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Information leakage prior to market switches and the importance of Nominated Advisers

Antonios Siganos [a], Angelos Synapis [b], Ioannis Tsalavoutas [c,*]

[a] Business School, Accounting and Finance Subject, Edinburgh Napier University, UK
[b] Research Centre for Financial and Corporate Integrity, Coventry University, William Morris Building, Gosford Street, Coventry, CV1 5DL, UK
[c] Adam Smith Business School, University of Glasgow, Room 413, 2 Discovery Place, Glasgow, G11 6EY, UK

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ABSTRACT

This study tests the information leakage hypothesis prior to the public announcement of firms switching between the Alternative Investment Market (AIM) and the Main Market (MM) in the UK. We find significant abnormal stock returns 60 trading days prior to the announcement of these switches. The results are robust after controlling for switching anticipation, rumors, other major corporate announcements, and firm performance one year prior to the switch. We also show that having a reputable Nominated Adviser (Nomad) significantly moderates the abnormal stock returns prior to market switches. However, this effect does not hold when Nomads also act as brokers in firms that switch markets. Overall, these findings provide novel evidence about abnormal stock returns prior to the announcement of market switches in the UK and the role of Nomads. As such, we shed light on the significance and the limits of decentralized regulation on informed trading activity.

1. Introduction

Access to unpublished price sensitive information by corporate insiders could create incentives to leak this information to other individuals for profit. Regulators pursue for fair markets and their intention is thus to minimize, and if possible, eliminate any trading based on leaked information. The Securities and Exchange Commission (SEC), for example, states that "*insider trading continues to be a high priority area for the SEC's enforcement program*".[1] This paper tests the information leakage hypothesis for firms that switch between the Alternative Investment Market (AIM) and the Main Market (MM) in the London Stock Exchange (LSE), and the importance of Nominated Advisers (Nomads) in the magnitude of abnormal stock returns prior to such switches. The UK offers a unique setting for this examination, as it features the AIM, which is the most popular secondary market in the world (Doukas & Hoque, 2016). The success of the AIM has spawned the establishment of several secondary markets that follow similar principles and regulatory features throughout the world. Secondary markets are thus of international interest.[2]

The exploration of the information leakage hypothesis in this context is important for two reasons. First, market switches are reported to trigger abnormal announcement returns. Jenkinson and Ramadorai (2013) and Campbell and Tabner (2014), who focus on

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firms' stock returns on the announcement of market switches, show evidence of average increases of 4.62%, and average decreases of −4.31%, with a move from the AIM to the MM perceived as good news and a transition from the MM to the AIM deemed as bad news by the market. Thus, insiders could potentially use the market switching information or share it with other investors prior to the official announcement to profit from the expected abnormal announcement returns in the short run. The existing empirical evidence testing the information leakage hypothesis focuses mostly on abnormal stock returns of target firms prior to takeover announcements (Jabbour, Jalilvand, & Switzer, 2000; Keown & Pinkerton, 1981; King, 2009; Mandelker, 1974; Panetsidou, Synapis, & Tsalavoutas, 2022). As with the academic literature and the SEC in the US,[3] the Financial Conduct Authority (FCA) in the UK has also focused its efforts on takeovers when it comes to potential information leakage.[4] The concentrated attention on takeovers could leave space for investors with inside information to engage in market abusive activities in other less popular but potentially equally profitable corporate events such as the market switches.

Second, the switches between the AIM and the MM provide an interesting ground to examine whether the decentralized and private regulation of the AIM, the Nomads, can reduce the levels of informed trading. The Nomads are the regulatory body and trading monitor of the AIM. Their role is to advise, guide, and regulate firms that are interested to join the AIM during their listing in the market and throughout their lifespan when listed. They are further responsible to ensure that the firms fully understand their obligations as dictated by the "*AIM rules for companies*". In addition, and pertinent to this study in particular, the Nomads must monitor the trading activities of the firms they supervise, particularly when there is unpublished price sensitive information about these companies (London Stock Exchange, 2014; 2015a). Hence, this paper further examines whether reputable Nomads provide better regulation by mitigating any patterns of abnormal price activities based on private information prior to market switches between the two markets. This examination offers, for the first time, evidence on the significance of decentralized regulation as a measure to reduce illegal activities prior to public corporate announcements.

We use data on switches between the AIM and the MM from 1996 up until 2020. We find evidence that firms experience pre-announcement returns of 5.5% prior to the switch from the AIM to the MM and −4.0% prior to the switch from the MM to the AIM. The abnormal stock returns are evident after controlling for firms that have a high probability of switching markets and firm performance a year prior to the switch. These results show that these patterns are not simply a continuation of previous firm performance and that the stock returns prior to market switches reflect potential transactions by investors with inside information. We also control for rumors and other major firm announcements that may influence firm stock performance. We find that rumors and other major events can only partly explain these abnormal stock return patterns. Our findings show economically significant pre-announcement returns which are similar to those reported in other major corporate events (e.g., Dutordoir, Vagenas-Nanos, Verwijmeren, & Wu, 2021; Jabbour et al., 2000; King, 2009; Panetsidou et al., 2022; Sanders & Zdanowicz, 1992; Siganos & Papa, 2015), suggesting that market switches could be an equally profitable event for investors with inside information. We further find evidence of abnormal trading volume prior to switching announcements, and of a significant contemporaneous relation between abnormal stock returns and abnormal trading volume. These findings provide further support to the information leakage hypothesis.

Importantly, we find that reputable Nomads significantly mitigate the abnormal pre-announcement stock returns, showing that a regulatory body governed by the stock exchange can play an effective regulation in reducing informed trading. However, this effect does not hold when Nomads also act as brokers in firms that switch markets, raising concerns as to whether Nomads take appropriate safeguards to eliminate any conflicts of interest that might arise by acting in both roles.

Our study is informed by and complements the work of Jenkinson and Ramadorai (2013) and Campbell and Tabner (2014) who focus on stock returns and changes in risk around the announcements of market switches. These studies put an emphasis on the long-term consequences of switching markets. Our study differs from these two as it focuses on the stock returns for a period that precedes the announcement of market switches and on whether these could be explained by market expectations (through rumors and past firms' performance) or by leakage of price sensitive information. Our study further differentiates from these studies, as we test the effectiveness of the decentralized regulation of secondary markets on the pre-announcement stock returns.

We contribute to the existing literature in two ways. First, we contribute to the information leakage literature (e.g., Dutordoir et al., 2021; Jabbour et al., 2000; King, 2009; Panetsidou et al., 2022; Siganos & Papa, 2015) by providing novel evidence on a corporate event that has not been explored by this strand of literature. Second, to the best of our knowledge, this is the first study that incorporates the significance of reputable decentralized regulators, the Nomads, in mitigating the pre-announcement abnormal stock return patterns prior to market switches. This is a novel contribution as it sheds light on the regulatory mechanism of Nomads in the UK, which is an inspiring system for many other secondary markets throughout the world. Thus, our study extends the literature that empirically examines the relation between reputable advisers and higher quality services and oversight (e.g., Chemmanur & Fulghieri, 1994; Dai, Jo, & Schatzberg, 2010; Fang, 2005; Gerakos, Lang, & Maffett, 2013; Golubov, Petmezas, & Travlos, 2012).

This study further gives rise to policy implications. We bring into the spotlight an event that has not received attention from regulators. We also point out the significance and the limits of Nomads in this context. Although reputable Nomads appear to minimize information leakage, this is not the case if they also act as brokers for their clients. Hence, regulators may need to reflect on taking appropriate safeguards to mitigate conflicts of interest that might arise when decentralized regulators act on two different roles for the

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[3] For example, 51% of Ahern's (2017) and approximately 80% of Meulbroek's (1992) US samples of illegal insider trading prosecuted by the SEC, relate to trading prior to merger and acquisition announcements.

[4] An example of a UK criminal sanction case and hyperlinks for other UK criminal sanctions can be found here: https://www.fca.org.uk/news/press-releases/three-charged-insider-dealing. As of February 2020, a total of 12 cases out of the 17 were related to insider trading prior to takeovers. The other cases were related to forthcoming market moving transactions and joint ventures, among others.

same client/advisee. For example, they could ensure that safeguards such as separating the part of the entity that acts as a regulator from the part that acts as a broker (i.e., Chinese walls) are in place. This is particularly important, given that the majority of firms that switch markets hire the same company to act both as Nomad and broker due to potential benefits (e.g., reduced fees, more specialized/tailored guidance). Hence, the establishment of appropriate safeguards to eliminate conflicts of interest could allow all firms that hire reputable Nomads to benefit from their monitoring role.

The rest of the paper is structured as follows. Section 2 discusses the background of the UK markets and develops our hypotheses. Section 3 discusses the data and methodology. Section 4 presents the results of the main and additional analysis as well as those of sensitivity tests. Section 5 concludes.

2. The UK equity markets and potential information leakage prior to market switching announcements

2.1. The UK equity markets

The UK offers two listing choices for firms that seek access to equity capital. The first choice is the traditional regulated market, the MM, which has strict eligibility criteria and ongoing obligations, and targets fully developed firms. Listing to the MM provides firms with a wide and knowledgeable pool of investors along with a high reputation and prestige. The second choice is the AIM, which is a lightly regulated secondary market, launched on June 19, 1995, and targets small and high-growth firms.[5] The AIM offers low eligibility listing criteria and ongoing obligations (London Stock Exchange, 2010; 2015b, London Stock Exchange, 2016).

In terms of listing criteria, under the "*AIM rules for companies*" the listing requirements of the AIM are: (1) no minimum percentage of float; (2) no requirement of audited financial statements in the years prior to the listing; and (3) no minimum market capitalization. In contrast, according to the Listing Rules (LR), the admission requirements for the MM are: (1) minimum percentage of float of 25%; (2) minimum of three years of audited financial statements before admission; and (3) minimum market capitalization of £700,000. The admission, annual, and compliance costs of the two markets are also different, with the AIM being a less expensive market, following its principles of facilitating small firms in need of finance (London Stock Exchange, 2010; 2015a; b; 2016). Further details on the differences between the two markets are available in Appendix B.

2.2. The process of switching between the two markets

The switch between the two markets involves two steps. The first step is delisting from the market where the firm is currently listed, and the second step is admission to the new market. The two steps occur simultaneously (i.e., on the same day). The decision of delisting and subsequent market switching has often been at the discretion of the management team, though there has been a change in the regulations over time. For firms that switch from the AIM to the MM, there has typically been no need for shareholders' approval. However, since 2003 delisting from the AIM became conditional on the approval of at least 75% of shareholders. Such shareholder consent is not required when the AIM securities are admitted to an EU regulated or an AIM designated market that enables shareholders to trade their AIM securities in the future (AIM rule 41).[6] Similarly, a new rule (LR 5.2) came into force in 2007 for firms that intend to move from the MM to the AIM. According to this rule, such firms must receive approval from at least 75% of the shareholders.[7] Firms that decide to delist from any of the two markets must notify the Regulatory Information Service (RIS) and send a circular to their shareholders after the public announcement, giving at least twenty business days' notice of the intended delisting. Only firms that move from the AIM to the MM must prepare a prospectus, which has to be pre-vetted and approved by the UK Listing Authority (UKLA). This becomes available to the public after the announcement of the intention to switch.[8]

The main reasons for a firm upgrading to the MM are that it offers better analyst coverage, a larger investor pool, and higher prestige, albeit at a higher operational cost. A switch to the AIM instead provides lower costs and greater flexibility. We provide examples of announcements of market switches in Appendix C. While the two markets are reported to attract different firms with different financing and investment priorities, Doukas and Hoque (2016), who examine AIM firms that meet the heavier regulatory criteria of the MM, point out that the decision to list either to the AIM or to the MM is a self-selection choice just as any other corporate decision.

2.3. Information leakage prior to market switches

Efficient market theory mandates that a market is informationally efficient if prices fully reflect all available information (Fama, 1970). According to the semi-strong form of the efficient market hypothesis, the stock prices already incorporate historical prices and

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[5] The AIM replaced the Unlisted Securities Market (USM), which was the UK secondary market that had been in operation since 1980.

[6] We manually checked our sample firms that move from the AIM to the MM after 2003, and only 15% of them explicitly state that the switch is subject to shareholders' approval.

[7] We manually checked our sample firms that move from the MM to the AIM after 2007. Approximately 92% of the firms explicitly state that the switch is subject to shareholders' approval.

[8] After manually checking the announcements of the firms switching from the AIM to the MM since 2003, we indeed find that 89% of them state that the switch is subject to approval from the UKLA, and 94% of them state that the prospectus will be published at a later date (following the public announcement of the intended switch).

publicly available information. Therefore, only individuals that possess private information can outperform the market. Individuals who make managerial decisions in firms usually possess more information about their firm than outside investors (Agrawal & Nasser, 2012; Gider & Westheide, 2016). This is due to the periodic disclosure of information to the latter (Aboody & Lev, 2000). These information asymmetries between insiders and outside investors could create incentives for insiders to pass information to some investors to trade on their behalf or to sell private information to other individuals for profit. This privileged information chain is usually initiated by high-ranked members of the firms' boards, such as executives, and is followed by other individuals, such as close friends, family members, and finally business associates (Ahern, 2017).

