

Auditor Switching in an Increasingly Competitive Audit Market

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Summary: We investigate how increased auditor competition and changes in corporate objectives and potential management agency costs affects auditor switching. To do so, we exploit a natural experiment generated by recent policy and regulatory changes in Iran. The three main elements are: (1) the incremental privatization of government corporations, which we argue increases demand for private sector auditors; (2) removal of the government auditor monopoly over the audit of government controlled listed companies, which increased the ability of management to switch auditors; and (3) changes in the licensing of auditors, which resulted in a significant increase in the number of private sector audit firms competing for clients. We argue that the privatization policy and the rapid increase in competition in the audit, managerial labor and capital markets increased agency costs and signaling incentives for listed companies, which we link to incentives for auditor switching. We find that increased competition, auditor-client alignment, changes in CEO, earnings management, and qualified audit opinions due to auditor-management conflicts are significantly associated with auditor switching. The results support the general proposition that increased competition in the audit market increases auditor switching. Because prior research is focused on decreasing competition in the audit market, our study makes a valuable contribution in this regard. We do not find a significant relation between either privatization or ownership concentration and auditor switching. The continuing high levels of government ownership and control in Iranian companies may have influenced this result.

Key words: competition; auditor switching; government ownership

Data availability: Please contact the authors

INTRODUCTION

The auditing literature exhibits a major interest in competition effects. This ranges from the effects of competition on independence (Shockley, 1981) and fee consequences of overcapacity in audit firms (increased competition) following corporate failures during the late 1980s (Beattie and Fearnley, 1998b), to the consequences of reduced competition associated with emergent market domination by the Big 10/8/6/4 audit firms (Gilling and Stanton, 1978; Pong, 1999; Sullivan, 2002; Wolk et al., 2001). This focus on supply-side phenomena is complemented by a substantial part of the competition literature being concerned with auditor switching decisions by companies under varying degrees of competition (Johnson and Lys 1990; Gigler and Penno 1995). Most of the switching studies address competitive tendering, auditor specialization or declining competition following market consolidation.

We substantially contribute to this literature by investigating how increased auditor competition and changes in potential management agency costs affects auditor. To do so, we exploit a natural experiment generated by recent policy and regulatory changes in Iran. The three main elements of the policy and regulatory changes are: (1) the incremental privatization of government corporations, which we argue increases demand for private sector auditors; (2) removal of the government auditor monopoly over the audit of government controlled listed companies, which increased the ability of management to switch auditors; and (3) changes in the licensing of auditors, which resulted in a significant increase in the number of private sector audit firms competing for clients.

We argue that the privatization policy and the rapid increase in competition in the audit, managerial labor and capital markets increased agency costs and signaling incentives for Iranian listed companies, which we link to incentives for auditor switching. Specifically, we investigate the association between factors related to client and auditor characteristics and auditor switches by companies listed on the Tehran Stock Exchange (TSE).

Under the *Economic, Social and Cultural Development Plan* for 2000-2004, the number of TSE-listed companies grew from 296 in 1999 to 386 in 2003. The growth came mainly from the listing of both government-controlled companies as part of the government's privatization policy, with some new private sector companies. Substantial transfers of stock in Iranian companies from the government to the private sector increased shareholder diffusion and

information asymmetry. The changes in ownership from government to private investors changed shareholders' incentives and the mandates given to managers. Before the changes, the objectives of government controlled companies included implementing government policies (such as providing employment and providing cheaper goods and services) as well as earning profits. The privatized companies no longer had this range of complexity of objectives and were therefore free to concentrate on profit seeking (Komijani, 2003). However, more diffuse ownership structures and increased freedom for management increased potential agency costs arising from the separation of ownership and control.

Privatization also induced substantial changes in company management that we suggest are different from changes in management that are typical in other stock markets. These changes have significant implications for the behavior of companies and managers, and auditor choice.¹

Prior to implementation of the privatization policy, private banks were not allowed, and government-controlled companies borrowed from government-owned banks. As part of the privatization policy, private sector banks were allowed and both private sector and government-controlled companies were permitted to borrow from these private sector banks. This access to private sector debt created additional opportunities for companies to change their capital structures, thus increasing the agency costs associated with opportunities for wealth transfers from debtholders to shareholders.

The increased potential agency costs arising from changes in ownership types and diffusion and the emergence of private sector debt holders may have affected incentives for signaling through choice of higher quality auditors.

Overall, these changes may have affected auditor switching in two ways. They may have induced switches to higher quality auditors for signaling purposes, or they may have facilitated switching to lower quality auditors as a manifestation of managerial opportunism.

Auditor switching has also been linked to managerial opportunism (DeFond and Subramanyam, 1998). Shockley (1981) and Beattie and Fearnley (1998b) argue that increased competition between auditors impacts on the opportunities and incentives for companies to change auditors because it encourages tendering, audit fee discounting, low-balling and opinion-

¹ Reasons for the government's privatization policy included concerns about the performance of public sector companies, inefficiencies, mismanagement and squandering of finances and a lack of competition among public sector companies (*EghtesadeIran*, 2002).

shopping. Increased competition may also reduce auditors' independence as they know that there are other audit firms willing to accept the client if a client becomes dissatisfied (Beams and Killough, 1970). However, to the best of our knowledge, no study has examined how increased in competition in an audit market affects auditor switches.

Prior research on auditor switching has focused largely on mature audit and capital markets such as the United States, United Kingdom, and Australia (Woo and Koh, 2001). Competition in these markets is characterized by relatively stable levels of competition, but with increases in concentration and implied potential reductions in competition in the large client sector that is dominated by big international accounting firms (e.g., Gilling and Stanton, 1978; Pong, 1999; Wolk et al., 2001). Studying competition effects in these markets is complicated by auditors' litigation risk, brand reputation of Big N audit firms and internationalization of audit firms.

