Some Economics of Audit Market Reform

Abstract

The purpose of audit market reforms since 2001 is to restore public confidence in the institution of auditing based on two considerations: (1) ensuring audit quality, and (2) controlling the "adverse effect of competition" in audit supply. Market reforms for audit quality are delivered through a package of prescribed actions motivated by an analytical relationship between audit quality and its possible determinants: (1) limiting audit tenure through a combination of mandatory firm rotation, partner rotation and re-tendering; (2) limiting provision of non-audit services (NAS) by incumbent auditor; and (3) joint auditing and empowering the audit committee to enhance audit quality. This paper examines the competing independence hypothesis and expertise hypothesis that produce ambiguous theoretical relationships for audit quality-audit tenure, and independence-provision of NAS. We then review whether empirical literature resolves these conundrums. We also review the usefulness of joint auditing and empowering the audit committee to improve audit quality in the context of audit market reform.

Key Words: Audit Reform, Audit Quality, Audit Tenure, Non-Audit Services, Joint Audit, Audit Committee

JEL Classification: M4 (Accounting & Auditing); L5 (Regulation and Industrial Policy)

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1. Introduction

Audit market reform remains a buzz word more than a decade after the Enron scandal in 2001 with the primary aim of restoring public trust in the institution of auditing. Surprisingly, the aftermath of Enron alludes to the value of auditing for the smooth functioning of the capital market. This suggests that audit failure resulted in serious economic consequence which requires costly institutional changes. Although the court allowed Arthur Andersen – one of the Big-Five audit firms at the center of the Enron debacle – to resume operation after investigation, the firm did not survive the reputational and financial damages.

The Sarbanes-Oxley Act (SOX) was signed into law in the United States (U.S.) in 2002 creating the Public Company Accounting Oversight Board (PCAOB) which is tasked with developing auditing standards for public companies. Amongst many tough sanctions, the SOX bans incumbent audit firms from providing most non-audit services (NAS), makes provisions for the independence of audit committee members, requires executives to sign off on financial reports, and expands financial disclosure of the firms' relationships with unconsolidated entities. The SOX also reduces mandatory audit partner rotation from seven to five years.

Audit market reform outside the U.S. was also on overdrive. In the European Union (E.U.), audit market reform is set forth as amending the Statutory Audit Directive that need to be transposed into national laws, and a Regulation which directly applies to public interest enterprise (PIE) throughout E.U..[1] E.U. defines PIE to include listed firms and financial institutions such as banks and insurance. The E.U. audit market legislation comes into effect in June 2014 and is applicable to audits after mid-2016 with transitional arrangement for the mandatory auditor rotation requirement. The driving force for the audit reform, at least in the early stage of the Green paper, arises from the view[2] that

[1] The project webpage has the detail : ec.europa.eu/internal_market/auditing/reform/index_en.htm
[2] See: europa.eu/rapid/press-release_MEMO-10-487_en.htm?locale=en

the financial crisis in 2008 highlighted the weakness in the audit market – some large financial institutions that failed during the crisis had received clean audit reports the previous year.

The key provisions in the E.U. reform package are: First, mandating audit firm rotation for PIE after 10 years, which is extendable by another 10 years if public tender is called, or by another 14 years for joint-audit. Secondly, new rules are enacted to strengthen the audit committee, for example, having at least one member competent in accounting or auditing, and specifying requirements in the selection of external auditors. Thirdly, prohibition on using the incumbent auditor for certain NAS – such as services related to tax, valuation, internal audit and equity issue – and capping the size of allowable NAS below 70% of the average audit fee. Fourthly, additional disclosures about the audit process, including critical judgements made during the audit, are required. Finally, third parties are prohibited from imposing restrictive 'Big-Four auditor only' clauses on contracts with firms.

