T period instead of ABHARs in the formula. In order to test the hypotheses defined in this paper, the t tests were carried out comparing with t critical values from the table of student's t-distribution at the significance levels of .01, .05, and .10 respectively³.

3.3.4. Benchmarking Methodology

After investigating returns of the firms employing rights issues in both pre and post issue period, returns of the issuing firms are also compared with returns of matching non-issuing firms. This methodology is based on the calculation of the

² The formulas using in the study was compiled from Ngatuni, Capstaff, and Marshall, (2007)

³ The calculation depends on the assumption that abnormal returns in the cross-section of firms are independent and identically distributed as well as the population of returns distribution follows a normal distribution.

equivalent period returns on the non-issuing firms matched by some characteristics similar to the issuing firms, in order to measure the performance of the issuers. For this manner, the returns of non-issuers are used in the formula of ABHAR as the expected return for issuing firms.

All matching firms are selected from the ISE listed firms with the rule of not announcing a new rights issue during the benchmarking period. The three benchmarking methods are used in the study as follows.

- i. Size benchmark
- ii. Market-to-book (M/B) benchmark
- iii. Size and M/B benchmark

3.3.4.1. Size Benchmark

Market values, which are computed by multiplying the number of shares with the closing price, are used for the size benchmarking method. Matching firms are selected according to higher market values than the issuing firms. It is expected that the size of issuing firms will increase after the issuance due to the augmentation of the number of shares. For that reason, the matching firms, with the closest but higher market values at the fiscal year-end⁴ when the rights issue is employed, are preferred.

The methodology of size benchmarking is as follows. Historical data of firms listed on the ISE, which includes daily closing price, income, fixed assets, total assets, short-term and long-term liability, equity and total equity, is derived from the data source of ISE. SPSS 11.0 program is used for arranging data and calculating market values. This list is then ranked by market values thereby separating them for each year. In a spreadsheet, the issuing firms, with 594 rights issues, are listed with their industry codes, rights issue dates, market values and market-to-book ratios. In order to minimize calculation faults and get more accurate result, VBA (Visual Basic for Application), in other words Macros, are used in the stage of selection the best matched non-issuing firms. The following restrictions are imposed on the selection.

⁴ The 31st of December is used as the fiscal year-end in the study. Please see the subject of limitations of the study for detailed explanation.

- The matching non-issuing firms have higher market value than the issuing firm.
- The matching non-issuing firms do not employ a rights issue during the study period, which starts from the 1 year earlier than the announcement date and ends 3 years following the rights issue. The first benchmarking firm that has higher market value than that of the issuer is investigated. If the firm employs a rights issue during the study period, the second matching non-issuing firm is used. If the second firm issues too, the third matching firm is selected. This progress continues until finding the correct non-issuing firm during the study period. If there is no appropriate firm in that year, this rights issue is marked as “N/A” and not included in the BHAR calculation.
- Daily returns of the matching non-issuing firms should be available during the study period. In case of missing data, the next benchmarking firm is selected. This progress continues until finding the correct non-issuing firm. If there is no appropriate firm in that year, this rights issue is marked as “N/A” and not included in the BHAR calculation.

It is also made a point of picking matching firms from the same industry with issuers. However, since there are not enough firms in some industry, this rule cannot be applied to all matching firms. After performing the size benchmarking method, 542 benchmarking firms are obtained over the total 594 issuing firms (91%). 63% of them are in the same industry.

3.3.4.2. Market-to-Book Benchmark

The issuers are thereafter compared with matching firms in terms of market to book ratios. The market-to-book equity is computed as the ratio between the market value and the book value of a firm at the fiscal year-end. Matching firms, with the closest but higher M/B ratios at the year-end when the rights issue is employed, are preferred. One would expect that the M/B ratio of an issuer will increase after further shares are offered on account of increasing the market value of the firm.

The M/B benchmark methodology is similar to the size benchmarking described above. Raw data of the ISE firms is ranked by M/B ratios thereby separating them for each year. The spreadsheet that includes all sampling rights issues is used for selecting the best matched non-issuing firms. The same selection criteria are conducted, but this time, non-issuers with higher but the closest M/B ratio are preferred. If there is no proper non-issuing firm for the rights issue, it is marked as “N/A” and not included the BHAR calculation.

Matching firms from the same industry with issuers are chosen. However, since there are no enough firms in some industry, this rule cannot be applied to all matching firms. After performing the M/B benchmarking method, 490 benchmarking firms are obtained over the total 594 issuing firms (82%). 70% of them are in the same industry.

3.3.4.3. Size and M/B Benchmark

In addition to the two methods, size and market-to-book benchmark is also used in the study. The methodology is very similar to one of the M/B benchmarking. The matching firms are finally determined in terms of M/B ratios, among a list of non-issuing firms during the benchmarking period, with a market value $\pm 30\%$ of the issuing firm’s market values. Firms with the closest but higher M/B are selected for the benchmark. If the selected firm’s market value is not in the 30% range of the issuer’s market value, the rights issue is marked as “N/A” and not included in the BHAR calculation. The other selection criteria are imposed on this method as well. Thus, the best matching firms are listed on the same spreadsheet that includes all sampling rights issues. After performing the size and M/B benchmarking method, 370 benchmarking firms are obtained over the total 594 issuing firms (62%). 75% of them are in the same industry.

CHAPTER IV

EMPIRICAL RESULTS

This chapter is dedicated to show the empirical results of the dissertation. First of all, detailed descriptive results are given in order to comprehend the general landscape of the Turkish economy with respect to capital-raise events. The results derived from buy-and-hold return (BHR) approach are then explained. Finally, benchmarking results will cast a light on the subject of stock market reaction to rights issues in Turkey.

4.1. DESCRIPTIVE RESULTS

Descriptive results are provided including all issues by non-financial firms during the period of 1986-2007. In this manner, yearly distribution of all capital raise resources, the quantity of subsequent rights issues and mean size of issuing firms are examined in the following sections. Then the industry specific distribution of issuance methods of capital market instruments will be described.

4.1.1. Distribution of Equity Raise Methods

Table 3 reports a summary of studies on the yearly distribution of the quantity of capital raise methods, over the period of January 1986 – June 2007. Rights issues (included preemptive rights issues and rights restricted to shareholders); bonus issues (inc. internal resources and stock dividends), and merger & acquisition (M&A) are listed in the table in detail.

Table 3:
Distribution of Capital Raise Methods for Non-financial Firms
Over 21 Years (1986-2007)

Year	# of C.R. ¹	# of Rights issues				# of Bonus Issues				# of M&A	Total Off. ⁴
		Pre-Emptive	Non Pre-Emptive	Both	Total Rights issues	I.R. ²	S.D. ³	Both	Total Bonus Issues		
1986	25	19	0	0	19	23	0	0	23	0	42
1987	30	24	1	0	25	23	0	0	23	0	48
1988	36	31	0	0	31	29	0	0	29	0	60
1989	43	28	0	0	28	39	0	0	39	0	67
1990	57	40	1	0	41	51	0	0	51	1	93
1991	66	53	1	0	54	61	0	0	61	1	116
1992	61	42	1	0	43	60	0	0	60	0	103
1993	69	44	5	0	49	64	0	0	64	0	113
1994	100	70	8	0	78	93	0	0	93	0	171
1995	108	59	11	3	73	78	0	19	97	1	171
1996	111	39	5	5	49	65	4	32	101	2	152
1997	119	39	19	2	60	66	5	24	95	2	157
1998	111	40	11	3	54	65	7	19	91	3	148
1999	110	35	4	2	41	73	2	17	92	5	138
2000	124	35	26	3	64	64	4	20	88	4	156
2001	98	31	2	0	33	69	2	11	82	5	120
2002	109	34	8	0	42	65	3	11	79	7	128
2003	94	19	5	1	25	66	2	5	73	5	103
2004	96	21	5	0	26	65	1	7	73	3	102
2005	62	17	6	0	23	27	2	8	37	5	65
2006	56	13	7	0	20	20	4	13	37	4	61
2007	29	4	2	0	6	11	4	9	24	0	30
All	1,714	737	128	19	884	1,177	40	195	1,412	48	2,344
Usage Rate (%)		31.44	5.46	0.81	37.71	50.21	1.71	8.32	60.24	2.05	100

Notes:

This table reports the yearly distribution of different type of the capital raise methods, during the period of 1986-2007. Firms may conduct different issuance methods simultaneously in one offering, thus the total offering is obtained as 2,344 offerings whereas 1,714 capital raises exist during the given period. Rights issues are exercised with pre-emptive rule, non pre-emptive rule, or both of them. Bonus issues are exercised from internal resources, stock dividend, or mixed of them. Usage rate of capital raises is computed as $Usage\ Rate = Capital\ Raise / Total\ Offerings$ for each capital raise methods. For example, the usage rate for the pre-emptive rights issue of 31.44% is computed as $737/2,344$ with 737 being the total quantity of pre-emptive rights issues during the given period. The primary source of data is derived from the official website of the ISE (www.imkb.gov.tr).

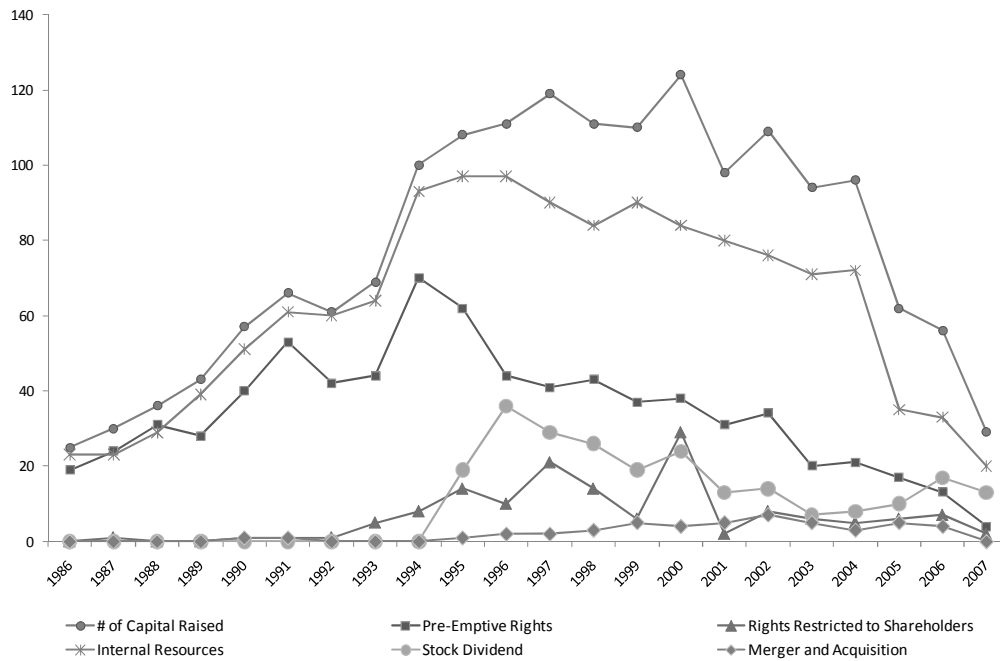
¹ Number of Capital Raise, ² Internal Resources, ³ Stock Dividend, ⁴ Total Offerings

It is clearly seen from Table 3 that bonus issues are the dominant method of raising capital in the Turkish market with the usage rate of 60.24% (There are 1,412 bonus issues among 2,344 offerings in total during the sample period). Turkish firms typically prefer to increase paid-in-capital by internal resources. The method of internal resources refers the capital gain from selling firm's assets, buildings, equipments, or other real estates. Usage rates reported in the table suggest that the capital gain from internal resources is the dominant method in Turkey with 50.21%. As of 1995, companies have been entitled to disseminate stock dividends thus this method become an alternative method while increasing capital with 1.71 percentages. Turkish corporations have declared stock dividends so as to convert the revaluation fund to paid-in-capital on account of acquiring acceptable debt to paid-in-capital ratio (Muradoglu & Aydogan, 2003). However, companies mostly prefer to employ two methods together with 8.32%.

The quantity of the capital raise of Turkish non-financial firms during the given time period is 1,714 offerings. Since the ISE firms have more discretion in choice of employing rights issues with bonus issues simultaneously; the quantity of the total observation (the total of offerings) is obtained as 2,344 offerings. Adaoglu (2006) pointed out the reason of why the ISE firms conduct different type of offerings together as of that firms want to attract more investors, and accordingly to increase liquidity of the trading. These simultaneous stock distributions, rights issues with bonus issues, are perceived by the investors as "sweeteners" in the Turkish stock market.

As there is no restriction on rights issues in Turkey regarding exercising the pre-emptive right, Turkish firms have a chance to opt pre-emptive rights issues or restricted rights issues (non-preemptive rights issues). In some cases, they choose to conduct both methods simultaneously in the same capital raises. For that reason, the number of total rights issue among non-financial ISE firms is 884, while 737 of them are only exercised with the preemptive rights, 128 of them are only conducted with the rights restricted to shareholders, and 19 of them are exercised with both methods together. The amount of the proceeds raised by 884 rights issues in the Turkish stock

market is about 2.91 billion TL (US\$ 1.97 billion)⁵. As it can be seen in the table, rights issues are the second method used by Turkish firms to raise additional equity. The ISE firms generally employ a rights issue with the preemption rule as indicated in table with 37.71 percentages. M&A is less credible method in Turkey with 2.05% when raising capital due to it is required to have much more capital and effort. Figure 5 highlights the distribution of the equity raise methods in terms of years, as given below.



Notes: The figure shows the yearly distribution of capital-raise methods, which are conducted by the non-financial firms traded on the ISE, from 1986 to 2007. Detailed information regarding the figure is provided in Table 3. The primary source of data is derived from the official website of ISE (www.imkb.gov.tr).

Figure 5: Yearly Distribution of Capital Raise Methods (1986-2007)

The history of the ISE can be divided into some sub-periods. The first period is 1986-1989, the early growth period of the ISE. In this period, a few numbers of companies are traded on the stock market thus barely capital raise events were recorded. The second period, 1990-1994, is defined as fast growing periods due to

⁵ This amount includes the proceeds from pre-emptive and restricted to shareholders rights issues by non-financial firms on the ISE during the period of 1986-2007.

the number of corporation and trading volume increased. Turkey has been faced with some political and economic crises especially in 1994 and 2001 so in the next period, 1995-2001, Turkish economy fluctuated (Yilmaz & Gulay, 2006). As illustrated in Figure 5, there is an upward trend of capital raises during this period, and reached the peak point in 2000 (124 quantity of capital raise per annum). In other words, companies have frequently issued equity during that period in order to cope with the volatile environment.

The regulation was put into effect in 1995 providing flexibility to companies to distribute stock dividends in order to raise their capital. Because of high inflation rate, bonus issues were mostly preferred in 1990s. The reason is that corporations are limited to issue debt up to 600% of paid-in-capital (Muradoglu & Aydogan, 2003). In the last period, 2002-2007, the amount of capital raise has a propensity to decrease due to relatively strength economic structure. After the beginning of 2000s where Turkey has relatively stable economical environment, there appears to be an augmentation of M&A in Turkey, where a combination of two or more companies requires a substantial capital (Kirkulak & Demirkaplan, 2008).

Table 4 shows that the number of non-financial firms traded on the Turkish stock market, according to the quantity of subsequent rights issues between the periods of 1986-2007. After separating financial firms from the ISE trading company list, the number of 252 non-financial companies was obtained in the sample. Among them, 33 firms have not exercised a rights issue during the sample period. Average market value of non-issuing firms is US\$ 197.08 million (in terms of 2007 data) and average trading year is 8.76 years on the ISE markets. 17 of non-issuing firms are traded on the national industrial and 12 are traded on the national services index⁶.

Total rights issues in the sample were made by 219 firms, of which 52 made only one issue, 31 made two, 31 made three, 24 made four, and 22 made five issues. 17 firms have exercised 10 or more than 10 rights issues. On average, companies have issued nearly 40 rights issues each year over the last 22 years.

⁶ For detailed information regarding the ISE industries, please refer to title of "Industry Specific Distribution of Rights issues".

Table 4:
Number of Subsequent Rights issues for Non-financial Firms in Turkey
(1986 – 2007)

Subsequent Rights issues	Number of Firms
0	33
1	52
2	31
3	31
4	24
5	22
6	18
7	10
8	10
9	4
10	13
10 +	4
All	252

Notes: This table indicates the quantity of subsequent rights issues by the number of 252 non-financial firms listed on the ISE, during the period of 1986-2007. There are 33 firms those have not exercised a rights issue over the given period. 52 firms employed one rights issue and 31 firms conducted two. The other issues are described in the table with the same conclusion.