Emerging markets often have less protection for shareholders and creditors (Porta et al., 1998) and are less efficient than developed markets (Walczak, 1999). As a consequence, the type and the level of conflicts of interest are different from those in developed markets and, therefore, the reasons for auditor changes may be different (Williams, 1988a).² For example, in emerging markets the risk of expropriation of minority shareholders by large shareholders is higher than in developed markets (Claessens et al., 2000; Claessens and Fan, 2002) and this may be reflected in managers' financial reporting decisions. In an emerging market such as the TSE, the role of auditors as a means of reducing conflicts of interest in financial reporting decisions is potentially more important than is the case in developed markets. Consequently, investigating the factors that affect auditor changes, which can impair auditor independence and ultimately audit quality, becomes very important.

In addition to being an emerging market with weaker shareholder protection, the Iranian audit market during our study period had other characteristics that add to its value as a research experiment. These include:

- Rapid growth in audit market competition, as evidenced by a 100 percent growth in the number of auditors engaged by companies listed on the TSE from 2000-2003.³

² Gul and Qiu (2002) claim that, in countries with weak legal protection, enforcement and corporate governance, agency conflicts are higher.

³ The 100% increase is based on our sample data which comprises 88% of the companies listed on the TSE.

- The non-affiliation of Iranian auditors with Big N and international audit firms.
- Iranian code law does not expose auditors to litigation risk other than prosecution by the State under criminal provisions, which eliminates the insurance hypothesis (see Wallace, 1987) as an explanation for auditor switching.

Despite theoretical arguments on the effect of competition on auditor switches (Shockley, 1981; Beattie and Fearnley, 1998b), it appears there is no previous empirical research examining: (1) the effect of increased competition on auditor switches; or (2) auditor switching in a market characterized by sudden increases in agency costs and signaling incentives. We contribute to the literature on auditor switching by extending it to an emerging market characterized by rapid growth in audit competition, changes in ownership and control, demand for capital and the emergence of private sector debt.

Our results also have implications for regulators of other markets where similar structural changes are being contemplated, or who are concerned with the implications of auditor competition and switching. Our analysis that relates auditor switching to management changes, incentives for managerial opportunism and signaling, and capital structure is of relevance to policymakers and researchers concerned with the role of audits in the capital markets.

INSTITUTIONAL ENVIRONMENT

The TSE was established in 1967 and grew to 105 listed companies at the time of the Islamic Revolution in February 1979. Following the revolution, all banks and insurance companies and many heavy industry companies were fully nationalized. Many other companies were not fully nationalized but were transferred to government control when private sector owners abandoned or forfeited their interests in companies and through the government-owned banks acting on debt defaults. All audit functions for these government controlled companies were transferred to government auditors, culminating with the establishment of the Iranian Auditing Organization (IAO) in 1987. The TSE continued with limited trading (mainly in government bonds) until 1983 (with the introduction of anti-usury laws) and became virtually inactive with the advancement of the war with Iraq, which ended in 1988.

In 1989, to stimulate economic recovery, the Iranian government implemented a privatization policy to transfer ownership of public sector companies to the private sector through a series of five-year Plans (Davani, 2003; TSE, 2003). The first five-year Plan (1989-1993)

required the government to transfer ownership of nationalized and state industrial units (excluding strategic industries) to private sector shareholders (Roudaki, 1996; Abadi, 1995). The number of companies listed on the TSE grew from less than 60 prior to 1990 to 201 by 1995. During that time period, and the number of shares traded increased significantly, but with high volatility in the share prices (Davani, 2003). The second five-year Plan (1995-1999) was a continuation of the first Plan (Amirahmadi, 1996) with the number of TSE listed companies increasing to 296 in 1999.

The IAO was unable to service the variety of government controlled entities and was not suited to auditing the increasing number of profit-seeking companies post-1989 (Moulkaraei, 2005). Regulatory changes in 1993 allowed certified public accountants to practice in the public sector audit market but this was ineffective because the designated certifying agency, the Iranian Association of Certified Public Accountants (IACPA), was not established until 2001. Although the IAO dominated the audit market for TSE listed companies during 1993-2001, there were a small number of non-government controlled TSE listed companies that were audited by private sector auditors certified by the Economic Ministry. Since the establishment of the IACPA in 2001, auditors of TSE listed companies must be members of the IACPA (Davani, 2003). This means that a TSE listed company can now choose either a private sector auditor or a government auditor, regardless of whether the company was government controlled.⁴

Iranian Trade Law requires listed companies to appoint a certified auditor, licensed by the Economic Ministry, who is approved by shareholders at the annual general meeting. In addition to the legal requirement for listed companies to have their financial reports audited, there are also theoretical sources (agency and signaling) that generate demand for different levels of audit quality. Sources of demand for auditor differences are discussed in detail in the following sections.

AUDITOR SWITCHING HYPOTHESES

As described above, the institutional changes created incentives for companies to switch auditors, and the changes in the audit market provided opportunities to do so. The potential incentives include agency conflicts in the companies (Jensen and Meckling, 1976; Chow, 1982)

⁴ The IAO and other government auditors are certified members of the IACPA.

or signaling quality by adding credibility to the financial statements (Jensen and Meckling, 1976; Ng, 1978; Williams, 1988b). Auditing can reduce agency risks created by conflict of interests between: managers and shareholders (Jensen and Meckling, 1976; Watts and Zimmerman, 1983); small and large shareholders (Claessens and Fan, 2002; Fan and Wong, 2005); and shareholders and debt holders (Jensen and Meckling, 1976; Chow, 1982, Watts and Zimmerman, 1986). This is attributed to the capacity of auditing to increase the credibility of financial statements. Credible financial statements both reduce information asymmetry between shareholders and managers (Healy and Palepu, 2001) and may affect debt contracts (Smith and Warner, 1979). Therefore, the nature and extent of potential benefits are contingent on capital structure and ownership. This can include the proportions of debt vs equity funding, decisions to raise additional funds, ownership concentration and the extent of government and insider ownership.

