



THE SHORT TERM PERFORMANCE OF INITIAL PUBLIC OFFERINGS IN ISTANBUL STOCK EXCHANGE: 2010 -2011 APPLICATION

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KEYWORDS

Initial public offering,
Short term abnormal return,
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ABSTRACT

Initial public offering (IPO) is one of the ways for companies to obtain funds from investors in market. In that process, investors may obtain abnormal returns in a very short time or big loses in long term based on the pricing of IPO. This empirical study investigates the performances of all IPOs in Istanbul Stock Exchange (ISE) offered between January 2010 and June 2011. Event study methodology was used to measure the short term performance of 32 IPOs and daily, end of week, month, 3 months and 6 months basis time windows were employed. Empirical findings are not in line with previous studies. The results bring out that IPOs provide positive abnormal return only at the end of third day of trading. In addition, no significance relation found among IPOs short term performance and IPO firms' age, sector operated in, size, and shares sold to foreign investors.

1. INTRODUCTION

The initial public offerings (IPO) which is defined as selling the stocks to the investors at the capital markets to increase their funds are one of the interesting areas in finance. In literature, there are lots of studies on this area. These are generally focused on the reasons of the abnormal returns and performances of IPOs after trading. Findings, which had been found in different markets, sometimes conflict each other. This makes public offerings "a kind of puzzle" in finance area. In literature, finding of empirical studies declare that IPOs provide abnormal returns in short term. In other words, it is concluded that the stocks which will be offered market have been underpriced. On the other hand, it is difficult to determine the exact price of the stock which is not trading in stock exchanges yet. The agencies which ensure the sales of stocks want IPOs underpriced. By the way, Investors who buys IPO in determined lower price have the chance to obtain abnormal returns. However, the price of the valued stocks is expected to be balanced immediately in an efficient market. Based on the study done by Lougrahan and Ritter (1995), long-run returns report that offered equities under-perform benchmark portfolios by approximately 30% over the five year period following listing. In short term, the findings (Ibbotson, 1975 and Weinsten, 1978) state that, the situation of the IPO's are coming into value immediately in case of the IPO's offering price is lower than the market price. This shows that the capital market is efficient. When we consider the studies and findings on IPO's performance in short term, it can be declared that by investing IPO on the advised price, it is possible to obtain abnormal returns in short term, in spite of being the fact that negative return in long term (Copeland at all. 2001). There are three actors that have big roles on pricing stocks: the company that will be offered, investor of the IPO and the agency. IPO companies generally want to sell its stocks with high price that will maximize its cash flow in a typical public offering. The second actor, investors, aims to invest the underpriced stocks which have the abnormal return potential. The final actor, agency, has the role of intervention between investor and the IPO company. The underpricing and high pricing are also undesirable situations for the agency. If the agency determines low price for IPO, while the investors are satisfied, the IPO companies may have bad impression for the agency and the agency may not be preferred in coming public offerings. On the other hand, an investor who has abnormal return expectation can not be able to earn enough. This means the public offering is not satisfactory. In this study, it is aimed to find out the short term performance of the IPOs in Istanbul Stocks Exchange (ISE) between January 2010 and June 2011. The secondary aim of the study is to introduce the effect of the company size, sector operated, the foreigners' ratio at public offering and company age on IPO performance in short term.

2. LITERATURE REVIEW

Initial public offering implies the initial effort of the companies who admire to find fund via security markets (Unlu and Ersoy, 2008). The first literature related to initial public offerings focused on reasons and the timing of public offering, underpricing, performance of IPO's in short and long term after offering (Wagner, 2006). Logue (1973), Baron (1982), Güzelhan and Açar (1991), Artidi (1996), Kıymaz (1997), Ertürk and Bennett (1998), Tille (2000), Gegin (2001) and Türüdü (2001) were concluded that the IPO's had been in a trend of underpricing. In case of underpriced, when it was offered, the value of the IPO is lower than the real value of that (Tükel, 2011). Lots of the international studies on measuring IPO's performance aftermarket introduce that IPOs were underpriced and provide abnormal returns on the first day of trading (Ritter, 1991, McGuinness, 1992, Lewis, 1993, Kunz ve Aggarwal, 1994, Kim, Krinsky ve Lee, 1995, Lee, Taylor ve Walter, 1996). In short term IPOs performance was studied by lots of American researchers and the findings of them also show that the presence of underpriced stocks in short term (Kıymaz, 1997). One of the early studies which investigates the IPOs performance in short and long term was done by Stoll and Curley (1970). In that study totally 205 small sized IPO firms were analyzed and positive abnormal return were found in short term while negative in long term. Based on the study done by Buser and Chan (1987), the first two year of 1078 IPOs' performance were investigated between 1981 and 1985 and concluded as the abnormal return after first day was %6.2 comparing the stock exchange index returns. Chalk and Peavy (1987) studied the 579 IPOs performance between the years 1975 - 1982 and found out % 21.8 abnormal return after 6 months. Uhlir (1989) found the first day abnormal return of the IPOs %21.5 at Frankfurt Stock Exchange covering the 1977 - 1987. Aggarwal and Rivoli (1990) studied on NewYork Stock Exchange in 1977 - 1987 on 1598 IPOs. The results of that study show that short term abnormal return of the IPO's were %10,7. Based on the same study, the writers also concluded that the IPOs' performance is positive till the end of the first year while it is starting to reduce after first year. Writers also imply that short term abnormal returns were differentiated based on amount of stocks, offering price, timing and investors specifications while long term performance were directly related to underpricing.

