Flipping Activity in Fixed Offer Price mechanism allocated IPO's

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January 2006

Abstract

The purpose of this paper is to study the phenomenon of flipping (liquidation of IPO in the first two-three days of trading) in the immediate aftermarket. We investigate the trading behaviour of all investors in 51 IPOs that took place from January 2003 – December 2004 with fixed offer price mechanism. We access electronic share settlement records for each company to investigate whether initial subscribers flip their shares during the first two days of trading and relate this flipping behaviour to issuer, shareholder, underwriter and market characteristics.

On average flipping accounts for only 37.67% of trading volume and 24.30% of shares offered during the two first days of trading. Institutions do more flipping than retail investors and cold IPO's are flipped much more than hot IPO's. Newly firms listed by reputable underwriters surprisingly present high flipping at 43.5% while less reputable banks and syndicates have 34.1% flipping activity for their IPO's.

This paper presents a model of the flippers behaviour in terms of shares allocation. The model shows that institutional investors optimally choose to flip more in larger IPO's. Market classification is a factor, which affects flipping activity as institutional investors prefer to flip more in IPO's of secondary (parallel) market. In this model it does not appear any significant flipping activity by retail investors.

During the last decades it has been an increased attention to studying the prior and immediate aftermarket performance of IPO's. Such an interest does not exist for the firms, which are for many years listed in the stock exchange. The reason for this different treatment has to do with the belief that decisions during this period may affect the firm's performance for many months after succeeding list in the stock market.

Flipping, defined by Bayley et al (2003) as " the liquiditation of IPO allocation in the first day of seasoning", is the easiest way to make money through an IPO by purchase of the new shares directly from the underwriter and then selling them immediately on the open market. Specifically, flipping is the reselling of a hot IPO stock in the first few days (or day) to earn a quick profit. This is not easy to do, and investors are strongly discouraged by underwriters. The reason is that underwriters want long-term investors who hold their stocks. There are no laws that prevent flipping, but the underwriter may blacklist 'bad' investors from future offerings.

Flipping has mainly negative but also positive influences. It is mainly negative for underwriters as risk inventory losses arising from reselling flipped shares in a declining market. Correra (1992) reports that underwriters are at "war against IPO flippers" noting that it is the "aim of the underwriters is to thwart out those nefarious types…who buy a new issue and dump it quickly".

 Positive aspects of the flipping have to do with aftermarket liquidity, which may decrease the cost of trading and lowering the issuing firms cost of capital (Amihud and Mendelson (1986)). Ellis (2000) point out the economic benefits which arises from flipping while Fishe (2001) shows that underwriters can gain through covering their short position from a suppressed aftermarket price caused by flipping.

In order to avoid negative consequences (where a high level of flipping creates disappointment to the remaining investors), in many markets underwriters applies stabilization activities to prevent the stock price falling below the psychological level of the offer price. Part of this stabilization method is to allocate a higher level of underpriced IPOs to institutional investors because they are long-term investors and they will not flip in the short term. It is necessary in a few cases, that investment banks buy flipped shares in the immediate aftermarket in order to establish stability in the trading activity of some weak IPO's. Fishe (2001) reports that in contrast to existing models of stabilization, the

underwriter gains from after-market purchases, particularly if the contract with the issuer includes an over-allotment[2] option. The over-allotment option encourages a lower offer price, which may lead to under-pricing.

The model we use is estimated on the basis of a sample, which constitutes big investment houses and private investors. We show that flipping can be mainly explained by initial returns of the IPO, and reputation status of the underwriter. In our approach, we use a unique data set that permits a comprehensive empirical analysis of the flipping activities by IPO customers after adjusting the allocations made to institutional and private investors.

The remainder of the paper proceeds as follows. Section I analyses the methodology and the data. Section II provides descriptive results on flipping activity, initial returns, type of lead underwriter and by market categorization. Section III outlines the hypothesis, which will be tested and provides the model. Section IV examines the results from multivariate analysis. Section V concludes this study.

I. Methodology and Sample Description

In order to calculate flipping ratios for each IPO in the sample, the following formulae are created and summed for the total amount of IPO investors in each firm. These flipping measures are denoted in the number of shares flipped over the first two days.

$$STSO = \frac{Shares..Traded}{Shares..Offered}*100 \quad (1) \qquad SFTV = \frac{Shares..Flipped}{Trading..Volume}*100 \quad (2)$$

$$SFSO = \frac{Shares..Flipped}{Shares..Offered}*100 \quad (3) \qquad SFSA = \frac{Shares..flipped.by.institutions}{Shares..allocated.to.institutions}*100 \quad (4)$$

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[2] The underwriter and issuer set the size of the issue. The issuer grants the underwriter an over-allotment option to purchase shares at the underwriters discounted price. If the underwriter does not exercise the over-allotment option, then any short position must be covered at the aftermarket price. The over-allotment option allows the underwriter to avoid paying the aftermarket price when it exceeds the exercise price of the option.