As it could be interpreted from the quantity of rights issues, the ISE firms regularly employ rights issues, especially preemptive rights issues. Investigating the frequent issues, it is determined that average market value is US\$ 224.72 million (in terms of 2007 data), average trading year is 22.97 years, and mainly traded in the national industry index (12 of them). Maximum quantity of rights issues per firm is 13 and it is realized in the textile industry.

4.1.2. Mean Size of Issuing Firms

Table 5:
Summary Statistics for Non-Financial Issuers, 1986-2007

Year	No of Rights issues by Year	RIs % of Total	Mean Firm Size	Mean M/B	Mean Issue Size
1986	19	2.15	15,234	N/A	1,394
1987	25	2.83	57,300	N/A	2,552
1988	31	3.51	31,090	N/A	5,880
1989	28	3.17	382,868	N/A	17,468
1990	41	4.64	324,149	N/A	19,838
1991	54	6.11	521,915	1.95	39,172
1992	43	4.86	911,881	2.25	52,001
1993	49	5.54	3,229,690	4.63	63,230
1994	78	8.82	4,471,213	3.18	197,034
1995	73	8.26	5,354,810	2.21	180,812
1996	49	5.54	6,101,662	3.17	287,366
1997	60	6.79	37,477,210	4.73	771,860
1998	54	6.11	46,498,273	2.40	1,648,382
1999	41	4.64	215,107,319	5.73	3,365,527
2000	64	7.24	131,640,589	-9.26	3,474,964
2001	33	3.73	301,737,878	0.39	12,925,691
2002	42	4.75	62,419,242	-0.61	12,733,016
2003	25	2.83	39,273,863	0.55	10,988,152
2004	26	2.94	208,735,085	10.75	18,723,068
2005	23	2.60	53,469,935	-2.69	8,732,160
2006	20	2.26	37,920,860	2.03	12,992,656
2007 (until June)	6	0.68	179,138,647	2.76	30,392,755
All	884	100	TL 51,507,844	1.69	TL 3,295,554

Notes: The table, which indicates the average firm size, the average market-to-book ratio, and the average issue size, consists of 884 rights issues by non-financial firms listed on the ISE during the period of January 1986 – June 2007. The dramatic drop of values in the table is explained as the cause of economical crisis in 2002 and the change of Turkish currency in 2005 (in the 1st of January 2005, six zeros have been deleted from the Turkish currency and New Turkish Lira became the new currency unit of Turkey). The primary source of data is derived from the ISE official website (www.imkb.gov.tr). Market-to-book ratio is only available since 1991.

In order to give comprehensive information regarding Turkish rights issues, some descriptive statistics for the non-financial issuers are provided in Table 5 which shows that average size of issuers, average market-to-book ratio, and average issue

size between January 1986 and June 2007 in Turkey. Over the period, there have been 884 rights issues for non-financial issuers, raising average equity of TL 3.30 million or US\$ 2.17 million.

Although the average issue size by non-financial issuers has a tendency to increase, a dramatic drop in 2005 is due to the change of Turkish currency. In the 1st of January 2005, six zeros have been omitted from the Turkish currency and New Turkish Lira became the new currency unit of Turkey. However, average market value of firms, which is represented in Table 5, has a fluctuating trend. The reason of this trend would be associated with the structure of Turkish economy which always faced with financial crises.

Yearly distribution of market to book ratios for issuers is also specified in Table 5. M/B ratio depends on the analogy between the total value of shares outstanding and the book value of assets. This ratio gives some idea to investors in estimating the firm's. If the result is less than one, the firm is considered as undervalued. Similarly, the ratio more than one denotes the firm is likely to be overvalued (Landskroner et al., 2006). Although the rate of market to book ratio is based on firm's industries, but general conclusion is that the higher ratio is the better. A growing business is expected to have the ratio that is greater than one since it has an ability to generate more value with respect to its book value. A negative M/B ratio indicates that the firm's liabilities are more than its assets and it has a liquidity problem in the short-term period. The market to book value ratios for the sample ranged from a low of -9.26 to a high of 10.75 and a mean of 1.69. Because of poor data availability, market to book ratios for the first five years cannot be calculated and they are denoted as "N/A" in the table.

Table 5 also indicates the number of rights issues for each year for the non-financial issuers over the determined period. On average, companies issued 40 rights issues each year. In 1994, the number of 78 issues was the peak point for Turkish issuers. Another interesting point derived from the table is that Turkish firms raised more capital through rights issues between 1994 and 2002, where Turkey suffered economical and political turmoil. During the economic crisis, the value of the lira has plunged nearly 50 percent, foreign investors pulled out of the market, and weak

banking system nearly collapsed (Akyüz & Boratav, 2001). Thus firms eventually had difficulty in finding adequate monetary resource for their loans or investments. Consequently, there have been 494 rights issues in that period and this amount corresponds 56 per cent of total. After 2002, the average use of rights issues was recorded as almost 24 per year due to the stabilization of the Turkish economy.

Table 6:
Sample Segmented by Size of Firms

Segmentation	Number of Firms	Average Market Value	Total Number of Rights issues	Rights issues per Firm
Big	4	TL 5,572,302,349.50	16	4.00
Medium	21	TL 1,231,172,044.45	85	4.05
Small	157	TL 130,856,226.16	520	3.31
Total	182	TL 377,407,966.14	621	3.41

Notes: This table reports total number of rights issues and the percentage of rights issues per firm among the ISE non-financial firms having rights issues during the period of 1986-2007 (until June), segmented according to the size of firms.

The size of firms is derived from the list of issuers ranks depending on market values of firms in terms of 2007 data. The classification of *Big Firms* corresponds to 30% of firms which have the biggest market value in the list, and the classification of *Small Firms* corresponds to 30% of firms which have the lowest market value in the list. The remaining companies are determined as *Medium* on the table. Although there are 219 non-financial issuers in the sample, only 182 firms' data is available in the table (83% of total data is available). The percentages in the column of *Rights issues per Firm* are computed as the proportion between total number of rights issues and number of firms for the each segment. The primary source of data is derived from the ISE official website (www.imkb.gov.tr).

It is also useful to segment firms in terms of the market value which have increased their capital through rights issues and to investigate firms' characteristics in order to comprehend the Turkish market evidence. Accordingly, the ISE non-financial firms making rights issues are classified as *big*, *medium*, and *small* firms based on their average market values. In reference to raw data of market values of issuers in 2007, firms were ranged in a list in terms of market values in a descending sort. 30% of firms which have the biggest market values are segmented as *Big Firms* whereas 30% of firms which have the lowest market values are segmented as *Small*

Firms. The remaining companies correspond to *Medium Firms* classification in the study.

The results in Table 6 show that there are 4 companies in the big firm segmentation making 16 rights issues in total. The proportion of rights issues per firm is 4. 21 firms are in the medium segmentation having total 85 rights issues and having the proportion of 4.05 rights issues per firm. There are 157 number of firms classified as small firms making 520 numbers of rights issues in total. The average rights issue per small firms is 3.31. Although there are 219 non-financial issuers in the sample, only 182 firms are available. For that reason, 621 rights issues are reported in Table 6 with 3.41 average rights issues per firms for all segmentation.

According to these results, small firms have relatively lower proportion of rights issuing capacity than medium and big firms. In contrast to the findings, one would expect that small firms are mostly in need of capital. They might experience more difficulties to find external financing instruments, such as borrowing a loan, in order to sustain their operations. Thus the quantity of rights offerings is supposed to be much more for small firms than for larger firms. It is important to note that the majority of the firms in the ISE consist of small organizations that are mainly family owned companies. Because of the highly concentrated ownership structure of Turkish firms, the making decision of issuing additional equity might be difficult, therefore most of companies tend to prefer internal financing instead.

It is another interesting point in the table that only 4 companies hold substantial amount of the total market value. This finding supports the generalization that vast majority of the Turkish firms are small and medium enterprises (SME).

Table 7:
Industry – Specific Distribution of Capital Raise Methods

ISE Codes	# of Firms	# of Capital Raise	Rights issues				Bonus Issues				M&A	Total Offerings	C.R. Ratio (per firm)
			Preemptive Right	Right Restricted to Shareholders	Both	Total Rights issue	Internal Resources	Stock Dividend	Both	Total Bonus Issue			
XIKIU	14	73	32	8	2	42	50	2	5	57	1	100	5.21
XUHIZ	38	199	91	11	2	104	116	6	26	148	4	256	5.24
XUSIN	185	1,393	600	101	13	714	981	31	154	1,166	43	1,923	7.53
XUTEK	12	46	14	6	2	22	28	1	10	39	0	61	3.83
XYEKO	3	3	0	2	0	2	2	0	0	2	0	4	1.00
TOTAL	252	1,714	737	128	19	884	1,177	40	195	1,412	48	2,344	6.80

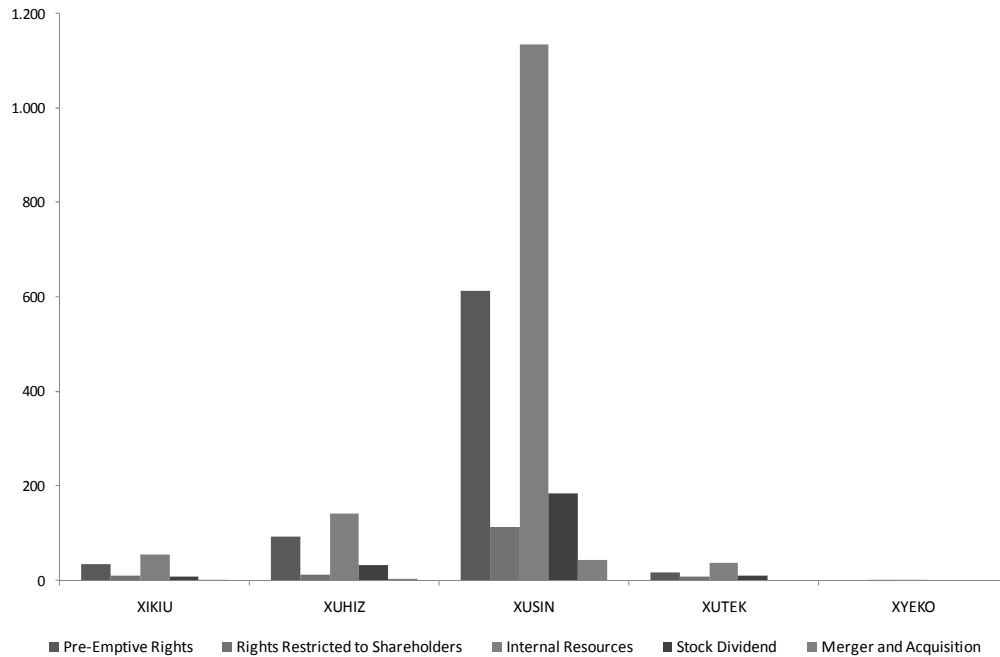
Notes:

The table reports the sample of 1,714 capital raises by 252 non-financial firms listed on the ISE, categorized by the industry, during to the period of 1986-2007. Capital Raise Ratio per firm, which shows the average offering per firm, is computed as *Capital Raise Ratio = Total C.R./Number of Firms*. For example, the capital raise ratio for XUSIN of 7.53 is computed as 1,393/185. The primary source of data is derived from the official website of ISE (www.imkb.gov.tr). The abbreviations of the ISE industry codes represent as follows: XIKIU: ISE Second National, XUHIZ: ISE National – Services, XUSIN: ISE National – Industrials, XUTEK: ISE National – Technology, XYEKO: ISE New Economy

4.1.1. Industry Specific Distribution of Rights issues

Table 7 reports the distribution of capital raise resources used by the ISE firms categorized by industry. The basic industry classification based on the subdivision of indexes of the ISE markets was used in the study. The stock market of the ISE is separated into different markets and different industry groups. National Market is the main and the biggest market of the ISE where stocks of companies that satisfy the national marketing criteria are traded. 235 companies out of 252 total numbers of non-financial companies in the sample are traded on the national market. National market companies are also segmented in terms of operating in different sectors, such as Industries (indicating as XUSIN), Services (XUHIZ), and Technology (XUTEK). There are 185 numbers of firms in the industrial sector, 38 firms are in the service sector, and 12 are in the technology sector. The Second National Market (XIKIU), including 14 companies, was established to trade stocks of companies which are determined as small and medium sized enterprises (SMEs) and failing to satisfy the listing criteria of the national market. The second national market provides an ample opportunity to supply funding from the capital market for the growth potential. Finally, the New Economy Market (XYEKO) is the market where newly established technology companies are traded. In the study 3 firms were trading in this sub-market division. The requirements of second national market and new economy market are less strict as compared to ones of national market (Annual Report of the ISE, 2009).

According to the table, 185 quantities of industrial companies traded on the national market have raised their capital 1,393 times. A company in this sector has referred any sales methods of capital market instruments more than 7 times, thus the ratio of capital raise per firm is measured as 7.53 percentages.



Notes: The figure shows the industry – specific distribution of 1,714 capital raises which are conducted by non-financial firms traded on the ISE over 1986 and 2007. Detailed information about the figure is provided in Table 7. The primary source of data is derived from the official website of the ISE (www.imkb.gov.tr). The abbreviations of the ISE industry codes represent as follows: XIKIU: ISE Second National, XUHIZ: ISE National – Services, XUSIN: ISE National – Industrials, XUTEK: ISE National – Technology, XYEKO: ISE New Economy

Figure 6: Industry – Specific Distribution of the Capital Raise Methods (1986-2007)

199 issues were made by 38 service firms in the national market and the ratio of capital raise per firm is measured as 5.24. Technology companies have the ratio of 3.83 due to 12 firms conducted 46 capital raise methods. Similarly, the second national market and new economy market have the ratio per firm 5.21 and 1.00 respectively.

As indicated in Table 7, the industrial firms have mostly raised capital in Turkey as compared to other firms in the different sectors. These findings can be interpreted that the industrial firms in Turkey are in the need of more capital and more affected from the economic recessions. Another point is that the industrial firms have the highest proportion of the rights issues usage with 727 times, but they have mostly raised capital via internal resources (1,135 observations).

4.2. BHR RESULTS

In this section, it is examined the pre- and post-issue stock price performance of firms employed rights issues on the Turkish stock market which is declared as an important representative of emerging markets. The results, deriving from buy-and-hold-return (BHR) approach, are delved into two groups; before the announcement and after the announcement.

Panel A of Table 8 presents the average BHRs for up to the 1-year pre-issue performance and Panel B reports the average BHRs for up to the 3-year post-issue performance. The buy and hold method involves the strategy that investors buy shares at the announcement day and hold them for a specific period, indicated in the table. Thus, BHRs are computed from the announcement day to the last day of the holding period.

After the announcement of a rights issue, issuers have negative and significant returns over holding periods. An immediate market reaction to rights issues is interesting. The following one week's abnormal returns (day +1: -0.90%, day +2: -0.99%, day +3: -1.39%, and week +1: -2.31%) show that rights issues are viewed as unfavorable market transactions. The results reported in Table 8 also provide the evidence of long-run underperformance following rights issues in Turkey. For example, the 1-year, 2-year, and 3-year periods of post-issue performances are -26.63, -48.08, and -65.41 percentages respectively. As a result, each of BHRs relative to the market index benchmark from 1 to 3 years is significantly different from zero at the .01 significance level, which is computed according to a standard t-test. The increasing negative market reaction following to the rights issue is observed. It is evident from the results, 85% of the issuing firms experience negative performance during the 3-year holding period.