Another study done by Loughran, Ritter and Kristian (1994) analyzed IPO performance globally. 25 countries IPO performance were investigated and concluded that minimum underpricing was investigated in France (%4.2) while maximum was in Malaysia (%80.3). For the Turkish Stock Exchange, there are lots of studies measuring short and long term IPO performance. In these studies, the short term performances of IPOs were concluded the presence of underpricing in ISE in short term. On the other hand, there are no common findings for underpricing of IPOs in long term. Kıymaz (1996) has investigated the 30 months performance of IPO after offering between the years 1990-1995 in ISE. Findings were in line with international findings and abnormal return ratio after 30 months was %11 in average. He also signified that the most of the dominant factors effecting long term performance of IPOs were first day returns and companies' standard deviation. In other words, companies which do not have abnormal returns on first day of trading and high standard deviation on returns have high performance in long term. One of the comprehensive study on this area was done by Ozer (1999) in ISE. He has investigated 89 IPOs performance between 1989 and 1994. In that study, performances of IPOs were analyzed based on parameters. Based on the findings of that study, although the abnormal returns could be achieved in short term, low performance is common in long term. Another considerable study in ISE was performed by Durukan (2002). In 1990-1997, IPOs' short term performance were investigated and found out that there is negative correlation between short and long term performances of IPOs. It was highlighted that underpriced or high priced stocks' price were adjusted by market spontaneously after a while. The variables that may effect the performance of IPOs were determined as firm age, upsizing opportunities, type of offering and firm size in same study. Teker and Ekit (2003) analyzed 34 IPOs' 30 days performance after trading in 2000 at ISE. It was found that it is possible to have positive abnormal return after two days of trading. Similar to Teker and Ekit, Türüdü (2001) determined %14.5 abnormal return at the end of first day. After one week, while average abnormal return was determined %27.1, this ratio goes up to %67 at the end of first month. 6 months IPO performance was measured as %78.1. Another study done by Savaşkan (2005) investigated 19 IPOs performance between 2004 and 2005 at ISE and concluded that investors buy IPO stocks because of speculations and if the IPO performance is low at the end of first day of trading, they prefer to sell these IPOs. Tükel (2011) has investigated 42 IPOs performance after first day and first month of trading between 2000 and 2007 at ISE. His findings were positive and %12.5 abnormal return had been achieved after first day of trading. At the end of the first month, IPOs abnormal return went up to %28 in average.

3. DATA AND METHODOLOGY

The short term performance of totally 32 IPOs which were offered between January 2010 and June 2011 were investigated via event study methodology in this study. The data were supplied by ISE database and Euroline software supported by Platodata. The basic data consist of 32 IPOs daily basis closing prices and ISE index.

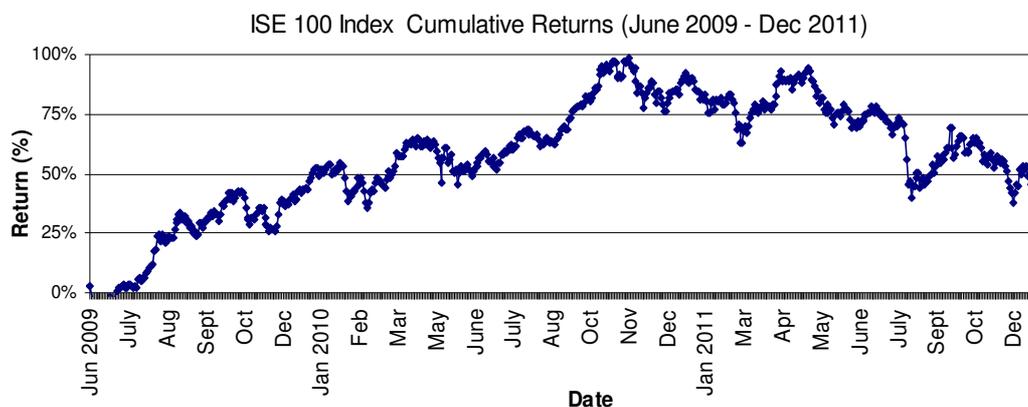


Fig. 1. ISE 100 Index Cumulative Returns (%) (June 2009 – December 2012)

The short term performance of IPOs was considered as the cumulative returns of IPOs (%) at the end of first day, second day, third day, fourth day, one week, 1 month (22 days), three months (67 days) and six months (132 days) of trading. Years were selected to observe changes on IPOs short term performance closed to the past. The performance of IPOs is measured by abnormal returns over CAPM predicted returns.

At the second part of the study, IPOs

- Age,
- Shares sold the foreign investors,
- Sector,
- Firm size (company assets)

affecting to IPO performance was investigated. The IPOs' features and information can be seen at Appendix A.

Event study methodology is established based on efficient capital markets hypothesis. Efficient market hypothesis maintain that market prices fully reflect all available information. The basic idea underlying market efficiency is that competition will drive all information into the price quickly. This study basically contains four steps. These steps are calculation of market adjusted stock returns, computing CAPM predicted returns, measuring abnormal returns and significance test phase.

First Step: Calculating Market Adjusted Stock Returns

Calculation of market adjusted stock returns were realized by using the equation below (1):

$$R_t = [(P_t - P_{t-1}) / P_{t-1} - (I_t - I_{t-1}) / I_{t-1}] * 100 \quad (1)$$

R_t represents market adjusted stocks' returns, P_t represents stocks' closing price at day t and I_t represents closing value of ISE 100 index at day t . Calculating market adjusted return was done under assumption of the IPOs' systematic risks are equal to ISE 100 index's systematic risk.

Second Step: CAPM Predicted Returns

In this study, the capital market line (CML) formulation was used to calculate risk adjusted returns. This was forecasted by CAPM. CAPM prices the securities via taking into consideration the relationship between risk and expected return.

Based on CAPM, IPOs' returns are computed by the equation below:

$$R_{it} = R_f + (R_m - R_f) * \beta_{it} \quad (2)$$

R_f represents risk free rate, R_m represents market returns and β_{it} coefficient represents the β of the stock i . Risk-free rate was determined by 182-days T-Bills interest rate for same term (Appendix B). Data were supplied from TCMB (Central Bank of The Republic of Turkey) and TUIK (Turkish Statistical Institute) databases.

Beta which measures the responsiveness of a security to movements in the market portfolio was computed as seen on equation (3).

$$R_{it} = \alpha_i + \beta_i * R_{mt} + \varepsilon_{it} \quad (3)$$

In order to calculate β coefficient, since the previous data of IPOs is not available, similar firms' (similar size and same sector) were computed by using 182-days returns and considering ISE 100 returns for same periods. β coefficients were calculated via least-square method. (Appendix C).

