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**Explaining Municipal Audit Costs:
Considering the Principal**

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ABSTRACT

Studies of audit fees have focused on the audit market and on the organisational costs related to the production of audit. Audit is, however, an activity that is oriented towards the principal of the organisation, and could therefore be expected to vary according to the relationship between the agent and the principal, and vary according to the organisation of the principal. This is the governance issue of auditing. We hypothesize that audit fees are used mainly as a signalling device by agents and as a means of reducing conflict among agents when communicating to principals, be they citizen, the mass media or interest group. The model is tested on data from Swedish municipalities, thus extending the study of audit fees to political organisations. The test results supported the ordinary propositions of organisation and markets, as well as the proposition of the principal, thus suggesting that audit could be managed without managing auditors.

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INTRODUCTION

An audit fee could be a rather simple matter of pricing a service produced by a profession, and influenced mainly by how many hours the professional has to spend in order to conduct the professional business, and marginally add a reputation price on top of the fee. Thus, the fee is determined by production costs that mainly can be attributed to the organisation exposed to the audit, i.e., the auditee, and by market costs that mainly can be attributed to the audit firm, i.e., the auditor. This model of audit fees determinants was initiated by Simunic (1980), explaining the size of the audit fee by considering the organisation in terms of size, complexity, and risk, and considering the audit market in terms of the size of auditing firms. This model has been tested in numerous studies and found to be fairly robust.

One reason for conducting research on audit fees has been the suspicion of monopoly rent received by the big audit firms with strong brands. Several studies have found indications of branding costs (e.g., Simunic, 1980; Palmose, 1986; Deis and Giroux, 1996; Basioudis and Ellwood, 2005), but other studies have rejected the hypothesis of branding costs (e.g., Rubin, 1988; Firth, 1997). Another reason for studying audit fees is to explore issues of auditor independence. The presence of an initial engagement discount on the fee could indicate an impairment of auditor independence (Johnson, 2001). High audit fees have been interpreted as indications of conscious bribery, as in the case of Enron, or unconscious bias, creating a close relationship between the auditee and the auditor (Copley and Doucet, 1993a, Antle *et al.*, 2006). A third reason for audit fee studies is based on the very foundation of auditing, that it is an activity organised in order to deal with agency problems, i.e., it is part of an organisation's governance structure. Audit fees are studied since they can partly reveal the agency conflict that creates the fundamental rationale of auditing (Zimmerman 1977; Chow, 1982; Evans and Patton, 1987).

The model we use in this paper considers production costs and market costs as the traditional determinants of audit fees, and we add agency costs as a third determinant. Thus, our aim is to bring the principal back into this part of audit research. To this end, we follow an eclectic approach, thereby promoting explanatory power over theoretical purity (Collin *et al.*, 2009).

The model that features the organisation and the audit market was applied originally to public corporations, but has emigrated to the sphere of government, including audit fees for local government (e.g., Baber, 1983; Rubin, 1988; Ward *et al.*, 1994; Johnsen *et al.*, 2004; Basioudis and Ellwood, 2005). One important contribution made in this emigration is the inclusion of the factor of political competition (Evans and Patton, 1987; Baber, 1990), which is an explicit consideration of the principal. The present paper is part of this emigration wave. The reason is that, although the government sector has some peculiarities that introduce factors not relevant in the private sector, it has other special aspects that can inform the general research on audit fees – hence, the choice of municipalities in Sweden as the object of research.

While public corporations have for long been exposed to a detailed regulation, with credible sanctions and with a strong professional cadre of auditors, the regulation of municipal audit is a “softer” style of regulation without corresponding demand for professionalism and independence. Furthermore, the regulation is not accompanied by credible sanctions. Additionally, in the case of auditing on the municipal level in Sweden, the auditing is governed by politically appointed auditors, selected by politicians and recruited from the cadre of politicians. Politically appointed auditors can, where needed, use professional auditors, either from an internal auditor office, or they can buy the service on the audit market. Finally, while the audit focus in public corporations is on stewardship and accounting audit, municipal audits have to focus on value for money (VFM) and questions about the distribution of authority and control (e.g., Power, 1999), which is a less regulated activity, both in terms of legislation and traditions. These three features, low level of regulation, politically appointed auditors, with a commission of trust, deciding on the auditing and an admixture of administrative, political, and financial focus of the audit, render the audit of municipalities in Sweden more malleable and presumably subject to a wider discretionary behaviour and decisions than the audit of public corporations.

An important feature of Swedish municipal auditing, for the sake of this paper, is that the auditors and the audit budget are not decided by the principals of the municipality – the citizens – but by the local government council, which consists mainly of politicians representing parties elected by the voters. This creates incentives for the commissioner of the audit, i.e., the council, to consider the audit’s impact on the ultimate principal, the citizen, when deciding on audit costs and audit firms. The municipal sector receives approximately 13 percent of its income from state government grants. The state

government also decides on and administers an equalization system that neutralises and adjusts for differences in condition and needs among different municipalities (e.g., Brorström *et al.*, 2005). Consequently, state government is an important principal for the municipalities, and we expect to find indications that audit fees are partly determined by an interest of the agent, i.e., the politicians, in managing their principals (e.g., Downs, 1957). In sum, the paper's major theoretical contribution is the exploration of this third factor – the principal – that influences municipal audit fees, in addition to the organisation and the audit market.

Empirical studies of audit fees are, however, burdened with difficulty in finding good empirical indicators of explanatory factors. For example, size of the organisation is treated as an indicator of production costs: Increased size implies an increase both in number of transactions to consider and the risk of increasing agency conflict. But size is also an indicator of market costs since a larger municipality will be a more preferable target for the auditing firms, thus increasing the market competition and thereby create a tendency to put a pressure on the price of auditing. These two theoretical factors cannot be separated in the empirical variable; only their relative standing can be evaluated, and a non-significant size variable cannot be considered as a rejection of either of the two hypotheses. Given these empirical problems, the theory put forward in this paper cannot be claimed to have been tested in the strong sense of the word, but only explored, while some indications are obtained on the determinants of audit fees in municipalities.

The general aim is therefore to explore the determinants of municipal audit fees in Swedish municipalities in order to examine the relative importance of the principal as a determinant factor. The paper starts with a description of the Swedish municipal auditing environment in order to create an understanding of the empirical context. The theory development section follows with a description of the three main costs elements of the audit fee – production costs, market costs, and agency costs – and the derivations of the testable hypotheses. We then describe the empirical method, indicating also that the sample is almost the complete population of Swedish municipalities. This is followed by a section devoted to the statistical testing of the hypotheses. The paper ends with conclusions, suggestions for further research, and a look at policy implications.

THE SWEDISH MUNICIPAL CONTEXT

A major purpose of the study is to explain the level of municipal audit fees in Sweden. Swedish municipalities are important organisations in Sweden since they consume about 13 percent of the GNP. Sweden has a total population of about 9 million and numbers 290 municipalities. Hence, the average size of a municipality is 30,000 inhabitants. However, there is considerable variation in the number of inhabitants. The largest municipality has approximately 760,000 inhabitants while the smallest has fewer than 2,600 (the median population of a Swedish municipality being 15,000.) Municipalities are obliged to carry out activities decided by central government through special regulations. These regulated activities consume approximately 80 percent of municipal resources. Besides the regulated activities, municipalities are allowed to manage activities within their own territory if they are considered to be in the public interest and if they do not compete with other organisations. Municipalities are responsible for and carry out a wide range of activities including infrastructure, elder care, school, and other cultural services. Even though their responsibilities to a large extent are regulated by law, the municipalities have a large degree of freedom as to how they organise themselves and the activities. The activities are primarily financed by taxes but also by fees and government grants.

The municipalities' rule is based on representative democracy. Every fourth year, the citizens elect representatives to a city council. According to the Municipal Act, the city council has a special responsibility to appoint auditors, an election committee, and an executive board with overall duties. In practice, the municipalities then organize committees with responsibility for the various sectors of activity mentioned. These committees consist of representatives from the various political parties (for a more detailed description of the Swedish public sector, see Mattisson *et al.*, 2003).

The municipal audit is regulated in the Municipal Act. Eligible to act as auditor is any person who has a right to vote (normally meaning that you are 18 years of age and registered as a citizen in the municipality) and do not hold employment in the municipality which might imply lawful disqualification (e.g., city manager). Normally the council appoints auditors from the political parties, including politicians who are members of council. According to the Municipal Act, the council must appoint at least five auditors.