Table 8:
The Average BHRs of Rights Issues by Turkish Non-financial Issuers over 1986-2007

Year	N*	PANEL A: PRE - RIGHTS ISSUES PERFORMANCE								PANEL B: POST - RIGHTS ISSUES PERFORMANCE									
		<i>SHORT TERM</i>								<i>SHORT TERM</i>					<i>LONG TERM</i>				
		1 year	6 mo.	3 mo.	1 mo.	1 week	3 days	2 days	1 day	1 day	2 days	3 days	1 week	1 mo.	3 mo.	6 mo.	1 year	2 years	3 years
1988	18	N/A	1.00	-4.79	-3.11	-0.41	-0.48	-0.54	0.19	-30.98	-31.29	-31.88	-30.46	-33.10	-36.88	-45.12	-128.29	-140.30	-110.82
1989	12	-18.86	-4.90	-0.08	3.62	-0.89	0.27	0.34	-0.14	0.50	0.08	1.03	0.94	-5.27	-2.25	-20.36	-39.15	-65.92	-71.56
1990	22	34.75	9.78	-0.36	0.19	-1.68	-4.67	-2.90	-1.21	-1.36	-2.12	-4.26	-5.29	-10.72	-19.69	-24.71	-31.58	-45.69	-64.26
1991	34	-23.27	21.54	1.10	-2.28	-1.05	-1.27	-1.50	-0.54	0.76	1.32	0.22	-0.50	-7.50	-12.95	-7.76	-14.60	-31.32	-61.76
1992	29	-18.33	-4.79	-2.59	-1.76	-2.37	-1.94	-0.98	-0.93	0.37	1.56	1.51	2.02	0.55	-4.64	-13.59	-18.68	-33.38	-58.77
1993	38	-7.42	8.61	9.83	5.17	-0.58	-0.45	-1.06	-0.89	1.33	2.86	3.11	0.58	0.45	-2.31	-13.87	-21.87	-27.20	-56.92
1994	66	9.19	26.30	20.75	12.52	8.09	4.66	2.94	0.67	-0.63	-0.83	-1.13	-3.47	-4.74	-2.53	2.84	-0.26	-43.43	-67.33
1995	54	31.26	24.24	18.69	2.74	3.37	0.18	-0.82	-1.35	-0.32	-1.44	-1.54	-1.83	-2.99	-2.99	-5.94	-36.07	-67.24	-82.01
1996	36	-37.24	-10.79	-0.49	-0.68	1.87	1.00	-0.15	0.43	-1.27	-0.92	-1.37	-2.55	-8.76	-14.57	-17.71	-36.15	-64.41	-80.19
1997	38	-32.36	-21.91	-5.99	-0.50	1.75	-0.30	-0.79	0.24	0.28	0.23	0.41	-0.24	-3.31	-2.94	-15.98	-28.32	-61.47	-74.18
1998	35	-3.96	12.96	8.32	6.06	1.05	-0.19	-1.09	-0.62	0.21	-1.30	-1.18	-3.99	-6.61	-7.71	-15.86	-45.73	-66.31	-80.26

(Continued on next page)

Table 8 (continued)

Year	N*	1 year	6 mo.	3 mo.	1 mo.	1 week	3 days	2 days	1 day	1 day	2 days	3 days	1 week	1 mo.	3 mo.	6 mo.	1 year	2 years	3 years
1999	32	-40.30	-22.15	-13.96	-3.26	0.07	1.05	0.81	0.82	-0.08	-0.67	-0.18	0.55	4.00	-9.89	-9.11	-1.31	-36.87	-50.19
2000	38	7.63	30.06	21.40	6.19	6.26	2.53	1.29	1.83	-0.35	0.25	-0.83	-2.02	-3.55	5.70	5.80	-25.57	-22.68	-27.96
2001	26	-37.67	-6.57	-8.25	0.65	2.68	2.61	2.22	0.93	3.02	4.01	0.44	-0.97	-8.65	-0.70	-3.06	-8.84	-33.19	-55.42
2002	35	-8.98	8.75	5.37	2.77	1.03	-0.67	-0.80	-0.37	1.26	2.13	1.74	0.57	-4.12	-5.47	1.18	-25.06	-49.24	-65.71
2003	21	-12.87	-8.54	6.60	5.03	0.19	-0.97	-1.43	-0.42	0.28	-0.55	-0.57	-0.86	-2.00	-0.22	-19.54	-39.36	-63.10	-67.62
2004	22	-28.21	-13.13	-3.97	0.61	-0.29	0.02	0.39	-0.15	-2.00	-3.25	-4.23	-3.92	-5.15	-12.43	-21.34	-31.88	-37.38	-51.92
2005	18	-39.81	-27.24	-15.00	-4.90	1.50	0.42	-0.12	-0.07	-0.44	-1.73	-1.65	-0.10	-2.19	-13.94	-11.32	-17.80	8.24	9.17
2006	16	-9.43	-0.56	6.12	-1.08	-2.12	-1.24	0.85	0.64	-0.87	-2.09	-1.31	-3.80	-10.94	-22.70	-6.73	-30.62	-15.06	N/A
2007	4	11.83	19.58	12.83	13.33	3.50	4.88	5.23	2.47	0.52	1.97	3.95	4.44	12.33	10.59	10.75	15.98	N/A	N/A
All	594	-10.39 ^a	4.96 ^c	4.98 ^a	2.56 ^a	1.78 ^a	0.46	0.01	-0.03	-0.90 ^b	-0.99 ^b	-1.39 ^a	-2.31 ^a	-4.98 ^a	-7.04 ^a	-10.12 ^a	-26.63 ^a	-48.08 ^a	-65.41 ^a

Notes:

Panel A of the table reports the equally weighted average buy and hold returns (ABHRs) of shares including short-term pre-issue performance up to the 1-year, and Panel B reports the equally weighted average buy and hold returns of shares including both short-term and long-term post-issue performance up to the 3-year. The sample size of the study is 594 rights issues by 219 non-financial firms listed on the ISE during the period of 1986-2007. Using the adjusted closing market price of the stocks, average buy and hold returns, for the period before the issue in Panel A and for the period after the issue in Panel B, are calculated from the announcement day to the last day of the holding period indicated in the table. After the announcement day, 1 week of the periods corresponds to 5 trading days, while 1 month corresponds 20 trading days. The significance of ABHRs is calculated according to t-statistics defined in Equation (6).

a Significant at 0.01 level b Significant at 0.05 level c Significant at 0.10 level

* N indicates the number of rights issues per year

The distribution of holding period returns in accordance with the classification of sub-industry codes of the ISE National Market shows some evidence. Companies listed on the Second National Market (indicated as XIKIU in Table 9) have acquired the worst market returns after the issue among the other sectors. Investors who purchase their shares on the announcement day and hold them over 3-year period lost their money. Industrial firms (XUSIN) raised equity capital through 497 rights issues among 594 rights issues in the sample (84%) and this resulted in 66% negative market performance over the three-year period. Companies in service industry (XUHIZ) had 61% negative returns after the issue. However, technology firms (XUTEK) had relatively better price performance with -48% stock return over the three-year period, employing 13 rights issues.

**Table 9:
Industry – Specific Distribution of Post-Issue BHR Results (1986-2007)**

Index Codes	# of Rights Issues	Post 1 year	Post 2 years	Post 3 years
XIKIU	14	-24.20	-49.35	-69.68
XUHIZ	70	-39.71	-52.04	-60.95
XUSIN	497	-24.88	-47.68	-66.34
XUTEK	13	-25.24	-39.67	-48.21
Total	594	-26.63	-48.08	-65.41

Notes:

The table reports BHR results by 252 non-financial issuers listed on the ISE, categorized by the industry, during the period of 1986-2007. The primary source of data is derived from the official website of ISE (www.imkb.gov.tr). The abbreviations of the ISE industry codes represent as follows: XIKIU: ISE Second National, XUHIZ: ISE National – Services, XUSIN: ISE National – Industrials, XUTEK: ISE National – Technology.

The results are also captured in Figure 7 which plots the average BHRs over a period of 48 months, starting 12 months before the announcement and ending 36 months after. The figure facilitates to comprehend the results of rights issues reported in Table 8 more clearly. An investor that buys a stock of the issuer on the announcement day and holds it over three years will eventually lose his/her money at almost 65 percent.

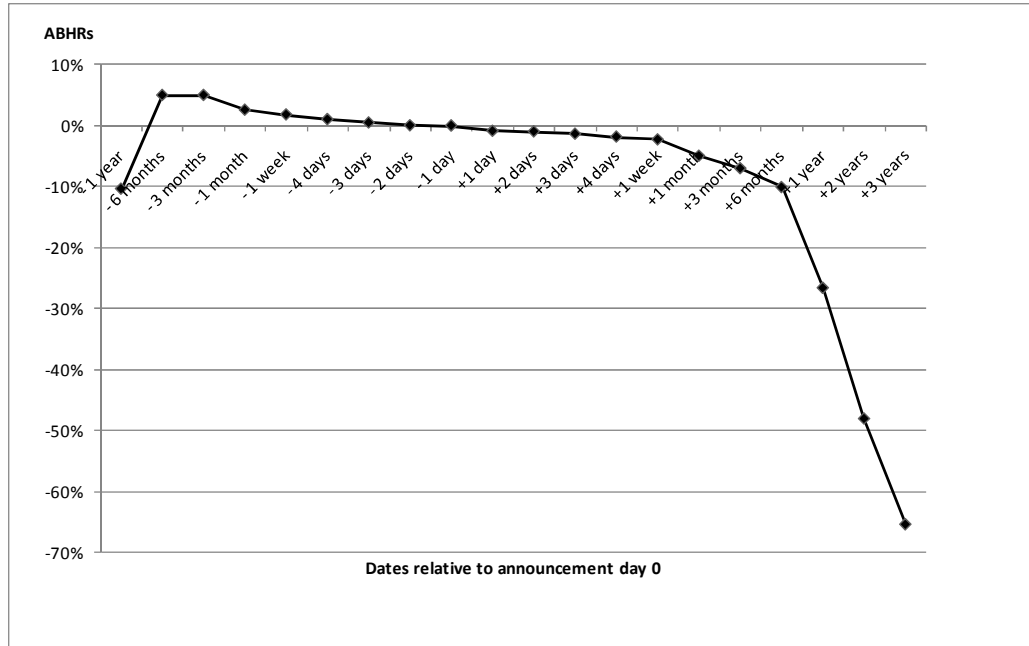


Figure 7: Average BHRs of Rights issues Made by the ISE Firms during 1986-2007

Notes:

The figure points out the equally weighted average buy and hold returns (BHRs) of shares including pre-issue performance up to the 1-year and post-issue performance up to the 3-year, of 594 rights issues by 219 non-financial firms listed on the ISE during the period of 1986-2007. Using the adjusted closing market price of the stocks, the average buy and hold returns are calculated from the announcement day ($t = 0$) to the last day of the holding period.

Consequently, the first hypothesis of this dissertation claiming that rights issues do not negatively affect returns of issuing firms in the post-issue period is rejected. Thus there is statistically sufficient evidence at 1% significance level for the long-term period after the issue that the announcement of rights issue has a negative effect after the announcement. Evidence from the Turkish stock market is also consistent with the findings from other markets especially in the US and the UK. For example, Iqbal (2008) tested the same hypothesis for the British industrial companies and found that overall response of the market to rights issues is negative and significant at the 1% level.

During the pre-issue period, holding period returns of issuers start with negative performance of -10.39% and this finding is significant at 1% level in one year prior to the announcement. The average returns increase dramatically in the 3-month period before the issue with 4.98% and this is significant at 1% level. These positive performances have a tendency to decrease until the one day before the issue and reached -0.03% (not significant). It is evident that firms have outperforming returns in the 6- and 3-month periods before the issue. However returns on the issuing firm's shares decrease considerably after these periods.

The second hypothesis related to pre-announcement period returns is not statistically rejected in terms of one-year holding period returns although there is sufficient evidence to reject the hypothesis according to the returns in 6-month, 3-month, 1-month, and 1-week periods. However, some positive returns before the announcement do not appear to support the hypothesis that Turkish firms make a rights issue in order to exploit overvaluation. When considering one-year period returns, the overvaluation exploitation hypothesis is less credible as there is no evidence of positive performance prior to rights issues. Based on the results of fluctuated returns over the one-year period prior to the issue and the assumption that the Turkish stock market typically consists of short-term investors, the overvaluation signal theory is not notable explanation of the findings. Besides, the daily economic and political situation is of greater importance for both companies and investors in Turkey.

**Table 10:
The Average BHAR Performance of Rights issues in Terms of Size Benchmark (1986-2007)**

Year	N*	PANEL A: PRE - RIGHTS ISSUES PERFORMANCE								PANEL B: POST - RIGHTS ISSUES PERFORMANCE									
		SHORT TERM								SHORT TERM					LONG TERM				
		1 year	6 mo.	3 mo.	1 mo.	1 week	3 days	2 days	1 day	1 day	2 days	3 days	1 week	1 mo.	3 mo.	6 mo.	1 year	2 years	3 years
1988	18	N/A	12.41	17.20	5.55	-0.78	0.15	17.57	-5.49	-35.34	80.83	87.06	101.02	165.89	105.01	210.41	-83.40	-67.30	-26.86
1989	12	-67.95	-17.79	-6.29	-2.80	-6.27	-3.66	-2.96	-0.36	-0.84	-1.67	0.75	4.25	-9.34	3.64	-8.64	-43.24	-1.62	14.49
1990	22	93.07	40.82	21.98	5.60	2.06	-3.34	-1.69	0.26	0.04	0.51	-2.72	-0.98	-9.83	-26.35	-54.54	9.93	28.72	8.17
1991	34	-0.25	25.01	14.53	3.76	-0.55	-1.93	-0.93	-0.39	1.18	1.80	0.60	-0.30	-5.05	-12.76	-1.28	-3.21	-20.57	-48.61
1992	29	10.85	-7.82	-8.70	-2.47	-4.65	-3.03	-3.40	-1.52	1.17	3.02	1.00	1.94	2.68	1.50	5.15	-6.58	-18.80	-80.01
1993	38	10.22	29.40	7.04	-6.92	-1.32	0.26	0.09	0.03	1.83	3.16	2.00	0.63	-5.28	-5.63	-20.49	-7.29	-85.45	-80.23
1994	66	42.68	30.74	28.68	16.48	11.02	7.46	3.37	1.36	1.59	2.44	1.00	-3.83	-10.66	-17.08	-31.74	-25.21	-2.42	-18.55
1995	54	-3.42	9.61	9.19	4.89	5.24	0.42	0.16	-1.99	-1.32	-2.36	-3.38	-3.87	2.56	3.99	6.09	-7.65	-6.53	-5.07
1996	36	-21.24	5.12	13.79	2.44	4.00	1.24	0.53	0.55	1.09	2.28	2.55	0.38	1.67	5.52	8.33	4.27	2.26	4.03
1997	38	8.15	1.25	8.00	3.99	4.14	2.79	3.18	1.97	0.47	0.64	0.33	0.02	3.14	6.07	7.00	9.53	3.16	2.81
1998	35	5.68	13.86	20.01	5.96	-2.16	-1.97	-2.24	-1.32	0.53	-0.55	-0.03	-2.36	-1.90	-2.62	5.02	-5.06	5.02	-1.43

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Table 10 (continued)

Year	N*	1 year	6 mo.	3 mo.	1 mo.	1 week	3 days	2 days	1 day	1 day	2 days	3 days	1 week	1 mo.	3 mo.	6 mo.	1 year	2 years	3 years
1999	32	-1.33	11.86	10.99	7.43	4.96	0.41	0.38	0.51	3.26	3.92	4.16	6.25	13.74	5.68	17.70	12.54	7.69	-11.17
2000	38	30.19	23.6	20.06	6.81	6.14	0.39	-0.47	0.72	-0.32	-0.17	-1.34	-3.27	-5.88	5.95	15.56	-15.54	16.09	25.46
2001	26	-7.30	22.04	10.12	10.46	2.18	2.88	2.72	1.84	2.56	3.59	0.52	-0.89	-7.97	-4.29	4.43	13.44	-1.95	-3.20
2002	35	3.63	17.12	12.33	9.24	5.11	2.17	1.91	2.48	1.16	3.09	2.66	0.62	-0.58	0.96	-0.11	-11.70	2.25	-2.34
2003	21	17.35	18.86	29.74	4.24	-1.52	-2.09	-1.38	-0.51	0.38	0.30	0.30	-1.75	-0.10	-2.05	-4.40	-18.32	-44.99	-21.50
2004	22	-6.84	-4.43	5.19	1.53	-0.22	-0.66	0.86	0.19	-1.85	-3.45	-4.54	-4.62	-5.89	-15.17	-20.86	-19.77	-17.30	-29.37
2005	18	-16.81	-10.59	-4.64	-7.43	-3.13	-1.28	-0.50	0.53	-0.34	-2.36	-2.31	-1.76	-8.11	-10.82	-3.42	-9.48	-29.35	-20.13
2006	16	18.00	8.65	10.03	2.14	-3.44	-3.98	0.07	1.47	-0.56	-1.08	0.17	-0.69	-11.73	-13.63	10.45	-17.30	42.09	N/A
2007	4	3.13	-4.29	8.31	-4.77	3.43	3.87	2.95	1.18	1.69	2.78	6.78	8.30	18.08	31.43	38.53	74.40	N/A	N/A
All	594	8.01 ^b	14.32 ^a	13.39 ^a	5.09 ^a	2.78 ^a	0.82	0.90 ^c	0.23	-0.23	3.10 ^a	2.53 ^b	1.71	1.76	-0.71	1.99	-8.97 ^b	-10.12 ^b	-15.04 ^a