Third Step: Computing Abnormal Returns

At this step, abnormal return is described as each stocks' market adjusted daily returns over CAPM predicted returns. The difference between actual returns and computed returns are called abnormal returns. Abnormal returns of each IPO were computed, and accumulated for periods determined (Eq. 4)

$$\sum AR_i = \sum R_{mt} - \sum R_{it} \quad (4)$$

AR_i represents abnormal returns of the stock "i", AR_{mt} represents the market adjusted returns of the stock "i" and AR_{it} represents the CAPM predicted returns. Based on the results of the AR_i , the higher difference means the lower priced of (underpricing) the stock.

After computing the abnormal returns for all IPOs, standard deviation and means were calculated for each period.

Fourth Step: Significance Test

In order to test the possibility of achieving abnormal returns for these 32 IPOs, One-Way ANOVA test were applied. Variances were homogeneous (0.216).

3.1 Hypothesis of Study

In the first part of the study, it is dealt with hypothesis related to IPO pricing. At the second part, the parameters that may affect the IPOs' performance were tested.

First, abnormality of the IPO pricing and investors' earning was tested for short term. Hypothesis were;

H_0 = It is possible to earn abnormal return in short term by investing one of the IPOs which were offered between the dates 1st of January 2010 – 30th of May 2011 at ISE

H_1 = It is not possible to earn abnormal return in short term by investing one of the IPOs which were offered between the dates 1st of January 2010 – 30th of May 2011 at ISE

At the second part of hypothesis, firm size, age, shares sold the foreign investors and sectors affect to IPO performance in short term were analyzed via grouping the companies based on criterias determined (Table 1, 2, 3 and 4).

Table 1. IPO firm size grouping

Group	Grouping Criteria	IPO Firm
1	Total Assets < 100,000,000 TL	IDGYO, YAPRK, EKIZ, BLCYT, DESPC, MANGO, LKMNH, KATMR, LATEK, EUROM
2	100,000,000 TL < Total Assets < 1,000,000,000 TL	CEMAS, UTPYA, UYUM, MRGYO, GEDIK, HATEK, IHGZT, BMEKS BIZIM, RYGYO, TSGYO, IHYAY, KLGYO, DOCO
3	Total Assets > 1,000,000,000 TL	ANELE, KILER, AKFGY, KOZAL, AKSEN, TRGYO, AKFEN, EKGYO

Table 2. Grouping IPO firms based on ages

Group	Grouping Criteria	IPO Firm
1	Firm age < 12	RYGYO, IDGYO, TSGYO, KLGYO, YAPRK, IHYAY, BIZIM, MANGO, IHGZT, BLCYT
2	12 < Firm age < 20	LATEK, UYUM, AKSEN, DOCO, AKFGY, EUROM, TRGYO, LKMNH, DESPC, KILER
3	Firm age > 20	GEDIK, EKGYO, UTPYA, BMEKS, MRGYO, ANELE, KOZAL, KATMR, EKIZ, AKFEN, CEMAS, HATEK

Table 3. Grouping IPOs based on the ratios of shares sold the foreign investors (%)

Group	Grouping Criteria (Shares sold the foreign investors - %)	IPO Firm
1	Ratio < 10%	LATEK, MANGO, IHGZT, CEMAS, KATMR, EUROM, HATEK, YAPRK, BLCYT, GEDIK, IHYAY, EKIZ, LKMNH, IDGYO, TRGYO
2	10% < Ratio < 40%	MRGYO, AKSEN, RYGYO, UTPYA, DESPC, ANELE, UYUM, KLGYO, BMEKS
3	Ratio > 40%	KOZAL, TSGYO, AKFGY, KILER, AKFEN, DOCO, EKGYO, BIZIM

Table 4. Sector operated in

Group	Sector	IPO Firm
1	Training, health and social services	LKMNH, DOCO
2	Energy and construction	ASKEN, ANELE, UTPYA
3	Food, beverages and tobacco	MANGO, UYUM, YAPRK
4	Holding and investment corporates	AFKEN, EUROM
5	Paper, paper products, press and publication	KOZAL, IHGZT, IHYAY
6	Chemical, petroleum, rubber and plastics	HATEK, EKIZ,
7	Metal goods, machine and equipment manuf.	CEMAS, KATMR
8	Retail	KILER, BIZIM, BMEKS
9	Technology	DESPC
10	Transportation, communication and warehousing	LATEK
11	Investment partnership	TSGYO, IDGYO, RYGYO, MRGYO, TRGYO, EKGYO, KLGYO, AKFGY, GEDIK, BLCYT

4. EMPIRICAL FINDINGS

The time periods were determined as daily basis and the short term is identified as starting from 1 day, 2-4 days, 1 week, 1 month, 3 months and 6 months. Based on calculations, the abnormal returns for each period are statistically positive on average (Fig. 2). The period based computed abnormal returns of each IPO's details can be seen at Appendix D.

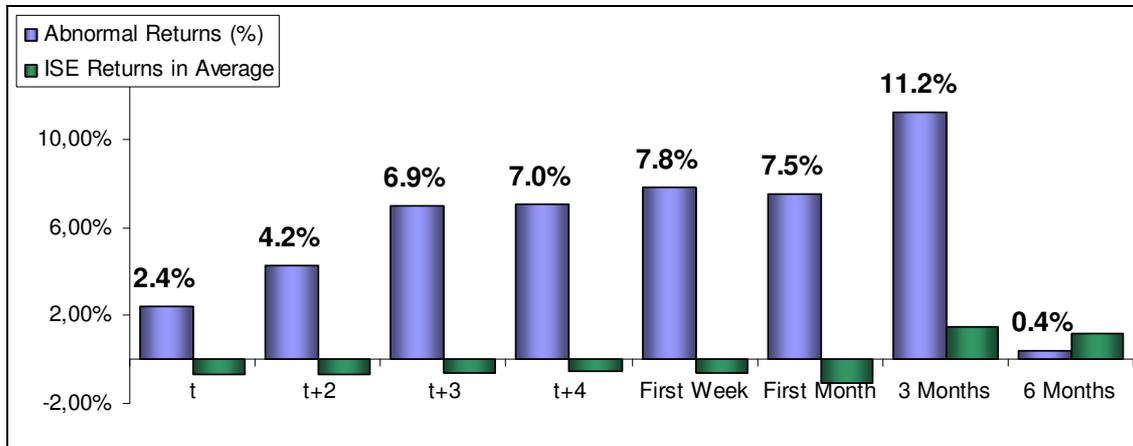


Figure 2. ISE and 32 IPO firms' abnormal returns in average (%)

