



ELSEVIER

Contents lists available at ScienceDirect

# Journal of International Money and Finance

journal homepage: [www.elsevier.com/locate/jimf](http://www.elsevier.com/locate/jimf)



## Why firms favour the AIM when they can list on main market? ☆



John A. Doukas<sup>a,b,\*</sup>, Hafiz Hoque<sup>c,\*\*</sup>

<sup>a</sup> Strome College of Business, Old Dominion University, Constant Hall, Suite 2080, Norfolk, VA 23529-0222, USA

<sup>b</sup> Judge Business School, Cambridge University, United Kingdom

<sup>c</sup> University of York, Freeboys Lane, YO10 5GD, United Kingdom

### ARTICLE INFO

#### Article history:

Available online 22 October 2015

#### JEL Classification:

G15

G30

#### Keywords:

AIM

London MM

IPOs

M&As

SEOs

Dividends

### ABSTRACT

It is often argued that the popularity of Alternative Investment Market (AIM) in terms of higher number of listings relative to the Main Market (MM) is mainly due to the strict listing requirements in the MM. During the 1995 to 2014 period, 577 out of 1143 AIM listed firms did not qualify for MM listing, but the rest (566) that raised equity in AIM could have joined the MM. This raises the question why firms that meet the heavier regulatory environment of the MM choose the AIM, a lighter regulatory environment. This paper subjects this question to a comprehensive investigation and finds that the market choice is a self-selection decision. The two markets attract companies with different characteristics, and dissimilar post-listing investment and financing priorities. The evidence also shows that smaller and younger companies choose to be listed on the AIM due to lower listing and on-going costs. Heckman Selection models addressing the important question of what would have been the operating performance if AIM companies joined MM indicate that AIM companies would not perform better had they selected to go public in the MM.

© 2015 Elsevier Ltd. All rights reserved.

☆ We would like to thank an anonymous referee, Jay R. Ritter and Tarun R-amadorai for useful comments.

\* Corresponding author: Tel.: 1 (757) 683 5521.

E-mail address: [jdoukas@odu.edu](mailto:jdoukas@odu.edu) (J.A. Doukas).

\*\* Corresponding author: Tel.: +44(0)1904325047.

E-mail address: [hafiz.hoque@york.ac.uk](mailto:hafiz.hoque@york.ac.uk) (H. Hoque).

## 1. Introduction

Why do firms that meet the heavier regulatory environment of the Main Market choose the Alternative Investment Market (AIM), a lighter regulatory environment? This question motivates the undertaking of this study in an attempt to gain an understanding of the forces of its success that have sparked similar market developments in other countries.

Undoubtedly, the facts regarding AIM show that it is a growing market and has become very popular among corporations and investors despite the contentious views of stock exchange officials.<sup>1</sup> Between 1995 and December 2014, 3578 new and relatively small companies (2942 UK and 636 foreign) were listed on the AIM.<sup>2</sup> During the same period, only 1001 new companies listed on the Main Market (MM). The enormous growth of the lightly regulated AIM segment in London motivated other stock exchanges starting similar segments such as the Alternext market launched by NYSE-Euronext, and First North, part of the NASDAQ-OMX group of exchanges, which serves the Nordic and Baltic regions. The natural question that emerges from the growing number of companies listing their shares on the AIM is what motives and characteristics influence their decision to join AIM rather than the MM even when they meet the listing requirements of the latter. The main objective of this study is to address this question.

While a number of previous studies investigate different aspects of the second and prime security markets, they do not examine the listing choice of firms. For example, [Affleck-Graves et al. \(1993\)](#) study whether IPOs on different exchanges (NYSE, AMEX, NASDAQ/NMS, and NASDAQ/non-NMS IPOs) display similar underpricing.<sup>3</sup> They find evidence supporting the view that initial and continuing listing standards provide reliable information to investors about new issues and reduce uncertainty about firm prospects, thus lower underpricing. In a more related paper, [Corwin and Harris \(2001\)](#) analyse why IPOs choose NASDAQ or the NYSE and find that the two venues differ in listing fees and other market operations. They also report that small firms tend to join NASDAQ and less risky firms join NYSE, but they find little differences in terms of subsequent seasoned offerings.<sup>4</sup> A key difference with our study is that [Corwin and Harris \(2001\)](#) explore only the listing choice between NASDAQ and NYSE, but they do not model the IPO listing as a self-selection decision, like other corporate finance decisions, which makes it difficult to gain a comprehensive understanding of the reasons behind the market listing choice.<sup>5</sup> In addition, these studies examine IPO listings, either during the period of a growing US IPO market or in the course of stock exchange regulatory changes.<sup>6</sup> Our study is addressing the timely issue of exchange listing choice as a self-selection choice, like other corporate finance decisions when the AIM is growing while the US market for similar company listings is losing its competitive advantage.

In more recent studies, [Mendoza \(2008\)](#) argues that AIM covers a funding gap for companies whose characteristics deny them the opportunity of listing in senior markets such as LSE, NASDAQ and the NYSE. [Vismara et al. \(2012\)](#) analyse long-run share price performance, liquidity and survival rates of companies listed in Europe's second markets, and [Gerakos et al. \(2011\)](#) examine the same issues for AIM, LSE, NASDAQ and OTC Bulletin Board. A common theme in all these papers is that they compare markets across countries. Country-specific factors like taxes, regulation and market sentiment, however,

<sup>1</sup> For example, Roel Campos, a Commissioner at the US Securities and Exchange Commission, in 2007 was quoted saying "I'm concerned that 30% of issuers that list on AIM are gone in a year. That feels like a casino to me and I believe that investors will treat it as such." Treanor, Jill "City hits out over US 'casino' jibe at AIM." *The Guardian*, 10 March 2007. Similarly, John Thain, chief executive of the New York Stock Exchange (NYSE), criticised AIM for its lack of regulation and corporate governance standards. Mr. Thain, speaking at the World Economic Forum in Davos, Switzerland, stated that AIM "did not have any standards at all and anyone could list." James Quinn, NYSE Chief attacks AIM, *The Telegraph*, 27 January 2007.

<sup>2</sup> AIM companies raised £39.39 billion in IPOs and £50.57 billion in SEOs. In contrast, MM companies raised £171.57 billion in IPOs and £365.12 in SEOs.

<sup>3</sup> They report significant levels of underpricing for all four trading systems, with the average levels being 4.82%, 2.16%, 5.56%, and 10.41% for the NYSE, AMEX, NASDAQ/NMS, and NASDAQ/non-NMS IPOs, respectively.

<sup>4</sup> Their analysis suffers from a look ahead bias, as in the probit regression they use the SEOs as an explanatory variable. At the time of IPO, however, the information on SEOs is not known; thus, their analysis is suffering from a look ahead bias.

<sup>5</sup> [Corwin and Harris \(2001\)](#) consider only SEOs after the IPO, while we consider SEOs, M&As, dividend payments and capital changes.

<sup>6</sup> In 1983, NYSE developed special listing procedures, making it possible for some large IPOs to directly list on NYSE.

are not taken into account in these studies even though they might influence a firm's exchange listing choice. Focusing on the prime market (MM) and second market (AIM), which comprise the London Stock Exchange, has the advantage that tax rates, market sentiment and other country-specific features are unlikely to affect them differently.

A frequent explanation for the preference of firms to list on the AIM (second market) rather than the MM (prime market) is that they do not meet the listing requirements of the prime market (Baker et al., 2002; Doidge et al., 2009; Ritter et al., 2013; Vismara et al., 2012). The popularity of the second markets is also observed in other countries, e.g., US and Europe. AIM is one of the most popular second markets in the world and naturally draws our research attention. Some of the previous studies claim that the popularity of the second markets is due to flexible listing requirements.<sup>7</sup>

While regulation might be a factor, the main question we address in this study is why firms that meet the listing requirements of the MM list in the AIM. Unlike previous studies, our investigation controls for the heavier regulatory listing requirements of the MM by concentrating on firms that list on AIM while they meet the listing requirements on MM. Jenkinson and Ramadorai (2013) analyse the announcement and subsequent stock return effects for firms switching between the two London markets, which differ in their regulatory regimes, and suggest that the improved performance in the years following the switch is likely to be attributed to the lighter regulatory environment in the AIM market. Likewise, Campbell and Tabner (2011) study firms switching between AIM and the MM and find that liquidity and the cost of capital differ across exchange venues, reflecting different bonding requirements and agency risks. However, this explanation might be vulnerable to selection bias, acknowledged by the authors, but not pursued in their study. Since we cannot observe the operating performance of all the IPOs in an alternative regulatory environment (because very few firms switch markets), we address this issue through the information contained in the Mills Inverse ratio in a Heckman selection model. While previous research has analysed different aspects of second markets, several other questions remain unanswered that we address in this paper.

This paper addresses the following questions. First, what firm characteristics are associated with the decision to list on the AIM rather than the MM even when firms listing on the former meet the regulatory listing requirements of the latter?<sup>8</sup> Second, is there a significant difference in operating performance between companies that list on the AIM relative to the ones that list on the MM, after addressing self-selectivity? Third, is the incidence and nature of corporate actions by IPO firms listed on the AIM different in comparison to those listed on the MM and why do such differences exist? By addressing these questions, this paper attempts to shed light on the motivations that entice firms to join the AIM while they could be listed on the MM.

The results of this study can be summarised as follows. Almost half of the companies that issue equity on the AIM could issue equity on the MM. The market choice of listing appears to be a self-selection decision like other corporate finance decisions. The post-IPO evidence shows that companies listed on the MM are associated with a greater number of acquisitions, capital changes and dividend announcements relative to AIM firms that do not meet Main market listing requirements and AIM companies that could list on the MM, suggesting that the MM subjects companies to a more active market for corporate control and greater market scrutiny. The number of seasoned equity offerings

---

<sup>7</sup> For instance, Jenkinson and Ramadorai (2013) argue: "More highly regulated stock markets in both the U.S. and the U.K. have seen reductions in the number of initial listings, while more lightly regulated markets have been favoured, especially by smaller firms. There has been a collapse of international listings in the U.S. following the introduction of Sarbanes-Oxley, and some U.S. companies have chosen to float on non-U.S. exchanges. A particularly impressive development was the enormous growth of the lightly-regulated Alternative Investment Market (AIM) segment in London, which attracted close to 1,000 new (relatively small) companies during 2005–2006. The success of AIM resulted in other stock exchanges launching similar segments, such as the Alternext market launched by NYSE-Euronext, and First North, part of the NASDAQ-OMX group of exchanges, which covers the Nordic and Baltic regions.

<sup>8</sup> AIM is often regarded as the market for smaller and younger companies, while the London MM is seen as a destination for mature companies. There is also certain listing requirements imposed on the companies seeking admission in the MM. In particular, there are three listing requirements for the MM: the company must have been trading for a minimum of 3 years, must have a minimum market value of £700,000 and a minimum float of 25% shares in public hands. It is an interesting issue whether companies while complying with the conditions for a MM listing instead seek a listing on AIM.

(SEOs), however, is much higher on the AIM. This is partly because the companies with greater post-IPO financing needs join AIM. Furthermore, we find that the AIM companies are loss making, and therefore have higher external financing needs. In addition, the lower floatation costs we document in the AIM seem to explain the higher number of SEOs. Operating performance is poor for AIM companies that could list on the Main market even after five years they join AIM with a –19.90% average 3-year post operating performance. In contrast, positive operating performance is observed for all five years following IPO companies that list on the MM with a 7.33% average 3-year post operating performance.

In sum, our evidence shows that the decision of firms to be listed on the AIM while they meet the heavier regulatory environment of the Main Market is influenced by company characteristics. That is, it is not listing requirements that dictate a firm's choice of stock exchange. From 1995 to 2014, 49.5% of All AIM 1143 listed companies could list on the MM by meeting its regulatory requirements. During the 2004–2006 period, the AIM experienced its highest listing activity with 537 companies going public. That is, 47% of all listed on the AIM occurred during this three-year interval, with 287 companies out of the 537, more than 53%, meeting the listing requirements of the MM. We find that company characteristics between AIM and MM listed companies are different even for the ones that meet the listing requirements of the MM. Their financing, restructuring and payout policies are also dissimilar. The Main market appears to attract companies that aim to create liquid equity shares for use in future acquisitions. Consistent with this view, our evidence shows that MM companies are heavily involved in M&A activities during the post-IPO period. On the other hand, AIM listed companies appear to go public in an attempt to meet their capital financing needs as they engage in significant follow-up offerings through SEOs during the post-IPO period. Fees are 2–5 times higher on the MM while further issuance cost savings are significant on AIM, which seem to attract companies to join AIM compared to MM. It follows that younger and smaller companies deliberately choose to be listed on the AIM as a result of lower admission costs, on-going costs and further issuance costs than those prevailing on the MM.

