

**Auditor Independence and Non-Audit Services:
A Literature Review**

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TABLE OF CONTENTS

	<i>Page</i>
<i>List of tables and list of figures</i>	v
<i>About the authors</i>	vi
<i>List of abbreviations</i>	vii
<i>Executive summary</i>	ix
Part 1 Auditor independence	
1 Introduction	1
1.1 The role of audit in regulating capital markets	1
1.2 The ‘problem’ of non-audit services (NAS)	1
1.3 The current UK regulatory and professional environment	2
1.4 Motivation for this study	3
1.5 Structure of report	3
2 Auditor independence	4
2.1 Introduction	4
2.2 Definitions of auditor independence	4
2.3 Economic models of auditor independence not including NAS	5
2.4 Models of auditor pricing and independence in the presence of NAS	5
2.5 Economic power models of auditor independence	8
2.6 Moral psychology, ethical reasoning and independence	8
2.7 Broader based studies into auditor decision making	9
2.8 Summary and comments	11
Part 2 Current regulatory frameworks	
3 Auditor independence and NAS: analysis of current regulatory frameworks	13
3.1 Introduction	13
3.2 Regulation of auditor independence	13
3.3 Independence in professional and legal regulatory frameworks	13
3.4 Independence and NAS	19
3.5 Overall economic dependence	22
3.6 Small companies	22
3.7 Summary and comments	23
Part 3 Empirical studies of NAS	
4 Methods	25
4.1 Literature search procedures adopted	25
4.2 Review procedures adopted and classification of empirical studies	26
5 Descriptive studies of the nature and magnitude of NAS fees	28
5.1 Introduction	28
5.2 US studies	28
5.3 UK studies	28
5.4 Summary and comments	30

6	Determinants of the NAS purchase decision	31
	6.1 Introduction	31
	6.2 Empirical studies	31
	6.3 Summary and comments	33
7	Impact of joint provision and joint provision disclosures on auditor independence perceptions and decisions: survey and experimental studies	34
	7.1 Introduction	34
	7.2 Research design issues	34
	7.3 Studies including NAS as a variable	35
	7.4 Experimental studies of actual auditor independence	43
	7.5 Studies of disclosures of NAS provision	44
	7.6 Summary and comments	45
8	Associations between joint provision, pricing and audit tenure	46
	8.1 Introduction	46
	8.2 Economies of scope	46
	8.3 Modelling knowledge spillovers	46
	8.4 Evidence of economies of scope using fee data	47
	8.5 Audit effort	50
	8.6 Lowballing	51
	8.7 Auditor tenure and auditor change studies	52
	8.8 Summary and comments	52
9	Evidence of association between joint provision and audit opinion decisions/audit failures	54
	9.1 Introduction	54
	9.2 Empirical studies	54
	9.3 Evidence from audit failures	55
	9.4 Summary and comments	55
10	Evidence of association between NAS fees and earnings quality	56
	10.1 Introduction	56
	10.2 Earnings management and the measurement problem	56
	10.3 Empirical studies	56
	10.4 Summary and comments	58
Part 4 Overall Summary and conclusions		
11	Overall Summary and conclusions	59
	11.1 Overall Summary	59
	11.2 Conclusions	61
	References	63

LIST OF TABLES

	<i>Page</i>	
3.1	Definitions and comments about independence from regulatory frameworks	15
3.2	Recommended treatment of NAS in regulatory frameworks	21
3.3	Number of audit firms acting for listed companies	23
5.1	Analysis of fee income of the Big 5: 1990 and 1999	28
5.2	NAS purchases (by Service Category) by UK listed companies	29
5.3	Analysis of fee income by service category: 2001-2002	30
7.1	Perceptions of the extent to which total fee dependence and NAS as a proportion of audit fee undermine auditor independence	41

LIST OF FIGURES

	<i>Page</i>	
4.1	Types of empirical study relating to joint provision	27

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LIST OF ABBREVIATIONS

ACCA	Association of Chartered Certified Accountants
AICPA	American Institute of Certified Public Accountants
APB	Auditing Practices Board
ARS	Accounting Series Release
ASB	Accounting Standards Board
CIMA	Chartered Institute of Management Accountants
EC	European Commission
ESB	Ethics Standards Board
ICAEW	Institute of Chartered Accountants in England and Wales
ICAI	Institute of Chartered Accountants in Ireland
ICAS	The Institute of Chartered Accountants of Scotland
IFAC	International Federation of Accountants
ISB	Independence Standards Board
JMU	Joint Monitoring Unit
NAO	National Audit Office
NAS	Non-audit services
POB	Public Oversight Board
RSA	Royal Society for the Encouragement of the Arts, Manufacturers and Commerce
SEC	Securities and Exchange Commission

Auditor Independence and Non-audit Services: A Literature Review

EXECUTIVE SUMMARY

1. INTRODUCTION

This executive summary is divided into three sections. This section sets out the motivation and scope of the study. Section 2 summarises the key findings and section 3 offers conclusions

1.1 Motivation for this study

One of the major public concerns which has emerged from the Enron collapse has been the extent to which audit firms are providing non-audit services (NAS) to their audit clients. The fees generated by NAS have been rising more rapidly than audit fees. This has led to widespread beliefs that provision of NAS can cause the auditors to compromise their independence. There are two main concerns. First, auditors may not stand up to management because they wish to retain the additional income from NAS which is in management's gift and, second, the provision of a range of services to management may lead the auditor to identify too closely with management and lose scepticism. NAS may include consulting services such as systems design, compliance-related services, such as taxation and accounting advice, and assurance-related services, such as due diligence.

Because of public concerns about possible links between the provision of NAS and auditor independence, the Institute of Chartered Accountants in England and Wales (ICAEW) asked us, as independent academics, to conduct a review of 'available research, professional and academic, on the provision of non-audit services by audit firms to audit clients'.

1.2 The scope of this study

We have conducted a comprehensive search of recognised databases both for published and recently written unpublished studies into NAS. We have reviewed and summarised original theoretical and empirical studies but we have excluded commentaries and opinion pieces. In order to set this review in context, we have also considered two areas of literature relating to auditor independence, being theories and models of auditor independence which have relevance to NAS, and the provisions relating to independence and NAS found in current professional and regulatory frameworks.

1.3 Academic research into auditor independence and NAS

The audit *process* (i.e. the means by which an audit opinion is reached) is not publicly observable and access by researchers to real-life situations on a significant scale is not possible. Researchers, therefore, have adopted other methods of investigation. These include: theory development; mathematical models; questionnaire studies; case studies; experiments with groups of participants using artificially created datasets; and statistical analyses of data from publicly available sources, mainly published financial information.

All research methods have strengths and limitations and this should be borne in mind when evaluating the results of studies. Formal economic models focus attention on key issues which are drawn from logical theory. Their limitation lies in simplifying assumptions which are made, such that they do not adequately reflect the complexities of real-life situations. Statistical analyses of data can be limited by the use of sometimes questionable proxy measures for the key variables of interest. Case studies represent real-life situations and are valuable for theory development but by definition are small in number and cannot be assumed to be representative of the entire population. Questionnaires elicit a wide range of views but low response rates may produce non-response bias (i.e. an unrepresentative overall view) and declared responses may only partially reflect the real views of the respondents. A similar risk lies in experimental studies in that the subjects' responses may not truly reflect their real-life behaviour. However, experiments are valuable in eliciting behaviour patterns from different groups. Where different research methods lead to the same answers, our confidence in the answers is thereby considerably increased.

Much of the research into NAS has been carried out in the USA. Readers should be aware that research findings in different regulatory environments do not necessarily translate satisfactorily into others.

2. KEY FINDINGS

Key findings under each chapter heading are set out below, followed by a summary and conclusion.

2.1 Models of Auditor Independence: chapter 2

Formal models of auditor independence assume economic rationality and generally ignore behavioural issues on the part of market participants. These studies on the whole show that the joint provision of audit and NAS by incumbent auditors does not adversely affect auditor independence. This is a significant finding, in that it allows us to see that economic incentives generally produce independent behaviour.

Other studies recognise behavioural factors, drawing upon concepts in moral psychology. Experimental studies have found that the individual auditor's level of ethical cognition has a significant impact on audit decisions. The influence of the audit firm's culture is beginning to be explored and is already emerging as an important influence.

There are also recently developed broader-based frameworks of auditor decision making which are not formal models, but which encompass a more comprehensive set of influences on auditor behaviour, encompassing economic, behavioural, regulatory and contextual influences. One of these frameworks has been developed from recent UK case studies of real-life audit conflict situations. These frameworks confirm the important influence on decision making of the individual's level of ethical cognition and the culture of the audit firm.

2.2 Current regulatory frameworks: chapter 3

Six auditor independence frameworks are reviewed, those for the UK, the US (SEC), Australia, EC, IFAC and Ontario. Apart from the US framework, which is predominantly rule-based, with a set of prohibitions, a principles-based approach is taken. (The SEC framework sets out principles but these are outside the actual rules.)

Independence is seen as a risk continuum, rather than an absolute, and judgments about the seriousness of the threat to independence are balanced against the effectiveness of the safeguards available. Five threats are identified: self-interest, self-review, advocacy, familiarity or trust, and intimidation. There are four main sources of safeguards: the regulatory framework, the audit firm's internal quality controls, the client company's corporate governance and refusal to act. Where no safeguard could be deemed adequate (such as an auditor taking management decisions) the frameworks contain a prohibition. In relation to the provision of NAS the threats are seen as wide-ranging. Only intimidation does not appear as a relevant threat. There is less convergence among the frameworks about the level of threat which arises from internal audit and the installation of financial information systems than exists for the other threats. With the exception of the UK framework, where the recommended upper level of economic dependence for a firm is defined (10% of total firm income, including NAS from one listed company client), the frameworks are generally imprecise about an acceptable level of economic dependence for a firm, a specific office of a firm or an individual partner.

With the exception of SEC which is directed only at listed companies, the frameworks recognise that flexibility is needed in applying the principles to the auditors of small entities.

The frameworks all identify the importance of both independence in fact (i.e. independent behaviour) and independence in appearance (i.e. the belief that auditors are independent). The current benchmark for measuring independence in appearance is what a well-informed investor or third party would believe. The threats and safeguards do not distinguish between the defence of independence in appearance and independence in fact.

2.3 Descriptive studies of the amount and type of NAS: chapter 5

In some jurisdictions and time periods, there has been no requirement for companies to disclose the total amount of NAS purchased from their auditor. Even where this is a requirement, there is generally no breakdown of the total by service type (e.g. UK). In these circumstances, evidence is collected via company surveys. This generates less reliable data, due to the risk of response bias. In the UK, the ratio of non-audit to audit fees paid to the incumbent auditor has risen to 300% for the FTSE 100 companies (up from 98% in 1996). There is some evidence that taxation services predominate and that the overall ratio of NAS to audit fees is higher in the UK than in the US.

2.4 Determinants of the purchase decision: chapter 6

Researchers have investigated three aspects of the NAS purchase decision: the choice between the incumbent auditor or another provider; the types of service purchased; and the absolute and relative amounts of NAS. A major argument is that those

companies with higher agency costs (i.e. companies where there is perceived to be a higher risk that the directors will not act in the best interests of the shareholders) have greater need of the audit as a monitoring device. The value of the audit is reduced if there are independence concerns and so companies with high agency costs are predicted to purchase less NAS from their auditor.

Studies show that companies with higher agency costs, more effective audit committees and a lower proportion of performance-based management compensation have lower NAS fee ratios. The overall explanatory power of these models is, however, low, since the amount of variation being explained is in the region of only 10-20%. It may be that factors that are systematically related to the purchase decision have been omitted and/or the decision has inherently random elements.

2.5 Perceptions of independence: chapter 7

Most studies either focus exclusively on actual or proposed ethical rules or investigate a very limited number of threat factors combined in experimental ‘case studies’.

There are many studies on the impact of NAS provision on auditor independence perceptions and they offer conflicting results. Most of these studies clearly indicate that NAS provision impairs the independence perceptions of a significant proportion of respondents, and this is an important finding. Others suggest that independence perceptions are either unaffected or enhanced, and yet other studies show that respondents’ decisions can be unaffected even if independence perceptions are negatively affected.

Experimental studies of actual auditor independence in settings where joint provision occurs have tended to show that auditors, if anything, behave *more* independently. They become more critical when faced with the self-review threat and increase their effort generally. The introduction of disclosures regarding NAS provision by auditors appears not to result in significant changes to NAS purchase decisions or negative share price reactions.

2.6 Association between audit and non-audit pricing: chapter 8

The joint provision of audit and NAS is attractive to the auditor and the client company through cost savings that arise through joint production. If these cost savings are retained in whole or in part by the auditor, then benefits accrue to the auditor, increasing the auditor’s economic dependence. For this reason the pricing of joint audit and NAS provision have been studied as an indirect means of assessing auditor independence.

There is a persistent general finding that audit and NAS fees paid to the auditor are significantly positively associated (i.e. higher NAS fees are associated with higher audit fees). However, the interpretation of this finding is problematic. There is no evidence from these studies that cost savings from joint provision are being passed on to the client. Nor is there evidence that audit is being used as a loss leader. A more conclusive test for cost interdependence would require explicit separation of the price and quantity components of fees, which would require data on the internal costing of audit firms.

There is limited evidence that, in the presence of provision of audit and NAS, audit firms increase audit effort, do not reduce fees on initial audit engagements and are no more likely to enjoy longer periods of tenure. These findings do not suggest the existence of auditor independence problems.

2.7 Association of NAS provision with the audit opinion and litigation: chapter 9

In this group of studies, the auditor's propensity to issue qualified audit reports (specifically going concern qualifications) is used as a measure of independence in fact. There is a risk of self-selection bias in these studies, in that the circumstances of client companies that acquire non-audit services may well be systematically different from those who do not. For these reasons, even in cases where an association is observed, it cannot readily be interpreted as auditors compromising their independence to retain high NAS fees.

A similar, though smaller strand of literature has examined the characteristics of cases of alleged audit failure to reveal whether joint NAS provision is a feature. It is not.

2.8 Association with earnings quality: chapter 10

Recently studies have begun to examine whether the provision of NAS impacts upon accounting numbers. The rationale for these studies is that earnings quality (measured in terms of the degree of earnings management) is, in part, a function of auditor independence. The evidence is mixed. Some studies find that NAS provision is negatively associated with earnings quality while others do not. One or two studies find this association only for small audit firms.

3. CONCLUSIONS

What is clear from this review of the literature concerning non-audit services is that academic studies have found it extremely difficult to address the principal research question of interest, which is 'Does the joint provision of audit and non-audit services undermine auditor independence?' This difficulty arises for two main reasons. First, independence in fact is unobservable and so indirect (or 'proxy') measures (sometimes of questionable validity) have been used. Second, there has been a lack of publicly available data of relevance. For example, even where the amount of NAS fee is disclosed, the split across service types is not. The audit firms themselves disclose virtually no information regarding the different lines of business.

Looking across all the available academic studies (theoretical and empirical), there is very little clear support for the view that joint provision impairs independence in fact. There is a reasonable consensus, however, that joint provision adversely affects perceptions, i.e. the appearance, of auditor independence.

PART 1 AUDITOR INDEPENDENCE

CHAPTER 1 INTRODUCTION

1.1 The role of audit in regulating capital markets

The collapse of Enron in the US and the demise of Andersen have generally undermined confidence in the world's capital markets. Much of the concern has focused on accounting and auditing practices, and particularly on the independence of auditors. Auditor independence is fundamental to public confidence in the audit process and the reliability of auditors' reports. Audit is an essential part of the framework which supports our capital markets. The audit report adds value to the financial statements provided by managers (capital seekers) to shareholders (capital providers) through the independent verification it provides (Johnstone, Sutton and Warfield, 2001). The audit is not just a benefit to investors. It also reduces the cost of information exchange for both sides (Dopuch and Simunic, 1980, 1982) and benefits management by providing a signalling mechanism to the markets that the information which management is providing is reliable. It has been further argued that the auditors' liability insurance serves to indemnify investors against losses.

If the auditor is not seen to act independently of management, then the audit loses its value to all parties. A significant and persistent criticism of auditors, which has been raised many times over many years, is that the joint provision by auditors of other services to management alongside the audit, undermines their independence.

1.2 The 'problem' of non-audit services (NAS)

Non-audit services (NAS) may be any services other than audit provided to an audit client by an incumbent auditor. Such services may be referred to in the professional and academic press as management advisory services or consulting, but NAS also includes compliance related services (such as taxation and accounting advice) and assurance related services (such as due diligence and internal audit). Compliance related services are closely linked to the annual financial reporting round (Beattie, Brandt and Fearnley, 1996). The use of the term 'consultancy' for all NAS is somewhat misleading.

In the Enron case, it has been widely reported that Andersen received \$25m in audit fees and \$27m for non-audit services. There have been many criticisms about the potential conflict of interest faced by audit firms who receive large consultancy fees from their audit clients (e.g. Financial Times, 2001a). Concerns are expressed about how an auditor with a statutory responsibility to company shareholders can handle a commercial relationship with the company's management and remain impartial (e.g. Financial Times, 2001b).

The value of NAS as disclosed in the accounts of large companies in the UK has been steadily increasing. According to *Accountancy* magazine's 2001 survey of fees paid to audit firms by the FTSE 100 companies (*Accountancy*, 2001), audit fees increased by 7% from the previous year, whereas non-audit fees increased by 28%. The large accounting

firms have, over the last 10 years, transformed themselves from audit firms into multi-disciplinary professional service organisations and the issue of auditor independence has strongly re-emerged as a concern (Kornish and Levine, 2000). Jeppesen (1998) further argues that changing audit methodologies in the larger firms are blurring the boundaries between auditing and consulting and undermining the independence of the audit process itself.

It is also interesting that an Independent Oversight Board (IOB) set up by Andersen in the US, after the Enron problems emerged but before the firm collapsed, recommended that some consulting services provided by the firm should be separated into partnerships managed independently from audit partners and without financial interdependence (Andersen, 2002). Some services remaining in the audit practice should not be provided to audit clients.¹ However, the main thrust of the IOB's recommendations was a strengthening of internal quality control over auditing throughout the firm.

1.3 The current UK regulatory and professional environment

Audit firms have defended themselves robustly against criticism that NAS undermines independence, insisting that integrity is crucially important to their existence. Representatives of the UK profession have also warned against over-reacting by assuming those problems arising in the US will automatically occur in the UK, where the regulatory framework is different. At the same time there is a recognition of the need to review and make changes to the UK framework where it is deemed necessary (Wyman, 2002). The Chairman of the UK Financial Services Authority (FSA) stated that the FSA intended to consult on the current UK provisions in relation to NAS (Davies, 2002). There are also indications that, post Enron, company boards are willing to pay higher audit fees for higher levels of assurance, but at the same time some boards are buying fewer NAS from their auditors (Parker, 2002).