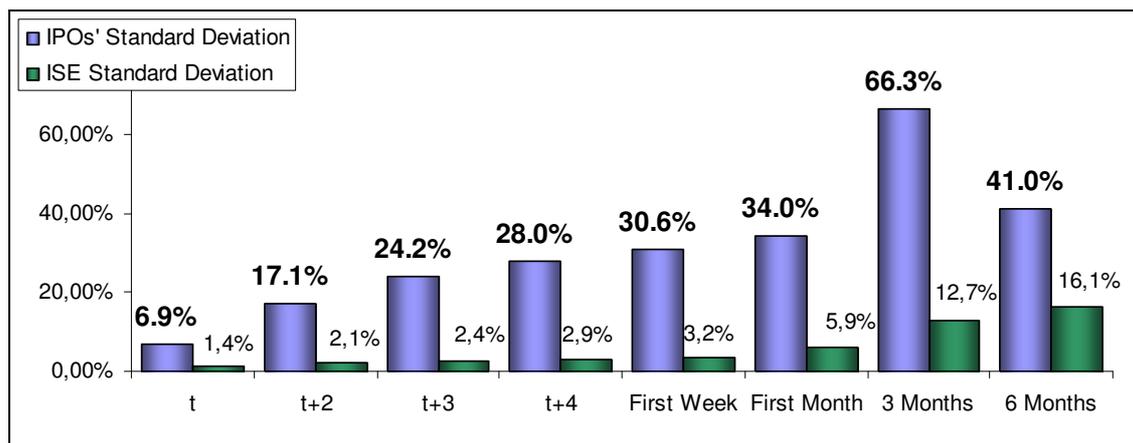


Fig. 3 Standard deviations' of ISE and IPOs' returns (%)

As can be seen at fig.1, the IPOs' performance are continuously increasing and reaching the highest point at the end of 3 months. On the other hand, ISE average returns are negative till the end of first month. At the end of first day, 15 of 32 IPOs had negative return. This number increases to 16 end of third, 18 end of week and reaches 19 at the end of first month. When the standard deviations of abnormal returns are analyzed, the high standard deviations were confronted with comparing other studies in literature such as Teker and Ekit (2003), Ayden and Karan (2000), Altan and Hotamış (2008), Unlu and Ersoy (2008) (Fig. 3). Although the abnormal returns are clear in terms of magnitude, significance should be measured statistically. By the way, in order to analyze the possibility of having abnormal returns via investing IPOs in short term, statistical significance were tested via ANOVA. For computed abnormal returns, table 5 summarizes the ANOVA test results.

Table 5. Abnormal returns of IPOs’ ANOVA test results

	First Day	t+2	t+3	t+4	First Week	First Month	3 Months	6 Months
p value (sig)	0.435	0.260	0.031	0.104	0.126	0.302	0.149	0.221

The result of significance test for each period are above the 0,05 except third day of trading. So, empirical findings can be summarized as it is not possible to have positive abnormal return in short term except end of third day of trading of IPOs. Since the empirical findings show statistically insignificance abnormal returns for the first day and second day, it can be said that these results have difference from previous literature done for ISE. Investors have positive abnormal returns via investing IPOs only on third day of trading. At the second part of the study, based on the determined parameters (IPO firms’ age, sector, size and shares sold the foreign investors), the IPOs performances for short term were analyzed. Since the lower uncertainty is predicted for large scale firms, the relation between IPO firms’ size and performance is expected to be in inverse proportion. Based on the grouping IPO firms into 3 categories, IPO firms in category 2 have dramatically high positive abnormal return in short term comparing with others (fig. 4). On the other hand, correlation coefficient between firm size categories and abnormal returns were too weak (%2.1). ANOVA results summarize that IPO performances for short term do not make difference based on IPO firm size.

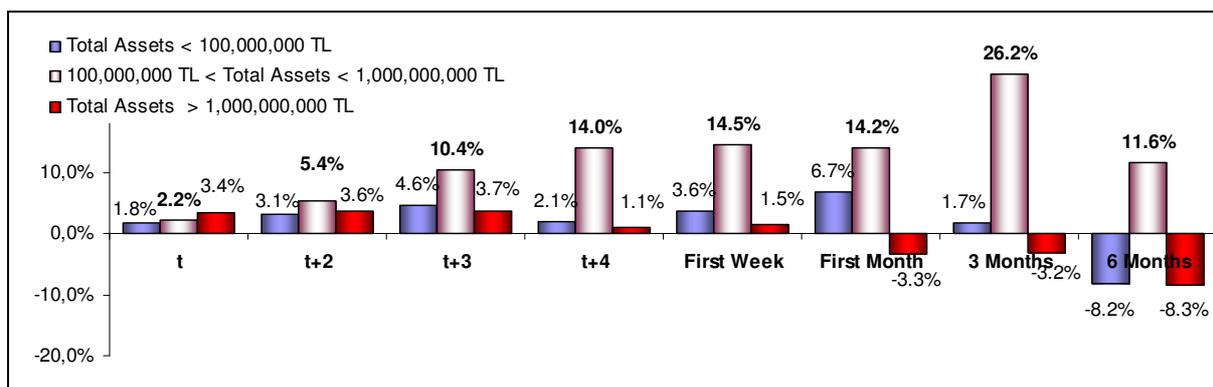


Fig 4. The abnormal returns of IPOs based on firm size (%)

Based on the IPO age, performance of IPOs differs magnitudely. As can be seen in fig.5, younger firms had better performance within 3 months. However, the senior firms had best performance at the end of 6 months. The correlation between two variables is very weak (%7.7). No statistical significance was found between IPO firm age and short term performance.