The Act states that the [political] auditors shall be assisted in their inspection by experts [professional auditors] whom they have chosen and whom they may use as required. The experts must have the insight and experience of local government activities requisite to carrying out their assignment. According to the Municipal Act, the auditors are to scrutinize all activities in their sphere to inspect whether they are run in an appropriate and financially satisfactory way, that the accounting documents give a true and fair view, and finally whether the internal controls within the committees are sufficient. The [political] auditors report to the city council, and their report is attached to the annual accounts. The “experts” [professional auditors’] reports are attached to the auditors’ report, but not included in the annual accounts.

The city council not only appoints the auditors; the council also decides upon the size of the budget for auditing. The [political] auditors decide on the direction of the audit and buy in professional audit service to the requisite extent. Estimations made in 2004 indicated that 24 percent of the total municipal audit budget is attributable to costs of the politically appointed auditors and 76 percent to the professional auditors (Sveriges Kommuner och Landsting, 2004).

In sum the auditee comprises the operations of the municipality, including the political committees that govern the special areas of municipal activity, such as schools and elder care. The commissioner of audit and the appointers of the politically appointed auditors are ultimately the council, but the politically appointed auditors engage professional auditors to help carry out the audit commission. The receiver of the audit report is the council, but the ultimate principal is the citizenry and the state government that provide the municipalities with resources.

There is no relationship between the Municipal Act and the Swedish Penal Code. Hence, there are no sanctions against auditors – neither the politicians nor the assisting experts – who may not fulfil their obligations in accordance with the legislation or generally accepted auditing standards. Professional accountants’ ethics are not applicable to politically appointed auditors, nor to professional auditors in the work of assisting them. Several studies have, moreover, criticized the regulation of municipal audit, implying deficiency and unclear claims of independence and competence (Cassel, 2000; Eriksson and Tagesson, 2005; Tagesson and Eriksson, 2006).

The literature has stressed litigation propensity and its positive correlation with audit fees (Taylor and Simon, 1999). For Sweden, this risk is probably absent, at least in a historical perspective. Additionally, in the very similar political and cultural contexts of Norway and Finland, it was found that the financial risk of the audit firm due to financial stress of the municipal organisation is probably not even considered by the auditing firms, because of the municipalities' strong financial standards and their state support (Johnsen *et al.*, 2004) In Sweden, the municipalities have the right to levy their own taxes, and their existence is guaranteed by the state. This means that a municipality can never go bankrupt as long as the state of Sweden exists.

EXPLAINING AUDIT FEES

Auditing is a service operation that normally is performed by auditors from an audit firm in an organisation; the auditee, in this case is the *municipal organisation*. The service is obtained mainly from the *market for auditing services* and decided upon by the commissioner of the audit, which could be the *principal* or a representative of the principal. All three factors influence the level of the fee (see Figure 1.).

Insert Figure 1 about here

The organisation of the municipality influences the audit fee through creating production costs of auditing, including workload, risk, and complexity. The size of the organisation indicates the number of transactions made, with the assumption that more transactions consume more audit time. Risk, i.e., the probability of the auditor's failure to find errors (Basioudis and Ellwood, 2005) is indicated through financial conditions of the organisation, including results, tax base, and tax rate, but also through political competition and organisational structure. Complexity is also indicated through the organisational structure, including degree of disintegrated organisation. Stressing production cost will imply a minimisation of production costs by a profit-oriented auditee (Simunic, 1980)

The market for auditing influences the market cost of audit fee mainly by the level of market competition and the opportunity to capitalise on corporate brand.

Finally, the principal and its organisation influence audit fees. The commissioner of the audit, i.e., the municipal politicians, will influence both the direction and the costs in order to manage their relationships with their principals, who are ultimately the voting citizens and the state, which in certain circumstances can subsidize the municipality, but consists of intermediaries of the political market, such as interest groups and mass media (Zimmerman, 1977; Baber, 1983, 1990). In this case, there is no particular stress on costs since benefits can be earned through increasing audit costs. Using the idea of signalling (Evans and Patton, 1987), we assume that the level of costs can constitute a signal communicating a message or an impression to the principal. Thus, when considering the principal, there are costs and benefits of auditing.

We shall present this theory in what follows, using the empirical indicators as the organiser of the structure and implying that the basic concepts of organisation, principal, and market can be present simultaneously. The derivation of hypotheses will start with hypotheses mainly based on arguments of the organisation, then continue with arguments concerning the principal, and finally with the argument of the audit market.

Size of the organisation

Within an organisation, transactions are recorded and subject to a scrutinising auditor. With increasing size of the operation, we assume that more transactions will result and that this will increase the audit activity. Additionally we assume that, with increasing size, the division of labour will be greater, thereby increasing the demand for a more advanced management control system. Thus, the complexity of the organisation can increase, and with that comes an increase in auditing. But in this theory we are dealing with municipalities, which have a set of activities they have to perform, no matter their size. It can therefore be expected that increased size implies an increase in scale, not scope, which reduces the strength of the argument of complexity. The number of activities and the number of people involved, however, will increase along with the potential for more agency conflicts. We therefore expect to find a base level of auditing in response to the scope of activities that the municipality has to perform, plus a marginal increase due to the increase in scale and the increase in agency costs within the organisation.

The agency costs of the audit fee can also be expected to increase. With increasing municipal size, its politicians will be further remote from the citizenry, thus inducing them to create signals instead of direct communication with the voters. One signal

available is the cost of audit, which will be higher in larger municipalities in order to create a signal of trust. Thus, we expect to find, due to organisation, that size increases the municipal audit fee:

H1a. Size of the municipal organisation is positively correlated with audit fee.

Size is, however, also a characteristic that operates on the market through influencing the supply of audit services. With increasing size, the organisation becomes more interesting for an audit firm, which would imply an increase in competition, and an increase in the power of the organization (Deis and Giroux, 1992), thereby putting pressure on the audit fee (Copley and Doucet, 1993b). Therefore a large municipality will pay less for audit service *ceteris paribus* than a smaller municipality. Thus, we hypothesise:

H1b. Size of the municipal organisation is negatively correlated with audit fee.

Financial performance of the municipality

The economic performance of the municipality induces risk in the organisation. Facing more financial stress, the managers of the organisation will perform activities that would not appear in a financially sound organisation; they will take greater risks with the money in the quest to improve service; and will have a tendency to hide activities that are on the edge of being unacceptable. All this is part of the risk the auditors have to consider and which motivates them to increase the auditing effort. Thus, financial stress will increase the production costs of auditing.

An organisation facing financial stress also has incentives to make changes in the organisation for improvement of performance. The principal of the auditing, which is the municipal council, has reasons to create signals to the final principals, the citizens, that a low financial performance is not accepted but under consideration. The necessary improvement can be indicated through an intensive auditing process. An alternative would be to signal an increase in audit quality through contracting a highly reputed firm, with the implication of higher audit costs (Copley *et al.*, 1995). The consequence is, however, the same, that the agency cost of auditing will increase.

A supporting explanation, focused on market costs of auditing, claims that financially sound organisations have stronger negotiation power against the auditor, implying that conflicts will be solved by the organisation in its favour. The consequence will be that auditors will reduce the conflict by performing an audit of lower quality, implying a lower fee (Deis and Giroux, 1992). Thus, a negative relationship between financial result and auditing costs, where the negative part of financial result is explained by agency costs and the positive by-market costs.

Empirical research has supported the idea of negative correlation between financial results and audit fees, even in municipalities (Rubin, 1988).

All in all, we have found that reasoning of production costs; market costs and agency costs all indicate a negative relationship between financial result and audit fees. This reasoning leads to a single hypothesis:

H2. The financial result of the municipality is negatively correlated with audit fees

Organisational structure

The organisational structure of the municipality will influence the complexity of the organisation and thus influence the production costs of audit. A divisional structure in corporations is assumed to increase the monitoring capacity of the top managers, making them more able to focus on monitoring and strategy (Williamson, 1996). A similar case in the municipal organisation would be a division of the organisation into smaller political bodies with more limited and more specific responsibility areas and fewer relationships with the other bodies of the organisation. This would imply less effort needed in order to find out about the management of the small areas, thus decreasing audit costs with more separation of municipal areas.

This argument is contrary to Simunic's (1980) argument that complexity increases with increased decentralisation and diversification. He appears to assume that the number of decision centres drives complexity. The argument of diversification increasing monitoring capacity is instead that interdependencies are reduced in a divisionalised organisation which eases the monitoring effort, and thereby the audit effort. Thus, we hypothesise:

H3a. The number of political committees in the municipal organisation is negatively correlated with audit fee.