Following the theoretical framework of semi-strong market efficiency, empirical studies argue that systematic abnormal price movements prior to the public announcement of corporate events can be interpreted as evidence of trading based on private information. For example, existing literature reports abnormal stock price reactions and informed trading prior to the public announcement of SEOs (Brennan, Huh, & Subrahmanyam, 2018), M&As (Dutordoir et al., 2021; King, 2009; Panetsidou et al., 2022; Siganos & Papa, 2015), sanction decisions (Wang, Ashton, & Jaafar, 2019), stock splits (Gharghori, Maberly, & Nguyen, 2017), drug approvals (Hamill, McIlkenny, & Opong, 2013), and cybersecurity breaches and hacking (Akey, Gregoire, & Martineau, 2020; Mitts & Talley, 2018). The rationale for trading based on private information before corporate events is to benefit from the price jump upon positive public announcements or avoid expected losses from price decreases upon negative public announcements.

In light of the underlying theoretical insights and the findings of this related literature on information leakage, we argue that another corporate event that could potentially generate arbitrage opportunities is the switches between the AIM and the MM. Leitterstorf, Petronilla, and Christian (2008), Jenkinson and Ramadorai (2013), and Campbell and Tabner (2014), focusing on stock returns on the announcements of market switches, report that firms that upgrade to the MM experience positive abnormal announcement stock returns, while firms that downgrade to the AIM experience negative abnormal announcement stock returns. These abnormal announcement stock returns could create space for investors to trade based on information advantage for some length of time prior to the public announcement of the switches to generate profit or avoid losses from the stock price market reaction upon the public announcements. Prior studies that have explored information leakage prior to public announcements (e.g., Betton & Eckbo, 2000; Jabbour et al., 2000; Siganos & Papa, 2015) indicate abnormal trading activity within a window of 60 trading days. Hence, we hypothesise that firms that switch markets experience abnormal stock returns 60 trading days prior to the announcement of the switches and we formulate the following hypotheses[9]

Hypothesis 1a. Firms that switch from the MM to the AIM experience abnormal stock price reductions 60 trading days prior to the announcement of the transition.

Hypothesis 1b. Firms that switch from the AIM to the MM experience price run-ups 60 trading days prior to the announcement of the transition.

2.4. The role of nomads

One of the main contributions of our study is that it explores the significance of Nomads on the magnitude of information leakage. Firms that intend to join the AIM (either from being unlisted or delisting from the MM) must appoint a Nomad 12–24 weeks prior to their admission and retain one during their entire period of listing. Most of the time, the Nomads are investment banks, accountancy or corporate finance firms. Certain criteria have to be met for an entity to become a Nomad. First, the entity must be a firm. Second, the firm must have practiced corporate finance for at least the last two years and must have acted on at least three relevant transactions during that period.[10] Third, the company must employ at least four qualified executives, whose quality will be examined by the LSE. However, even if the criteria are met by the entity, the LSE has the right to reject the application if there is a possibility that the applicant will harm the reputation and integrity of the AIM (Arcot, Black, & Owen, 2007; London Stock Exchange, 2014).

The Nomads should guide the firms that are interested in joining the AIM during the flotation process by coordinating the preparation of the admission document and preparing the firm for listing. Further to their responsibilities upon admission to the firm, the Nomads must maintain regular contact, guide, and oversee the firms during their entire time in the AIM. Importantly, the Nomads also regulate firms and must ensure that they fully understand their obligations under the "*AIM rules for companies*". With particular relevance to our study, according to the third ongoing responsibility (OR3) of Nomads, "the Nomad should monitor the trading activity in securities of an AIM company for which it acts, especially when there is unpublished price sensitive information in relation to the AIM company" (London Stock Exchange, 2014, p. 19). The Nomads are also required to prepare in advance draft announcements should a potential leak of price sensitive information arise. In case of a leak of price sensitive information, they should not further delay the publication of the announcement (London Stock Exchange, 2014; 2015a; b).

This brings into the spotlight the critical role of Nomads in terms of reducing potential information leakages prior to market switches. The existence of Nomads is important both for the firms that switch from the AIM to the MM and for those that switch from the MM to the AIM. This is because the firms that switch from the AIM to the MM already have an appointed Nomad, while those considering switching from the MM to the AIM must appoint one well before their admission. More specifically, even though the MM firms do not have Nomads, the first step for the firms that are interested to join the AIM is to appoint a Nomad. This happens several

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[9] To ensure that our results are not influenced by the specific window chosen, we use alternative event windows as robustness tests. More specifically, we re-run our main tests using −50 and −30 trading days prior to the announcement.

[10] A relevant transaction is a transaction that requires a prospectus or equivalent, or a takeover of a public firm (London Stock Exchange, 2014).

months before the official announcement of the switch, however it is not published to the market as it is price sensitive information. The appointment of the Nomad is disclosed along with the announcement of the market switch (London Stock Exchange, 2015a).

Although Nomads do not have the power to enforce any disciplinary actions, when a firm breaches the AIM rules, they have a duty to inform the exchange to take any necessary actions.[11] Their role is to enhance investor protection and reduce financial crime in UK markets. In order not to endanger the stability, integrity, and reputation of the AIM, the LSE examines several criteria to decide whether a firm is appropriate for the role of the Nomad, including their general reputation. Hence, the Nomad's reputation is of vital importance not only for advising firms and helping them grow but also for providing better regulatory services, thus reducing any illegal or market abusive behaviors (London Stock Exchange, 2014; 2015b).

Prior literature documents that reputable advisers generally provide better quality services and reduce information asymmetries (Chemmanur & Fulghieri, 1994; Titman & Trueman, 1986), increase takeover wealth gains (Kale, Kini, & Ryan, 2003), lead to a higher rate of successful deals in tender offers and mergers (Hunter & Jagtiani, 2003; Rau, 2000) and higher bidder returns in public acquisitions (Golubov et al., 2012). In addition, Espenlaub, Khurshed, and Mohamed (2012) report that reputable Nomads provide higher quality services, given that firms with such Nomads have higher survivability by a median of 33 months. Gerakos et al. (2013) show that firms that are backed by higher quality Nomads experience reduced post listing underperformance. However, they further report that Nomads who also act as brokers for the same firm do not acquire additional information about the supervised firms, as they do not further reduce the post IPO underperformance. The main rationale behind these findings is that the strong reputation of an adviser allows them to maintain a strong stream of sales/services either to the same customer or to others (Kale et al., 2003). Hence, more reputable advisers have even stronger incentives to provide better quality services. Further, the proxy for capturing the reputation of advisers is usually the number of clients they are responsible for, which implies that the higher an adviser's reputation, the more experienced and skillful that adviser is.

Building on the evidence that highly reputable advisers provide higher quality services (Chemmanur & Fulghieri, 1994; Dai et al., 2010; Fang, 2005) and better oversight (Gerakos et al., 2013), in our context, reputable Nomads would more likely reduce market abusive techniques by providing better advisory and regulatory services. In particular, reputable Nomads, beyond being more experienced and hence more effective in spotting and minimizing abnormal price activities, have stronger incentives to protect their reputation, which could be at risk if a client engages in market abusive activities. Hence, we expect that the presence of reputable Nomads would mitigate abnormal price reactions prior to the official announcements of market switches from the AIM to the MM and vice versa. Thus, we formulate the following hypothesis.

Hypothesis 2. Reputable Nomads reduce the pre-announcement abnormal stock returns prior to the announcement of market switches.

3. Data and methodology

3.1. Data

Our sample period spans from 1996, when the first market switch took place, up until 2020. We identify the firm names of completed switches and the year of the switch from the "*New issues and IPO summary*" spreadsheet, available on the LSE website.[12] However, the spreadsheet does not provide any identifier codes. Thus, we use the firms' names as provided in the spreadsheet to search for them one by one in the InvestEgate and Nexis databases to collect their corresponding identifiers. We further use the latter databases, along with Perfect Information, to manually collect the announcement dates of the firm switches (intention to switch). We use the first announcement of the switch as the event date (Day 0). We further collect the Nomads of the firms that switch from the MM to the AIM from the "*New issues and IPO summary*" spreadsheet. However, the spreadsheet does not provide Nomad information for firms that move from the AIM to the MM. Hence, we hand collect the last Nomad used prior to the switch to the MM from the firms' annual reports, using the Perfect Information database. Any missing Nomad data for the switches from the MM to the AIM are also hand collected from annual reports.

The date of incorporation of the Nomad firms is downloaded from the Bureau van Dijk Fame and Amadeus databases as well as the Companies House website. The broker companies and auditors for firms that switch between the two markets are hand collected from the firms' annual reports, using the Perfect Information database. The insiders' trades are collected from the Directors Deals database. Stock prices, stock volume, and the FTSE All Share and FTSE AIM All Share indices are employed from the Refinitiv Datastream database. Firms' financial data are downloaded from the Refinitiv Worldscope database. Finally, we complement the dataset by hand collecting, where possible, the missing market to book ratio (*M/B*) and market capitalization values (*Size*) from the firms' annual reports, available in the Perfect Information database.

After excluding firms with missing announcement dates, missing or incomplete stock returns, and firms lacking identifiers, our sample consists of 439 firms. That is 301 firms that switch from the MM to the AIM (down-switchers) and 138 firms that switch from the AIM to the MM (up-switchers).[13]

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[11] The FCA is responsible for prosecuting individuals for insider trading or banning financial professionals in UK markets.

[12] https://www.londonstockexchange.com/statistics/new-issues-further-issues/new-issues-further-issues.htm.

[13] Other studies that have examined the switches between the two UK markets report a similar number of observations. For example, Jenkinson and Ramadorai (2013) use 329 switches, while Campbell and Tabner (2014) employ 373 switches.

Table 1
Market switches between the two UK markets.

Year	Panel A: From MM to AIM				Panel B: From AIM to MM			
	Number of moves	Proceeds (£m)	Firms that raised capital	Mean Proceeds (£m)	Number of moves	Proceeds (£m)	Firms that raised capital	Mean Proceeds (£m)
1996	1	2.4	1	2.4	0	0.0	0	0.0
1997	4	0.0	0	0.0	0	0.0	0	0.0
1998	3	0.0	0	0.0	17	26.1	1	26.1
1999	10	6.0	0	6.0	13	45.0	1	45.0
2000	20	58.1	8	7.3	13	230.2	5	46.0
2001	32	4.3	2	2.2	6	40.5	1	40.5
2002	37	2.2	1	2.2	5	0.0	0	0.0
2003	43	5.8	2	2.9	2	0.0	0	0.0
2004	20	3.0	1	0.2	1	0.0	0	0.0
2005	35	0.0	0	0.0	1	0.0	0	0.0
2006	29	65.4	3	21.8	3	0.0	0	0.0
2007	6	1.5	1	1.5	10	0.0	0	0.0
2008	10	14.0	2	7.0	12	0.0	0	0.0
2009	3	0.0	0	0.0	10	104.9	1	104.9
2010	6	0.0	0	0.0	6	0.0	0	0.0
2011	6	1.8	1	1.8	8	0.0	0	0.0
2012	3	5.4	1	5.4	3	0.0	0	0.0
2013	8	7.0	1	7.0	0	0.0	0	0.0
2014	6	9.0	1	9.0	5	229.4	2	114.7
2015	5	49.9	5	9.9	4	20.0	1	20.0
2016	1	0.0	0	0.0	6	150.0	1	150.0
2017	3	1.5	1	1.5	4	2.3	1	2.3
2018	2	0.0	0	0.0	4	0.0	0	0.0
2019	5	8.6	1	8.6	3	0.0	0	0.0
2020	3	130.6	3	43.5	2	70.7	2	35.4
Total	301	376.5	38	9.9	138	919.1	16	57.4

This table shows the final sample of firms that switch between the two UK markets and their relevant proceeds. Panel A shows the moves from the MM to the AIM and Panel B shows the corresponding information for the moves from the AIM to the MM. The market switches and proceeds are retrieved from the "New issues and IPO summary" spreadsheet provided by the LSE website. The mean proceeds are based on the firms that raised capital.

Table 1 shows the distribution of the switches across the sample period. The first switch from the MM to the AIM occurs in 1996, while the first switch from the AIM to the MM occurs in 1998 since the listing requirements of the MM require at least three years of audited financial statements. The number of switches varies over time for both markets. However, there is an increase in the firms that switch from the MM to the AIM from 2001 to 2006. This increase could be attributed to the general increase in popularity of the AIM from local and overseas firms (Arcot et al., 2007). Furthermore, the switches between the two markets seem to decrease after 2008 but remain relatively stable up to 2020. This reduction is, to an extent, driven by the 2008 financial crisis that resulted in a similar decrease in the number of other firm events, such as IPOs and mergers (Alexandridis, Antypas, & Travlos, 2017).

In addition, we note that, although raising capital is not mandatory for switching markets, some firms do raise capital during the market switches. Specifically, we identify approximately 12% of the firms that switch markets also raise capital. Further, we observe that the mean proceeds after 2008 appear to be higher compared to the pre-2008 period. More specifically, the total proceeds for the switches from the MM to the AIM are £227.8m after 2008, compared to £148.7m prior to 2008. The corresponding figures for switches from the AIM to the MM are £577.3m and £341.8m, respectively. This shows that the amount of proceeds increased substantially in recent years. More specifically, there is a 53% increase in the total proceeds for the firms that move from the MM to the AIM and a respective 69% increase for the firms that move from the AIM to the MM.