The regulatory framework in the UK in respect of NAS is two-pronged. First, listed and other large companies have, since 1992,² been required to disclose in their annual report the amount of NAS fees paid to their incumbent auditor. Second, the auditor independence framework, to which all UK registered auditors must adhere, provides guidance as to which NAS an audit firm can provide, with appropriate safeguards, without compromising independence. The services for which adequate safeguards cannot be put in place are not allowed. The EC's recent Recommendation on Statutory Auditors' Independence (EC, 2002) suggests that NAS disclosure should be further broken down into assurance, tax advisory and other, with details being provided as to the composition of 'other'. The Recommendation also restricts the range of NAS that an audit firm should

¹The services which the IOB recommended should not be provided by the audit practice were: substantial information and communication technology (ICT); strategic planning; the practice of law; executive recruitment; and certain areas of 'aggressive' tax planning and advocacy unrelated to audit. The services which should remain in the audit practice but not be provided to audit clients are: outsourced internal audit; executive taxation; and limited ICT design for smaller clients. Services which should continue to be provided to audit clients are: tax preparation and compliance; due diligence; and valuation of assets and auditing of employee benefits as permitted by regulation.

² It is interesting that disclosure of non-audit services fees in the US (apart from a earlier brief period) was not required until the SEC revised its independence rules in 2000 (SEC, 2000).

provide. Adoption of the entire EC Recommendation is currently being progressed in the UK.

1.4 Motivation for this study

Much of the current publicly expressed concern about the integrity of auditors and the influence of NAS on auditor independence is based on opinion and assertion relating principally to the current *causes célèbres*, and observers generally are not looking beyond these cases. As independent academics, we have been asked by the Institute of Chartered Accountants in England & Wales (ICAEW) to conduct a review of ‘available research, professional and academic, on the provision of non-audit services by audit firms to audit clients’. Our review, therefore, covers research of a theoretical and empirical nature but excludes commentaries and opinion pieces. The majority of research into NAS has been conducted in the US environment. Gwilliam (1987, ch.3) outlines the differences between the US and UK accounting and auditing contexts and argues against the general assumption that US research results translate unambiguously to the UK.

1.5 Structure of report

The provision of NAS by the incumbent auditor raises particular concerns about auditor independence. Therefore, to provide the appropriate setting for the understanding of many of the empirical studies reviewed, we have included two chapters which focus on auditor independence. Chapter 2, which together with this introduction forms *part one* of our report, reviews the principal models of auditor independence, covering both economic and behavioural models. This should not, however, be regarded as a comprehensive review of the large body of auditor independence literature.

In order to provide a regulatory context within which the results of this research can be evaluated, relevant aspects of the current regulatory frameworks regarding auditor independence and NAS in several countries are presented and reviewed in chapter 3, which forms *part two* of our report. No attempt is made to trace the historical development of these rules and guidelines.

In *part three*, we present a comprehensive review of empirical studies into NAS. Following a detailed explanation in chapter four of the methods used to search the academic literature, our review of empirical studies relating to NAS is contained in chapters 5 to 10. Our final chapter, *part four*, presents an overall summary and conclusions.

CHAPTER 2 AUDITOR INDEPENDENCE

2.1 Introduction

In this chapter we focus primarily on selected non-empirical research studies relating to auditor independence and in some cases its relationship with NAS. We also review a number of experimental studies into the moral and ethical reasoning of auditors themselves. The non-empirical research studies range from formal mathematical models to studies that use logical reasoning to drive out conclusions. Modelling is a useful aid to understanding because it allows us to simplify a very complex reality and focus attention on certain key variables and relationships. Of course it is important to focus on the right set of variables and make sensible assumptions so that the model, whilst a simplification of reality, has good predictive power. Formal models tend to focus on economic variables and assume economic rationality on the part of market participants (company management, auditors, shareholders, lenders, and the investing public).

Unfortunately, no formal ‘theory’ of auditor independence exists and thus, until recently, analytical models concerning independence have been very limited. A large body of research has therefore focused upon identifying the factors that potentially influence independence based on rational argument. A useful technique for exposing the key variables and relationships is the development of broad frameworks. This type of research is able to incorporate behavioural (i.e. psychological and ethical) as well as economic variables.

In the absence of a theory of independence, we lead into our review of these studies by briefly considering some definitions of auditor independence.

2.2 Definitions of auditor independence

The concept of independence has proved difficult to define precisely (Antle, 1984, p.1; Schuetze, 1994, p.69). Representative definitions are:

- ‘the conditional probability of reporting a discovered breach’ (DeAngelo, 1981a, p.186);
- ‘the ability to resist client pressure’ (Knapp, 1985);
- ‘an attitude/state of mind’ (AICPA, 1992; Moizer, 1994, p.19; Schuetze, 1994, p.69);
- a function of character, with the attributes of integrity and trustworthiness being key (Magill and Previts, 1991);
- an absence of interests that create an unacceptable risk of bias – the AICPA White Paper definition (AICPA, 1997); and
- ‘freedom from those pressures and other factors that compromise, or can reasonably be expected to compromise, an auditor’s ability to make unbiased audit decisions’ (ISB, 2000).

These representative definitions all reflect the importance of *objectivity* (ability to suppress biases) and *integrity* (willingness to express an opinion that truthfully reflects the evaluation of what has been discovered during the audit) as the two key aspects of auditor

independence (Dunmore and Falk, 2001, p.8). Because independent behaviour (or independence *in fact*) is generally unobservable, the *appearance* of independence assumes prime importance. Empirical evidence also suggests that, rather than being an absolute concept, independence is a matter of degree (Bartlett, 1993).

2.3 Economic models of auditor independence not including NAS

DeAngelo's (1981b) multi-period economic model is perhaps the most widely known. Audit firms obtain revenue directly from the auditee, with directors in many countries having de facto control over the appointment and remuneration of the auditor. Further, incumbent auditors earn client-specific quasi-rents which, by providing an incentive to 'cheat' to retain the client company, intuitively lower auditor independence. A countervailing force is the existence of similar rents from other auditees, which may be lost if the auditor is 'caught' (DeAngelo, 1981b). The relative strength of these incentives clearly depends upon the significance of the auditee to the audit firm's portfolio, the perceived riskiness of the client and the risk of getting 'caught'. These incentives can operate at firm, office, and partner levels.

Antle's (1982; 1984) single-period economic model draws upon mathematical agency theory. Both client management (principal) and the auditor (agent) are assumed to be effort averse and utility maximising. Management has incentives to misrepresent the financial condition of the company and, in the absence of some form of restraint, the auditor will not expend effort to identify and report this, to the detriment of the owner (Kornish and Levine 2000, Moizer, 1997, p59)

Grout, Jewitt, Pong and Whittington (1994) present a model that distinguishes hard from soft information available to auditors, both of which are used in the exercise of professional judgment. The exercise of professional judgement enhances the informational value of auditing to third parties. It is argued that taking measures which are too firm to ensure absolute auditor independence may *not* be in the interests of investors and creditors. This is because the auditor would tend to carry out 'defensive audits' and only use hard information that can be used as a defense in litigation (Arruñada, 1999a, p.13), thereby reducing the scope for the exercise of professional judgment.

2.4 Models of auditor pricing and independence in the presence of NAS

There have been few attempts to model this complex situation and we have found only one published study by Arruñada and two unpublished studies.

2.4.1 Arruñada's study

Arruñada presents a very comprehensive and thorough analysis of the economics of audit quality and the issue of NAS in a book (1999a), a summary of which is published in an academic article (1999b). The analysis begins by examining the private (i.e. market-based) mechanisms used to safeguard quality in auditing. Reputation acts as a quality safeguard because it allows higher prices to be charged and hence 'quasi-rents' to be earned. He identifies three low-cost and three high-cost strategies for generating performance incentives to the audit firm:

low cost strategies to protect and/or enhance reputation

- ensure reputational penalties are in line with breaches, i.e. avoid undue loss of reputation for relatively minor infringements;
- the existence of client-specific assets acts as a safeguard for firms with a varied client base (if independence is compromised in respect of one client, the quasi-rents associated with that client are retained, but those relating to all other clients are endangered);
- the provision of non-audit services means that the protection of reputation and other safeguards are used more intensively;

high-cost strategies to protect and/or enhance reputation

- advertising and other marketing investments that generate ‘brand name capital’ (though this is banned or restricted in many countries);
- raise the barriers to entry (though this involves a serious risk of monopoly and regulatory capture); and
- reinforce regulatory supervision (though costs can be excessive and the beneficial effect on audit quality is unproven).

Auditors seek to provide NAS because of the considerable *economies of scope* that ensue, i.e. cost savings that arise when both types of service are provided by the same firm. These economies of scope are of two types: *knowledge spillovers* that originate in the transfer of information and knowledge; and *contractual economies* that arise from making better use of assets and/or safeguards already developed when contracting and ensuring quality in auditing.

Arruñada’s analysis of the consequences of NAS provision focuses on the impact on costs, quality, competition and independence. The central debate concerns whether the positive effect of reduced costs due to economies of scope outweigh the *potential* negative impact on quality, competition and independence.

Addressing quality issues first, NAS provision enhances the auditor’s technical competence (by broadening his knowledge of the business) and make it possible for audit firms to employ specialised experts in a cost-effective manner, thus improving and extending their professional judgement.

The discussion of competition issues draws upon Arruñada’s careful presentation of the economic rationale for introductory pricing and inter-temporal competition. It is shown that standard industrial organisation analysis shows that cost savings obtained from the joint provision of both audit and NAS will be passed on to clients as a price reduction in both markets and at different times (at time of initial or subsequent contracts) depending upon the competitive circumstances (such as the bargaining power of each party). It is further shown that ‘using introductory pricing in auditing or using auditing as a loss leader then appears as the simple spontaneous outcome of inter-temporal competition when there are learning and rotation costs’ (1999a, p.169). He goes on: ‘[t]his intertemporal competitive process is optimal from the public point of view. A better

understanding of the phenomenon will help to avoid the still common mistake of considering the practice of introductory pricing at less than the cost of the initial audit, or “low-balling”, as uncompetitive or prejudicial to independence’ (p.169).

Finally, the impact of NAS on independence can be teased out. NAS provision increases client-specific and firm-specific assets. The latter have a positive effect on independence while the effect of the former is to encourage independence where the degree of client diversification is sufficiently high. The positive impact of NAS provision on independence is reinforced by the independence policies and rules adopted by firms and by the profession (p.168).

2.4.2 *Unpublished studies*

Kornish and Levine (2000) use a common agency model similar to Antle’s (1984), but with the inclusion of the audit committee as a second principal. They conclude that, in a single-period setting, when managers have discretion over NAS fees, the joint provision of NAS and audit services may influence auditors to issue reports that are more favourable than warranted. They show in their model that removing the current restriction on contingent audit fees (i.e. fees that depend on the outcome of the audit report) allows audit committees to offset the incentives provided by management and instead provide the auditor with incentives to report truthfully. Auditor remuneration and retention is linked to audit reports that show relatively low levels of earnings. This result has been viewed by auditing professionals as ‘surprising’, since non-contingent fees have always been believed to promote auditor independence.

Extending the model to a multi-period setting, audit committees can introduce incentives to motivate the auditor to tell the truth. Specifically, they can make retention decisions contingent upon outcome.

In a multi-period setting, if the client does not renew the audit engagement, the auditor will suffer an economic loss, the size of which is increased if there are ‘tied’ NAS. However the expected cost of legal or disciplinary sanctions may offset this economic loss. The auditor’s decision whether to compromise independence depends on the trade-off between these costs and benefits.³ Dunmore and Falk (2001) offer an audit-pricing model, with low-balling, that assumes joint provision of audit and non-audit services to the client company. In broad terms, their findings do not support the common view that the provision of NAS by auditors to their audit clients automatically weakens auditor independence. It shows that SEC’s recent rule disallowing the provision of certain NAS ‘is likely to increase the cost of audit services without reducing the economic incentives to compromise independence and, thus, to be economically undesirable’ (p.30).

Their model assumes that:

- the incumbent auditor gains preferential access to NAS work from the client;
- tacit understandings between auditor and client company allow auditors to commit to a particular view of a disputed issue; and

³ The impact of personal values and ethics are ignored in such models.

- the costs of auditor switching and the litigation/disciplinary costs to the auditor are opinion-contingent.

It is formally demonstrated that, provided the market for audit services is sufficiently competitive, then the effect of ‘tied’ NAS work is simply to subsidise ongoing audit fees from expected NAS profits. The NAS profits do not affect the amount of low-balling and make no contribution to the economic incentives for an auditor to compromise independence. However, audit firms without ‘tied’ NAS profits will be unable to charge a competitive price for audit work and may be driven from the market.

2.5 Economic power models of auditor independence

Economic models, by their very nature, have very limiting assumptions. The early power models of Goldman and Barlev (1974) and Nichols and Price (1976) take a more complex view of auditor-client interactions than the utility maximisation models. They focus on the parties’ resources and moderating variables such as pressure from the auditor’s role set, litigation, and reputation loss. However, both models are restricted to the analysis of a single period.

Goldman and Barlev (1974) argue that the more NAS that are provided to the client company, the greater will be the dependence of company management on the audit firm and hence the greater will be management’s desire not to lose that firm’s services. Somewhat paradoxically, therefore, the greater the audit firm’s economic interest, the greater will be its independence (Moizer, 1997, p.64)

2.6 Moral psychology, ethical reasoning and independence

This line of research focuses on the auditor’s personal attributes, rather than outside influences, in the formation of individual judgments. This research draws upon moral psychology to investigate the cognitive process underlying ethical reasoning and judgement formation. Moizer (1997) identifies two types of ethical reasoning:

- *consequentialism*, whereby actions are judged in terms of their consequences (to self or others); and
- *deontology*, whereby some actions are deemed morally obligatory regardless of their actions.

The latter type of auditor will always report honestly. However, the former type may report dishonestly if it is in the interests of others (e.g. where a going concern qualification could bring hardship to many employees) or himself (the *consequential egoist*, i.e. the rational economic man).

2.6.1 Experimental studies

Ponemon and Gabhart (1990) use Kohlberg’s (1969) stage model of moral development and ethical cognition to examine an auditor’s implicit reasoning in the resolution of an independence conflict. This well-validated model distinguishes three levels of ethical cognition:

- *pre-conventional* – where the individual places self-interest well above the common interests of society and is sensitive to penalty attributes;

- *conventional* – where the individual conforms to the rules of society and is sensitive to affiliation attributes; and
- *post-conventional* – where the individual forms a judgment conforming to ethical principles and not to society's rules.

The findings of an experimental study using 119 audit partners and managers show that a systematic relationship between auditors' measured ethical cognition and hypothetical and audit conflict scenarios and their resolution of an independence conflict exists.⁴ They also found that independence judgments are significantly influenced by factors relating to penalty and are less sensitive to affiliation factors (i.e., living up to what is expected by people). There was also a systematic relationship between ethical cognition and auditors' priority rankings of factors influencing auditor independence. In particular, subjects at the pre-conventional level of ethical cognition ranked freedom from pressure to retain client and existence of legal liability significantly higher than subjects at the conventional level.

Windsor and Ashkanasy (1995) extend Ponemon and Gabhart's (1990) study by including economic and personal belief variables, in particular client management bargaining power and belief in a just world, in addition to the level of moral reasoning development. Three styles of auditor decision-making emerged:

- *autonomous* – auditors who were responsive to personal beliefs and were more likely to resist client management power;
- *accommodating* – auditors who responded to both personal beliefs and client management power and who were least resistant to client management pressure; and
- *pragmatic* – auditors who were responsive to client management power, irrespective of beliefs.

These three styles correspond to individuals with high, mid, and low levels of moral reasoning, respectively.

Other experimental studies carried out with auditors also show that the level of ethical cognition of the individual influences decision making (Ponemon, 1990, 1993).

The contingent influence of organisational culture, i.e. the moral atmosphere of the audit firm, is also being explored by researchers, although no clear results have yet emerged (Ashkanasy and Windsor, 1997; Sweeney and Roberts, 1997).

2.7 Broader based studies into auditor decision making

In recent years, a number of writers have attempted to develop a broadly-based framework to explain auditors' decisions. These frameworks covering economic, regulatory, behavioural and ethical factors.

⁴ This basic result is confirmed in a later study by Sweeney and Roberts (1997).

Johnstone, Sutton and Warfield (2001) present a framework for understanding the antecedents and consequences of independence risk. They identify as antecedents both incentives and judgment-based decisions. The incentives that create independence risk are:

- direct investments;
- contingent fees;
- potential employment;
- financial dependence;
- interpersonal relationships; and
- auditing work of self or firm.

The existence of a judgment-based decision that emerges from a client-auditor resolution process is a further necessary condition for independence risk to affect audit quality. This can be a difficult accounting issue, audit-conduct decisions or materiality decisions. The factors that can mitigate these threats to independence are identified as:

- corporate governance mechanisms;
- regulatory oversight;
- auditing firm policies;
- auditing firm culture (which can range from a public duty culture, through a risk management culture to a client advocacy culture); and
- individual auditor characteristics.

Catanach and Walker (1999) offer a framework for ‘audit quality’, rather than auditor independence. They suggest that audit quality is a function of two determinants of auditors’ performance: ability and professional conduct (including independence). The impact of economic incentives, market structure and audit tenure is also included. The first four of these five components of their model each comprise a number of elements.

Kleinman and Palmon (2001) argue that ‘little can be learned from dry economic models, which assume that all of us behave in a “rational” way...we are interested in the real show...where the main actors are human beings’ (p. vii). They synthesise extant research on auditor-client relationships and use this platform, together with established theories from the field of social psychology, to construct a multi-level model of these relationships. The levels considered are those of the individual, the audit firm (together comprising the micro model) and the wider environment (the macro-model).

The individual factors impacting on the auditor’s independence decision are personality factors, values, motivation, stage of life/career, and aspiration level. Group factors relate to the auditor in his work setting (his social context) and include the impact of a variety of sub-group (office) norms. Firm-level factors focus on organisational culture, organisational structures and control issues. Finally, macro-level factors include the influence of client characteristics, the history of auditor-client interactions and general environmental factors.

Beattie, Fearnley and Brandt (2001) undertake case studies of six real-life auditor-client relationships covering 22 significant interactions, using grounded theory methods to develop a model of the contextual factors influencing the outcome of accounting interactions.

The main factors are:

- level of integrity of audit engagement partner;
- company type and situation;
- effectiveness of corporate governance;
- clarity of accounting rules on issue;
- level of audit firm support and quality control; and
- quality of primary relationship.

From the analysis of the case studies they develop a taxonomy of audit partner types:

- *crusaders* have extremely high professional and personal integrity and are prepared to escalate issues;
- *safe hands* have high professional integrity; they identify closely with the client and are also prepared to escalate issues;
- *accommodators* have moderate professional integrity; they will knowingly bend the rules under pressure; and
- *trusters* have moderate professional integrity; they may be insufficiently critical and questioning in their role as auditor and may unknowingly permit rules to be bent.

Although not found in the case studies Beattie, Fearnley and Brandt (2001) suggest the theoretical possibility of there being two more partner types, these being *incompetents* and *rogues*.