The number of committees, however, does influence the agency costs of audit. In M-form public corporations, there are managers who are not only monitored but also controlled by the internal managerial labour market and induced through the reward system to adhere to the goals of the corporations. Such mechanisms are not present in the political market. Politicians do not receive promotion by adhering to a single mission of the organisation, but to the re-election logic where conflict, not consensus, is the basis for action. With more committees, with a slighter responsibility area, more politicians are present in the organisation, which increase the level of conflict and thereby the audit costs:

H3b. The number of political committees in the municipal organisation is positively correlated with audit fee.

An additional feature of the municipal organisation is that certain operations of the municipality can be organised under municipal corporations. These corporations are subject to the corporate law of Sweden, which stipulates the presence of an independent professional auditor who is financed by the corporation. With increasing size of the municipal corporations, an increasing number of transactions will be removed from the municipal organisation and thus reduce its size and, consequently, the production costs of audit. In Sweden, the use of lay auditors is applied on wholly-owned corporations, and sometimes even on jointly-owned corporations, meaning that the municipality can appoint a person, for instance a politically appointed auditor, that besides the formally appointed auditor has a right to scrutinize the corporation. The production costs of audit will therefore not completely disappear, but they will be reduced since the professional auditor is financed by the corporation.

H4. The amount of sales organised in municipal corporations is negatively correlated with audit fee.

Political competition

Political competition is defined as a situation where competing parties are very strong and create an environment of strong conflict and distrust. Strong positions are taken in

order to create a visible alternative in front of the citizens, interest groups, and mass media. This situation has both implications for the principal and for the organisation.

Most obvious is that political competition implies conflict (Evans and Patton, 1987) and distrust, which induces demands on increased auditing efforts. Both the administrators facing the uncertainty created by the high level of political conflict (Deis and Giroux, 1992) and the contestant political parties (Baber, 1990), have incentives to assure that relevant information is being produced, which implies that the monitoring efforts, involving especially the audit, are increased. With increasing competition the politicians can be expected to act according to short-termism, preferring actions that can produce results that appear before the next election. This short-termism includes higher risk in the municipality and thereby stimulates more auditing efforts, which in turn increase auditor costs. These arguments belong mainly to the production costs of audit, since they focus on the risks created by conflict and interest in distorted information.

On the other hand, the contestant parties have interests in an increasing auditing function since it can produce information for the citizens, mass media and interest groups that can be trusted and that, hopefully, will lead to a election of the politicians. Thus, in a competitive situation, the testers will induce increased audit costs in order to send a signal to the ultimate principal and the intermediaries in the political market.

A somewhat similar argument to the preceding is the Baber (1983) argument, claiming that politicians compete with a product that can only be differentiated through its efficiency dimension, i.e., voters are one-dimensional in their preferences. Audit effort is then a method of measuring the product delivered, which presumably will be more important when there are many competitors of the same market strength. While being a relevant argument, the applicability to Swedish conditions may be in question. A one-dimensional view of the voter could be more conceivable in a political environment where ideology is of less importance, and the specific service produced is more important. It can be presumed that in a U.S. environment, characterised by low level of ideology conflicts, the efficiency of the state production is more important, while in European states, with a more diverse ideological milieu, the composition of the state services are more important than the efficiency of the production. Thus, we believe that the Baber efficiency argument has a cultural bias, making it less relevant in a European context. It does not, however, affect the hypothesis since in both cases, competition drives audit fees.

Both characteristics of the organisation and of the principal lead to a single hypothesis:

H5. The political competition in the municipality is positively correlated with audit fee.

Tax capacity of the municipal citizens

The tax base of the municipality can influence the audit fee through creating agency costs. The citizens' interest in municipal decisions can depend on their level of economic input (Jensen and Payne, 2005). Studies have shown, for example, that voting activity indicating interest in municipal decisions is dependent on income level (e.g., Verba *et al.*, 1993). The higher the income, the more taxes paid (economic input), thereby indicating a higher interest in municipal decisions and an increased demand for external monitoring. Higher audit costs could be used as a signal of such monitoring to the citizens, and we hypothesise:

H6a. The tax base of the municipality is positively correlated with audit fee.

An institutional speciality of Sweden has to be considered. The state has implemented a tax equalisation system, popularly called the "Robin Hood" tax, which implies that municipalities with a very good tax base have to pay to the state some of their tax money, which the state will then redistribute to some municipalities with very low tax base. This will presumably put pressure on municipalities with a low tax base to signal to the state that they have the legitimate right to receive the extra tax money. A significant audit cost will be part of that signal. This reasoning implies the following hypothesis:

H6b. The tax base of the municipality is negatively correlated with audit fee.

Tax rate

The tax rate of a municipality is an indicator of the wealth of the society and of the management of the municipal organisation. A high tax rate could either be explained by A.) a low tax base that forces the municipality to tax citizens at a higher rate B.) a high political ambition regarding municipal activities, or C.) mismanagement of current resources, making the municipal organisation and its services more costly. Thus, politicians who commission the audit have incentives to signal that a high tax rate is not due to their mismanagement. This signal could be to increase audit activities and,

thereby, audit costs. This is a signal directed both to the citizens and to the state. In the case of the citizens, it is made by politicians in order to signal accountability (Ward *et al.*, 1994) and to reduce the likelihood of not being re-elected (Copley *et al.*, 1995). In the case of the state, it is made in order to indicate that the high tax rate is due to a low tax base (A.) or a high service level (B.) and not mismanagement, thereby increasing the state's likelihood of supporting the municipality due to its low tax base. Thus, tax rate influences the agency costs of the audit fees. We therefore hypothesise:

H7. The tax rate is positively correlated with audit fees.

The auditing market

The main costs of auditing are for the professional auditors. In our theory we have not made a distinction between (a) politically appointed auditors and the costs created by their activities, and (b) the costs of the professional (expert) auditors. We now turn to costs that mainly can be attributed to the latter. A municipality can make the choice of using in-house auditors, presumably from an internal audit department, or to buy audit services from the auditing market.

The usage of internal auditors depends on the existence of a specialised department and specialised employees in the area of auditing. It is mainly the large municipalities, due to scale economies, that have the resources to employ such specific competencies. The personnel are presumably well acquainted with the municipal organisation, thus reducing production costs of auditing such as information costs and competence costs. Audit costs are also lower since the internal office does not have to charge in excess of the production costs since they do not have to produce a profit and do not have any market costs such as brand costs. On the other hand, there could be some scale economies that an external auditor but not the small internal office could apply (Chow, 1982).

In sum, we propose that that operational efficiency influences the tendency to use internal auditors rather than an external audit firm. This will be true if we assume that they do not have a monopoly but are compared to the audit market. However, should they enjoy a monopoly situation, be it by explicit decision of the municipality, which is highly unlikely, or by praxis, they of course could charge monopoly rent. We will return to monopoly rent later, but here we assume that there is at least implicit competition between the internal audit office and audit firms since it is large municipalities that have

internal audit offices and that are therefore receiving attention from the audit market firms.

One possible situation could, however, decrease the tendency of internal office to reduce audit fees. It can be assumed that when an internal office is used, the responsibility for internal control could be located in a section of that office, probably separated from its auditing section, but not actually performed within the organisation. Thus, there could be costs of internal control which are distributed to the internal office, but if there were no internal office would have been charged to other organizational units. Additionally, an audit may put a strain on the organisation when the organisation has to support the auditors with numbers, documents, or even analyses. It is conceivable that when using an internal office, these activities would be more likely performed by the internal office than by the different parts of the organisation. The allocation of total costs of auditing, including the efforts spent in the organisation, is therefore expected to be more accurate when using the internal office rather than external audit firms. This is a qualification that implies that studies of audit fees are not studies of the organizational costs of audit, since we do not yet, to the knowledge of the authors, have any studies on the organisational costs of audit, including the cost of the resources spent in the organization as a consequence of the audit performed.

Yet, we assume that the increase of audit costs that can be expected due to more relevant audit cost allocation is less significant than the elements of production costs and market costs. Thus, we hypothesise:

H8. Internal audit office will be negatively correlated with audit fee.

Turning to the external market for audit services, which is to return to the original reason for audit fee studies, there is a consistent literature indicating that using the new Big 4 audit firms will imply higher costs (for exception, see Simunic, 1980; Basioudis and Ellwood, 2005; Antle *et al.*, 2006). The main reason put forward is that they can charge a higher price due to their strong brand. Using one of the Big 4 will presumably entail higher audit quality (cf. DeAngelo, 1981; Bauwherde *et al.*, 2003; Chung *et al.*, 2003; Wooten, 2003; Pittman and Fortin, 2004), and signal trust in the audit to the receivers of the audit report. Audit quality can be seen as a function of the auditor's effort (Power, 2003), and defined as the probability that the auditor will discover and report on shortcomings in the client's accounting system (DeAngelo, 1981a; Deis and

Giroux, 1992). Considering municipalities, the definition must be extended to include a judgement whether the activities are run in a way that is adapted to its purposes and if it produces value for the money (e.g., Banker, *Cooper and Potter*, 1992; Power, 1999). Audit quality in this sense is mainly a signal directed towards the principal, informing about both the credibility of the information and the management of the resources and thus being part of the agency costs.