Given the emerging nature of the Iranian audit market, the fact that the international audit firms do not operate in Iran and the recency of audit firm licensing, we cannot use the traditional size based proxy for audit quality.⁵ Therefore, our hypotheses are restricted to auditor switching rather than switching between auditors of different quality.

Increased Competition Hypothesis

Shockley (1981) and Beattie and Fearnley (1998b) argue that increased competition for audit clients increases the opportunities and incentives for companies to change auditors. The establishment of the IACPA in 2001 increased the number of auditors in the market, changing the audit market from one dominated by the IAO to one with many auditors potentially offering a wider range of quality and services. The increased competition between auditors increased the ability to select an auditor that was a better match to the company's or managers' needs, thus increasing the likelihood of switching. Therefore, the competition hypothesis is:

H1 The likelihood of an auditor switch is higher after the establishment of the IACPA in 2001.

Company Size Hypothesis

Selecting an audit firm that is suited to a company's or managers' needs may be a

⁵ We attempted to identify the Big N Iranian audit firms by market share but the results were very unstable from year to year.

function of many factors but auditor size is known to be an important determinant of auditor choice in developed markets.⁶ There is substantial evidence internationally that the largest companies are more likely to be audited by the largest audit. Auditing large clients requires more resources (i.e., human and technical), which are usually provided by a small number of large audit firms (Dopuch and Simunic, 1982). This reduces the number of audit firms able to compete for the audits of larger companies, so that smaller companies enjoy more options in this respect. Establishment costs ensure that only a small number audit firms would emerge quickly to service the largest audit clients, meaning that, as in most markets, there will be a very small number of large audit firms and a large number of small audit firms. Consequently, we extend our competition hypothesis, by anticipating that audit switches are more likely for smaller companies, with the following size hypothesis:

H2 The likelihood of an auditor switch is negatively associated with company size.

Privatization Hypothesis

We contend that transferring shares in listed companies from government ownership to private investors generates at least three reasons for switching to private sector auditors: signaling changed corporate objectives; signaling managerial quality; and changes in the required auditor services.

Privatization relieved Iranian companies of the objective of implementing government policy (Komijani, 2003). We argue that managers of newly privatized companies competing in a growing capital market have incentives to signal their increased emphasis on investor interests,

⁶ Expertise or specialization may also be an important factor in auditor selection. However, some industries attracting specialization in developed markets are not prevalent in Iran, for example, there are no listed financial institutions. Also, auditor expertise requires both strategic investment of resources and sufficient time for knowledge acquisition and reputation building. We contend that the emergent firms in an immature market are highly constrained in this regard, and so Iranian audit firms had little opportunity to develop specializations in the two years post-2001 included in our study. Therefore, we do not construct an industry specialization hypothesis for auditor switching, although we will control for industry effects in our final model.

and that one of the signaling strategies available to them is to switch to a private sector auditor so that they are seen as further distancing themselves from government.

Government controlled TSE listed companies were known to be mismanaged and poor performers (*EghtesadeIran*, 2002). Management wishing to signal that they are no longer government controlled companies and that they no longer have these problems may change to private sector auditors after privatization as part of their signaling strategy.

Privatization may also create a demand for a different set of auditor-provided services. For example, a privatized company that is no longer subject to government administrative procedures is less likely to demand traditional government-oriented compliance and probity audits. Although the acquisition of non-audit services is not disclosed by Iranian companies, privatization may also change the demand for non-audit services, increasing the possibility of auditor switching (Burton and Roberts, 1967; Schwartz and Menon, 1985). If public sector auditors are perceived as less suited to providing non-audit services or auditing a private sector entity because of their government policy and procedure orientation, it becomes more attractive to switch auditors after privatization.

For at least the three reasons discussed above, the privatization hypothesis is:

H3 The likelihood of an auditor switch is higher in the year after a company is privatized.

Auditor-Client Alignment Hypothesis

In a competitive market, companies or management tend to select or retain auditors that best meet their needs (Burton and Roberts, 1967; Shockley, 1981; Addams and Davis, 1994; Beattie and Fearnley, 1998b), resulting in a market characterized by a high level of auditor-client alignment. In such a market, closer existing auditor-client alignment reduces the incentive for auditor switching.

In an emerging market where auditors have not yet developed high levels of specialization and where there has been less opportunity for market participants to learn the nuanced characteristics of competing auditors, the nature of auditor-client alignment will be more rudimentary. In the Iranian context, companies differ in their degree of government and private sector ownership and control, and private sector auditors are emergent. Under these conditions,

alignment may be as simplistic as government controlled entity having a public sector auditor and a private sector controlled company having a private sector auditor.

Management of government controlled TSE listed companies may prefer a public sector auditor because of the auditor's familiarity with the government accounting framework orientation and experience with such entities, whereas private sector auditors are more specialized in financial reports governed by accounting standards (Moulikarai, 2005). Private sector auditors may have also developed different expertise in regulatory compliance and be perceived as having more affinity with the interests of investors, brokers and investment bankers. Therefore, private auditors' experience and reputation better match the needs of a privatized company. In our study, we consider that there is client-auditor alignment when a government controlled entity is audited by a public sector auditor and a private sector controlled company having a private sector auditor. Our auditor-client alignment hypothesis is:

H4 The likelihood of an auditor switch is lower when there is existing auditor-client alignment.