This paper contributes to the existing literature in several ways. First, while the previous literature (Braun and Fawcett, 2006; Pagano et al., 1998) has documented several motivations to go public, the rationale to list on a second market is not well understood and warrants investigation.<sup>9</sup> Given the impressive growth of AIM, it is important to comprehend why companies go public on this market even when they qualify to list on the MM. Therefore, focusing on firms that meet the listing requirements of the MM, but list on the AIM, leads us to uncover non-regulatory motives for listing on the latter market. In contrast to previous studies, neutralising the regulatory differences factor between the two markets, we find that company characteristics play an important role for companies to join the AIM while they could meet the listing requirement of the MM. Hence, our focus is to expose those characteristics that drive firms to list on the AIM other than regulatory considerations.

Second, the IPO decision is not an isolated event, as often assumed; rather it seems to be related to subsequent corporate actions. For example, the survey evidence of Braun and Fawcett (2006) shows that one of the important reasons that companies go public is to create public shares for use in future acquisitions.<sup>10</sup> Celikyurt et al. (2010) report that the newly listed firms make acquisitions at a great pace. We show the differences in post-IPO corporate activities between the AIM firms that could list on the Main market and the Main Market firms. Finally, in an attempt to further comprehend why firms that meet Main Market listing requirements join the AIM, we also focus on post-IPO operating performance. To perform this test, we control for firm characteristics while relating the operating performance of the company to the market of issue.

---

<sup>9</sup> For example, Pagano et al. (1998) show that firms go public for rebalancing their capital structure, Lowry (2003) shows that the most significant determinants of IPO volume are driven by firms' capital needs and investor sentiment, Boehmer and Ljungqvist (2004) find that firms go public when their investment opportunities and valuations become attractive, Kim and Weisbach (2008) show that financing capital expenditures for expansion and benefits from potential overvaluation are motives for SEOs and IPOs.

<sup>10</sup> The overall score for "to create public shares for use in future acquisitions" in their survey evidence is 3.56 out of 5.

The remainder of the paper is organised as follows. Section 2 reviews the related literature and develops the hypothesis. Section 3 describes the regulatory and listing requirements of IPOs in AIM and the MM. Section 4 describes the data and the sample construction. Section 5 examines decisions and the choice to list in AIM versus the MM. Section 6 analyses subsequent corporate actions taken by IPOs. Section 7 concludes.

## 2. Review of literature

The motivation of going public has been extensively researched in the literature. For example, Pagano et al. (1998), using a sample of Italian firms, show that firms go public for rebalancing their capital structure and to take advantage of sectoral misvaluation, rather than finance future growth and investments. On the other hand, Lowry (2003), using US aggregate IPO data, shows that IPO volume is mainly driven by corporate capital needs and investor sentiment. Boehmer and Ljungqvist (2004) find that German IPO firms time the market when their investment opportunities and valuations become attractive. Kim and Weisbach (2008) show that SEOs and IPOs are motivated by capital spending needs and benefits from potential overvaluation. Brau and Fawcett (2006), using survey data, show that one of the key reasons behind IPOs is to create public shares for use in future acquisitions. Celikyurt et al. (2010) report that newly listed firms make acquisitions at a faster rate than seasoned firms. In line with this, Rosen et al. (2005) find bank IPOs have more chances to become targets as well as acquirers than those that stay private. While all these studies provide a number of explanations for going public, this study differs from the previous literature by addressing the question why firms that meet the heavier regulatory environment of the MM choose the AIM, a lighter regulatory environment.

More recently, Vismara et al. (2012) analyse the European second markets and assert that European stock exchanges have opened second markets to attract smaller companies. While they offer several reasons for success and failure of these markets, they show that the average long-run share price performance of IPOs on these markets is noticeably worse than companies going public on MM. Gerakos et al. (2011) compare firms listing on the AIM and listing on regulated exchanges in the US and UK, and report that AIM firms perform poorly on a variety of dimensions.<sup>11</sup> In another interesting paper, Ritter et al. (2013) document the poor performance of European IPOs with low sales (less than 30 million euros) in the year before the IPO. Their results show that second market IPOs perform worse than main market IPOs (BHAR for the Main is 27.5% vs -5.1% for second markets). Large firm IPOs in the second markets outperform their small counterparts by an average 12.5% over 3 years, with a mean 3-year BHAR large firm IPOs of 4.9% compared to -7.6% on small firm IPOs. They show in the second markets higher propensity of these IPO firms to get acquired soon after the IPO, compared to the large firms. They provide evidence that the percentage of small firms that go public and are acquired soon after their IPO has increased over the last decade, but they do not find evidence that they make acquisitions at a great pace. However, they do not break AIM companies out separately.

While the insightful studies of Ritter et al. (2013), Vismara et al. (2012) and Gerakos et al. (2011) address the popularity of second tier markets, they compare markets across different countries. Country-specific factors such as valuation levels, regulations, method of IPO, taxes, and market sentiment, however, are not explicitly taken into account in these studies even though they might influence a firm's exchange listing choice. There are considerable differences in European and American IPO markets, and as Ritter (2003) points out country differences are important to be overlooked. Unlike the previous literature, in this paper we focus on the MM and AIM, both markets are parts of the London Stock Exchange. It is therefore unlikely that tax rates, market sentiment and other country-specific features will affect them differently. Given that AIM and MM both use the same technology, in a recent study Jenkinson and Ramadorai (2013) analyse the role of regulation in market switching from AIM to Main and vice versa. However, in this paper we analyse the reasons for joining these markets and in particular why firms that meet the heavier regulatory environment of the MM choose the AIM, a lighter regulatory environment. This question sets apart this study from previous studies.

<sup>11</sup> Their post-listing returns are significantly lower than stocks listed on other larger exchanges. They also report that liquidity is low and show that there is substantial information asymmetry.

Piotroski and Srinivasan (2009) examine the listing behaviour of foreign firms after the Sarbanes Oxley Act. They find that the listing decisions between London Stock Exchange and U.S. exchanges of large firms did not change because of the enactment of Sarbanes-Oxley (SOX). However, the probability of small firms to list in NASDAQ vs AIM has decreased following the enactment of SOX. This adverse effect among the small firms is the result of the higher compliance costs imposed by the SOX. Mendoza (2008) argues that AIM covers a funding gap for firms whose particular features prevent them from listing in senior markets such as the London Stock Exchange, NASDAQ, or the New York Exchange. Mendoza also argues that AIM's regulatory model is optimal for the UK market, which imposes low compliance costs on firms, but ensures adequate disclosure and transparency. Rousseau (2007) analyses the AIM to examine the suitability of AIM model for Canadian Securities market. While these studies compare AIM to several other markets, they do not address the very important question addressed in this study, why companies that meet the heavier regulatory requirements of the Main Market choose the Alternative Investment Market (AIM), a lighter regulatory environment.

In particular, we test several hypotheses. First, we hypothesise that smaller companies, with future equity capital raising needs, choose to join AIM even when they meet the Main Market listing requirements because there are no Stock Exchange fee requirements for further equity issuance, while this is not the case for MM companies (London Stock Exchange, 2011).<sup>12</sup> In addition, we conjecture that firms elect to issue equity in the AIM in an attempt to raise additional capital through SEOs at a lower cost than in the MM. Also, the listing and on-going fees are lower in the AIM, which are expected to make this market more appealing to firms considering going public. Furthermore, AIM firms are less likely to pay dividends to avoid market scrutiny, which would be doubtful if they choose listing on the MM. Paying no dividends, typically preferred by high growth firms, allows them to direct cash flows to investments in an attempt to increase their growth opportunities. High growth firms with limited cash flow resources are also less likely to commit paying dividends. On the other hand, by joining the Main Market, companies create more liquid shares for acquisitions (Vismara et al., 2012). Thus, companies planning to acquire other companies are more likely to join the Main Market. Additionally, some capital changes<sup>13</sup> are free of charge in the Main market. So companies that join the Main market are expected to conduct more capital changes. We test these hypotheses in this paper.

### 3. Regulatory and IPO listing requirements in the MM and AIM

The MM (i.e., The Official List of the London Stock Exchange) and the Alternative Investment Market (AIM) are the two key markets run by the London Stock Exchange (LSE). Until 2000, the LSE regulated the listing requirements for companies wishing to seek admission. From 2000 onwards, this supervisory function was assigned to the UK Listing Authority (UKLA), which is a part of the UK Financial Services Authority (FSA). The MM is London's prime market for larger, more mature companies. As defined by the EU Investment Services Directive, the MM is a regulated market, whereas AIM is an exchange regulated market. This implies that companies that seek to list on the MM have to fulfil the formal listing requirements of the UKLA and the requirements of the LSE. On the other hand, the admission rules for AIM are determined by UKLA. However, a company needs to find a Nominated Advisor (NOMAD) who acts as a middleman between the company and the Stock Exchange. Table 1 provides a summary of the regulatory differences between the two markets in terms of (i) admission criteria and (ii) continuing obligations. The key difference between the two markets is that the MM is subject to considerably higher levels of compliance, and greater on-going obligations concerning disclosure and transparency.

<sup>12</sup> By comparison, a company in the MM worth £549.2 million (the average size in the sample) need to pay £388,173 for further issuance to the stock exchange.

<sup>13</sup> Capital changes are categorised as: scrip issue, scrip issue in another share, scrip issue then consolidation, consolidation then scrip issue, scrip issue then subdivision, subdivision then scrip issue, scrip issue in another ordinary then consolidation, scrip issue in another ordinary then subdivision, complex scrip issue, consolidation, subdivision, capital repayment, cancel part of nominal value, rights issue, complex rights issue, rights issue in another share, multiple rights issue, spare, spinoff (rights in another company), spinoff (rights in foreign company), demerger and redenomination of par value into Euro.

**Table 1**  
Regulatory differences between the AIM and MM.

	AIM	MM
1. Admission requirements	No requirement for minimum percentage of float No age requirement No minimum market capitalisation Admission documents not pre-vetted by Exchange or UKLA Flat rate admission fee: £4535 until 2008, and from 2009 fees are charged based on size, min 6720 and max 75,810	Minimum 25% shares need to be floated Normally 3 years of published account required Minimum market capitalisation of £700,000 Pre-vetting of admission documents by the UKLA Admission fees based on size: min £6708 and max £388,173
2. Continuing obligations	–	–
(i) Further issuance costs	No issuance costs	Similar sliding scale fees like initial issuance, companies get 10% discount compared to IPO cost
(ii) Nominated advisers	Nominated adviser required at all times	No nominated advisers required, but sponsors needed for certain transactions
(iii) Annual fees	Flat rate annual fee: £5350 plus NOMAD fees	Sliding scale annual fees: e.g., £4410, £10,063, £43,470, respectively, for up to £50m, up to £500m, >£500m market cap stocks
(iv) Corporate transactions	Shareholder approval is required if the transaction value is higher than value of the company, simpler documentation required.	Shareholder approval necessary for transactions of much lower value, complex documentation required
(v) Related party transactions	Shareholder approval for related party transactions not required – an announcement to the market that the transaction is fair and reasonable is sufficient	Shareholder approval required for related party transactions
(vi) Corporate governance	No prescriptive corporate governance Requirements: Combined Code does not formally apply but companies encouraged to comply	Firms have to comply with or explain non-compliance with the Combined Code and comply with other relevant Listing Rules
(vii) Disclosure requirements	Less prescriptive requirements on nature of financial information to be disclosed	Firms have to comply with more stringent disclosure requirements set out in Listing, Disclosure and Transparency Rules

Note: This table reports the differences between AIM and MM in terms of admission requirements and continuing obligations.  
Source: London Stock Exchange and [Leitterstorf et al. \(2008\)](#).

AIM is one of the successful markets for growth companies in the world ([Vismara et al., 2012](#)). Around the world, 3578 companies have joined AIM since its beginning of operations in 1995. AIM is a market for smaller and younger companies that are able to raise funds they need for expansion. The London Stock Exchange determines the rules for admission to AIM. AIM companies have far fewer continuing obligations than their MM counterparts. In this regard the main requirement for AIM companies imposed by LSE is to find a NOMAD that will advise the company regarding stock market listing and on various corporate matters. So far, smaller investment banks or corporate finance advisory firms typically act as NOMADs; global underwriters and investment banks have not entered the market yet.

AIM was launched in June 1995, and as [Table 2](#) shows it has experienced enormous growth over the 19 subsequent years, attracting 3578 UK and foreign new companies. By the end of 2014, this included 885 UK and 219 international companies. Following the success of AIM, other stock exchanges launched similar sections. For instance, NYSE-Euronext launched Alternext market, and NASDAQ OMX group launched NASDAQ OMX First North.