Notes:

The table shows average buy and hold abnormal returns (ABHARs) for issuing non-financial companies in terms of size benchmarking methodology. Panel A of the table reports short-term pre-issue performance up to the 1-year while Panel B reports both short-term and long-term post-issue performance up to the 3-year periods. The sample size of the study is 594 rights issues by 219 non-financial firms listed on the ISE during the period of 1986-2007. Using the adjusted closing market price of the stocks, average buy and hold abnormal returns are calculated thereby averaging differences between issuing firms' BHRs and size benchmarked non-issuers' BHRs from the announcement day to the last day of the holding period indicated in the table. After the announcement day, 1 week of the periods corresponds to 5 trading days, while 1 month corresponds 20 trading days. The significance of ABHARs is calculated according to t-statistics defined in Equation (6).

a Significant at 0.01 level b Significant at 0.05 level c Significant at 0.10 level

* N indicates the number of rights issues per year

**Table 11:
The Average BHAR Performance of Rights issues in Terms of M/B Benchmark (1986-2007)**

Year	N*	PANEL A: PRE - RIGHTS ISSUES PERFORMANCE								PANEL B: POST - RIGHTS ISSUES PERFORMANCE										
		SHORT TERM								SHORT TERM					LONG TERM					
		1 year	6 mo.	3 mo.	1 mo.	1 week	3 days	2 days	1 day	1 day	2 days	3 days	1 week	1 mo.	3 mo.	6 mo.	1 year	2 years	3 years	
1988	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1989	12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1990	22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1991	34	-6.26	6.66	-19.88	-10.30	3.40	0.59	0.49	-1.55	1.50	2.45	0.34	0.35	0.90	-6.09	-13.91	-21.60	-33.58	-66.70	
1992	29	-11.31	10.95	14.12	2.08	-7.02	-6.80	-6.76	-5.97	1.45	3.81	0.63	-4.51	5.27	-0.68	-7.96	-31.37	-124.72	-118.83	
1993	38	16.53	22.67	-3.96	0.65	-3.45	-3.17	-2.74	-1.61	0.10	0.91	2.63	3.21	-4.29	-0.13	-7.61	13.78	-103.86	-86.09	
1994	66	107.09	23.09	15.72	8.84	4.89	2.38	1.46	-0.85	0.46	0.47	-1.37	-1.86	-4.24	-6.15	-48.14	104.3	-91.72	-81.57	
1995	54	-47.20	19.28	20.82	5.21	4.47	0.16	-1.18	-1.63	-0.09	-1.16	-1.47	-1.02	-2.37	2.57	7.20	-2.13	-4.43	-10.15	
1996	36	1.03	11.84	12.15	2.09	4.28	4.81	3.71	1.75	0.20	0.24	-0.45	2.11	-0.09	-1.89	-3.20	-3.75	-10.60	3.06	
1997	38	7.22	4.16	8.24	10.05	2.49	0.90	-0.25	-0.02	0.47	1.55	0.96	-0.15	-3.59	-1.53	-10.34	-21.77	0.44	-3.81	
1998	35	31.95	36.96	18.46	12.53	1.94	-0.14	-0.73	0.85	-0.57	-2.36	-0.56	-3.43	-2.59	-0.19	5.98	0.30	-11.37	-12.85	

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Table 11 (continued)

Year	N*	1 year	6 mo.	3 mo.	1 mo.	1 week	3 days	2 days	1 day	1 day	2 days	3 days	1 week	1 mo.	3 mo.	6 mo.	1 year	2 years	3 years
1999	32	9.47	11.97	1.28	-0.24	0.84	1.96	1.09	1.01	2.14	4.01	5.08	5.22	8.06	10.84	23.64	25.81	10.14	-4.71
2000	38	23.88	31.3	29.23	6.46	8.13	3.51	2.81	3.68	-0.38	-0.78	-2.09	-3.20	1.75	17.55	30.71	13.80	-17.74	13.84
2001	26	-4.82	3.53	-6.84	0.14	-0.22	-1.27	0.20	-0.23	2.94	4.46	0.97	-0.02	-5.49	-2.95	4.04	-32.53	-17.42	-8.67
2002	35	-28.57	-20.25	-2.46	0.97	2.23	0.02	-0.60	-0.24	1.02	0.79	0.02	-0.57	-6.15	-11.45	-15.46	-14.84	-10.22	-27.00
2003	21	-1.31	5.64	7.78	6.74	0.31	-1.04	-0.50	-0.56	0.10	-1.34	-0.25	-1.45	3.20	8.24	-3.49	-12.22	-13.82	-15.80
2004	22	23.53	8.89	11.98	10.90	5.83	4.85	1.03	0.73	-1.41	-2.54	-3.75	-3.10	-5.85	-11.34	-16.90	-26.20	-25.65	-29.69
2005	18	-9.31	-3.37	4.68	-3.85	2.20	1.57	0.54	0.45	-0.05	-0.60	-0.22	-1.63	-8.58	-13.34	-0.36	5.74	13.19	15.24
2006	16	0.92	7.62	6.46	-1.60	-2.41	-3.18	-0.94	0.06	-0.71	-3.39	-2.21	-4.22	-11.59	-19.51	0.79	-28.51	19.71	N/A
2007	4	49.66	48.17	32.28	6.35	-1.44	-0.46	2.05	6.34	2.44	3.77	4.53	5.79	15.50	21.74	43.72	68.61	N/A	N/A
All	594	12.82	13.45 ^a	9.28 ^a	4.18 ^a	2.39 ^a	0.71	0.11	-0.14	0.47	0.48	-0.09	-0.63	-1.87	-1.11	-4.59	-15.33 ^a	-27.93 ^a	-28.78 ^a

Notes:

The table shows average buy and hold abnormal returns (ABHARs) for issuing non-financial companies in terms of market-to-book benchmarking methodology. Panel A of the table reports short-term pre-issue performance up to the 1-year while Panel B reports both short-term and long-term post-issue performance up to the 3-year periods. The sample size of the study is 594 rights issues by 219 non-financial firms listed on the ISE during the period of 1986-2007. Using the adjusted closing market price of the stocks, average buy and hold abnormal returns are calculated thereby averaging differences between issuing firms' BHRs and M/B benchmarked non-issuers' BHRs from the announcement day to the last day of the holding period indicated in the table. After the announcement day, 1 week of the periods corresponds to 5 trading days, while 1 month corresponds 20 trading days. The significance of ABHARs is calculated according to t-statistics defined in Equation (6).

a Significant at 0.01 level b Significant at 0.05 level c Significant at 0.10 level

* N indicates the number of rights issues per year

Table 12:
The Average BHAR Performance of Rights issues in Terms of Size and M/B Benchmark (1986-2007)

Year	N*	PANEL A: PRE - RIGHTS ISSUES PERFORMANCE								PANEL B: POST - RIGHTS ISSUES PERFORMANCE									
		SHORT TERM								SHORT TERM					LONG TERM				
		1 year	6 mo.	3 mo.	1 mo.	1 week	3 days	2 days	1 day	1 day	2 days	3 days	1 week	1 mo.	3 mo.	6 mo.	1 year	2 years	3 years
1988	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1989	12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1990	22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1991	34	15.00	-61.11	-12.00	-18.27	-6.76	-3.88	-3.82	-0.88	3.38	12.06	7.26	7.42	9.15	13.01	10.10	-10.44	-49.32	-32.46
1992	29	-13.35	25.88	14.46	3.69	-10.83	-3.86	-0.67	-0.69	4.51	19.18	18.22	24.16	27.97	19.80	17.09	-8.97	19.63	-17.01
1993	38	-6.93	54.16	4.88	2.87	-4.38	-3.19	-2.55	-1.07	1.47	1.44	0.98	6.49	4.43	20.39	21.29	19.66	-36.24	-41.04
1994	66	42.38	18.31	17.50	4.74	7.61	5.39	2.82	0.59	0.41	1.29	-0.04	-3.41	-8.97	-15.88	-35.40	-18.8	-16.89	-75.78
1995	54	2.46	14.50	16.38	2.63	3.17	0.54	0.09	-0.98	-0.05	-0.95	-0.70	-1.07	-2.19	-3.03	-1.80	-12.03	-28.14	-14.56
1996	36	-3.95	5.08	8.69	5.97	7.38	5.00	0.91	1.22	-0.01	-0.28	0.54	-2.23	-4.46	-3.99	-7.03	-5.82	-0.92	1.77
1997	38	3.74	4.65	15.12	15.00	2.99	0.36	-0.31	0.11	-0.17	0.09	0.50	0.26	-1.21	-0.49	-4.76	6.54	2.84	7.34
1998	35	40.79	28.81	19.38	11.15	-1.65	-2.54	-3.13	-0.71	0.47	-0.46	-0.02	-0.59	-4.30	-8.64	-4.05	-13.13	-8.50	-12.24

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Table 12 (continued)

Year	N*	1 year	6 mo.	3 mo.	1 mo.	1 week	3 days	2 days	1 day	1 day	2 days	3 days	1 week	1 mo.	3 mo.	6 mo.	1 year	2 years	3 years
1999	32	-4.75	1.78	-2.71	4.01	2.32	2.63	2.30	1.72	1.79	1.12	0.66	1.76	3.73	7.35	9.34	10.53	-2.80	-14.97
2000	38	54.62	37.3	23.66	1.95	5.44	0.87	1.03	1.30	0.50	0.61	-0.47	-1.62	-4.09	-8.02	-16.29	-21.24	-12.66	2.48
2001	26	-16.21	-4.19	-7.46	3.97	2.89	1.79	2.33	1.89	2.73	3.94	-0.64	-2.97	-6.90	-11.26	-6.68	-30.73	-58.78	-43.40
2002	35	-28.63	-19.82	-0.56	2.41	3.69	2.32	-0.10	-0.25	1.40	2.20	2.09	1.06	0.04	-10.43	-6.15	-10.45	-5.14	-36.67
2003	21	0.09	-8.76	3.98	7.83	-3.10	-2.97	-3.15	-1.63	0.28	-0.47	0.71	0.84	-0.55	13.63	2.26	-3.31	-13.85	-13.74
2004	22	1.12	-9.59	-5.04	-0.35	0.04	-0.23	-0.77	-0.03	-1.63	-1.81	-2.40	-3.73	-6.88	-15.27	-18.37	-31.51	-35.90	-19.13
2005	18	-16.07	-20.28	-8.23	-5.10	2.30	1.96	0.22	0.57	0.60	-0.84	-1.24	-1.34	-3.17	-0.08	-3.00	5.71	4.69	-6.67
2006	16	-12.60	-19.73	-32.91	-12.71	-1.96	-3.36	-0.46	1.57	-1.16	-3.52	-2.71	-7.07	-12.33	-14.77	0.74	0.62	-1.99	N/A
2007	4	-14.97	-30.66	-5.65	14.19	3.82	5.37	8.08	4.26	2.37	3.59	5.85	10.36	-7.96	-55.84	-36.45	68.61	N/A	N/A
All	594	6.87	6.15	7.11 ^b	4.17 ^a	2.55 ^a	1.11 ^c	0.21	0.30	0.59	0.73	0.33	-0.49	-2.72 ^b	-4.35 ^c	-6.52 ^c	-8.32 ^b	-14.66 ^a	-19.76 ^a

Notes:

The table shows average buy-and-hold-abnormal-returns (ABHARs) for issuing non-financial companies in terms of size and market-to-book benchmarking methodology. Panel A of the table reports short-term pre-issue performance up to the 1-year while Panel B reports both short-term and long-term post-issue performance up to the 3-year periods. The sample size of the study is 594 rights issues by 219 non-financial firms listed on the ISE during the period of 1986-2007. Using the adjusted closing market price of the stocks, average buy and hold abnormal returns are calculated thereby averaging differences between issuing firms' BHRs and size & M/B benchmarked non-issuers' BHRs from the announcement day to the last day of the holding period indicated in the table. After the announcement day, 1 week of the periods corresponds to 5 trading days, while 1 month corresponds 20 trading days. The significance of ABHARs is calculated according to t-statistics in Equation (6).

a Significant at 0.01 level b Significant at 0.05 level c Significant at 0.10 level and

* N indicates the number of rights issues per year

4.3. BENCHMARKING RESULTS

Benchmarking results of this dissertation, also including BHRs for issuing firms and for non-issuers, are presented in two tables. Table 13 reports the mean and median buy-and-hold abnormal returns (BHARs) for up to 3-year period following the announcement. Table 14 reports the mean and median BHARs for up to 1-year period before the announcement. The tables also report size, market-to-book (M/B), and size and M/B matching firms' BHRs. The buy-and-hold abnormal returns are measured by which issuing firms' returns minus matching non-issuing firms' return for the holding periods indicated in the tables. The holding periods start from the announcement day, day $t = 0$, and continuous until the last day of the period.

In the long-term period after the issue, the average holding period abnormal returns based on size-benchmark fall from -8.97% (significant at .05) to -15.04% (significant at .01) for three years holding period (Table 13). When the BHRs of non-issuers matched by size are considered, they have a significant negative performance with -49.78% over the three-year period as well. The median of holding period abnormal returns derived from benchmarking issuers in terms of size comparison was computed as -2.98 but this findings is not significant in 3-year period whereas issuers and non-issuers have significant negative median of -77.09% and -71.86% respectively. Nevertheless, issuers' performance according to size benchmarking is respectively better than the findings using other benchmarking methods. The worst performance is derived from benchmarking issuers depending on market-to-book values (-15.33%, -27.93%, and -28.78% significant returns for 1-year, 2-year, and 3-year periods respectively). Similarly, the median of M/B benchmarking results has declined from -7.16% to -11.73% (significant at .10) over the 2-year and slightly increased to -8.42% (not significant) over the 3-year after the issue. However, non-issuing firms based on market-to-book ratios also have significant negative price performance in the long-term time period.

Table 13:
Long-Term and Short-Term Stock Performance Following Turkish Rights issues (1986-2007)

	Mean [Median] Returns %									
	<i>Short-Term</i>						<i>Long-Term</i>			
	1-day	2-days	3-days	1-week	1-month	3-month	6-month	1-year	2-year	3-year
Issuing Firms BHR	-0.90 ^b	-0.99 ^b	-1.39 ^a	-2.31 ^a	-4.98 ^a	-7.04 ^a	-10.12 ^a	-26.63 ^a	-48.08 ^a	-65.41 ^a
	[-0.72 ^c]	[-1.29 ^a]	[-1.99 ^a]	[-3.01 ^a]	[-6.27 ^a]	[-11.01 ^a]	[-17.41 ^a]	[-35.60 ^a]	[-62.33 ^a]	[-77.09 ^a]
Size-matched Firms BHR	-0.45	-3.79 ^a	-3.63 ^a	-4.02 ^a	-6.57 ^a	-5.96 ^a	-12.06 ^a	-18.53 ^a	-39.75 ^a	-49.78 ^a
	[-0.31]	[-0.59]	[-1.01]	[-0.95]	[-0.92]	[-7.00 ^a]	[-12.42 ^a]	[-30.19 ^a]	[-58.51 ^a]	[-71.86 ^a]
Size Benchmarking BHARs	-0.23	3.10 ^a	2.53 ^b	1.71	1.76	-0.71	1.99	-8.97 ^b	-10.12 ^b	-15.04 ^a
	[0.00]	[-0.15]	[-0.57]	[-1.44]	[-4.44 ^c]	[-4.45 ^c]	[-4.09]	[-7.12 ^c]	[-2.22]	[-2.62]
M/B-matched Firms BHR	-0.36	-0.44	-0.24	-0.70	-1.83 ^b	-4.01 ^b	-2.79	-10.58 ^a	-19.17 ^a	-34.83 ^a
	[-0.51 ^b]	[-0.66 ^b]	[-0.41]	[-1.01 ^b]	[-2.44 ^a]	[-5.03 ^a]	[-11.23 ^a]	[-26.59 ^a]	[-48.35 ^a]	[-64.76 ^a]
M/B Benchmarking BHARs	0.47	0.48	-0.09	-0.63	-1.87	-1.11	-4.59	-15.33 ^a	-27.93 ^a	-28.78 ^a
	[0.00]	[-0.53]	[-0.86]	[-2.11 ^a]	[-2.90 ^b]	[-3.88 ^c]	[-1.34]	[-7.16 ^c]	[-11.73 ^c]	[-8.42]
Size and M/B-matched Firms BHR	-0.52 ^c	-0.63 ^c	-0.48	-0.62	-1.24	-2.00	-3.46	-17.49 ^a	-34.78 ^a	-43.76 ^a
	[-0.70 ^b]	[-1.05 ^a]	[-1.03 ^b]	[-1.08 ^b]	[-2.48 ^b]	[-4.53 ^b]	[-11.13 ^a]	[-25.53 ^a]	[-52.32 ^a]	[-66.19 ^a]
Size and M/B Benchmarking BHARs	0.59	0.73	0.33	-0.49	-2.72 ^b	-4.35 ^c	-6.52 ^c	-8.32 ^b	-14.66 ^a	-19.76 ^a
	[0.00]	[0.00]	[-0.26]	[-1.60 ^b]	[-3.44 ^b]	[-4.40 ^c]	[-6.61 ^c]	[-6.36 ^c]	[-9.23 ^b]	[-8.92 ^c]

Notes:

This table demonstrates the mean [median] buy-and-hold returns (BHRs) and the mean [median] buy-and-hold-abnormal-returns (BHARs) over 3-year period following the announcement for 594 rights issues by the ISE non-financial firms during the period 1986 - 2007. BHRs of both issuing firms and non-issuing firms are calculated using the adjusted closing market price of the stocks from the announcement day to the last day of the holding period. BHARs are the returns of differences between the BHRs of issuing firms and the expected BHRs, which are the returns of non-issuing firms matched by size, market-to-book ratio, and size and M/B ratio criteria.

a Significant at 0.01 level b Significant at 0.05 level c Significant at 0.10 level. The significance of returns is calculated according to t-statistics defined in Equation (6).