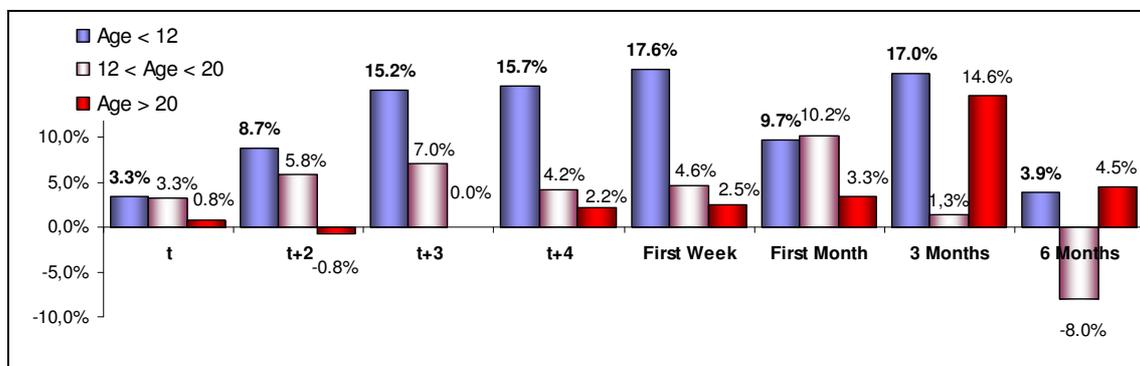


Figure 5. The abnormal returns of IPOs based on firm age (%)

The other parameter that may affect the IPO performance is shares sold the foreign investors. The results of empirical findings statistically show that low shares (< %10) sold the foreigners had better performance for all periods (fig 6). The shares sold foreign investors parameter has also no affect on IPO firms' short term performance in terms of statistical significance (Table 9). (Correlation coefficient also -%19.7)

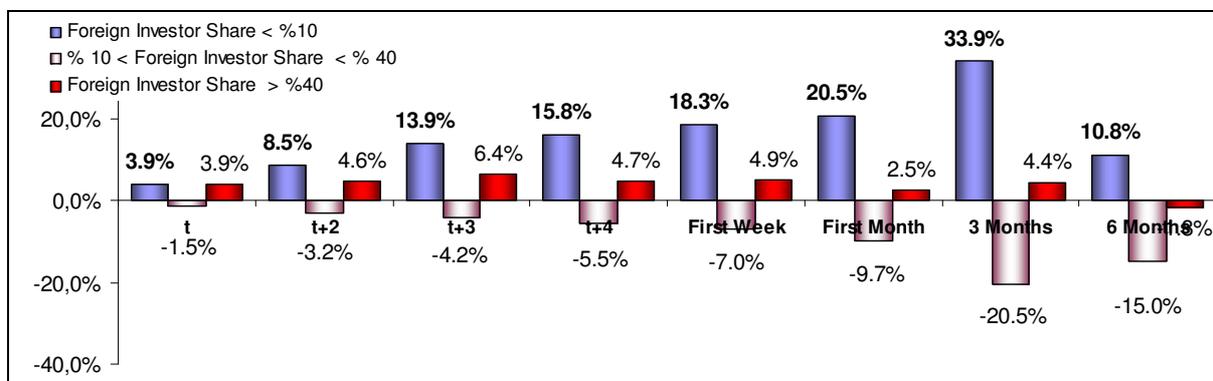


Fig 6. The abnormal returns of IPOs based on shares sold the foreign investors (%)

The IPO firms performed by sectors were investigated and grouped into 11. Since there are only very few IPO firms in some sectors (one in technology, two in metal goods and transportation sector), statistical tests are insignificant. By the way, only statistical findings were commented in this part. The two IPO firms' short term performances are higher than others within 3 months (fig. 7). Although the IPO firms performing in metal goods, machine and equipment manufacturing sector had lowest performance after 3 months, they had best performances after 6 months. Energy and construction firms had high and stable performance in that term.

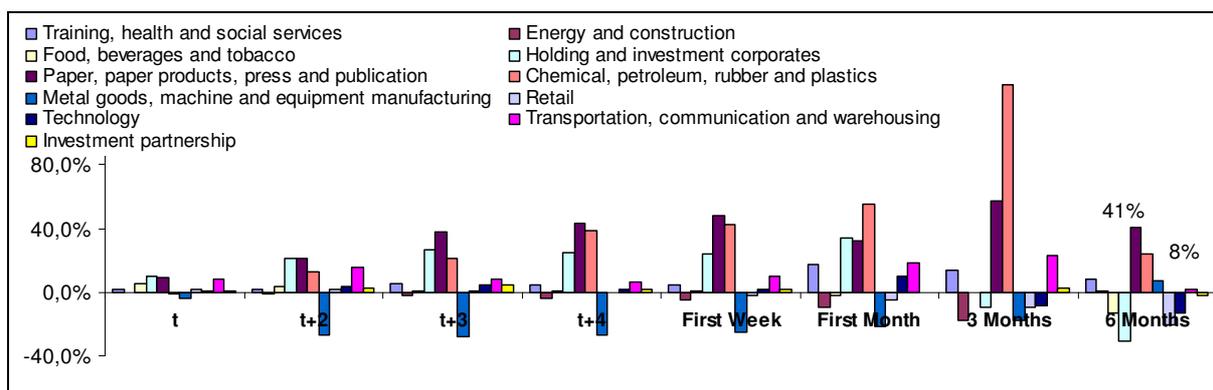


Figure 7. The abnormal returns of IPOs based on sector operated in (%)

Table 7. Statistical significance test results of IPOs performance based on parameters

P (sig) Values	IPO Firm Size	IPO Firm Age	Shares sold to foreign investors	Sector
First Day	0.885	0.632	0.141	0.446
t+2	0.948	0.423	0.273	0.186
t+3	0.779	0.353	0.209	0.276
t+4	0.478	0.505	0.193	0.226
First Week	0.564	0.489	0.138	0.274
First Month	0.252	0.873	0.094	0.439
3 Months	0.537	0.856	0.143	0.504
6 Months	0.412	0.748	0.334	0.858

5. CONCLUSION

In literature, it is generally found out that investors who invest IPOs have positive abnormal returns without influencing related countries' features or time period of study. This may be explained in two ways: IPOs might be underpriced or the price of IPO is not realistic aftermarket. The statistical results of this study show that 15 of 32 IPO firms had negative performance after first day. This number increased up to 19 as of end of first month. These results are not in line with previous studies which were done for ISE and found absolute positive abnormal returns. One of the reasons behind this result may be price margin/range regulations at ISE. Eventhough statistically abnormal returns were found, investors only had significant positive abnormal returns at the end of third day of trading. Considering the periods, till the end of third month, the abnormal returns moved in increasing trend. After than, it starts to decrease as similar to the study done by Karan and Ayden (2000). Another finding of the study was that the performance of IPOs does not differ based on firm size, age, sector operated and foreigners ratio in offerings in short term. But statistically it is possible to touch some empirical findings such as, young firms, IPO firms whose shares less than %10 had been sold to foreign investors had better performance than others in short term. In case the foreigners share is high (up to %40), IPOs had a stable performance in short term. For the periods under consideration, high standard deviations of abnormal returns comparing with previous studies highlight the importance of portfolio selection for investors.