AIM has achieved exceptional growth in listing UK and international companies. The number of UK companies jumped from 10 in 1995 to 885 in 2014. At the same time, the number of international companies soared from 0 to 219. 2007 was a peak year with 1347 UK and 347 foreign companies, respectively, suggesting that the international financial crisis had an adverse effect on listing activity.

**Table 2**  
The stock and flow of AIM companies since inception.

	Number of companies			Market value (£m)	Number of admissions			Money raised (£m)		
	UK	International	Total		UK	International	Total	IPOs	SEOs	Total
19/06/1995	10	0	10	82.2	–	–	–	–	–	–
1995	118	3	121	2382.4	120	3	123	71.2	25.3	96.5
1996	235	17	252	5298.5	131	14	145	521.3	302.3	823.6
1997	286	22	308	5655.1	100	7	107	341.5	350.2	691.7
1998	291	21	312	4437.9	68	7	75	267.5	317.7	585.2
1999	325	22	347	13,468.5	96	6	102	333.7	600.2	933.9
2000	493	31	524	14,935.2	265	12	277	1754.1	1338.3	3092.4
2001	587	42	629	11,607.2	162	15	177	593.1	535.3	1128.4
2002	654	50	704	10,252.3	147	13	160	490.1	485.8	975.8
2003	694	60	754	18,358.5	146	16	162	1095.4	999.7	2095.2
2004	905	116	1021	31,753.4	294	61	355	2775.9	1880.2	4656.1
2005	1179	220	1399	56,618.5	399	120	519	6461.2	2481.2	8942.4
2006	1330	304	1634	90,666.4	338	124	462	9943.8	5734.3	15,678.1
2007	1347	347	1694	97,561.0	197	87	284	6581.1	9602.8	16,183.9
2008	1233	317	1550	37,731.9	87	27	114	1107.8	3214.5	4322.3
2009	1052	241	1293	56,632.0	30	6	36	740.4	4861.1	5601.6
2010	967	228	1195	79,419.3	76	26	102	1219.4	5738.1	6957.6
2011	918	225	1143	62,212.7	67	23	90	608.8	3660.3	4269.1
2012	870	226	1096	61,747.7	47	24	71	707.1	2448.7	3115.8
2013	861	226	1087	75,928.6	77	22	99	1187.2	2728.1	3915.4
2014	885	219	1104	71,414.3	95	23	118	2599.2	3269.2	5868.4
<b>Total</b>	–	–	–	–	<b>2942</b>	<b>636</b>	<b>3578</b>	<b>39,399.8</b>	<b>50,573.5</b>	<b>89,933.3</b>

Note: This table reports the number of companies, market value, number of admissions and money raised in AIM over the 1995–2014 period. Source: London Stock Exchange, AIM Statistics, December 2014.



The number of new admissions is even higher. New admissions rose from 123 in 1995 to a total of 3578 by 2014. Funds raised through IPOs totalled £39.399 billion and £50.573 billion through SEOs over our sample period. Though the number of IPOs peaked in year 2005 (399 UK and 120 foreign companies), capital funding peaked in 2007 (£16.18 billion). In sum, we observe a remarkable growth of AIM listings and money raised until 2007 with a significant decline in listings and funds raised as a result of the financial crisis.

#### 4. Sample and descriptive statistics

##### 4.1. Sample design

The sample consists of all the IPOs on the London Stock Exchange from 1995 to 2014. We exclude introductions, admissions that did not raise equity, common on the AIM and some of the other markets, re-admissions, market transfers, as well as cross-listings of companies already listed on other stock markets. IPOs of investment entities (such as investment trusts) are also excluded. As a result, 529 IPOs on venture capital trusts (VCTs), equity instruments and investment companies are excluded from the sample. Because of various data unavailability, 261 IPOs are also excluded from the sample. After all this filtering, 1578 companies remain in the final sample, out of which 1143 joined AIM and 435 raised capital in the MM.

This study examines why some companies prefer AIM over the MM despite meeting the listing requirements of the later. Therefore, we focus on the AIM firms that meet the Main market listing requirements.<sup>14</sup> There are three measurable listing requirements for listing in the MM: minimum 25% of shares in public hands, minimum size of £700,000 at entry and 3 years of age (published accounts). However, for comparison purposes, we include AIM companies in our analysis that could not be admitted in the MM, due to listing requirements.<sup>15</sup>

Next, we assess how many of the AIM companies did not meet the entry requirements of the MM. A market value of £700,000 is not an obstacle to join the MM. Out of 1143 companies, only 8 listed in the AIM with a market value less than 700,000. This implies that market capitalisation does not stop companies listing on the MM. Second, the minimum float requirement, however, seems to be a major hurdle preventing companies joining the MM. In our sample, 342 (30%) companies issued less than 25% of shares to public, which can be a possible reason for listing in AIM. This suggests AIM companies are more closely held than MM companies. Finally, 275 (24%) companies did not meet the age requirements of the London MM. We find that there are 577 companies that do not meet two or more listing criteria of the London MM. We call these 577 companies that could not issue equity in the MM as *AIM firms that do not meet Main Market listing requirements*. The sample includes 566 AIM companies, which could issue equity in the MM. We call these sample *AIM firms that meets Main Market listing requirements*. We analyse three samples: *AIM firms that do not meet Main Market listing requirements* (577), *AIM firms that meet Main Market listing requirements* (566) and *Main Market* (435) firms.

##### 4.2. Sample description

Table 3 reports the number, money raised, average market value and underpricing of the IPOs by year for *AIM firms that do not meet Main Market listing requirements*, *AIM firms that meet Main Market listing requirements* and *Main Market* firms. Several interesting facts emerge from this table. First, during a bull market<sup>16</sup> a lot of companies join AIM that did not satisfy MM requirements. For instance, in the internet bubble period of 2000, out of 100 companies that join AIM (All AIM firms for 2000), 58 meet Main Market

<sup>14</sup> Fee considerations can be important to the decision to issue equity on AIM. For the London MM, incremental admission fees are charged on equity issues. Admission fees of a minimum of £6708 to a maximum of £388,173 are charged based on size in the MM. In comparison, the flat rate admission fee of £4535 was charged until 2008 in the AIM. From 2009, a minimum of £6720 and a maximum of £75,810 fees are charged based on size. The admission and on-going fees can be an important consideration to issue equity on AIM compared to the MM.

<sup>15</sup> We thank an anonymous referee for suggesting inclusion of this sub-sample for comparison purposes.

<sup>16</sup> Bull market includes two periods: January 1999 to March 2001, and January 2004 to the end of 2006.

**Table 3**  
Descriptive statistics of AIM and MM IPOs, 1995–2014.

	Number			Money raised (£m)			Average market value (£m)			Underpricing (%)		
	AIM firms that do not meet MM LR	AIM firms that meet MM LR	MM	AIM firms that do not meet MM LR	AIM firms that meet MM LR	MM	AIM firms that do not meet MM LR	AIM firms that meet MM LR	MM	AIM firms that do not meet MM LR	AIM firms that meet MM LR	MM
1995	6	2	47	11.1	7.5	1597.8	7.3	4.3	67.6	-2.3	3.1	6.3
1996	22	25	63	106.5	198.9	6037.2	23.0	19.4	173.7	47.9	10.9	5.5
1997	16	23	54	74.9	106.4	6028.9	16.4	11.4	312.9	12.0	13.2	5.0
1998	5	10	33	12.3	56.9	3286.8	15.1	17.6	235.9	11.1	11.5	0.5
1999	18	14	18	48.7	62.3	2659.8	11.6	9.6	432.6	106.1	41.2	17.6
2000	42	58	59	252.4	517.3	6803.8	27.8	21.6	588.9	39.3	56.9	10.4
2001	26	30	7	133.9	188.9	3441.9	32.6	15.1	737.1	77.0	66.4	7.0
2002	18	25	15	54.4	263.5	3971.9	22.7	17.8	562.7	2.1	6.5	-11.8
2003	17	20	6	47.1	134.9	1914.3	19.5	15.7	710.5	6.5	18.7	11.4
2004	55	104	17	245.2	1338.8	2253.1	25.1	24.9	277.4	35.8	24.2	12.8
2005	95	118	17	1497.1	1613.8	3628.9	33.3	30.2	540.4	31.7	21.2	5.5
2006	100	65	21	3719.0	1095.1	4420.0	61.2	42.6	718.4	17.1	17.9	12.5
2007	69	22	19	2011.8	320.7	3803.5	63.2	29.2	479.4	10.4	10.2	8.1
2008	15	3	3	287.2	124.2	1600.0	60.8	113.8	1655.6	13.5	6.9	-7.1
2009	9	-	1	590.6	-	62.0	68.1	-	192.1	7.8	-	0.0
2010	10	-	5	281.8	-	2313.7	64.1	-	1797.8	15.2	-	1.6
2011	13	11	11	251.5	123.9	4521.2	65.2	100.5	201.2	14.3	12.7	7.8
2012	10	9	14	353.2	362.3	3254.2	60.6	110.2	322.8	13.2	11.1	5.9
2013	14	12	12	452.1	789.9	5879.1	75.2	98.8	455.9	15.5	13.6	6.1
2014	17	15	13	568.8	1000.6	6327.9	69.8	112.6	522.1	13.6	10.3	4.7
Total	<b>577</b>	<b>566</b>	<b>435</b>	<b>10,999.6</b>	<b>8305.8</b>	<b>73,805.9</b>	<b>41.1</b>	<b>44.2</b>	<b>549.2</b>	<b>24.4</b>	<b>19.8</b>	<b>5.5</b>

Notes: This table reports the distribution of AIM and MM IPOs over the 1995–2014 period. The venture capital trust IPOs are excluded from the sample. *AIM firms that do not meet MM LR* means that AIM firms that do not meet Main market listing requirements, *AIM firms that meet MM LR* means AIM firms that meet Main market listing requirements, and *MM* is the Main market companies. Money raised is the money raised in IPO in millions of pound Sterling. Market value is in millions of pound Sterling at the time of IPO. Underpricing is measured as (closing price – issue price)/issue price. There are (i) 8 (<1%) AIM companies that did not meet minimum market capitalisation at IPO, (ii) 342 (30%) companies that did not meet minimum percentage of shares in public hands, and (iii) 275(24%) companies that did not meet records of financial statements for a number of periods.

listing requirements. This indicates that 42 of them could not join the MM because they could not meet the listing requirements of the MM. A similar pattern develops in the 2004–2006 period when the All AIM sample is a lot higher in comparison to the AIM firms that meet Main Market listing requirements.

Table 3 also reports the total funds raised by the AIM firms that do not meet Main Market listing requirements, AIM firms that meet Main Market listing requirements and MM IPOs in our sample. Throughout the sample period, the money raised is higher for the MM compared to AIM. This is mainly due to the fact that the average market value is 10 times higher for the MM IPOs. Underpricing in the AIM firms that do not meet Main Market listing requirements and AIM firms that meet Main Market requirements is four times higher than in the MM (24.4, 19.8% vs. 5.5%). The underpricing in the AIM is abnormally high during the internet bubble (1999–2000) period.

Historically, as shown in Table 4, demand for certain industry-stocks is higher in the AIM. For instance, more oil and gas, basic materials and financial services companies chose to join AIM in the past. As of December 2014, oil and gas, basic materials and financial services stocks accounted for almost 40% of AIM's total number of admissions. In contrast, the MM attracts more IPOs from telecommunications.

## 5. Differences in characteristics between AIM and MM companies at the time of IPO

We now turn our focus on company characteristics to determine if they play an important role in the IPO market choice. To be consistent with the previous literature (e.g., [Vismara et al., 2012](#)), we compare the percentage of shares issued, amount raised through IPOs, age of the company and first day return between the two markets. Given that we analyse AIM firms that do not meet Main market listing requirements and AIM firms that meet Main market listing requirements with the Main Market firms, it will shed additional light on the debate as to why companies choose to issue on AIM, but not on the MM.

Table 4 Panel B reports the descriptive statistics of the IPO characteristics. The mean (median) market value of the AIM firms that do not meet Main market listing requirements is £40.22 (£16.01) million, AIM firms that meet Main market listing requirements is £35.10 (£20.71) million, whereas the corresponding number for the MM is £549.20 (£120.31) million. The percentage of float shows AIM firms that do not meet Main market listing requirements companies float less shares compared to the MM companies. However, the AIM firms that meet Main market listing requirements float more shares. The mean age is 9.27 years for the MM companies compared to 6.13 years for the AIM firms that meet Main market listing requirements. Underpricing is higher in AIM compared to the MM. The mean (median) differences show that there is a significant difference in terms of company size, float, age of company and underpricing between the AIM firms that meet the Main market listing requirements and MM IPOs. Consistent with [Vismara et al. \(2012\)](#), our evidence shows larger and older companies join MM with AIM companies experiencing higher underpricing than their MM counterparts.