Where:

STSO = Shares Traded Shares Offered

STFV = Shares Flipped Trading Volume

SFSO = Shares Flipped Shares Offered

SFSA = Shares Flipped Shares Allocated

We are first going to test three metrics at descriptive level and we will proceed with cross-sectional regression testing for the fourth one. In addition, we will provide further multivariate analysis for the retail investors.

Table 1 provides several characteristics for the 51 IPOs, which will help us to study flipping activity in the Greek market. We observe that the total number of shares traded in the first two days as a percentage of total shares offered for IPO's listed with fixed offer mechanism is at 72.46%. The shares flipped are at 37.67% of the total trading volume and at 24.30% of total shares offered.

II Descriptive results on flipping

Table 2 reports that 37.67% of the trading volume in the first two days is due to shares being flipped. Only 23.65 (median 15.67%) of shares offered in the IPO are flipped in the second day while this percentage is lower in the 3rd and the 4th day of trading.

Krigman et al (1999) notice that one aspect of IPOs often highlighted by the financial press is the heavy first day trading that puts many IPO firms on the list of the largest volume stocks for the day. To provide a basic understanding of the magnitude of first day trading, we calculate the total number of shares traded on the first two days as a percentage of the number of shares offered in the IPO.

The variation in the flipping activity, among IPO groups, classified by initial returns, is provided in panel B of Table 2. Results show that the percentage of 'share traded as a % of total shares offered' is higher in the hot IPO sample. It is prominent that during the first two days of trading, 90.91% of the total shares offered have been traded. This figure becomes lower as we move to less underpriced shares.

The study on flipping reveals that during the first two days investors chooses to flip more cold IPO's. It seems that investors likes to hold highly underpriced IPO's for more days –months while they make an effort to sell the overpriced shares. There is evidence that 58.85% of the total trading volume of the overpriced IPO's is flipped during the first two days. On the other hand the flipping activity for the low underpriced IPOs' sample is 45.8% of the total trading volume while for the medium and high-underpriced IPO's is 27.54% and 18.88% respectively.

The results differentiate when there is a comparison between flipping activity and total shares offered during the issue. We observe the highest flipping activity by investors in the low underpriced IPO's sample with 33.37%. It is worth to say that the flipping variance between the various categories of underpricing is much less when we use as a base for our comparison total shares offered than total trading volume.

Our result for more institution flipping in cold IPO's contradicts with Aggarwal (2003). She reports that institutions "…do not quickly flip cold IPO's to take advantage of price support mechanism by the underwriters". The fact that price support mechanism applies in specific firms in Greece proves to be a demotivation for institutions so they prefer to take out from their shoulders the overpriced shares.

Overall our findings supports Reese's (1998) in a large sample of IPOs between 1983 and 1993, that trading volume has a higher first-week trading volume for more underpriced issues. In addition, our results are consistent with Krigman et al (1999) who report a significant range of first day adjusted trading volume within the sample with a minimum of one percent, a medium of 33 percent, and a maximum of 209 percent of shares offered.

Institutional versus individual allocation and flipping by filing range and initial returns

Next, we are going to study the extent of flipping by institutions and retail customers and relate it to the number of shares allocated to each group. We organise in Table 3 the flipping activity of retail and institutional investors. Three variables are used for both institutions and retail investors: shares flipped as a percentage of shares allocated, shares

flipped as a percentage of total shares traded and shares flipped as a percentage of total shares offered.

It becomes clear that institutional investors flip more in all the categories. Individual observations shows that institutions flip 27.06% of total shares allocated to them comparing with 20.39% of retail flipping activity. The percentage of shares flipped by institutions as a part of total shares is more than double from the percentage of shares flipped by retail investors. Similar study shows that institutional investors flip 17.24% of total shares offered to them while retail investors flip only 7.30%.

In order to study whether institutions flip more of the weak IPOs in order to benefit from underwriter's price support activities, we examine the level of flipping activity by institutions and retail customers. Our hypothesis is that institutions flip less if they focus for the long-term. Table 4 presents the results on a range of flipping transactions by the two main categories of investors. We find that, on average, institutions flip 19.42% (median of 14.92%) of the shares allocated to them in hot IPOs and private investors flip 14.31% (median of 10.52%). In the case of hot IPO's both institutional and individual demand is high so each institution is allocated only a small number of shares.

Aggarwal (2003) argues, "…each institution must then decide what to do in the aftermarket". There are two paths to follow. These are to buy additional shares in the aftermarket or to flip the original shares. The decision depends on the value of the IPO on the stock exchange. If the price has jumped up then institutions might not want to buy additional shares at a high price and might decide to flip the existing package of shares. Amihud et al. (2003) stress the knowledge of institutional investors for investment banks' priorities banks are now very concerned about flipping in hot IPOs whose price has jumped up and no price support[3] is necessary.