Audit quality could, however, also include the internal effect on the organization, mainly through influencing the monitoring capacity (Simunic and Stein, 1987). High audit quality could imply improved monitoring capacity which would release organizational monitoring resources. The argument is, then, that the reduction of monitoring costs in the organisation, achieved through higher audit quality, is partly exploited by the audit firm through higher audit fees. The brand argument is therefore also an argument about production costs:

H9. The use of one of the Big 4 audit firms will be positively correlated with audit fee.

In Sweden, there is a special circumstance that makes it possible to specify the hypothesis (H9) even further. Swedish municipalities were organised into a national body that owned an audit firm specialised in auditing municipal organisations. This body merged with a firm that now belongs to the Big 4 – Öhrligs PWC. This audit firm has a very strong position in the market for municipal audit services (about 64 percent of municipalities). It can be expected that this firm has a superior competence with municipal organisations and can therefore presumably produce the same audit quality with lower information costs and competence costs relating to the functioning of municipal organisations (cf. Ettredge and Greenberg, 1990). The higher competence of the firm would entail, as in the case of an internal office, that it can produce an audit at a lower cost. However, this will not be reflected in lower audit fees.

On the contrary, the dominant market position will be used as a signal of product quality, thus inducing a higher audit fee (Ward *et al.*, 1994; Ferguson *et al.*, 2006). Additionally, the firm is well known in the municipal environment, which implies that the commissioner of the audit has reasons of agency cost to use them and their brand in order to create trust. This is an asset that the audit firm can put a price on, thus increasing the audit costs. In the UK, Basioudis and Ellwood (2005) found no price premium for a specialised firm, but that appeared to be due to a specific UK

institutional setup, with a state agency performing monitoring activities that presumably reduced the possibility of applying premium prices. We therefore hypothesise:

H10. The usage of a specialised audit firm will be positively correlated with audit fee.

Finally, we consider a factor that is the only one with a major reference to market costs. Sweden occupies an extensive land area with relatively few inhabitants. This implies that some municipalities consist of few inhabitants but large area, thus creating scattered municipal operations. These sparsely populated areas are typically less economically developed, which implies that they have a smaller number of auditing firms, which in turn presumably reduces the level of competition and creates an audit premium (Johnson, 2001; Johnsen *et al.*, 2004), similar to the city-specific effect found by Ferguson, Francis and Stokes (2006) and the negative correlation found between audit competition and audit fee in governmental audits (Copley and Doucet, 1993b). Due to lower competition in sparsely-populated municipalities, we therefore hypothesise:

H11. Location in sparsely-populated areas will be positively correlated with audit fee.

Summary of the theory and hypotheses

The theory here includes the traditional arguments of organisation and market, but puts emphasis on the commissioner of the audit and the assumed interest in creating and sending signals towards the intermediaries in the political market, the mass media, interest groups, and the ultimate principals, thereby gaining re-election and financial support from the state. Table 1 indicates this emphasis in the column “Argument of Principal (Agency cost)”.

Insert Table 1 about here

The number of hypotheses in that column indicates that our conception of municipal audit is that the audit is a means in the hands of politicians, i.e., those who commission the audit, to govern their relationship with the ultimate principals. As indicated in the Introduction to this paper, it does not imply that auditor independence is at threat. We have not put forward independence as a driver of audit costs, not even where it could be expected to occur – in the internal office – due to loyalty towards the municipal

organisation and collusion with employees (Chow, 1982). Instead, the view put forward here is that while auditors can be independent, the use of the audit is not independent of interest. To put it simply, audit could be managed without managing auditors.

Additionally, Table 1 clearly indicates the difficult challenge of testing a theory empirically since most of the indicators are indicators of at least two theoretical arguments. The worst case is the traditional variable of size, since it is built by all three arguments but receives different signs. The strongest predictors are those with only one theoretical argument and thereby with only one sign, such as disintegrated organisation, tax base and tax rate, internal audit office, and sparsely populated municipalities. We therefore state that the empirical test will not be a test of the three different arguments since we cannot differentiate the empirical factors between the arguments. The test offered in this paper will be an exploration of the arguments, where the results at best can hint at relationships that could exist and factors that could explain the costs of auditing.

METHOD

The researchers intended to use data from all municipalities in Sweden. The major part of the data was collected through the annual reports of the municipalities. When data were initially lacking, the municipality was contacted for relevant information. Due to deficient documentation, such as annual reports of low quality, or inability to obtain data through telephone inquiry, not all data were available. The final sample consisted of 234 municipalities out of a population of 290. The dropout municipalities had fewer inhabitants and a higher tax rate than the municipalities in the sample. Thus, the results of the empirical analysis cannot be generalised to the smallest municipalities. The year of data was 2005.

Dependent variable

Audit fee (*AFI and AFT*): Audit fee is defined as presented in the annual report. The currency is the Swedish krona. The dependent variable used is deflated by size measures. (This issue belongs, however, to the analysis, and we will return to the argument there.) We use the term *AFI* for audit fee divided by number of inhabitants and the term *AFT* for audit fee divided by the turnover of the municipality (measured as millions of Swedish krona).

Independent variables

Size (*INHAB and TURNOVER*): The size of the municipality can be measured on the scale of municipal organisation, such as number of employees and turnover. Asset value, as used for example in the classic study by Simunic (1980), is not a good indicator of size since the focus in municipal accounting is on liquidity and not on assets, making the valuation of the assets highly uncertain. Rubin (1988) avoids all accounting errors by using the number of inhabitants as a proxy of size. We claim that there is no good, single, size measure available since each measure is oriented differently. Size measured as turnover (*TURNOVER*) in Swedish currency krona, could be expected to be more important when dealing with argument of organisation – for example, higher turnover could imply more transactions – and argument of audit market – for example, higher turnover would probably make the municipality stronger in negotiations with audit firms. Inhabitants (*INHAB*) has the advantage of being a measure of number of ultimate principals and thus preferred when analysing agency costs.

Financial result (*FINRES*): We have used income after financial items, thus avoiding items of extraordinary nature, but considering interest received and paid, since it reflects the financial structure of the municipality. The currency is Swedish krona.

Departmentalisation (*DEPORG*): The variable of departmentalised organisational structure is defined as the number of political committees. Since the political committees are responsible for certain municipal services, it is a measurement similar to measuring the number of divisions in a multidivisional corporation. Since most municipalities produce a similar number of services, an inverse number of committees indicates complexity of organisation. Rubins' (1988) service index would not indicate complexity because of the high level of similarities.

Disintegrated organisation (*MUCO*): It is defined as the proportion of a municipal turnover that is assigned to the corporations of a municipality according to the group account. A simpler measurement would be to include the number of corporations as an indicator of disintegration. It was used by Gerrard *et al.* (1994), where number of organizational units outside core business was an indicator of complexity. In our case, corporatisation withdraws the transaction from the municipal audit, thus it can be believed that the production costs of auditing will more closely correlate with the transactions, i.e., the turnover, than with number of organizational units.

Political competition (***PCOMP***): The level of political competition is measured through Herfindahl's index on the political parties' share of the voters in the last election, i.e., the sum of every party's squared share of the voters. The deficiency of this measurement is that it cannot consider political coalitions and co-operations. It should be noted that a high number on the index should be interpreted as a low level of political competition since it indicates a high concentration of votes on one or a few single parties.

Tax base (***TAXBASE***): The sum of all inhabitants' incomes and benefits in Swedish krona divided by number of inhabitants. An alternative would be to measure the mirror of the tax base, i.e., how much in subsidies the municipality receives (Deis and Giroux, 1992). Tax base is preferred since the theory contains elements of the strength of the inhabitants, thus referring more to their incomes. Subsidies received could indicate more organisational strength, the organisation having capacity to attract support from other sources.

Tax rate (***TAXRATE***): The tax rate used is the municipal income tax. It is a tax that is decided by the municipality and therefore a tax that can be influenced by the municipality. It represents the major tax for most people, with the exception of value added tax. Studies from other countries have used other taxes, mainly because the tax selected should be a tax that has the potential to create attention from the citizen. One study conducted on data from Norway and Finland – countries with many similarities to Sweden, used the municipal income tax (Johnsen *et al.*, 2004).

Internal audit office (***IAOFF***): A dummy variable was created, giving 1 to those that had an internal audit office.