The mean (median) inverse issue price for the IPOs that meet the Main market requirements is £0.06 (£0.02), while the mean (median) for the Main market is £0.02 (£0.005). On average, AIM companies that could list on the Main Market are saving £39,874 by not joining the Main Market. On the other hand, a Main Market company could save £102,113 by joining AIM. The average underwriter prestige for AIM firms that could list on the Main Market is 2.10, whereas for Main Market firms it is 2.04. This difference suggests that AIM firms that could list on the Main Market are associated with more prestigious underwriters that aid them to reduce information asymmetry.

The mean (median) profitability of AIM firms that meet the MM requirements is  $-9.17$  (0.003), which is substantially lower than the MM firms. It means that profitable firms join the Main Market and loss making firms join the AIM. The ownership concentration, debt ratio, fixed asset ratio and sales are significantly lower for firms that join the AIM compared to the MM firms.

To examine the choice of market, we use a probit regression analysis accounting for other effects. Specifically, we are interested to analyse whether firm characteristics such as percentage free float, company size and age are statistically different across the two markets. Table 5 Panel A reports probit regression results where AIM firms that meet the Main market listing requirements = 0 and MM = 1. We run another probit model where AIM firms that do not meet the Main market listing requirements = 0 and MM = 1. We estimate the marginal effect of each explanatory variable on the choice of market. Marginal effect is the  $Dy/Dx$  and is evaluated at the sample means of explanatory variables. Cluster adjusted robust standard errors ([Petersen, 2009](#)) are used to calculate z statistics.

**Table 4**  
Univariate sorting of IPOs.

Panel A. Industry distribution of IPOs						
Industry	AIM firms that do not meet MM LR	Prop.	AIM firms that meet MM LR	Prop.	MM	Prop.
Oil & gas	37	0.064	34	0.060	19	0.044
Basic materials	53 <sup>a</sup>	0.091	62 <sup>a</sup>	0.109	18	0.042
Industrials	88 <sup>a</sup>	0.152	92 <sup>a</sup>	0.163	86	0.197
Consumer goods	22	0.039	27	0.048	23	0.052
Health care	32 <sup>a</sup>	0.055	48	0.084	33	0.073
Consumer services	102 <sup>a</sup>	0.177	104 <sup>a</sup>	0.183	93	0.213
Telecommunications	8	0.013	6	0.011	15	0.034
Utilities	12	0.020	3	0.006	1	0.003
Financials	158 <sup>a</sup>	0.273	108	0.190	76	0.177
Technology	66 <sup>a</sup>	0.115	82 <sup>a</sup>	0.146	72	0.166
Grand total	577	–	566	–	435	–

  

Panel B. Differences in IPO characteristics in AIM and MM IPOs						
	AIM firms that do not meet MM LR		AIM firms that meet MM LR		MM	
	Mean	Median	Mean	Median	Mean	Median
Market value (£m)	40.22 <sup>b</sup>	16.01 <sup>c</sup>	35.10 <sup>b</sup>	20.71 <sup>c</sup>	549.20	120.31
Free float (%)	35.03 <sup>b</sup>	17.34 <sup>c</sup>	45.31 <sup>b</sup>	40.52 <sup>c</sup>	41.57	33.62
Age (years)	4.73 <sup>b</sup>	4.00 <sup>c</sup>	6.13 <sup>b</sup>	6.00 <sup>c</sup>	9.27	8.00
Underpricing (%)	24.4 <sup>b</sup>	8.52 <sup>c</sup>	19.8 <sup>b</sup>	12.50 <sup>c</sup>	5.50	5.97
1/Issue price	0.09 <sup>b</sup>	0.02	0.06 <sup>b</sup>	0.02 <sup>c</sup>	0.02	0.005
Excess admission fee (£)	43,893 <sup>b</sup>	45,000	39,874 <sup>b</sup>	47,258 <sup>c</sup>	102,113	152,876
Und. prestige	1.97 <sup>b</sup>	2.00	2.10 <sup>b</sup>	2.00	2.04	2.00
EBITDA/TA	-48.40 <sup>b</sup>	-0.24 <sup>c</sup>	-9.17 <sup>b</sup>	0.003 <sup>c</sup>	10.69	14.62
Ownership concentration	49.28 <sup>b</sup>	51.57 <sup>c</sup>	47.39 <sup>b</sup>	51.02 <sup>c</sup>	40.01	41.25
Tobin's Q	2.44	1.97	2.48	1.95	2.45	1.84
TD/TA	16.01 <sup>b</sup>	2.91	15.37 <sup>b</sup>	2.45 <sup>c</sup>	21.38	9.67
FA/TA	17.34 <sup>b</sup>	5.70 <sup>c</sup>	16.87 <sup>b</sup>	6.11 <sup>c</sup>	25.16	15.89
Sales	20.20 <sup>b</sup>	2.08 <sup>c</sup>	18.38 <sup>b</sup>	2.80 <sup>c</sup>	152.23	38.20

Notes: Panel A reports the industry classification of AIM and MM IPOs over the 1995–2014 period. Industry categories are obtained from DataStream. *Market value* is the market value of the company in million Pound Sterling at the time of IPO. *Percent float* is the money raised divided by the market value of the company at IPO. *Age* is the number of years before the firm went public. *1/issue price* is inverted issue price. *Excess fee* is the admission fee that AIM companies need to pay to join the AIM minus if they would join MM. Mathematically,  $\{ \text{AIM (fee)} - \text{MM (fee)} \} < 0$ . *Underwriter prestige*  $\frac{\text{Money raised}}{\text{Money raised in IPOs underwritten by an investment bank relative to total money raised by all IPOs during 1995–2014}}$  is based on money raised in IPOs underwritten by an investment bank relative to total money raised by all IPOs during 1995–2014. *EBITDA/TA* is earnings before interests, tax and depreciation/total assets, *Sales* in million, *Tobin's Q* is computed as  $\frac{((\text{total assets} - \text{book equity}) + \text{market value of equity})}{\text{total assets}}$ . *TD/TA* is total debt divided by total assets. *Ownership concentration* is the closely held shares taken from Worldscope. *FA/TA* is fixed assets over total assets.

<sup>a</sup>Represents significant difference between AIM firms that do not meet MM LR, and MM and AIM firms that meet Main market listing requirements, and MM for mean difference proportion Z test at the 5% or 10% level.

<sup>b</sup>Represents significant difference between AIM firms that do not meet MM LR, and MM and AIM firms that meet Main market listing requirements, and MM for mean difference t test at 5% or 10% level.

<sup>c</sup>Represents significant difference between AIM firms that do not meet Main market listing requirements, and MM and AIM firms that meet Main market listing requirements and MM for Wilcoxon/Mann–Whitney median difference t test 5% or 10% level.

The results show that there are significant differences in the IPO characteristics between AIM firms that meet Main market listing requirements and MM IPOs in terms of market value, percent float, company age, excess admission fee charged and sales. The results are consistent with the expectation that larger companies prefer to issue equity on the MM as opposed to AIM, as the coefficient of the market value, 2.275 ( $p = 0.00$ ), suggests. The marginal effect shows that a 1% increase in firm market value will increase the probability of joining MM by 0.168%. Similarly, mature (older) companies, as shown by the positive and significant coefficient of the age variable, prefer to issue equity on the MM. Marginal analysis indicates that a 1% increase in company age increases the probability of joining MM

**Table 5**  
Probit analysis for the admission of AIM versus MM.

	Probit								Ordered probit	
	AIM firms that do not meet MM LR = 0, MM = 1				AIM firms that meets MM LR = 0, MM = 1				AIM firms that do not meet MM LR = 1, AIM firms that meets MM = 2, MM = 3	
	Coef.	p-val	Marginal effect	p-val	Coef.	p-val	Marginal effect	p-val	Coef.	p-val
Log (market value)	2.275***	0.00	0.168***	0.00	3.412***	0.00	0.300***	0.00	1.163***	0.00
Percent float	0.037***	0.00	0.003***	0.00	-0.005	0.58	0.000	0.58	0.027***	0.00
Log (age)	4.783***	0.00	0.352***	0.00	3.561***	0.00	0.314***	0.00	2.936***	0.00
1/Issue price	-12.960*	0.07	-0.955*	0.07	-32.466	0.13	-2.859	0.13	1.771***	0.00
Log (excess admission fee)	1.228**	0.02	0.090**	0.02	0.465**	0.04	0.041**	0.04	0.224	0.52
Und. prestige	-0.525**	0.01	-0.039*	0.01	-0.223	0.20	-0.020	0.19	-0.143**	0.05
EBITDA/TA	0.004	0.63	0.000	0.63	0.003	0.61	0.000	0.61	0.002	0.38
Ownership concentration	-0.007*	0.06	-0.001**	0.05	-0.012*	0.06	-0.001*	0.06	-0.002	0.40
Tobin's Q	0.146*	0.07	0.011	0.11	0.074	0.29	0.006	0.29	0.053*	0.09
TD/TA	0.001	0.85	0.000	0.85	0.000	0.98	0.000	0.98	-0.002	0.46
FA/TA	0.001	0.92	0.000	0.92	-0.007	0.25	-0.001	0.25	0.002	0.40
Sales	0.688***	0.00	0.051***	0.00	0.769***	0.00	0.068***	0.00	0.382***	0.00
Hot dummy	-1.185**	0.01	-0.087***	0.00	-1.811***	0.00	-0.160***	0.00	-0.233*	0.09
Crisis dummy	2.759	0.99	0.203	0.99	-	-	-	-	1.085	0.29
Cons	-13.575**	0.02	-	-	-10.493	0.02	-	-	-	-
Industry dummies	-	Yes	-	-	-	Yes	-	-	-	Yes
Pseudo R <sup>2</sup>	-	0.8062	-	-	-	0.7672	-	-	-	0.4007
Log psedolikelihood	-	-48.2143	-	-	-	-64.8784	-	-	-	-390.131
LR	-	401.18	-	-	-	427.58	-	-	-	521.79
Prob	-	0.00	-	-	-	0.00	-	-	-	0.00
/cut1	-	-	-	-	-	-	-	-	-	5.062
/cut2	-	-	-	-	-	-	-	-	-	6.983
N	-	1032	-	-	-	1021	-	-	-	1578

Notes: This table reports the probit regression results for the market choice. The IPO data come from London Stock Exchange over 1995–2014. *Market value* is the market value of the company in millions of Pound Sterling at the time of IPO. *Percent float* is the money raised divided by the market value of the company at IPO. *Age* is the number of years before the firm went public. *1/issue price* is inverted issue price. *Excess fee* is the admission fee that AIM companies need to pay to join the AIM minus if they would join MM. Mathematically,  $[AIM (fee) - MM (fee)] < 0$ . *Underwriter prestige* *Money raised* is based on money raised in IPOs underwritten by an investment bank relative to total money raised by all IPOs during 1995–2014. *EBITDA/TA* is earnings before interests, tax and depreciation/total assets, *Sales* in million, *Tobin's Q* is computed as  $((total\ assets - book\ equity) + market\ value\ of\ equity) / total\ assets$ . *TD/TA* is total debt divided by total assets. *Ownership concentration* is the closely held shares taken from Worldscope. *FA/TA* is fixed assets over total assets. *Hot Dummy* is two periods: January 1999–March 2001 and January 2004–December 2007. *Financial Crisis Dummy* is 1998, 2008–2010 taking the value of 1 and 0 otherwise. *Industry Dummies* are based on (n-1) industry categories defined in Table 3. Marginal effect is the Dy/Dx and is evaluated at the sample means of explanatory variables. The p-value is in the parenthesis under the marginal effects. Z statistics based on cluster adjusted robust standard errors (Petersen, 2009) are in the parenthesis under the coefficients. All the data are winsorised at 1% and 99% tails.

\*\*\*, \*\*, \* Represents significance at 1%, 5% and 10% level, respectively.

by 0.352%. Higher admission fees are defined as the fee paid to join the AIM minus the fee that AIM companies would have to pay to join MM.<sup>17</sup> In the MM fees play a significant role in driving companies to join AIM, as the coefficient for excess admission fee is positive and significant. The higher the profitability the higher the chances that a firm will join the MM. Also firms with higher sales have lower probability of joining the AIM. This result suggests that AIM companies are associated with higher informed investor capital, implying that investors have a lower incentive to acquire more firm-specific information. When we run the probit regression between the AIM firms that do not meet the Main market listing requirements and the Main market firms, the results remain relatively the same with few exceptions. The percentage float is positive and significant for the AIM firms that do not meet Main market listing requirements regressions, suggesting that percentage float is important for some of the AIM firms as some AIM firms could not issue equity in the Main market because of minimum float requirements. These results are consistent with our previous findings that 342 companies could not join MM because they float less than 25% shares.