The percentage of shares flipped for 'cold' IPOs is on average 25.29 percent (median of 21.62 percent) for institutional investors and 13.83 percent (median of 8.04 percent) for private investors. Krigman et al (1999) attribute flipping in cold IPOs on uncommitted investors in these IPOs, despite the desire of investment banks for no investors flipping in these firms. Flipping in weak offerings creates selling pressure that can

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[3] Krigman et al (1999) argue that the cost of flipping is minimised by the underwriter's provision of aftermarket price support.

lower the price even below the offer price. This may force the underwriter to prevent stock prices from falling below the offer price.

Panel B of Table 4 reports that institutional and retail shares flipped as a percentage of shares allocated is not significant different in the various level of underpricing. Interestingly, there is high significance on different samples of underpricing in institutional and retail flipping as a percentage of total shares offered. The difference in the mean is significant at one percent level while it declines to 10 percent when we compare the 'warm' and 'hot' samples. The most striking observation here is that all the investors flip more in low underpriced IPO's than in medium or highly underpriced sample of firms.

To summarise, here are some main results from our analysis:

- Institutions flip more than retail customers (expected because on average institutions are allocated larger proportions of an IPO so they have a higher proportion of flipping);
- Institutions investors flip higher percentage of their allocation when the IPO is cold rather than hot;
- Only a small percentage of trading volume is due to flipping by either institutional or private investors;

Type of lead underwriter, allocations and flipping activity

In most of the cases, the lead underwriters are considered large investment banks with large retail operations. These banks can better manage offerings during weak market conditions or offerings that are expected to be hard to distribute. Schultz and Zaman (1994) examined the quotes of lead underwriters in the first three days after the IPO. They find that underwriters generally quote the highest bids and so actively support the price of less successful IPOs.

Chemmanur and Fulgheri (1994) demonstrate that investment bank reputation is acquired from the capital history of the firms they underwrite. In a multi-period setting, they show that underwriting good quality firms enhances reputation while underwriting low

quality firms tarnishes it. Five of the banks[4] of my sample have the most underwritings and higher fees in the market (likewise are the major retail brokers in Greece with total market share of 88 percent of the Greek Market). We group them together and call them reputed banks. All others banks and securities are grouped into a second category un-reputable banks. There are 20 IPOs listed by reputable banks and 31 listed by un-reputable banks and securities.

Table 5 – Panel A shows that reputable banks allocate a significantly lower proportion of IPOs to institutions, with a mean of 59.59 percent, as compared to un-reputable banks which allocate 69.90 percent to institutions. Trading volume as a percentage of shares offered is marginally lower for reputable banks at 81.54% (median of 65.83%) than for non-reputable banks at 82.63% (median at 82.63%).

Reputable banks shows a higher percentage of shares flipped as a comparison to total trading volume with a median of 43.5 percent (median 45.6%) compared with the 34.1 percent (median 35.3) by unreputable banks and syndicates. The last finding is consistent with Boehmer and Fishe's (2001b) results, that major underwriters may underprice some IPOs in order to produce a large effect of trading volume (liquidity) in the aftermarket. This creates the belief that liquidity is highly influenced by flipping.

The results of Table 5 show that 29.9% (median of 18.6%) of shares offered in an IPO are flipped in the first two days of trading for reputable banks, while 20.9% (median of 18.9%) of shares are flipped in IPOs for non-reputable banks. T test for difference in means and Wilcoxon test for difference in medians do not show any significant difference between the two samples.

We have already seen that reputable banks allocate a larger percentage of IPOs to private investors than non-reputable banks do. This consists partly of reputable banks' plans on investor's diversification and insists on their vision for increasing liquidity and maximisation of profits. On average institutions flip 27.4 percent of the shares allocated to

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[4] Most of the banks in Greece implemented concepts to discourage flipping because their activity creates problems by maintaining a detailed account of initial allocations. They keep notes on flipping activity by investors because the immediate reselling of shares in the aftermarket can cause downward pressure on the stock prices and mainly for weak offers. However, they do not disclose the proportion of shares allocated to institutional versus private investors and the public does not know who has flipped the shares (Report by National Bank of Greece).

them by reputable banks. Average flipping for unreputable banks is higher at 26.8 percent. This result opposes our earlier finding for higher flipping on offerings that have low initial returns. The average private flip by retail investors is 20.3 percent (shares allocated by reputable banks) and 20.4 percent (shares allocated by non-reputable banks). The differences in flipping by institutional and retail investors of non-reputable banks are statistically different. However, investors choose to flip more in firms, which goes public with reputable underwriters

Aggarwal (2003), for the U.S. market, reports a larger size of IPOs handled by retail banks. According to our results, she finds insignificantly higher first day initial return for IPOs underwritten by non-reputable banks. Retail (reputable) banks in the U.S. allocate a significantly lower proportion of an IPO to institutions. We present the same result for the Greek market.