Audit reform in the United Kingdom (U.K.), a member of the E.U., is led by the Competition Commission[3] and focuses on the "adverse effect of competition" (U.K. Competition Commission, 2013). The proposed U.K.'s reform package differs slightly from the E.U.'s. The U.K. reform specifically excluded audit firm rotation and instead proposed mandatory re-tendering every ten years. The U.K. reform increases the power of the audit committee, audit quality and disclosure similarly to the E.U. reform. However, unlike the E.U., the U.K. specifically avoided prohibiting NAS and did not advocate joint audit. The U.K., in considering implementing its audit market reform in relation to the E.U.'s, has decided to postpone[4] the package tentatively to 4Q2014.

The U.K. reform focuses on the "adverse effect of competition" in the larger FTSE firms. According to a survey published in the International Accounting Bulletin in 2013, the global market for (external) financial audit was worth US$ 165.4b in 2012. The global market is dominated by the Big-Four

[3] Renamed as the Competition and Market Authority in 2014
[4] See www.gov.uk/cma-cases/statutory-audit-services-market-investigation

accounting firms – PricewaterhouseCoopers, Deloitte, KPMG and Ernst & Young – that control 67 percent of the market share. Small firms are generally exempted from audit in most jurisdictions. Hence, the demand for financial audit primarily arises from statutory requirement for non-exempt firms, listed firms and financial institutions.

Our review of current audit reforms in major capital markets indicates two major considerations – restoring public confidence in auditing and addressing the competitive harm in an oligopolistic audit market. Reform packages appear to be policy decisions made on a set of common components. Concurrently, the International Auditing and Assurance Standards Board (IAASB) that sets international audit standards which are adopted by many jurisdictions, has a current project to enhance the informativeness and usefulness of audit report. The enhancement indirectly becomes part of the reform through the adoption of the IAASB's auditing standards. Next, we review the economics of auditing. This is to allow us to understand the logic of current market arrangement, and provide a context for reform.

2. Economics of Auditing: The Demand Side of the Market

To appreciate the value of a financial audit, it is first necessary to understand the economics of adverse selection under asymmetry of information. The theoretical development started in 1970 when economist George Akerlof explained the phenomenon of adverse selection using the used car market as an example (Akerlof, 1970). Assume there are two types of used cars – good ones are worth $2000, bad ones are worth $1000, and there are equal numbers of good and bad cars for sales. If buyers and sellers do not know the type of car they have at the time of sales, used cars will be sold at the fair price of $1500 because at that price both parties have an expected gain of zero: suppose you are a seller, there is a 50% chance you have a bad car and gain $500 from selling at $1500, 50% chance you have a good car and loss $500 from selling at $1500, and therefore the expected gain of zero. If the price is higher, the seller will gain at the expense of the buyer, and the buyer will refuse to trade.

If only the sellers know the car's quality – there is an asymmetry of information – owners of good cars will withdraw because $1500 is below the value of good cars, but owners of bad cars remain eager to sell. There is no longer equal chance of getting good or bad cars, so the price must drop to maintain zero expected gain, which makes it even worst for owners of good cars. In the end, only bad cars remain in the market and sell for $1000. This problem where bad cars crowd out good cars is called adverse selection which arises from asymmetry of information.

Asymmetry of information is prevalent in many markets, including the capital markets – sellers (firms) know more about the value of their products (shares or bonds) than buyers (providers of capital). The difference in the capital market is that financial statements are used in pricing the financial assets via valuation or risk estimation. In other words, the product is financial capital, the price is the cost of capital, and the financial statements contain information to help price the capital. However, only the sellers know the quality of the information and comparatively, the sellers know the information better than buyers. The adverse selection problem means that the cost of capital for all firms, good and bad, will be high because of the inability of the buyer to separate the good and the bad firms.

The adverse selection problem is reduced by verifying the claims of the sellers by an independent professional who will issue a "true and fair" opinion after inspection. In the used car market example, only sellers of good cars are willing to pay a fee for the inspection since the sellers want to price their car above the current $1000 market price.