Table 14:
Short-Term Stock Performance Before Turkish Rights issues (1986-2007)

	Mean [Median] Returns %							
	1-year	6-month	3-month	1-month	1-week	3-days	2-days	1-day
Issuing Firms BHR	-10.39 ^a	4.96 ^c	4.98 ^a	2.56 ^a	1.78 ^a	0.46	0.01	-0.03
	[-31.42 ^a]	[-8.36 ^a]	[-3.02 ^c]	[-0.74]	[0.59]	[0.05]	[-0.45]	[-0.35 ^c]
Size-matched Firms BHR	-20.18 ^a	-9.26 ^a	-7.51 ^a	-1.85 ^c	-0.91	-0.38	-0.94	-0.25
	[-33.46 ^a]	[-14.98 ^a]	[-9.17 ^a]	[-2.77 ^a]	[-0.58]	[-0.73 ^c]	[-0.68 ^c]	[-0.39]
Size Benchmarking BHARs	8.01 ^b	14.32 ^a	13.39 ^a	5.09 ^a	2.78 ^a	0.82	0.90 ^c	0.23
	[2.28]	[10.67 ^a]	[8.04 ^a]	[2.21 ^c]	[1.03]	[0.32]	[0.09]	[0.00]
M/B-matched Firms BHR	-22.79 ^b	-8.63 ^a	-4.34 ^b	-1.14	-0.51	-0.22	-0.24	0.10
	[-35.69 ^a]	[-17.33 ^a]	[-5.71 ^a]	[-1.97 ^b]	[-0.96 ^c]	[-0.42]	[-0.26]	[-0.32]
M/B Benchmarking BHARs	12.82	13.45 ^a	9.28 ^a	4.18 ^a	2.39 ^a	0.71	0.11	-0.14
	[5.27]	[9.48 ^b]	[6.42 ^a]	[2.57 ^b]	[1.25 ^c]	[0.38]	[-0.16]	[0.00]
Size and M/B-matched Firms BHR	-21.63 ^a	-5.81	-3.03	-1.40	-0.14	-0.22	0.01	-0.09
	[-35.65 ^a]	[-13.09 ^a]	[-6.54 ^a]	[-2.33 ^c]	[-0.67]	[-0.43]	[-0.35]	[-0.45 ^b]
Size and M/B Benchmarking BHARs	6.87	6.15	7.11 ^b	4.17 ^a	2.55 ^a	1.11 ^c	0.21	0.30
	[-0.17]	[6.33]	[7.07 ^b]	[3.63 ^b]	[0.81]	[0.47]	[0.00]	[0.00]

Notes:

This table demonstrates the mean [median] buy-and-hold returns (BHRs) and the mean [median] buy-and-hold-abnormal-returns (BHARs) before the announcement up to the 1-year for 594 rights issues by the ISE non-financial firms during the period 1986 - 2007. BHRs of both issuing firms and non-issuing firms are calculated using the adjusted closing market price of the stocks from the announcement day to the last day of the holding period. BHARs are the returns of differences between the actual BHRs, which are the returns of issuing firms, and the expected BHRs, which are the returns of non-issuing firms matched by size, market-to-book ratio, and size and M/B ratio criteria. The significance of returns is calculated according to t-statistics defined in Equation (6).

a Significant at 0.01 level b Significant at 0.05 level c Significant at 0.10 level

In the case of size and market-to-book benchmark method, the mean of abnormal returns has declined to -8.32%, -14.66%, and -19.76% respectively, and the median price has declined to -6.36%, -9.23%, and -8.92% respectively during the first, second, and the third years after the issue. All results are measured as significant at various levels of significance, using a standard t-test. Identically, the same trend is observed during the post-issue period for stocks of non-issuers which are used for benchmarking issuers in terms of size and M/B criteria, with the mean of -43.76%, significant at 1% level and the median of -66.19%, significant at 1% level over the three-year period.

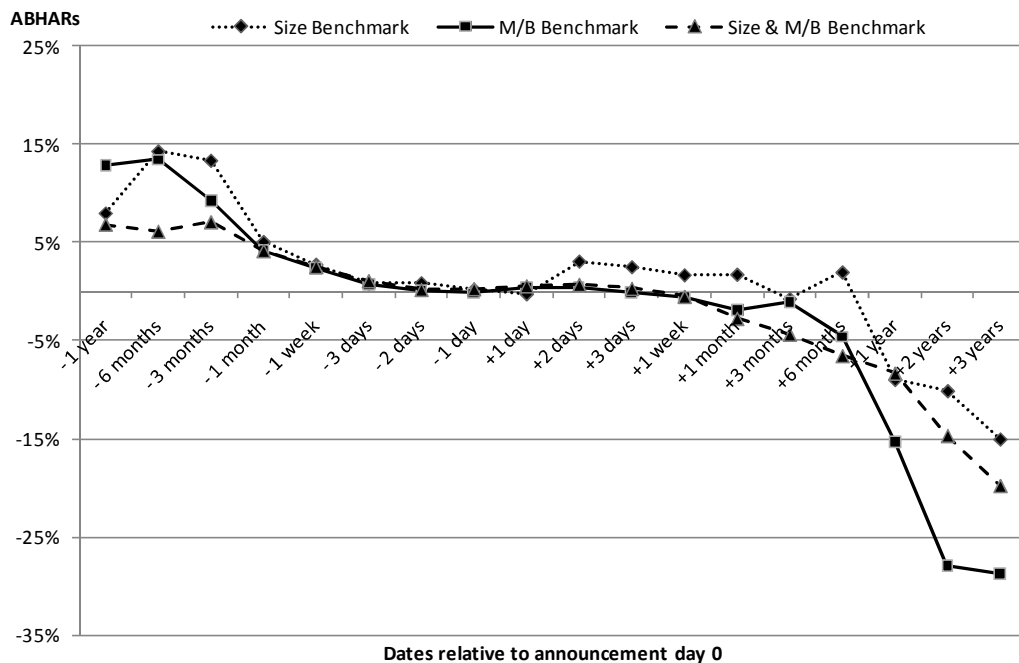


Figure 8: Average Buy-and-Hold Abnormal Returns of the ISE Firms

Notes:

The figure shows the average buy-and-hold abnormal returns (ABHARs) of non-financial ISE firms over the period 12 months before to 3 years after their announcements of rights issues during 1986 – 2007. Returns are measured from the announcement day $t = 0$ to the last day of holding period. The results of three benchmarking methods (size, M/B, and size & M/B benchmarking) are shown in the figure separately.

Across the three benchmarks, the lowest level of underperformance was found when benchmarking depends on market-to-book criteria. It is observed that the relative price over 3 years after the issue declines by almost 29%, which is

significant at 1%. The issuers' holding period returns over 3 years are nearly 65% below relative to the announcement day. However, this is less than -49.78% of size-matched firms' holding period returns which is the worst performance among three non-issuing firms' returns benchmarking performance. Figure 8 illustrates the average abnormal returns across three benchmarks over the full 48-month period. The results suggest that it will be not logical to hold the shares of issuers for a long time period since returns generally show a decreasing trend.

No significant initial returns are observed with the exception of 2- and 3-days returns based on size benchmarking. The first day buy-and-hold-abnormal-returns are higher, but not significant, based on size and market-to-book benchmark (0.59%). Table 13 reports significant positive price performance in some periods after the issue in the size-benchmark, such as 3.10% and 2.53% on 2-days and 3-days respectively. Notwithstanding, issuers have significant negative abnormal performance over the three-year periods for all the benchmarks. The findings, therefore, prove that the third hypothesis that claims there is no difference between the performance of issuers and the performance of matched non-issuers can be statistically rejected.

The results also support previous findings that documented poor share price performance of issuers as compared to those of non-issuer firms. For example, Slovin et al. (2000) found a negative market reaction to both insured rights issues and uninsured rights issues, with stock returns of -2.9% and -5% respectively, for two-day average abnormal returns of British firms. Ho (2005) found the equal-weighted holding period abnormal return over the 3-year period is -19.50%, thereby using size & industry matched firms in the UK. He also reported positive pre-offer equal-weighted BHAR of 3.75% (insignificant) for the period of 36 months prior.

Finally, the sample is examined for any evidence of abnormal performance prior to rights issues. In the context of signaling theory, firms are likely to employ rights issues so as to exploit overvaluation. Depending on the theory, one could expect that firms have relatively high positive returns during some periods before the announcement of a rights issue. Abnormal holding period returns, for example one-year return, are computed under the assumption that issuing firms' shares were

purchased at 12 months prior and held to the last day before the issue. Table 14 reports the ABHARs over the one-year period prior to the announcement of rights issues for the three benchmarks and the ABHRs for issuers and non-issuers as well. Abnormal returns show that the issuers have substantial positive market performance in the pre-issue period consistent with all three benchmarks. For example, using size matched firms the average abnormal return starts from 8.01% (significant at 5%), reaches the top point in 6-month period before the issue as 14.32% (significant at 1%). Finally, the returns decrease to 0.23 the last day before the issue. ABHARs deriving from the market-to-book benchmark are 12.82 over one year, 13.45 (significant at 1%) over 3 months and -0.14 on the last day before the issue. The average holding abnormal return based on size and M/B benchmark dramatically increase over 3 months as 7.11% and it is significant at 5% level. On the other hand, the average holding period returns (ABHRs) for three groups of non-issuers are less than 20 percentages over one-year. In the light of the above findings, there are statistically sufficient evidences to reject Hypothesis 4 of no difference between issuing and non-issuing firms in the pre-announcement period.

It appears that the pre-issue overperformance and the post-issue underperformance of the issuing firms are largely associated with significant and more negative performance of non-issuers. According to this finding, it will not be plausible to affiliate negative post-issue abnormal returns on the issuing firms' shares with the phenomenon of negative market reaction through rights issues. Identically, the average positive abnormal returns of issuers do not support previous studies that have reported firms appeared to be making rights issues to exploit overvaluation.

Considering the Turkish economic structure, the findings would be explained as the influence of economic and political turmoil in Turkey provides more distinctive negative long-term returns than the decision of a rights issue. Volatile economic structure on the Turkish stock market is not suitable for investors to hold a stock for the long-term period. Thus, there is an economically meaningful reason for the investors to respond to the instant market conditions rather than the implementation of rights issues. In addition, results may lead to an evaluation that Turkish investors are familiar with frequent issuers since there are 40 rights issues

per year. As Adaoglu (2006) pointed out, the ISE's institutional characteristics do not have the overvaluation signal on the account of the fact that full subscription, short-lived information asymmetry, and the setting the offer price on the announcement date are present. For that reason, Turkish investors typically prefer short-term investment strategies.

To interpret aftermarket benchmarking results more clearly, wealth relatives of stocks are measured as a performance of issuing firms over 3-month, 6-month, 1-year, 2-year, and 3-year periods after the announcement of rights issues. Wealth relatives are computed as follows;

$$WR_T = \left(\sum (1 + R_{i,T}) \right) / \left(\sum (1 + R_{B,T}) \right) \quad (7)$$

Where WR_T is the wealth relative for T period, $R_{i,T}$ is the holding-period return on issuing firm i from the announcement day until the end of T period, and $R_{B,T}$ is the holding-period return on a matching firm B over the same holding period. Wealth relatives are specified as a ratio of average gross returns but not percentages of ratios.

As a result of the calculations, if a wealth relative is found as greater than 1.00, the output is interpreted as an issuing firm outperforms as compared to matching firms. By the same token, a wealth relative of less than 1.00 denotes that issuing firm underperforms with respect to matching firms' performance (Levis, 1993; Ritter, 1991).

Wealth relatives vary according to the holding periods and benchmarking type used for assessing performance of issuers. It is evident that wealth relatives of issuers are substantially less than one for almost every period in Table 15, indicating that issuing firms have lower returns than their counterparts of non-issuers. The exception is 6-month wealth relative depending on size-matched firms' returns with slightly outperformance of 1.02 wealth relative.

Table 15:
Wealth Relatives Following Turkish Rights issues (1986-2007)

	Wealth Relatives (WR)				
	3-month	6-month	1-year	2-year	3-year
Acc. to Size-matched Firms	0.99	1.02	0.90	0.86	0.69
Acc. to M/B-matched Firms	0.97	0.92	0.82	0.64	0.53
Acc. to Size and M/B-matched Firms	0.95	0.93	0.89	0.80	0.62

Notes:

The table shows wealth relatives of issuing firms according to size, market-to-book, and size and M/B benchmark over 3-month, 6-month, 1-year, 2-year, and 3-year periods following the announcement for 594 rights issues by non-financial firms listed on the ISE during the period of 1986-2007. The wealth relatives are calculated as $(1 + \text{mean BHAR of issuing firms}) / (1 + \text{mean BHAR of matching firms})$, as defined in the equation (7). For example, the 3-year wealth relative of 0.69 against the size-matched non-issuers was calculated as $(1 + (-65.41)) / (1 + (-49.78)) = 0.69$.

Wealth relative over 3-year period is relatively high for the size benchmarking (0.69) in comparison to size-and-M/B benchmarking and M/B benchmarking respectively (0.62 and 0.53). In other words, the worst performance of issuers is obtained when M/B-matched firms are used for benchmarking. This finding can be also translated into a terminal wealth of TL 0.53 for investors in issuing firms compared with TL 1.00 for investors in non-issuing firms matched by market-to-book ratio⁷. It is also interesting to note that wealth relatives for shorter periods are almost 1.00. That is, differences on price returns between issuers and non-issuers are closer in the early period of the announcement but wealth relative ratios based on three-year holding period returns are notably lower than one.

⁷ The terminal wealth result was retrieved from the interpretation of Ngatuni, et al. (2007)'s study.

LIMITATIONS OF THE STUDY

There are some limitations in the study while acquiring BHAR results. Before explaining the conclusion, it will be useful to define the limitations of the study clearly in this section.

Although there are 884 rights issues for the for the non-financial firms listed on the ISE in the period of January 1986 to June 2007, the sample size of the dissertation is only obtained as 594 rights issues due to poor data availability. In other words, 33% of rights issues are excluded from the sample on account of the lack of data.

Firms have different accounting year-ends, which may influence the calculation of market-to-book ratios and consequentially the calculation of BHARs. Because some firms issue their balance sheets or other financial reports in April or in May, investors are informed of the firm's financial condition in these months. It is normally expected that the market reaction would be shaped after the release of reports. However, the calendar year-end is used in the study as the accounting year-end and the differences in the accounting year-end are ignored. This assumption would be interpreted as another implication of the dissertation.