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APPENDIX A.

IPO companies' features offered between January 2010 and June 2011

No	IPO Firm	Name of Trading at ISE	Type of Public Offering	Offering Ratio (%)	Offering Price (TL)	Issue Date	Shares Sold to Foreign Investors (%)	Firm Value (TL)	Firm Age	Sector	Assets (TL) (year: 2011)
1	KOZA ALTIN İŞL.	KOZAL	New common shares	30.0	36.80	12.02.2010	40.00	4,407,250,000	27	Paper, paper products, press and publication	1,164,195,917
2	TSKB GYO	TSGYO	Sales of major shareholders and new common shares	38.3	1.05	09.04.2010	48.00	84,000,000	6	Real asset investment partnership	337,178,826
3	LATEK LOJİSTİK TİCARET	LATEK	Sales of major shareholders and new common shares	26.7	3.96	27.04.2010	0.00	62,015,000	13	Transportation, communication and warehousing	68,889,310
4	AKFEN HOLDİNG	AKFEN	Sales of major shareholders and new common shares	7.1	12.50	14.05.2010	56.00	1,152,360,000	36	Holding and investment corporates	3,719,066,000
5	AKSA ENERJİ ÜRETİM	AKSEN	Sales of major shareholders and new common shares	5.5	4.90	21.05.2010	18.35	1,819,125,000	15	Electricity, gases and water	2,384,600,207
6	MANGO GIDA SANAYİ VE TİCARET	MANGO	Sales of major shareholders	34.0	3.60	24.05.2010	0.00	33,000,000	12	Food, beverages and tobacco	51,587,155
7	İHLAS GAZETECİLİK	IHGZT	New common shares	33.0	1.65	14.06.2010	0.00	120,000,000	12	Paper, paper products, press and publication	244,652,034
8	ANEL ELEKTRİK PROJE TAAH VE TİC.	ANELE	Sales of major shareholders and new common shares	39.5	5.30	16.06.2010	29.44	213,400,000	26	Construction	550,241,351
9	EURO YATIRIM MENKUL DEĞERLER	EUROM	New common shares	25.0	1.71	21.06.2010	0.00	54,000,000	16	Holding and investment corporates	80,690,947
10	İDEALİST GAYRİMENKUL	IDGYO	New common shares	25.0	1.27	01.07.2010	3.56	36,100,000	5	Real asset investment partnership	9,448,189
11	ÇEMAŞ DÖKÜM SANAYİİ	CEMAS	Sales of major shareholders and new common shares	40.0	2.14	02.07.2010	0.00	107,250,000	36	Metal goods, machine and equipment manufacturing	113,794,375
12	REYSAŞ GAYRİMENKUL YATIRIM ORTAKLIĞI	RYGYO	Sales of major shareholders	38.5	1.00	12.07.2010	20.38	124,100,000	4	Real asset investment partnership	297,077,075

13	EKİZ YAĞ VE SABUN SANAYİİ	EKİZ	Sales of major shareholders and new common shares	28.6	6.65	20.07.2010	0.22	19,954,087	33	Chemical, petroleum, rubber and plastics	42,670,150
14	GEDİK YATIRIM MENKUL DEĞERLER	GEDİK	New common shares	15.0	1.58	29.07.2010	0.00	86,112,000	21	Investment partnership	163,083,460
15	MARTI GAYRİMENKUL YATIRIM ORTAKLIĞI	MRGYO	Sales of major shareholders	49.1	1.42	24.09.2010	13.57	64,900,000	25	Real asset investment partnership	160,202,294
16	TORUNLAR GAYRİMENKUL YATIRIM ORTAKLIĞI	TRGYO	Sales of major shareholders and new common shares	25.2	7.30	21.10.2010	5.31	893,760,000	16	Real asset investment partnership	3,203,839,000
17	İHLAS YAYIN HOLDİNG	İHYAY	New common shares	28.8	1.30	05.11.2010	0.05	134,000,000	9	Paper, paper products, press and publication	342,508,308
18	KATMERCİLER ARAÇ ÜSTÜ EKİPMAN SANAYİ VE TİCARET	KATMR	Sales of major shareholders and new common shares	24.0	6.00	11.11.2010	0.00	70,500,000	27	Metal goods, machine and equipment manufacturing	59,549,723
19	UYUM GIDA ve İHTİYAÇ MADDELERİ SANAYİ ve TİCARET	UYUM	Sales of major shareholders	30.0	8.75	22.11.2010	31.27	142,800,000	14	Food, beverages and tobacco	143,438,381
20	EMLAK KONUT GAYRİMENKUL YATIRIM ORTAKLIĞI	EKGYO	Sales of major shareholders	25.0	1.70	02.12.2010	75.00	5,025,000,000	22	Real asset investment partnership	7,115,450,000
21	DO&CO RESTAURANTS AND CATERİNG AG	DOCO	Sales of major shareholders and new common shares	31.9	43.18	02.12.2010	70.00	628,488,000	15	Restaurant and accommodation	439,420,000
22	DESPEC BİLGİSAYAR PAZARLAMA VE TİCARET	DESPC	Sales of major shareholders and new common shares	21.8	7.15	08.12.2010	23.68	47,035,000	17	Technology	51,151,853
23	HATEKS TEKSTİL İŞLETMELERİ	HATEK	Sales of major shareholders and new common shares	15.5	4.25	17.01.2011	0.00	131,040,000	39	Textile, clothing and leather	182,371,934
24	KİLER ALIŞMERSİZ HİZMETLERİ GIDA	KİLER	Sales of major shareholders and new common shares	15.0	6.10	27.01.2011	54.90	360,781,600	18	Retail	602,636,000
25	LOKMAN HEKİM SAĞLIK TUR. EĞİTİM HİZ. VE İNŞ.	LKMNH	Sales of major shareholders	20.0	4.13	01.02.2011	3.14	39,200,000	16	Training, health and social services	57,625,213
26	BİZİM TOPTAN SATIŞ MAĞAZALARI	BİZİM	New common shares	40.0	25.00	03.02.2011	80.00	802,000,000	11	Retail	279,646,707
27	ÜTOPYA TURİZM İNŞAAT İŞLETMECİLİK TİC.	UTPYA	Sales of major shareholders and new common shares	22.0	3.86	24.02.2011	22.55	68,500,000	22	Construction	137,287,403
28	BİMEKS BİLGİ İŞLEM VE DİŞ TİC.	BMEKS	Sales of major shareholders and new common shares	31.7	4.50	14.04.2011	36.00	142,800,000	22	Retail	251,722,878
29	KİLER G. MENKUL YAT. ORTAKLIĞI	KLGYO	Sales of major shareholders and new common shares	34.5	6.10	20.04.2011	34.80	224,000,000	7	Real asset investment partnership	422,104,942
30	AKFEN G. MENKUL YAT. ORTAKLIĞI	AKFGY	Sales of major shareholders and new common shares	29.4	2.28	11.05.2011	50.00	268,640,000	15	Real asset investment partnership	747,542,000
31	YAPRAK SÜT VE BESİ ÇİFTLİKLERİ	YAPRK	Sales of major shareholders and new common shares	26.1	6.00	13.05.2011	0.00	32,660,000	8	Food, beverages and tobacco	16,387,766
32	BİLİCİ YATIRIM SAN. VE TİC.	BLCYT	Sales of major shareholders	33.1	2.70	17.05.2011	0.00	67,500,000	12	Investment partnership	46,597,952