There are two problems arising from this inspection mechanism. First, there is a free-rider problem as once the inspection report is obtained through a fee, the inspection is equally valuable for every buyer and its consumption or utilization by any buyer does not diminish its usefulness to another buyer. In a way, once the inspection report is produced and released to the buyer, it becomes a public good. It is also economically more efficient for a seller to pay the mechanic to do the inspection, rather than for each potential buyer to carry out their own inspection. Therefore, in the absence of legislation, sellers should pay for the inspection report.

Second, there is a quality issue arising from the fact that if sellers are paying for the inspection report, it is possible for the mechanic to be beholden to the sellers since the economic welfare of the mechanics is involved. Therefore, the end result may be that the inspections will not be credible to the buyers because of the vested interest of the mechanics.[5] This is where self-regulation and/or legislative provisions come into the picture. Mechanics can form a professional body and require its members to abide by an ethical code which warrant the production of a quality report. The ethical code will require the mechanic to be sceptical, objective, independent, and act with integrity when providing an opinion. Violation of the code will result in professional sanction by the professional body which may include barring the mechanic from providing the inspection service in the future. On the other hand, legislative provisions can require mechanics to be registered to practice, and the promulgation of tort laws for mechanics spelling out their duty of care. The sole point of self-regulation and legislative provisions is to make the inspection credible to the buyer.

In real life, mechanics do not go through self-regulation or legislative provision for the provision of inspection reports. This is because they earn more money repairing cars then inspecting them – we

[5] This was one of the problems faced by the close relationship between the auditing partner in the case of Enron.

are expanding Akerlof's example to illustrate the economics for auditing. If auditing is not invented, the cost of capital will be much higher for most firms, resulting in huge loss in economic welfare where projects with otherwise positive net present value are not carried. The misallocation of capital is transmitted through the banking system for loanable funds, where the borrowing cost is high and covenants are impossible to enforce. Equity fund will also be more expensive due to a higher asymmetry of information between managers and shareholders.

Understanding the economics of the audit market helps to put audit reform in perspective and answer questions such as: why not let the user of audited financial statements pay for the audit and get rid of the independence problem? We recognize a market failure resulting in under consumption in two equivalent ways. First, there is non-rivalry in consumption of information goods because the use of the information by one potential buyer does not reduce the value for the other potential buyers. Second, there is positive externality where the benefit to (buyer) society is larger than to individual buyer. A common solution to market failure is to use public provision where the good is paid by government and financed by taxes. However, this solution introduces a separate problem – a wealth transfer from those not involved in trading to the interested parties – and is therefore not discussed. Next, we examine the analytical framework for the policy debate of high market concentration of audit firms especially for the PIE segment.

3. Market Concentration: The Supply Side of the Market

We examine the issue of market concentration of the Big-Four auditors considering the special characteristics of the audit market. The policy problem of market concentration is well understood by economist from the theory of monopoly illustrated by Figures 1 and 2 below:

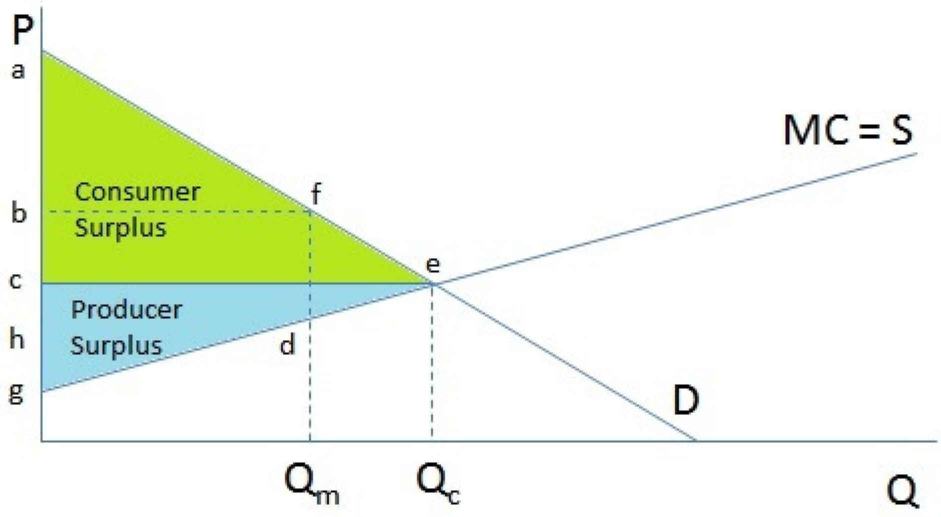

Figure 1: Welfare Analysis of Competition

From economic theory, the marginal cost (*MC*) is the supply curve (*S*). The demand curve (*D*) slopes downward. If the market consists of many firms, none of which has the ability to raise price above its competition, then the equilibrium is at *e* where the price is *c* and the output of the industry is Q_c. From economic theory, the demand curve is the consumer's willingness to buy and the supply curve is the producer's willingness to sell (and also the *MC*). At the competitive price *c*, all the consumers who are willing to pay above the price, and all the suppliers who are willing to sell for at least the price, are satisfied. In fact, since the price that consumer actually paid is below what they are willing to pay, there is a consumer surplus given by the area of the triangle *ace*. Similarly, the producer surplus is the area of the triangle *ceg*.

Suppose mergers and acquisitions occur over the years and one large firm survives as a monopolist. Assuming that the consolidation does not create any economy or diseconomy of scale and the supply curve will remain the same, namely, the horizontal summation of the supply curve of all the individual firms.

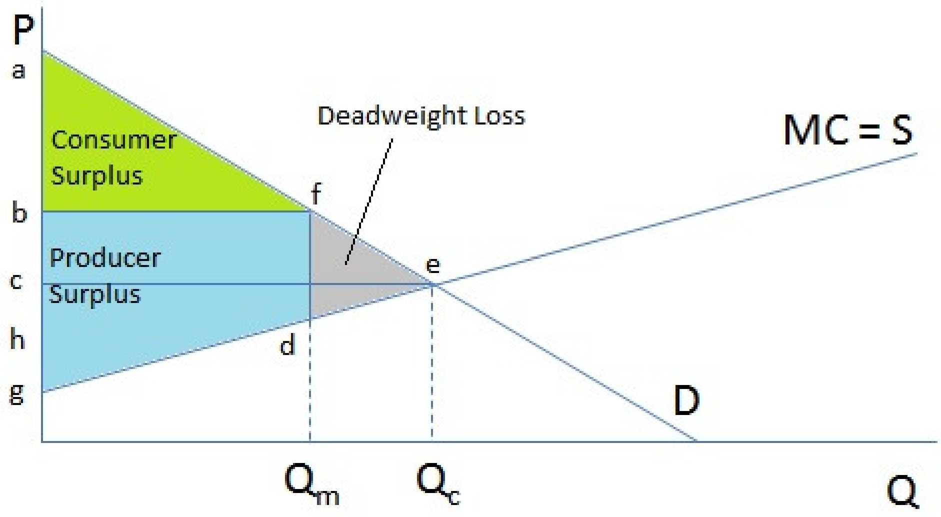

Figure 2: Welfare Analysis of Monopoly

However, in the market of one firm, the monopolist can reduce its output to raise price. In fact, a profit maximizing monopolist can choose to produce at quantity Q_m where the price will be b. Profit maximization occurs at this output where the marginal revenue (*MR*) equals *MC*, i.e. *MR* intersects *MC*. The monopolist price *b* is higher than competitive price *c* from the graph. The consumer surplus has been reduced to the area *abf* while the producer surplus has changed to the area *bfdg.*