Table 2 presents the summary statistics of the firms in the year prior to market switches. As expected, firms that move to the MM are significantly larger and have higher growth compared to firms that switch to the AIM. More specifically, the mean market capitalization of the up-switchers is £259m, with a mean M/B equal to 2.92, while the corresponding figures of the down-switchers are £31m and 1.99, respectively. Firms moving to the AIM raise, on average, £5.50m more funds. In addition, 73% of the firms that downgraded to the AIM used a reputable Nomad, and 82% hired the same firm to also act as a broker. The corresponding figures for firms that upgrade to the MM are 74% and 82%, respectively. As reported in Panel E of Table 2 there are no statistically significant differences in the firm characteristics between the firms that hire a reputable Nomad and those that do not. In addition, there are no statistically significant differences in the firm characteristics between the firms that hired the Nomad to also act as a broker and those that hired a different broker, as shown in Panel F of Table 2.

3.2. Methodology

We estimate the abnormal returns prior to the public announcements using a standard event study methodology, employing an OLS market model as in Brown and Warner (1985). The event study aims to measure the magnitude of abnormal returns that are attributed to specific events (Yekini, Wisniewski, & Millo, 2016). The abnormal returns are calculated as follows:

Table 2

Summary statistics.

	Mean	Median	Minimum	Maximum	SD	N
Panel A: From MM to AIM						
Size	31,280	13,617	1099	552,147	56,652	237
M/B	1.990	1.100	−7.780	20.380	3.533	237
Stock Liquidity	0.003	0.002	0.000	0.076	0.006	237
Volatility	0.026	0.023	0.000	0.116	0.014	237
Proceeds (£m)	1.437	0.000	0.000	99.560	7.838	237
Panel B: From AIM to MM						
Size	259,012	124,052	932	2,630,773	410,891	107
M/B	2.922	1.870	−44.210	27.500	8.311	107
Stock Liquidity	0.004	0.002	0.000	0.064	0.008	107
Volatility	0.026	0.021	0.003	0.168	0.020	107
Proceeds (£m)	6.944	0.000	0.000	170.000	27.834	107

Panel C: Differences between the two samples

	Mean	p-value	Median	p-value
Size	−227,732***	(0.000)	−110,435***	(0.000)
M/B	−0.932	(0.268)	−0.770***	(0.000)
Stock Liquidity	−0.001	(0.141)	0.000**	(0.036)
Volatility	0.000	(0.988)	0.002	(0.262)
Proceeds (£m)	−5.507**	(0.047)	0.000	(0.964)

Panel D: Reputable Nomads and brokers statistics

	From MM to AIM	From AIM to MM
Firms that hired a reputable Nomad	157	61
Firms that hired a non-reputable Nomad	57	21
Total	214	82
Firms that hired the Nomad to act as broker	175	67
Firms that hired a different broker	39	15
Total	214	82

Panel E: Firm characteristics by Nomads

	Firms using a reputable Nomad		Firms using a non-reputable Nomad		Difference			
	Mean	Median	Mean	Median	Mean		Median	
From MM to AIM								
Size	27,523	13,000	29,105	16,781	−1582	(0.818)	−3781	(0.124)
M/B	2.081	1.140	1.810	1.060	0.271	(0.616)	0.080	(0.942)
S. Liquidity	0.003	0.002	0.002	0.002	0.001	(0.506)	0.000	(0.862)
Volatility	0.025	0.023	0.025	0.023	0.000	(0.812)	0.000	(0.535)
Proceeds (£m)	1.094	0.000	0.783	0.000	0.311	(0.667)	0.000	(0.399)
From AIM to MM								
Size	236,665	137,023	137,286	78,178	99,379	(0.149)	58,845	(0.149)
M/B	3.341	1.850	3.013	2.540	0.328	(0.862)	−0.690	(0.836)
S. Liquidity	0.003	0.002	0.004	0.001	−0.001	(0.468)	0.001	(0.308)
Volatility	0.024	0.018	0.027	0.023	−0.003	(0.565)	−0.005	(0.258)
Proceeds (£m)	6.330	0.000	14.394	0.000	−8.064	(0.318)	0.000	(0.537)

Panel F: Firm characteristics by brokers

	Firms that hired the Nomad to act as broker		Firms that hired a different broker		Difference			
	Mean	Median	Mean	Median	Mean		Median	
From MM to AIM								
Size	28,915	13,859	23,587	11,903	5328	(0.498)	1956	(0.183)
M/B	2.017	1.110	1.970	1.240	0.047	(0.938)	−0.130	(0.196)
S. Liquidity	0.003	0.002	0.002	0.002	0.001	(0.460)	0.000	(0.715)
Volatility	0.246	0.023	0.027	0.024	0.219	(0.252)	−0.001	(0.694)
Proceeds (£m)	0.972	0.000	1.187	0.000	−0.215	(0.794)	0.000	(0.634)
From AIM to MM								
Size	205,707	133,258	235,814	94,250	−30,107	(0.700)	39,008	(0.365)
M/B	2.838	1.820	5.127	3.050	−2.289	(0.281)	−1.230	(0.150)
S. Liquidity	0.004	0.002	0.003	0.002	0.001	(0.584)	0.000	(0.545)
Volatility	0.023	0.019	0.030	0.020	−0.007	(0.249)	−0.001	(0.923)
Proceeds (£m)	8.921	0.000	6.047	0.000	2.874	(0.752)	0.000	(0.274)

This table shows the summary statistics of the characteristics of the firms that move between the two UK markets. Panel A presents the information in relation to the firms that move from the MM to the AIM, Panel B shows corresponding information for the firms that move from the AIM to the MM. Panel C depicts the differences between the two samples, Panel D shows the number of reputable Nomads and brokers, and Panel E presents the

characteristics of the firms that hired a reputable Nomad and those that hired a non-reputable Nomad as well as their differences. Panel F shows the characteristics of the firms that hired the Nomad to act as the broker and those that hired a different broker as well as their differences. For a detailed description of all variables please see Appendix C. The methodology for the calculation of reputable Nomads is discussed in Section 4.4. P-values are shown in parentheses. ** and *** show significance at the 5% and 1% levels, respectively.
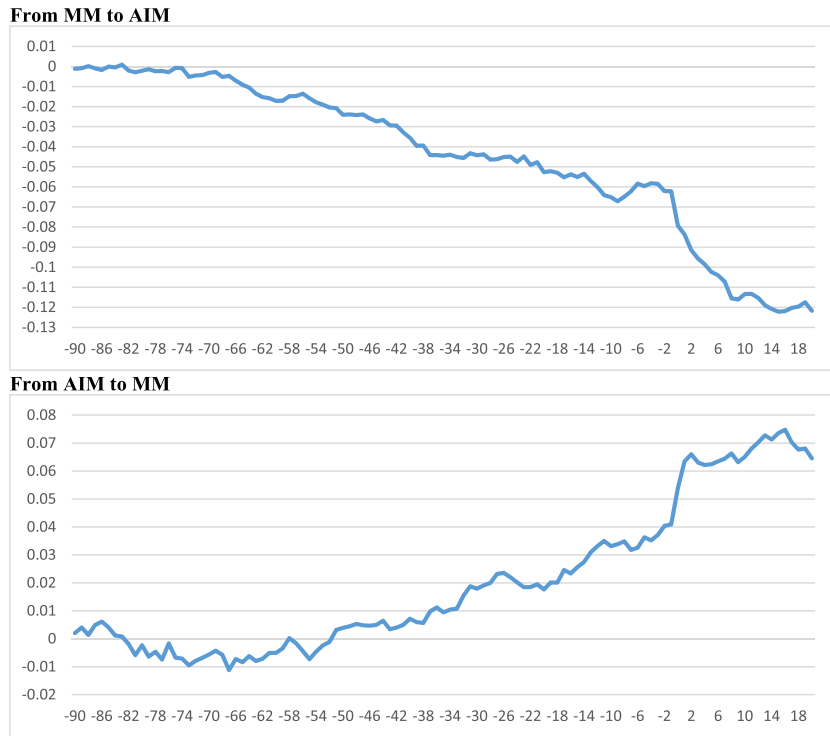

Fig. 1. Cumulative average abnormal returns across the two types of switches
This figure shows the cumulative average abnormal returns (CAAR) of the firms that switch between the two UK markets 90 trading days prior to the move announcement. The horizontal axis represents the days and the vertical axis represents the abnormal returns. The event day is day 0. We exclude firms with rumors and firms that simultaneously announce a takeover or a merger.

$$AR_{i,t} = R_{i,t} - \widehat{\alpha} - \widehat{\beta}*R_{M,t} \tag{1}$$

Where $AR_{i,t}$ is the excess return of security i on day t, $R_{i,t}$ is the natural logarithm of the return of security i on day t, and $R_{M,t}$ is the return of the market on day t. We use the FTSE All Share index as a proxy of the market for the MM firms and the FTSE AIM All Share index for the AIM firms. The estimation window used is -250 to -81 trading days prior to each public announcement. Following prior studies, we use the window -60 to -1 trading days prior to the announcement for our event period (Betton & Eckbo, 2000; Jabbour et al., 2000; Siganos & Papa, 2015). This is also supported by Fig. 1 which shows that the abnormal stock returns begin approximately 60 trading days prior to each public announcement.

4. Empirical results

4.1. Abnormal stock returns prior to market switches

In this section, we discuss the initial results of abnormal stock returns prior to the announcement of market switches. We conduct our analysis separately for the firms that move from the MM to the AIM and from the AIM to the MM as they are inherently different corporate events. Panel A in Table 3 shows the Cumulative Average Abnormal Returns (CAARs) for firms that downgrade to the AIM (first column) and for firms that upgrade to the MM (second column).

Table 3
Cumulative average abnormal stock returns in relation to market switches.

Panel A: Cumulative average abnormal returns (CAAR)

	From MM to AIM	From AIM to MM
(-60, −1)	−0.040***	0.055***
	(0.000)	(0.000)
(-1, 1)	−0.017***	0.017***
	(0.000)	(0.000)
N	301	138

Panel B: Predicted against non-predicted firms

	Predicted	Non-predicted firms	Difference
From MM to AIM			
(-60, −1)	−0.049***	−0.047***	−0.002
	(0.000)	(0.000)	(0.975)
(-1, 1)	−0.019***	−0.018***	−0.001
	(0.000)	(0.000)	(0.924)
N	72	111	
From AIM to MM			
(-60, −1)	0.092***	0.031***	0.061
	(0.000)	(0.000)	(0.529)
(-1, 1)	0.027***	0.026***	0.001
	(0.000)	(0.000)	(0.940)
N	13	43	

Panel C: Pre-announcement CAARs subject to market capitalization

	From MM to AIM			From AIM to MM		
	Market capitalization(decrease relative to the previous year)			Market capitalization(increase relative to the previous year)		
(-60, −1)	Mean	p-value	N	Mean	p-value	N
Less than 50%	−0.040***	(0.000)	233	0.056***	(0.000)	61
More than 50%	−0.038***	(0.000)	53	0.059***	(0.000)	50
Difference	−0.002	(0.954)		−0.003	(0.961)	
Less than 10%	−0.036***	(0.000)	150	0.079***	(0.000)	36
More than 10%	−0.044***	(0.000)	136	0.047***	(0.000)	75
Difference	0.008	(0.775)		0.032	(0.563)	
Less than 0%	−0.033***	(0.000)	124	0.079***	(0.000)	28
More than 0%	−0.045***	(0.000)	162	0.050***	(0.000)	83
Difference	0.012	(0.673)		0.029	(0.621)	
	ROA(decrease relative to the previous year)			ROA(increase relative to the previous year)		
(-60, −1)	Mean	p-value	N	Mean	p-value	N
Less than 50%	−0.022***	(0.000)	153	0.040***	(0.000)	63
More than 50%	−0.058***	(0.000)	131	0.129***	(0.000)	29
Difference	0.036	(0.217)		−0.089	(0.212)	
Less than 10%	−0.038***	(0.000)	110	0.064***	(0.000)	44
More than 10%	−0.038***	(0.000)	174	0.071***	(0.000)	48
Difference	0.000	(0.996)		−0.007	(0.914)	
Less than 0%	−0.040***	(0.000)	96	0.067***	(0.000)	38
More than 0%	−0.038***	(0.000)	188	0.068***	(0.000)	54
Difference	−0.002	(0.938)		−0.001	(0.985)	

This table reports the cumulative average abnormal returns (CAAR) prior to market switches between the two UK markets. Panel A shows the results for the full sample, Panel B shows the firms that are predicted to switch against the firms that are not predicted to switch, and Panel C presents the differences in the CAARs between firms that experience more than 50%, 10%, and 0% market capitalization and ROA drop (increase), one year prior to the announcement of the switch and firms that do not experience such a decrease (increase). P-values are shown in parentheses. *** shows significance at the 1% level.