Empirical results derived from the study have some limitations. As the ISE firms may employ a rights issue with a bonus issue, the market reaction is affected by not only the announcement of rights issues but also the announcement of bonus issues. The findings in the study are therefore affected by both of two methods simultaneously. Further studies may eliminate the issues, which rights issues and bonus issues are employed together, due to Adaoglu (2006) states that simultaneous distribution with bonus issues ("sweetened") turns the negative reaction of plain distribution of rights issues ("unsweetened") into a positive one.

CONCLUSION

In this study of dissertation, the pre- and post-issue performance of firms, which increase their paid-in-capital by issuing new shares through a rights issue in the Turkish stock market, was examined. While there are several studies in developed stock markets, especially in the US and in the UK, there is a limited amount of researches in the emerging markets on the subject of rights issues. Thus, the dissertation provides one of the unique studies that analyzed the stock price performance of issuers, evidence from the Istanbul Stock Exchange (ISE). The Istanbul Stock Exchange is a representative case for the study in emerging markets due to development of a stock market. Furthermore, the Turkish stock market is a favorable environment to test market reaction towards rights issues due to rights issues are the dominant method of additional equity issuance. The study also differs from previous ones through having a long-run stock performance analyses, from January 1986 to June 2007. In contrast, prior studies generally use relatively shorter periods in the sample. To evaluate the results, buy-and-hold returns (BHR) approach is employed on excess returns of the stocks. The findings facilitated to understand more about Turkish economic structure.

Data set of the study consists of listed companies that raise capital through rights issues. Financial firms on the ISE are excluded from the sample. 594 rights issues out of 884 (67% of the total) rights issues for non-financial issuers are investigated over 3 years following equity rights issues and 12 months prior period before the issues. Tables and reports that retrieved from the official website of ISE (www.imkb.gov.tr) and the website of Analiz Investment Research (www.analiz.com) were used to compute holding period returns and holding period abnormal returns.

One of the most widely accepted finding in the field of rights issues is that the announcement of the rights issue generates a negative market reaction, especially in the US and the UK, whereas positive returns following the issue was reported in the rest of Europe and in some emerging markets. Two main theories, asymmetric information between insiders and outsiders emerged by Myers & Majluf (1984) and

free cash flow theory emerged by Jensen (1986), were used to explain that the signal of overvaluation exploitation is the cause of negative market reaction. Studies also reported a positive abnormal market performance before the issuance of additional shares. One explanation of negative market reaction is that firms make a rights issue when their shares are overvalued.

The findings of this dissertation show clear evidence of long-term underperformance following rights issues in the Turkish stock market over the period of 1986 to 2007. Similar findings report that Turkish companies making a rights issue have suffered significant negative performance over the three-year period after the announcement. To analyze market reaction, the buy-and-hold returns (BHRs) of the issuing firms are firstly examined. The holding period returns, computed from the announcement day to the last day of the holding period, involves the strategy in which investors buy shares at the announcement day and hold them for a specific period. After the announcement of a rights issue, issuers have negative and significant returns over all the periods. Post-issue performances over the 1-year, 2-year, and 3-year periods are 26.63, -48.08, and -65.41 percentages respectively and significant at 1% level. It is evident from the results that investors who buy a stock of the issuer on the announcement day and hold it over three years will eventually lose his/her money at almost 65 percent. Companies listed on the Second National Market have acquired the worst market returns over 3-year period after the issue with -70%. However, technology firms had relatively better price performance with -48% over the three-year period. On the other hand, firms have outperforming returns in the 6- and 3-month periods before the issue although holding period returns over one year prior to the announcement is measured as -10.39%.

Second, to analyze issuing firms' market performance, the three benchmarking methods are used based on size, market-to-book ratio, and size and market-to-book ratio. The buy-and-hold abnormal returns (BHARs) are measured by which issuing firms' returns minus matching non-issuing firms' returns for the holding periods. The holding periods start from the announcement day, day $t = 0$, and continuous until the last day of the period. Across the three benchmarks, the lowest level of performance was found when benchmarking issuers in terms of market-to-

book ratio criteria and observed that the relative price over 3 years after the issue declines by almost 29%. This finding can be also translated into a terminal wealth of TL 0.53 for investors in issuing firms compared with TL 1.00 for investors in non-issuing firms matched by market-to-book ratio. The average holding period abnormal returns based on size-benchmark and size and market-to-book benchmark are -15.04% and -19.76% respectively for the three-year holding period. All results are significant at 1% level.

In the context of signaling theory, firms are likely to employ a rights issue so as to exploit overvaluation, thus the sample is also examined for any evidence of abnormal performance prior to rights issues. Abnormal returns show that the issuers have substantial positive market performance in the pre-issue period consistent with all three benchmarks. For example, using size matched firms the average abnormal return starts from 8.01% (significant at .05), reaches the top point in 6-month period as 14.32% (significant at .01), and go down to 0.23 at the last day before the issue. Similar patterns are found on the abnormal returns based on the other two benchmarks.

Finally, holding period returns (BHRs) on matched non-issuers are analyzed in order to clarify the relationship between the decision of a rights issue and following underperformance. The findings are also interesting. The non-issuers matched by size have a significant negative performance with -49.78% over the three-year period. Similarly, the BHRs of non-issuing firms based on market-to-book ratios and based on size and market-to-book ratios are -34.83% and -43.76% respectively.

In the light of the findings, issuers have substantial positive market performance during the pre-issue period and long-term underperformance. Although Armitage (1998) found that firms employ rights issues when they are overvalued, for both the UK and the US offerings, it is not applicable to the case of Turkish rights offerings. It will not be plausible to associate negative post-issue abnormal returns on the issuing firms' shares with the phenomenon of negative market reaction through rights issues. One possible explanation for the observed pattern in the market reaction to rights issues could be relevant to more negative and significant

performance of non-issuers. Considering the Turkish economic structure, the findings would be explained as the influence of economic and political turmoil in Turkey provides more distinctive negative long-term returns than the decision of a rights issue. Due to these reasons, significant negative returns reported for the non-issuing companies in the long-term period provide an example to prove the theory.

One distinct characteristics of the Istanbul Stock Exchange is the frequency and volume of the rights issues. Investors have become familiar with frequent rights offerings since the companies have issued nearly the number of 40 rights issues each year over the last 22 years. Continuous issuance might also mitigate the investors' reactions. The frequency of rights issues also shows that managers do not time equity issues so as to exploit the overvaluation of stocks. The reasonable explanation of the equity issue is that managers are more eager to generate the liquidity for the firms. In an inflationary environment, the liquidity bears greater importance rather than exploitation of overvaluation. This could be interpreted as the reason of high frequency of equity issuance in Turkey.

Furthermore, Turkish market investors are typically characterized as short-term investors (Adaoglu, 2006). That is, volatile economic structure on the Turkish stock market is not suitable for investors to hold a stock for the long-term period. Thus, there is an economically meaningful reason for the investors to respond to the instant market conditions rather than the decision of a rights issue. Previous developments about the companies slightly affect the long-term underperformance of the shares. For example, Adaoglu (2006) has found that positive market performance of "sweetened" rights offerings is only remarkable in the announcement year not in the following year. Due to the lack of the capturing the full value of the market conditions, investors are much more concerned about daily performance of the market.

As a result, there is no clear evidence supporting the signaling of overvaluation-exploitation in Turkey as compared to the Europe and the US where negative and significant long-term returns stem from the negative market reactions to right issues. In his paper, Adaoglu (2006) explained the negative market reaction as the unfavorable information signaling effect rather than the signal of overvaluation.

The ISE's institutional characteristics do not have the overvaluation signal on the account of the fact that full subscription, short-lived information asymmetry, and the setting the offer price on the announcement date are present.

Therefore, it is more reasonable to invest in a stock for a short-term period rather than expecting positive returns from the long-term investment strategy.

APPENDIX

The entire list of 594 rights issues, which is scope of the dissertation, and matched non-issuing firms determined according to size, market-to-book (M/B) ratio, and size & M/B ratio are listed in the appendix.

Issuer Firm	Rights issue Date	Size Matched	M/B Matched	Size & M/B	Issuer Firm	Rights issue Date	Size Matched	M/B Matched	Size & M/B
ABANA	11.01.1993	DURDO	N/A	N/A	KARTN	19.06.1995	BRISA	CELHA	GOODY
ABANA	20.10.1993	DURDO	N/A	N/A	KAVPA	30.07.1990	N/A	N/A	N/A
ABANA	09.05.1994	KOTKS	N/A	N/A	KAVPA	12.09.1991	N/A	N/A	N/A
ADANA	18.12.1991	PETKM	DERIM	N/A	KAVPA	01.06.1992	N/A	N/A	N/A
ADANA	23.09.1992	BAGFS	BAGFS	N/A	KAVPA	23.02.1993	N/A	N/A	N/A
ADANA	27.08.1993	SISE	PARSN	N/A	KAVPA	21.06.1995	N/A	N/A	N/A
ADANA	13.10.1995	GOODY	CELHA	ECYAP	KENT	02.09.1991	KONYA	KONYA	N/A
ADANA	31.05.1996	VESTL	CELHA	ECILC	KERVT	03.08.1995	SNPAM	GOODY	N/A
ADANA	26.08.1997	AYGAZ	UCAK	ALCTL	KERVT	19.03.1998	CLEBI	KARTN	YATAS
ADANA	29.05.1998	MRSHL	EMKEL	CMENT	KIPA	08.12.1999	BOSSA	AFYON	CLEBI
ADANA	07.06.1999	HURGZ	OYSAC	HURGZ	KIPA	18.10.2000	TATKS	BAGFS	BAGFS
AFYON	21.01.1993	ANACM	N/A	N/A	KLBMO	26.08.1991	DERIM	TBORG	DURDO
AKALT	02.11.1990	PETKM	N/A	N/A	KLBMO	15.06.1994	DURDO	ASLAN	PARSN
AKALT	25.08.1992	TBORG	ASLAN	N/A	KLBMO	04.09.1995	PARSN	FMIZP	DURDO
AKALT	30.07.1993	SISE	PARSN	N/A	KLBMO	12.03.2001	KERVT	MIGRS	KENT
AKALT	14.09.1994	ALCTL	AYGAZ	N/A	KLBMO	11.03.2002	INTEM	PRTAS	PRTAS
AKALT	26.09.1995	BAGFS	GUBRF	MRSHL	KLBMO	12.05.2006	FENIS	EPLAS	KERVT
AKALT	20.05.1996	FMIZP	TOASO	MRSHL	KONYA	13.01.1995	NTTUR	BURCE	N/A
AKALT	21.05.1997	RAKSE	MIPAZ	MIPAZ	KONYA	13.06.1997	MIPAZ	PETKM	IZOCM
AKIPD	26.09.1994	ALCTL	AYGAZ	N/A	KORDS	22.04.1988	N/A	N/A	N/A
AKIPD	21.09.1995	SNPAM	ECILC	GUBRF	KORDS	27.03.1989	SISE	N/A	N/A
AKIPD	24.05.1996	DOKTS	MRSHL	MRSHL	KORDS	25.12.1989	SISE	N/A	N/A
AKIPD	26.05.1997	CELHA	ECYAP	IZOCM	KORDS	14.05.1990	SISE	N/A	N/A
AKIPD	28.12.1998	CELHA	AKALT	AKALT	KORDS	01.04.1991	SISE	KONYA	N/A
AKIPD	28.05.1999	PENGD	KERVT	KERVT	KORDS	29.05.1995	BUCIM	CELHA	BRSAN
AKSA	27.09.1990	PETKM	N/A	N/A	KORDS	23.06.1997	CMENT	EGEEN	TUDDF
AKSA	03.08.1992	N/A	BAGFS	BAGFS	KOTKS	18.10.2000	CEYLN	N/A	N/A
AKSA	13.07.1993	SISE	ASLAN	N/A	KOTKS	11.07.2001	INTEM	BERDN	BERDN
AKSA	08.09.1994	TOASO	UCAK	N/A	KOTKS	27.06.2002	FVORI	PRTAS	PRTAS
AKSA	08.09.1995	AYGAZ	AFYON	AYGAZ	KOTKS	09.06.2003	DURDO	DERIM	N/A
AKSA	20.05.1996	BRISA	FENIS	FROTO	KOTKS	10.02.2005	N/A	N/A	N/A
AKSA	20.05.1997	AYGAZ	ESEMS	BRISA	KOTKS	28.09.2005	N/A	N/A	N/A
AKSUE	16.01.2006	FENIS	KORDS	EMNIS	KOZAD	26.01.2005	N/A	N/A	N/A
ALCAR	05.10.1995	ECILC	BUCIM	UCAK	KRDMD	23.11.1999	KENT	KARTN	KARTN
ALCTL	01.09.1992	TBORG	DURDO	N/A	KRDMD	07.09.2000	ECYAP	EGGUB	BAGFS
ALCTL	09.12.2004	ALKIM	TRCAS	FMIZP	KRDMD	25.11.2002	LINK	KERVT	BSOKE
ALTIN	01.03.1995	UCAK	ALCTL	ALCTL	KRDMD	10.12.2003	MNDRS	SASA	ARSAN
ALTIN	06.09.1995	UCAK	ALCTL	ALCTL	KRSTL	07.10.2002	AKALT	AYGAZ	BAKAB
ALTIN	01.07.1996	ASELS	PRTAS	BUCIM	KRSTL	25.04.2003	PNSUT	ESCOM	DOBUR
ALTIN	24.12.2002	YUNSA	CMBTN	BAKAB	KRTEK	15.09.1997	MIPAZ	MRSHL	MUTLU
ALYAG	17.10.2001	FVORI	YUNSA	EGGUB	KUTPO	10.03.1993	ANACM	BAGFS	PARSN
ALYAG	21.03.2003	LINK	KERVT	EGGUB	KUTPO	26.07.1994	ASLAN	PARSN	N/A
ALYAG	30.11.2004	OKANT	N/A	N/A	KUTPO	01.08.1995	IZOCM	GUBRF	DOKTS
ALYAG	01.02.2006	KAVPA	AKCNS	KNFRT	KUTPO	22.04.1996	IZOCM	IZOCM	IZOCM

Issuer Firm	Rights issue Date	Size Matched	M/B Matched	Size & M/B
ANACM	28.04.1988	MRDIN	N/A	N/A
ANACM	13.06.1991	OKANT	LUKSK	N/A
ANACM	31.05.1996	UKIM	MRSHL	IZOCM
ANACM	06.01.1997	ECYAP	SASA	CELHA
ANACM	23.05.1997	ECYAP	SASA	CELHA
ANACM	27.04.1998	IHEVA	GEDIZ	ECYAP
ANACM	07.05.1999	SARKY	MERKO	ECYAP
ARAT	07.12.1999	BURCE	YATAS	FMIZP
ARAT	26.02.2001	FENIS	BERDN	BERDN
ARAT	06.06.2002	AKIPD	MIGRS	AFYON
ARAT	18.01.2005	CEYLN	GIMA	IDAS
ARAT	27.03.2006	MEMSA	MIGRS	N/A
ARCLK	30.06.1988	N/A	N/A	N/A
ARCLK	26.06.1989	N/A	N/A	N/A
ARCLK	28.05.1990	SISE	N/A	N/A
ARCLK	23.05.1991	N/A	N/A	N/A
ARCLK	25.05.1992	N/A	N/A	N/A
ARCLK	24.05.1993	PETKM	PARSN	N/A
ARCLK	25.05.1994	TOASO	VESTL	N/A
ARCLK	19.09.1994	TOASO	VESTL	N/A
ASELS	05.07.1993	SISE	DURDO	TBORG
ASELS	30.05.1994	ALCTL	AYGAZ	ALCTL
ASELS	12.06.1995	BRSAN	PETKM	VESTL
ASELS	29.04.2002	TRKCM	DERIM	N/A
AYCES	15.08.1994	FENIS	PARSN	PARSN
AYGAZ	24.05.1993	SISE	PARSN	N/A
BAGFS	12.05.1988	SISE	N/A	N/A
BANVT	29.05.1997	ECYAP	FROTO	N/A
BANVT	22.06.1998	GOODY	OTKAR	N/A
BANVT	17.10.2000	ECILC	GOODY	GOODY
BEKO	05.07.1993	SISE	PARSN	N/A
BEKO	01.06.1994	BAGFS	ASLAN	BAGFS
BEKO	01.06.1995	BRSAN	IZOCM	BAGFS
BEKO	17.06.2002	ADANA	FMIZP	ARSAN
BEKO	14.12.2004	TNSAS	NUHCM	N/A
BERDN	20.03.1998	ESEMS	ATEKS	ATEKS
BOLUC	05.06.1991	KONYA	PTOFS	KONYA
BOLUC	12.02.1992	ASLAN	ALCAR	ASLAN
BOLUC	08.07.1992	ASLAN	ALCAR	ASLAN
BOLUC	06.05.1993	IZMDC	ANACM	TBORG
BOLUC	20.06.1994	BAGFS	ASLAN	BAGFS
BOLUC	20.07.1995	VESTL	ECILC	GUBRF
BOLUC	11.06.1998	KENT	KNFRT	SARKY
BOSSA	24.12.1997	MRSHL	ECYAP	KARTN
BOYNR	15.10.1997	CMENT	MIGRS	N/A
BOYNR	05.06.1998	DGZTE	RAKSE	N/A
BOYNR	28.04.2000	TUDDF	MIGRS	N/A
BOYNR	17.09.2001	DOKTS	PRTAS	IZMDC
BOYNR	17.05.2002	ATEKS	FROTO	N/A
BOYNR	01.03.2004	ALCAR	BRISA	N/A
BOYNR	10.04.2006	NETAS	ACIBD	FMIZP
BRISA	25.04.1988	N/A	N/A	N/A
BRISA	17.04.1989	SISE	N/A	N/A
BRISA	30.04.1990	SISE	N/A	N/A