Ownership Hypothesis

The ability of shareholders to monitor management is influenced by the degree of ownership concentration and the size of individual shareholdings. Large shareholders have more incentive and usually have greater capacity to engage in monitoring activity (Jensen and Meckling, 1976; Demsetz, 1983; Jensen, 1993; Shleifer and Vishny, 1997), thus imposing greater constraints on management discretion with respect to accounting choices (Piot, 2001). Shareholders with sufficient shareholdings to induce them to invest in direct monitoring and constraining management choice are less likely to rely on the external audit function, leading to less demand for higher audit quality. This proposition is consistent with prior studies that indicate ownership concentration is negatively associated with switching to a higher quality auditor (Francis and Wilson, 1988; Woo and Koh, 2001).

It is also argued that, when ownership is concentrated in the hands of a few large shareholders rather than distributed across many smaller ones, coordinated actions by shareholders are less costly. However, whether large shareholders coordinate actions depends on the degree of congruence in their objectives and views on corporate strategy (Schliefer and Vishny, 1997; Earle et al., 2005). For TSE companies, one of the large shareholders is usually the

government and any other large shareholder is a private sector investor. In this context, the competing objectives of the government and private sector investors as shareholders generate a substantial potential for conflicting interests among large shareholders. We argue that this both decreases large investors' likely coordination of monitoring effort and increases demand for quality auditing, increasing the likelihood of an auditor switch in such cases. Even in the absence of this conflict between large shareholders' interests, a sufficiently large number of large shareholders will increase the costs of coordinating monitoring efforts, also increasing the likelihood of an auditor switch.

A conflict of interests between government and other large investors may manifest itself in the government preferring a public sector auditor as it believes such an auditor will better serve its interests and the other investors preferring a private sector auditor for the same reason as addressed in the discussion of the client-auditor alignment hypothesis. As the number of large non-government investors increases, this will vest more power with those investors, which will increase the likelihood of an auditor switch. In the Iranian context, we observe few changes in large shareholdings outside of the privatization process. Consequently, to test the proposed relationship between ownership and auditor switches, we are obliged to focus on the number of large shareholders rather than changes. Therefore, our ownership hypothesis is:

H5 The likelihood of an auditor switch is positively associated with the number of large shareholders in a company.

Management Change Hypothesis

With changes in corporate managers and directors, new managers may prefer to switch auditors because: they have a preferred working relationship with a particular auditor (Williams, 1988a; Hudaib and Cooke, 2005); they have a personal relationship with a particular auditor (Beattie and Fearnley, 1998b; Seabright et al., 1992; Addams and Davis, 1994); or they seek an auditor who is more accommodating with respect to their choice and application of accounting policies (Schwartz and Menon, 1985).

The results of prior studies of the association between management changes and auditor switches are inconsistent. Some studies (Chow and Rice, 1982; Schwartz and Menon, 1985; Williams, 1988a) do not find any significant association, while others (Burton and Roberts, 1967, Carpenter and Strawser, 1971; Beattie and Fearnley, 1995, 1998b; Woo and Koh, 2001;

Hudaib and Cooke, 2005) indicate that management changes are one of the main reasons for auditor switches. Consistent with the latter group, our management change hypothesis is:

H6 The likelihood of an auditor switch is higher following a change in the management of a company.

Earnings Management

Consistent with the management change proposition that managers will prefer auditors who are more accommodating with respect to their choice and application of accounting policies (Schwartz and Menon, 1985), we also link earnings management practices to auditor switches, irrespective of management changes.

We contend that auditors are not indifferent to earnings management, and that they generally prefer conservative accounting practices because this exposes them to less risk or punitive actions. This contention is consistent with US evidence that auditors are more likely to sued when there are earnings overstatements compared to when there are earnings understatements (Pierre and Anderson, 1984). While Iranian auditors do not face civil litigation risk, they can be jailed for misleading financial reports (Iranian Trade Laws Article 267) or have their license suspended or cancelled by the IACPA. If such outcomes are more likely when there are earnings overstatements rather than earnings understatements, then Iranian auditors have incentives to prefer conservative accounting methods and choices.

However, if an incumbent auditor's conservative accounting preferences lead to income decreasing accounting choices, there is a greater likelihood of an auditor switch (DeFond and Subramanyam, 1998) because it is more likely to be inconsistent with managers' earnings management preferences. It follows that an auditor switch is more likely for a company with negative discretionary accruals than for other companies. Therefore, our earnings management hypothesis is:

H7 The likelihood of an auditor switch has a negative association with discretionary accruals.

Audit Opinion Hypothesis

Qualified audit opinions may be viewed as negative signals of managements' stewardship of the company (Williams, 1988a) and have been linked to adverse affects on company value and management compensation (Chow and Rice, 1982). Some prior studies report an increased

likelihood of auditor changes following a qualified audit opinion (Chow and Rice, 1982; Teoh, 1992; Lennox, 2000; Hudaib and Cooke, 2005). Others report a negative association (Woo and Koh, 2001) or no association (Schwartz and Menon, 1985; Haskins and Williams, 1990). However, the classifications of audit opinions may contribute to the disparities in results. Most rely on a simple dichotomy (qualified and unqualified) and Haskins and Williams (1990) used four groups (unqualified, ‘except for’, adverse/’subject to’, and disclaimer). None of the cited studies relate the audit opinions to management reputation or behavior. We contend that management has more incentive to bring about an auditor switch if the audit opinion directly reflects adversely on management.

In Iran, qualified and adverse audit opinions are issued for scope limitations, inherent uncertainties and violations of GAAP (disagreements with management over the choice and application of accounting policies). Consistent with our reasoning with respect to managerial self-interest and our earnings management hypothesis, we contend that qualified opinions issued because of environmental conditions (i.e., inherent uncertainties or scope limitations not imposed by the client) are less likely to result in management seeking a change of auditor, compared to qualified and adverse opinions that reflect directly on management (i.e., client imposed scope limitations and violations of GAAP). Therefore, our audit opinion hypothesis is:

H8 The likelihood of an auditor switch is higher if a company receives a qualified audit opinion resulting from violations of GAAP or client imposed scope.