We find that firms that switch from the MM to the AIM experience CAARs of −4.0% in the interval period (−60, −1). In contrast, firms that move from the AIM to the MM experience CAARs of 5.5% during the same window. These results are significant at the 1% level and highlight that firms that switch between the two markets experience significant CAARs.[14],[15] These findings provide indicative evidence supporting the information leakage hypothesis and show that on average informed investors could earn returns of 5.5% or avoid losses of −4.0% by trading 60 trading days prior to the announcement of market switches. Gaining such returns or avoiding losses of such magnitude is a considerable benefit for investors. Our findings on the average pre-announcement returns are economically significant and in line with findings on other major corporate events both in the US and in the UK (Dutordoir et al., 2021; Jabbour et al., 2000; King, 2009; Panetsidou et al., 2022; Sanders & Zdanowicz, 1992). The stronger pre-announcement abnormal stock returns for the firms switching from the AIM to the MM could be attributed to the fact that they are larger, with higher growth and, where relevant, tend to raise on average larger proceeds compared to the firms that downgrade to the AIM. This could give rise to further information and agency issues that occur in other corporate events such as IPOs or SEOs.[16]

However, in line with Jensen and Ruback (1983), these results could be attributed to the market anticipation hypothesis instead. To address this alternative hypothesis, we follow prior literature that predicts corporate events such as M&As and IPOs (Brar, Giamouridis, & Liodakis, 2009; Doukas & Hoque, 2016; Powell, 2004) and perform a probit regression where firms that switch between the two markets are equal to one, and control firms are equal to zero. We use the yearly FTSE AIM All Share and FTSE All Share constituent lists of firms as a control for firms that switch from the AIM to the MM and from the MM to the AIM respectively. Specifically, we match each switching firm with three control firms using the nearest neighbor propensity score matching based on firm characteristics (year, industry, size, and M/B). These control firms have not switched markets.

On reflection of prior literature on market switches between the AIM and the MM (Doukas & Hoque, 2016) and the AIM and MM listing criteria (London Stock Exchange, 2010; 2015a, 2016), we include variables that could influence the market choice between the two markets. First, we include *Size* and *M/B*, measured by the natural logarithm of market capitalization and market to book ratio, respectively. Large AIM firms that exceed the listing criteria of the MM might be interested in switching from a small secondary market to a large, traditional regulated market with higher prestige. In contrast, small MM firms with high growth that are close to the market capitalization listing criteria might have a higher probability of switching to a smaller market designed to attract small and high-growth firms. Second, we include *Free float*, which represents the percentage of total shares in the issue available to investors. MM-listed firms with a low percentage of float might be interested to migrate to the AIM that has no minimum percentage of free float, while AIM firms with a high percentage of free float might prefer the MM since they meet its minimum float criteria. Third, we include *Leverage*, calculated as total debt to total assets, *Profitability*, measured by ROA, and *Liquidity*, calculated as current assets to current liabilities. Highly leveraged firms with low profitability and liquidity might be attracted to the AIM to reduce their costs, as it provides lower annual and compliance costs, while low leveraged firms with high profitability and liquidity might prefer to switch to the MM as they could afford its high costs. Finally, we include *Sales*, measured by sales over total assets, as firms with higher sales have a lower probability of joining the AIM (Doukas & Hoque, 2016). Variable definitions for this and all other tests are presented in Appendix C.

In untabulated results,[17] we find that size, and liquidity are important factors related to the probability of a company switching markets and thus could assist in predicting market choice. More specifically, large firms with low liquidity have a higher chance of switching from the AIM to the MM, while small firms have a higher chance of switching from the MM to the AIM.

Next, we classify the AIM and MM firms into switching and non-switching firms and compare their 60-day pre-announcement returns. The first (second) group consists of firms with a high (low) probability of switching markets.[18] If firms that are predicted to upgrade to the MM have significantly higher stock returns compared to their counterparts, this would suggest that the abnormal price reactions are due to a growing realization from the market that the firms are heading towards a market switch. In line, if firms that are predicted to downgrade to the AIM have significantly lower returns compared to their counterparts, this would suggest that the abnormal stock returns could be attributed to market expectations.

Panel B of Table 3 shows the results of the CAARs across the sub-samples of firms with a high vs low probability of switching. We find that there are no significant differences between the switches predicted by the model and their counterparts. We further find that firms that are not predicted to switch markets experience CAARs of −4.7% 60 trading days prior to the switch from the MM to the AIM,

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[14] In untabulated results, we also use the interval periods of (−60, −2), (−60, −3), (−50, −1) and (−30, −1) and find that our conclusions hold. Specifically, firms that upgrade to the MM experience CAARs of 5.5% for the event period of (−60, −2), 5.2% for the event period (−60, −3), 5.2% for the event period (−50, −1) and 3.3% for the event period (−30, −1). In contrast, firms that downgrade to the AIM experience CAARs of −4.3%, −3.9%, −3.4% and −1.7% for the interval periods of (−60, −2), (−60, −3), (−50, −1) and (−30, −1), respectively.

[15] Considering the significant increase in the number of switches during the period of 2001–2006, we repeat our analysis by excluding this period. The CAARs remain significant for both events. More specifically, the CAARs of the firms that switch from the MM to the AIM are −7.9% and for the firms that switch from the AIM to the MM are 5.4%. All CAARs are significant at the 1% level.

[16] We thank an anonymous reviewer for these insights.

[17] All untabulated results discussed in the article are available upon request.

[18] In order to split the sample into the two groups, we compare the estimated switch probability of each firm with the optimal cut-off probability (Palepu, 1986). If a firm's probability is higher than the cut-off probability, the firm is classified as a switching firm; otherwise, it is classified as a non-switching firm. In order to calculate the cut-off probability, we follow Powell (2004) and Brar et al. (2009) and construct ten deciles sorted in descending order based on market switch probability. The optimal cut-off probability is then the first switch probability in the portfolio with the highest Concentration Ratio (ratio of switches over the total number of firms in the portfolio). In untabulated results we find that the cut-off probability for the AIM to MM sample is 0.38, and for the MM to AIM sample is 0.67. Finally, the model on average predicts approximately 80% of switching and non-switching for both samples.

Table 4
The impact of rumors and concurrent announcements.

	From MM to AIM	From AIM to MM
Panel A: Trading day difference between first rumor and announcement		
Average trading days	52	108
Median trading days	46	95
Panel B: Impact of rumor publication on stock returns		
Announcement of rumor (−1, 1)	−0.008*	0.020***
	(0.082)	(0.006)
N	16	16
Panel C: Subgroup analysis of CAARs		

From MM to AIM

	Free Sample	Concurrent Announcement	Rumors
(-60, −1)	−0.024***	−0.039***	−0.135***
	(0.000)	(0.000)	(0.000)
(-1, 1)	−0.019***	−0.013***	−0.051***
	(0.000)	(0.000)	(0.000)
N	88	197	16

From AIM to MM

(-60, −1)	0.047***	0.031***	0.203***
	(0.000)	(0.000)	(0.000)
(-1, 1)	0.011***	0.018***	0.022***
	(0.000)	(0.000)	(0.000)
N	35	87	16

This table reports the impact of rumors and concurrent announcements. Panel A shows the trading day difference between the rumors and the actual announcements of the switches, Panel B shows the impact of the publication of rumors on the firms' stock prices and Panel C reports the cumulative average abnormal returns (CAAR) prior to market switches for the alternate sub-groups: free sample, concurrent announcement sample, and rumors sample. The free sample includes firms with no rumors or other major corporate announcements. The concurrent announcement sample includes the firms that announced another corporate event on the same day or during the month prior to the announcement of the move. Rumors sample includes the firms whose move is discussed in the press during the year prior to the official announcement of the event. P-values are shown in parentheses. * and *** show significance at the 10% and 1% levels, respectively.

and 3.1 % 60 trading days prior to the switch from the AIM to the MM. These results support the information leakage hypothesis, as only part of the abnormal stock returns prior to market switches can be explained by market expectation.

We further examine whether the results could be attributed to firms' past performance. Based on that, we split the sample into two sub-groups. For firms that switch from the MM to the AIM, the first sub-group includes firms that experience decreases of more than 50%, 10%, and 0% in market capitalization and return on assets (ROA) one year prior to the market switch. The second sub-group comprises counterpart firms, which do not experience the respective decreases. For firms that switch from the AIM to the MM, the first sub-group comprises firms that experience increases of more than 50%, 10%, and 0% in market capitalization and ROA one year prior to the market switch. Consequently, the second sub-group includes firms that do not experience increases in market capitalization and ROA. If firms that experience decreases (increases) have significantly lower (higher) CAARs compared to their counterparts, this would suggest that the abnormal stock returns are attributed to market anticipation.

As shown in Panel C of Table 3, there are no significant differences in CAARs between firms that experience decreases (increases) and their counterparts.[19] It is thus unlikely that the pre-announcement abnormal stock returns are the result of a continuation of past firm performance, offering further assurance of potential leakage of information instead.

4.2. Results after controlling for rumors and other major firm announcements

To further test the information leakage hypothesis, we manually collect rumors related to these market switches, available in the press through the Financial Times archive and Nexis database. Literature reports that market anticipation could stem from rumors in the media (Jarrell & Poulsen, 1989; Sanders & Zdanowicz, 1992) while the presence of rumors on M&As could be dealbreakers (Alperovych, Cumming, Czellar, & Groh, 2021). We split our sample into firms with rumors about a switch and firms without any rumors. We use a window of one year prior to each public announcement to ensure that there has been no information available at an earlier stage. We use the name of each company as described in the "*New issues and IPO summary*" spreadsheet, in combination with the following keywords: AIM, Alternative Investment Market, Main Market, MM, official list, official market, move, switch, list, delist and

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[19] In Table 3, we report the differences of the two sub-groups based on t-tests for means. The differences remain insignificant when we also test for the differences in medians using Wilcoxon signed rank tests.
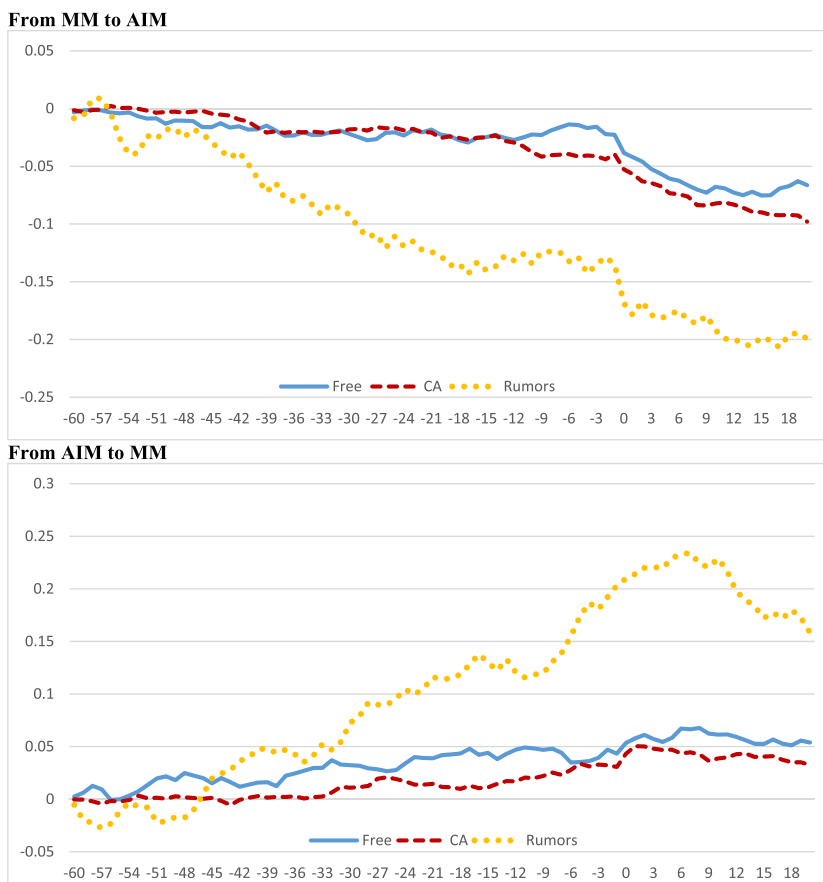
From MM to AIM

From AIM to MM

Fig. 2. Cumulative average abnormal returns separated into sub-groups
This figure shows the cumulative average abnormal stock returns (CAAR) of firms that switch between the two UK markets. The horizontal axis represents the days and the vertical axis represents the cumulative average abnormal stock returns. The event day is day 0. The solid line represents the CAARs of the free sample, which are the firms without rumors or concurrent announcements; the dotted line shows the CAARs of the rumors sample, which are the firms that their switch is discussed in the press within one year prior to the official announcement of the company; and the dashed line depicts the CAARs of the concurrent announcement sample, which are the firms that announced another corporate event on the same day or one month prior to the announcement of the move.

transition. We search through the full articles rather than just the headlines, and we classify any relevant articles as rumors.

We find that for both samples of up- and down-switchers a total of 16 firms in each respective group had rumors. This constitutes about 5% of the firms that upgraded market and 12% of the firms that downgraded market. As reported in Panel A of Table 4 the mean (median) trading days between the first rumors and the actual announcement is approximately 52 (46) for firms that move from the MM to the AIM and 108 (95) for firms that switch from the AIM to the MM. We further find that the impact of the publication of rumors in the news is significant. Specifically, we find abnormal announcement returns (−1, +1) of −0.80% for firms that are rumored to switch from the MM to the AIM and 2% for firms that are rumored to move from the AIM to the MM. These results are significant at the 10% and 1% levels respectively and suggest that rumors can potentially explain some of the abnormal stock returns prior to market switches.

In addition to controlling for rumors and to further isolate the effect of private information on the switches between the two markets, we create another sub-sample with firms that announced another major corporate event (e.g., takeovers, mergers, annual results) on the same day or one month prior to the switch announcement. We use a one-month window as we also want to eliminate firms that announced a major corporate event only a few days prior to our event. For the hand collection of other major corporate events, we use the Nexis and the InvestEgate databases. Hence, the sample is divided into three sub-groups. The first is the firms with rumors, the second is the firms with Concurrent Announcements (CAs), and the third is the firms without rumors or CAs. The latter is labeled free sample hereafter.