We also include time dummies to control for time effects.<sup>18</sup> Specifically, we include hot market and crisis dummies to account for the corresponding effects. The hot dummy takes the value of 1 if an IPO occurs during the January 1999–March 2001 and January 2004–December 2007 periods. The Crisis dummy takes the value of 1 if an IPO takes place in 1998 and in the course of the 2008–2010 period. The coefficients of the hot dummy are negative and significant, indicating that during hot market periods AIM attracts more IPOs than MM. Marginal analysis shows that if IPOs are issued during hot market conditions, there is a 0.087–0.160% greater chance that IPOs will join the AIM. As expected, IPO activity is adversely affected by a financial crisis, but it does not appear that the AIM firms that meet Main market requirements are influenced more than MM as indicated by the positive and insignificant coefficient of the crisis dummy. The results are qualitatively similar when we include year dummies to control for time effects.<sup>19</sup>

We also run an ordered probit regression where AIM firms that do not meet the Main market listing requirements = 1, AIM firms that meet the Main market listing requirements = 2 and MM = 3. Cluster adjusted robust standard errors (Petersen, 2009) are used to calculate z statistics. We find that market value, percent float, age, profitability, inverse issue price and sales are the differentiating factors between AIM firms and MM firms.

In sum, the evidence so far suggests that AIM is more attractive to IPO companies, in our sample, that could meet the listing requirements of MM. Our analysis indicates that company characteristics such as size and age appear to play an important role in the choice of stock exchange listing.<sup>20</sup> We also find that sales and profitability are important factors that determine the destination of the company. Our results show that higher MM admission fees play an important role in favour of listing at the AIM. Since we control for the AIM companies that could meet the heavy regulatory requirements of MM, the regulatory difference between the two markets is not a factor for half of the companies that meet the Main market listing requirements.

## 6. Differences in post-IPO operating performance in AIM and MM companies

### 6.1. Baseline results

In this section, we examine the performance of companies 5 years subsequent to an IPO. The intention of this investigation is to determine whether the choice of the market affects the future performance of companies going public. In our baseline model, we measure the operating performance

<sup>17</sup> Excess fee is defined as:  $[AIM(\text{fee}) - MM(\text{fee})] < 0$ .

<sup>18</sup> See Lowry and Schwert (2002) for a discussion on IPO cycles.

<sup>19</sup> These results are available upon request.

<sup>20</sup> Since there is historically strong demand on AIM for companies operating in the energy, mining, real estate and financial services industries, we also include industry dummies to account for industry effects. In unreported results, available upon request, we have estimated a reduced form regression with the Financials, General Retailers, Information Technology, Mining and Real Estate dummies. While Financials, Mining and Real Estate dummies are positive, General Retailers and Information Technology dummies are negative. These results appear to be consistent with the findings of the univariate analysis.

of AIM and MM companies in terms of earnings before interest, taxes, depreciation and amortisation (EBITDA) divided by total assets. Independent variables include Tobin's Q, leverage, ownership concentration, company size, proxied by log of sales and asset tangibility.

Table 6 shows the (EBITDA)/total assets ratio for five years as the key indicator of operating performance.<sup>21</sup> The median operating performance of the AIM IPO that do not meet Main market listing requirements is negative for the entire post-IPO time period, while the opposite pattern is observed for MM companies. However, companies that meet Main market listing requirements have slightly positive operating performance in the first year and for the years following IPOs. In addition, the operating performance of the AIM companies that do not meet Main market listing requirements and AIM firms meeting the Main market listing requirements exhibits high variability. For instance, the mean operating performance two years after IPO is –30.56% with a standard deviation of more than 307.79%. In contrast, in the MM, the median/mean operating performance is positive for all 5 years after the IPO and the standard deviation is much lower relative to the AIM. The null of equality in median operating performance between the AIM firms that do not meet Main market listing requirements and the MM companies is rejected at a 5% level for all post-IPO years. The null of equality in median operating performance between AIM firms that meet Main market listing requirements and the MM companies is rejected at the 10% level only. These results suggest that companies going public through the MM have superior operating performance than AIM IPOs.

Consistent with the post-IPO operating performance results, sales are reliably higher in the MM for all the years after IPO. After 1 year, the sales figure is more than £46.44 (£3.60) million, and 5 years after it is more than £83.06 (£8.47) million in the MM (AIM firms that meet Main market listing requirement). Similarly, Tobin's Q shows that post-IPO valuations are higher in the MM. Furthermore, the evidence shows that the debt ratio of MM companies is higher, indicating that they have greater debt issuance capacity. The ownership structure between MM and AIM companies is also significantly different, with MM company shares being less closely held than their AIM counterparts. Fixed assets are also significantly higher for MM than AIM companies. Liquidity, measured by the closing bid-ask spread, for AIM companies consistently deteriorates for the first 4 post-IPO years. In Y0 the bid-ask spread is 5.66, and 9.09 in Y4. By contrast, MM companies show significantly greater liquidity throughout the 5 post-IPO years. Collectively, the post-IPO performance results reveal that MM companies outperform their AIM counterparts, suggesting that for some companies, and their investors, a lighter regulatory environment may not be appropriate. These results are in contrast with the evidence of Jenkinson and Ramadorai (2013), which shows that companies switching from MM to AIM experience improvements in operating performance in the years following the switch. Given that our sample of AIM companies does meet the heavier regulatory requirements of MM, they could experience improvements in operating performance in the years following the IPO had they elected to go public through the MM. We empirically address this issue in Section 6.2. The significantly higher ownership concentration of AIM companies, reported in Table 6, suggests that control considerations of small and young companies seem to play an important role for not considering listing on the MM. To the extent that control considerations dictate the AIM choice, they lead to the suspicion that the lower post-IPO performance of AIM companies in comparison to their MM counterparts is related to their concentrated ownership structure. Moreover, we anticipate that their performance would be lower relative to MM companies even if AIM companies elected to go public through the MM. We formally address these issues later on.

Next, we estimate pooled regressions to examine the difference in operating performance in these two markets.<sup>22</sup> We estimate the regressions separately for the AIM firms that do not meet Main market listing requirements, AIM firms that meet Main market listing requirements and MM firms and control

<sup>21</sup> When we consider return on equity (net profit over the book value of equity) as an alternative measure of operating performance, we obtain similar results. We do not tabulate the results for the sake of brevity.

<sup>22</sup> Alternatively, we consider a dynamic panel data model (system-GMM). The results are qualitatively similar to our pooled OLS model. For brevity these results are not reported, but are available upon request. Since we cannot observe the operating performance of these companies in an alternative regulatory environment, estimating a simple OLS/dynamic panel regression would be subject to self-selection bias and the coefficients of such a model would be biased. To address the selection bias issue, we employ Heckman selection models next.

**Table 6**  
Operating performance of AIM and MM IPOs.

	Y0	Y1	Y2	Y3	Y4	Y5
EBIDA/TA						
AIM firms that do not meet MM LR						
Mean	-48.70	-91.06	-28.00	-17.12	-25.95	-54.83
Median	-0.24 <sup>a</sup>	-1.09 <sup>a</sup>	-0.89 <sup>a</sup>	-0.54 <sup>a</sup>	-3.15 <sup>a</sup>	-2.96 <sup>a</sup>
Stdev	673.63	1489.02	132.75	55.05	149.65	201.63
AIM firms that meets MM LR						
Mean	-9.17	-22.57	-30.56	-19.90	-27.45	-30.44
Median	1.02 <sup>b</sup>	1.07 <sup>b</sup>	0.33 <sup>b</sup>	0.68 <sup>b</sup>	0.23 <sup>b</sup>	1.66 <sup>b</sup>
Stdev	45.32	154.53	307.79	103.88	145.32	181.33
MM						
Mean	10.69	8.87	6.83	7.33	7.43	5.62
Median	14.62	15.16	14.32	14.30	13.47	11.10
Stdev	29.76	57.85	49.78	48.91	34.59	129.85
Sales						
AIM firms that do not meet MM LR	2.08 <sup>a</sup>	4.04 <sup>a</sup>	6.26 <sup>a</sup>	7.22 <sup>a</sup>	6.23 <sup>a</sup>	7.07 <sup>a</sup>
AIM firms that meets MM LR	2.80 <sup>b</sup>	3.60 <sup>b</sup>	4.95 <sup>b</sup>	6.58 <sup>b</sup>	6.25 <sup>b</sup>	8.47 <sup>b</sup>
MM	38.20	46.33	61.35	71.15	79.09	83.06
Tobin's Q						
AIM firms that do not meet MM LR	1.97 <sup>a</sup>	1.77 <sup>a</sup>	1.44 <sup>a</sup>	1.26 <sup>a</sup>	1.30 <sup>a</sup>	1.36 <sup>a</sup>
AIM firms that meets MM LR	1.95 <sup>b</sup>	1.79 <sup>b</sup>	1.54 <sup>b</sup>	1.44 <sup>b</sup>	1.43 <sup>b</sup>	1.44
MM	2.11	2.13	1.63	1.67	1.67	1.48
TD/TA						
AIM firms that do not meet MM LR	2.91 <sup>a</sup>	2.90 <sup>a</sup>	7.53 <sup>a</sup>	8.09 <sup>a</sup>	10.01 <sup>a</sup>	9.57 <sup>a</sup>
AIM firms that meets MM LR	2.45 <sup>b</sup>	2.25 <sup>b</sup>	4.57 <sup>b</sup>	5.26 <sup>b</sup>	6.04 <sup>b</sup>	6.55 <sup>b</sup>
MM	9.67	9.19	13.42	13.45	15.81	16.09
Ownership concentration						
AIM firms that do not meet MM LR	51.57 <sup>a</sup>	47.32 <sup>a</sup>	42.75 <sup>a</sup>	40.65 <sup>a</sup>	18.09 <sup>a</sup>	35.90 <sup>a</sup>
AIM firms that meets MM LR	51.40 <sup>b</sup>	50.10 <sup>b</sup>	46.03 <sup>b</sup>	44.73 <sup>b</sup>	18.56 <sup>b</sup>	38.92 <sup>b</sup>
MM	40.48	37.95	35.06	33.20	34.57	28.81
FA/TA						
AIM firms that do not meet MM LR	5.70 <sup>a</sup>	6.45 <sup>a</sup>	6.43 <sup>a</sup>	7.42 <sup>a</sup>	7.85 <sup>a</sup>	7.41 <sup>a</sup>
AIM firms that meets MM LR	6.11 <sup>b</sup>	6.75 <sup>b</sup>	6.40 <sup>b</sup>	7.95 <sup>b</sup>	8.72 <sup>b</sup>	8.73 <sup>b</sup>
MM	15.89	19.32	19.48	18.50	19.41	18.60
Liquidity						
AIM firms that do not meet MM LR	6.80 <sup>a</sup>	8.99 <sup>a</sup>	10.45 <sup>a</sup>	9.86 <sup>a</sup>	9.98 <sup>a</sup>	7.73 <sup>a</sup>
AIM firms that meets MM LR	5.60 <sup>b</sup>	7.11 <sup>b</sup>	8.48 <sup>b</sup>	8.86 <sup>b</sup>	9.00 <sup>b</sup>	6.82 <sup>b</sup>
MM	2.06	1.95	2.52	1.95	1.92	1.97

Notes: The table reports the operating performance of firms that issued equity (IPO) in AIM and MM. The sample includes all the IPOs that join AIM by choice (as the companies that could not raise equity in MM because of listing requirements are excluded) and MM IPOs. IPOs on venture capital trusts (VCTs), equity instruments and investment companies are excluded. *EBITDA/TA* is earnings before interests, tax and depreciation/total assets, *Sales* in million, *Tobin's Q* is computed as ((total assets – book equity) + market value of equity)/total assets. *TD/TA* is total debt divided by total assets. *Ownership concentration* is the closely held shares taken from Worldscope. *FA/TA* is fixed assets over total assets. *Liquidity* is bid-ask spread measured as the ratio of difference between bid and ask divided by the midpoint of bid and ask. Bid and ask is measured as the daily closing quotes. Median difference is the Wilcoxon/Mann–Whitney median difference test.

<sup>a</sup>and <sup>b</sup> represent significance at 5 or better level, median difference test between AIM firms that do not meet MM LR, and MM and AIM firms that meet main market requirements and MM, respectively.



for a number of variables. These regression results are reported in Table 7. For the AIM firms that meet Main market listing requirements, Tobin's Q has a negative and significant association with operating performance, suggesting that companies with low growth prospects are more likely to join the AIM. A similar significant relationship holds for AIM firms that meet MM listing requirements. Consistent with the univariate post-IPO performance results, we find that sales and fixed asset ratios are positive and significantly related to the operating performance of AIM firms that meet MM listing requirements. For the AIM firms that do not meet Main market listing requirements, ownership concentration is significant. For MM companies, Tobin's Q, sales, and asset tangibility are positive and significantly related to operating performance, while the hot dummy is negatively related to operating performance.