High monopoly price *per se* is not a problem for policy makers because the buyer's expenditure is the seller's revenue resulting in a transfer. The policy concern is whether buyers and sellers are jointly better off in a monopolist or competitive environment. From economic theory, the demand curve is the consumer's willingness to buy and the supply curve is the producer's willingness to sell (and also the *MC*). At the monopolist price *b*, the consumer surplus is reduced to *abf* and a monopolist profit *bhdf* is created. The policy problem is that triangle *def* is lost, meaning buyers and sellers are jointly worst off. This area, known as the deadweight loss, represents the loss where some consumers willing to pay above the *MC* are not satisfied because of the monopolist profit maximizing pricing. The general conclusion is applicable whenever supply can raise price above *MC* – an ability called market power – it need not be a monopoly. The analysis of inefficiency for a monopolist is commonly an implicit argument for audit market reform against market power, but it does not take into account of known characteristics of audit market for the following reasons:

First, the demand for audit is mainly mandated by regulations. PIEs must have their financial statements audited as required by the relevant legislations. Private firms above a certain size, which differ in definitions and limits across jurisdictions, must also be audited. Given the mandatory nature, the market demand is therefore vertical (perfectly inelastic). Figure 3 summarizes the market for mandatory audit.

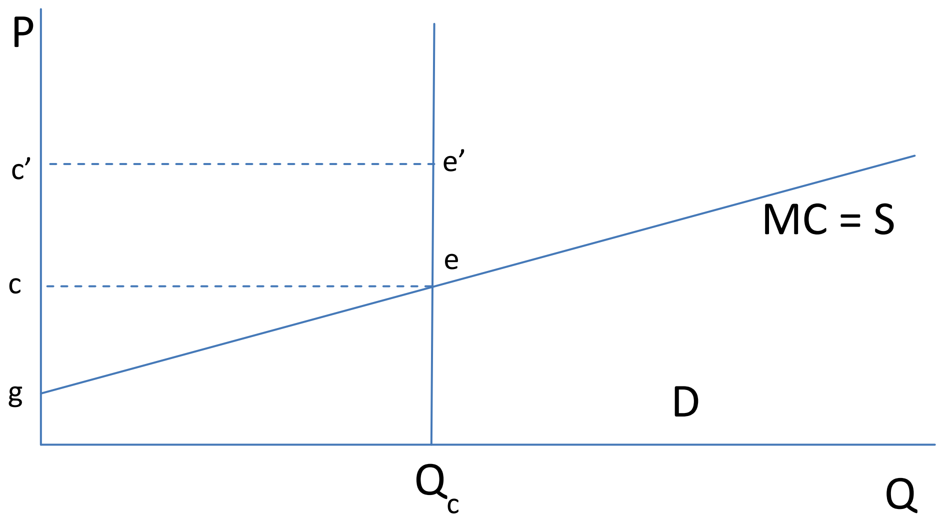

Figure 3: Supply and Demand for Mandatory Audit

Given the inelasticity of the demand curve and the monopoly power of the producer in Figure 3, instead of charging the equilibrium price of c, a monopolist can charge c'. This results in the enlargement of producer surplus at the expense of the consumer without deadweight loss

Second, there appear to be two audit segments in every jurisdiction that demand different audit quality. The PIE audit segment is dominated by the Big-Four auditors that charge a premium fee after controlling for factors such as size and complexity of the engagement. It is often argued that only the Big-Four auditors have the necessary expertise to handle the complexities of the PIE audit and to provide the relevant quality. There appears to be a consensus among practicing auditors, with some academic support (Francis, Michas and Seavey, 2013), of these segmental characteristics. The "Big-Four auditors only" clause in loan covenant which has been made illegal by the E.U. alludes to the perceived difference in audit quality for these Big-Four auditors. However, the competition amongst the Big-four auditors plus the next mid-size six or ten audit firms may create a sufficient state of competitive market to prevent the exercise of market power for the supply of PIE audit. However, the consolidation of large audit firms can entrench the market power of these audit firms such that it can create economic incentive for collusion particularly when the demand is inelastic. Therefore, audit market reform may entail the encouragement for the development of the mid-size six or ten audit firms to specialise in PIE audit or the discouragement of the big audit firms from consolidating to keep the landscape for PIE audit competitive.