We illustrate the abnormal stock returns of the sub-groups in Fig. 2. We also tabulate relevant results in Panel C of Table 4. We find that firms with rumors experience the strongest pre-announcement abnormal stock returns for both types of switches. The CAARs are −13.5% for firms that downgrade to the AIM and 20.3% for firms that upgrade to the MM. These results highlight the impact of rumors on the pre-announcement abnormal stock returns. The results further show that a significant percentage of the movement can be explained by the market anticipation hypothesis. We also find that firms with CAs experience CAARs of −3.9% and 3.1% for the down-

Table 5

The contemporaneous relation between abnormal stock returns and trading volume.

	Dependent: Abnormal stock returns			
	From MM to AIM		From AIM to MM	
	(-60, −1)	(-80, −61)	(-60, −1)	(-80, −61)
AV	−0.347**	0.371	0.753**	0.056
	(0.041)	(0.236)	(0.024)	(0.897)
Rumors	−0.001	0.000	0.002	−0.000
	(0.493)	(0.948)	(0.188)	(0.926)
Rumors*AV	−0.695**	−0.231	−0.497	0.315
	(0.032)	(0.562)	(0.170)	(0.469)
Size	0.000	0.000	−0.000	0.001
	(0.357)	(0.985)	(0.558)	(0.388)
M/B	−0.000*	−0.000	0.000	−0.000
	(0.067)	(0.298)	(0.544)	(0.547)
C. Announcement	−0.000	−0.001	−0.002	−0.001
	(0.564)	(0.659)	(0.140)	(0.589)
C. Announcement*AV	1.174***	−0.348	0.117	0.683
	(0.001)	(0.598)	(0.750)	(0.119)
Volatility	−0.010	−0.033	−0.157***	−0.021
	(0.814)	(0.461)	(0.002)	(0.713)
Stock Liquidity	0.022	0.164	0.028	−0.060
	(0.833)	(0.395)	(0.677)	(0.629)
Historical stock return	0.103	0.548*	0.103	−0.115
	(0.491)	(0.070)	(0.780)	(0.747)
Insiders' trade	0.002	0.002	0.000	−0.002
	(0.280)	(0.355)	(0.998)	(0.347)
Proceeds	0.001	0.000	0.001	0.002***
	(0.108)	(0.627)	(0.231)	(0.007)
Constant	−0.015***	−0.010	0.008	0.001
	(0.002)	(0.190)	(0.266)	(0.887)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R^2-adjusted	0.024	0.012	0.027	0.079
N	11,023	3808	6066	2023

This table explores the contemporaneous relation between abnormal stock returns and abnormal trading volume. The first two columns show the results for firms that switch from the MM to the AIM, and the two last columns for firms that switch from the AIM to the MM. For a detailed description of all variables please see Appendix C. P-values are shown in parentheses. *, ** and *** show significance at the 10%, 5% and 1% levels, respectively.

switchers and the up-switchers, respectively. Importantly, for this study, the firms of the free sample continue to experience CAARs of −2.4% when moving to the AIM and 4.7% when moving to the MM. These results are significant at the 1% level. Therefore, our results provide evidence of potential leakage of insider information prior to the market switches, above what could have been predicted based on rumors or other major corporate events.

4.3. The contemporaneous relation between abnormal stock returns and trading volume

In this section, we examine the relation between abnormal stock returns and trading volume. Prior literature reports that a contemporaneous relation offers further evidence of information leakage (Eyssell & Arshadi, 1993; King, 2009; Siganos & Papa, 2015). To measure the abnormal trading volume, we follow Bris (2005), using the following formula:

$$AV_{i,t} = V_{i,t} - (\overline{V}_i + 2S_{vol}) \ if \ V_{i,t} > \overline{V}_i + 2S_{vol} \ otherwise \ 0 \tag{2}$$

Where $AV_{i,t}$ is the excess volume of firm i on day t, $V_{i,t}$ is the volume of firm i on day t scaled by the number of common shares outstanding, and $\overline{V}_i$ and S_{vol} are the mean and standard deviation of firm i over the estimation window (−250, −81). The event window is the same as for the calculation of stock returns.

In untabulated results, we find that the abnormal volume results are in line with our expectations. We find that firms that move from the MM to the AIM (the AIM to the MM) experience increases in Cumulative Average Abnormal Volume (CAAV) of 4.1% (3.4%) in the 60-day window prior to the announcement of the moves. These volume increases are significant at the 1% level, highlighting the pronounced trading activity prior to the market switches.

To investigate the relation between the abnormal stock returns and trading volume, we estimate the following panel regression on daily frequency data using random effects:

$$AR_{i,t} = \alpha + \beta_1*AV_{i,t} + \beta_2*Rumors_i + \beta_3*Rumors_i*AV_{i,t} + \beta_4*Size_{i,t-1} + \beta_5*M/B_{i,t-1} + \beta_6*CA_i + \beta_7*CA_i*AV_{i,t} + \beta_8*Volatility_{i,t}$$
$$+ \beta_9*Stock \ liquidity_{i,t} + \beta_{10}*Historical \ stock \ return_{i,t} + \beta_{11}*Insiders' \ trade_{i,t} + \beta_{12}*Proceeds_{i,t} + \gamma*Year + \vartheta*Industry \tag{3}$$

The dependent variable is *AR*, which represents the abnormal stock returns. The independent variable of interest is *AV*, which is the abnormal trading volume. To support the information leakage hypothesis, the parameter coefficient of *AV* should be positive and significant in the interval period from −60 to −1 trading days prior to the moves to the MM. Instead, the relevant parameter coefficient should be negative and significant prior to the moves to the AIM. Trades that possess private information incorporate their informational advantage into prices, creating a positive externality for investors who follow prices as signals and driving prices towards the direction consistent with the private information. Hence, trading on positive private information pushes prices upwards, whereas trading on negative private information pushes prices downwards (Kyle & Viswanathan, 2008).

We control for rumors using a binary variable that takes the value of one if the move has at least one rumor during the year prior to the announcement of the event, and zero otherwise (Jarrell & Poulsen, 1989; Jensen & Ruback, 1983; Sanders & Zdanowicz, 1992), for firm size, measured by the natural logarithm of the market capitalization one year prior to the announcement of each switch (Atiase, 1985; Diamond & Verrecchia, 1991), firm growth (*M/B*) by including the market to book ratio one year prior to the announcement of the switches (Fama & French, 1992), for other major corporate events (*CA*) using a binary variable that takes the value of one if the firm announces another major corporate event (e.g., takeovers, mergers, final year results) on the announcement day or one month prior to the announcement, and zero otherwise (Keown & Pinkerton, 1981; King, 2009), for volatility as measured by the standard deviation of stock returns over the estimation window (−250, −81) (Meulbroek, 2000), for stock liquidity measured as the daily average ratio of trading volume over shares outstanding during the estimation window (−250, −81) (Admati & Pfleiderer, 1988; Holmström & Tirole, 1993; Kyle, 1985), for historical stock returns measured as the average daily excess returns of firms that switch compared to the market over the year prior to the announcement of the switch (Espahbodi & Espahbodi, 2003; Palepu, 1986), for proceeds, calculated as the logarithm of one plus the funds raised during the firm's switch (Clarke, Dunbar, & Kahle, 2001; Karpoff & Lee, 1991), and for insider activity using a binary variable that takes the value of one if there is insider trading activity towards the direction of the switch (buy for the switches from the AIM to the MM and sell for the switches from the MM to the AIM) 60 trading days prior to the announcement of the switch, and zero otherwise (Fidrmuc, Goergen, & Renneboog, 2006; Friederich, Gregory, Matatko, & Tonks, 2002; Gregory, Tharyan, & Tonks, 2013). We also include an interaction variable between the abnormal trading volume and rumors (*Rumors*AV*) and an interaction variable between *CA* and abnormal trading volume (*CA*AV*) to explore whether firms with rumors or other major corporate events experience stronger abnormal trading volume reactions (Jabbour et al., 2000; Siganos & Papa, 2015). Finally, we include industry and year-fixed effects in all estimations.

The first two columns of Table 5 report the regression results for firms that move from the MM to the AIM. The first column shows the results for the event period (−60, −1) and the second column for the control period (−80, −61). As shown in the first column, the coefficient on *AV* is negative (−0.347) and significant at the 5% level. This result indicates that the abnormal stock returns decrease due to increased selling activity based on potential leakage of inside information. We also find that the parameter coefficient on the interaction variable between rumors and abnormal trading volume (*Rumors*AV*) is also negative and significant at the 5% level, offering evidence that part of the pattern is indeed driven by investors who manage to predict the event using rumors. As shown in the second column, during the interval period (−80, −61), there are no significant relations, highlighting that the effect evidenced in the testing period is abnormal. The third and fourth columns of Table 5 present the parameter coefficients for the sample of firms that switch from the AIM to the MM. In line with the above results, the main parameter coefficient of interest is indicative of evidence of information leakage. We find that the parameter coefficient on *AV* is positive (0.753) and significant at the 5% level.[20] Once again there is no relation when exploring this association in the control period (−80, −61).[21] In addition, as shown in the first and third columns of Table 5, we do not find a significant relation between historical performance (*Historical stock returns)* and our dependent variable. This indicates that the pre-announcement stock returns 60 trading days prior to the switch are not a continuation of previous performance, in line with the information leakage hypothesis.

4.4. The significance of nomads for abnormal stock returns prior to market switches

In this section, we examine the significance of Nomads, and in particular the extent to which they may reduce abnormal stock returns prior to publicly available information, as reported in previous sections. Recall that, according to the third rule of the Nomads' ongoing responsibilities under the "*AIM Rules for Nominated Advisers*" (OR3), Nomads should monitor the trading activities of the firms they supervise, especially during the existence of unpublished price sensitive information with regards to the AIM company.

In line with Bushman, Chen, Engel, and Smith (2004) and Espenlaub et al. (2012), we use five measurements to indicate whether the firms are dealing with Nomads of high or low reputation. First, we use the Nomads' market share in terms of new issues in the year prior to the firm switch, calculated as the ratio of firms a Nomad backed in the year prior to the firm switch over the total amount of listings in the AIM during that particular year. Since this variable measures the reputation of a Nomad only during the year prior to the listing of the supervisee/client, we also compute the cumulative market share of the Nomad. This measure takes into account the market share of the Nomad since its establishment and is calculated as the ratio of new listings that a Nomad supervised during all previous years prior to the firm switch over the total number of listings in the AIM during the respective years. Third, we use the

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[20] The adjusted R^2 may appear relatively low for this and all other tests where we use the abnormal stock returns as a dependent variable. However, this is common in regressions that use daily abnormal returns or cumulative abnormal returns due to the nature of the data (e.g., Andriosopoulos & Panetsidou, 2021; Anolick, Batten, Kinateder, & Wagner, 2021; Brophy, Ouimet, & Sialm, 2009; Floros & Sapp, 2012).

[21] In untabulated results, we find that the results are qualitatively similar when we use event clustering. In addition, we find that once again our conclusions are qualitatively similar when we replicate the regressions using the interval periods of (−60, −2), (−60, −3), (−50, −1) and (−30, −1).

Table 6
The moderating effect of Nomads' reputation on abnormal stock returns.

	Dependent: Abnormal stock returns			
	From MM to AIM		From AIM to MM	
	(-60, −1)	(-60, −1)	(-60, −1)	(-60, −1)
Reputable Nomad	0.003**	0.003**	−0.004**	−0.005**
	(0.016)	(0.035)	(0.029)	(0.023)
Samebroker	0.002		−0.003	
	(0.145)		(0.212)	
RepN*Samebroker	−0.004***		0.005*	
	(0.008)		(0.064)	
BigA	0.000		−0.001	
	(0.715)		(0.591)	
AV	−0.372**		0.975***	
	(0.030)		(0.001)	
Rumors	−0.001		0.003*	
	(0.470)		(0.067)	
Rumors*AV	−0.631*		−0.249	
	(0.055)		(0.798)	
Size	−0.000		−0.000	
	(0.285)		(0.418)	
M/B	−0.000		0.000	
	(0.387)		(0.307)	
C. Announcement	−0.001		−0.003**	
	(0.281)		(0.049)	
C. Announcement*AV	1.226***		−0.231	
	(0.001)		(0.444)	
Volatility	−0.036		−0.102**	
	(0.256)		(0.030)	
Stock Liquidity	−0.005		−0.143	
	(0.956)		(0.470)	
Historical stock return	0.058		0.399	
	(0.704)		(0.263)	
Insiders' trade	0.003		−0.001	
	(0.119)		(0.703)	
Proceeds	0.000		0.001**	
	(0.760)		(0.044)	
Constant	−0.006	−0.002*	0.016**	0.004***
	(0.230)	(0.091)	(0.039)	(0.004)
Year fixed effects	Yes	No	Yes	No
Industry fixed effects	Yes	No	Yes	No
R^2-adjusted	0.029	0.010	0.031	0.010
N	9881	1758	4555	1080

This table explores the moderating effect of Nomads' reputation on abnormal stock returns. For a detailed description of all variables please see Appendix C. The methodology for the calculation of reputable Nomads is discussed in Section 4.4. P-values are shown in parentheses. *, ** and *** show significance at the 10%, 5% and 1% levels, respectively.