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KUTPO	21.02.2000	ATEKS	IDAS	ERBOS
LIOYS	22.08.2002	DOBUR	MUTLU	MUTLU
LIOYS	20.02.2006	N/A	N/A	N/A
LUKSK	18.07.1994	DURDO	UCAK	N/A
LUKSK	02.08.1995	BURCE	ALCTL	N/A
LUKSK	22.05.1996	FENIS	GOODY	N/A
LUKSK	25.07.1997	BROVA	TUDDF	DITAS
LUKSK	08.06.1998	FRIGO	MUTLU	N/A
LUKSK	27.08.2001	IDAS	MIGRS	KENT
LUKSK	01.10.2002	GEDIZ	PARSN	KENT
MAALT	15.02.1988	MRDIN	N/A	N/A
MAALT	01.03.1995	PARSN	PETKM	PARSN
MAALT	18.08.1997	KNFRT	MIPAZ	KNFRT
MAKTK	31.07.1990	PETKM	N/A	N/A
MAKTK	04.03.1991	OKANT	KONYA	N/A
MAKTK	06.05.1993	PARSN	PARSN	PARSN
MAKTK	27.06.1994	PARSN	AYGAZ	PARSN
MAKTK	23.08.1995	FRIGO	ECILC	PARSN
MAKTK	20.06.1997	ADEL	KNFRT	IZOCM
MAKTK	22.06.1998	ESEMS	PKENT	MUTLU
MAKTK	04.01.2000	FMIZP	KNFRT	UKIM
MEGES	23.06.1998	MUTLU	KRSTL	N/A
MEMSA	20.03.2000	KERVY	GOLTS	KRTEK
MEMSA	10.12.2004	EGGUB	GUBRF	KAVPA
MEMSA	11.12.2006	BROVA	FVORI	FRIGO
MERKO	22.04.1999	OYSAC	AKALT	AKALT
MERKO	29.03.2006	ESCOM	TRCAS	LUKSK
MIGRS	11.11.1991	KONYA	KONYA	N/A
MIGRS	31.05.1994	SISE	N/A	N/A
MIGRS	28.06.1995	TOASO	N/A	N/A
MIGRS	18.08.1998	N/A	RAKSE	N/A
MIPAZ	08.07.1994	ASLAN	PETKM	AFYON
MIPAZ	29.06.1995	FENIS	ECILC	PARSN
MMART	01.10.1990	PINSU	N/A	N/A
MMART	30.09.1992	NTTUR	DENCM	N/A
MMART	11.10.1993	PARSN	PETKM	N/A
MMART	30.09.1994	DURDO	NTTUR	BURCE
MMART	10.10.1995	AFYON	ECILC	PARSN
MMART	03.10.1996	AFYON	MIPAZ	GEDIZ
MMART	10.11.1997	MERKO	ECYAP	IZOCM
MMART	19.03.2001	AFYON	INTEM	KUTPO
MMART	12.06.2002	AFYON	IZMDC	PETUN
MMART	06.12.2004	BAGFS	ECILC	SONME
MNDRS	15.08.2001	OLMKS	PETUN	OLMKS
MNDRS	12.03.2002	TATKS	PINSU	OLMKS
MNDRS	27.11.2002	TATKS	PINSU	OLMKS
MRDIN	30.09.1992	TBORG	BAGFS	N/A
MRDIN	30.09.1993	BUCIM	PARSN	N/A
MRDIN	30.09.1994	ALCTL	PARSN	N/A
MRDIN	29.09.1995	NTTUR	FMIZP	FMIZP
MRDIN	29.05.1996	GENTS	MRSHL	CELHA
MRDIN	30.05.1997	ATEKS	MIPAZ	IZOCM
MRDIN	08.06.1998	PENGD	TUDDF	PENGD
MRDIN	31.05.1999	GOLTS	YATAS	ALTIN

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BRISA	11.02.1994	SISE	PETKM	UCAK
BRMEN	27.01.2000	AFYON	BOLUC	ERBOS
BROVA	29.08.2001	MERKO	PTOFS	N/A
BROVA	27.01.2003	LINK	DERIM	DERIM
BROVA	18.11.2003	LINK	DERIM	DERIM
BROVA	15.07.2004	TCELL	BURCE	BURCE
BROVA	24.02.2005	KLMSN	ARENA	LINK
BROVA	15.07.2005	KLMSN	ARENA	LINK
BSHEV	13.09.1990	N/A	N/A	N/A
BSHEV	29.07.1991	N/A	N/A	N/A
BSHEV	01.10.1992	TBORG	NTTUR	N/A
BSHEV	07.04.1993	CMEN	CMEN	CMEN
BSHEV	08.12.1994	BAGFS	ASLAN	BAGFS
BSHEV	10.07.1996	GOODY	KOTKS	N/A
BSHEV	01.07.1997	CMEN	KOTKS	BAGFS
BTCIM	16.04.1996	ECILC	CELHA	ECILC
BTCIM	17.12.1996	ECILC	CELHA	KARTN
BTCIM	01.12.1998	ALCTL	CELHA	ALCAR
BURVA	22.06.2006	N/A	N/A	N/A
BYSAN	15.12.1998	BURCE	PKENT	PKENT
CBSBO	25.12.1995	FENIS	RAKSE	GENTS
CBSBO	08.04.2005	KNFRT	AKALT	IDAS
CELHA	23.05.1988	MRDIN	N/A	N/A
CELHA	24.05.1989	SISE	N/A	N/A
CELHA	31.05.1990	SISE	N/A	N/A
CELHA	17.06.1991	KONYA	CIMSA	N/A
CELHA	25.01.1994	ASLAN	ASLAN	ASLAN
CEMTS	15.08.1997	ECYAP	KARTN	BRSAN
CEMTS	14.11.1997	YUNSA	KARTN	BRSAN
CEMTS	24.09.1999	PENGD	MUTLU	MUTLU
CIMSA	23.05.1988	SISE	N/A	N/A
CIMSA	19.06.1989	SISE	N/A	N/A
CIMSA	30.04.1990	SISE	N/A	N/A
CIMSA	05.06.1995	GOODY	BUCIM	BUCIM
CIMSA	25.07.1996	VESTL	PRTAS	VESTL
CMEN	24.10.1994	SISE	BUCIM	UCAK
CMEN	24.04.1996	ECYAP	CELHA	BRSAN
CMEN	15.06.2006	VESTL	PETKM	BEKO
CMLOJ	22.06.1992	N/A	N/A	N/A
CMLOJ	10.11.1998	N/A	N/A	N/A
DARDL	09.01.1997	OTKAR	EGEEN	DOKTS
DARDL	12.05.1998	MIPAZ	FRIGO	MERKO
DARDL	23.02.2000	BAKAB	BERDN	MERKO
DARDL	06.03.2003	DITAS	FVORI	PETUN
DARDL	27.01.2005	SKTAS	AKALT	AKALT
DENCM	29.11.1995	FENIS	VESTL	FRIGO
DENCM	15.06.2000	CMBTN	VESTL	CMBTN
DERIM	01.09.1995	PKENT	IZOCM	KOTKS
DERIM	01.08.1996	EGGUB	AKCNS	DURDO
DERIM	20.01.1998	BURCE	KARTN	BURCE
DERIM	05.06.2000	HZNDR	ERBOS	FMIZP
DEVA	18.07.1988	MRDIN	N/A	N/A
DEVA	25.06.1990	SISE	N/A	N/A
DEVA	17.06.1991	KONYA	PTOFS	KONYA

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MRSHL	22.07.1991	KONYA	CIMSA	N/A
MRSHL	25.09.1992	IZMDC	CMEN	N/A
MRSHL	21.06.1993	TBORG	PARSN	N/A
MRSHL	01.08.1994	ALCTL	PETKM	N/A
MRSHL	05.06.1995	BRSAN	DURDO	VESTL
MTEKS	21.03.2001	CBSBO	TRKCM	IDAS
MTEKS	18.04.2002	KNFRT	AKIPD	MAALT
MTEKS	06.02.2003	DERIM	AKSA	KNFRT
MUTLU	18.11.1994	ALCTL	PARSN	N/A
MUTLU	06.06.1996	BAGFS	AKCNS	DOKTS
NETAS	04.11.1993	SISE	N/A	N/A
NETAS	26.09.1994	TOASO	BUCIM	N/A
NETAS	31.07.1998	AKSA	TUDDF	ALCTL
NTTUR	25.10.1993	ASLAN	KOTKS	ASLAN
NTTUR	04.01.1999	AKALT	ATEKS	MERKO
OKANT	26.06.1995	FRIGO	PETKM	PARSN
OKANT	09.12.1997	FRIGO	PKENT	GEDIZ
OKANT	15.01.2001	MAALT	MAKTK	INTEM
OKANT	16.06.2003	CMBTN	FENIS	FENIS
OLMKS	26.04.1988	SISE	N/A	N/A
OLMKS	13.04.1990	SISE	N/A	N/A
OLMKS	16.05.1994	ALCTL	ASLAN	N/A
OLMKS	17.12.1996	OTKAR	MRSHL	IZOCM
OLMKS	18.05.2000	BOSSA	ERBOS	TIRE
OYSAC	12.08.1993	NTTUR	PARSN	N/A
OYSAC	18.08.1994	ASLAN	BUCIM	N/A
OYSAC	24.07.1995	CELHA	ESEMS	FRIGO
OYSAC	30.05.1996	GENTS	IZOCM	ERBOS
PARSN	07.08.1991	DURDO	CIMSA	N/A
PARSN	22.11.1993	FENIS	TOASO	N/A
PARSN	24.10.2005	BANVT	ZOREN	CEMTS
PENGD	18.01.2002	SONME	CMEN	N/A
PENGD	08.04.2005	NTTUR	AYEN	IHEVA
PENGD	17.05.2007	TEKTU	MIPAZ	MIPAZ
PETKM	01.08.2001	TUPRS	IDAS	ARCLK
PIMAS	10.01.1992	OKANT	DURDO	DURDO
PIMAS	29.07.1994	PARSN	ASLAN	PARSN
PIMAS	25.08.1998	IHEVA	BROVA	KLMSN
PIMAS	24.10.2001	PETUN	BERDN	KUTPO
PIMAS	14.06.2002	DOBUR	ARSAN	N/A
PINSU	05.10.1994	BURCE	ASLAN	KOTKS
PINSU	25.03.1996	KOTKS	AKCNS	KOTKS
PINSU	16.09.1997	BROVA	DGZTE	N/A
PINSU	19.10.1998	FMIZP	KORDS	FMIZP
PKENT	13.06.1994	DURDO	NTTUR	BURCE
PNSUT	11.07.1994	AFYON	ASLAN	PARSN
PNSUT	09.01.1996	MERKO	MRSHL	IZOCM
PNSUT	24.09.1996	DGZTE	MRSHL	IZOCM
PNSUT	09.02.1999	BOSSA	SASA	UCAK
POLYL	30.07.1992	ANACM	DURDO	N/A
POLYL	30.06.1993	PARSN	BURCE	N/A
POLYL	28.10.1994	PARSN	NTTUR	PARSN
POLYL	04.07.1995	CELHA	ECILC	CELHA
POLYL	17.06.1997	ERBOS	ATEKS	INTEM

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DEVA	24.01.1994	ASLAN	ASLAN	ASLAN
DEVA	30.09.1994	ASLAN	ASLAN	ASLAN
DEVA	30.01.1995	VESTL	PETKM	NTTUR
DEVA	25.09.1995	VESTL	ECILC	GUBRF
DEVA	26.05.1997	BRSAN	ATEKS	ATEKS
DEVA	26.04.2000	IZOCM	DMSAS	YUNSA
DEVA	11.06.2004	EGGUB	BOSSA	EGGUB
DGZTE	18.07.1994	ASLAN	NTTUR	ASLAN
DGZTE	15.06.1995	IZOCM	PKENT	IZOCM
DGZTE	07.09.2004	IZMDC	SERVE	BOLUC
DITAS	08.03.1993	PARSN	PARSN	PARSN
DITAS	20.07.1994	BURCE	ASLAN	KOTKS
DITAS	21.08.1995	AFYON	BUCIM	AFYON
DITAS	21.05.1996	FRIGO	CELHA	BURCE
DOGUB	30.09.1991	EGGUB	TBORG	N/A
DOGUB	10.10.1994	KOTKS	AYGAZ	KOTKS
DOKTS	15.06.1988	MRDIN	N/A	N/A
DOKTS	03.07.1989	SISE	N/A	N/A
DOKTS	12.06.1991	SISE	N/A	N/A
DOKTS	27.04.1992	CIMSA	N/A	N/A
DOKTS	28.04.1993	IZMDC	PARSN	N/A
DOKTS	25.04.1994	ALCTL	ASLAN	ASLAN
DOKTS	14.06.2000	PARSN	EGGUB	BAGFS
DURDO	11.10.1995	AFYON	VESTL	AFYON
DYOBY	24.09.1992	N/A	N/A	N/A
DYOBY	24.07.1995	N/A	N/A	N/A
DYOBY	15.02.1999	N/A	N/A	N/A
DYOBY	15.01.2001	OYSAC	MIGRS	N/A
DYOBY	17.03.2003	SARKY	ALKIM	ALKIM
DYOBY	29.08.2005	OLMKS	ARENA	CYTAS
DYOBY	01.12.2006	AFYON	UKIM	MAALT
DYOBY	25.06.2007	PARSN	LINK	IHEVA
ECILC	12.11.1990	PETKM	N/A	N/A
ECILC	27.07.1992	PETKM	CMEN	N/A
ECILC	27.06.1994	BAGFS	AYGAZ	AYGAZ
EDIP	15.08.1995	GUBRF	DURDO	N/A
EDIP	31.08.1998	FMIZP	MIPAZ	MUTLU
EFES	05.09.2001	N/A	N/A	N/A
EGEEN	19.06.1991	OKANT	LUKSK	N/A
EGEEN	19.06.1995	FENIS	BURCE	FRIGO
EGGUB	06.09.1990	PETKM	N/A	N/A
EGGUB	15.05.1995	FENIS	BRISA	FRIGO
EGIYM	23.12.1998	N/A	N/A	N/A
EGIYM	12.06.2000	N/A	N/A	N/A
EGPRO	12.12.1994	KOTKS	AYGAZ	N/A
EGPRO	12.11.2001	DENCM	PRTAS	KUTPO
EGSER	30.11.1993	BUCIM	KOTKS	ASLAN
EGSER	12.10.1994	BRSAN	BAGFS	BAGFS
EGSER	22.05.1996	FMIZP	IZOCM	SARKY
EGSER	21.09.1998	IZOCM	SIFAS	KRTEK
EGSER	05.11.2001	GOLTS	N/A	N/A
EGSER	11.07.2003	ARENA	ACIBD	DOBUR
EMKEL	11.03.2002	PINSU	BERDN	KERVT
EMKEL	13.03.2003	DURDO	KLBM	KERVT