The mean difference test shows that Tobin's Q, ownership concentration and asset tangibility are significantly different across these two markets. In sum, Tobin's Q, as a measure of growth prospects, indicates that companies with high growth prospects join the MM and experience superior operating performance than their AIM counterparts. The results imply that larger companies experience better operating performance in both the markets.

## 6.2. Selectivity bias adjustments

Since AIM and MM companies have different characteristics at the time of IPO, this might influence their performance during the post-IPO period of our analysis. This raises the following two questions. What would have been the operating performance if AIM companies (that meet MM listing requirements) joined MM? Likewise, what would have been the operating performance if MM companies joined AIM? Since we cannot observe the operating performance of these companies in an alternative regulatory environment, estimating a simple OLS regression would be subject to self-selection bias and the coefficients of such a model would be biased.

To overcome the self-selection bias problem, we estimate the operating performance of these companies in a two-step procedure.<sup>23</sup> Specifically, the presence of self-selection bias can be tested by examining the significance of the coefficient on the inverse Mills ratio. The inverse Mills ratio is a measure of private information and is defined as  $\phi(\Psi)/1 - \Phi(\Psi)$  when a company goes public in the MM, and  $-\phi(\Psi)/\Phi(\Psi)$  when a company goes public in the AIM. In these expressions  $\phi$  is the standard normal density function,  $\Phi$  is the standard normal cumulative distribution function, and  $\Psi$  is the probit model prediction. The coefficient on the inverse Mills ratio in each OLS regression provides an estimate of the correlation between that equation's error and the error in the probit choice model to issue equity in AIM or MM.<sup>24</sup>

The estimation is done using Heckman's two-step method and Panel B of Table 7 reports the results.<sup>25</sup> The signs for most of the coefficients are consistent with the baseline estimates. Leverage is positively and significantly related to the operating performance of the Main market. The coefficient on the inverse Mills ratio for the AIM firms that do not meet the Main market listing requirement is  $-6.034$  ( $t = -2.58$ ) and for AIM firms that meet MM listing is  $-6.54$  and statistically significant ( $t = -3.95$ ), implying that operating performance is negatively related to the unobservable information contained in an AIM IPO. That is, equity issuance in the AIM entails a negative company performance. As younger, small companies join the AIM, the weaknesses in their operations are born out in their performance during the post-IPO years. The negative sign for the Mills inverse ratio is also consistent with the observation that companies in AIM are less scrutinised by regulators. While the go public decision through prestigious underwriters may be a substitute for low scrutiny by regulators, the mills inverse ratio still captures the inherent limitations of AIM IPOs. The coefficient of the Mills inverse ratio on the MM

<sup>23</sup> Dunbar (1995) employs a similar estimation procedure.

<sup>24</sup> See Maddala (1983, p. 224).

<sup>25</sup> Heckman-type models are best used only with an exclusion restriction – when the researcher believes that at least one variable that influences selection does not influence the subsequent process of interest. In the selection equation, we include the percentage float that is not included in the outcome equation.

**Table 7**  
Heckman selection model on operating performance in AIM and MM.

	Panel A: OLS				Panel B: Heckman selection model			
	AIM firms that do not meet MM LR	AIM firms that meets MM LR	MM	Difference $\chi^2$ AIM firms not meet MM LR vs MM (p-val)	Difference $\chi^2$ AIM firms that meet MM listing requirements vs MM (p-val)	AIM firms that do not meet MM LR	AIM firms that meets MM LR	MM
Constant	-14.311*** (-4.28)	-13.729*** (-4.77)	-14.859*** (-6.06)	-	-	-17.887*** (-7.29)	-14.022*** (-7.12)	-24.981*** (-13.26)
Tobin's Q	-2.118*** (-4.66)	-1.518*** (-3.91)	1.906*** (6.63)	32.94*** (0.00)	50.91*** (0.00)	-1.734*** (-3.61)	-1.406*** (-3.64)	2.092*** (6.86)
TD/TA	-0.013 (-0.48)	-0.012 (-0.43)	0.038 (1.44)	1.23 (0.27)	1.51 (0.16)	-0.026 (-0.95)	-0.018 (-0.65)	0.045* (1.75)
Own. Con.	0.084*** (3.42)	0.006 (0.33)	0.005 (0.49)	8.76*** (0.00)	1.45 (0.25)	0.096*** (3.77)	0.014 (0.78)	0.026* (1.81)
Log (sales)	14.742*** (15.19)	12.650*** (15.07)	11.742*** (15.94)	0.57 (0.45)	0.42 (0.48)	16.018*** (15.32)	13.951*** (16.04)	14.193*** (19.29)
FA/TA	0.021 (0.69)	0.071** (2.66)	0.071*** (3.41)	4.67** (0.03)	5.52** (0.02)	0.047 (1.47)	0.073** (2.78)	0.113*** (5.43)
Hot dum	-1.649 (-0.92)	0.606 (0.41)	-4.203*** (-3.77)	-	-	-2.537 (-1.45)	1.993 (-1.45)	-4.185*** (-3.97)
Inverse Mills ratio	-	-	-	-	-	-6.034** (-2.58)	-6.546*** (-3.95)	0.055 (0.12)
Ind/year dummies	Yes	Yes	Yes	-	-	Yes	Yes	Yes
Adj R <sup>2</sup>	0.227	0.201	0.342	-	-	0.209	0.189	0.297
N	2528	3000	2526	-	-	2408	2988	2428

Notes: Panel A of this table reports the pooled OLS regression results of operating performance. Panel B reports a two-step Heckman selection model. The dependent variable is *EBITDA/TA*, which is the earnings before interests, tax and depreciation/total assets. All explanatory variables are described in Table 6. *Inverse Mills ratio* is defined as  $\phi(\Psi)/1 - \Phi(\Psi)$  when a company issued IPO in MM and  $-\phi(\Psi)/\Phi(\Psi)$  when company issued IPO in AIM. In these expressions  $\phi$  is the standard normal density function,  $\Phi$  is the standard normal cumulative distribution function, and  $\Psi$  is the probit model prediction. All the data are winsorised at 1% and 99% tails. t-Statistics based on robust covariance's (Petersen, 2009) are in the parenthesis under the coefficients.

\*\*\*, \*\*, \* Represents significance at 1%, 5% and 10% levels, respectively.

is negative but not statistically significant, suggesting that operating performance of MM companies is unrelated to the IPO market.

Overall, the selection-bias tests suggest that AIM companies that qualify the MM listing requirements are unlikely to have achieved better post-IPO performance had they selected to go public in the MM, a more heavily regulated environment. It also suggests that All AIM firms would have not achieved better performance if they issued equity in the Main market. This simply suggests that AIM firms are not suitable for the Main market as they are different.

## 7. Subsequent corporate actions by IPOs

To shed additional light on the reasons companies choose AIM over the MM, we turn our focus on post-IPO corporate actions. Specifically, we analyse acquisitions and SEOs as in [Vismara et al. \(2012\)](#), and capital changes and dividend announcements taken by these companies over the 3-year period subsequent to IPOs.

### 7.1. Seasoned equity offerings by AIM and MM IPOs

Historically, IPO companies return to the equity markets for additional financing. Hence, the post-IPO equity issuance activity has the potential to shed light on why some companies choose to list on the AIM, while others list on the MM. The question we attempt to address is whether AIM IPO companies have a higher propensity to raise additional capital than MM IPOs, and whether the market choice aids to meet their post-IPO financing objective. Generally, managers have superior information than investors about the true value of the firm going public. Such information asymmetry inherent in IPOs negatively affects the market's expectations about the future prospects of the firms going public, and therefore the selling price of their shares ([Leland and Pyle, 1977](#)). This adverse selection cost is a far more serious problem for newly listed younger and smaller companies, with a short record of operations, than mature and big companies ([Chemmanur and Fulghieri, 1999](#)). Younger and smaller firms try to reduce these costs by issuing equity in the AIM. Companies growing at a fast rate are likely to have greater capital needs, and thus stronger demand for external capital. So AIM firms may issue further equity heavily after IPO. Younger and smaller companies need more external capital to finance their investments. Raising additional equity is cheaper in the AIM as AIM listed companies do not need to pay any fees to the Stock Exchange. In contrast, MM companies need to pay fees to the Stock Exchange. Consequently, we test whether AIM listed companies have a higher propensity to raise capital after the IPO. It is also relevant that the IPO on different markets might also have an effect on the tendency of a firm to invest externally, i.e., making acquisitions.

To address these issues, we use SEOs and acquisitions data. The SEOs data are taken from the London Stock Exchange. There are substantially higher numbers of SEOs in the AIM compared to the MM. For the purpose of our analysis, we concentrate on SEOs up to 3 years subsequent to the IPO issuance. The final sample consists of 1724 SEOs by the AIM firms that do not meet Main market listing requirements, 1061 SEOs by the AIM firms that meet MM listing requirement IPOs and only 78 SEOs by MM IPOs. This difference can be attributed to several factors. First, since AIM companies are not generating positive cash flows, they have greater capital needs to fund their operations. Their debt servicing ability is very limited as most of them have negative cash flows. Hence, they are expected to raise more equity after the IPO to fund their operations. Second, since AIM companies do not need the approval of shareholders for further equity issues, there are no charges levied by the stock exchange; the number of SEOs is higher in the AIM. As shown in the [Appendix](#), we estimate that the additional issuance costs for the AIM firms that meet MM listing requirements would be £39.3 million if they selected to issue equity capital in the MM. By joining AIM, these companies are saving £39.3 million, which is significant cost savings to these small companies. The cost savings for the AIM firms that do not meet Main Market listing requirement is £59.7, which is even higher than that of the AIM firms meeting MM listing requirements. While raising post-IPO equity could be one of the reasons why companies join AIM, our analysis also shows that cost savings is another reason. The number of SEOs is much higher in the AIM firms that do not meet Main market listing requirements and AIM firms that meet MM listing requirements (1724 for AIM firms that do not meet Main market listing

requirements, 1061 for AIM firms that meet MM listing requirements, vs 78 MM). The total money raised by the AIM companies that do not meet the Main market listing requirement is £7.312 billion. However, for AIM firms that meet MM listing requirements, their fund raising figure is more than £6.043 billion, exceeding also the £5.905 billion raised by MM companies. In sum, the significant cost savings for SEOs in the AIM is one of the key reasons companies join AIM.

To address the post-IPO fund raising activity of firms across the two markets, we estimate probit regressions.<sup>26</sup> The dependent variable is set equal to 1 if a company engaged in a SEO after the IPO and 0 otherwise. As before, we also report marginal effects, estimated at their mean values with *p* values. The results in Panel A of Table 9 for AIM firms meeting MM listing requirement show that firm age is positive and significantly related to SEOs, implying that more mature companies are more likely to issue equity during the three-year post-IPO period. Marginal effect analysis shows that a 1% increase in age raises the probability of SEO by 0.281%. Profitability is negatively related to SEOs, as before, meaning that less profitable companies are more likely to meet their financing needs externally. The marginal effect of profitability is relatively low. The AIM dummy is positive and highly significant (*p* value <0.05), suggesting that AIM IPOs raise the probability of conducting SEOs. Marginal analysis shows that, if an IPO takes place on the AIM, it increases the probability of conducting SEOs by 0.428%.

In sum, the companies that join the AIM are more likely to engage in follow-up financing through SEOs subsequent to IPOs. The lack of issuance fees to the exchange (i.e., cost savings relative issuing in MM) seems to contribute to the higher incidence of SEOs in the AIM. Clearly, the choice of issuing market has an impact on the probability of SEO after controlling for firm-specific factors. We conclude that AIM companies are more likely to raise additional equity capital through SEOs.

## 7.2. Acquisitions by AIM and MM IPOs

IPOs and acquisitions are interrelated as some companies raise equity capital to acquire other companies. This section examines if post-IPO acquisition activity is playing a role in influencing the market choice of going public. The survey evidence of Brau and Fawcett (2006) shows that one of the important reasons that companies go public is to create public shares for use in future acquisitions. This is consistent with the evidence of Celikyurt et al. (2010), who reports that newly listed firms make acquisitions at a great pace. Since liquidity and visibility are higher in the MM (Vismara et al., 2012), we expect that firms with post-IPO M&A plans would chose the MM to create liquid shares for further acquisitions. Specifically, we are interested to find out if firms with listing preferences on the AIM are less acquisitive than their MM counterparts. Having observed that AIM companies are smaller, younger and with higher ownership concentration than MM companies, one may expect them to be less acquisition active. Hence, our analysis begins with the goal to identify differences in acquisition behaviour of AIM and MM IPOs. In this regard, we collect data from Thomson One Banker Deals information for acquisitions carried out from 1995 to 2014 to analyse the acquisition patterns of our sample IPOs.