Nomads' market share in terms of proceeds that a Nomad backed in the year prior to the firm market switch. This variable is calculated as the ratio of the proceeds a Nomad backed in the year prior to the firm switch over the total proceeds in the AIM during that year. In addition, we compute a time-variant variable that measures the cumulative proceeds market share, estimated as the ratio of proceeds a Nomad backed during all previous years prior to the firm's move, over the total proceeds of the new listings in the AIM during the same period.[22] Finally, we capture the age of the Nomad. The age proxies the firm's experience and is calculated as the number of years between the Nomad's year of incorporation and the year prior to the firm's switch (Espenlaub et al., 2012).[23]

Having computed these five reputation measures for each Nomad, we estimate each Nomad's reputation composite variable as the yearly unweighted average decile of these five measures. Nomads that are ranked in the top (bottom) five deciles are characterized as reputable (non-reputable).

To test whether reputable Nomads reduce the abnormal stock returns prior to the market switches, we estimate the following panel regression using random effects:

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[22] Proxying reputation based on market share is a well-established methodology (Fang, 2005; Kale et al., 2003; Megginson & Weiss, 1991; Rau, 2000). Importantly for this setting, if Nomads provide good quality of regulatory and advisory services to their supervisees, their reputation is enhanced, resulting in increased demand for their services. This leads to high market share (Ismail, 2010).

[23] Although it would be ideal to include in our measurement scandals or fines imposed on the Nomads, this is not possible since the LSE does not typically report Nomads' censures when there is a breach of the "*AIM Rules for Nominated Advisers*", but rather deals with it privately (Campbell & Tabner, 2014).

$$AR_{i,t} = \alpha + \beta_1 * Reputable\ Nomad_i + \beta_2 * Samebroker_i + \beta_3 * RepN_i * Samebroker_i + \beta_4 * BigA_i + \beta_5 * AV_{i,t} + \beta_6 * Rumors_i + \beta_7 * Rumors_i * AV_{i,t}$$

$$+ \beta_8 * Size_{i,t-1} + \beta_9 * M/B_{i,t-1} + \beta_{10} * CA_i + \beta_{11} * CA_i * AV_{i,t} + \beta_{12} * Volatility_{i,t} + \beta_{13} * Stock\ liquidity_{i,t} + \beta_{14} * Historical\ stock\ return_{i,t}$$

$$+ \beta_{15} * Insiders'\ trade_{i,t} + \beta_{16} * Proceeds_{i,t}\ \gamma * Year + \vartheta * Industry$$

$$(4)$$

The independent variable of interest is the *Reputable Nomad*, which is a binary variable that takes the value of one if the Nomad is characterized as reputable, and zero otherwise. The variable *Samebroker* is a binary variable that takes the value of one if the switching firms use the same firm as both Nomad and broker, and zero otherwise. Nomads that also act as brokers for the same firm might have better control over the company or experience higher conflicts of interest between the interests of the AIM firms and other parties if they do not take appropriate safeguards (London Stock Exchange, 2014). The *RepN * Samebroker* is an interaction variable between *Reputable Nomad* and *Samebroker* that takes the value of one if a firm uses a reputable Nomad that also acts as a broker, and zero otherwise. We further include the *BigA* variable, which is a binary variable that takes the value of one if the firm is audited by a big six, five or four auditor (depending on the year) and zero otherwise.[24] Fan and Wong (2005) argue that large auditors provide an oversight role that aids in mitigating agency problems. Finally, we use the same control variables as in earlier estimations.

Table 6 reports the results from this analysis. As shown in the first column, which shows the firms that downgrade to the AIM, the coefficient of *Reputable Nomad* is 0.003 and significant at the 5% level. This suggests that firms that employ a reputable Nomad experience, on average, 0.3% lower negative daily abnormal stock returns. This result is economically significant considering that over the 60-day window a firm with a reputable Nomad has a total average decrease of 18% in abnormal stock returns. This result indicates that reputable Nomads exercise better monitoring over their firms compared to lower-ranked Nomads. Interestingly, as shown on the parameter coefficient for the interaction variable *RepN * Samebroker*, we find that firms that hire a reputable Nomad that simultaneously acts as a broker in the firm do not experience this benefit.[25] We find that the relevant parameter coefficient (−0.004) is significant at the 1% level. Thus, we infer that having the same firm as a Nomad and a broker seems to create a conflict of interest between the interest of the AIM insiders and the obligations of the Nomad towards the LSE. This result adds new insights relative to those by Gerakos et al. (2013), who report that having the same firm acting in both roles provides limited additional information about the supervised firm.

The third column of Table 6 shows the relation between abnormal stock returns and reputable Nomads for firms that switch from the AIM to the MM. In line with earlier results, we find that the parameter coefficient for *Reputable Nomad* (−0.004) is significant at the 5% level. This reveals a decrease in the daily price run-ups of 0.4% for firms that use a reputable Nomad. This translates to a decrease of 24% over the 60-day window, which yields an economically significant reduction. Also, when firms hire the same company to act both as a Nomad and a broker, the decrease in price run-ups diminishes, again revealing the potential conflict of interest between the interests of the AIM firms and the Nomads' obligations towards the LSE.,[26][27] We note that for both market switches the coefficient of *RepN * Samebroker* is slightly higher (in absolute terms) than that of the *Reputable Nomad*, which could indicate that the reputable Nomad effect is not only eliminated but also reversed when the reputable Nomad also acts as a broker. To examine this, in untabulated tests, we statistically test the equality of these two coefficients in absolute terms by applying a Wald test. We do not find a significant difference between the two coefficients suggesting that the effect of reputable Nomads is eliminated but not reversed.

The results further show that having large auditors is not associated with reduced pre-announcement patterns in any of the two market switches making the importance of reputable Nomads even more prominent. Finally, the second and fourth columns of Table 6 show the results including only the variable *Reputable Nomad*, which captures firms that have a reputable Nomad that does not act as a broker. These results are qualitatively similar, indicating that they are not driven by multicollinearity. Overall, these results are in line with Hypothesis 2 and highlight the significance of the moderating role of Nomads on the magnitude of information leakages prior to the announcement of market switches.

4.5. Endogeneity analysis

The above analysis is based on the assumption that the choice of Nomads is exogenously determined. Since it is the choice of the firm to hire a reputable or non-reputable Nomad, self-selection bias could emerge which could result in unreliable estimates, as reported in Heckman (1979). Thus, we implement a two-stage procedure, where the first stage models the choice between a reputable and a non-reputable Nomad. Our instrumental variable for this model is the *Past Advisor* which measures whether the firms have used a reputable advisor in the past or not. According to Fang (2005) and Golubov et al. (2012), firms that have used a reputable advisor in the

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[24] Up to 1998 the largest audit firms were Arthur Andersen, Coopers and Lybrand, Deloitte & Touch, Ernst & Young, KPMG, and Price Waterhouse - commonly referred to as the Big6. Then, because of the merger between Price Waterhouse with Coopers and Lybrand in 1998, they were referred to as the Big5 and due to the demise of Arthur Andersen in 2001, they are since referred to as the Big4.

[25] The results of the moderating effect of reputable Nomads should be interpreted with some caution given that, as reported in Panel D of Table 2, 82% of the firms that switched markets hired the same firm to act as a Nomad and a broker.

[26] In untabulated results, we find that the results are qualitatively similar when we replicate the regression using the interval periods of (−60, −2), (−60, −3), (−50, −1) and (−30, −1).

[27] We further use several ranking benchmarks to identify the reputation of the Nomads. For example, reputable Nomads are defined as those in top four, three, two and once deciles. We find that the effect of Nomads on the magnitude of pre-announcement abnormal stock returns holds across all specifications.

Table 7
Heckman two stage procedure.

	From MM to AIM		From AIM to MM	
	Rep. Nomad	(-60, −1)	Rep. Nomad	(-60, −1)
	Selection	Outcome	Selection	Outcome
Past Advisor	1.673***		1.730***	
	(0.000)		(0.000)	
Reputable Nomad		0.005**		−0.005**
		(0.018)		(0.033)
Samebroker		0.005*		−0.004
		(0.080)		(0.110)
RepN*Samebroker		−0.008***		0.006**
		(0.001)		(0.049)
BigA	−0.600	−0.001	−0.555	−0.001
	(0.170)	(0.368)	(0.278)	(0.624)
AV	−3.917	0.279**	1.924	0.854***
	(0.450)	(0.043)	(0.788)	(0.005)
Rumors	1.159	−0.001	7.966***	0.004**
	(0.168)	(0.602)	(0.000)	(0.019)
Rumors*AV		−1.473***		−0.111
		(0.000)		(0.910)
Size	−0.058	−0.001	0.593***	−0.001
	(0.775)	(0.139)	(0.006)	(0.328)
M/B	0.108**	−0.000**	−0.037	0.000
	(0.031)	(0.017)	(0.139)	(0.183)
C. Announcement	−0.043	0.000	0.027	−0.002
	(0.936)	(0.759)	(0.967)	(0.192)
C. Announcement*AV		0.962***		−0.100
		(0.006)		(0.752)
Volatility	−11.169	−0.073	−2.961	−0.125**
	(0.476)	(0.215)	(0.889)	(0.016)
Stock Liquidity	154.552**	0.113	3.368	−0.075
	(0.037)	(0.504)	(0.907)	(0.716)
Historical stock return	101.925	−0.048	−220.057	0.497
	(0.209)	(0.862)	(0.137)	(0.167)
Insiders' trade	0.120	0.001	0.502	0.000
	(0.890)	(0.733)	(0.472)	(0.751)
Proceeds	−0.120	0.001	−0.422**	0.001**
	(0.583)	(0.451)	(0.021)	(0.042)
Leverage	−0.042		4.284**	
	(0.262)		(0.011)	
Profitability	−0.856		0.000	
	(0.314)		(0.976)	
IMR		0.000		0.001
		(0.947)		(0.424)
Constant	−0.846	0.002	−7.276**	0.018**
	(0.721)	(0.847)	(0.020)	(0.030)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R^2-adjusted	0.337	0.052	0.447	0.031
N	4260	4260	4376	4376

This table presents the results of the Heckman two-stage procedure. The first two columns show the results for firms that switch from the MM to the AIM, and the two last columns for the firms that switch from the AIM to the MM. The first column of each sample presents the first stage selection model in which the dependent variable is the Reputable Nomad. The second column of each sample is the second stage model in which the dependent variable is the abnormal stock returns 60 trading days prior to the announcement of the switches. For a detailed description of all variables please see Appendix C. P-values are shown in parentheses. *, ** and *** show significance at the 10%, 5% and 1% levels, respectively.

past are more likely to employ reputable advisors again. In contrast, having used a reputable advisor in the past is not related to the abnormal price reactions reported in our event.

To construct this variable, we download data on follow-ons, IPOs, and M&As from Thomson ONE. The *Past Advisor* variable takes the value of one if the firm employed a top 30 advisor at least once in the five years prior to the switch, and zero if a top 30 advisor was not employed during the same period. To construct the ranking of the advisors, we download the financial advisor equity and M&As league tables separately from Thomson ONE from 1996 to 2020. We obtain two rankings, one based on the proceeds backed by the advisors, and one based on the number of issues/deals the advisors have been involved in. The final ranking is the unweighted average of the ranking based on proceeds and issues/deals. We further include *Leverage*, calculated as total debt to total assets, and *Profitability*, measured by ROA to our selection equation as they could potentially influence the Nomad appointment decision.

As reported in the first and third columns of Table 7 the *Past Advisor* is positive and significant indicating that using a top advisor in the past is a significant determinant of hiring a reputable Nomad for both the firms that switch from the MM to the AIM and from the

Table 8
Insiders' activity prior to the announcement of market switches.

	Number of trades	Value of trades (£ thousands)
Panel A: Insiders' weekly net sales, from MM to AIM		
Event window (−1, −12)	−0.583	253.18
Control window (−13, −52)	−2.425	−105.50
Difference	1.842[a]	358.68[a]
p-value (Wilcoxon)	(0.005)	(0.005)
Panel B: Insiders' weekly net purchases, from AIM to MM		
Event window (−1, −12)	1.333	−195.88
Control window (−13, −52)	0.625	−1101.25
Difference	0.708	905.37
p-value (Wilcoxon)	(0.748)	(0.244)

This table shows the weekly net sales (purchases) by insiders prior to the announcement of market switches. Panel A presents the firms that switch from the MM to the AIM, and Panel B shows the firms that switch from the AIM to the MM. P-values are shown in parentheses.

[a] shows significance at the 1% level.

AIM to the MM. From the first stage, we construct the inverse Mills ratio (IMR), which is then included in the second stage regression (Dargenidou, Jackson, Tsalavoutas, & Tsoligkas, 2021). As reported in the second and fourth columns of Table 7, our results are qualitatively similar to our baseline results. In addition, the *IMR* variable is insignificant indicating that the coefficients reported in our previous test are reliable.

4.6. Additional tests

4.6.1. Corporate insider transactions

To provide further insights on the pre-announcement activity, in this section, we examine whether insiders trade on their accounts prior to the announcement of switches. Existing literature suggests that insiders trade based on their information advantage (Batten, Lončarski, & Szilagyi, 2021; Chowdhury, Mollah, & Al Farooque, 2018; Lin, Sapp, Ulmer, & Parsa, 2020). Following a similar methodology to Agrawal and Nasser (2012) and Agrawal and Cooper (2015), we analyze the average weekly net sales (sales minus purchases) for the firms that downgrade to the AIM and average weekly net purchases (purchases minus sales) for the firms that upgrade to the MM, twelve weeks prior to the announcement of the switches, which is approximately 60 trading days, and compare it with the average weekly activity forty weeks prior to the twelve weeks. In line with previous literature (Gregory, Matatko, & Tonks, 1997; Hillier & Marshall, 2002; Madison, Roth, & Saporoschenko, 2004; Korczak, Korczak, & Lasfer, 2010), we focus on open market stock trades and exclude transactions such as bonus shares, exercise of options, awards, warrants, etc., as they are generally not driven by private information.