Our findings suggest that:
- Non-reputable banks allocate higher percentage of shares to institutional investors;
- IPO's that goes public with non-reputable underwriters have higher underpricing;
- Reputable underwriters list IPOs with double the size of firms issued by non reputable underwriters;
- Investors flip a higher percentage of shares (over trading volume) offered to them by reputed underwriters (significant result at five percent);

Panel B of Table 5 presents the allocation and flipping based on the listing board. There are 35 IPOs listed in the main board (market) of the Athens Stock Exchange and 16 listed in the parallel market. Firms listed in the parallel market present higher day one initial return of 67.2% (median 35.86%) compared with returns 46.5% (median of 41.93%) for firms listed in the main market. The difference in these results is not statistically significant.

The IPOs of the main market present higher flipping as a proportion of total trading volume with 38.9% (median of 48.3%). Flipping measured by 'shares flipped as a percentage of shares offered' is higher for IPOs listed in the parallel market with 17.1% (median of 15.6%). Finally, total institutional allocation is 65.3% (median of 61%) for IPOs listed in the main market and marginally higher at 65.9% (median of 63.8%) for IPOs of trading in the parallel board.

Statistical tests show that there is significantly high flipping in the IPO's that succeed listing in the parallel market of the Athens Stock Exchange. This may be the case because those firms are highly underpriced and provide good short-term returns to their investors. Moreover investors do not seem to have the confidence to keep shares of those firms for longer period as they believe that these are not good long-term investments.

Summarising our findings on market categorization, we find:

- IPOs listed in the parallel market have enormous trading activity during the first two days (significant result at five percent);
- Companies listed in the main market present marginally higher percentage of shares flipped compared with the total trading volume
- Firms listed in the parallel market have a higher percentage of flipping based on shares offered (significance of five percent).

III Specification of the models

The positive link between flipping activity and shares allocation raises an interesting question regarding the underwriters' allocation decision. To address this, we test the relationship between flipping and allocation procedure by running a cross-sectional multiple regression. We use 'shares flipped by institutions as a percentage of shares allocated to institutions', and 'retail flipping as a percentage of shares allocated to private investors' as two separate dependent variables. The independent variables are day 1 return, the size of the issue (given by log of the number of shares multiplied by the offer price), underwriter reputation (a dummy variable equal to one if the underwriter is a major bank and zero otherwise), market categorization (a dummy equal to one if the firm trades in the main market and zero otherwise).

Explanation of Control Variables

We believe that the underpricing can partly explain the level of flipping. Numerous authors have examined flipping and its relation with underpricing. Carter et al (1998) contend that flipping has a detrimental effect on the early price performance of IPOs. Miller and Reilly (1987), and Boehmer and Fishe (2001b) document a positive relationship between the initial return and initial aftermarket trading volume.

H_1 *Institutional flipping is higher for IPOs associated with high day 1 returns.*

H_2 *Retail flipping is low for IPOs associated with high initial underpricing.*

Michaely and Shaw (1994) argue that larger IPOs are more difficult to market, holding other things constant. Krigman et al (1999) report a positive and significant coefficient between large investors, flipping and the size of a firm. They illustrate that the portfolio of lowest flipping quartile achieves the highest size-adjusted return over a period of one year. We believe that institutional investors will flip a lower proportion of shares in large IPOs and they will hold these shares for a longer period of time.

H_3 *The percentage of institutional flipping is lower in larger firms.*

H_4 *The percentage of retail flipping is higher for larger companies.*

Underwriters report that most IPO firms are vitally interested in placing large allocations of shares in the hands of committed institutional investors, presumably from the belief that thereby trading volatility will be minimised and value will be maximised.

Carter and Manaster (1990), Beatty and Ritter (1986), and Nanda and Young (1997) show reputation capital to mitigate adverse selection costs by reducing uncertainty and increasing investors' confidence.

H_5 *Firms underwritten by reputable banks have a low level of institutional flipping.*

H_6 *Companies that choose a reputable bank to go public have a high level of retail*

flipping..

Mauer and Senbet (1992) exhibit that the issue is underpriced to compensate initial investors for the risk of purchasing stock that does not have a perfect substitute in the secondary market. Booth and Chua (1995) suggest that IPOs are underpriced to encourage a dispersed ownership structure that increases liquidity.

In the Greek context, we consider IPOs listed in the parallel market to be of higher risk to the investors. An investor's indication drives underwriters to choose the market-clearing price for the IPOs. They usually set low price that helps to create an aftermarket trading as a result of flipping activity.