Big 4 auditing firms (***BIG4***): The Big 4 were defined as KPMG, Öhrligs PWC, Ernst and Young, and Deloitte, and were assigned the value of 1 in a dummy variable. Those using inter-audit office or smaller audit firms were assigned 0.

Specialised audit firm (***SPECAF***): The specialised firm mentioned in the theory section is Komrev, i.e., Öhrligs PWC, which was assigned 1 in a dummy variable.

Sparsely populated municipalities (*SPOPM*): These are defined according to the official Swedish categorisation, where municipalities are divided into several different categories, most of them according to number of inhabitants, but one being the category of sparsely populated municipalities. It is coded as 1 if belonging to a sparsely populated area and 0 if not. It is preferred to avoid a measurement that is highly correlated to inhabitants. Additionally, a municipality with few inhabitants could be situated very closely to a large municipality, which would influence the market in the small municipality. Sparsely populated municipalities are seldom close to large municipalities, thus the dummy is expected to be a good proxy of market conditions in the municipality area. An alternative would be to construct an index, such as that of Johnsen *et al.* (2004).

ANALYSIS

Descriptive statistics of dependent and independent variables are presented in Table 2.

Insert Table 2 about here

Inspecting the correlation matrix, one can clearly see that the two size measures, INHAB and TURNOVER are highly correlated with the other independent variables. The correlation (not reported in the table) between audit fee and INHAB is 0.97 and 0.98 with TURNOVER. As hypothesized in the theory section, size does considerably influence audit fee. But size apparently also influences the other factors in our theory. Thus, there is a direct and an indirect influence of size, which could create severe multicollinearity problems in the analysis. This problem is addressed by dividing the dependent variable of audit fee by two measures of size, the turnover of the municipality and the number of inhabitants of the municipality. We thereby follow Simunic's (1980) method of deflating the fee with a size measure. Although the two size measures are highly correlated (correlation coefficient = 0.988), they nevertheless can be used to represent two different theoretical views. Size measured as turnover can be claimed to focus on the factors tied to the organisation and the audit market, while inhabitants can be used as focusing on factors tied to the principal. Indeed, as shown in the correlation matrix, audit fee deflated with inhabitants (AFI) is more highly correlated with political competition, which according to our theory is mainly built on signalling arguments, i.e., related to considerations of the principal. Audit fee deflated

by turnover (AFT) has a stronger correlation with the organizational structure of the municipality (MUCO), which could be expected from our theory since it is hypothesised that organisational structure mainly influences production costs.

The dependent variable of audit fee has been transformed into two dependent variables termed audit fee per turnover (AFT) and audit Fee per inhabitant (AFI). Additionally, we have log-transformed the highly skewed variable of financial results (FINRES), implying that we only test for the sign, not for a linear relationship.

Inspecting the correlation between the independent variables (2–11), after size has been removed as an independent variable, especially the variable of departmentalised organisational structure (DEPORG) is correlated .35 and higher with two other independent variables, which could create multicollinearity problems. Tax base and tax rate is also highly correlated. Inspecting the VIF-factor in the multiple regression analysis will indicate if they actually produce this problem.

The use of internal audit office (IAOFF) and Big 4 (BIG4) and the specialised audit firm (SPECFAF) are by definition correlated, but since they will not be used simultaneously in a single analysis, they will not present any problem in the analysis.

Inspecting the column containing the means, we find that only 3 percent of all municipalities have an internal audit office (8. IAOFF), while 96 percent use an audit firm belonging to the Big 4 (9. BIG4). The specialised audit firm appears to have a strong market position since 66 percent of the municipalities use this firm (10. SPECFAF).

Inspection of the correlation between the two dependent variables, AFI and AFT, and the independent variables indicates that the independent variables have the expected signs. The exception is political competition (PCOMP) where we expected to find a negative relationship, indicating that when the Herfindahl index increases, political competition decreases and so does the audit fee. The sign, however, is positive, indicating an increase in audit fees when the political power becomes concentrated in fewer and therefore more dominant parties.

Table 3 presents the results of the regression analyses.

Insert Table 3 about here

Six models are presented, three with audit fee per inhabitant (AFI) as dependent variable and three models with audit fee per turnover (AFT) in krona. Three models are necessary to be able to consider the three audit market hypotheses of internal audit office, Big 4 influence, and the specialised audit firm.

Focusing on audit fee per inhabitant, we obtain highly significant models with adjusted R-square about 0.40. The expected collinearity problem with DEPORG, i.e., number of political committees, appears to a slight degree. The VIF-factor of the variable is, however, only between 1.9 and 1.4, which does not represent a severe collinearity problem. Durbin-Watson index varies between 1.78 and 1.83, which indicates that the t-scores are not overestimated due to autocorrelation of residuals. Finally, the variables appear to be very stable when entering different audit market variables, which can be interpreted as an indication of a stable model.

Most variables are significant with expected signs. The important exception is political competition, which receives significant opposite sign compared to expected sign. Insignificant variables, though with expected signs, are: the level of disintegrated municipality, which belongs to the production costs argument; the tax rate, which belongs to the agency costs argument; and the specialised audit firm, which belongs to the market costs arguments. Non-significant and with an opposite sign is the traditional variable of Big 4. Thus, we receive support for both production costs and agency costs arguments, but only slight support for market costs argument, indicating that an internal audit office induces higher audit costs than the use of external audit firms.

The models with audit fees per turnover in krona is also highly significant, but with a slighter smaller adjusted R-square. Number of political committees (DEPORG) has slight collinearity problems, but the VIF-factor of between 1.9 and 1.6 indicates no severe collinearity problem. Durbin-Watson index varies between 1.88 and 1.92, which is acceptable. As with the first three models, when entering different audit market

variables, no significant change appears in the model, which can be interpreted as an indication of a stable model.

The models explaining audit fees per turnover in krona have a similar set of significant variables. The difference is that the level of disintegration (MUCO) is significant with expected sign, which is an indication that the production costs of auditing are influenced by the presence of municipal corporations performing municipal service. On the other hand, political competition (PCOMP) does not appear to be an influence. The tax rate is also insignificant in these models, but with unexpected sign. Finally, the variables focusing on the audit market indicate that use of internal audit office does not influence the dependent variable, Big 4 is insignificant but with unexpected sign, and the specialised audit firm appears to raise the audit fees.

DISCUSSION

This analysis of the empirical test is based on the extended Table 4, where we have added notions of significant variables.

Insert Table 4 about here

First, the problem of size has to be kept in mind during the analysis. Size influences not only the dependent variable, but also the independent variables. It is a variable that our derivations find relevant for all three costs, and the correlation matrix indicates that it contains too much of diverse information, making it correlate with most of the other variables. The implication is that size is highly imprecise as a proxy. When interpreting the results in the models without size, we have to remember that many variables have elements of size, such as departmentalisation, which tends to be higher in larger municipalities.

The adjusted R^2 is about 0.4, which is in the lower range of R^2 that studies of audit fees tend to have. Simunic (1980) reported 0.46, Rubin (1988) on municipal audit fee data reported 0.58, and a recent study by Basioudis and Ellwood (2005) with data from the UK reported close to 0.5. Apparently, studies in this area have models of high explanatory power. Our study, being in the lower range, cannot, however, be treated as

an outlier study. Thus, we consider our model to be quite comparable to the other models in the literature.

Four variables have consistent sign and significance in all six models. Financial result, departmentalisation, tax base, and sparsely populated municipalities are the most solid variables. All arguments are at least supported by one variable. Thus, we find indications of some relevance of all arguments.

It should be noted that departmentalisation has a negative sign in all models, which is according to the argument of the organisation. It is, however, highly correlated with size, which can be explained by large municipalities' tendency to create more committees than small municipalities. In the absence of a size variable, therefore, departmentalisation contains elements belonging to the organisation argument connected to the mere size of the organisation. In a model containing only departmentalisation and size as independent variables (not reported here), both variables are significant – size with a negative sign and departmentalisation with a positive sign. The model is, however, burdened with severe collinearity. Yet, it indicates that departmentalisation deprived of size influence could, according to the argument of principal, have a positive influence on audit fee.

Inspecting the different arguments, one sees that the argument of the audit market appears to be slightly more successful than the others, though they are capable of deriving hypotheses that in a majority of cases in our test are significant. Our conclusion is that in order to explain audit fees, one has to acknowledge all three influences, that of organisation and the audit market, and additionally realize that audit fees are part of the governance structure of an organization, with capacity to send signals to the principals.