EMPIRICAL MODEL

We specify the following logistic regression model to test the hypothesized affects on auditor switching propensities:

$$\text{Auditor Switch} = \beta_0 + \beta_1 \text{Competition} + \beta_2 \text{Privatization} + \beta_3 \text{Alignment} + \beta_4 \text{Ownership} + \beta_5 \Delta \text{Management} + \beta_6 \text{EarnMgt} + \beta_7 \text{QualDisagree} + \beta_8 \text{QualOther} + \beta_9 \text{Size} + \sum \beta_i \text{Industry}_i$$

Where:

Switch = 1 if a company had a change of auditor in the current year, 0 otherwise;

- Competition = 1 for cases occurring during the years of increased competition in the audit market following the introduction of the IACPA in 2001 (i.e., 2002-2003), 0 otherwise;
- Privatization = 1 if public sector ownership became less than 50% in the previous year; 0 otherwise;
- Alignment = 1 if a company is government (private sector) controlled and has a public sector (private sector) auditor in the previous year, 0 otherwise;
- Ownership = number of shareholders holding 5% or more of issues shares in the current year;⁷
- Δ Management = 1 if there is a change in chief executive officer in the previous year, 0 otherwise;
- EarnMgt = discretionary accruals for the previous year, estimated using a cross-sectional modified Jones model;
- QualDisagree = 1 if the audit opinion for the previous year is qualified because of a violation of GAAP or a client imposed scope limitation, 0 otherwise;
- QualOther = 1 if the audit opinion for the previous year is qualified because of reasons other than violations of GAAP or client imposed scope limitations, 0 otherwise;
- Size = natural logarithm of total revenue for the previous year; and
- Industry = (0,1) classification variables for industries.⁸

Consistent with prior studies on auditor switching, we include size and industry as control variables. Previous studies that examine the effect of client size on auditor switching use different approaches with inconsistent results. Healy and Lys (1986), Francis and Wilson (1988), Firth and Smith (1992) and Woo and Koh (2001) report a significant positive association with switching to

⁷ Measuring ownership concentration as number of shareholders holding 5% or more of issues shares follows Ashbaugh et al. (2004) and is facilitated by the TSE disclosure requirement that companies name shareholders holding 5% or more of issued shares. This is the only disclosure requirement with respect to shareholders. TSE companies are not required to produce Top 10 shareholders lists, or the like.

⁸ Industry classification is that used by the TSE, including: equipment; oil & petrochemical; investment; medical & pharmaceutical; alimentary & drinking; basic metals; packaging; rubber & plastic; electrical machinery; minerals; textile; automotive. Other industry groups have too few cases for separate controls.

a higher level of audit quality. Previous studies (Schwartz and Menon, 1985; Haskins and Williams, 1990) use revenue as a measure of size.

We hypothesize that management is more likely to respond adversely to an audit qualification (by switching auditors) if the qualification reflects on management (QualDisagree). However, because prior studies have not made this distinction, we also include the variable QualOther to control for the possibility that audit qualifications, for reasons other than violations of GAAP and client imposed scope limitations, impact on auditor switching.

SAMPLE STATISTICS

We identified all companies listed on the TSE during 1999-2003. This five year window includes the two key systemic events: the initiation of the privatization policy in 2000 and the establishment of the IACPA in 2001. The number of listed companies in each of the five years were 296, 311, 323, 338 and 386, yielding a potential population of 1,654 firm-years. For lagged variables, data were collected from the financial statements for 1998-2003 held in the TSE library. Incomplete files and missing data resulted in our final sample of 748 firm-year observations.⁹

There are 75 auditor changes during our sample period. These are presented by year and direction in Table 1, which reveals that, after the establishment of the IACPA in 2001, the rate of auditor switches substantially increased. This is consistent with our competition hypothesis that the establishment of the IACPA increased competition in the audit market, increasing the likelihood of auditor switches. Most switches (64%) were from the public sector auditor to a private sector auditor, and most of these (90%) occurred after the establishment of the IACPA. Only 4 switches (5.3%) are from a private sector auditor to the public sector auditor, and 3 of these cases occurred in 1999, prior to the establishment of the IACPA.

[Table 1 here]

⁹ Missing financial reports meant that we could not collect data for all the firms. Many of the financial reports were incomplete or had pages removed. Based on Chi-square tests, we did not identify any bias with respect to missing data, other than a greater proportion of missing cases for the first and last year of the series. Our sample represents 49-51% of cases for 2000-2002, compared to 36 and 39% for 1999 and 2003.

Approximately 42% of the sample firm-years are in the competition period 2002-03. Descriptive statistics and frequencies for the other variables for each year are presented in Table 2. There are 17 privatizations (i.e., companies where government ownership was reduced to less than 50%).¹⁰

The ownership measure indicates that the average number of shareholders with 5% or more of issued shares for our sample is 2.6. Given the high level of ongoing government share ownership in TSE companies, we expect the potential for large shareholder conflict, and thus the demand for audit switches, to be high.

Most companies (88.7%) received a qualified audit opinion. Most of these are classified as QualDisagree (79.3%), and most of these because the auditor disagreed with management's interpretations of tax laws and so was not satisfied with the adequacy of managements' provision for tax payable.

Pearson correlation coefficients are presented in Table 3. The only correlation of note is between the two mutually exclusive audit opinion variables, QualDisagree and QualOther, at -.628.

[Table 2 here]

[Table 3 here]

RESULTS

The results for the logistic regression model are presented in Table 4. Six of our nine hypotheses are supported. Competition is positive and significant ($p = .000$), which supports H1. Increased competition in audit market, after the establishment of the IACPA in 2001, increased the likelihood of auditor switching. The increased number of auditors in the market place implies different levels of audit quality and competitive advantage, which provides TSE listed companies with a wider choice of auditors.