The private firm segment demands auditors' report that meets statutory requirement and lower fee. In this segment, the auditors are dominated by non Big-Four auditors. In this private firm segment, audit reports may be required statutorily but they may be of relatively less or no relevance to the private firms.[6] The audit reports can be commoditised and the non Big-Four auditors will compete amongst themselves based solely on price. This becomes a race to the lowest audit fees with an acceptable level of quality. However, the challenge is that in the race for the lowest price, the quality of the audit may be compromised. Therefore, audit market reform may entail the promulgation of minimum audit standard.

[6] For example, for family firms which have very little external debts, it is doubtful that the audit report is relevant as the stakeholders are individuals who already have proprietary information of the firm. This explains why there is an audit exemption threshold, which is currently set at S$ 5 million in Singapore.

The two audit-market segments, PIE and private firms, mean that while the market demand for statutory audit is perfectly inelastic, the differing characteristics of both consumers and producers in these segments require different audit market reform policies. For the PIE segment, the audit reform policy implication should be to encourage the mid-tier audit firms to level upwards to complement the Big-Four and to reduce the opportunities for the Big-Four to consolidate to create much bigger audit firms which can result in diseconomies of scale or bureaucratic inefficiency. For the private firms segment, the audit policy approach is to ensure that resources in the society are channelled to those private firms which require audit in order to obtain lower cost of capital and the efficient functioning of the capital market. This entails the prescription of the requirement for mandatory audit for these private firms based on some measure of public interest or impact on the economy, for example, size. In addition, to prevent audit firms serving this sector from cutting corners in the quality of the audit to justify the low audit fees, relevant safeguards like inspection and audit quality assurance may be legislated to ensure that the quality of audit meets certain minimum requirements. For the minimum audit requirements to be met, small or sole proprietor audit firms may have to be encouraged to merge to form larger audit firms in order to maintain an acceptable level of audit quality particularly in a constantly evolving financial reporting and governance expectation landscape. This is particularly important as the fixed cost and specialised human capital needs for audit practice is significant.

4. Review of Reform Components

The above review shows that the primary purpose of the audit market reform must be to restore public confidence in auditing and the efficient consumption of societal resources for auditing purposes. A crux of the matter is audit quality – consequently the quality of financial statements and then efficiency of the capital market. The secondary consideration is the adverse effect of market consolidation in the big audit firms in the PIE segment and ironically the destructive competition in of small audit firms in the private firms segment. We examine the audit reform primarily from the perspective of improving audit quality.

Audit quality is an intuitively desirable but not directly observable concept. A large number of proxies for audit quality are used in academic research – and proxies of a matrix of indicators grouped into inputs, processes and outputs have been used by the PCAOB (Public Company Accounting Oversight Board, 2013) and the IAASB (International Auditing and Assurance Standards Board, 2013) – but there is no consensus on the best or ideal proxies. For this paper, we follow DeAngelo (1981b: 186) widely used definition that audit quality is “the market assessed joint probability that a given auditor will both discover a breach in a client’s accounting system, and report the breach.” This definition breaks down audit quality into two parts: (1) the likelihood of discovering existing misstatements and (2) taking action on the discovery.

Following DeAngelo’s definition, the likelihood of discovery correlates with the auditor’s professional competence which includes the auditor’s attribute of *professional scepticism* and taking action on the discovery relates to the other auditor’s attributes – *integrity*, *objectivity* and *independence* – which are input factors of the IAASB framework of audit quality (International Auditing and Assurance Standards Board, 2013).