It is particularly interesting that the findings from these studies identify the wide range of influences that bear on the audit process. Apart from the more obvious influences of the regulatory framework and the governance of the client company, a vital influence is found to be the personal characteristics of the individual partner and the culture and governance of the audit firm.

There are also close links between the taxonomy developed by Beattie and Fearnley from case studies, Kohlberg's model of ethical cognition and the findings of Ponemon and Gabhart (1990) and Windor and Ashkanasy (1995). These studies provide evidence that different levels of ethical cognition among individual auditors influence their decisions.

2.8 Summary and comments

It is clear that a variety of factors influence auditors' decisions. These factors are of four main types – economic, behavioural, regulatory and contextual. The analysis of economic factors using formal mathematical modelling allows the main economic incentives to be examined. Unfortunately, the analysis is often limited to simple single-period settings that are not representative of the usual auditor-client relationship. In addition, these models make a number of simplifying assumptions, some of which can be quite

restrictive. Nevertheless, these studies generally show that the joint provision of audit and NAS by incumbent auditors does not adversely affect auditor independence. This is a significant finding, in that it allows us to see that economic incentives generally act to produce independent behaviour on the part of auditors. They also permit the impact of certain regulatory interventions to be evaluated.

Economic models do not, however, recognise the complexity of human motivation. A number of writers have recently offered more complete frameworks that identify the broad range of influences on auditors' behaviour. However formal modelling at this level of complexity is not possible.

The findings from the experimental studies of ethical cognition and moral development are significant. They show the influence of ethical cognition and moral development on the individual auditor's decision making. A concern about experimental studies is that participants may provide an answer which they consider is expected rather than their true beliefs. However, the findings are supported and strengthened by other empirical and theoretical studies. Also of significance are the emerging findings that the culture of the audit firm itself is also a significant influence.

PART 2 CURRENT REGULATORY FRAMEWORKS

CHAPTER 3

AUDITOR INDEPENDENCE AND NAS: ANALYSIS OF CURRENT REGULATORY FRAMEWORKS

3.1 Introduction

In order to protect auditor independence, regulatory frameworks in various countries lay down regulations which auditors are expected to observe. These regulations may be set in legal or professional frameworks, and be rule or principles based depending on the country specific culture and environment.

In this chapter we review the provisions contained in key current regulatory frameworks concerning independence generally and the provisions specifically relating to non-audit services. We also briefly consider the position in relation to the audit of the smaller company. This review covers current regulatory frameworks in the UK (ICAEW, 1997, 2001b), the US (SEC, 2000), Ontario (ICAO, 2002) and Australia (ICAA, 2002) and two other significant and recently developed frameworks from the European Commission (EC, 2002) and International Federation of Accountants' Code of Ethics for Professional Accountants (IFAC, 2001). For ease of reference these documents are henceforth referred to as, UK, SEC, Ontario, Australia, EC and IFAC frameworks.

3.2 Regulation of auditor independence

An interesting conceptual framework for the regulation of auditor independence is offered in a staff report by the now defunct US Independence Standards Board (ISB, 2001),⁵ which also recognises that independence is a matter of degree and identifies and discusses three basic principles for regulating auditor independence:

- considering the level of independence risk and assessing its acceptability;
- considering benefits and costs; and
- considering the views of investors and other interested parties.

Independence risk is considered to be the likelihood that an auditor's objectivity would be compromised or would appear to be compromised to well informed investors or others. Decision makers should consider the level of independence risk by analysing threats and their significance, assessing whether the level is acceptably low and applying appropriate safeguards if it is not. The benefits of reduced risk should not exceed the costs and the views of investors and others with an interest in financial reporting should be taken into account when considering the level, acceptability and cost of independence risk.

⁵ The US ISB was set up in 1997 and, rather surprisingly, disbanded in 2001. The conceptual framework was issued as a staff report but was never considered or adopted by the ISB.

3.3 Independence in professional and legal regulatory frameworks

3.3.1 Appearance and fact

The main provisions in the regulatory frameworks we have reviewed in respect of independence generally and particularly about the distinctions made between independence in fact and independence in appearance are summarised in Table 3.1.

As may be observed, the Australian framework is almost identical to IFAC and was introduced in 2002. The others are recent or have been recently amended. The Council of the ICAEW in the UK, whose framework was introduced in 1997, agreed in June 2002 to adopt the 2002 EC Recommendation as best practice where it differs from the ICAEW's current framework. (This is identical to that of the Institute of Chartered Accountants of Scotland and the Institute of Chartered Accountants in Ireland and broadly similar to that of the Association of Chartered Certified Accountants.) Minor changes were made to the UK's framework in 2001, following a review of guidance on auditor independence (ICAEW, 2001a). The SEC's revised rules are also very recent, taking effect from 2001. These completely new or substantially reformed frameworks, combined with the major reviews of aspects of auditing and independence that have been carried out (e.g. the US Panel on Audit Effectiveness (POB, 2000); the Australian Ramsay Report (2001); and the Report of the Review Group on Auditing in the Republic of Ireland (2000)) reflect a considerable degree of concern among regulators in all these countries about auditor independence.

Table 3.1: Definitions and comments about independence from regulatory frameworks

Framework	Comments on independence	Distinctions between independence of mind and independence in appearance
IFAC, Australia	The use of the word ‘independence’ on its own may create misunderstandings. Standing alone the word may lead observers to suppose that a person exercising professional judgment may be free from all economic financial and other relationships. This is impossible as every member of society has relationships with others (IFAC, 8.9, Australia, principle 12).	<p><i>Independence of mind</i> The state of mind that permits the provision of an opinion without being affected by influences that compromise professional judgment, allowing an individual to act with integrity, and exercise objectivity and professional skepticism (IFAC, 8.8, Australia, principle 14).</p> <p><i>Independence in appearance</i> The avoidance of facts and circumstances that are so significant a reasonable and informed third party, having knowledge of all relevant information, including any safeguards applied, would reasonably conclude a firm’s or a member of the assurance team’s integrity, objectivity or professional skepticism had been compromised (IFAC, 8.8, Australia, principle 14).</p>
EC	Independence is not an absolute standard which statutory auditors must attain, free from all economic, financial and other relationships that could appear to entail dependence of any kind. Such a state is manifestly impossible as everyone has some dependency or relationship with another person (Annex A1).	<p><i>Independence of mind</i> Objectivity (as a state of mind) cannot be subjected to external verification, and integrity cannot be verified in advance (1.2) The state of mind which has regard to all considerations relevant to the task but no other (Annex A1).</p> <p><i>Independence in appearance</i> The avoidance of facts and circumstances which are so significant that a reasonable and informed third party would question the statutory auditor’s ability to act objectively (AnnexA1).</p>
UK (ICAEW ethical guide)⁶	Threats to objectivity can be general in nature or relate to the specific circumstances of an engagement or appointment (1.200.2.6). The easiest way of avoiding such threats would be for members to decline to act in any circumstances where the slightest threat to objectivity might exist. This could deny to clients and employers proper access to a member’s breadth of expertise and knowledge of the ...business, and in deciding whether to include such a prohibition, the Institute always bears in mind the need to maintain a balance that respects the interests of clients and employers and the possible wider public interest (1.201.1.6).	<p><i>Independence of mind</i> Integrity implies not merely honesty but fair dealing and truthfulness (1.201.01) Objectivity is the state of mind which has regard to all considerations relevant to the task in hand but no other. It is sometimes described as ‘independence of mind’ (1.201.02).</p> <p><i>Independence in appearance</i> Members should therefore take into consideration the public interest and reasonable and informed public perception in deciding whether to accept or continue with an engagement or appointment, bearing in mind that the level of public interest will be greater in larger entities and entities that are in the public eye (1.200.2.5) The term ‘public interest’ relates to matters of public concern, not public curiosity (1.200.2.4).</p>

⁶ In June 2002 the ICAEW Council in the UK accepted the EC Recommendation as best practice from 1 October 2002 insofar as it differs from the existing ICAEW framework. The best practice provision applies as an interim measure whilst the procedure for formal adoption by all the UK professional bodies is undertaken.

Table 3.1 (cont.): Definitions and comments about independence from regulatory frameworks

Framework	Comments on independence	Distinctions between independence of mind and independence in appearance
US SEC Rules	In determining whether an accountant is independent, the Commission will consider all relevant circumstances, including all relationships between the accountant and the audit client and not just those relating to reports filed with the Commission (SEC, part 210.2-01(b)).	<p><i>Independence of mind</i> Objectivity is a state of mind and except in unusual circumstances a state of mind is not subject to direct proof. Usually it is demonstrated by reference to circumstantial evidence (Discussion of Final Rules. C. The General Standard for Auditor Independence).</p> <p><i>Combined Statement on independence of mind and in appearance</i> The Commission will not recognise an accountant as independent, with respect to an audit client, if the accountant is not, or a reasonable investor with knowledge of all relevant facts and circumstances would conclude that the accountant is not, capable of exercising objective and impartial judgment on all issues encompassed within the accountant’s engagement (Part 210.2.01(b)).</p>
Ontario ICAO Rules	Chartered Accountants (CAs) cannot practice their profession or participate in the affairs of their community without being exposed to circumstances that may place pressure upon their objectivity and integrity, and it would be impossible to impose detailed proscriptions intended to cover all conceivable situations. To do so on a rigid basis would be to inhibit the rendering of useful services when the likelihood of impairment of the CA’s objectivity is relatively remote. It may be difficult for a CA always to appear completely free of any disabling influence, interest or relationship in respect of his or her client’s affairs (Rules of Professional Conduct, Foreword).	<p><i>Combined statement on independence of mind and independence in appearance</i> A member who engages or participates in an engagement (a) to issue a written communication under the terms of any assurance engagement or (b) to issue a report on the results of applying specified auditing procedures, shall be and remain free of any influence, interest or relationship which in respect of the engagement impairs the member’s professional judgment or objectivity or which, in the view of a reasonable observer, would impair the member’s professional judgment or objectivity (rule 204.1).</p> <p><i>Independence in appearance</i> The public must be assured of the chartered accountant’s freedom from any conflict of interest. The profession tests the existence of this freedom against the criterion of whether a reasonable observer would conclude that a specified relationship between a chartered accountant and a client posed an unacceptable threat to the chartered accountant’s independence of judgment. Only thus can public confidence in the objectivity and integrity of the chartered accountant be sustained...The reasonable observer should be regarded as a hypothetical individual who has knowledge of the facts which the chartered accountant knew or ought to have known, and applies judgment objectively with integrity and due care (Foreword, principles governing conduct).</p>

The frameworks, to a greater or lesser extent, recognise that auditor independence is not and cannot be an absolute standard. This is baldly stated in the ICAEW Review of Guidance on Auditor Independence (ICAEW, 2000) 'As long as audit appointments and fees are determined by the shareholders of the company being audited, the auditor can never be economically independent of the client'. (This report does not acknowledge that, although in law the shareholders make the appointment and fix the remuneration, the current de facto position (certainly in the UK) is that the appointment and remuneration are determined by the directors.) The 'comments on independence' column in Table 3.1 show how the various bodies acknowledge the inability of the auditor to be totally independent of the company. The frameworks incline to the use of the terms integrity and objectivity in line with the Dunmore and Falk (2001) analysis, terms which may possibly be easier to define within the regulatory environment for audit than the term independence. SEC, however, does not acknowledge to the same extent the problem of applying an absolute standard of independence.

All frameworks recognise the difference between independence of mind and independence in appearance. Usefully, SEC explicitly states that independence of mind (or independence in fact) is difficult to prove and can only normally be established by circumstantial evidence. As the audit process is unobservable, the only occasions when evidence of independence in fact (or lack of it) becomes generally known is as a result of a disciplinary inquiry. The problem of inability to establish absolute criteria for independent behaviour would explain why emphasis is placed on the state of mind concept which embraces both integrity and objectivity.

With the exception of the UK framework, which takes a slightly different view, the other frameworks take a similar position on independence in appearance, all recognising its importance to perceptions of the integrity of audit. The general criterion for judging the appearance of independence focuses on what a (hypothetical) reasonable and informed third party would believe. Only SEC refers to the third party as an investor, and qualifies the criteria even more by stating that the investor should have knowledge of all relevant facts and circumstances to reach a conclusion. ICAEW avoids the hypothetical third party and refers instead to the public interest, defined as 'reasonable and informed public perception'. An interesting distinction is drawn between 'public concern' and 'public curiosity', implying that public curiosity should not be a concern.

Given the present levels of concern about independence, it is possible that the definition of the third party to whom key perceptions about independence in appearance are attributed, which is used as the basis for establishing the criteria for independence in appearance, may require reconsideration.

3.3.2 Threats and safeguards

UK, EC, IFAC and Australia adopt a principles-based approach to independence by identifying threats to independence and the safeguards which can protect against or minimise the threats. Ontario takes a high level view by simply requiring members to avoid conflicts of interest. SEC sets out four principles, but these are included in the preliminary note to the final rule 2-01 rather than actually being part of the rule itself, because of reservations expressed by some commentators about the principles-based approach. We are therefore uncertain as to the status of these principles which are

followed by a detailed set of rules comprising a series of prohibitions. The rules recognise that these prohibitions may not be comprehensive. The four SEC principles consider whether a relationship or the provision of a service:

- creates a mutual or conflicting interest between the accountant and the audit client;
- places the accountant in the position of auditing his or her own work;
- results in the accountant acting as management or an employee of the audit client;
- places the accountant in a position of being an advocate for the audit client.

The other frameworks identify five threats and four main sources of safeguards. The EC (Annex 3) usefully articulates the importance of identifying the threats and of determining their significance in order to consider the risk to independence that they pose. EC views independence risk as being a continuum from 'no risk' to 'maximum risk'. This is similar to the principle of independence risk in ISB (2001). Different threats may arise from one set of circumstances. The threats, taken verbatim from EC (which is the most recent and is in the process of being adopted in the UK insofar as it differs from the existing framework) are:

- *self-interest threat*: the statutory auditor's independence may be threatened by a financial or other self-interest conflict (e.g. direct or indirect financial interest in the client, over-dependence on the client's audit or non-audit fees, the desire to collect outstanding fees, fear of losing the client);
- *self-review threat*: relates to the difficulty of maintaining objectivity in conducting self-review procedures (e.g. when taking decisions, or taking part in decisions, that should be taken wholly by the audit client's management; or when any product or judgment of a previous audit or non-audit assignment performed by the statutory auditor or his firm needs to be challenged or re-evaluated to reach a conclusion on the current audit);
- *advocacy threat*: the statutory auditor's independence may be threatened if the statutory auditor becomes an advocate for, or against, his client's position in any adversarial proceedings or situations (e.g. dealing in or promoting shares or securities in the client; acting as an advocate on behalf of the client in litigation; when the client litigates against the auditor);
- *familiarity or trust threat*: a risk that the statutory auditor may be over-influenced by the client's personality and qualities, and consequently become too sympathetic to the client's interest through, for example, too long and too close relationships with client personnel, which may result in excessive trust in the client and insufficient objective testing of his representations;
- *intimidation threat*: covers the possibility that the auditor may be deterred from acting objectively by threats or by fear of, for example, an influential or overbearing client.

Four safeguards against these threats are identified:

- regulatory safeguards and sanctions either emanating from legal or professional requirements e.g. auditing standards, prohibitions, disclosure requirements, ethical guidelines, oversight and enforcement, etc;
- safeguards within the firm which can be firm-wide or engagement specific, e.g. quality control and documentation, identification of threats, availability of

consultation procedures, internal reviews by independent partners, division of responsibilities, training, staff development, ethical standards, etc.

- governance procedures in the company, particularly the audit committee;
- where the safeguards are not considered sufficient the auditor can refuse to act.

The existence of these frameworks does not mean that they are always effectively applied. Enforcement, oversight mechanisms and a strong culture of compliance and ethical standards of behaviour in audit firms and company boards all contribute to their effectiveness.

Although the distinction is made between independence in fact and independence in appearance, this distinction is not followed through into the threats and safeguards. It is therefore not clear whether and how the threats and safeguards are protecting appearance, in fact or both.

3.4 Independence and NAS

The level and range of NAS being provided by audit firms to their audit clients (and to non-audit clients) has increased greatly over the last few years (see chapter 5 for details). In the larger firms, non-audit fees now exceed the fees received from audit work and many have rebranded themselves as professional service firms rather than audit or accounting firms. Where audit and NAS are provided to the same company two different contractual relationships exist. The NAS contractual relationship is with the company (as with any other service provider) and the audit contractual relationship is with the company, but the auditor also owes a duty of care to the shareholders, and the audit service itself is subject to regulatory oversight. This distinction in the contractual relationship may at times be blurred by the audit firm and the directors (Beattie and Fearnley, 1998), who may perceive the purchase of audit in the same light as that of any other service and not make much distinction between this and NAS, particularly in respect of services which are closely related to the annual financial reporting round.

The range of services now offered by the larger firms to both the public and private sector is very wide. This may include, among others:

- systems and IT;
- training;
- services for SMEs such as payroll etc.;
- risk management advice;
- taxation, including tax compliance and tax planning and advice;
- corporate recovery and insolvency;
- legal;
- forensic and litigation support;
- mergers and acquisitions;
- transaction support and follow up, including due diligence and initial public offerings;
- recruitment and human resources; and
- portfolio monitoring.

Provision of some of these services could provide a real or perceived threat to independence in the case of an audit client. The principal threats which arise from the provision of NAS are:

- *self interest*: the increase in economic dependence;
- *self review*: taking management decisions and auditing one's own work;
- *advocacy*: acting for the client's management in adversarial circumstances; and
- *familiarity*: becoming too close to the client's management through the range of services offered.

Intimidation is the only one of the five threats which does not obviously arise from the provision of NAS. NAS is therefore a wide ranging threat to independence. Table 3.2 shows how the regulatory frameworks we have reviewed address these threats and recommend how they should be managed. (We have not included Ontario in this table as there is insufficient detail to make meaningful comparison with the others.) In the table we have classified the guidance (or rules) on the various activities into five categories:

- *no*: an absolute prohibition;
- *normally no*: prohibited except in very limited or exceptional circumstances;
- *no if material*: permitted if the figures involved are not material to the financial statements;
- *caution*: requires the threats and safeguards for each case to be considered before proceeding;
- *yes*: permitted without restrictions; and
- *no specific guidance*: where the service is not specifically referred to in the rules or guidance.

None of the frameworks offers guidance on all the types of services identified throughout. It is also possible that there are services being provided or developed by the firms which are not picked up by any framework where guidance may be needed. In all frameworks except SEC, which is rule based, the absence of reference to a specific activity (i.e. our classification of *no specific guidance*) is of limited significance because, in theory, all activities should be swept up by the over-riding principles. The position with SEC is less certain as the principles set out in SEC are not actually part of the rules.

IFAC is the most comprehensive. Australia is almost identical to IFAC and was adopted after the comprehensive review of independence in the Ramsay Report (2001). ICAEW was developed in 1997, and being rather older, is less explicit in a number of areas than the more recently developed frameworks. ICAEW explicitly recognises the possibility of advocacy being a threat in respect of taxation services.