H₇ *Firms listed in the main market of ASE will have a low level of institutional flipping.*

H₈ *We expect higher retail flipping for IPOs listed in the main market.*

We will use the following models to test institutional and retail flipping:

Institutional flipping as a percentage of shares allocated = $a + \beta_1 \, Day1 + \beta_2 \, Size + \beta_3 Und + \beta_4 Market + \varepsilon$ (1)

Retail flipping as a percentage of shares allocated = $a + \beta_1 \, Day1 + \beta_2 \, Size + \beta_3 Und + \beta_4 Market + \varepsilon$ (2)

IV Cross-sectional regression results

We have provided two sets of regressions. The first set studies shares flipped by institutions as a percentage of shares allocated to institutions, and the second examines shares flipped by retail customers as a percentage of shares allocated to retail customers. The results of linear regressions can be found in Table 6. Regression for IPO's listed with fixed offer price method mechanism explains 17.6 and 6.1 percent respectively of the variation in institutional and retail flipping as percentage of shares allocated.

The dummy variable 'UND' is set to one, if the firm was underwritten by a lead investment bank (classified as reputable) and zero otherwise. The second dummy variable we use in our testing is 'MARKET'. This is set to one if the IPO is listed and traded in the main market of the stock exchange.

The results on the coefficients of the regression model are presented in table 6. The t-statistics are robust for heteroscedasticity using the White (1980) process.

Testings on 'day 1 return' of IPOs listed with fixed offer price mechanism reveal significance at one percent level. The sign is inconsistent with our hypothesis and indicates that institutional flipping is highly related with low initial underpricing. Our findings for second hypothesis show that retail flipping, have the expected negative sign. The results are not significant. Thus, we totally reject the hypothesis for low retail flipping activity in cases of highly underpriced firms.

The result on institutional flipping of large firms reveals a positive sign (statistical significant at five percent). This indicates that institutional investors flip more in large firms when a fixed offer price method was widely in use. However, our results for retail flipping is consistent with Aggarwal's (2003) finding for a positive association among individual flipping and large IPOs

Hypotheses five and six compare underwriter's reputation with institutional and retail flipping as percentage of shares allocated. We do not find any significant results for those hypotheses though it appears a positive to reputable underwriters flipping activity.

The sign of 'market' for firms listed in the stock market with a fixed offer price mechanism is negative and statistically significant. Thus, institutional investors choose to flip in IPOs that succeed listing in the less demanding secondary market. The result confirms hypothesis seven. We do not find any support for the hypothesis eight i.e. retail flipping is positively associated with primary market IPOs.

Our results in total do corroborate Aggarwal's (2003) evidence that institutional flip more shares in firms with low capital raised, whereas it contradicts with high flipping in cases of high initial returns.

V Conclusion

The phenomenon of excessive flipping suggests that shares are not ideally allocated, with emphasis to buy and hold oriented investors. Alternatively, low flipping can result in a lack of market liquidity.

The results suggests that the percentage of shares flipped during day 1 is 35.9% of total shares traded during that day while it increases to 37.67% when we count shares flipped during days 1 and 2. Study of flipping activity based on initial return of IPO's shows that overpriced new listed firms offer the highest percentage of shares flipped in comparison to trading volume with 58.85%. The percentage of shares flipped as a percentage of total trading volume decreases the higher the level of underpricing.

Surprisingly the results for shares flipped as a percentage of total shares offered are different. Overpriced and highly underpriced IPO's have got the lowest percentage of flipping activity with 18.65% and 20.44% while low and medium underpriced IPO's present flipping as a percentage of total shares offered of 33.37% and 23.67% respectively.

Categorisation of investors into institutional and retail indicates that the shares flipped by institutions as a percentage of total shares traded is almost equal in all categories with the overpriced IPO's having the lower flipping while medium underpriced shares the highest. Retail investors prefer to flip more lowly underpriced IPO's, while the percentage of shares they flip in highly underpriced shares is low.

Split of the sample into firms that were listed in the ASE with reputed and un-reputed banks shows that the shares flipped as percentage of total trading volume is higher for the reputed underwriters sample with 43.5% while it is lower at 34.1% for the IPO's that reach listing with un-reputable underwriters. When we look for flipping as a percentage of total shares offered we observe that flipping on un-reputed underwriters IPO's is lower at 20.9% comparing with 29.9% for IPO's listed by reputed underwriters.

It is more puzzling, the results we get for flipping activity based on the market classification. The shares flipped as a percentage of total trading volume is higher for the main market sample while study of flipping as a percentage of total shares offered presents opposite results.

To statistically empower our results, we form eight hypotheses driven by the literature to explain flipping behaviour. The results show a strong link between institutional

flipping and IPO's with low day one returns. This reveals the immediate expectation of institutional investors to reduce their participation in shares with low gains..

We do not find any support for institutional flipping in relation to underwriter's reputation. There is high flipping by institutions in IPOs seeking listing in ASE's secondary market IPO's. The evidence from multivariate tests also suggests that retail investors prefer small firms for their flipping activity. Our finding is inconsistent with the hypothesis, i.e. private investors flip their shares more in large firms. Finally, we do not find any support for retail flipping in relation with 'day 1 returns', 'underwriter's reputation' and 'market classification'.