The International Standards on Auditing (ISA), ISA 200.13(l)[7] defines *professional skepticism* as “an attitude that includes a questioning mind, being alert to conditions which may indicate possible misstatement due to error or fraud, and a critical assessment of audit evidence.” The IESBA Code of

[7] ISA 200: Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing

Ethics paragraph 100.5 defines *integrity* as being "straightforward and honest in all professional and business relationships ... implies fair dealing and truthfulness"; and *objectivity* as "not allowing bias, conflict of interest or undue influence of others to override professional or business judgments" (International Federation of Accountants, 2013). *Independence* is defined as "freedom from situations and relationships which make it probable that a reasonable and informed third party would conclude that objectivity either is impaired or could be impaired" (Auditing Practices Board, 2010). Therefore, *integrity*, *objectivity* and *independence* are interdependent. For this paper, we examine audit market reform in the light of their potential effects on audit quality through audit competency and the four auditor's attributes.

We see that audit market reform usually comprises of several components with choices within a component. We review these components in the context of the economics of auditing, competition in the audit market and potential impact on audit quality.

a) Mandatory Rotation of Audit Firms, Partners, and Re-Tendering

Auditor's tenure can be very long – the 11th biggest U.S. company by market capitalization and consumer product giant Procter & Gamble hires the same auditor for more than a century.[8] The rationale for the mandatory audit firm rotation, partner rotation and re-tendering of auditing contract is that long audit tenure reduces auditor's independence and consequently audit quality (American Institute of Certified Public Accountants, 1978; Public Oversight Board, 2000; U.S. Congress, 2002; U.S. Senate, 1976). Different countries and jurisdictions have instituted limited tenure in one form or another.

[8] Deloitte and Touche (and its predecessor firms) has been the auditor of P&G for the last 122 years (CFO Journal – accessed on 16 Sep 2014 - http://blogs.wsj.com/cfo/2012/03/22/pg-explains-why-it%E2%80%99s-had-the-same-auditor-for-a-century/)

In the E.U. reform, mandatory audit firm rotation is used with consideration for re-tendering and it is applied to jurisdictions that already have mandatory engagement partner rotation that arises from the Eighth E.U. directive 2006/43/EC (European Commission, 2006). The U.S. requires mandatory 5-year engagement partner rotation only, and U.K. only requires re-tendering every 10 years with partner rotation for listed firms. An Institute of Chartered Accountants in Scotland (ICAS) study in 2012 on mandatory audit firm rotation (Ewelt-Knauer, Gold and Pott, 2012) shows that 45% of the jurisdictions has affirm rotation requirement while 59% of them has audit partner rotation (see Table 1 below). The number of jurisdictions which previously had adopted audit firms rotation and thereafter repealed the provisions may suggest that audit firm rotation is not the way forward or that there are significant market resistance in the adoption of audit firm rotation. Nonetheless the rotation of audit partners seems to be the dominant practice amongst the jurisdictions surveyed.

Does Jurisdiction have mandatory rotation?	Audit Firm Rotation		Audit Partner Rotation	
	No of Jurisdictions	(%)	No of Jurisdictions	(%)
Never	27	39%	28	41%
Repealed[9]	11	16%	0	0%
Yes – Qualified[10]	29	42%	14	20%
Yes	2	3%	27	39%
	69	100%	69	100%

Table 1 : Jurisdictions with Mandatory Rotation

In general, the empirical evidence is inconclusive as to whether rotation of firms or partners has an impact on audit quality. This situation is due in large part to the lack of consensus of a universal audit quality component. The inconclusiveness is also due in large part to two plausible but

[9] This means that at one point the jurisdiction did have a mandatory rotation system but it has been repealed by 2012.

[10] This means that mandatory rotation is applied on q qualified basis depending on the type of firms< for example, banks, financial institutions, listed companies amongst others.

competing hypotheses (independence hypothesis and the expertise hypothesis[11]) on the relationship between audit tenure and audit quality.