SEC has more restrictions and shows the least flexibility. There are no instances in SEC of caution i.e. where professional judgment about the balance of threats and safeguards is recommended. SEC reflects the more rule-based environment which exists in the US. There are some interesting differences between the frameworks. SEC imposes more restrictions on internal audit. EC and SEC impose more restrictions on installation of financial information technology systems, whereas the others permit proceeding with caution.

Table 3.2: Recommended treatment of NAS in regulatory frameworks

Types of non-audit service referred to in frameworks	Regulatory framework				
	IFAC	ICAEW	EC	Australia	SEC
Exercise management authority	No	No	No	No	No
Determine client implementation of auditor's own recommendations	No	No specific guidance	No specific guidance	No	No specific guidance
Report in a management role to client governance body	No	No specific guidance	No specific guidance	No	No specific guidance
Custody of client assets	Normally No	No specific guidance	No specific guidance	Normally No	No specific guidance
Supervise client employees in normal activity	Normally No	No specific guidance	No specific guidance	Normally No	No specific guidance
Prepare accounting records and financial statements for public interest entities	Normally No				
Valuation services and other expert services	No if material	Caution	No if material	No if material	Normally No
Taxation services	Yes	Caution	No specific guidance	Yes	No specific guidance
Internal audit services	Caution	No specific guidance	Caution	Caution	Normally No
IT services & financial information technology systems	Caution	Caution	Normally No	Caution	Normally No
Temporary staff assignments	Caution	No specific guidance	No specific guidance	Caution	No specific guidance
Litigation support services	Caution	Caution	No if material	Caution	No specific guidance
Legal services	Normally No	No specific guidance	No specific guidance	Normally No	No
Recruiting senior management & HR	Caution	Caution	No	Caution	No
Corporate finance and similar	Caution	Caution	No specific guidance	Caution	No specific guidance
Actuarial services	No specific guidance	No specific guidance	No specific guidance	No specific guidance	Normally No
Broker/dealer services	No specific guidance	No specific guidance	No specific guidance	No specific guidance	No

Key:

no =prohibited;
normally no =prohibited except in very limited or exceptional circumstances;
no if material =only permitted if the figures involved are not material to the financial statements;
caution =threats and safeguards of each case should be considered before proceeding;
yes =permitted;
no specific guidance =not referred to as NAS in the framework, therefore no specific guidance provided

There is a significant self-review threat in both these areas. SEC also prohibits actuarial services and broker/dealer services, which are not specifically identified in other frameworks, although they could be deemed to be covered by the guidance under 'valuation and other expert services' and 'corporate finance and similar'. The inconsistencies between the frameworks merit further review, particularly the difference in the views of the restrictions on internal audit and the installation of financial information technology systems.

The absolute prohibitions are for activities which clearly demonstrate exercising management authority and overtly auditing one's own work. However, where the matter is not clear in respect of these and other threats, the auditors are required to consider the extent to which the specific service, in the context of the whole relationship with the client, is a risk to independence and whether the safeguards available are adequate to mitigate the risk. Whether the independence risk is actual or perceived is not explained. However, what is obvious from these frameworks, except for SEC, is that judgments need to be taken individually on the extent of the independence risk associated with certain activities, these judgments being taken in the context of the individual client and the firm. Such judgments will principally be made within the firm, supported hopefully in consultation with a client's audit committee or other corporate oversight board. However, non-compliance with the framework would only be picked up if the specific case was subject to regulatory oversight. Further disclosure of the composition of the NAS fee would enable observers to form some judgments about the appropriateness of the services being provided.

3.5 Overall economic dependence

Economic dependence is not covered in Tables 3.1 and 3.2 as this is a wider issue than NAS. Four frameworks offer various guidelines about the level of economic dependence an auditor should have on one audit client, which includes non-audit fees. The UK normally requires the total income from a listed company to be less than 10%. There is no direct prohibition but it is strongly discouraged, and the audit would be expected to be subject to a high level of safeguards within a firm to justify its retention. The EC, interestingly, spreads the calculation of economic dependence over an average of five years but does not specify the actual level of fee dependence. IFAC and Australia do not specify a level of fee dependence but indicate that the dependence should be judged on recurring fees.

Given that the UK's 10% overall and specific economic dependence levels are seen as such significant factors undermining auditor independence by those close to the audit process, there is a case for this level to be reviewed. There is also a case for reviewing how journalists' perceptions that high levels of NAS undermine independence can be addressed.

3.6 Small companies

3.6.1 Market structure

For the year ended December 2000 there were 8,626 firms of auditors registered with ICAEW, ICAS and ICAI (ICAEW, 2001b), 88% of which have four partners or less. ACCA has 3242 Registered Auditor Entities (ACCA 2001). The ACCA number duplicates some of the firms registered with the other bodies, as it includes firms

which ACCA does not regulate. However there are likely to be in excess of 10,000 firms of registered auditors in all.

Of these firms 102 audit listed companies. (There may possibly be one or two more regulated by ACCA, but this information is not available.) Table 3.3 below, extracted from the ICAEW, ICAS and ICAI shows the best estimate of the structure of the listed company audit market as at December 2000.

Table 3.3: Number of audit firms acting for listed companies

Number of firms	Number of partners	Number of listed clients
51	2-10	62
35	11-50	589
16	51+	1997
Total 102		2648

Source: Audit Regulation: ICAEW, ICAS and ICAI report to the DTI for the year 31 December 2000.

As can be seen from this table, the market is highly concentrated. 50% of firms are small and have only 62 (2%) listed clients between them. The 16 largest firms (those with more than 51 partners) undertake 75% of listed company audits.

There are believed to be approximately 1.4m live companies in the UK of which 12,000 are ples. Under the current threshold for small company audits, approximately 600,000 of these companies (Fearnley, Hines, McBride and Brandt, 2000) are believed to be eligible for exemption from audit, but it is not known how many have taken advantage of the exemption. There are still a large number of smaller companies requiring audit.

3.6.2 *Applicability of independence frameworks*

Independence frameworks theoretically apply to all auditors but include statements which recognise the different position of the auditor of the small company. EC, for example (para.12) refers to the cost and benefits of applying some of the recommended safeguards to smaller companies. EC 4.1.1 refers to the independence risk in relation to management decisions where ‘the statutory auditor may find himself taking such decisions without meaning to.’

In the small company environment, in the absence of a finance director, the auditor helps the client with preparation of accounting records and advises on many accounting and business issues. We suggest that there is a high risk in this context that the auditor may be taking management decisions and auditing his or her own work. Although the public interest in small companies is usually low and many are owner-managed, it may be an appropriate time to consider whether one framework for all is still appropriate, particularly if regulators are minded to tighten up in respect of listed and public interest companies.

3.7 **Summary and comments**

This analysis shows that the provision of NAS is recognised in the frameworks as threatening both an auditor’s objectivity (independence in fact) and independence in appearance. The threats to independence in fact are wide ranging, covering the risks

of taking management decisions, self-interest, self-review, familiarity and advocacy. The clear-cut threats, for which no safeguard would be deemed adequate by outside parties, are subject to prohibitions. For the rest, independence risk may be seen as a continuum where judgments about the seriousness of the threat are balanced against the effectiveness of available safeguards. Self-interest as a threat pervades the whole in contributing to increased economic dependence but self-review and the possibility of taking management decisions are also pervasive. In the case of listed companies, some safeguards derive from an effective audit committee or oversight board. But overall, the availability and application of most of the safeguards lie within the audit firm. Therefore, the effectiveness of the framework depends heavily on the internal governance of the firm and the existence and effectiveness of external enforcement and oversight mechanisms.

In terms of guidelines on specific activities (or in the case of SEC, rules relating to specific activities) there is less convergence among the frameworks about the level of threat which arises from internal audit and the installation of financial information systems than there is for the other threats.

With the exception of the UK framework, where the recommended upper level of economic dependence for a firm is defined, the frameworks are generally imprecise about an acceptable level of economic dependence for a firm, a specific office of a firm or an individual partner. However, UK research indicates that 10% overall economic dependence for a listed company is too high.

There is currently a widespread public perception, well documented in the media following the collapse of Enron, that the provision of NAS generally undermines independence. The frameworks appear to have been developed to meet the expectations of a knowledgeable, well informed third party or investor, but it is not clear either how much knowledge this individual is expected to have, or even more importantly, how the knowledge will be acquired, as there is so little in the public domain about how auditors behave.

Finally there is wide gap between the degree of public interest in the activities of the auditor of a listed company and the auditor of a small owner managed company. It is not obvious that one set of regulations about NAS is appropriate for all.

PART 3 EMPIRICAL STUDIES OF NAS

CHAPTER 4 METHODS

There is too great a tendency to rely on argument rather than evidence.

Ray Chambers 'The Anguish of Accountants',
Journal of Accountancy, March 1972

4.1 Literature search procedures adopted

A variety of on-line databases available at the University of Stirling were searched. Some of these support keyword searches in the title of the article only, some in the title and abstract and some allow full text searches. The coverage of these databases does overlap to varying degrees.

4.1.1 Keywords used

In addition to searching for the keywords 'non-audit services', we also searched under the following variations which were known to be used in the literature:

- nonaudit services;
- NAS; and
- MAS.

We also searched the main academic journal databases under 'auditor independence'.

4.1.2 Databases searched

The databases consulted were chosen to obtain good coverage of both the academic literature and the professional/business literature. They were:

- *Web of Science* – this host offers several databases including the ISI Citation Indexes, which covers many leading academic journals worldwide. The search was restricted to the Social Science Citation Index.
- *Emerald* – an electronic library that includes 100 journals on marketing, general management, human resources and other management areas.
- *Econlit* – an indexed bibliography and selected abstracts of over 400 economics journals.
- *Social Science Research Network (SSRN)* – a depository for over 40,000 working papers and accepted papers, organised into sections for auditing, financial accounting, etc.
- *European Business ASAP via Infotrac* – this database covers business and management subjects from 120 journals.
- *Lexis-Nexis Executive* – this is a collection of databases containing around 2,300 UK and overseas newspapers, newswires and magazines.

In the business-related databases, the search on the acronym 'NAS' produced articles on *network attached storage* and *National Autistic Society*, in addition to a few additional articles on non-audit services.

The Lexis-Nexis search produced a massive 704 'hits' for the previous year. A cursory review of this material indicated that the bulk of it was either transcripts from Enron-related hearings in the US or reporting of Enron-related matters and opinion-

pieces. While a few research-related items were identified, our review of this could not be fully rigorous due to the volume of material.

Output from these searches was reviewed and all items that appeared to fall within our remit were obtained from various sources.⁷ Fortunately, many of the journal articles were already in our personal collection; those that were not were obtained via the internet, Stirling University Library or the British Lending Library.

4.2 Review procedures adopted and classification of empirical studies

All items collected were reviewed and grouped into categories. Each group of related studies is presented in a separate chapter in this report. Full bibliographic references of all items cited appear at the end of the report.

The empirical studies of NAS are presented in chapters 5 to 10. Figure 4.1 illustrates the various topics addressed. Some studies seek merely to document the amount and nature of joint NAS provision. These descriptive studies are reviewed in chapter 5. A (relatively small) group of studies explore the determinants (antecedents) of the NAS purchase decision (chapter 6). Most studies, however, are in one way or another, seeking to uncover the consequences of joint NAS purchase: is the perception of auditor independence reduced or enhanced; is auditor independence in fact reduced or enhanced; are there economies of scope (knowledge spillovers)?

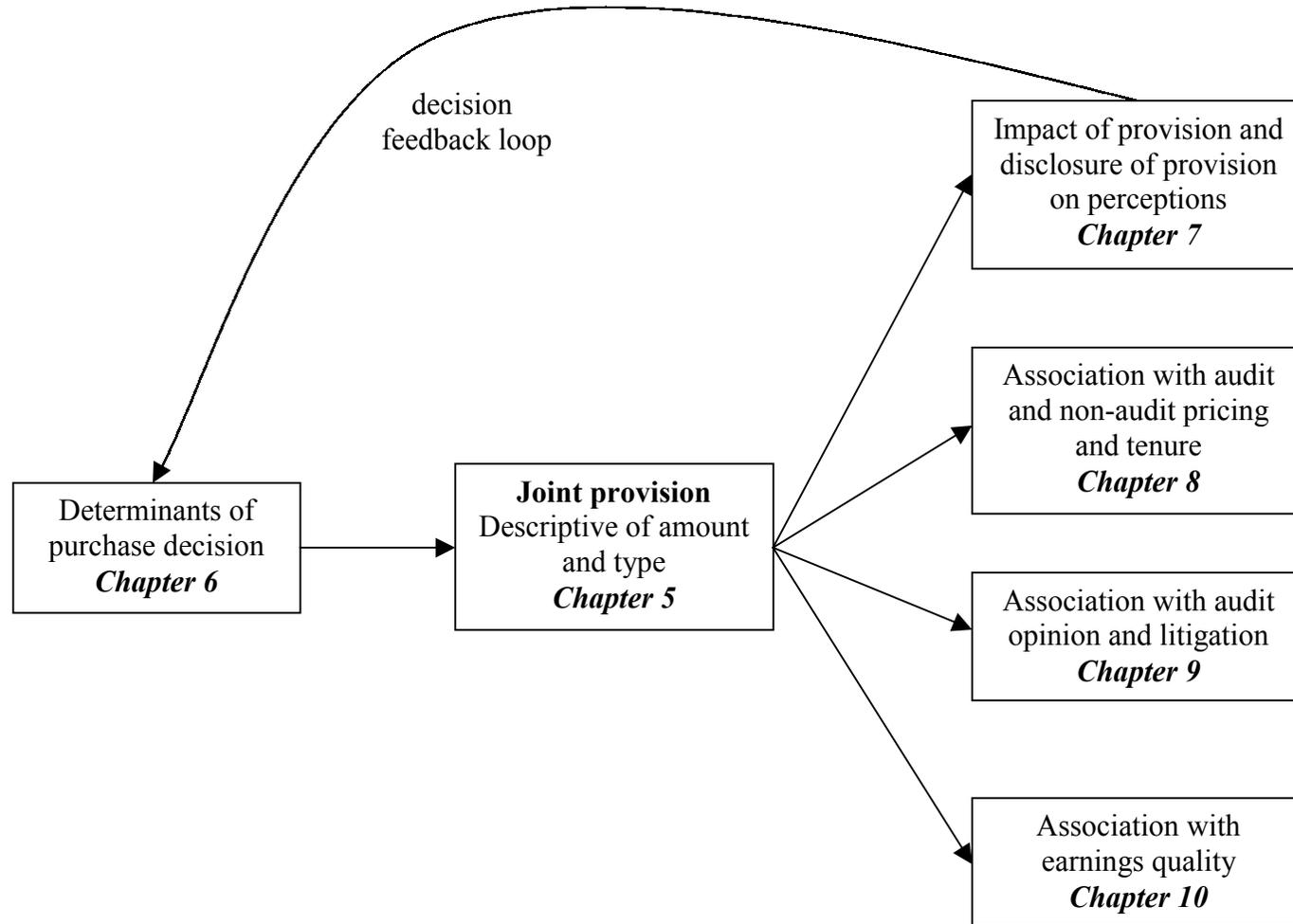
The impact of joint provision on independence perceptions is important in its own right. However another reason why there have been many studies of this type is because it is so difficult to research auditor independence in fact, since this is unobservable. Perception studies are reviewed in chapter 7.

Studies investigating the pricing and tenure effects of joint provision are essentially indirect tests of the impact on independence. These are covered in chapter 8. Attempts to conduct more direct tests explore the link between joint provision and the audit opinion given. A closely related set of studies examines the characteristics of ‘bad audits’ to see whether joint provision was a feature. Chapter 9 covers these latter two sets of empirical study.

A more recent strand of research focuses on the association between joint provision and earnings quality (chapter 10).

⁷ In addition to these databases, we consulted the American Accounting Association database ‘Twenty Five Years of Audit Research’, which includes all articles on audit published in eight top accounting journals (AAA, 2001). No additional items were uncovered.

Figure 4.1: Types of empirical study relating to joint provision



CHAPTER 5

DESCRIPTIVE STUDIES OF NATURE AND MAGNITUDE OF NAS FEES

5.1 Introduction

In the absence of a requirement to disclose NAS fees paid to the incumbent auditor, it is difficult to collect systematic data on the extent of joint service provision. Moreover, to obtain evidence on the type of NAS provided by auditors and then to relate this to the amount provided by non-incumbents generally relies on survey data. This chapter presents the most up-to-date evidence available for both the US and UK and indicates the trends in NAS provision over time.

5.2 US studies

Palmrose (1988), using questionnaire data, finds that companies primarily used their incumbent auditor, rather than other firms, for non-audit services. She argues that attempts to limit or proscribe use of the incumbent auditor need to consider the potential costs of companies having to use the ‘next best’ supplier in relation to the potential benefits.

Recent data on service provision is presented in the report of the Panel on Audit Effectiveness (POB, 2000, para. 5.13), and is shown in Table 5.1. It is also reported that 4% of these firms’ SEC audit clients had consulting fees that exceeded audit fees, up from 1% in 1990.

Table 5.1: Analysis of fee income of the Big 5: 1990 and 1999

Service category	% Total fee income – 1990		% Total fee income – 1999	
	All clients	SEC audit clients	All clients	SEC audit clients
Accounting & audit	53	71	34	48
Tax	27	17	22	20
Consulting	20	12	44	32
Total	100	100	100	100

(reported in Ramsay (2001, p.58)

Levitt (2000) asserts that consulting services of the Big Five now represent over 50% of their revenues, up from 12% in 1977 (reported in DeFond, Raghunandan and Subramanyam, 2002, p.7).

5.3 UK studies

The requirement to disclose NAS fees paid to the incumbent auditor were introduced in 1991 and apply to accounting periods ending on or after 30 September 1992. Peel and Brinn (1993) examine the disclosures for 100 listed companies for 1991 (voluntary disclosure) and 1992. On average, NAS fees represented 73% of the audit fee charged. There was wide variation – ranging from 1% to 430%. Big Six auditors exhibited considerably higher ratios of NAS to audit fees than non-Big Six auditors.

Ezzamel, Gwilliam and Holland (1996) report that the ratio was 87% for a sample of 314 quoted UK companies with 1992/3 year ends.

Accountancy magazine has, for some years since disclosure was required, published the ratio of NAS to audit fees paid to the incumbent auditor. This ratio has been climbing steadily, from 77% in 1993 (*Accountancy*, 1993) for a sample of 100 listed companies, to 98% in 1996 for the FTSE 100 (*Accountancy*, 1996). By 1999, the ratio had shot up to 210% (*Accountancy*, 1999), rising to 270% in 2000 (*Accountancy*, 2000) and 300% in 2001 (*Accountancy*, 2001).