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POLYL	27.08.1998	EGPRO	ATEKS	PKENT
PRKAB	01.08.1988	N/A	N/A	N/A
PRKAB	21.07.2000	OTKAR	FMIZP	BRSAN
PRKAB	16.07.2002	TATKS	TATKS	TATKS
PRKTE	27.04.2000	ECILC	ALCTL	N/A
PRTAS	07.09.2000	MAALT	PARSN	KENT
PRTAS	28.07.2005	UNTAR	SKTAS	UNTAR
PTOFS	25.07.1994	TOASO	ALCTL	N/A
PTOFS	31.03.1997	N/A	DGZTE	SISE
PTOFS	30.07.1999	N/A	BANVT	N/A
PTOFS	30.05.2000	TUPRS	BSHEV	N/A
RAKSE	18.10.1994	BAGFS	ASLAN	BAGFS
SABAH	26.09.1990	N/A	N/A	N/A
SABAH	14.10.1991	N/A	N/A	N/A
SABAH	06.12.1993	N/A	N/A	N/A
SABAH	16.05.1994	N/A	N/A	N/A
SABAH	29.05.1995	N/A	N/A	N/A
SABAH	18.09.1997	N/A	N/A	N/A
SABAH	11.01.1999	N/A	N/A	N/A
SAPAZ	26.06.1995	N/A	N/A	N/A
SAPAZ	28.08.1996	N/A	N/A	N/A
SAPAZ	28.04.2000	N/A	N/A	N/A
SARKY	10.06.1988	MRDIN	N/A	N/A
SARKY	21.05.1991	CIMSA	KONYA	N/A
SARKY	17.05.1993	IZMDC	PARSN	N/A
SARKY	28.04.1994	UCAK	BUCIM	BUCIM
SARKY	22.05.1995	BRSAN	DURDO	BAGFS
SELGD	03.08.1999	CMBTN	MRSHL	BURCE
SELGD	05.06.2000	EGEEN	AKALT	UKIM
SELGD	16.06.2000	EGEEN	AKALT	UKIM
SELGD	14.10.2002	GEDIZ	SARKY	MAALT
SELGD	14.11.2003	CMBTN	ALKIM	FENIS
SELGD	08.08.2006	BROVA	KUTPO	FRIGO
SERVE	13.09.1999	CBSBO	KARTN	KENT
SIFAS	09.07.1992	ANACM	ALCAR	N/A
SIFAS	28.05.1993	ANACM	ASLAN	N/A
SIFAS	04.11.1994	ASLAN	AYGAZ	ASLAN
SIFAS	17.06.1997	CELHA	BRSAN	BRSAN
SKPLC	16.02.2006	AKALT	DOBUR	HZNDR
SKTAS	13.06.1996	CELHA	PETKM	IZOCM
SKTAS	08.03.1999	CMBTN	KNFRT	CMBTN
SONME	17.01.1994	ALCTL	PETKM	ASLAN
SONME	08.01.1997	RAKSE	ECILC	ESEMS
SONME	14.09.2000	GUBRF	ATEKS	ATEKS
TATKS	25.04.1994	SISE	N/A	N/A
TATKS	28.06.1996	ECILC	AYGAZ	RKSEV
TATKS	30.05.1997	CLEBI	DOKTS	DOKTS
TATKS	11.08.1999	ASUZU	KORDS	GOODY
TATKS	29.06.2007	GOLTS	ALCTL	TIRE
TBORG	14.10.1996	FMIZP	CELHA	BRSAN
TBORG	02.10.1997	YATAS	CELHA	ESEMS
TBORG	11.04.2002	AYEN	EGEEN	N/A
TBORG	06.11.2002	AYEN	EGEEN	N/A
TBORG	22.04.2003	BTCIM	AKIPD	IZMDC

Issuer Firm	Rights issue Date	Size Matched	M/B Matched	Size & M/B
EMKEL	29.06.2004	BURCE	OLMKS	KENT
EMKEL	03.11.2004	BURCE	OLMKS	KENT
EMNIS	13.07.1998	CBSBO	KARTN	BURCE
EMNIS	14.10.1999	MAALT	BOSSA	MAALT
EMNIS	27.05.2002	MERKO	SARKY	EGGUB
EPLAS	21.12.1994	ASLAN	BUCIM	AFYON
EPLAS	05.09.2000	HZNDR	ARSAN	DMSAS
EPLAS	04.02.2002	DMSAS	BERDN	BERDN
EREGL	15.12.1989	N/A	N/A	N/A
EREGL	04.03.1991	N/A	KONYA	N/A
EREGL	14.04.1993	PETKM	BURCE	N/A
EREGL	29.09.1994	TOASO	AYGAZ	N/A
EREGL	24.02.1999	AYGAZ	ALTIN	FROTO
EREGL	14.06.2004	TUPRS	EDIP	TUPRS
ERSU	20.09.2004	CMBTN	LUKSK	FENIS
ESEMS	20.02.2002	HZNDR	BERDN	KERVT
FENIS	01.11.1991	KONYA	KONYA	DERIM
FMIZP	20.04.1992	ASLAN	N/A	N/A
FMIZP	21.06.1994	ALCTL	N/A	N/A
FRIGO	15.06.2005	EPLAS	BANVT	KNFRT
FROTO	15.01.1992	N/A	N/A	N/A
FROTO	31.08.1994	SISE	UCAK	N/A
FROTO	10.03.1997	SISE	ALCTL	SISE
GEDIZ	28.07.1997	FENIS	CBSBO	CBSBO
GEDIZ	05.07.1999	PENG	TIRE	ERBOS
GEDIZ	20.06.2001	PARSN	AKIPD	CMBTN
GENTS	16.07.1990	PETKM	N/A	N/A
GENTS	26.09.1994	FENIS	ASLAN	PARSN
GIMA	03.07.2000	ECILC	BANVT	BANVT
GIMA	22.04.2002	TATKS	PRTAS	IZMDC
GIMA	13.01.2003	UCAK	KENT	N/A
GIMA	12.01.2004	UNYEC	OYSAC	N/A
GOLDS	14.08.2001	MRSHL	IZOCM	BAGFS
GOLDS	19.03.2002	BAGFS	MUTLU	OLMKS
GOLDS	16.04.2002	BAGFS	MUTLU	OLMKS
GOLDS	01.04.2003	BAGFS	DENTA	ARSAN
GOLTS	19.08.1997	CLEBI	SASA	MRSHL
GOLTS	29.05.1998	OTKAR	BRISA	TUDDF
GOODY	05.09.1988	FROTO	N/A	N/A
GOODY	18.09.1989	SISE	N/A	N/A
GOODY	17.09.1990	PETKM	N/A	N/A
GOODY	13.04.1994	SISE	ALCTL	N/A
GORBN	23.11.1994	ASLAN	N/A	N/A
GUBRF	10.06.1988	MRDIN	N/A	N/A
GUBRF	23.10.1989	SISE	N/A	N/A
GUBRF	23.07.1990	PETKM	N/A	N/A
GUBRF	01.12.1993	UCAK	ASLAN	BUCIM
GUBRF	20.06.1994	ALCTL	ASLAN	ALCTL
GUBRF	28.05.1999	SARKY	KENT	CLEBI
HEKTS	08.04.1991	OKANT	KONYA	N/A
HEKTS	23.03.1992	ALCAR	ALCAR	N/A
HEKTS	27.05.1993	ANACM	BAGFS	PARSN
HEKTS	16.05.1994	ASLAN	PETKM	AFYON
HEKTS	26.06.1995	BAGFS	BRSAN	UCAK

Issuer Firm	Rights issue Date	Size Matched	M/B Matched	Size & M/B
TBORG	26.07.2004	UCAK	MRDIN	MRDIN
TCELL	23.07.2001	N/A	BERDN	N/A
THYAO	01.04.1991	SISE	OKANT	N/A
THYAO	01.11.1991	SISE	OKANT	N/A
THYAO	22.07.1992	PETKM	ANACM	N/A
THYAO	11.07.1994	PETKM	VESTL	N/A
THYAO	07.12.1995	PETKM	KENT	N/A
THYAO	23.01.1998	PETKM	KRSTL	MIGRS
THYAO	24.03.2000	TUPRS	ALCTL	N/A
THYAO	15.12.2000	TUPRS	ALCTL	N/A
TIRE	17.08.1994	ALCTL	PARSN	N/A
TIRE	10.04.1996	OTKAR	ECYAP	IZOCM
TIRE	11.06.1997	OTKAR	EGEEN	OTKAR
TNSAS	19.12.2000	TOASO	CBSBO	SASA
TNSAS	04.09.2001	AYEN	BERDN	SASA
TNSAS	28.01.2002	ADANA	AKSUE	NUHCM
TNSAS	26.09.2002	ADANA	AKSUE	NUHCM
TOASO	01.11.1991	N/A	KONYA	N/A
TOASO	13.07.1992	N/A	N/A	N/A
TOASO	22.06.1999	AKCNS	GOODY	VESTL
TRCAS	15.10.2001	UCAK	BERDN	ANACM
TRKCM	06.05.1991	SISE	CIMSA	N/A
TRKCM	28.06.1995	TOASO	BRISA	BRISA
TRKCM	14.05.1999	HURGZ	SASA	SASA
TUDDF	11.07.1988	FROTO	N/A	N/A
TUDDF	09.09.1991	PETKM	DERIM	N/A
TUDDF	27.05.1992	N/A	N/A	N/A
TUDDF	17.05.1993	IZMDC	PARSN	N/A
TUDDF	30.09.1994	UCAK	DURDO	UCAK
TUDDF	29.06.1995	ECYAP	ECYAP	ECYAP
TUDDF	31.05.1996	ECILC	OTKAR	VESTL
TUKAS	26.09.1995	FMIZP	BUCIM	N/A
TUKAS	30.05.1996	AFYON	CELHA	ERBOS
TUKAS	16.06.1997	FMIZP	KLBMO	KLBMO
TUKAS	05.06.1998	PENG	UCAK	CLEBI
TUKAS	08.06.2000	EGGUB	FENIS	FENIS
TUKAS	24.05.2001	HEKTS	EGEEN	EGEEN
TUKAS	27.05.2004	EDIP	INTEM	KRSTL
TUKAS	09.12.2005	KAPLM	KRSTL	ALKA
TUMTK	21.06.1996	GEDIZ	PKENT	GEDIZ
TUMTK	15.04.1998	BURCE	CYTAS	CYTAS
TUPRS	23.09.1992	N/A	ALCAR	N/A
TUPRS	27.09.1993	TOASO	PARSN	N/A
TUPRS	30.01.1995	PETKM	BUCIM	AYGAZ
TUPRS	14.07.1997	N/A	N/A	N/A
TUPRS	09.11.1998	N/A	MRSHL	N/A
UKIM	16.10.2003	EGGUB	PETKM	EPLAS
UNTAR	14.09.1998	EMKEL	BAGFS	AFYON
UNTAR	12.07.1999	FENIS	EGEEN	EGEEN
UNTAR	26.11.2001	SKPLC	FRIGO	CMBTN
UNTAR	26.12.2002	GEDIZ	AKENR	CEYLN
UNTAR	10.06.2003	TEKTU	KLMSN	KNFRT
UNTAR	15.03.2004	DERIM	ZOREN	BURCE
UNTAR	25.03.2005	OKANT	GEDIZ	GEDIZ

Issuer Firm	Rights issue Date	Size Matched	M/B Matched	Size & M/B
HEKTS	16.06.1999	YUNSA	ERBOS	PENG D
HEKTS	17.12.1999	YUNSA	ERBOS	PENG D
HEKTS	24.05.2000	AKALT	DGZTE	MUTLU
HURGZ	08.09.1994	SISE	ASLAN	BAGFS
HURGZ	01.12.1994	SISE	ASLAN	BAGFS
HZNDR	25.05.1999	CBSBO	UKIM	CEYLN
IHEVA	17.06.2002	SKPLC	AKSUE	AKSUE
IHEVA	19.03.2003	OLMKS	ECILC	INTEM
INTEM	09.11.1990	OKANT	N/A	N/A
INTEM	07.04.1992	OKANT	TBORG	N/A
INTEM	08.02.1993	PARSN	ASLAN	N/A
INTEM	05.01.1995	PARSN	PARSN	PARSN
INTEM	23.05.1996	GENTS	DURDO	AFYON
ISAMB	30.03.2000	SKPLC	GOLDS	AFYON
ISAMB	16.01.2004	PINSU	INTEM	EMNIS
ISAMB	09.09.2004	PINSU	INTEM	EMNIS
ISAMB	11.07.2005	EGGUB	GIMA	SKTAS
ISAMB	19.06.2006	BAGFS	KLMSN	N/A
IZMDC	04.01.1988	SISE	N/A	N/A
IZMDC	19.07.1989	SISE	N/A	N/A
IZMDC	10.07.1991	CIMSA	PINSU	CIMSA
IZMDC	13.06.1996	ALCTL	PKENT	RAKSE
IZMDC	27.07.1998	CLEBI	ATEKS	ALTIN
IZMDC	05.06.2000	BOLUC	BSOKE	MIPAZ
IZOCM	22.05.1989	SISE	N/A	N/A
IZOCM	10.09.1990	PETKM	N/A	N/A
IZOCM	23.05.1991	CIMSA	N/A	N/A
IZOCM	25.05.1992	SISE	N/A	N/A
IZOCM	20.05.1993	IZMDC	PARSN	N/A
KAPLM	28.04.1999	CBSBO	DMSAS	FRIGO
KAPLM	03.07.2000	CMBTN	BRISA	ERBOS
KAPLM	09.07.2004	BAKAB	VAKKO	VAKKO
KARSN	15.05.2006	GUBRF	ARCLK	ARENA
KARTN	02.06.1988	FROTO	N/A	N/A
KARTN	28.05.1990	SISE	N/A	N/A
KARTN	20.05.1991	CIMSA	LUKSK	KONYA
KARTN	27.06.1994	UCAK	ASLAN	BAGFS

Issuer Firm	Rights issue Date	Size Matched	M/B Matched	Size & M/B
UNTAR	22.08.2005	OKANT	GEDIZ	GEDIZ
UNTAR	14.08.2006	N/A	N/A	N/A
UNYEC	22.07.1991	KONYA	CIMSA	N/A
UNYEC	15.09.1993	NTTUR	ASLAN	ASLAN
UNYEC	01.09.1994	ALCTL	PARSN	N/A
UNYEC	01.09.1995	CELHA	PETKM	CELHA
UNYEC	15.06.1998	CLEBI	BRISA	VAKKO
UNYEC	31.05.1999	MRSHL	YATAS	ALCAR
UNYEC	31.05.2000	ASUZU	BRISA	KARTN
USAK	16.12.1994	AFYON	KOTKS	PARSN
USAK	26.09.1995	DURDO	GUBRF	BURCE
USAK	07.06.1996	DURDO	CELHA	PRTAS
USAK	15.05.2000	BERDN	SKTAS	BURCE
USAK	09.08.2001	IDAS	SKTAS	FRIGO
USAK	16.09.2002	BURCE	SKTAS	DITAS
USAK	23.07.2003	DERIM	VESTL	CEYLN
USAK	05.05.2005	AKALT	BRISA	MERKO
UZEL	09.12.1999	BUCIM	AFYON	TUDDF
UZEL	11.02.2002	TUDDF	HURGZ	ARENA
UZEL	06.09.2004	PRKTE	BUCIM	BUCIM
VAKKO	08.05.2002	BAKAB	CMBTN	OYSAC
VANET	12.12.2003	CMBTN	DENTA	EMNIS
VESTL	13.07.1992	TBORG	ANACM	N/A
VESTL	03.05.1993	IZMDC	BURCE	TBORG
VESTL	05.06.1997	HURGZ	KOTKS	GOODY
VESTL	25.05.2000	SISE	CMBTN	SISE
VESTL	07.06.2000	SISE	CMBTN	SISE
VKING	28.08.1995	FENIS	ESEMS	FRIGO
VKING	17.06.1998	FMIZP	CMEN	AFYON
VKING	20.12.1999	FENIS	UKIM	FMIZP
VKING	10.09.2001	NTTUR	KENT	N/A
VKING	03.11.2004	SONME	ARCLK	MIPAZ
VKING	27.06.2007	ALCTL	CLEBI	N/A
YUNSA	10.04.1991	KONYA	KONYA	N/A
YUNSA	02.12.1991	KONYA	TBORG	N/A
YUNSA	04.05.1994	ALCTL	ASLAN	N/A
YUNSA	20.09.1996	SARKY	ESEMS	BUCIM

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