APPENDIX B.

T-Bill Interest Rate (182 Day)

Year	2009	2010	2011
T-Bill Interest Rate (%)	13.00%	8.35%	8.12%

APPENDIX C.

Beta coefficient of IPOs

No	Name of IPO	Similar Firm	Beta (β)
1	KOZA ALTIN İŞLETMELERİ	İPEK Doğal Enerji Kaynakları	0.19
2	TSKB GYO	YAPI KREDİ GYO	0.33
3	LATEK LOJİSTİK TİCARET	USAŞ Uçak Servisi	0.13
4	AKFEN HOLDİNG	TEKFEN Holding	0.47
5	AKSA ENERJİ ÜRETİM	ZORLU Enerji	0.29
6	MANGO GIDA SANAYİ VE TİCARET	MERKO Gıda	0.35
7	İHLAS GAZETECİLİK	HÜRRİYET Gazetecilik	0.18
8	ANEL ELEKTRİK PROJE TAAHHÜT VE TİC.	AYEN Enerji	0.49
9	EURO YATIRIM MENKUL DEĞERLER	İŞIKLAR Yatırım Holding	0.20
10	İDEALİST GAYRİMENKUL Y.O	AVRASYA GMYO	0.14
11	ÇEMAŞ DÖKÜM SANAYİ	MAKİNA Takım	0.02
12	REYSAŞ GAYRİMENKUL YATIRIM ORTAKLIĞI	ALARKO GMYO	0.31
13	EKİZ YAĞ VE SABUN SANAYİ	ÇBS Boya	0.14
14	GEDİK YATIRIM MENKUL DEĞERLER	İŞ Yatırım Ortaklığı	0.49
15	MARTI GAYRİMENKUL YATIRIM ORTAKLIĞI	AKMERKEZ GMYO	0.13
16	TORUNLAR GAYRİMENKUL YATIRIM ORT.	SİNPAŞ GMYO	0.41
17	İHLAS YAYIN HOLDİNG	NET Holding	0.24
18	KATMERCİLER ARAÇ ÜSTÜ EKİP SAN. VE TİC.	BOSCH Fren Sistemleri	0.21
19	UYUM GIDA ve İHTİYAÇ MAD SAN. ve TİC	KEREVİTAŞ	0.11
20	EMLAK KONUT GAYRİMENKUL YAT. ORT.	DOĞAN Holding	0.37
21	DO&CO RESTAURANTS AND CATERİNG AG	NET Turizm	0.46
22	DESPEC BİLGİSAYAR PAZARLAMA VE TİC	LOGO Yazılım	0.20
23	HATEKS HATAY TEKSTİL İŞLETMELERİ	VAKKO Tekstil	0.20
24	KİLER ALIŞVERİŞ HİZ. GIDA SAN. VE TİC.	METRO Ticaret	0.10
25	LOKMAN HEKİM SAĞ. TUR. EĞİT.İNŞ. TAAH.	AFM FİLM	0.01
26	BİZİM TOPTAN İNŞAAT İŞLETMECİLİK TİC.	MİLPA Ticari ve Sınai Ürünler	0.15
27	ÜTOPYA TURİZM İNŞAAT İŞLETMECİLİK TİC.	EGE Seramik	0.23
28	BİMEKS BİLGİ İŞLEM VE DIŞ TİCARET	BOYNER Mağazaları A.Ş	0.19
29	KİLER GAYRİMENKUL YATIRIM ORTAKLIĞI	GLOBAL Yatırım	0.23
30	AKFEN GAYRİMENKUL YATIRIM ORTAKLIĞI	GSD Holding	0.46
31	YAPRAK SÜT VE BESİ ÇİFTLİKLERİ	ALTIN Yağ Kombinaları	0.29
32	BİLİCİ YATIRIM SANAYİ VE TİCARET	ECZACIBAŞI Yatırım Ortaklığı	0.53

P.S: Since the ISE index returns on considered periods are too high (%90,1), calculated β coefficients are very small.