Some results deserve specific attention. Political competition received negative sign in the model explaining audit fee per inhabitant, but no significance when related to sales of the municipality. Other studies reported similar, inconclusive results (Evans and Patton, 1987) or non-significant results (e.g., Ward *et al.*, 1994). If we accept that the significance is not due to randomness, it indicates that increasing power concentration in the hands of a few parties decreases audit fees. The index used is the Herfindahl index, which is a way of observing structure. The behaviour of the index could, however, be considered to not properly reflect competition. If we assume a number of parties, an equal distribution creates a low Herfindahl index. A distribution with a few

strong parties creates a medium index, and a highly concentrated power structure creates the largest index. It is not clear which structure has the highest level of political competition. With many parties of the same size, coalition building is highly probable, but likely very unstable – thus, hard competition. Two dominant parties could imply stiff competition between equals, but could also create a rather stable relationship. In this situation, it is therefore unclear if competition is raising or falling compared to the previous one. The third case, with a dominant party, has presumably the least competitive conditions. A test with dummies representing the three different structures, which resembles the Baber (1990) test using a dichotomous measure, and a non-linear test were performed, but did not contribute with more explanatory power. Thus, we conclude that audit fees rise with rising political competition, and the Herfindahl index is a fairly good indicator of competition in a political structure.

The literature on audit fees was initiated by a concern about branding costs forwarded to the commissioner of audit. Only slightly does our sample support this concern. The usual suspects of the Big 4 do not appear to raise the audit fees of the municipalities, which support the findings of Rubin's (1988) test of municipalities in the United States. The specialised firm does so, however, in one of our models. It could be that the Big 4 that holds a strong brand name in the private market cannot capitalise this brand name in the public administration market. The specialised firm could have a stronger brand name than the other three firms, or it could be that they make stronger contributions to the municipality through being more competent, thus receiving a higher fee for their effort. Indeed, it is also in the model explaining the audit fee per turnover that the significance appears, which is a model more oriented towards production costs and audit market costs. This interpretation is also supported by the findings of Boon *et al.* (2005) who observed a premium for the specialised firm in non-metropolitan audit markets, presumably characterised by weaker competition and less developed municipal organisations. It is, however, of a rather speculative nature, and we have to conclude that the audit fee is only to a small extent influenced by branding, and to a slightly greater extent influenced by the audit firms' competence. This conclusion is, however, close to the findings of Ettredge and Greenberg (1990), that partly repeated the results of the original study by Simunic (1980). He found indications of scale economies were passed on to the auditees, except for one firm, that were interpreted as offering a “..utility-bearing characteristic to auditees which command a positive implicit price in the market” (Simunic 1980:188).

The last variable to be mentioned is the internal audit office. We hypothesised a negative relationship between internal audit office and audit fee, but found a positive relationship. One reason for a positive relationship could be that an office is but an indicator of the importance put on auditing by the municipality, i.e., internal office and costs of auditing are indicators that express the importance of auditing. Another reason for a positive relationship could be that internal offices realise monopoly rents, being the sole suppliers of audit. Another reason is that internal auditors cannot use the scale economies as done by external auditors (Chow, 1982). A third reason, not explored in this paper, could be the nature of the production process where there are substitution effects between internal and external accounting resources (cf. Simunic, 1980; Gerrard *et al.* (1994). When using external auditors, some of the audit input is produced by the organisation and given for free to the audit firm, thus not charged on their fee. In the case of an internal office, the input could be produced by the office and included in the audit costs.

Additionally, a section of the internal office could have assumed more responsibility for internal control that otherwise would have been performed in the organisation. Parts or all of these costs can be assumed to be included in the cost of audit by the internal office. An audit firm has incentives to allocate audit costs to the organisation if it does not influence the audit quality. Presumably, an internal office has fewer incentives to redistribute the costs to the other parts of the organisation. Internal office could therefore produce a more realistic approximation of the actual audit costs for the organisation. This implies that it is of outmost importance to notice that what is measured and discussed here is not organisational audit costs. It is an objection that implies that studies of audit fees are not studies of the organizational costs of audit, since we do not yet, as far as we know, have a study on organizational costs of audit, including the cost of the resources spent in the organization as a consequence of the audit performed. Future research should investigate the existence of this substitution effect on cost allocations in order to increase the precision of the empirical tests. With this objection, we cannot tell whether the positive relationship is due to monopoly rent or due to more adequate cost allocation.

This confusion indicates one of the model's largest problems, that of indicators of several hypotheses. We have indicated, for example, in Table 1, that a single empirical variable could be an indicator for several theoretical factors. The implication is that the possibility of reaching strong empirically-based conclusions from empirical tests is

limited. Thus, we believe that studies have to focus on argument for audit fees, not on empirical indicators, in order to be able to judge the importance of different audit fee explanations. Thus, while promoting eclectic studies, including several perspectives with their own logic, one important result is that the audit fee research is in need of both theoretical development of arguments and empirical indicators with the capacity to indicate fewer theoretical factors. However, the present study has some limitations that reduce its explanatory power. We have not considered change of auditor as a driver of audit fees (Hoyle, 1978; Copley and Doucet, 1993; Arruñada and Paz-Ares, 1997; Catanach Jr. and Walker, 1999; Dopuch *et al.*, 2001). The reason is a simple matter of empirical data, since it has been hard to find reliable data on the identity of the professional auditors some years back. The effect is that the pricing of initial audit engagements (Deis and Giroux, 1996; Craswell and Francis, 1999), be it higher due to organisation costs, or lower due to market costs (Johnson, 2001), cannot be considered. The effect could, however, be only minor since it has been found that public disclosure of audit fees, such as in Sweden, preclude lowballing in Australia (Craswell and Francis, 1999).

A more severe limitation of the study, which it shares with similar studies, is the absence of a developed theory of interest group intermediation. The assumption is that interest groups mediate interest through amplifying it, but not distorting it. This assumption of non-interest by the interest groups is of course rather naïve. A reasonable assumption is that interest groups are directed by an interest that cannot be assumed to be a reflection of the citizens' interest. In fact, interest groups, such as mass media, could even be assumed to influence the citizens' interest. Since this is at heart of political democracy, researchers of accounting have probably to divert to political science in order to gain insights that could improve our capacity to explain audit costs in political organisations.

CONCLUSION

Our study was induced by the notion that earlier studies had focused on the audit market, especially the existence of monopoly rents, and on the organizational costs related to the actual production of audit. Audit, however, is an activity oriented towards the principal of the organisation, and could therefore be expected to vary according to the relationship between the agent and the principal, and vary according to the organisation of the principal. This is the governance issue of auditing. We hypothesized that audit fees are used as mainly a signalling device by agents and as a means of

reducing conflict among agents when communicating to principals, be they the voters, the mass media, or other interest groups.

Audit as a mean of signalling could imply loss of independence of the professional auditors. This is, however, not a conclusion that can be made out of our theory and tests. The professional auditors can still be independent, but receive assignments within the commission of making special audit tasks, which will influence the audit costs and thereby the audit fee the municipality have to pay for the audit. Our claim is that audit could be managed without managing auditors.

In Sweden, however, the danger of independence is inherent in the system by the tradition that the municipal auditors are selected from among politicians, sometimes even from among the members of the city council. As if the auditor of a private corporation should be appointed and selected among the board members. This feature can be seen as either the edge of Swedish political tradition, where not only politics, but even politicians are superior to rules and regulations, but it could also be an indication of a less advanced audit culture where Sweden has recently started towards a path of advanced culture of accounting and auditing, including explicit standards of municipal accounting and even certified municipal auditors. The Minister of Finance recently appointed a committee with the responsibility to investigate how the municipal audit could be improved. Presumably this development will imply higher audit fees, since more advanced regulations and traditions of disclosure tend to drive audit fees (Taylor and Simon, 1999), but probably also decrease the variance since the audit processes becomes less plastic.