Following Cohen, Malloy, and Pomorski (2012) and Aleksanyan, Danbolt, Siganos, and Wu (2022), we exclude routine trades, to allow us to focus on informative signals and identify information-rich trades. More specifically, we use a trade-level specification and analyze the past trading activity of insiders, looking for consistent patterns. We define as routine trades those that are made by the same insider in the same direction in the same calendar quarter for at least two consecutive years. Table 8 presents the results. We find that insiders increase the weekly number of net sales by an average of 1.8, and the weekly value of their net sales by £358.68 thousand twelve weeks prior to the switch announcements from the MM to the AIM. These results are significant at the 1% level. However, as shown in the coefficient of *Insiders' trade* variable in Table 5, the net insider sales do not affect the pre-announcement returns. This could be because insider sales could also be driven by insiders' liquidity needs or portfolio diversification purposes. This makes it difficult for investors to distinguish information-based sales from liquidity/diversification-motivated sales (Beneish & Vargus, 2002; Frankel & Li, 2004; He, Ren, & Taffler, 2021).

In contrast, insiders increase their weekly average net purchases by 0.71 and the value of their net purchases by £905.37 thousand twelve weeks prior to the switch from the AIM to the MM. However, these results are not statistically significant. This could be attributed to the lack of the insider list by the AIM firms. This list records all individuals who are considered to be insiders in the firm (London Stock Exchange, 2015b, 2016). Thus, individuals who have access to private information might be exempt from the mandatory disclosure of their trades, a situation that could potentially be reflected in the data. This is a limitation of our study. Nevertheless, these results indicate that some insiders may also benefit personally/directly by trading prior to the announcement of market switches.

4.6.2. Alternative stock returns estimations and matching analysis

To further examine the robustness of our main results, we employ a battery of alternative specifications. First, we want to mitigate any bias in our results because of potential thin trading. Thus, we implement our tests by applying the methodologies developed by Scholes and Williams (1977) and Dimson (1979), which control for low liquidity in shares. As shown in Panel A of Table 9, the results are qualitatively similar to the main results presented earlier. More specifically, depending on the method applied, the 60-day pre-announcement abnormal stock returns range from −3.7% to −4.0% for firms that downgrade to the AIM and from 3.7% to 4.2% for firms that upgrade to the MM. These results are significant at the 1% level.

Table 9

Alternative estimations.

Panel A: Thin trading		
	Scholes and Williams	Dimson
From MM to AIM		
(-60, −1)	−0.037***	−0.040***
	(0.000)	(0.000)
(-1, 1)	−0.017***	−0.017***
	(0.000)	(0.000)
N	301	301
From AIM to MM		
(-60, −1)	0.037***	0.042***
	(0.000)	(0.000)
(-1, 1)	0.017***	0.018***
	(0.000)	(0.000)
N	138	138

Panel B: Event and matched firms against the market		
	Event firms	Control firms	Difference
From MM to AIM			
(-60, −1)	−0.040***	0.115***	−0.155***
	(0.000)	(0.000)	(0.000)
(-1, 1)	−0.017***	0.007***	−0.024***
	(0.000)	(0.000)	(0.000)
N	301	250	
From AIM to MM			
(-60, −1)	0.055***	−0.079***	0.134***
	(0.000)	(0.000)	(0.001)
(-1, 1)	0.017***	−0.009***	0.026***
	(0.000)	(0.000)	(0.000)
N	138	101	

Panel C: Event firms against the matched firms		
	From MM to AIM	From AIM to MM
(-60, −1)	−0.081***	0.077***
	(0.000)	(0.000)
(-1, 1)	−0.021***	0.018***
	(0.000)	(0.000)
N	250	101

Panel D: Alternative abnormal returns specifications		
	BHAR	CAAR (rumor dates)
From MM to AIM		
(-60, −1)	−0.037***	−0.035***
	(0.000)	(0.000)
(-1, 1)	−0.020***	−0.015***
	(0.000)	(0.000)
N	301	301
From AIM to MM		
(-60, −1)	0.049**	0.044***
	(0.050)	(0.000)
(-1, 1)	0.018***	0.016***
	(0.000)	(0.000)
N	138	138

Panel E: Changes in delisting rules		
	Before shareholders' approval	After shareholders' approval
From MM to AIM		
(-60, −1)	−0.021***	−0.108***
	(0.000)	(0.000)
(-1, 1)	−0.012***	−0.035***
	(0.000)	(0.000)

(continued on next page)

Table 9 (*continued*)

Panel E: Changes in delisting rules

	Before shareholders' approval	After shareholders' approval
N	236	65
From AIM to MM		
(-60, −1)	0.052***	0.057***
	(0.000)	(0.000)
(-1, 1)	0.024***	0.012***
	(0.000)	(0.000)
N	55	83

This table shows the results when following alternative estimations. Panel A presents the abnormal stock returns using Scholes and Williams' (1977) and Dimson's (1979) non-synchronous data trading models. Panel B shows the abnormal returns of the event firms, the abnormal returns of their control firms as well as their difference using an OLS market model. Panel C reports the abnormal returns of both events using a benchmark model that measures the returns of event firms against the returns of the control firms following Barber and Lyon (1997). Panel D presents the buy and hold abnormal returns (BHAR) following Barber and Lyon (1997) and the cumulative average abnormal returns (CAAR) using as event dates the rumor dates for the firms that are rumored in the media prior to the announcement of the switch using an OLS market model. Panel E shows the abnormal stock returns before and after changes in the rules about shareholders' approval, using an OLS market model following Brown and Warner (1985). P-values are shown in parentheses. ** and *** show significance at the 5% and 1% levels, respectively.

Table 10
The moderating effect of Nomads' reputation on abnormal trading volume.

	Dependent: Abnormal trading volume	
	From MM to AIM	From AIM to MM
	(-60, −1)	(-60, −1)
Reputable Nomad	−0.001*	−0.001
	(0.051)	(0.503)
Samebroker	−0.000	−0.001
	(0.938)	(0.151)
RepN*Samebroker	0.001***	0.001
	(0.010)	(0.521)
BigA	0.000**	−0.000
	(0.014)	(0.109)
Rumors	−0.000	−0.000
	(0.190)	(0.870)
Size	0.000	0.000
	(0.248)	(0.998)
M/B	0.000	−0.000*
	(0.666)	(0.079)
C. Announcement	0.000	−0.000
	(0.630)	(0.557)
Volatility	−0.001	0.009
	(0.847)	(0.477)
Stock Liquidity	0.097**	0.121*
	(0.022)	(0.059)
Historical stock return	−0.058	0.186*
	(0.184)	(0.060)
Insiders' trade	−0.001***	−0.000
	(0.002)	(0.460)
Proceeds	0.000	−0.000
	(0.130)	(0.468)
Constant	−0.003*	−0.000
	(0.086)	(0.889)
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
R^2-adjusted	0.034	0.058
N	9881	4555

This table explores the moderating effect of Nomads' reputation on abnormal trading volume. For a detailed description of all variables please see Appendix C. The methodology for the calculation of reputable Nomads is discussed in Section 4.4. P-values are shown in parentheses. *, ** and *** show significance at the 10%, 5% and 1% levels, respectively.

Table 11
The moderating effect of Nomads' reputation on abnormal stock returns using a static reputation measurement.

	Dependent: Abnormal stock returns			
	From MM to AIM		From AIM to MM	
	(-60, −1)		(-60, −1)	
	Top 5 Nomads	Top 10 Nomads	Top 5 Nomads	Top 10 Nomads
Reputable Nomad	0.005**	0.004**	−0.004*	−0.004*
	(0.025)	(0.026)	(0.094)	(0.090)
Samebroker	0.000	0.000	0.000	0.000
	(0.897)	(0.662)	(0.895)	(0.894)
RepN*Samebroker	−0.004*	−0.004**	0.005**	0.005*
	(0.054)	(0.038)	(0.045)	(0.057)
BigA	0.000	0.000	−0.001	−0.001
	(0.662)	(0.642)	(0.290)	(0.317)
AV	−0.347**	−0.347**	0.958***	0.961***
	(0.041)	(0.041)	(0.002)	(0.002)
Rumors	−0.001	−0.001	0.002	0.002
	(0.661)	(0.687)	(0.179)	(0.176)
Rumors*AV	−0.688**	−0.694**	0.411	0.407
	(0.034)	(0.033)	(0.517)	(0.522)
Size	0.000	0.000	−0.000	−0.000
	(0.786)	(0.821)	(0.862)	(0.919)
M/B	−0.000	−0.000	0.000	0.000
	(0.134)	(0.117)	(0.316)	(0.286)
C. Announcement	−0.000	−0.000	−0.002	−0.002
	(0.788)	(0.722)	(0.115)	(0.125)
C. Announcement*AV	1.197***	1.196***	−0.137	−0.145
	(0.001)	(0.001)	(0.677)	(0.660)
Volatility	−0.046	−0.046	−0.168***	−0.162***
	(0.255)	(0.258)	(0.002)	(0.003)
Stock Liquidity	0.012	0.010	−0.113	−0.107
	(0.908)	(0.926)	(0.560)	(0.581)
Historical stock return	0.125	0.087	0.237	0.205
	(0.403)	(0.582)	(0.528)	(0.581)
Insiders' trade	0.002	0.002	0.001	0.001
	(0.334)	(0.259)	(0.394)	(0.397)
Proceeds	0.001	0.001	0.001	0.001
	(0.290)	(0.332)	(0.172)	(0.159)
Constant	−0.011**	−0.012***	0.007	0.007
	(0.013)	(0.009)	(0.302)	(0.324)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R^2-adjusted	0.026	0.026	0.032	0.032
N	10,880	10,880	5586	5586

This table reports the moderating effect of Nomads' reputation on abnormal stock returns using an alternate static measure. For a detailed description of all variables please see Appendix C. The methodology for the calculation of reputable Nomads is discussed in Section 4.5.4. P-values are shown in parentheses. *, ** and *** show significance at the 10%, 5% and 1% levels, respectively.

In addition, we estimate the results in relation to matched firms that did not switch markets during the same year. We match firms using a nearest neighbor propensity score matching based on their industry (using ICB classification), year, market capitalization (*Size*), and *M/B*. We use the yearly FTSE AIM All Share constituent lists of firms to identify matching firms for switches from the AIM to the MM, and the yearly FTSE All Share constituent lists of firms for switches from the MM to the AIM. Further, we use two different event study methodologies to calculate the abnormal stock returns. We initially use the same methodology that we used for the abnormal stock returns calculation of the event firms by employing an OLS market model, in line with Brown and Warner (1985). Alternatively, we employ a benchmark performance by using a control firm for each firm that moves from one market to the other, following Barber and Lyon (1997).

Panel B of Table 9 shows the results of the OLS market model separately for the event and the matched firms. In line with our main results, we find that firms that switch from the MM to the AIM experience lower returns of 15.5% on the 60-day window compared to their matched firms. Similarly, firms that upgrade to the MM experience higher returns of 13.4% on the 60-day window. Panel C of Table 9 shows the benchmark performance. Consistent with previous findings, we find significant abnormal stock returns of −8.1% and 7.7% in the 60-day window for firms that downgrade to the AIM and that upgrade to the MM, respectively.

To ensure the robustness of our stock performance findings, we also calculate the abnormal stock returns using the Buy and Hold Abnormal Returns (BHARs) method, as in Barber and Lyon (1997). As a further robustness test, we re-estimate the CAARs of the entire sample using the rumor dates instead of the announcement dates for firms that are discussed in the news prior to the official announcement of the events. For the calculation of the returns in the latter test, we use an OLS market model as in our main analysis, following Brown and Warner (1985).

Panel D of Table 9 reports the relevant additional results. The first column shows the BHARs, and the second column presents the CAARs when using the rumor days as the event date. We find that these results are well in line with our main findings. More specifically, we find that the abnormal stock returns range from −3.5% to −3.7% for firms that downgrade to the AIM and from 4.4% to 4.9% for firms that upgrade to the MM, depending on the model applied. These results are significant at least at the 5% level.

4.6.3. The impact of changes in delisting rules

In this section, we reflect on the fact that changes in delisting rules could constrain the potential leakage of information with regards to market switching. More specifically, the requirement that the delisting (effectively taking place simultaneously with the switch) has to be approved by at least 75% of shareholders may have acted as a constraining mechanism. Based on that, we split our sample into two sub-periods, the period before the shareholders' approval requirement and the period after the shareholders' approval requirement. This is the year 2007 for firms that move from the MM to the AIM and the year 2003 for firms that move from the AIM to the MM, albeit the requirement for shareholders' approval is not mandatory for the latter switches. The results presented in Panel E of Table 9 indicate that for any of the sub-periods in both events, the CAARs remain significant and large in magnitude. These results suggest that the introduction of this requirement does not have an indirect effect on the potential leakage of information prior to the announcement of the switch, making the need for regulatory attention even more pertinent.