Panel B of Table 8 reports the time series of acquisitions carried out by IPOs in our sample. Though the number of IPOs is much smaller in the MM, the number of acquisitions is much higher by the MM companies. There were 1678 acquisitions by 566 IPOs on AIM that meet the MM listing requirements compared to 1670 acquisitions by 435 IPOs on the MM. If we consider the AIM IPOs that do not meet the Main market listing requirements, the number of acquisitions is 1630. This implies that there are 2.96 acquisitions by an AIM IPO compared to 3.67 acquisitions by an MM IPO. The total deal value of these acquisitions is £90.6 billion by AIM firms that meet the MM listing requirements compared to £169.14 billion in the MM. The total deal value by the AIM firms that do not meet Main market listing requirements is £30.18 billion. As conjectured, this pattern suggests that companies that prefer listing on the AIM are less likely to be as acquisition active as MM companies.

To examine the acquisition behaviour in these two markets, we employ probit regression analysis. The dependent variable is set equal to 1 if a AIM firm that meets MM listing requirements involved in a merger/acquisition of another company in the 3-year post-IPO period and 0 otherwise. In another

<sup>26</sup> Poisson regression results are also estimated but not reported to save space. The Poisson results are in line with probit estimates.

**Table 8**  
Seasoned equity offerings and M&As in the MM and AIM IPOs, 1995–2014.

	Panel A: Seasoned equity offerings						Panel B: Mergers and acquisitions					
	Number			Total money raised (mil)			Number			Total deal value		
	AIM firms that do not meet MM LR	AIM firms that meet MM listing requirements	Main	AIM firms that do not meet MM LR	AIM firms that meet MM listing requirements	Main	AIM firms that do not meet MM LR	AIM firms that meet MM listing requirements	Main	AIM firms that do not meet MM LR	AIM firms that meet MM listing requirements	Main
1995			–	–	–	–	31	11	35	386	795	344
1996	7	2	–	15.7	16.3	–	57	24	52	519	887	451
1997	8	9	–	14.8	20.2	–	58	24	120	320	105	763
1998	7	7	9	20.6	27.4	385.7	52	43	142	596	895	3646
1999	11	14	7	38.8	33.2	51.8	48	31	128	876	7074	3114
2000	31	15	12	82.9	58.1	687.4	71	82	179	1149	910	10,163
2001	32	16	3	72.9	31.1	48.2	68	94	124	955	687	3634
2002	23	31	3	31.4	44.6	555.8	58	66	80	382	3199	2710
2003	67	43	3	99.6	77.4	952.4	40	59	70	268	287	3996
2004	96	63	2	368.6	270.4	409.9	56	103	72	537	600	5521
2005	109	99	1	340.5	630.5	288.4	95	141	73	1103	1561	6693
2006	179	148	6	1398.9	1352.1	497.1	150	184	79	2442	3501	16,156
2007	232	161	9	1924.7	1864.3	201.6	191	198	114	3517	3382	7405
2008	163	56	1	801.4	166.6	81.6	131	106	91	2656	1801	8755
2009	265	14	3	1154.3	104.7	102.8	104	69	49	1668	774	21,518
2010	88	1	4	233.5	9.7	168	73	57	37	1294	16,730	4843
2011	55	46	5	154.9	97.2	217	45	98	41	1627	8578	14,312
2012	97	115	3	163.7	202.3	305	63	76	54	4499	10,025	19,243
2013	136	114	2	172.8	478.6	505	94	108	71	3433	12,895	18,245
2014	118	107	5	221.8	559.1	448	145	104	59	1953	15,873	17,632
Total	1724	1061	78	7311.8	6043.8	5905.7	1630	1678	1670	30,180	90,559	169,144
<b>Issuance cost</b>	–	–	–	<b>59.7</b>	<b>39.3</b>	–	–	–	–	–	–	–
<b>SEOs/M&amp;As per IPO</b>	2.99	1.87	0.17	–	–	–	2.82	2.96	3.67	–	–	–

Note: This table represents the number and total money raised in seasoned equity offerings (Panel A) and the number and total deal value in mergers and acquisitions (Panel B).

regression, we set AIM firms that do not meet Main market listing requirements that are involved in M&As equal to 1 and 0 otherwise. These results are reported in Panel B of Table 9. When we consider AIM firms meeting the MM listing requirements, debt, profitability and Tobin's Q are significant. The marginal effect analysis shows that a 1% increase in Tobin's Q increases the probability of acquisition by 0.041%. The market dummy is negative (insignificant), implying that if the IPO occurred in the AIM, a company is less likely to be involved in acquisitions. After controlling for other firm-specific factors, the results do not show evidence that the issuing market has a substantial impact on the acquisition behaviour of listed companies. We can conclude, then, that the choice of the IPO market is not dictated by the subsequent acquisition behaviour of listed firms.

### 7.3. Capital changes by AIM and MM IPOs

We turn our focus on capital changes and the choice of market listing of IPOs. Specifically, we examine whether capital reorganisation by IPO firms is dictating the market choice and if it is higher in one of the two markets. The motivation of this analysis is to determine if there is a link between the choice of IPO market and capital reorganisation. Since certain types of capital reorganisation are non-chargeable in the MM, we would expect more capital reorganisation in the MM IPOs. Specifically, we compare and contrast the capital changes made by these companies over the period 1995–2014. Capital changes data come from London Share Price Database (LSPD). Capital changes are categorised as: scrip issue, scrip issue in another share, scrip issue then consolidation, consolidation then scrip issue, scrip issue then subdivision, subdivision then scrip issue, scrip issue in another ordinary then consolidation, scrip issue in another ordinary then subdivision, complex scrip issue, consolidation, subdivision, capital repayment, cancel part of nominal value, rights issue, complex rights issue, rights issue in another share, multiple rights issue, spare, spinoff (rights in another company), spinoff (rights in foreign company), demerger and redenomination of par value into Euro.

The capital changes are supposed to generate significant shareholder value. Scharfstein and Stein (2000) describe conditions under which top managers inefficiently allocate funds across divisions with poor investment opportunities within the firm. Goldman (2004) models the resource allocation within a multidivisional firm and shows that the investment environment improves after the spinoff of a division. Nanda and Narayanan (1999) model a diversified firm's decision to divest a division that is undervalued by the market. Financially constrained firms may sell a division to raise capital. Since the number of SEOs is fewer in the MM, this can be a valid reason for capital changes in this market. Certain categories of capital changes are exempted from the stock exchange fees.<sup>27</sup> This might be driving the companies in the MM towards capital changes rather than further issuance of security.

Again, we use probit regressions to examine the probability of capital changes. The dependent variable is set equal to 1 if a firm that meets MM listing requirements had a capital change or 0 otherwise. We also analyse the capital changes by AIM firms that do not meet the Main market listing requirements. Panel A of Table 10 reports the probit estimates along with marginal effects. The results for AIM firms that meet the MM listing requirements show that age is positive and significantly related to the probability of capital changes. The marginal effect is for a 1% increase in age; the probability of capital changes is 0.561%. Undervaluation as measured by Tobin's Q is another significant factor. For a 1% increase in Tobin's Q, the probability of capital changes declines by 0.028% (AIM firms meeting the MM listing requirements). The less profitable companies, as measured by EBITDA/TA, are more likely to pursue capital changes to increase their focus in order to enhance shareholder value. The results are almost the same when we consider the AIM firms that do not meet Main market listing requirements. The AIM dummy is positive but not significant, implying that the issuing market does not influence

<sup>27</sup> The following is a list of non-chargeable transactions for companies admitted to the MM: Capital reorganisation, Subdivision of capital, Consolidation of capital, Redenomination, Capitalisation of reserves, The reclassification of shares in order to liquidate a company under a scheme for reconstruction, Establishment and updating of issuance programmes, Block listings for issues of shares under employee share schemes and exercise of options (including issues of shares to directors not under an employee share scheme) with a market capitalisation below £2m, Further issues of shares issued under an existing offer for subscription, Substitution of issuer, and Migration between 'securities categories – equity shares' (London Stock Exchange, 2011).

**Table 9**  
Probit estimates on the probability of SEOs and M&As.

	Panel A: SEOs				Panel B: M&As			
	AIM firms that do not meet MM LR + MM		AIM firms that meets MM LR + MM		AIM firms that do not meet MM LR + MM		AIM firms that meets MM LR + MM	
	Coef.	Marginal effect	Coef.	Marginal effect	Coef.	Marginal effect	Coef.	Marginal effect
Log (sales)	<b>0.197<sup>b</sup></b>	<b>0.057<sup>b</sup></b>	0.063	0.017	0.047	0.018	0.141	0.050
Log (age)	<b>0.635<sup>b</sup></b>	<b>0.185<sup>b</sup></b>	<b>1.024<sup>b</sup></b>	<b>0.281<sup>b</sup></b>	0.126	0.047	-0.065	-0.023
TD/TA	-0.001	0.000	0.001	0.000	0.001	0.000	<b>0.009<sup>b</sup></b>	<b>0.003<sup>b</sup></b>
EBITDA/TA	<b>-0.006<sup>b</sup></b>	<b>-0.002<sup>a</sup></b>	<b>-0.005<sup>a</sup></b>	<b>-0.001<sup>a</sup></b>	0.000	0.000	<b>0.007<sup>b</sup></b>	<b>0.003<sup>b</sup></b>
Tobin's Q	-0.041	-0.012	0.009	0.002	0.029	0.011	<b>0.114<sup>b</sup></b>	<b>0.041<sup>b</sup></b>
FA/TA	-0.003	-0.001	-0.001	0.000	-0.002	-0.001	0.001	0.000
Ownership con.	-0.003	-0.001	-0.003	-0.001	-0.001	0.000	0.005	0.002
AIM dummy	<b>1.763<sup>b</sup></b>	<b>0.514<sup>a</sup></b>	<b>1.561<sup>b</sup></b>	<b>0.428<sup>b</sup></b>	-0.188	-0.071	-0.002	-0.001
cons	-0.912	-	<b>-1.535<sup>b</sup></b>	-	0.944	-	0.043	-
Ind/year dummies	Yes	-	Yes	-	Yes	-	Yes	-
Log likelihood	0.2561	-	0.2861	-	0.0464	-	0.100	-
Pseudo R2	-302.141	-	-194.724	-	-390.8	-	-111.59	-
N	1012	-	1001	-	1012	-	1001	-

Notes: This table reports the probit estimates on seasoned equity offerings within 3 years of IPO (Panel A) and M&As (Panel B). The dependent variable is 1 if company had an SEO or 0 otherwise (Panel A). Dependent variable is 1 if company had an M&A or 0 otherwise (Panel B). Seasoned equity offerings are taken from London Stock Exchange. Sales figures are in million, age is in years, EBITDA/TA is (earnings before interests, tax and depreciation/total assets, Tobin's Q is computed as ((total assets - book equity) + market value of equity)/total assets. TD/TA is total debt divided by total assets. Ownership concentration is the closely held shares taken from Worldscope, FA/TA is the ratio of fixed to total assets. AIM Dummy is equal to 1 if the company issued equity in AIM and 0 otherwise. Industry Dummies are based on (n-1) industry categories defined in Table 3. Z-statistics based on cluster adjusted covariance's (Petersen, 2009) are reported. Marginal effect is the Dy/Dx and is evaluated at the sample means of explanatory variables. P-value is the significance of marginal effect.

<sup>a,b,c</sup> represents significance at 1%, 5% and 10% levels, respectively.