APPENDIX D

Computed abnormal returns and short term performances of IPOs.

No	IPO Firm	Periods							
		First Day	t+2	t+3	T+4	First Week	First Month	3 Months	6 Months
1	KOZA ALTIN İŞLETMELERİ	5.21%	2.29%	5.81%	3.81%	6.38%	-1.70%	3.92%	-20.98%
2	TSKB GYO	-2.76%	-3.78%	-3.03%	-2.27%	-2.58%	-9.30%	-20.85%	-49.29%
3	LATEK LOJİSTİK TİCARET	8.58%	15.57%	8.25%	6.01%	9.77%	18.31%	22.60%	1,23%
4	AKFEN HOLDİNG	9.31%	8.45%	6.11%	7.90%	7.96%	-0.37%	-20.40%	-30,23%
5	AKSA ENERJİ ÜRETİM	-1.73%	-3.22%	-1.51%	-4.26%	-4.00%	-9.73%	-20.08%	-32,57%
6	MANGO GIDA SAN VE TİC	-2.00%	-0.20%	-4.25%	-5.81%	-1.58%	-22.75%	-13.16%	-54,54%
7	İHLAS GAZETECİLİK	12.34%	27.91%	53.95%	75.96%	93.37%	64.94%	137.13%	115,07%
8	ANEL ELEKTRİK PRJ TAAH.	1.23%	0.82%	0.42%	-2.92%	-4.91%	-9.96%	-29.63%	-24,84%
9	EURO YAT.MENK.DEĞ.	10.50%	34.38%	47.58%	42.41%	40.29%	68.04%	1.42%	-31,79%
10	İDEALİST G.MENKUL Y.O	9.33%	30.54%	56.76%	45.18%	57.26%	37.66%	96.82%	58,46%
11	ÇEMAŞ DÖKÜM SANAYİ	0.07%	0.12%	0.20%	0.24%	0.31%	1.54%	4.58%	8,43%
12	REYSAŞ GAYRİMENKUL YATIRIM ORTAKLIĞI	-2.86%	-7.48%	-9.54%	-8.18%	-10.28%	-15.36%	-43.33%	-27,55%
13	EKİZ YAĞ VE SABUN SAN.	-14.32%	-10.62%	-16.91%	-17.30%	-18.52%	-27.75%	-48.09%	-33,90%
14	GEDİK YATIRIM MENK.DEĞ	9.25%	7.64%	6.33%	5.58%	4.56%	20.97%	-0.81%	2,95%
15	MARTI GAYRİMENKUL Y.O.	-1.13%	-4.16%	-8.98%	-11.26%	-14.00%	-26.39%	-32.95%	-30,97%
16	TORUNLAR G.MENKUL Y.O.	-3.75%	-5.59%	-6.14%	-9.27%	-5.62%	-8.00%	1.98%	-4,85%
17	İHLÂS YAYIN HOLDİNG	10.88%	34.33%	53.53%	50.31%	44.12%	32.27%	30.21%	28,85%
18	KATMERCİLER ARAÇ ÜSTÜ EKİP SAN. VE TİC.	-8.20%	-54.10%	-56.28%	-54.48%	-51.04%	-44.71%	-39.70%	6,93%
19	UYUM GIDA ve İHTİYAÇ MAD SAN. ve TİC	3.73%	-2.13%	-4.29%	-5.39%	-6.95%	-4.94%	5.20%	5,69%
20	EMLAK KONUT GAYRİMENKUL YAT. ORT.	4.88%	13.58%	15.23%	11.44%	10.62%	10.53%	54.25%	69,09%
21	DO&CO RESTAURANTS AND CATERİNG AG	2.49%	5.35%	16.60%	16.75%	17.63%	29.65%	36.21%	52,42%
22	DESPEC BİLGİSAYAR PAZARLAMA VE TİC	0.76%	3.61%	4.89%	1.69%	1.42%	10.07%	-8.72%	-12,85%
23	HATEKS HATAY TEKSTİL İŞLETMELERİ	11.47%	35.86%	59.70%	95.08%	104.16%	137.96%	308.91%	81,08%
24	KİLER ALIŞVERİŞ HİZ. GIDA SAN. VE TİC.	12.09%	14.79%	10.47%	9.06%	8.51%	-0.82%	-3.96%	-17,37%
25	LOKMAN HEKİM SAĞ. TUR. EĞİT.İNŞ. TAAH.	-0.03%	-2.87%	-5.13%	-8.06%	-8.61%	5.81%	-9.72%	-35,44%
26	BİZİM TOPTAN İNŞAAT İŞLETMECİLİK TİC.	0.06%	-2.07%	0.45%	-1.68%	-2.97%	-1.55%	-2.31%	-13,17%
27	ÜTOPYA TURİZM İNŞAAT İŞLETMECİLİK TİC.	0.40%	-2.27%	-3.87%	-3.18%	-5.72%	-8.02%	-3.34%	58,25%
28	BİMEKS BİLGİ İŞLEM VE DIŞ TİCARET	-8.06%	-6.73%	-7.59%	-8.60%	-10.39%	-12.29%	-21.80%	-31,66%
29	KİLER GAYRİMENKUL YATIRIM ORTAKLIĞI	-5.51%	-7.36%	-7.33%	-7.38%	-8.29%	-11.08%	-29.64%	-38,32%
30	AKFEN GAYRİMENKUL YATIRIM ORTAKLIĞI	0.25%	-2.15%	-0.56%	-7.22%	-6.74%	-6.29%	-11.65%	-4,56%
31	YAPRAK SÜT VE BESİ ÇİFTLİKLERİ	13.45%	13.13%	10.83%	14.00%	11.81%	21.18%	7.53%	10,38%
32	BİLİCİ YATIRIM SANAYİ VE TİCARET	0.41%	1.99%	0.34%	-2.87%	-5.29%	1.49%	8.05%	9,17%

Mean	2.39%	4.24%	6.94%	7.04%	7.83%	7.48%	11.21%	0.41%
Standard Deviation	6.88%	17.11%	24.15%	28.02%	30.61%	34.02%	66.31%	40.98%
P (Sig) Value	0.435	0.260	0.031	0.104	0.126	0.302	0.149	0.221