REFERENCES

- Antle, R., Gordon, E., Narayanamoorthy, G. and Zhou, L. (2006) The joint determination of audit fees, non-audit fees, and abnormal accruals, *Review of Quantitative Finance and Accounting*, Vol. 27, No. 3, pp. 235–266.
- Arruñada, B. and Paz-Ares, C. (1997). Mandatory Rotation of Company Auditors: A Critical Examination. *International Review of Law and Economics*, Vol. 17, No. 1, pp. 31–61.
- Baber, W. R. (1983) Toward understanding the role of auditing in the public sector, *Journal of Accounting and Economics*, Vol. 5, No. 3, pp. 213–227.
- Baber, W. R. (1990). Toward a framework for evaluating the role of accounting and auditing in political markets: The influence of political competition, *Journal of Accounting and Public Policy*, Vol. 9, No. 1, pp. 57–93.
- Banker, R. D., Cooper, W. W. and Potter, G. (1992) A perspective on research in governmental accounting, *The Accounting Review*, Vol. 67, No. 3 (July), pp. 496–510.
- Basioudis, I. G. and Ellwood, S. (2005), An empirical investigation of price competition and industry specialisation in NHS audit services, *Financial Accountability and Management*, Vol. 21, No. 2, pp. 219–247.
- Bauwhede, H. V., Willekens, M. and Gaermynck, A. (2003). Audit firm size, public ownership, and firms' discretionary accruals management, *The international Journal of Accounting*, Vol. 38, No. 1, pp. 1–22.
- Boon, K., Crowe, S., McKinnon, J. and Ross, P. (2005). Compulsory audit tendering and audit fees: Evidence from Australian Local Government, *International Journal of Auditing*, Vol. 9, No. 3, pp. 221–241.
- Brorström, B., Haglund, A. and Solli, R (2005). *Förvaltningsekonomi (Public administration)* (Lund: Studentlitteratur).
- Cassel, F., 2000. *Behovet av kommunal externrevision (The need for external audit in municipalities)*. Stockholm: SNS.
- Catanach Jr, A. H., Walker, P. L. (1999). The International Debate Over Mandatory Auditor Rotation: A Conceptual Research Framework. *Journal of International Accounting, Auditing and Taxation*, Vol. 8, No. 1, pp. 43–66.
- Chow, C. W. (1982) The demand for external auditing: Size, debt and ownership influence, *The Accounting Review*, Vol. 57, No. 2 (April), pp. 272–291.
- Chung, R., Firth, M. and Kim, J. (2003). 'Auditor conservatism and reported earnings', *Accounting and Business Research*, Vol. 33, No. 1, pp. 19–32.
- Collin, S.-O., Tagesson, T., Andersson, A., Cato, J. and Hansson, K. (2009), Explaining the choice of accounting standards in municipal corporations: Positive accounting theory, institutional theory as competitive or concurrent theories, *Critical Perspectives on Accounting*, Vol 20, 141-174
- Copley, P. A. and Doucet, M. S. (1993a) Auditor tenure, fixed fee contracts, and the supply of substandard single audits, *Public Budgeting and Finance*, Vol. 13, No. 3 (Fall), pp. 23–35.
- Copley, P. A. and Doucet, M. S. (1993b) The impact of competition on the quality of governmental audits, *Auditing*, Vol. 12, No. 1, pp. 88–99.
- Copley, P. A., Gaver, J. J. and Gaver, K. M. (1995), Simultaneous estimation of the supply and demand of differentiated audits: Evidence from the municipal audit market, *Journal of Accounting Research*, Vol. 33, No. 1 (spring) pp. 137–155.
- DeAngelo, L. E. (1981a). Auditor independence, "low balling", and disclosure regulation. *Journal of Accounting and Economics*, Vol. 3, No. 2 (August), pp. 113–127.
- DeAngelo, L. E. (1981b). Auditor size and audit quality. *Journal of Accounting and Economics*, Vol. 3, No. 3 (December), pp. 183–199.
- Deis, D. R. and Giroux, G. A. (1992), Determinants of audit quality in the public sector, *The Accounting Review*. Vol. 67, No. 3 (July), pp. 462–479.

- Deis, D. R. and Giroux, G. (1996) The effect of auditor changes on audit fees, audit hours, and audit quality, *Journal of Accounting and Public Policy*, Vol. 15, No. 1, pp.55–76.
- Deis, D. R. and Giroux, G. A. (1996). The Effect of Auditor Changes on Audit Fees, Audit Hours, and Audit Quality. *Journal of Accounting and Public Policy*. 15, 55–76.
- Dopuch, N., King, R. R. and Schwartz, R. (2001). An experimental Investigation of Retention and Rotation Requirements. *Journal of Accounting Research*, Vol. 39, No. 1 June 2001, pp. 93–117.
- Eriksson, O. and Tagesson, T. (2005) Kan man lita på revisorerna? (Can you trust the auditors?), *Kommunal ekonomi*, No. 3.
- Ettredge, M. and Greenberg, R. (1990) Determinants of fee cutting on initial audit engagements, *Journal of Accounting research*, Vol. 28, No. 1 (Spring), pp. 198–210.
- Evans, J. H. and Patton, J. M. (1987), Signaling and monitoring in public-sector accounting, *Journal of Accounting Research*, Vol. 25, pp. 130–158.
- Ferguson, A. C., Francis, J. R. and Stokes, D. J. (2006) What matters in audit pricing: Industry specialization or overall market leadership?, *Accounting and Finance*, Vol. 46, No. 1, pp. 97–106.
- Firth, M. (1997) The provision of non-audit services and the pricing of audit fees, *Journal of Business Finance and Accounting*, Vol. 24, No. 3-4, (April), pp. 511–525.
- Gerrard, I., Houghton, K. and Woodliff, D. (1994) Audit fees: The effects of auditee, auditor and industry differences, *Managerial Auditing Journal*, Vol. 9, No. 7, pp. 3–11.
- Hoyle, J. (1978). Mandatory auditor rotation: The arguments and alternative. *Journal of Accountancy*, Vol. 145, No. 5, pp. 69–78.
- Jensen, K. L., and Payne, J. L. (2005). Audit Procurement: Managing Audit Quality and Audit Fees in Response to Agency Costs. *Auditing: A Journal of Practice and Theory*, Vol. 24, No. 2, pp. 27–48.
- Johnsen, Å., Meklin, P. Oulasvirta, L. and Vakkuri, J. (2004) Governance structures and contracting out municipal auditing in Finland and Norway, *Financial Accountability and Management*, Vol. 20, No. 4, pp. 445–477.
- Johnson, L. A. (2001) An investigation of pricing behaviour in the municipal audit market, *Accounting Forum*, Vol. 25, No. 1 (March), pp. 89–101.
- Mattisson, O, Paulsson, G and Tagesson, T., 2003. Chapter 8: “Sweden.” In Lüder, K and Jones, R. (Eds.), *Reforming governmental accounting and budgeting in Europe*. Fachverlag Moderne Wirtschaft, Frankfurt.
- Palmrose, Z.-V. (1986) Audit fees and auditor size: Further evidence, *Journal of Accounting Research*, Vol. 24, No. 1, (Spring) pp. 97–110.
- Pittman, J. A. and Fortin, S. (2004). Auditor choice and the cost of debt capital for newly public firms. *Journal of Accounting and Economics*, Vol. 37, No. 1, pp. 113–136.
- Power, M. (1999), *The Audit Society: Rituals of Verification*, 2nd edition, Oxford: Oxford University Press.
- Power, M. K. (2003), Auditing and the production of legitimacy, *Accounting, Organizations and Society*, Vol. 88, No. 4, pp. 379–394.
- Rubin, M. A. (1988) Municipal audit fee determinants, *The Accounting Review*, Vol. LXIII, No. 2, pp. 219–236.
- Simunic, D. A. (1980), The pricing of audit services: Theory and evidence, *Journal of Accounting Research*, Vol 18, No 1, pp. 161–190.
- Simunic D. A. and Stein, M. (1987), *Product differentiation in Auditing: Auditor Choice in the Market for Unseasoned New Issues*, Research Monograph no. 13. Vancouver: The Canadian Certified General Accounts Research Foundation.

- Sveriges Kommuner och Landsting, (2004), *Revisorernas ekonomi i kommunerna*, (The finances of the auditors in the municipalities), Faktabas Revision 2004.
- Tagesson, T., and Eriksson, O. (2006) *What Do Auditors Do? - Obviously they do not scrutinize the accounting and reporting*, Conference Paper presented at the 4th International Conference on Accounting, Auditing and Management Public Sector Reforms, EIASM, Siena, September 7 – 9, 2006.
- Taylor, M. H. and Simon, D. T. (1999) Determinants of audit fees: The importance of litigation, disclosure, and regulatory burdens in audit engagements in 20 countries, *The International Journal of Accounting*, Vol. 34, No. 3, pp. 375–388.
- Verba, S., Schlozman, K. L., Brady, H., and Nie, N. H. (1993). Citizen activity: Who participates? What do they say? *The American Political Science Review*, Vol. 87, No. 2, pp. 303–318.
- Ward, D. D., Elder, R. J. and Kattelus, S. C. (1994) Further evidence on the determinants of municipal audit fees, *The Accounting Review*, Vol 69, No. 2, (April) pp. 399-411.
- Williamson, O. E. (1996) *The Mechanisms of Governance*. NY: Oxford University Press.
- Wooten, T. C. (2003). Research about audit quality. *The CPA Journal*, Vol. 73, No. 1, pp. 48-50.
- Zimmerman, J.L. (1977), The municipal accounting maze: An analysis of political incentives, *Journal of Accounting Research*, Vol. 15, Supplement, pp. 107–144.