**Table 10**  
Probit estimates on the probability of capital changes and dividend announcements.

	Panel A: Capital changes				Panel B: Dividends			
	AIM firms that do not meet MM LR + MM		AIM firms that meets MM LR + MM		AIM firms that do not meet MM LR + MM		AIM firms that meets MM LR + MM	
	Coef	Marginal effect	Coef	Marginal effect	Coef	Marginal effect	Coef	Marginal effect
Log (sales)	0.003	0.002	-0.421	-0.011	0.127	0.021	-2.123	-0.036
Log (age)	<b>0.731<sup>c</sup></b>	<b>0.162<sup>b</sup></b>	<b>1.861<sup>a</sup></b>	<b>0.561<sup>a</sup></b>	<b>0.965<sup>a</sup></b>	<b>0.355<sup>a</sup></b>	2.125	0.022
TD/TA	-0.021	0.001	0.012	0.016	-0.021	0.012	0.015	0.012
EBITDA/TA	-0.032	-0.002	<b>-0.075<sup>a</sup></b>	<b>-0.028<sup>c</sup></b>	<b>-0.023<sup>b</sup></b>	<b>-0.012<sup>c</sup></b>	<b>-0.151<sup>a</sup></b>	<b>-0.081<sup>a</sup></b>
Tobin's Q	<b>-0.102<sup>b</sup></b>	<b>-0.121<sup>b</sup></b>	<b>-2.351<sup>a</sup></b>	<b>-0.235<sup>a</sup></b>	-0.018	0.007	-0.114	-0.024
FA/TA	-0.001	0.001	-0.051	-0.015	<b>-0.012<sup>a</sup></b>	<b>-0.011<sup>a</sup></b>	-0.098	-0.011
Ownership con.	0.002	0.031	0.012	0.024	<b>0.141<sup>a</sup></b>	<b>0.327<sup>a</sup></b>	<b>0.111<sup>a</sup></b>	<b>0.037<sup>a</sup></b>
AIM dummy	0.065	0.181	0.178	0.007	-0.328	0.031	<b>-11.012<sup>b</sup></b>	<b>-0.875<sup>b</sup></b>
Cons	<b>-2.410<sup>a</sup></b>	-	<b>-9.521<sup>a</sup></b>	-	<b>-0.817<sup>a</sup></b>	-	<b>-5.671<sup>b</sup></b>	-
Ind/year dummies	Yes	-	Yes	-	Yes	-	Yes	-
Pseudolikelihood	-321.1	-	-276.11	-	-289.17	-	-218.56	-
Pseudo R <sup>2</sup>	0.1210	-	0.874	-	0.1879	-	0.1755	-
N	1012	-	1001	-	1012	-	1001	-

Notes: This table reports the Probit estimates on capital changes and dividend announcements. The dependent variable is equal to 1 if the company had capital changes or 0 otherwise in Panel A. The dependent variable is equal to 1 if the company had dividend announcements or 0 otherwise in Panel B. Both data come from the London Share Price Database (LSPD). Capital changes are categorised as: Scrip issue, Scrip issue in another share, Scrip issue then consolidation, Consolidation then scrip issue, Scrip issue then subdivision, Subdivision then scrip issue, Scrip issue in another ord. then consolidation, Scrip issue in another ord. then subdivision, Complex scrip issue, Consolidation, Subdivision, Capital repayment, Cancel part of nominal value, Rights issue, Complex rights issue, Rights issue in another share, Multiple rights issue, Spare, Spinoff (rights in another company), Spinoff (rights in foreign company), Demerger, Redenomination of par value into Euro (LSPD, 2014). Dividend announcements include cash or scrip dividends announced by the company. Independent variables are defined in Table 9. Z-statistics based on cluster adjusted covariances (Petersen, 2009) are in the parentheses under the coefficients. Marginal effect is the Dy/Dx and is evaluated at the sample means of explanatory variables.

<sup>a, b, c</sup> represent significance at 1%, 5% and 10% levels, respectively.



the capital change behaviour of the companies during the post-IPO period, controlling for firm-specific factors. In sum, market choice does not appear to affect the capital reorganisation behaviour of firms. Instead, firm characteristics appear to influence company reorganisation and change in focus.

#### 7.4. Dividend announcements by AIM and MM IPOs

Next, we investigate whether dividend policy considerations drive the choice of market listing. Specifically, we examine whether the MM choice is influenced by firms' higher propensity to pay dividend. The motivation behind this test is that firms with dividend policy commitments may need to access external capital markets to finance their dividend obligations. That is, this argument suggests that when a company pays dividends, it is more likely to list in MM because it would be easier to meet its financial obligations when traded in the broad market. Another advantage for listing in the MM is that companies are easier to be monitored by professionals such as accountants, lawyers, investment bankers and money managers. This lowers information asymmetries between insiders and outsiders and the cost of capital. Firms, then, become more transparent and subject to lower agency cost (Easterbrook, 1984), trading near their intrinsic value. To address this issue we use dividend announcement data from London Share Price Database (LSPD). All the cash and scrip dividends are included in the announcements.

Panel B of Table 10 reports probit regression estimates for analysing the relation between the choice of market listing and dividend announcements controlling for other effects. The dependent variable is set equal to 1 if a company has announced at least one dividend to the market and 0 otherwise. We analyse the AIM firms that do not meet the Main market listing requirements and AIM firms that meet the MM listing requirements. The AIM dummy, our key variable here, is negative and significant, implying that firms that choose AIM are less likely to announce dividends. If the company lists in AIM, it decreases the probability of announcing dividends by 0.875%. On the other hand, MM companies are likely to pay dividends as they are profitable companies, which is consistent with the analysis of profitability in the previous section. This pattern also suggests that AIM companies do not list on the MM to avoid market scrutiny by paying dividends. In conclusion, companies that join the Main market are more likely to pay dividends after controlling for other firm-specific factors. The results seem to suggest that companies that choose AIM, a lighter regulatory environment, try to avoid market scrutiny by paying fewer dividends.

## 8. Conclusion

In this paper we examine the merits of the widely held view that companies join the AIM because they do not meet the strict listing requirements of the MM. To address this important issue, we conduct a comprehensive examination by focusing on companies that choose to list on the AIM, while they meet the listing requirements of the MM, and show that one size does not fit all. We find that only half of the companies do not meet the listing requirements of the MM, and as a result they are forced to join the AIM. The two markets are found to attract different companies in terms of age and market value that perform differently and have different investment and financing priorities. The evidence also shows that companies choose their market platform that suits their investment and financing agendas, and particularly smaller and younger companies choose AIM because of lower listing and on-going costs. We find that it is not the regulations that dictate listing venues, rather it is a self-selection decision like other corporate finance decisions.

We also find that the degree of underpricing varies across these two groups of IPOs: AIM firms that meet the MM listing requirements and the MM firms. The average underpricing in the AIM firms that meet Main market listing requirements is 19.8%, which is almost four times higher than that of the Main Market. Besides the different IPO characteristics of AIM and MM companies, our post-exchange listing results reveal that the operating performance of AIM IPOs is poor, while MM IPOs perform well. For instance, the average 3-year post-IPO operating performance for AIM companies that could list on the Main Market is 0.33%, while the corresponding figure for the Main Market is +14.32%. Since the characteristics of companies are different, market choice might influence subsequent performance. We address this issue through sample selection models, and the results from the Heckman Selection model show that the issuing market affects subsequent performance.

Furthermore, our evidence indicates that corporate finance activities of the AIM firms that could list on the Main Market and the MM IPOs are diverse. While acquisitions, capital changes and dividends announcements are much higher in the MM, SEOs are higher in the AIM. Our results are consistent with the fact that companies choose their market platforms that meet their financing and growth strategy. The admission and on-going costs are minimal to list on the AIM relative to the MM, and this could be another consideration for listing on the second market. These reasons, not the heavier regulatory requirements of the MM, appear to have a significant impact on the decision of companies to be listed on the AIM rather than on the Main market in London. In sum, our evidence reveals that firms that join AIM have different characteristics and pursue different corporate activities during the post-IPO period than their counterparts that join the MM.

### Appendix. Further issuance (SEO) cost calculations

These fees are calculated based on Fees for Issuers, London Stock Exchange.

Panel A: AIM firms that meet MM listing LR, average size 44.2 million	
First 5 million	6708
Next 39 million @ 882 per million	34,398
Subtotal	41,106
Discount @25%	10,276
Subtotal	30,830
VAT@20%	6166
Total	36,996
Fees for 1061 SEOs	39,252,650
Panel B: AIM firms that do not meet MM LR, average size 41.1 million	
First 5 million	6708
Next 36 million @882 per million	31,752
Subtotal	38,460
Discount @25%	9615
Subtotal	28,845
VAT@20%	5769
Total	34,617
Fees for 1724 SEOs	59,674,536

### References

- Affleck-Graves, J., Hegde, S.P., Miller, R.E., Reilly, F.K., 1993. The effect of the trading system on the underpricing of initial public offerings. *Financial Management* 22, 99–108.
- Baker, K., Nofsinger, J., Weaver, D., 2002. International cross-listing and visibility. *Journal of Financial and Quantitative Analysis* 37, 495–521.
- Boehmer, E., Ljungqvist, A., 2004. On the decision to go public: evidence from privately-held firms. New York University, New York, NY, Unpublished working paper.
- Brau, J.C., Fawcett, S.E., 2006. Initial public offerings: an analysis of theory and practice. *Journal of Finance* 61 (1), 399–436.
- Campbell, K., Tabner, I.T., 2011. Bonding, firm value and liquidity: an analysis of migrations between the AIM and the official list of the London Stock Exchange, University of Stirling Working paper.
- Celikyurt, U., Sevilir, M., Shivdasani, A., 2010. Going public to acquire: the acquisition motive for IPOs. *Journal of Financial Economics* 96, 345–363.
- Chemmanur, T.J., Fulghieri, P., 1999. A theory of the going-public decision. *The Review of Financial Studies* 12 (2), 249–279.
- Corwin, S.A., Harris, J.H., 2001. The initial listing decisions of firms that go public. *Financial Management* 30, 35–55.
- Doidge, C., Karolyi, G.A., Stulz, R.M., 2009. Has New York become less competitive in global markets? Evaluating foreign listing choices over time. *Journal of Financial Economics* 91, 253–277.
- Dunbar, C.G., 1995. The use of warrants as underwriter compensation in initial public offerings. *Journal of Financial Economics* 38 (1), 59–78.
- Easterbrook, F.H., 1984. Two agency explanations of dividends. *American Economic Review* 74 (4), 650–659.
- Gerakos, J., Lang, M., Maffet, M., 2011. Listing choices and self-regulation: the experience of AIM, Working paper, University of Chicago.
- Goldman, E., 2004. The impact of stock market information production on internal resource allocation. *Journal of Financial Economics* 71, 143–167.
- Jenkinson, T., Ramadorai, T., 2013. Does one size fit all? The consequences of switching markets with different regulatory standards. *European Financial Management* 19 (5), 852–886.

- Kim, W., Weisbach, M., 2008. Motivations for public equity offers: an international perspective. *Journal of Financial Economics* 87, 281–307.
- Leitterstorf, S., Nicoletti, P., Winkler, C., 2008. The UK listing rules and firm valuation. *FSA Occasional Papers in Financial Regulation*.
- Leland, H., Pyle, H., 1977. Informational asymmetries, financial structure, and financial intermediation. *Journal of Finance* 32, 371–387.
- London Stock Exchange, 2011. Fees for issuers, April 2011.
- Lowry, M., 2003. Why does IPO volume fluctuate so much? *Journal of Financial Economics* 67, 3–40.
- Maddala, G.S., 1983. Limited dependent and qualitative variables in econometrics, *Econometric Society Monographs* No. 3. Cambridge University Press, Cambridge, MA.
- Mendoza, J., 2008. Securities regulation in low-tier listing venues: the rise of alternative investment market. *Fordham Journal of Corporate and Financial Law* 12, 257–328.
- Nanda, V., Narayanan, M.P., 1999. Disentangling value: financing needs, firm scope and divestitures. *Journal of Financial Intermediation* 8, 174–204.
- Pagano, M., Panetta, F., Zingales, L., 1998. Why do companies go public? An empirical analysis. *Journal of Finance* 53, 27–64.
- Petersen, M., 2009. Estimating standard errors in finance panel data sets: comparing approaches. *Review of Financial Studies* 22 (2009), 435–480.
- Piotroski, J.D., Srinivasan, S., 2009. Regulation and bonding: the Sarbanes-Oxley Act and the flow of international listings, Rock Center for Corporate Governance at Stanford University Working Paper No. 11.
- Ritter, J.R., 2003. Differences between European and American IPO markets. *European Financial Management* 9, 421–434.
- Ritter, J.R., Signori, A., Vismara, S., 2013. Economies of scope and IPO activity in Europe. In: Levis, M., Vismara, S. (Eds.), *Handbook of Research on IPOs*. Edward Elgar Publishing, Cheltenham, UK, pp. 11–34 (Chapter 1).
- Rosen, R., Smart, S., Zutter, C., 2005. Why do firms go public? Evidence from the banking industry. University of Pittsburgh, Pittsburgh, PA. Unpublished working paper.
- Rousseau, S., 2007. London calling? The experience of the alternative investment market and the competitiveness of Canadian stock exchanges. *Banking and Finance Law Review* 23 (1).
- Scharfstein, D.S., Stein, J.C., 2000. The dark side of internal capital markets: divisional rent seeking and inefficient investment. *Journal of Finance* 55, 2537–2564.
- Vismara, S., Paleari, S., Ritter, J.R., 2012. Europe's second markets for small companies. *European Financial Management* 18 (3), 352–388.