4.6.4. The effect of Nomads on trading volume

In addition, to test whether reputable Nomads reduce abnormal trading volume prior to market switches, we re-estimate equation (4) by replacing the dependent variable with the variable *AV*. Table 10 reports the relation between abnormal trading volume and reputable Nomads. The first column shows the firms that switch from the MM to the AIM. The coefficient of *Reputable Nomad* is −0.001 and significant at the 10% level, indicating that reputable Nomads slightly reduce the abnormal trading volume prior to the switching announcements. In line with the results on abnormal stock returns reported earlier, hiring the same firm to act both as a Nomad and a broker creates a conflict of interest, as reported in the parameter coefficient of the *RepN * Samebroker* variable. We find that the latter parameter coefficient is 0.001 and significant at the 1% level. The second column shows the firms that switch from the AIM to the MM. The results are not as consistent on this occasion. We find that reputable Nomads reduce the daily abnormal trading volume by 0.1%; however, the parameter coefficient is insignificant. This could be attributed to the fact that trading volume may increase in response to non price sensitive announcements, such as CEOs appearing in the media. It could also be attributed to the limitation of abnormal trading volume acting on its own as a robust indication of overall informed trading, as it cannot show the direction of trades. Nevertheless, when supplemented by price information it provides a strong indication (Monteiro, & LeitterstorfSusanne, 2007).

4.6.5. Alternative Nomads specifications

Finally, we use an alternative static estimation for the measurement of reputable Nomads, similar to the static measurement based on market share used in Fang (2005) and Golubov et al. (2012) for reputable financial advisers. First, we rank the Nomads based on the total new listings they backed from 1996 to 2020. Second, we rank the Nomads based on the total proceeds they backed during the same period. Third, we calculate the unweighted average of these two variables and characterize the top five and top ten ranked Nomads as reputable Nomads.[28] Table 11 shows that results are qualitatively similar in both events when using these alternate estimations, confirming the robustness of our previous test.

5. Conclusion

This study contributes to the information leakage literature by showing evidence of significant abnormal stock returns prior to the announcement of firms switching between a secondary, light-regulated market and a traditional regulated market. Albeit the market anticipation hypothesis may be valid as it is captured by rumors or specific firm characteristics, it cannot fully explain the abnormal stock returns present in the markets. The abnormal stock returns cannot be fully explained either by firms' performance the year before the switch announcements. Our results thus offer some indirect support to the alternative information leakage hypothesis.

We also highlight the significance of reputable Nomads that can moderate the abnormal price reactions prior to market switches. Nomads is the decentralized regulatory body of the AIM that is a unique body across international stock exchanges. Its positive impact diminishes when reputable Nomads act as well as brokers in firms that switch markets, likely due to conflict of interest. This is especially important because most of the switching companies hire the same firm to act both as Nomad and broker because of potential benefits. Therefore, the implementation of appropriate safeguards that prevent conflicts of interest could allow all firms that use reputable Nomads to benefit from their monitoring role. To our knowledge, this is the first study that reports the significance and the limits of decentralized regulation on informed trading activity.

Data availability

The authors do not have permission to share data.

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[28] The top ten firms hold 45.16% of the total proceeds and 34.29% of the total listings.

Appendix A. The success of AIM and other secondary markets

The success of the AIM in the UK has been followed by the creation of several secondary markets that have similar principles and regulatory features. These include the Euronext Growth (formerly known as Alternext, operating in Belgium, France and Portugal; launched in 2005), the NewConnect (operating in Poland, launched in 2007), the BME Growth Mercado Alternativo (formerly known as Alternative Stock Market, operating in Spain, launched in 2008), the AIM Italia (operating in Italy, launched in 2008), the Nasdaq's First North (operating in Nordic countries; launched in 2008), the Bratislava MTF (operating in Slovenia, launched in 2008), the Tokyo Pro market (formerly known as Tokyo AIM, operating in Japan; launched in 2009), among others. Indicative of the success of the secondary markets is the significant increase in the number of firms and market capitalization in these markets. For example, the number of firms listed in the above secondary markets increased from 121 firms in 1995 to over 2100 firms in 2020 and the market capitalization increased from less than $5 billion in 1995 to over $280 billion in 2020.

Apart from European and Asian countries, the US also shows an increasing interest in secondary markets, with the Jumpstart Our Business Startups (JOBS) Act of 2012 being the first step in this direction by reducing the burdens of small firms that seek capital and exempting them from the Sarbanes-Oxley Act of 2002. There have been several discussions recently which consider the benefits and drawbacks as well as the implementation of a secondary market in the US.[29] This makes secondary markets and market switches between main markets and secondary markets of international interest.

Appendix B: The main differences between the two UK markets

Market		MM	AIM
Regulation		Traditional Regulated Market	Multilateral Trading Facility
Exchange rules		Admission & Disclosure Standards	AIM rules
Eligibility criteria	Minimum market capitalization	£700,000 (LR 2)	No minimum market capitalization (AIM rules)
	Minimum percentage of free float	25% in public hands (LR 6)	No minimum percentage of free float (AIM rules)
	Trading record	3 years (LR 6)	3 years or shorter period (AIM rules)
	Designated adviser	Listing Sponsor required (LR 8)	Nominated Adviser required (AIM rule 1)
	Admission fees (2020)	From £13,125 to £656,000 depending on the market capitalization (Fees for issuers, 2020)	From £11,815 to £132,000 depending on the market capitalization (AIM fees for companies, 2020)
	Annual fees (2020)	From £13,125 to £220,500 (Fees for issuers, 2020)	£9000 to 105,000 plus Nomads' fee (AIM fees for companies, 2020)
	Designated adviser	No designated adviser	Nominated Adviser (AIM rule 1)
Ongoing obligations	Corporate governance	Comply or Explain to the Combined Code (LR 9)	Disclosure of whether a code is followed (AIM Rule 26)
	Insider list	Yes (DTR2)	No
	Publication of inside information as soon as possible	Yes (DTR 2)	Yes (AIM rule 11)
Indices	LSE indices	FTSE UK series	FTSE AIM series

This table reports the major eligibility criteria and ongoing obligations of the AIM and the MM. For the construction of the table, we use the regulatory and guidance handbooks provided on the LSE website. LR stands for "*Listing Rules*", DTR for "*Disclosure and Transparency Rules*" and MAR for "*Market Abuse Regulation*". The AIM rules are available in the "*AIM rules for companies*" handbook.

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[29] Some examples are the March 2015 public statement from Luis Aguilar, Commissioner at the SEC, on the need for greater secondary market liquidity for small businesses (https://www.sec.gov/news/statement/need-for-greater-secondary-market-liquidity-for-small-businesses.html#_edn33) and the testimony from Stephen Luparello, former Director of the Division of Trading and Markets, in March 2015, on venture exchanges and small-cap companies (https://www.sec.gov/news/testimony/testimony-venture-exchanges.html), as well as the May 2016 white paper from the CFA Institute titled "United States Venture Exchange: Has the Time Come?" (https://www.cfainstitute.org/-/media/documents/article/position-paper/united-states-venture-market.ashx).

Appendix C. Examples of market switching announcements and their reasons for the switch

When firms announce their intention to switch markets, they usually provide the reasons behind and the benefits of the proposed switch. We provide extracts from two such announcements.

Macau Property Opportunities Fund Limited (moving from AIM to MM)

Macau Property Opportunities Fund Limited is pleased to announce that it intends to seek a Premium Listing of its ordinary shares on the Official List of the UK Listing Authority and admission to trading on the London Stock Exchange plc's Main Market for listed securities ("Admission"). It is expected that Admission will occur during the second quarter of 2010. Collins Stewart Europe Limited will be acting as Sole Sponsor and Broker to the listing. The Board believes that a Premium Listing will bring about a number of potential benefits including greater share liquidity, enhanced market profile and a wider shareholder base, and will also offer the most appropriate platform for the continued development of the Company. In the longer term, there is also the added potential for the Company to enjoy the benefit of eligibility for inclusion in the FTSE AllShare Index. Further details of the Admission proposal, including the expected timetable, will be announced in due course. It is expected that a general meeting of the Company will be convened in order to seek shareholder approval for the Admission proposal, including the making of certain amendments to the Company's articles of association.

Havelock Europa plc (moving from MM to AIM)

The Company today announces its intention to seek the cancellation of the listing of its Ordinary Shares on the Official List and to apply for its Ordinary Shares to be admitted to trading on AIM. The Board believes that AIM is a more appropriate market for a company of Havelock's size and resources and that a transfer of the Ordinary Shares to trading on AIM should lead to lower ongoing costs associated with being a publicly quoted company and a simplification of the Company's administrative and regulatory requirements. The Board also believes that AIM will offer greater flexibility, particularly with regard to corporate transactions, and should therefore enable the Company to agree and execute certain transactions more quickly, if acquisitions or other opportunities arise in the future. The Board envisages no material alteration in the standards of reporting and governance which the Company maintains. The Company will today post a circular to its shareholders containing details of the Proposals. The circular explains the background to and reasons for the Proposals and contains a notice convening a General Meeting of shareholders to be held at the Company's offices at … on July 1, 2010, at which approval for the Proposals will be sought. The last day of dealings in the Company's Ordinary Shares on the main market of the London Stock Exchange is expected to be July 29, 2010. The anticipated date of cancellation of the listing of the Company's Ordinary Shares on the Official List is on or around 8.00 a.m. on July 30, 2010, being not less than 20 business days following the expected date of approval of the Proposals by the Company's shareholders as required by the Listing Rules. Admission of the Ordinary Shares to AIM and commencement of dealings in the Ordinary Shares on AIM is expected to occur simultaneously with such cancellation, on or around 8.00 a.m. on July 30, 2010.

Appendix D: Variable definitions

Variable	Definition
AR	The abnormal stock returns are calculated using an OLS market model, following Brown and Warner (1985). The stock returns are collected from Refinitiv Datastream.
AV	The abnormal trading volume is calculated using the following model $AV_{i,t} = V_{i,t} - (\overline{V}_i + 2S_{vol})$ if $V_{i,t} > \overline{V}_i + 2S_{vol}$ *otherwise zero*, in line with Bris (2005). The stock volume is collected from Refinitiv Datastream.
BigA	An indicator variable that takes the value of one if the auditor is one of the big six, five or four (depending on the year) and zero otherwise. The data are hand-collected from the annual reports using the Perfect Information database.
CA	An indicator variable that takes the value of one if the firm announced another major corporate event on the announcement day or one month prior to the announcement, and zero otherwise. The data are hand collected through Nexis and the InvestEgate databases.
CA*AV	An interaction variable between CA and abnormal trading volume.
Free float	The percentage of total shares in issue available to investors. The data are collected from Refinitiv Worldscope.
Historical stock return	The average daily excess returns of the switching firm over the year prior to the announcement of the switch. The stock returns are collected from Refinitiv Datastream.
Insiders' trade	An indicator variable that takes the value of one if there is insider trading activity towards the direction of the switch (buy for the switches from the AIM to the MM and sell for the switches from the MM to the AIM) 60 trading days prior to the announcement of the switch, and zero otherwise. The trades are collected from the Directors Deals database.
Leverage	Calculated as total debt to total assets. The data are collected from Refinitiv Worldscope.
Liquidity	Calculated as current assets to current liabilities. The data are collected from Refinitiv Worldscope.
M/B	Market to book ratio of the switching firm. The data are collected from Refinitiv Worldscope.
Past Advisor	An indicator variable that takes the value of one if the firm employed a top advisor on a follow-on, IPO or M&A deal at least once in the five years prior to the switch and zero otherwise. The data are collected from Thomson ONE.
Proceeds	The natural logarithm of one plus the funds raised by the firm during the switch. The data are collected from the "*New Issue and IPO summary*" spreadsheet available on the LSE website.
Profitability	Measured by ROA. The data are collected from Refinitiv Worldscope.

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Variable	Definition
Reputable Nomad	An indicator variable that takes the value of one if the Nomad is characterized as reputable, and zero otherwise. The Nomads are collected through the "*New issues and IPO summary*", while any missing Nomad data are hand collected through the firms' annual reports using the Perfect Information database.
RepN*Samebroker	An interaction variable between reputable Nomad and Samebroker that takes the value of one if a firm uses a reputable Nomad that also acts as a broker, and zero otherwise.
Rumors	An indicator variable that takes the value of one if the move has at least one rumor during the year prior to the announcement of the event, and zero otherwise. The data are hand collected from the Financial Times archive and Nexis database.
Rumors*AV	An interaction variable between rumors and abnormal trading volume.
Sales	The sales over the total assets of the firm. The data are collected from Refinitiv Worldscope.
Samebroker	An indicator variable that takes the value of one if the switching firm uses the same company to act both as a Nomad and broker, and zero otherwise. The Nomads are collected through the "*New issues and IPO summary*", while the brokers' data and any missing Nomad data are hand collected through the firms' annual reports using the Perfect Information database. If the identity of brokers is not provided in the annual report, it has been captured via the market switch announcement related documents.
Size	The natural logarithm of the market capitalization of the switching firm. The data are collected from Refinitiv Worldscope.
Stock liquidity	The daily average ratio of the trading volume over the window (-250, -81). The data are collected from Refinitiv Worldscope.
Volatility	The standard deviation of the stock returns over the window (-250, -81). The data are collected from Refinitiv Worldscope.

This appendix presents the variables used in the empirical analysis. All accounting data are measured at the fiscal year prior to the announcement of the deal unless stated otherwise.

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