¹⁰ The government's policy intended privatizations to be incremental. There were 104 government-controlled TSE listed companies in both 1999 and 2003 (35% and 27% for each year). However, this is not static, because additional government controlled companies were listed during this time as part of the privatisation process. The average level of government ownership percentage across all TSE listed companies was 36% in 1999, and 26% in 2003.

[Table 4 here]

Size is negative and significant ($p = .011$), indicating that audit switches are more likely for smaller companies, supporting H2.

Privatization is not significant and, therefore, H3, which states that companies are more likely to switch auditors in the year after privatization, is not supported. This may be because of the small number of privatized companies in our sample (17) or that the effects of privatization take longer than one year to materialize.

Alignment is negative and significant ($p = .005$), which means that government controlled entities with a public sector auditor and private sector controlled companies with a private sector auditor are less likely to switch auditors. This result is consistent with prior research (Burton and Roberts, 1967; Shockley, 1981; Addams and Davis, 1994; Beattie and Fearnley, 1998b) implying that companies are more likely to select or retain an auditor that meets their needs.

Ownership is not significant and, therefore, H5, which predicts a positive association between ownership and auditor switching, is not supported.

The result appears inconsistent with prior studies that find a negative association between ownership concentration and switching auditors (Woo and Koh, 2001).¹¹

Consistent with our hypothesis that changes in management (CEO) increases the likelihood of auditor switching (H6), Δ Management is positive and significant ($p = .001$). This finding is consistent with prior research (Burton and Roberts, 1967; Carpenter and Strawser, 1971; Beattie and Fearnley, 1995, 1998b; Woo and Koh, 2001) and the argument that new managers dissociate themselves from previous relationships and associate with familiar parties with whom they have a preferred relationship (Williams, 1988a; Seabright et al., 1992; Addams and Davis, 1994; Beattie and Fearnley, 1998b; Hudaib and Cooke, 2005).

The EarnMgt-modified Jones model variable is negative and significant ($p = .008$), which supports H7 that companies with income-decreasing earnings management (negative discretionary accruals) are more likely to switch their auditors. The finding implies that managers are more likely to switch auditors who constrain income-increasing earnings management in the

¹¹ There are no Big 4 firms in the Iranian audit market and the size of the audit firms changed rapidly during our sample period with the result that there were no audit firms that clearly dominated the market. Therefore, we are not able to replicate prior studies of switching between auditors of different quality, such as Francis and Wilson (1988) and Woo and Koh (2001).

hope of having more cooperative auditors. The result is consistent with DeFond and Subramanyam (1998).

The QualDisagree variable is positive and significant ($p = .076$), which supports H8, which states that companies with a qualified audit opinion because of GAAP violation(s) and/or client imposed scope limitations are more likely to switch auditors. This result is consistent with prior studies (Chow and Rice, 1982; Teoh, 1992; Lennox, 2000; Hudaib and Cooke, 2005) that find a positive significant association between audit qualification and auditor switching.

The lack of significance for QualOther variable is consistent with our proposition that qualified an audit opinion is more likely to induce management to change auditors if the opinion reveals a conflict between the auditor and management, rather environmental conditions such as inherent uncertainties.

Size is negative and significant ($p = .011$), indicating that the likelihood of auditor switches is higher for smaller companies.

SENSITIVITY ANALYSES AND FURTHER TESTING

In this section, we consider the sensitivity of our results to different measures of privatization, earnings management and ownership concentration. We also test whether particular years are significant in relation to switching propensity, in place of the single period control for the years of increased competition.

Sensitivity to Measures of Privatization

We chose a government ownership threshold of 50% of the issued shares to test for privatization because this provides an unambiguous measure of control. Because corporate control might be achieved with less than 50% holdings, we examine the robustness of our privatization result by substituting six different ownership thresholds in constructing our privatization indicator variable. Specifically, we substitute percentages of 5, 10, 15, 20, 25 and 30 for the threshold number of issued shares below which government ownership fell, in the year preceding a potential auditor switch, as our indicator of a privatization event. All of the results, which for economy reasons we do not report here, consistently indicate that our privatization variable is not significantly associated with the likelihood of an auditor switch.

Sensitivity to Measures of Earning Management

We used a simple cross-sectional Jones model to estimate discretionary accruals as our measure of earnings management. However, Dechow et al. (2003) argue that the cross-sectional modified Jones model misclassifies some nondiscretionary accruals as discretionary, and propose a “forward-looking model” based on the modified cross-sectional Jones model to overcome this problem. We test the robustness of result to our use of the simpler measure by substituting the Dechow et al. model to estimate discretionary accruals as our measure of earnings management. The results are reported in Table 5. This approach reduces our sample size because of additional data demands, but the modified measure of earnings management is negative and significant ($p = .001$), consistent with our result using the modified Jones model.

[Table 5 here]

The use of the signed measures from both the original and modified Jones models is predicated on the argument that detected earnings management is a consequence of the auditor’s conservative accounting preferences, leading to the expectation that an auditor switch is more (less) likely if earnings management is income decreasing (increasing). If, however, switching is management’s response to auditors limiting the capacity of managers to engage in earnings management, irrespective of direction, then the absolute value of earnings management will be positively associated with switching. We test whether the absolute value of discretionary accruals is related to auditor switching using both modified Jones model and the Dechow et al. model. The results reported in Table 6 show that only the Dechow et al. measure is significant ($p = .027$).

Thus, our results for the signed measures indicate that an auditor switch is more (less) likely in the year following income-decreasing (increasing) earnings management, consistent with the proposition that this is a consequences of auditor’s’ conservative accounting preferences conflicting with the accounting preferences of management. Our results for the absolute value measures weakly suggest that switches may also reflect management reactions to auditors suppressing managements’ earnings manipulations.