FIGURE 1. DETERMINANTS OF MUNICIPAL AUDIT FEES

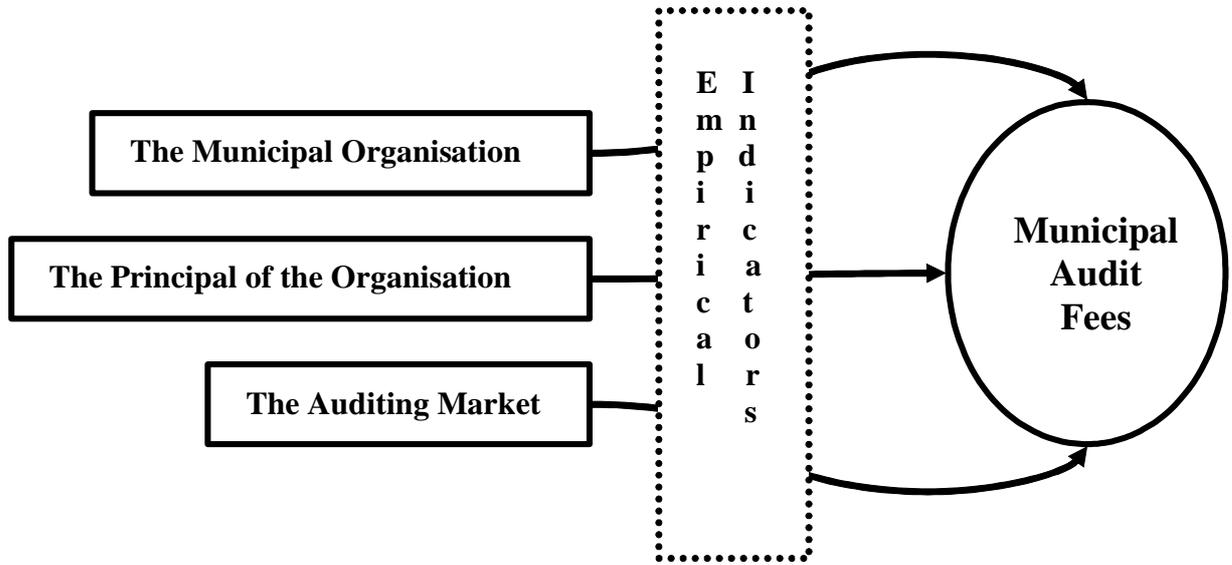


TABLE 1. HYPOTHESES EXPLAINING MUNICIPAL AUDIT FEES

	Argument of Organisation (Production cost)	Argument of Principal (Agency cost)	Argument of Audit market (Market cost)
H1. Size of organisation	Pos	Pos	Neg
H2. Financial result	Neg	Neg	Neg
H3. Departmentalisation	Neg	Pos	
H4. Disintegrated organisation	Neg		
H5. Political competition	Pos	Pos	
H6a. Tax base		Pos	
H6b. Tax base		Neg	
H7. Tax rate		Pos	
H8. Internal audit office	Neg		
H9. Big 4 auditing firms		Pos	Pos
H10. Specialised audit firm		Pos	Pos
H11. Sparsely populated municipalities			Pos

TABLE 2 DESCRIPTIVE STATISTICS AND CORRELATION MATRIX

Variable	Mean	Stddev	AFT	INHAB	TURN OVER	FINRES	DEPORG	MUCO	PCOMP	TAX BASE	TAX RATE	IAOFF	BIG4	SPECAF	SPOPM
AFI	39.9	16.2	.88**	-.24**	-.21**	-.10	-.37**	-.26**	.22**	-.39**	.36**	-.04	.06	.18**	.52**
AFT	598	221	X	-.28**	-.28**	-.13	-.42**	-.43**	.14*	-.35**	.21**	-.08	.1	.19**	.32**
INHAB	33798	64871		X	.98**	-.42**	.80**	.37**	-.19**	.26**	-.28**	.62**	-.53**	-.18**	-.14*
1.TURNOVER	2331	4755			X	-.34**	.79**	.42**	-.18**	.24**	-.24**	.63**	-.54**	-.18**	-.13*
2. FINRES [†]	5.7	0.11				X	-.18**	.10	.04	-.01	.09	-.15*	.14	.03	-.04
3. DEPORG	8.6	3.5					X	.50**	-.24**	.27**	-.26**	.41**	-.35**	-.1	-.21**
4. MUCO	0.27	0.07						X	-.06	.15*	-.11	.18**	-.16*	-.08	-.14*
5. PCOMP	2429	447							X	.01	.20**	-.08	.11	.00	.16**
6. TAXBASE	138905	16091								X	-.49**	.07	-.06	-.15*	-.27
7. TAXRATE	21.4	1.05									X	-.12	.09	.15*	.36*
8. IAOFF	0.03											X	-.88*	-.25**	-.06
9. BIG4	0.96												X	.28**	.07
10. SPECAF	0.66													X	.15*
11. SPOPM	.12														X

* : sign at 0.05 level; ** : sign at 0.01 level; † : log-transformed value

TABLE 3. MUNICIPAL AUDIT FEE (2005 data)

<i>Variable</i>	<i>Expected sign</i>	<i>AFI</i>	<i>AFI</i>	<i>AFI</i>	<i>AFT</i>	<i>AFT</i>	<i>AFT</i>
Intercept		150 ^{**} (50.2)	158 ^{**} 50.2	158 ^{**} (50.1)	3022 ^{**} 724	3105 ^{**} 724	3113 ^{**} 718
2. FINRES [‡]	-	-18.1 [*] (8.0)	-18.3 [*] 8.04	-19.4 [*] 8.01	-264 [*] 115	-270 [*] 116	-282 [*] 115
3. DEPORG	- or +	-1.04 ^{**} .32	-.97 ^{**} .31	-.86 ^{**} .30	-15.6 ^{**} 4.58	-14.4 ^{**} 4.48	-13.5 ^{**} 4.3
4. MUCO	-	-14.0 14.1	-14.3 14.9	-13.4 14.9	-835 ^{**} 214	-839 [*] 214	-822 ^{**} 213
5. PCOMP	-	.004 [*] .002	.004 [*] .002	.004 [*] .002	.03 .03	.03 .03	.03 .03
6. TAXBASE	+ / -	-.001 ^{**} .001	-.001 ^{**} .001	-.001 ^{**} .001	-.003 ^{**} .001	-.003 ^{**} .001	-.003 ^{**} .001
7. TAXRATE	+	1.02 .96	.94 .96	.86 .96	-9.48 13.8	-10.3 13.9	-11.9 13.8
8. IAOFF	-	8.9 [†] 5.3	-	-	97.6 76.5	-	-
9. BIG4	+	-	-5.82 4.57	-	-	-38.3 65.9	-
10. SPECAF	+	-	-	2.44 1.77	-	-	49.6 [†] 25.4
11. SPOPM	+	18.7 ^{**} 2.76	18.8 ^{**} 2.77	18.4 ^{**} 2.78	123.4 ^{**} 39.8	124 ^{**} 39.9	116.8 ^{**} 39.8
R2		.43	.42	.43	.36	.36	.36
Adj R2		.41	.40	.40	.34	.33	.34
F-statistic		21.0 ^{**}	20.7 ^{**}	20.78 ^{**}	15.8 ^{**}	15.5 ^{**}	16.2 ^{**}

[†] sign at 0.1 level; * : sign at 0.05 level; ** : sign at 0.01 level; (t-statistics); [‡] : log-transformed value

TABLE 4. SUMMARY OF HYPOTHESES AND TESTS EXPLAINING MUNICIPAL AUDIT FEES

	Argument of Organisation (Production cost)	Argument of Principal (Agency cost)	Argument of Audit market (Market cost)	AFI	AFT
H1. Size of organisation	Pos	Pos	Neg	Pos	Pos
H2. Financial result	Neg	Neg	Neg	Neg	Neg
H3. Departmentalisation	Neg	Pos		Neg	Neg
H4. Disintegrated organisation	Neg				Neg
H5. Political competition	Pos	Pos		Neg	
H6a. Tax base		Pos		Neg	Neg
H6b. Tax base		Neg		Neg	Neg
H7. Tax rate		Pos			
H8. Internal audit office	Neg			Pos	
H9. Big 4 auditing firms		Pos	Pos		
H10. Specialised audit firm		Pos	Pos		Pos
H11. Sparsely populated municipalities			Pos	Pos	Pos
<i>Number of hypotheses</i>	6	9	5		
<i>Significant variables</i>	5	6	4		