Beattie, Brandt and Fearnley (1996) appears to be the first UK study to unbundle the total NAS fees into service categories and compare the amounts of each purchased from the incumbent auditor and non-incumbents. They report on the results of a survey during 1995 to 300 listed company finance directors and 307 listed company audit partners that gathered undisclosed fee data. Based on responses from 153 finance directors, the mean NAS to audit fee ratio was 117%. NAS were categorised into six types:

- accounting advice;
- accounts preparation assistance;
- corporate tax;
- corporate finance;
- due diligence; and
- IT.

Finance directors were asked which services were purchased from the incumbent auditor and which from elsewhere. The percentage of companies purchasing each service from each provider is shown in Table 5.2, in descending rank order based on purchase from incumbent auditor.

Table 5.2: NAS purchases (by service category) by UK listed companies

Service category	% purchasing from incumbent auditor*	% purchasing from elsewhere*
Corporate tax	82	26
Accounting advice	80	6
Due diligence	73	27
Corporate finance	20	59
Accounts preparation assistance	44	11
IT	16	50

* Percentages do not generally sum to 100% since some services will not be purchased at all by some companies, while other services may be bought from both the incumbent auditor and others.

(Source: Beattie, V., Brandt, R. and Fearnley, S. (1996, p.127)

It is clear from this data that the bulk of NAS provided by auditors is not management consultancy. Rather, it is essential accounting services that enable listed companies to comply with legal and regulatory requirements. The authors conclude that we are inviting criticism by bundling essential compliance services with limited consultancy into one disclosure and that it would be advantageous to show the split (as some companies already do).

Ezzamel, Gwilliam and Holland (2002), also present evidence of the split of NAS provision, based on a survey of 193 non-financial quoted companies conducted in May 1995. They find a ratio of NAS to audit fees paid to the incumbent of 71%, comprising (in descending order of magnitude) 28% for tax, 16% for finance, 8% for management consultancy, 7% for accounting and 12% for other services. For non-incumbents, the ratio was 51%, with management consultancy taking the lion's share of 38%.

An overview of the mix of services provided by the large professional service organisations (whether provided to audit clients or non-audit clients) can be seen from the *Accountancy Age* annual analysis of fee income for the top 50 firms. In the most recent survey, total fee income of the top 5 firms (combining Andersen with Deloitte and including Grant Thornton as the fifth largest firm) totalled £7,584m. Not all firms provide details of the breakdown by service category. Table 5.3 provides the data for those that do.

Table 5.3: Analysis of fee income by service category: 2001-2002

Firm	Total fee income £m	Audit/ Accounting %	Tax %	Consultancy %	Insolvency %	Corporate finance %	Other %
Deloitte &Touche	822.0	30.2	23.2	25.0	15.1	-	6.5
KPMG	1372.6	30.2	20.1	24.8	5.3	6.6	13.0
Ernst & Young	722.2	39.6	38.6	-	-	21.8	-
Grant Thornton	204.5	30.7	30.7	-	18.6	10.8	9.2

(Source: derived from *Accountancy Age*. 27 June 2002, pp.18-19)

5.4 Summary and comments

It is clear from the available data that the importance of NAS provision is very significant and, relative to audit services, is growing over time for the largest service providers. The ratio of NAS to audit fees paid to the incumbent auditor appears to be higher in the UK than in the US, although comparisons are somewhat problematic due to differences in the nature of the data collected.

The majority of the NAS provided by the auditor to audit clients relate to accounting and tax services, rather than management consultancy. The incumbent is generally the provider of choice for such services.

CHAPTER 6

DETERMINANTS OF THE NAS PURCHASE DECISION

6.1 Introduction

There are several aspects of the NAS purchase decision that researchers have investigated. In particular, researchers have examined the choice between the incumbent auditor or another provider; the types of service purchased; and the absolute and relative amounts of NAS. A large part of this research has been conducted in the US where, until recently, disclosure of NAS fees paid to the incumbent auditor was not required.⁸

Most of these studies are based on agency theory, which was developed by economists Jensen and Meckling (1976) and introduced to the accounting literature by Watts and Zimmerman (1978). An agency relationship is established by ‘a contract under which one or more (principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent’ (Jensen and Meckling, 1976, p.308). In the manager-shareholder contract, the manager is the agent and the shareholder is the principal. Because of information asymmetries and because managers are assumed to act self-interestedly to maximise their own wealth and engage in value-reducing actions, agency costs arise. Principals and agents use auditing as a monitoring device to reduce these costs. Clearly the monitoring value of the audit (to external parties and hence to management) is reduced if the auditor is not perceived as independent.

Early studies used simple bivariate⁹ tests to explore the influence of single agency-related variables (i.e., proxies for agency costs such as managerial ownership and gearing (leverage)). Later studies used multivariate, agency-based models to explain the purchase decision. Most recently, new variables have been introduced to the explanatory model, such as audit committee effectiveness and performance-related management compensation.

6.2 Empirical studies

Palmrose (1988) investigates the impact of ownership structure on the NAS purchase decision. The motivation is to see whether concerns regarding auditor independence perceptions lead public companies to source their NAS from other than the incumbent auditor. She collects data from 269 public companies and 92 closely-held companies in the US covering 1980-81 year-ends. Three categories of NAS are distinguished: tax; accounting-related management advisory services; and non-accounting-related management advisory services. It is found that companies primarily used their incumbent audit firm exclusively for NAS (254/293). After controlling for size differences, no significant differences between public and closely-held companies were found with respect to provider used; type of service purchased or relative magnitude of NAS.

⁸ Except for a brief period between 1978 and 1982 when Accounting series release No. 250 was in force in the US.

⁹ Bivariate tests look at the relationship between only two variables. If the relationship is more complex and there are correlated omitted variables then wrong conclusions can be drawn.

Parkash and Venable's (1993) study is grounded explicitly in agency theory. They distinguish between recurring and non-recurring NAS, and focus only on the levels purchased from the incumbent auditor. It is argued that a significant perceived impairment of independence will occur only in the case of recurring NAS, which have associated future quasi-rents. It is therefore expected that firms with higher agency costs, which have greater need of independent audits, will acquire less recurring NAS from the company's auditor. This expectation is supported.

Firth (1997a) also uses agency theory to try to explain the decision to purchase NAS from the incumbent auditor. He makes use of the UK requirement to disclose NAS fees paid to incumbent auditors. UK disclosures do not require a distinction to be made between recurring and non-recurring fees. However Firth points out that such a grouping is subjective and that *continuing* non-recurring fees would probably impair independence to the same extent as those classified as recurring (p.19). Firth finds that, as hypothesised, higher agency costs (proxied by director shareholdings, large shareholdings and financial distress) are associated with lower relative levels of NAS purchases from the incumbent.

Abbott, Parker, Peters and Raghunandan (2001) make use of the new SEC requirement for companies to disclose, in their proxy statements, both audit and non-audit fees paid to the auditor (SEC, 2000). They extend previous agency studies and examine the association between audit committee characteristics and the relative magnitude of NAS purchased from the incumbent auditor. Audit committees are an important corporate governance mechanism and mediate the auditor-client relationship. In response to the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees (1999), the SEC now requires that audit committees consider all relationships between the auditor and the company *and* disclose that the impact of all relationships on auditor independence has been discussed with the auditor. This latter requirement implies that the audit committee has decision rights in the NAS purchase decision.

Abbott *et al.* (2001) hypothesise that independent and active audit committees, who are likely to be more pro-active in their oversight activities, will act to limit the relative amount of NAS purchased from the incumbent auditor. Their sample consists of 262 companies filing during a seven-week period in early 2001. This study is one of the first to examine the pricing effects of joint provision in the current US audit environment, characterised by changed audit technologies and an expanded market for NAS. They estimate a regression model of the NAS to audit fee ratio that includes audit committee variables as independent variables. Results indicate that companies with audit committees that consist solely of independent directors and that meet at least four times a year are likely to have lower fee ratios. This suggests that audit committee members perceive a high fee ratio in a negative light (related to either the fact or appearance of independence) and take steps to reduce it.

They also find that fee ratios are higher for larger companies and for clients of Big 5 auditors, while fee ratios are lower for firms with higher levels or outside

blockholder¹⁰ ownership. In contrast to Parkash and Venable (1993) and Firth (1997a), leverage (a proxy for high agency costs) was not found to be significant.

The study by Houghton and Jubb (1999) looks beyond the issuance of a qualified audit report to investigate whether this event impacts upon the subsequent purchase of NAS from the incumbent auditor. They find that the amount of services purchased increases.

Finally, Chen, Krishnan and Su (2002) also introduce a new explanatory variable into the NAS purchase decision model, exploring the impact of managers' compensation structure. Thus their focus is on the 'benefit' rather than the 'cost' side of the NAS purchase decision. Their argument is that NAS purchases impact favourably on firm performance and so enhance managers' performance-related compensation. They find a positive association between NAS purchases and the proportion of compensation that is performance based. Moreover, this association is stronger for companies with a larger investment opportunity set (intangible assets). Such companies are more likely to gain from auditors' expertise in identifying and exploiting growth opportunities.

6.3 Summary and comment

This first thing to note about several of the studies above is that the need to collect fee data via questionnaire in many jurisdictions means that the samples used by these studies may be either unrepresentative of the population (given that response rates in the region of 30% are typical) or, at worst, systematically biased.

The NAS purchase decision, in particular the amount of NAS fees paid to the incumbent auditor relative to audit fees has been explained in terms of agency-related variables, the characteristics of the audit committee and the form of management compensation. Studies show that, in general, and consistent with expectations, companies with higher agency costs, more effective audit committees and a lower proportion of performance-based management compensation have lower NAS fee ratios. The overall explanatory power of these models is, however, low, the amount of variation being explained is in the region of 10-20%. It may be that factors that are systematically related to the purchase decision have been omitted and/or the decision has inherently random elements.

¹⁰ Blockholdings relate to concentrated ownership, the argument being that a significant investment by an outside owner will provide incentives for direct monitoring, thus reducing the demand for auditor monitoring.

CHAPTER 7

IMPACT OF JOINT PROVISION AND JOINT PROVISION DISCLOSURES ON AUDITOR INDEPENDENCE PERCEPTIONS AND DECISIONS: SURVEY AND EXPERIMENTAL STUDIES

7.1 Introduction

There exists a large body of empirical evidence concerning the impact of various economic and regulatory factors on the *perception* of auditor independence. This is for two reasons. First, *actual* auditor independence is extremely difficult to observe, and so the focus of research effort has been on perceptions. Second, perceptions are of importance in their own right. One of the key variables investigated in such studies is joint NAS provision. Research design issues are discussed in section 7.2, while the findings from such studies (grouped by country) are presented in section 7.3.

However, a significant number of studies examine the behaviour or decisions associated with these perceptions (in some cases in addition to an investigation of auditor independence perceptions). For example, bank loan officers are asked whether (and on what terms) they would grant loans to the client company. In a few cases, the decisions of auditors (rather than users) are investigated and this research design is a way of assessing *actual* auditor independence. This group of studies is reviewed in section 7.4. Empirical studies have generally involved mail surveys, either questionnaires or self-administered experiments.

There are two opposing views regarding the impact of joint NAS provision on auditor independence. The first (arguably more common) view is that the economic bond (economic dependence) is increased and the relationship becomes too close, adversely impacting auditor independence. The alternative view is that the auditor's knowledge of the client company is enhanced, and that such knowledge spillovers increase objectivity and independence (Goldman and Barlev, 1974; Wallman 1996).

A much smaller body of studies explore the impact of NAS *disclosures* about the provision of NAS on perceptions of auditor independence. These appear in section 7.5.

7.2 Research design issues

Most studies either focus exclusively on actual or proposed ethical rules or investigate a very limited number of key generic threat factors (such as audit fee dependence; competition within the audit market; the joint provision of NAS; and the degree of laxity of the regulatory framework). In the former case, the questionnaires present a list of factors to be assessed individually. In the latter case, a limited number of factors are combined in 'case studies' with a repeated-measures, fixed effects experimental design¹¹, allowing investigation of interaction effects. The underlying model being tested has a measure of auditor independence perceptions as the dependent variable and the

¹¹ In this experimental design, subjects are repeatedly asked about the same factors, each set at several different levels. A repeated measures design is also called a 'within-subjects' design, to be contrasted with a 'between-subjects' design. The lack of repetition in the latter is desirable to reduce the possibility of 'demand effects', where the subjects guess the purpose of the study and respond as they think the researcher wants. Unfortunately, a between-subjects design requires the participation of many more subjects.

various factors thought to influence this as the dependent variables. The research design allows a statistical analysis of the findings¹² to establish whether any of the independent variables has a significant association with perceptions, either singly or in combination with other factors. It follows that the type of stimulus provided to the subjects could range from a statement of the factor, to a brief (typically one-line) description of a specific auditor-client relationship resulting from the factor, to a fairly extensive (typically one-half to one page) case study covering several factors. The factors examined are, in most studies, restricted to potential *threats* to independence, with potential *enhancement* factors not being considered.

The type of response required also varies depending, to some extent, on the type of respondent. Some studies ask directly whether the factor/situation described would affect their perception of the auditor's independence (or their ability to withstand pressure from the client), while other studies ask how a particular decision (e.g., audit judgement, lending decision, investment decision) would be affected. Responses are captured as either simple dichotomous variables¹³ (e.g., independent/not independent) or an importance score (typically using five or seven-point scale). Studies using dichotomous responses typically investigate the issue of group consensus (defined in terms of a simple majority) for individual factors. Studies also vary in focus, with some investigating only one factor in detail, while others cover a subset, and yet others are based upon professional guidelines/rules. Analysis takes the form of descriptive statistics, combined with statistical tests of differences.

The perceptions of a range of interested parties have been studied, in particular, professional accountants (in some cases specifically auditors) and user groups (mainly loan officers and financial analysts). Independence perceptions are likely to vary with respondent type, since different job roles are argued to result in different perceptual models (Bartlett, 1993).

7.3 Studies including NAS as a variable

7.3.1 US studies

The impact of NAS provision by incumbent auditors on perceptions of auditor independence has been the subject of empirical studies in the US for over three decades. This is mainly because the professional bodies and regulators have, over the years, issued a stream of opinions and guidance on the subject of joint provision. One of the early studies was Schulte (1965), which focused specifically on NAS. Key third parties (commercial loan officers and financial analysts) were asked whether management consulting seriously impairs CPA's audit independence. There was great variation in views. It was found that 43% did not think so (indeed 20% indicated that their confidence in audit reports were thereby improved), 33% did think so and the remaining 24% were unsure.

Titard (1971) undertakes a similar study, asking financial statement users whether NAS provision to audit clients 'may result in CPA's losing some of his audit independence'. The interesting feature of this study is that this same question is asked with respect to 33 specific types of service. Over 20% of respondents answered in the

¹² The statistical form of analysis used is ANOVA (analysis of variance).

¹³ Dichotomous (or binary) variables can take one of only two values, such as 'independent' or 'not independent'.

affirmative to five type of service: mergers and acquisitions (32%); executive recruitment (27%); policy determination (27%); personnel appraisal and/or selection (23%); and executive and wage incentive plans (21%). It is noticeable that no single item was checked by more than one-third of respondents, although 49% answered 'yes' to an initial question asking about NAS generically.¹⁴ Respondents were also asked whether each service should be prohibited assuming separation of personnel. For the above five services, the percentage agreeing was between 10% and 20%.

Hartley and Ross (1972) undertake a large-scale survey of three groups, auditors, users and preparers of financial statements. Their study seeks to overcome criticisms of the earlier studies by including definitions of key terms, examining the *relative* importance of NAS provision as a factor influencing independence in appearance and separating competency and independence issues. They find that only 6% of all respondents rank NAS provision as the top threat to independence (flexible accounting rules and economic dependence rank much more highly). In relation to specific services, the two greatest problem areas are recruitment of non-financial personnel and psychological testing. However this perception of a lack of independence is often found to stem from a belief that the service is incompatible with the image of a CPA or that the CPA is not competent to perform it. Neither limiting NAS work as a per cent of fees earned from a client nor disclosure of NAS fees in the financial statements is viewed as a satisfactory solution to the problem.

Lavin (1976; 1977) presents respondents with 12 situations drawn from the SEC's ASR No. 126,¹⁵ asking whether independence is impaired. Two of the situations concern NAS provision by the auditor: the provision of accounting services and the maintenance of executive payroll (limited accounting services). The 1976 study compares the views of third parties and CPAs, while the 1977 study focuses exclusively on third parties (financial analysts) but also asks whether the investment decision would be affected. A dichotomous, rather than continuous, measure of independence is used. Just under 50% of users believe that the provision of extensive accounting services would impair independence, with this falling to 37% for more limited accounting services. The investment decision tended to be affected in cases where the auditor was not perceived as being independent.

Shockley (1981) appears to be one of the first studies to use an experimental task method of investigation. Four factors are considered: competition in the audit market; NAS; audit firm size; and tenure. Four groups are surveyed: Big Eight partners; non-Big Eight partners; commercial loan officers and financial analysts. NAS, defined as the design and installation of accounting-related systems, is found to be the third most important threat to independence. This factor explains 3% of the variance across all respondents. This masks considerable variation across groups, with financial analysts showing the highest figure at 9%.

¹⁴ Respondents were asked: 'Do you think that providing any of the following services to audit client may possibly result in a CPA's losing some of his audit independence?'

¹⁵ Accounting Series release (ASR) 126 (SEC, 1972) contained 39 illustrations of situations in which an auditor may or may not be independent.

Reckers and Stagliano's (1981) study focuses on NAS provision. They make use of data contained in ASR No.250 disclosures¹⁶ (SEC, 1978) to construct 32 case survey questions based on varying levels of provision of five non-audit services. These were: acquisition search; pension and actuarial services; systems design; tax planning; and tax preparation. The level of provision (as a percentage of audit cost) for each service was set between 3% (no disclosure required) and 12% (the level found to be seldom exceeded by companies in practice). Users were asked to indicate (on a continuous scale of 0 to 100) their degree of confidence that the auditor remained independent. The views of 'sophisticated' users (financial analysts) and 'naïve' users (MBA students) were compared. Interestingly, the less knowledgeable, less experienced group of study participants tended to express lower average confidence than the financial analysts in the auditor's independence. However both groups displayed a high level of confidence in the CPA's ability to remain independent while performing NAS for fees up to and above the average level found in an examination of actual proxy disclosures. The authors conclude that the SEC's decision to require disclosure rather than prohibit NAS provision was appropriate.

NAS is the focus of Pany and Reckers' (1983) study. They asked corporate directors to make two judgments in relation to three services under a variety of conditions. The three services examined were: tax preparation; acquisition review; and systems design. These three services are believed to present self-review threats of increasing magnitude. Directors were asked whether they would vote in favour of engaging the auditor to perform the service (on a 7-point likelihood scale) and whether they thought the auditor could remain independent (7-point scale). The level of service incidence was manipulated for both the current year (10% and 40% of the year's audit fee) and the historical trend over the last five years (0%, 10% and 40% of the year's audit fee).¹⁷

Both the type of service and the magnitude of the current proposal were highly significant factors, while the magnitude of past services was only just significant. The approval likelihood for systems design (viewed as a less routine task that either tax preparation or acquisition review, giving rise to greater self-review threat) was much lower than for the other two services. The findings for independence perceptions mirrored those for approval likelihood. Independence perceptions declined as the level of both prior provision and current provision increased.