Further Examination of Increased Competition

We test competition by using dummy variables for the years 2000 to 2003 instead of the competition variable. The results are reported in Table 5. Consistent with our finding that auditor

switching increased with increased competition, the years following the establishment of the IACPA (2002 and 2003) are significant and positive. The year 2000 variable is not significant. The year 2001 variable, the year of establishment of the IACPA, is negative and significant. The result for 2001 may be a consequence of uncertainty in the audit market. Companies may have delayed switching decisions during the period of transition. This is supported by the fact that, in our sample, there were only 3 switches in 2001 followed by 27 switches in each of 2002 and 2003.

Sensitivity to Measures of Ownership Concentration

Our measure of ownership concentration in the main model is the number of shareholders with more than 5% equity ownership. To test the robustness of our results to this specification, we follow Claessons et al. (2002) by substituting the percentage of shares owned by the largest single shareholder in the prior year as our measure of ownership concentration. This measures a different attribute compared to our number of shareholders measure.

The significantly negative result, reported in Table 5, is different to the result for our original measure. We attribute this to the fact that large single shareholder in TSE listed companies is usually the Government. When there is one type of large shareholder (the Government or private sector) in the company, any action by the large shareholder is much easier. This may reduce the likelihood of auditor switching.

CONCLUSIONS

We find that increased competition, auditor-client alignment, changes in CEO, earnings management, and qualified audit opinions due to auditor-management conflicts are significantly associated with auditor switching by companies listed on the Tehran Stock Exchange. The findings support the general proposition that increased competition in the audit market increases auditor switching. Prior research has only examined conditions of decreasing competition in the audit market so our study makes a valuable contribution in this regard.

We do not find a significant relation between privatization and auditor switching. However, very few of the companies in our sample were transferred out of government control during our sample period. We also did not find a significant relation between ownership concentration and auditor switching. The high levels of government ownership and control in

Iranian companies may have influenced this result. Further progress on privatization in Iran may result in different switching behavior.

Our research sample only includes two years following the regulatory changes. A longer period may reveal more insight into auditor switching behavior in emerging audit markets.

Because our findings may be dependent on the particular institutional setting in Iran, the results may be different in other emerging markets with different market structures and regulations. However, our results are largely consistent with prior evidence concerning auditor switching in developed markets.

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TABLE 1
Auditor Changes 1999-2003

Year	n	Auditor changes		Type of auditor change		
		Number	Percentage	Public to private	Private to private	Private to public
1999	115	7	6.1%	1	3	3
2000	154	11	7.1%	3	8	0
2001	166	3	1.8%	1	2	0
2002	171	27	15.8%	20	6	1
2003	140	27	19%	23	4	0
Total	748	75		48	23	4

TABLE 2
Descriptive Statistics

Variable	Mean or Percentage	Standard Deviation
Competition	41.8%	
Privatization	2.3%	
Alignment	58.4%	
Ownership	2.62	1.34
Δ Management	27.1%	
EarnMgmt	0.0	0.19
QualDisagree	79.3%	
QualOther	9.4%	
Size	225105	996617

Competition = 1 where there is increased competition in the audit market for the period 2002-2003, 0 otherwise; Privatization = 1 if public sector ownership became less than 50% in the prior year, 0 otherwise; Alignment = 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise; Ownership is the number of shareholders with more than 5% equity ownership in the prior year; Δ Management = 1 if there is a change in chief executive officer in the prior year, 0 otherwise; EarnMgt is discretionary accruals measured using the cross-sectional modified Jones model for the prior year; QualDisagree = 1 if the prior year's audit opinion is qualified because of violation of GAAP or client imposed scope limitation, 0 otherwise; QualOther = 1 if the prior year's audit opinion is qualified because of reasons other than violation of GAAP or client imposed scope limitations, 0 otherwise; and Size is natural logarithm of total revenue for the previous year.

TABLE 3
Pearson Correlation Matrix

	Competition	Privatization	Alignment	Ownership	ΔManagement	EarnMgt	QualDisagree	QualOther	Size
Competition	1								
Privatization	-.020 (.580)	1							
Alignment	.023 (.534)	-.108 (.003)	1						
Ownership	.033 (.363)	-.004 (.917)	-.113 (.002)	1					
ΔManagement	-.018 (.624)	.008 (.831)	-.034 (.351)	-.003 (.941)	1				
EarnMgt	.036 (.322)	-.021 (.572)	.035 (.336)	.001 (.969)	-.023 (.532)	1			
QualDisagree	-.135 (.000)	-.033 (.372)	-.010 (.792)	-.019 (.607)	.052 (.152)	-.118 (.001)	1		
QualOther	-.012 (.743)	-.018 (.619)	.048 (.194)	-.005 (.887)	-.052 (.159)	.064 (.082)	-.628 (.000)	1	
Size	.171 (.000)	.081 (.027)	-.078 (.033)	-.025 (.494)	-.048 (.186)	.066 (.072)	-.072 (.050)	-.002 (.967)	1

Correlations are based on 748 firm-year observations over the period 1999-2003. Competition = 1 where there is increased competition in the audit market for the period 2002-2003, 0 otherwise; Privatization = 1 if public sector ownership became less than 50% in the prior year, 0 otherwise; Alignment = 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise; Ownership is the number of shareholders with more than 5% equity ownership in the prior year; ΔManagement = 1 if there is a change in chief executive officer in the prior year, 0 otherwise; EarnMgt is discretionary accruals measured using the cross-sectional modified Jones model for the prior year; QualDisagree = 1 if the prior year's audit opinion is qualified because of violation of GAAP or client imposed scope limitation, 0 otherwise; QualOther = 1 if the prior year's audit opinion is qualified because of reasons other than violation of GAAP or client imposed scope limitations, 0 otherwise; and Size is natural logarithm of total revenue for the previous year.