There is no evidence for the hypothesis that heavy trading volume during the first few days of trading in an IPO is due to flippers. We find that during the first few trading days, even though 'trading volume as a percentage of shares offered' is high, high trading volume is not just due to flipping.

However, we can therefore conclude with Aggarwal (2003) that '…the high trading volume is partly a result of other factors, such as buying and selling by investors who are not necessarily original buyers of the IPO while it is merely a result of trading activity between market makers'. Our findings differentiates to the results found by Fishe (2001), Krigman et al (1999), Ellis et al (2000), Boehmer and Fishe (2001a), Bayley et al (2003) and Boehmer and Fishe (2003) who found that flippers pose problems to stakeholders which surround an IPO.

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Table 1: Descriptive statistics for flipping activity sample

The table reports several characteristics for 51 IPO's that were listed under fixed offer price method. Firms were listed from January 2003 to December 2004. Institutional Allocation: percentage of the IPO allocated to institutional investors, Private Allocation: percentage of the IPO allocated to private investors, Day 1 return: percentage difference between the 1st day returns and the offer price, Age: operating history of issuer at time of IPO. Demand Multiple: times of oversubscription of the issued shares, Syndicate size: denotes the number of members in the underwriting syndicate, (10) Market classification, listing in the main (primary) or the parallel (second) board of Athens Stock Exchange – 0.36 means that 36% of shares are classified in the main market, (a) 'Shares traded as a % of total shares offered' is the total number of shares traded in the first two days as a percentage of total shares offered, (b) 'Shares flipped as a % of the total trading volume' is the total number of shares flipped on the first two trading days divided by the total number of shares traded on the first two trading days, (c) 'Shares flipped as a % of shares offered' is the total number of shares traded on the first two trading days divided by the total number of shares offered in the IPO.

Panel A: Descriptive statistics for IPOs listed under fixed offer price method

Variable	INST ALLOC	Retail Alloc.	Day 1 return	Age	Demand Multiple	Syndicate size	Market classif.
Mean	65.72	34.89	54.91	21.16	135.56	15	
Median	63	37	22	19	60	14	
Proportion=1							0.36
Min	21.67	12	-22.36	0	3	7	
Max	81.25	81	472	81	760	28	
Sample Size	51	51	51	51	51	51	51

Panel B: Flipping activity of IPO's

	Fixed Price (N=51)	
	Mean	Median
Day 1 Return	60.64	22.33
Shares traded as % of total shares offered	72.46	61.83
Shares flipped as % of total trading volume	37.67	39.81
Shares flipped as % of total shares offered	24.30	18.87

Table 2: Flipping Activity by Filing Range and Initial Returns

Panel A reports the mean and median of several characteristics of IPOs offered between January 2003 - December 2004. Columns 2 and 3 report characteristics of 51 IPOs offered during that time period. (1) Day 1 returns is the 1st day trading percentage returns to the investors. (2) Shares traded in 1st-4th as a % of total shares is the total number of shares traded. (3) Shares flipped in first and second days as % of shares traded is the total number of shares flipped on the first and first two days of trading. Panel B presents a split of the sample of IPOs in four groups based on day 1 return (offer price to day close): very cold, cold, warm and very hot. (4) Shares traded as % of total shares offered is the total number of shares traded in the first two days as a percentage of total shares offered: (5) shares offered as % of the total trading volume is the total number of shares flipped on the first two trading days, divided by the total number of shares traded on the first two trading days: (6) shares flipped as % of shares offered is the total number of shares flipped on the first two trading days, divided by the total number of shares offered in the IPO.

Panel A: Descriptive statistics

Characteristics	Mean	Median
Day 1 return (%)	60.64	22
Shares traded 1st day as % total shares	49.22	46.35
Shares traded 2nd day as % total shares	23.65	15.67
Shares traded 3rd day as % total shares	18.46	12.39
Shares traded 4rd day as % total shares	10.54	6.32
Shares flipped (day 1) as % shares traded	35.9	33.84
Shares flipped (day 2) as % shares traded	44.7	41.52
Shares flipped (days 1+2) as % shares traded	37.67	43.56

Panel B: Flipping activity by initial returns

	Cold Day 1 return ≤ 0 (N=13)		Normal 0<Day 1 return ≤ 15 (N=13)		Warm 15<Day 1 ret ≤ 100 (N=15)		Hot Day 1 return >100 (N=10)	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Day 1 Return	-10.36	-9.65	10.98	10.98	61.08	51.87	216.01	183.41
Shares traded as % of total shares offered	35.31	25.91	75.43	61.83	86.09	71.13	90.91	84.11
Shares flipped as % of total trading volume	58.85	58.15	45.80	45.85	27.54	32.04	18.88	17.26
Shares flipped as % of total shares offered	20.44	15.46	33.37	27.66	23.67	20.21	18.65	14.73

Table 3: Institutional versus retail flipping by filing range

Shares flipped by % of shares allocated is the total number of shares flipped by institutions (retail investors) divided by the total number of shares allocated to institutions (retail) in the IPO; shares flipped as % of shares traded is the total number of shares flipped by institutions (retail) divided by the total number of shares traded; shares flipped as % of shares offered is the total number of shares flipped by institutions (retail) divided by the total number of shares offered in the IPO; average size of institutional (retail) flip is the average of shares flipped in each flipping transaction; institutional allocations is the percentage of an issue allocated to institutional investors.