These findings are inconsistent with Goldman and Barlev's (1974) argument (see section 7.1 above) that the provision of non-routine audit services can lead to greater auditor independence because the auditor's value to and power over the client company increases.

Pany and Reckers (1984) compared seven services: executive recruiting; actuarial services; purchase acquisition assistance; market feasibility studies; redesign of an accounting system; independent board of director recruiting; and client employment of firm employees. They failed to find a significant difference in perceptions of auditor independence across the different services.

¹⁶ ASR 250 (SEC, 1978) required companies to disclose information on the type and quantity of NAS provided by their auditors, as a percentage of the total audit fee.

¹⁷ This research design gives rise to 18 cases in a full factorial, repeated measures design.

McKinley, Pany and Reckers (1985) use a between-subjects (i.e., non-repeated) design, which reduces the risk of 'demand effects', i.e., subjects seeing the purpose of the study and responding in the manner they think is expected by the researcher (see footnote 11 above). They examine the influence of three factors: CPA firm type (Big Eight/non-Big Eight); office size (large/medium) and prior provision of NAS (none or 30% of audit fee). Loan officers were asked to make decisions whether to accept or reject a loan based on financial statements and to indicate their level of confidence (on a 10-point scale) in the reliability of financial statements and in the auditor's independence. NAS provision did not affect any of the response variables, contrary to all prior research. This lack of significance suggests that demand effects may have caused the findings of prior research.

Knapp (1985) defines independence as 'the auditor's ability to resist client pressure'. He investigates the impact of four factors (including NAS provision at the level of 0% and 40%) on loan officers' perceptions using a full factorial, repeated measures design. NAS provision is significant, but explains only 2% of the variance in responses.

Pany and Reckers (1988) was one of the first studies to explore the effect of the *magnitude* of NAS (at the levels of 0%, 25%, 60%, and 90% of the audit fee). They find that the level of NAS influence only two of the requested 15 decisions (a loan decision and a 12-month investment safety decision).

Schleifer and Shockley (1990) examine users' and auditors' reactions (agree, undecided or disagree) to a range of policies designed to enhance auditor independence, two of which relate to NAS. The prohibition of executive search services to audit clients is one policy. Another is the requirement to disclose the nature of other services provided by the auditor. In relation to the former policy, the majority of Big Eight auditors and financial analysts disagree (59% and 58%, respectively), whereas only 37% of non-Big Eight CPAs and 23% of loan officers disagree. In relation to the disclosure policy, the majority of Big Eight auditors and financial analysts disagree (64%), but the majority of all other groups agree (83% of financial analysts, 58% of non-Big Eight CPAs and 88% of loan officers. The numbers responding in each group are, however, very small (22 maximum).

Bartlett (1993) examines the views of loan officers and CPAs in relation to 10 situations, five of which relate to NAS provision. Respondents were asked to indicate, on a continuous scale of 100 (completely independent) to 0 (not independent at all), how independent they felt the CPA was. The situation where only auditing services are presented serves as a benchmark. The four NAS considered are: design of accounting systems; executive search and hiring of CEO; acquisition investigation; and assistance with accounting decisions. Benchmark scores were 89 and 94 for loan officers and CPAs, respectively. For both groups, the provision of executive search results in the lowest independence scores (54 for loan officers and 75 for CPAs), while assistance with accounting decisions results in the highest scores (71 for loan officers and 84 for CPAs). Only the fact of provision (at some level) rather than the magnitude of the NAS provision is considered in this study.

In recent years, accounting firms have sought to provide a broad range of specialised professional services. This has led to an increase in co-contracting with non-

accounting firms. The issues are discussed in Lowe and Pany (1994). Empirical evidence as to whether audit firms' provision of NAS *with*, rather than *for*, a client company affects perceptions of auditor independence is provided in Lowe and Pany (1995 and 1996). Lowe and Pany (1995) find that loan officers' perceptions of auditors' independence were significantly affected by the materiality of the engagement (negative impact) and by staff separation (positive impact).

Bartlett (1997) examines perceptions of auditor independence in five different scenarios involving potential conflicts of interest. Case four involves the provision of NAS (specifically a purchase investigation audit that gives rise to a self-review threat and pressure from management to violate GAAP). 76 CPAs and 48 bankers participated. Over half of the bankers felt that the auditor would compromise his independence, compared to 69% of CPAs who felt that they would not.

Engle and Sincich (1998) explore auditor's views regarding violations of the AICPA's *Code of Professional Conduct* Rule 101. Fifteen independence-related ethical violations are identified, including the risk that NAS inappropriately influenced audit judgements. Of the 897 respondents, 12.3% felt that such an influence occurred.

Lowe, Geiger and Pany (1999) examine the implications of various internal audit outsourcing arrangements. Based on a survey of 177 loan officers, they find that the highest ratings of auditor independence occurred when the company's CPA firm used separate staff members to perform the internal auditing services, with the overall effect of such joint provision being positive.

A recent SEC rule permits firms to outsource no more than 40% of the internal audit function to their own audit firm. Swanger and Chewning (2001) explore the impact of five different internal audit outsourcing arrangements on the auditor independence perceptions of 250 financial analysts. It is found that, provided there is staff separation, perceptions are not adversely affected. Respondents did not perceive a difference between partial and full outsourcing.

In a poll conducted by Penn, Schoen and Berland Associates (2000), it was found that over 80% of investors believe that audits are 'better' when the auditors know more about a company (as might be the case when auditors provide NAS). In addition, 59% believed that audit quality might suffer as a result of the new SEC rules because auditors will be less knowledgeable about their client's business.

A survey commissioned by the ISB indicated that respondents believed that the evolution of audit firms into consulting fields was logical and the provision of most consulting services was not likely to create real problem of independence (reported in Kornish and Levine, 2000, note 2).

Jenkins & Krawczyk (2000) is the latest US study and it focuses on the impact of joint NAS provision. Both the materiality of the NAS fee (material or nominal – 40% and 3%, respectively) and the type of NAS performed (actuarial services; internal audit outsourcing; legal services; and software training) were varied. 323 investors and auditors took part. This study finds that joint provision has a *positive* effect on participants' perceptions of auditor independence, with the influence being strongest for Big 5 auditors. It is also found that investors favoured disclosure of the amount of

NAS and audit fees regardless of their level, whereas auditors favoured disclosure only if NAS exceeded a specified threshold.

7.3.2 UK studies

There have been only four UK studies, separated in time by almost 20 years – Firth (1980; 1981), Hussey (1999) and Beattie, Brandt and Fearnley (1999). Firth (1980) examined 29 specific auditor-client relationships drawn from the ethical guidelines being proposed at the time. The provision of NAS was ranked low as a threat factor for the three chartered accountant groups, but moderately for the two user groups.

Firth (1981) also focused on eight specific auditor-client relationships contained in UK ethical guidelines of the time. He asked bank lenders to make a loan decision based on financial statements prepared in the context of one of these relationship situations. Two of the eight situations concerned joint NAS provision: accounting services and consulting services. It was found that in both situations significantly lower loan responses were given than if there had been no joint service provision.

Hussey (1999) asked UK finance directors about a range of issues concerning the familiarity threat and auditor independence. One question asked whether auditors should be allowed to undertake other than audit work for the same client. The majority agreed that joint provision should be allowed, however 20% of independent plc respondents disagreed, compared to 13% of private company respondents.

The Beattie *et al.* (1998; 1999) study examines a large set of 45 economic and regulatory factors that could impair or enhance auditor independence, using questionnaire surveys of UK audit partners, finance directors and financial journalists. A high level of NAS (> 100% of audit fee) ranked among the top threat factors for users (2nd) and preparers (6th). It ranked as 12th= for auditors. At a level of 50% of audit fee, the corresponding threat rankings were 5th, 10th= and 17th=, and at the level of 25% of audit fee they dropped to 14th, 18th and 20th. NAS fees also increase economic dependence generally, and all groups ranked various measures of economic dependence (at the firm and office levels) among the top threat factors.

Table 7.1 shows how the respondent groups ranked the relative significance of these factors out of a total of 24 factors that were identified as undermining independence. Interestingly, the audit partners see total economic dependence as a much more significant threat than the mix of fees, whereas financial journalists see it the other way round. The finance directors are aligned with the audit partners in respect of their perceptions of the threat of total economic dependence, but more closely aligned to the journalists in respect of NAS. In this study NAS is taken as a generic term without specification of what the services actually are.

Table 7.1: Perceptions of the extent to which total fee dependence and NAS as a proportion of audit fee undermine auditor independence

Respondent type	Ranking out of 24 factors undermining perceptions of independence			
	10% <i>firm's</i> fees from 1 client	10% <i>office</i> fees from 1 client	NAS \geq 100% audit fee from 1 client	NAS \geq 50% audit fee from 1 client
Audit partner	1	4	12=	17=
Finance director	2	3=	6	10=
Financial journalist	7	9	2	5

Source: Beattie, Brandt and Fearnley (1999).

7.3.3 German studies

Dyxhoorn and Sinning (1981) essentially replicate Lavin's (1976) study based on ASR 126 auditor-client relationships using German auditors as respondents. In relation to the provision of extensive accounting services, 58% of German auditors felt that independence would be impaired compared to 64% in Lavin's study. In relation to more limited accounting service provision, 78% of German auditors thought that the auditor's independence would not be impaired, compared to 59% of US auditors in Lavin's study.

Dyxhoorn and Sinning (1982) ask two groups of German users (loan officers and financial analysts) about a series of auditor-client relationships. Three relationships concern NAS provision: extensive accounting services, limited accounting services and EDP provision. Respondents were asked whether independence was impaired or not and whether the relationship had a positive or negative impact upon the lending/investment decision. The percentages considering that auditors remain independent were 63%, 75% and 94%, respectively. It was found that perceived investment decisions were affected.

7.3.4 Canadian studies

Lindsay, Rennie, Murphy and Silvester (1987) examine the impact of 15 auditor-client relationships on the perceptions of auditors, financial analysts and bankers. Four of the situations related to NAS provision. NAS provision at a level of 25-30% of total client fees impaired independence for almost 50% of both user groups and for less than 20% of the auditors. Three specific types of service were considered: preparation of accounts; executive search; and accounting systems design. Of these, accounting systems design was viewed as the smallest threat by all three groups – less than 15% of each group did not regard the auditor as independent. Both of the other two services led to between 23% and 31% of each user group regarding the auditor as dependent (the percentage for auditors being less than 10%).

Lindsay (1990) examines the impact of three contextual factors (audit firm size; competition; and NAS provision) on bankers' perceptions of auditors' ability to resist management pressure. A repeated measures design is used. NAS provision, while highly significant, explains only 1% of the variance in bankers' responses. This casts some doubt upon the practical significance of joint provision on auditor independence perception.

7.3.5 *New Zealand studies*

Gul (1989) examines the impact of five factors (including NAS provision, one of three factors treated as a repeated measure) on bankers' confidence in the auditor's independence. The impact of NAS was significant but not in the expected direction, since bankers had *higher* confidence in auditors who provided NAS (consistent with the argument of Goldman and Barlev (1974), discussed above). The NAS factor explained 9% of the variance.

Gul (1991) examines the impact of four variables (including NAS provision) on bankers' perceptions of auditors' ability to resist management pressure. The service involved is the design and installation of an accounting system, representing a significant proportion of the current audit fee. The NAS factor is significant and explains 3% of the variance

7.3.6 *Malaysian studies*

Gul and Yap (1984) examine the views of auditors, managers and users (bankers and shareholders) in what is characterised as a developing country. NAS provision is the focus of the study. Findings are based on responses from a maximum of 34 individuals in each group. Interestingly, 23% of shareholders and 9% of auditors believed that NAS provision *increased* their confidence in auditor independence.

Teoh and Lim (1996) use a factorial ANOVA with repeated measures design. Five factors are investigated, including NAS > 50% audit fee. At this time, Malaysia is described as a newly industrialised economy. The level of confidence in the auditor was elicited from both auditors (n=69) and accountants in industry (n=33). NAS provision is the second most important factor (after significance of client to audit firm), explaining 7% of the variance in responses.

7.3.7 *Irish studies*

To the best of our knowledge, Canning and Gwilliam (1999) is the only Irish study of auditor independence perceptions. It focuses on the impact of joint NAS provision. A total of 148 corporate lenders, investment managers and financial analysts took part in a questionnaire survey. Respondents were asked whether the independence of the auditor decreased if NAS were provided in five different circumstances, with responses being given on a 5-point agree-disagree scale. 69% agreed that joint provision using the same personnel reduced independence, whereas only 24% agreed when separate departments were used. Only 16% agreed that NAS provision to non-audit clients only reduced independence, and only 16% agreed that joint provision to all clients combined with full disclosure reduced independence. 12% agreed that non-provision of NAS decreased independence, i.e. joint provision enhanced auditor independence.

7.3.8 *Cross-country studies*

Agacer and Doupnik (1991) seem to have conducted the first cross-country study of auditor independence perceptions. They consider the US, the Philippines and West Germany. Four variables are considered, including NAS provision and members of the accounting profession are surveyed. A full factorial, repeated measures design was used. It was found that significant differences exist between the three countries, with West German respondents indicating greatest concern re independence impairment

and Philippine respondents indicating least concern. These findings are explained in terms of cultural differences.

Lindsay's (1992) study covers Australia and Canada. Four factors (including NAS provision at either 0% or 40% of audit fee) are presented to expert users (analysts and bankers) in a full factorial, repeated measures design. The country effect was not found to be significant. NAS provision was a significant factor in explaining responses, accounting for 3% of the variance for analysts and 2% for the bankers.

Garcia-Benau and Humphrey (1992) investigate the expectation gap in both the UK and Spain. Auditors, finance directors and users are asked, *inter alia*, whether audit firms should not provide NAS to their audit clients. In both countries, the average response was close to neutral for all groups except UK auditors who expressed strong disagreement.

7.4 Experimental studies of actual auditor independence

NAS provision is the focus of Corless and Parker's (1987) study. They attempt, using an experiment, to investigate auditors' independence behaviour rather than their independence perceptions. Auditors were asked to evaluate the client company's internal control. They find no evidence that the fact of the auditor's firm designing the client's internal control system has a measurable impact on the client's thought processes in his audit capacity. There was, in fact, some slight evidence of the opposite effect, i.e. a more critical stance.

Dopuch and King (1991) use experimental markets¹⁸ to investigate the impact of NAS provision on auditors' independence. They compare market outcomes under two different rules (joint provision by auditor allowed or not). These are referred to as non-restricted and restricted markets. The market setting and general market procedures are explained to subjects who then take on a role (seller, buyer or auditor) and interact for multiple periods in one of 12 particular experimental markets. There was no indication that allowing joint service provision by auditors adversely affected auditors' verification effort decisions for either service. Nor was there any indication that buyers perceived audit reports to be less credible because of joint provision.

The authors conclude that a prohibition on joint provision could have an 'adverse' effect on the market structure of the audit industry, since the efficient NAS auditor showed a preference for being hired for NAS rather than for audit services in the restricted market (p.89). The authors suggest that specialist firms would emerge. It is argued that this market structure effect could offset any benefits that the change might have on auditors' independence. (A useful discussion of this study, together with the limitations of this method of investigation, is provided by Berg (1991).)

Davidson and Emby (1996), in addition to providing a review of prior studies on the impact of NAS provision on individual perceptions and decision, surveys auditors on the impact of internal control systems design on audit assessments. Their findings

¹⁸ Experimental markets are used to explore the impact of different institutional and regulatory settings on the decisions of market participants. Participants are presented with a specific market setting and required to engage in several decision-making rounds. After each iteration, the decisions of other market participants are revealed. The main limitation of such studies is the unnatural setting and the concern that market participants may not behave as they would in a real setting.

support those of Corless and Parker (1987) (see above), in that auditors do not appear to be biased towards a more favourable assessment when they assess systems designed by their firm's systems group (although in some cases the opposite effect was observed).

Emby and Davidson (1997) conduct an experiment using auditors to examine the impact of four factors (including NAS provision) on auditors' ability to resist management pressure in a dispute over the disclosure of a contingent claim. It is found that auditors are *more* likely to insist on disclosure when they provided the client with NAS.

7.5 Studies of disclosures of NAS provision

Scheiner (1984) examines whether the introduction of NAS disclosure requirements by the SEC in 1978 (ASR No. 250, see footnote 8 above) influenced the amount of NAS purchased from the incumbent auditor (a decision made primarily by the client company). It is argued that there would have been little opportunity to make substantial changes in services in the first year of disclosure, so these base levels are compared with the following year. In addition to total NAS fees, eight categories of service are distinguished. No significant reduction in total NAS fees is observed and only one type of service (personnel services – the service attracting most criticism in relation to joint provision) showed a significant reduction.

Glezen and Miller (1985) explore stockholder reaction to ASR No. 250 disclosures (see footnote 8 above). Stockholder reaction is evidenced by stockholder approval of auditors (data collected from companies via a mail survey), with votes against reappointment taken as a signal that stockholders disapproved of the level of joint service provision. No significant decline in the auditor approval ratios between the pre-disclosure period and the post-disclosure year were found (in fact, slight increases were observed). This suggests that stockholders were unconcerned about the joint provision of audit and NAS adversely affecting auditor independence.

Gul and Yap (1984) ask auditors, managers and users (bankers and shareholders) in Malaysia whether the disclosure of fees paid to the auditor for audit and for NAS would lead to a better understanding of the relationship between the auditor and the client. 87% of auditors agreed, the percentages for the other three groups ranged between 55% and 63%.

Lennox (1999) examines voluntary disclosure of NAS fees in a period immediately before the requirement became effective in the UK, but after the requirement was announced. Examination of UK companies during 1988-94 suggests that if NAS fees are disclosed, the provision of such services appears to *strengthen* independence, consistent with the arguments of Goldman and Barlev (1974).

Frankel, Johnson and Nelson (2002) use recent SEC-mandated disclosures to investigate the share price reaction to the announcement of higher than expected non-audit fees. This requires the specification of a model of expected fees. Although a negative association is found, suggesting that investors interpret the provision as evidence of auditor impairment, the statistical significance of this finding is sensitive to the specification of the non-audit fees model. In a replication using a similar dataset, Ashbaugh, LaFond and Mayhew (2002) find no association.

7.6 Summary and comments

The many studies on the impact of NAS provision on auditor independence perceptions offer somewhat conflicting and inconclusive results. While the majority indicate that NAS provision impairs independence perceptions for at least a significant proportion of respondents, others suggest that independence perceptions are either unaffected or enhanced and yet other studies show that decisions can be unaffected even if independence perceptions are negatively affected.

This type of study suffers from a number of limitations. Non-response bias is one limitation. However arguably a more serious threat to the validity of the findings of these studies is the risk of demand effects, whereby respondents can see the focus of the research and respond in the manner they think is expected by the researcher. This is a particular danger in experimental, case-based studies that utilize a ‘within-subjects’ design rather than a ‘between-subjects’ design (i.e., a repeated measures design) as many of the early studies do (Pany and Reckers, 1987).