TABLE 4
Logistic Regression Results for the Main Model

(n=748) Dependent variable is change (1) or no change (0) in auditors

Variables	β	<i>p</i> value #
Competition	1.610	.000
Privatization	-1.002	.187
Alignment	-.701	.005
Ownership	.097	.148
Δ Management	.838	.001
EarnMgt-modified Jones model	-1.724	.008
QualDisagree	.651	.076
QualOther	.595	.333
Size	-.241	.021
Constant	-1.479	.254
Industry fixed effects	included	
Pseudo R Square	.201	
n	748	

One-tailed p-value except for QualOther and Size.

Competition = 1 where there is increased competition in the audit market for the period 2002-2003, 0 otherwise; Privatization = 1 if public sector ownership became less than 50% in the prior year, 0 otherwise; Alignment = 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise; Ownership is the number of shareholders with more than 5% equity ownership in the prior year; Δ Management = 1 if there is a change in chief executive officer in the prior year, 0 otherwise; EarnMgt is discretionary accruals measured using the cross-sectional modified Jones model for the prior year; QualDisagree = 1 if the prior year's audit opinion is qualified because of violation of GAAP or client imposed scope limitation, 0 otherwise; QualOther = 1 if the prior year's audit opinion is qualified because of reasons other than violation of GAAP or client imposed scope limitations, 0 otherwise; and Size is natural logarithm of total revenue for the previous year.

Table 5
Logistic Regression Results for Additional Tests for Earnings Management, Competition
And Ownership Concentration

Dependent variable is change (1) or no change (0) in auditors

Variables	EarnMgt-Dechow et al. (2003. model)		Competition-year		Concentration	
	β	<i>p</i> value #	β	<i>p</i> value #	β	<i>p</i> value #
Competition	1.583	.000	-	-	1.644	.000
Privatization	-1.085	.166	-.840	.231	-1.041	.181
Alignment	-.492	.036	-.737	.003	-.739	.003
Ownership	.099	.155	.095	.155	-	-
Δ Management-CEO	.823	.002	.833	.001	.871	.001
EarnMgt-modified	-	-	-1.708	.009	-1.740	.008
Jones model						
EarnMgt- Dechow et al. (2003. model)	-2.856	.001	-	-	-	-
QualDisagree	.844	.042	.702	.068	.670	.072
QualOther	.515	.438	.650	.229	.643	.299
Size	-.235	.027	-.233	.025	-.245	.020
Competition- 2000	-	-	.198	.350	-	-
Competition- 2001	-	-	-1.350	.032	-	-
Competition- 2002	-	-	1.230	.005	-	-
Competition- 2003	-	-	1.485	.001	-	-
Concentration	-	-	-	-	-.938	.056
Constant	-1.789	.179	-1.354	.301	-.747	.555
Industry fixed effects	included		included		included	
Pseudo R Square	.201		.219		.205	
n	725		748		748	

One-tailed p-value except for QualOther and Size.

Competition = 1 where there is increased competition in the audit market for the period 2002-2003, 0 otherwise; Privatization = 1 if public sector ownership became less than 50% in the prior year, 0 otherwise; Alignment = 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise; Ownership is the number of shareholders with more than 5% equity ownership in the prior year; Δ Management = 1 if there is a change in chief executive officer in the prior year, 0 otherwise; EarnMgt is discretionary accruals measured using the cross-sectional modified Jones or Dechow et al. model for the prior year; QualDisagree = 1 if the prior year's audit opinion is qualified because of violation of GAAP or client imposed scope limitation, 0 otherwise; QualOther = 1 if the prior year's audit opinion is qualified because of reasons other than violation of GAAP or client imposed scope limitations, 0 otherwise; Size is natural logarithm of total revenue for the previous year; Competition-year. = 1 for each identified year, 0 otherwise; and Concentration is the percentage of shares owned by the largest single shareholder in the prior year.

TABLE 6
Logistic Regression Results for Additional Tests for Earnings Management using the
Absolute Value of Discretionary Accruals

Dependent variable is change (1) or no change (0) in auditors

Variables	EarnMgt-modified Jones model		EarnMgt-Dechow et al. model	
	β	<i>p</i> value #	β	<i>p</i> value #
Competition	1.606	.000	1.552	.000
Privatization	-.968	.192	-.991	.183
Alignment	-.735	.003	-.533	.025
Ownership	.102	.136	.109	.133
Δ Management	.866	.001	.810	.002
ABSEarnMgt	1.121	.118	2.332	.027
QualDisagree	.758	.048	.955	.025
QualOther	.620	.311	.478	.468
Size	-.259	.013	-.254	.017
Constant	-1.489	.253	-1.849	.171
Industry fixed effects	included		included	
Pseudo R Square	.189		.183	
n	748		725	

One-tailed p-value except for QualOther and Size.

Competition = 1 where there is increased competition in the audit market for the period 2002-2003, 0 otherwise; Privatization = 1 if public sector ownership became less than 50% in the prior year, 0 otherwise; Alignment = 1 when a government controlled entity has a public sector auditor or a private sector controlled company has a private sector auditor in the prior year, 0 otherwise; Ownership is the number of shareholders with more than 5% equity ownership in the prior year; Δ Management = 1 if there is a change in chief executive officer in the prior year, 0 otherwise; ABSEarnMgt is absolute value of discretionary accruals measured using the cross-sectional modified Jones model or Dechow et al. for the prior year; QualDisagree = 1 if the prior year's audit opinion is qualified because of violation of GAAP or client imposed scope limitation, 0 otherwise; QualOther = 1 if the prior year's audit opinion is qualified because of reasons other than violation of GAAP or client imposed scope limitations, 0 otherwise; and Size is natural logarithm of total revenue for the previous year.