Institutional versus individual allocation and flipping by filing range		
Fixed offer price (N=51)		
	Mean	
Shares flipped by institutions as a % of shares allocated to institutions	27.06	25.58
Shares flipped by retail as % of shares allocated to retail	20.39	15.13
Shares flipped by institutions as % of total shares traded	28.3	26.57
Shares flipped by retail as % of total shares traded	9.4	7.81
Shares flipped by institutions as % of total shares offered	17.24	14.68
Shares flipped by retail as % of total shares offered	7.36	3.77

Table 4: Institutional versus retail flipping by initial returns

Panel A shows flipping activity (based on the first two trading days) by institutions and private investors who were initially allocated shares in the offering. Shares flipped by % of shares allocated is the total number of shares flipped by institutions (retail investors) divided by the total number of shares allocated to institutions (retail) in the IPO; shares flipped as % of shares traded is the total number of shares flipped by institutions (retail) divided by the total number of shares traded; shares flipped as % of shares offered is the total number of shares flipped by institutions (retail) divided by the total number of shares offered in the IPO; average size of institutional (retail) flip is the average of shares flipped in each flipping transaction; institutional allocations is the percentage of an issue allocated to institutional investors. Test statistics (*) and p-values [*] indicate the level of significance different from zero using the Mood's median test, *** Significant at the one per cent level for the two-tailed test. **Significant at the five per cent level for the two-tailed test *Significant at the ten per cent level for the two-tailed test

Panel A: Institutional versus individual allocation and flipping by initial returns

	Cold Day 1 return ≤ 0 (N=13)		Normal 0<Day 1 return ≤ 15 (N=13)		Warm 15<Day 1 ret ≤ 100 (N=15)		Hot Day 1 return >100 (N=10)	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Shares flipped by institutions as a % of shares allocated to institutions	25.29	21.26	37.22	37.59	23.84	23.21	19.42	14.92
Shares flipped by retail as % of shares allocated to retail	13.83	8.04	28.82	25.89	21.92	19.06	14.31	10.52
Shares flipped by institutions as % of total shares traded	16.64	12.35	24.53	20.13	16.10	15.10	17.14	14.06
Shares flipped by retail as % of total shares traded	6.66	2.60	11.58	9.06	8.47	6.17	11.7	10.16
Shares flipped by institutions as % of total shares offered	45.79	48.14	32.09	34.16	18.64	19.48	17.06	14.93
Shares flipped by retail as % of total shares offered	13.05	9.94	13.60	12.71	8.89	656	18.1	16.95

Panel B: t statistics for the difference in means and Wilcoxon test for difference in median

t-tests for difference in means			Wilcoxon test for difference in median		
Cold/Hot	Normal/Hot	Warm/Hot	Cold/Hot	Normal/Hot	Warm/Hot
0.299 [0.772]	1.634 [0.137]	0.521 [0.615]	-0.153 [0.878]	-1.580 [0.114]	-1.070 [0.285]
-0.139 [0.892]	1.576 [0.150]	1.317 [0.221]	-0.357 [0.721]	-1.376 [0.169]	-1.784 [0.074]*
-0.203 [0.844]	0.384 [0.710]	1.172 [0.275]	-0.764 [0.445]	-0.764 [0.445]	-0.899 [0.374]
1.782 [0.099]*	3.300 [0.009]***	3.380 [0.010]**	-1.988 [0.047]**	-2.701 [0.007]***	-2.547 [0.011]**
6.906 [0.000]***	5.816 [0.000]***	2.236 [0.052]*	-2.803 [0.005]***	-2.803 [0.005]***	-1.886 [0.059]
3.392 [0.008]***	5.529 [0.000]***	3.810 [0.004]***	-2.599 [0.009]***	-2.803 [0.005]***	-2.803 [0.005]***