It is difficult to compare the results from the studies discussed in this chapter, since both the specific proxy measures used to capture joint NAS provision and the nature of the response elicited varies considerably across studies. Moreover, the economic and regulatory environment is likely to vary both between countries and over time. The general finding to emerge from early studies was that joint NAS provision is viewed by all parties (especially users) as a significant threat to independence. The higher the relative amount of NAS provision by the incumbent auditor, the greater the perceived level of impairment.

More recent studies, however, have not used a directional hypothesis, rather they have acknowledged the potential beneficial impact of joint provision on auditor independence. Several studies find that joint provision is viewed as enhancing auditor independence.

Two other strands of literature were examined in this chapter. Experimental studies of actual auditor independence in settings where joint provision occurs have tended to show that auditors, if anything, behave *more* independently. They become more critical when faced with the self-review threat and increase their effort generally. Second, the introduction of disclosures regarding NAS provision by auditors fails to result in significant changes to NAS purchase decisions or negative share price reactions.

CHAPTER 8

ASSOCIATIONS BETWEEN JOINT PROVISION, PRICING AND AUDIT TENURE

8.1 Introduction

As business practices became more complex, it was natural for companies to seek advice and professional services from their auditor. The reason why both auditor and client company are happy to have services provided that complement the audit is due to the existence of economies of scope. If production efficiencies lead to cost savings that are retained in whole or in part by the auditor (i.e., not wholly passed on to the client company), then economic rents accrue to the auditor, increasing the economic-based threats to independence through increased bonding. For this reason the pricing effects of joint audit and NAS provision have been studied as an indirect means of assessing auditor independence.

The nature of economies of scope is discussed in section 8.2. Attempts at modelling the pricing consequences of knowledge spillovers are briefly discussed in section 8.3. The available evidence regarding such economies is presented in sections 8.4 and 8.5 (the former reviews the many studies using archival (i.e., publicly available) data, while the latter reviews those few studies using proprietary (i.e. private) data. Section 8.6 looks at evidence from initial bid pricing. Section 8.7 presents the evidence from studies that focus on auditor tenure and auditor change as proxies for the level of economic bonding. A final section summarises and concludes.

8.2 Economies of scope

Economies of scope refer to cost savings that arise when the same person or firm provides two types of service (i.e., joint production). These savings are also referred to as externalities or spillovers. Economies of scope are of two types: ‘knowledge spillovers’ and ‘contractual economies of scope’ (Arruñada, 1999a, pp.75-77). Knowledge spillovers occur when two different services require elements of the same information set and/or the same professional qualifications. Contractual economies of scope arise because the provision of professional services has associated with it high transactions costs due to the informational asymmetry existing between supplier and client. Joint provision reduces the cost of searching for a credible consultant and the cost of ensuring contractual performance.

Arruñada argues that the relative significance of contractual economies of scope is growing for the large audit firms (now more commonly known as professional service organisations or multi-disciplinary partnerships). It is noted that different divisions or even companies commonly provide the different services. Knowledge spillovers are seen to be increasingly non-client-specific.

8.3 Modelling knowledge spillovers

Simunic (1984) provides a model of knowledge spillovers (or cost interdependencies) that relates to client-specific spillovers. He notes that the form of the knowledge spillover can be complex:

- knowledge may flow from auditing to NAS, from NAS to auditing or in both directions;
- the fixed cost, variable cost or both may be affected; and
- the knowledge spillover may be client-specific or general.

Beck, Frecka and Solomon (1988a) concurrently model the markets for audit and NAS, thereby extending the DeAngelo (1981b) model. They assume, *inter alia*, that the market for new audit engagements is competitive while that for replacement audits is quasi-competitive. The quality of services provided is not included in the model. They show that the extent to which auditor-auditee bonding increases depends on the magnitude of NAS start-up and switching costs, audit cost savings due to knowledge spillovers, and whether or not the engagement is recurring. While NAS provision was *generally* shown to result in greater bonding, knowledge spillovers on recurring engagements could reduce this incremental bonding. For non-recurring NAS engagements, knowledge spillovers increased the level of bonding.

Possible synergies are modelled by Antle and Demski (1991).

8.4 Evidence of economies of scope using fee data

8.4.1 Seminal study (Simunic, 1984)

The seminal empirical work in this area is that of Simunic (1984). His basic approach is to compare audit fees paid by clients in a situation where only audit is purchased to fees paid when both are purchased from the same auditor. This approach is taken because data on the *existence* of NAS only is available (NAS fee data was not disclosed in the US at that time). Only Big Eight auditors are considered, in order to control for possible quality differences. The data is based on a sample of 397 US publicly held companies. He finds that the audit fees of clients who also purchase NAS from their auditors are significantly *higher* than audit fees of clients who do not do so. While this somewhat counter-intuitive result is consistent with the existence of joint production efficiencies (under the assumptions made by Simunic), other interpretations cannot be ruled out. These include:

- systematic differences between NAS purchasers and non-purchasers that affect the demand for services;
- supplier cross-subsidisation between markets – i.e., predatory pricing of NAS;
- audit firms do not (as assumed) bill joint cost savings to clients in a systematic manner consistent with the physical flow of knowledge.

The relative elasticities of demand for audit and NAS is another crucial factor affecting pricing effects. Simunic also notes that, if efficiencies are appropriated as rents to the audit firm, this can threaten independence. The degree of competition among CPA firms is, therefore, critical. To the extent that cost savings are passed on to the client company, it might be argued that this will be via a lower audit fee, as audit is more price elastic than NAS (Firth, 1997b, p.514).

Since this initial study, many others have documented a positive association¹⁹ between audit and non-audit fees. NAS fees paid to the auditor are generally modeled as a function of audit fees and other control variables such as auditee size, auditor type and industry. In some studies, this finding is a by-product – the focus of these studies being to investigate the determinants of audit fees. NAS fees are included as

¹⁹ A positive association means that both variables move in the same direction. In this context, it means that higher NAS fees are associated with higher audit fees.

an independent variable in the audit fee equation, either as the primary variable of interest or sometimes merely as a control variable. A related set of studies model fee cutting on initial audit engagements (see section 8.6).

8.4.2 US studies

Simon (1985) replicates Simunic's (1984) study using more recent data for 1978-83. He relies on voluntary disclosures made in proxy statements. He finds similar results, i.e., a positive relationship between audit and NAS fees paid to the incumbent auditor. Thus, increasing NAS fees tend to be associated with increasing audit fees.

Palmrose (1986a) also finds a positive relationship. She decomposes NAS into types, to investigate whether the proximity of the service to accounting influences the existence and magnitude of any cost savings. It is found that the relationship is strongest for accounting-related NAS, although it exists for tax and non-accounting services too. However, she also finds a similar positive relationship between audit fees and the NAS fees paid to *non*-incumbent firms, a finding that weakens the argument for knowledge spillovers. She speculates that more audit effort could be required to audit NAS purchasers if these have audit implications.

The study by Abdel-Khalik (1990) uses more sophisticated statistical methods than the other studies to conduct a more direct test for spillovers. However, like Simunic's original study, it is based (in this case for positive reasons) on the existence only of NAS provision by the auditor. Abdel-Khalik argues that a client's ability to capture the benefits from knowledge spillovers depends on the evaluation of the cost of search and displacement of the incumbent auditor, while the audit firm's incentive to pass on the economic benefits depends on their degree of monopoly power in the relevant segment of the audit market. Both types of incentive are influenced by the client's assessment of local audit market conditions.

He points out that, because the degree of substitutability and complementarity of purchased NAS in relation to the client's own internal systems cannot be evaluated from public information, using NAS fees as an indicator of level of service is risky and may result in a spurious correlation between audit and NAS fees (p.319). Instead, he focuses on the dichotomous decision to purchase (or not) NAS from the auditor. Abdel-Khalik tests for knowledge spillovers by evaluating the cost of the client's self-selecting into one regime or the other. Measures of self-selection bias are estimated using the Heckman-Lee two-stage method of switching regressions. Based on a sample of 84 companies, he finds no significant link between audit and NAS fees. Solomon (1990) provides a discussion of this paper.

Whisenant, Sankaraguruswamy and Raghunandan (2002) make use of recent SEC-mandated NAS fee disclosures (SEC, 2000). The methodology used represents a significant departure from previous single-equation models.²⁰ The authors show (using Hausman tests), that audit and non-audit fees are endogenous (i.e., determined

²⁰ Typically, studies of audit fee determinants relate audit fee to a range of independent (i.e., exogenously determined) variables. The audit fee model is a single equation that is then estimated using regression analysis. NAS fees is often included as an independent variable. A positive coefficient on the NAS variable indicates a positive association between NAS fees and the dependent variable (audit fees) after controlling for the other independent variables in the model (such as company size, audit risk and audit complexity).

within the system), suggesting that the levels of the two services are jointly determined. This introduces simultaneous-equations bias into the estimations, and consequently the results of such studies are unreliable. Using single-equation audit and non-audit fee models, they replicate the positive association between audit and non-audit fees found in most prior studies. However, using a simultaneous-equation model (which controls for the simultaneous bias), it is found that joint provision leads to *lower* audit fees (as might intuitively be expected if knowledge flows from non-audit to audit and results in cost savings for the auditor). Moreover, the size of the impact is economically significant – every 1% increase in NAS fees is associated with a 0.33% reduction in audit fee.

8.4.3 UK studies

NAS fees is the variable of interest in Ezzamel, Gwilliam and Holland's (1996) study based on data from 314 UK quoted companies. They find a significant positive association between audit and non-audit fees similar to that found in prior US and Australian studies. They explore the nature of this relationship by examining the interaction between NAS and other factors that appear to affect audit pricing.

Nine interaction terms (these are additional independent variables created by multiplying NAS fees by one of the other independent variables) are introduced into the model. Four are found to be significant, suggesting that NAS fees may moderate the association between other independent variables and audit fees. Specifically, when NAS is combined with two complexity variables, a Big Six dummy variable²¹ and a regulated industry dummy variable, significant negative relationships emerge. This means that Big Six auditees and companies operating in a regulated industry have lower fees, after controlling for other determinants of audit fees.

O'Sullivan and Diacon (1996) look at fees in the UK insurance industry, a sector of the market where customer and ownership interests merge. NAS fees is one of the variables of interest. A significant positive association is found, i.e. higher NAS fees are associated with higher audit fees.

Beattie, Goodacre, Pratt and Stevenson (2001) explore audit fee determinants in the voluntary sector using data from 210 top UK charities. This is a market where the Big Six do not dominate to the same degree as in the listed private sector. This study too documents a significant positive association between audit and non-audit fees paid to the auditor.

McMeeking, Pope and Peasnell (2002), using data for nearly 500 companies from 1992-1995, estimate a simultaneous-equation model of knowledge spillovers, similar to Whisenant *et al.* (2002). The model estimates reveal a positive relationship between audit and non-audit fees. This is interpreted as implying that the Big Six premium is driven by endogeneity between audit and non-audit fees, that firms use joint product pricing strategies and that client companies will pay a premium for the provision of NAS.

²¹ Dummy variables are used in regression analysis to capture possible explanatory (i.e., independent) variables that consist of two categories, such as Big Six auditor or not. The dummy variable is set to the value of 1 for Big Six auditors and 0 otherwise.

Ezzamel, Gwilliam and Holland (2002) make use of survey-sourced data regarding types of NAS provided by the auditor to explore the link between NAS and audit fees. They distinguish five categories of service: accounting-related; finance-related; tax-related; management consultancy; and other. They find a significant positive association with audit fees for tax and corporate finance services, but no significant association for the other three categories of service. None of the service categories provided by non-incumbent auditors was associated with audit fees, nor was the existence of an internal audit function. The authors conclude that their evidence suggests that the positive link between NAS and audit fees is due to client-specific differences, rather than an economic link between the cost functions for NAS and audit.

8.4.4 Norwegian studies

Firth (1997b) finds a significant positive association between audit and NAS fees paid to the incumbent auditor, based on data for 157 listed companies for 1991 and 1992. This was a time when new regulation requiring disclosure of NAS fees paid to the auditor had just become effective.

8.4.5 Australian studies

Barkess and Simnett (1994) find a significant positive relationship between fees paid to the auditor for other services and audit fees. In their study, NAS fees paid to the auditor is the dependent variable; it is more usual for NAS fees to be an independent variable in an audit fee model.

Butterworth and Houghton (1995) include NAS fees as a control²² variable in a price-cutting study, finding a significant positive association with audit fees. Jubb, Houghton and Butterworth (1996) include NAS fees as a control variable in a study focusing on the nature of risk in audit fee determinant studies. A significant positive relationship is found based on data from over 200 publicly listed Western Australian companies.

8.5 Audit effort

Davis, Ricchiute and Trompeter (1993) use a different method of investigation. They obtain private, internal data from an audit firm (audit hour and billing rate) that allows them to undertake a more direct (and hence more powerful) test for knowledge spillovers. They show that increased audit effort (rather than economies of scope) can explain the increased audit fee associated with the provision of NAS by the auditor. It follows that the increased audit fees observed in the presence of joint NAS provision do not constitute an enhanced incentive for the auditor to compromise their independence.

Johnstone and Bedard (2001) obtain proprietary data from an audit firm regarding engagement planning and bid pricing for a set of initial engagement proposals that a single firm submitted to its prospective clients in 1997-98. The objective is to examine the influence of client risk factors and NAS provision. The authors note that the positive association between audit and NAS fees found by most archival research²³ may result from additional effort required, due to the different

²² Control variables are independent (i.e., explanatory) variables that are not the variable of key interest. To investigate the variable of interest it is necessary to include other correlated explanatory variables in regression models if the model is to be well-specified and produce reliable results.

characteristics of clients who seek NAS, or it may be auditors seeking to extract fee premia beyond the additional effort required. While the former is unlikely to compromise independence, the latter is.

Using data from 336 bids, it is found that the firm plans more effort for clients purchasing additional services. There is no evidence that NAS clients have additional problems (i.e., are systematically riskier) that might lead the firm to plan more effort or seek a higher fee. There is, however, evidence of greater use of industry experts, which may imply the assignment of engagement personnel who can better integrate the multiple services provided. The firm proposes a small but significant fee premium after controlling for the incremental effort, however an analysis of accepted versus rejected bids shows that this fee premium is bid away in the market.

Johnstone and Bedard's explanation for these results is that the firm sees the possibility of increased quality through synergy across services and sets bid prices accordingly. They conclude that the incremental effort applied, use of more industry specialists and attempts to charge a fee premium (and not a discount) are inconsistent with the SEC's concerns regarding the impact of joint NAS provision on audit quality.

8.6 Lowballing

Many studies consider the impact of an auditor change on audit fees. The reduction that is normally observed²⁴ is considered potentially undesirable insofar as it may signal that the fee charged is below cost. This is felt to undermine audit quality in the long-run. Various terms have been used in relation to fee reductions associated with auditor changes: 'lowballing', 'predatory pricing', and 'fee discounting'. In the presence of joint service provision, the concern is that there is cross-subsidisation, with audit being a loss-leader.

Regression studies of audit pricing in initial engagements do not all consider the impact of NAS provision by the auditor. Of the studies included in footnote 24, only Turpen (1990) includes NAS fees as a control variable in estimating a model of audit fees for initial engagements, finding a positive relationship. In other words, initial audit fees are higher in the presence of NAS provision by the auditor.

In the UK, McMeeking (2001) considers the association between audit and non-audit fees following a change of auditor. The model simultaneously tests for evidence of fee cutting, cross-subsidisation, loss leader pricing and knowledge spillovers. Using data from 1992-1995 for the top 350 listed companies, he finds that changes in audit fees are negatively associated with the change in non-audit fees conditional on a change of auditor dummy variable. Although the coefficients on these variables are not statistically different from zero, McMeeking interprets this finding as indicative that both audit and non-audit fees are cut following a switch.

²³ Archival research is research based on publicly available data.

²⁴ See, for example, Simon and Francis (1988), who observe an average price cut of 24%; Turpen (1990) who observes an average price cut of 19%; Ettredge and Greenberg (1990), who observe an average price cut of 25%; Gregory and Collier (1996) (a UK study), who observe an average price cut of 22%; and Craswell and Francis (1999), who observe an average price cut of 30% from non-Big 8 to Big 8 auditors.

8.7 Auditor tenure and auditor change studies

Beck, Frecka and Solomon (1988b) test their model of knowledge spillovers (see section 8.3 above) using tenure as a proxy for economic bonding. It is found that tenure is significantly higher for a high recurring NAS sample than for the control sample, consistent with their economic bonding model and with empirical results relating joint NAS provision to audit fees. However the small tenure difference suggests that the incremental bonding effect is small and it is concluded that 'the results do not provide evidence that auditor independence is impaired substantially by MAS involvement' (p.83).

DeBerg, Kaplan and Pany (1991) argue that the provision of NAS services will increase the economic bond between the auditor and the client company and so reduce the incidence of auditor change (i.e., increase the length of auditor tenure). Using data from 1978 to 1982 (the period during which US companies were required under ASR 250 (SEC, 1978, see footnote 8 above) to disclose the ratio of NAS to audit fees), they seek to improve on the methods employed by Beck *et al.* (1988b). They use a matched pairs design to test whether the NAS consumed by a set of companies that changed auditors differed from those consumed by a set of companies that did not change auditors.

No significant differences were found between the level of total, recurring, or non-recurring NAS purchased by changers. Thus, the allegation that audit firms will be more likely to retain NAS purchasers as clients is not supported.

Barkess and Simnett (1994) also test the link between NAS provision and tenure, using Australian data. They too find no significant relationship between the two variables.

8.8 Summary and comments

It has proved to be very difficult to present unambiguous evidence regarding economies of scope. This is because, firstly, the potential interactions between auditing and other services are extremely complex (see, for example, Gaver and Gaver, 1995). Secondly, the quality of data available has generally been very poor. Early US studies relied on fee data from surveys, introducing a possible response bias. Throughout, cost data has not been publicly available. A more conclusive test for cost interdependence would require explicit separation of the price and quantity components of fees, which would require proprietary data on the production functions of audit firms.

Interpretation of the persistent general finding that audit and NAS fees paid to the auditor are significantly positively associated is extremely problematic. There is clearly no evidence that cost savings from joint provision are being passed on to the auditee. Nor is there evidence that audit is being used as a loss leader. Perhaps 'excess' audit fees are compensating for abnormally low consultancy fees (although this seems unlikely given the competitive nature of the audit market) (Firth, 1997b, p.522). It may be that the higher audit fee represents a composite quasi-rent. Perhaps firms requiring NAS require more audit effort because of their characteristics.

After nearly 20 years of research, the conclusion reached by Solomon (1990, p.328) remains valid:

‘...the impact of [NAS] on audit pricing as well as who (i.e., the client or the auditor) benefits from knowledge spillovers (if they exist) remains an open and interesting question’.

The very recent working paper by Whisenant *et al.* (2002), which finds the intuitive negative association between audit and non-audit fees using more sophisticated methods of estimation, may represent a significant step forward in unravelling the mysteries of service pricing in the presence of joint provision.

There is limited evidence that, in the presence of joint provision, audit firms increase audit effort, do not reduce fees on initial audit engagements and are no more likely to enjoy longer periods of tenure. These findings do not suggest the existence of auditor independence problems.

CHAPTER 9

EVIDENCE OF ASSOCIATION BETWEEN JOINT SERVICE PROVISION AND AUDIT OPINION DECISIONS/AUDIT FAILURES

9.1 Introduction

The audit opinion studies (section 9.2) generally use, as a surrogate measure of actual auditor independence, the auditor's propensity to issue qualified audit reports (often specifically going concern qualifications). Naturally, to investigate the impact of joint NAS provision on this propensity, it is necessary to control for other factors that may affect the type of audit report issued.

The audit failure studies examine the characteristics of cases of alleged audit failure to reveal whether joint NAS provision is a feature (section 9.3).

9.2 Empirical studies

In this section, studies are grouped by country, and presented in chronological order.

9.2.1 US studies

Roush, Jacobs and Shockley (1992) find no statistically significant relationship between NAS and qualified opinions, or between tenure and qualified opinions.

Pringle and Bushman (1996) predict that failed firms receiving unqualified opinions prior to failure will purchase more NAS from their auditors than those receiving qualified reports. Using ASR 250 disclosures (see footnote 8 above), no difference is detected.

DeFond, Raghunandan and Subramanyam's (2002) study also focuses on the question of whether NAS impair auditor independence, by investigating the propensity to issue going concern audit opinions. They too find no evidence of impairment due to NAS fees, and find that auditors are *more likely* to issue going concern opinions where audit fees are higher. These findings suggest that market-based incentives, such as loss of reputation and litigation costs, dominate the benefits auditors are likely to receive from compromising their independence to retain clients that pay larger fees. The authors conclude that recent SEC regulations relating to NAS are unnecessary.

9.2.2 UK studies

Lennox (1999) analyses data for 987 companies between 1988 and 1994, finding a *positive* weakly significant association between audit qualifications and disclosed NAS. He concludes that 'current UK policy may be justified in not banning NAS. This conclusion is strengthened if policy-makers take account of the economies of scope that may accrue from allowing the joint provision of audit and NAS' (p.250).

9.2.3 Australian studies

Wines (1994) appears to be the first study to find a significant association. He showed that auditors of a sample of 76 Australian companies who grant unqualified opinions receive a higher proportion of their revenue as NAS fees than do auditors who qualify their reports.

Barkess and Simnett (1994), using a much larger sample of 2,094 observations of Australian data, find no relationship between NAS provision and the type of audit report issued. Craswell (1999) does not find a link either.

Sharma and Sidhu's (2001) study focuses on 49 Australian companies facing imminent bankruptcy. He investigates whether the proportion of NAS to total fees is associated with the propensity to issue a going concern qualification in the year preceding bankruptcy. It is argued that this is a more appropriate context for study. It helps to rule out the possibility that the absence of a going concern qualification arises because the auditor believes that the NAS will allow management to successfully turn the company (p.619). A positive relationship is found, suggesting that higher NAS fees reduce the likelihood that a qualified report will be issued, a finding attributed to impaired auditor independence. The same study is reported in another paper (Sharma (2001).

Craswell, Stokes and Laughton (2002) explore the link between auditor independence and fee dependence at the local office level. Previous studies have shown that the threats to independence are perceived to be more extreme at the office level than the firm level (Beattie *et al.*, 1999). While their study focuses on the effects of audit fee dependence, the effects of NAS fee dependence are controlled for. They find no evidence that the level of fee dependence affects the auditor's propensity to issue unqualified audit opinions.²⁵

9.3 Evidence from audit failures

Antle, Griffin, Teece and Williamson (1997), in a report prepared on behalf of the AICPA, find that in only 3 of the 610 claims against US auditors were there allegations that independence was somehow impaired by the supply of NAS (reported in Arruñada, 1999b, p.519).

Using an overlapping data set, Palmrose (2000) found that less than 1% of the lawsuits against auditors in the US between 1960 and 1995 (numbering over 1,000) included an allegation involving the provision of NAS.

9.4 Summary and comments

Clearly the evidence regarding a link between NAS fees and the propensity to issue a qualified opinion is mixed. A few studies do find a link (Wines, 1994; Sharma, 2001), whereas most do not (Barkess and Simnett, 1994; Craswell, 1999; DeFond *et al.*, 2002; and Craswell *et al.*, 2002). To be valid, it is important that the audit opinion models being estimated are well-specified and that there are no omitted variables that influence the decision. There is a great danger of self-selection bias in these studies, in that the circumstances of client companies that acquire non-audit services may well be systematically different from those who do not. For these reasons, even in cases where an association is observed, it cannot readily be interpreted as auditors compromising their independence to retain high NAS fees. Finally, joint service provision has not featured as a significant factor in litigation against auditors.

²⁵ Reynolds and Francis (2001) examine the issue of economic dependence and the propensity to issue a going concern audit report at the office level for US companies. Economic dependence is measured using client company sales data and no link is found. Since NAS fees are not used, however, the implications for NAS provision are unclear.

CHAPTER 10

EVIDENCE OF ASSOCIATION BETWEEN NAS FEES AND EARNINGS QUALITY

10.1 Introduction

Until very recently, there were no studies that examined whether the provision of NAS impacts upon the attributes of accounting numbers. The absence of published NAS fee data in the US until recently is one reason for this. In the last two years, several (mostly as yet unpublished) papers have explored the link between earnings quality (or earnings conservatism or earnings management) and NAS. Earnings quality is, in part, a function of auditor independence.

10.2 Earnings management and the measurement problem

The academic and professional literature offers a variety of definitions of earnings management. A typical recent offering is ‘earnings management occurs when managers use judgment in financial report and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers’ (Healy and Wahlen, 1999, p.368).

The earnings figure emerges from the application of accrual accounting, by applying accounting principles for revenue recognition and the matching of expenses with revenue. The main reason for reporting earnings figures (in addition to cash flows) is to help investors assess the performance of the company, generally by smoothing reported earnings. However, given managerial incentives and the existence of discretion in applying accounting principles, there is concern that companies are using such practices to ‘stash accruals in cookie jars during good times and reach into them when needed in the bad times’ (Levitt, 1998). The key question, posed by (Dechow and Skinner, 2000) is: when does the appropriate exercise of managerial discretion become earnings management?

Studies of this type require a measure of earnings management activity and the most common approach is to use a measure of discretionary accruals²⁶ as a proxy for this. Discretionary accruals are measured using the Jones (1991) model or a variant thereof. To estimate discretionary accruals, studies first identify total accruals, measured as the difference between reported net income and cash flows from operations. Total accruals is then regressed on variables (such as revenues and gross fixed assets) that would explain the normal level of accruals. Discretionary accruals then emerge as the residuals from the regression model.

10.3 Empirical studies

10.3.1 US studies

Chung and Kallapur (2001) make use of the recent NAS fee disclosure requirements to investigate the link between client importance and abnormal accruals (estimated using the modified Jones model). Client importance is measured as the ratio of client fees to audit firm’s total US revenues and also as the ratio of client non-audit fees to audit firm’s total US revenues. After controlling for other variables that influence

²⁶ Also termed unexpected or abnormal accruals.

abnormal accruals, no significant association is found for a sample of 1,864 companies filing with the SEC during early 2001.

Frankel, Johnson and Nelson (2002) also make use of the recent NAS fee disclosure requirements to investigate the hypothesis that auditor independence is inversely related to earnings management. They use the ratio of NAS fee to total fees as an indicator of auditor independence. Three earnings benchmarks are explored, and two different models are estimated. The first model focuses on whether the company does or does not meet/beat an earnings benchmark. The second model tries to explain the absolute level of discretionary accruals (which captures both income increasing and income decreasing earnings management behaviour).

Based on fee data from over 3,000 proxy statements filed in early 2001, they find that companies with higher relative NAS fees are more likely to meet or beat analysts' forecasts and report large discretionary accruals, regardless of the size of the auditor. This is interpreted as evidence that NAS provision impairs independence. However, there is no association with two other earnings benchmarks. Unfortunately, the absence of any time series data introduces the possibility that these findings may be attributable to the specific economic conditions prevailing during 2000 (Ruddock, Taylor and Taylor, 2002).

Using a similar dataset, Ashbaugh, LaFond and Mayhew (2002) replicate and extend the analysis of Frankel *et al.* (2002), finding similar results. However, they go on to argue that audit fee levels are a more appropriate proxy for auditor independence risk (economic bonding)²⁷ than fee ratios. They also use a measure of discretionary accruals that is adjusted for firm performance, thereby providing a stronger test. Contrary to Frankel *et al.* (2002), but consistent with Chung and Kallapur (2001), they find no systematic evidence that firms violate their independence as a result of clients paying high fees.

Dee, Lulsegad and Nowlin (2002) also use the recent US NAS fee disclosures to examine the link between earnings management and NAS provision. They find that, for a sample of Standard & Poor's companies, those paying high relative amounts of NAS fees to their auditors have income increasing discretionary and total accruals, suggesting that NAS provision does impair auditor independence.

10.3.2 UK studies

Gore, Pope and Singh (2001) investigate the auditors' ability to control client earnings management activity to avoid losses, using discretionary accruals as a proxy. This approach assumes that firms have incentives to manage earnings upwards to meet various earnings targets (level, change and surprise), using data for non-financial quoted companies between 1992 and 1998. They find a positive association between the ratio of non-audit to total fees and management activity to avoid losses and earnings decreases for only non-Big Five firms. However, evidence of earnings management to meet analysts' forecasts is found for client companies of both non-Big Five and Big Five firms.

²⁷ Economic bonding is another term for economic dependence.

10.3.3 Australian studies

Gul and Tsui (1999) showed that earnings have less explanatory power for market returns for Australian companies that receive NAS from their auditors than those that do not, suggesting that investors have less confidence in the financial statements of the former (quoted in Dunmore and Falk, 2001).

Ruddock, Taylor and Taylor (2002) use a six year time series of Australian data to investigate the link between joint NAS provision and earnings conservatism (defined as asymmetrically faster recognition in earnings of bad news). They hypothesise that Big Six auditors will encourage more conservative financial reporting than non-Big Six auditors, as they have greater reputational capital at stake (deAngelo, 1981b).²⁸ They also expect that the provision of NAS is less likely to impair the independence of Big Six auditors, due to their greater size.

Initial tests of the first hypothesis provide a benchmark against which to compare the results obtained when NAS fees are introduced as a possible proxy for alleged reductions in auditor independence. They find, consistent with extant evidence, that Big Six audit firms are associated with more conservative earnings. They also find that NAS provision is not associated with a reduction in earnings conservatism, at least for the Big Six firms. This finding is *inconsistent* with the popular allegation that NAS provision impairs auditor independence. The authors suggest that the concerns about the effect of NAS on earnings conservatism are misplaced.

10.4 Summary and comments

Once again, the evidence from this line of research is inconsistent and unclear. Some studies find that NAS provision is negatively associated with earnings quality (Frankel *et al.*, 2002; Dee *et al.*, 2002), while others do not (Chung and Kallapur, 2001; Ruddock *et al.*, 2002). One or two studies find this association only for small auditors (Gore *et al.*, 2001; Ruddock *et al.*, 2002). The difficulties with this line of research lie in the measurement of the proxy variable for auditor independence and the validity of the proxy itself.

²⁸ This hypothesis has been empirically supported by discretionary accrual studies.

PART 4 OVERALL SUMMARY AND CONCLUSIONS

CHAPTER 11 OVERALL SUMMARY AND CONCLUSIONS

11.1 Overall summary

11.1.1 Models of auditor independence

Formal modelling studies generally show that the joint provision of audit and NAS by incumbent auditors does not adversely affect auditor independence. This is a significant finding, in that it allows us to see that economic incentives generally act to produce independent behaviour on the part of auditors.

Other studies recognise behavioural factors, drawing upon concepts in moral psychology. Experimental studies have found that the individual auditor's level of ethical cognition has a significant impact on audit decisions. These studies are based on hypothetical audit conflict scenarios and conducted in artificial settings. The mediating influence of the audit firm's culture is just beginning to be explored in such studies.

There also exist broader-based frameworks of auditor decision making that sacrifice the rigour of formal modelling in order to encompass a comprehensive set of factors (economic, behavioural, regulatory and contextual). One of these frameworks has been developed from recent UK case studies of real-life audit conflict situations.

11.1.2 Current regulatory frameworks

Five auditor independence regulatory frameworks are reviewed in detail, those for the UK, the US, Australia, EC and IFAC. There is recognition that independence is a matter of degree, rather than an absolute concept. The frameworks all distinguish between independence in fact (referred to as *independence of mind*) and independence in appearance, both being important. In considering the appearance of independence, it is the views of a reasonable and informed third party that are to be taken into account. Apart from the US framework, a principles-based approach is taken. The US framework is a predominantly rule-based approach comprising a series of prohibitions, although several principles are stated outside the framework.

The other frameworks identify five threats – self-interest, self-review, advocacy, familiarity or trust, and intimidation. There are four main sources of safeguards – regulatory, audit firm, client company and refusal to act. The discussion of threats and safeguards does not distinguish between independence in fact and in appearance. In relation to the joint provision of services, only intimidation does not appear a relevant threat. The practical application of independence frameworks to small companies is raised in the frameworks.

The guidelines (rules in the case of the US) in relation to a range of NAS are explicitly compared. There is less convergence among the frameworks about the level of threat which arises from internal audit and the installation of financial information systems than there is for the other threats. With the exception of the UK framework, where the recommended upper level of economic dependence for a firm is defined,

the frameworks are generally imprecise about an acceptable level of economic dependence for a firm, a specific office of a firm or an individual partner.

The Independence Standards Board (ISB) (now defunct) suggests that the regulation of independence should involve considering the costs and benefits of actions to reduce independence risk and the views of investors and other interested parties.

11.1.3 Empirical studies of NAS

These studies are divided into six categories: descriptive studies of the amount and type of NAS, studies of the determinants of the purchase decision and four types of study into the consequences of joint provision. This latter set covers the impact of joint provision on independence in appearance (by looking at the perception of independence) and the impact on independence in fact (by looking at the association between joint provision and (i) audit pricing; (ii) audit opinion and litigation; and earnings quality).

In some jurisdictions and time periods, there has been no requirement for companies to disclose the total amount of NAS purchased from their auditor. Even where this is a requirement, there is generally no breakdown of the total by service type. In these circumstances, evidence is collected via company surveys. This method generates less reliable data, due to the risk of response bias. In the UK, the ratio of non-audit to audit fees paid to the incumbent auditor has risen to 300% for the FTSE 100 companies (up from 98% in 1996). There is some evidence that taxation services predominate and that the overall ratio is higher in the UK than in the US.

Researchers have investigated three aspects of the NAS purchase decision: the choice between the incumbent auditor or another provider; the types of service purchased; and the absolute and relative amounts of NAS. A major argument is that those companies with higher agency costs have greater need of the audit as a monitoring device. The value of the audit is reduced if there are independence concerns and so companies with high agency costs are predicted to purchase less NAS from their auditor.

Studies show that, in general, and consistent with expectations, companies with higher agency costs, more effective audit committees and a lower proportion of performance-based management compensation have lower NAS fee ratios. The overall explanatory power of these models is, however, low, the amount of variation being explained is in the region of 10-20%. It may be that factors that are systematically related to the purchase decision have been omitted and/or the decision has inherently random elements.

Most perception studies either focus exclusively on actual or proposed ethical rules one-by-one or investigate a very limited number of key generic threat factors combined in experimental 'case studies'. While the majority indicate that NAS provision impairs independence perceptions for at least a significant proportion of respondents, others suggest that independence perceptions are either unaffected or enhanced and yet other studies show that decisions can be unaffected even if independence perceptions are negatively affected. These studies suffer from the risks of non-response bias and demand effects. In related strands of literature it is found that (i) actual auditor independence in settings where joint provision occurs tends to increase as they

become more critical when faced with the self-review threat and increase their effort generally; and (ii) the introduction of disclosures regarding NAS provision by auditors fails to result in significant changes to NAS purchase decisions (the decision feedback loop) or negative share price reactions (which represent the perceptions of investors in the aggregate).

The pricing effects of joint audit and NAS provision have been studied as an indirect means of assessing auditor independence. To the extent that cost savings that arise through joint production are retained by the auditor, economic-based threats to independence are increased. The persistent general finding is that audit and NAS fees paid to the auditor are significantly positively associated. However, interpretation of this finding is extremely problematic. A more conclusive test for cost interdependence would require explicit separation of the price and quantity components of fees, which would require proprietary data on the production functions of audit firms. Related strands of literature do not suggest the existence of auditor independence problems. There is limited evidence that, in the presence of joint provision, audit firms (i) increase audit effort; (ii) do not reduce fees on initial audit engagements; and (iii) are no more likely to enjoy longer periods of tenure.

Another group of studies examines the auditor's propensity to issue qualified audit reports – a surrogate measure of actual auditor independence. To investigate the impact of joint NAS provision on this propensity, it is necessary to control for other factors that may affect the type of audit report issued. The evidence is mixed. To be valid, it is important that the audit opinion models being estimated are well-specified and that there are no omitted variables that influence the decision. There is also a great danger of self-selection bias in these studies, in that the circumstances of client companies that acquire non-audit services may well be systematically different from those who do not. For these reasons, even in cases where an association is observed, it cannot readily be interpreted as auditors compromising their independence to retain high NAS fees. A related strand of literature that examined the characteristics of cases of alleged audit failure failed to show joint NAS provision to be a significant feature.

It is only recently that studies have begun to examine whether the provision of NAS impacts upon the attributes of accounting numbers. The rationale for these studies is that earnings quality (measured in terms of the degree of earnings management) is, in part, a function of auditor independence. The level of earnings management is commonly measured in terms of discretionary accruals, and this requires the level of normal accruals to be modeled. Once again, the evidence is mixed. Some studies find that NAS provision is negatively associated with earnings quality while others do not. One or two studies find this association only for small auditors. The difficulties with this line of research lie in the measurement of the proxy variable for auditor independence and the validity of the proxy itself.

11.2 Conclusions

What is clear from this review of the literature concerning non-audit services is that academic studies have found it extremely difficult to address the principal research question of interest, which is 'Does the joint provision of audit and non-audit services undermine auditor independence?' This difficulty arises for two main reasons. First, independence in fact is unobservable and so indirect (or 'proxy') measures (sometimes of questionable validity) have been used. Second, there has been a lack of

publicly available data of relevance. For example, even where the amount of NAS fee is disclosed, the split across service types is not. The audit firms themselves disclose virtually no information regarding the different lines of business.

Looking across all the available academic studies (theoretical and empirical), there is very little clear support for the view that joint provision impairs independence in fact. There is a reasonable consensus, however, that joint provision adversely affects perceptions of auditor independence.

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