Table 5: Allocation and flipping by type of lead underwriter and by market

In Panel A, the sample of IPOs is partitioned into two groups based on the type of lead underwriter: reputable & un-reputable. In panel B the sample of IPOs is split into two groups based on the type of market they are going public. The table provides mean and median statistics: N is the number of observations; offer price is the initial offer price; issue size refers to the Euro proceeds; day 1 return is the percentage difference between the opening price on day 1 and the offer price; Shares traded as % of total shares offered is the total number of shares traded in the first two days as a percentage of total shares offered; shares offered as % of the total trading volume is the total number of shares flipped on the first two trading days, divided by the total number of shares traded on the first two trading days; shares flipped as % of shares offered is the total number of shares flipped as % of shares offered is the total number of shares flipped on the first two trading days divided by the total number of shares offered in the IPO; Institutional allocation is the percentage of an issue allocated to institutional investors; Test statistics (*) and p-values [*] indicate the level of significance different from zero using the Mood's median test. *** Significant at the one per cent level for the two-tailed test. **Significant at the five per cent level for the two-tailed test *Significant at the ten per cent level for the two-tailed test

Panel A: Allocation and flipping by type of lead underwriter

	Reputed Banks (N=20)		Un-reputed Banks-Securities (N=31)		Difference in mean	Difference in median
	Mean	Median	Mean	Median	t-statistic	Wilcoxon test
Offer Price (€)	12	11.4	15.8	15	-2.639 [0.016]**	-2.277 [0.023]**
Issue size (millions of €)	5.54	12.80	2.86	10.39	2.85 [0.035]**	1.939 [0.87]*
Day 1 Return	30.8	15.8	79.7	40.6	-0.693 [0.522]	-1.046 [0.295]
Shares traded as % of total shares offered	79.1	74.6	69.1	60.1	0.460 [0.651]	-0.402 [0.687]
Shares flipped as % of total trading volume	43.5	45.6	34.1	35.3	1.175 [0.255]	-1.529 [0.126]
Shares flipped as % of total shares offered	29.9	18.6	20.9	18.3	1.325 [0.202]	-1.127 [0.260]
Shares flipped by institutions as % shares allocated to institutions	27.4	29.5	26.8	23.5	2.545 [0.019]**	-2.589[0.010]**
Shares flipped by retail as % shares allocated to retail	20.3	15.3	20.4	14.5	2.112 [0.044]**	-2.173 [0.030]**
Institutional Allocations	62.5	61.2	67.7	63.8	0.440 [0.665]	-0.684 [0.494]

Panel B: Allocation and flipping by market classification

	Main market (N=35)		Parallel market (N=16)		Difference in mean	Difference in median
	Mean	Median	Mean	Median	t-statistic	Wilcoxon test
Offer Price (€)	15.5	12.9	13.7	11.9	0.710 [0.488]	-0.497 [0.619]
Issue size (millions of €)	9.95	4.25	1.02	0.85	5.67 [0.000]***	4.184 [0.000]***
Day 1 Return	46.5	5.2	67.2	31.5	-0.073 [0.943]	-0.355 [0.723]
Shares traded as % of total shares offered	44.4	39.8	88.2	83.2	-2.116 [0.050]**	-2.275 [0.023]**
Shares flipped as % of total trading volume	38.9	48.3	37.6	37.0	-1.105 [0.285]	-0.941 [0.347]
Shares flipped as % of total shares offered	17.1	15.6	28.6	26.8	-3.135 [0.006]	-2.510 [0.012]**
Shares flipped by institutions as % shares allocated to institutions	27.0	23.2	27.1	29.5	0.100 [0.921]	-0.259 [0.796]
Shares flipped by retail as % shares allocated to retail	20.8	10.3	20.2	15.3	0.334 [0.743]	-0.155 [0.877]
Institutional Allocations	65.3	61.0	65.9	63.8	-0.130 [0.898]	-0.511 [0.609]

Table 6: IPO allocations and flipping activity regressions

A set of regressions is run: The first set, uses shares by institutions as a percentage, if shares allocated to institutions as the dependent variable and the second set shares flipped by retail investors as a percentage of shares allocated to retail investors. The independent variables are: the day 1 return (offer price to day 1 close), the size expressed as the log of initial proceeds, a dummy variable equal to one if the IPO was underwritten by a lead investment bank (classified as reputable) and zero otherwise and, a dummy equal to one it the IPO trades in main market and zero otherwise, * indicates significant difference from zero at the 10% level, assuming normality and independence ** indicates significant difference from zero at the 5% level, assuming normality and independence ***indicates significant difference from zero at the 1% level, assuming normality and independence

	Fixed offer price method	
	Institutional flipping as % of shares allocated	Retail flipping as % of shares allocated
	(1)	(2)
Constant	-37.91	-12.43
	(-1.112)	(0.811)
Day 1 return	-0.267	-0.053
	(-2.889)***	(-0.410)
mSize	0.321	0.165
	(2.086)**	(0.663)
Und	0.015	0.031
	(0.123)	(0.219)
Market	-0.393	-0.144
	(-2.736)***	(-0.880)
Adjusted R^2	17.6	6.1
F-Statistic	3.56**	0.30
Significance	0.013	0.875
N	51	51