In Gold et al (2012), the first hypothesis – the independence hypothesis – argues that long audit tenure threatens audit independence arising from familiarity and the incentive to retain client. The IESBA Code of Ethics at 100.12(d) defines a familiarity threat to arise "... due to a long or close relationship with a client or employer, a professional accountant will be too sympathetic to their interests or too accepting of their work". Familiarity impairs the accuracy in judging the firm's performance and reporting decisions, and hence reduce audit quality. Moreover, long tenure threatens *professional skepticism*: the auditor anticipates current results given the knowledge of prior results instead of objectively evaluate audit evidence for material misstatements. A final aspect of the independence hypothesis arises from the interaction of the economics of learning and the audit firm's pricing strategy. Audit engagement is characterised by economies of learning – the time cost of auditing incurred by the audit team and the audited firm's management decreases over successive engagement – which can provide the incentive for audit firms to price the engagement below cost to get the contract and then profit from long tenure (a practice known as "low-balling" in the audit industry). An audited firm prefers long audit tenure to avoid the learning costs incurred by their management. With or without "low-balling", auditors prefer long tenure which reduces their cost and increases profit at a constant price – with the possibility of increasing profit even more by increasing price because of the increased willingness to pay by the audited firms. Regulators view long audit tenure suspiciously, implicitly assuming that the economic dependency will impair auditor independence (DeAngelo 1981a, 1981b; Magee and Tseng 1990; Raghunandan et al 1994). The independence hypothesis therefore predicts that audit tenure decreases audit quality that mandatory audit firm rotation, or audit partner rotation, would correct.

[11] The two hypotheses tested in Gold et al (2012).

The second hypothesis – the expertise hypothesis – argues that long audit tenure allows the auditor to acquire firm-specific and industry-specific knowledge that helps the auditor to detect material misstatements in financial reports[12] (Solomon et al 1999; Johnson et al 2002). There is some empirical evidence that the lack of firm specific knowledge lowers audit quality in the early years of an audit engagement that disappears in later years (Beck et al 1988; Hoyle, 1978; Knapp 1991; Solomon et al 1999; Geiger and Raghunandan 2002; Myers et al 2003). The expertise hypothesis therefore predicts that audit tenure (up to a point) increases audit quality that mandatory audit firm rotation, or audit partner rotation, would worsen.

Paradoxically, both hypotheses rely at least partially, on the economies of learning to generate opposite predictions: the independence hypothesis considers the perverse incentive arising from economic dependency that lowers audit quality with long tenure, and the expertise hypothesis considers the cost efficiency that increase audit quality with long tenure. Following DeAngelo (1981b: 186) definition that audit quality is a joint probability to discover a breach which requires specific expertise (expertise hypothesis) and taking action on the breach which requires an independent outlook (independent hypothesis), there appears to be a theoretical conundrum trying to predict the effect of audit tenure on audit quality. Controlling for factors such as the practice of "low balling", the relationship could well be non-linear – increasing audit quality due to expertise up to a point, and then decreasing audit quality as perverse incentive dominates over time. The relation between audit tenure and audit quality therefore need to be resolved empirically.

Before proceeding to the empirical literature, it is useful to note that policy prescription on mandatory firm rotation can introduce two additional problems. First, the policy will dynamically increase market concentration, which can bring about possible "adverse effect of competition".

[12] This is akin to the reason given by the comptroller of P&G in her defence of the choice of the same auditor: "It's just the practical nature of trying to find the ability every 10 years to get that firm up and ready to try to manage an audit for a large company. Just to learn the acronyms we use in our company could take some time."

Consider a firm using a Big-Four auditor but must rotate its auditor in the coming year. If the firm has a preference for a Big-Four, it now has only three choices and not four. The choice gets even more restrictive if the audited firm currently hires Big-Four auditors for tax and advisory services (not an uncommon situation). This effectively further reduces the choice set of the audited firm. Secondly, mandatory firm rotation potentially provides firms with the opportunity to opinion shop – seeking successor auditors who are willing to issue a clean audit opinion when the incumbent auditor threatens to issue an adverse opinion – under the pretext of increase independence. If opinion shopping is successful, the audit quality is reduced with lower frequency of adverse audit opinions.

There is a large empirical literature on firm rotation, a limited literature on partner rotation, and no empirical study about audit re-tendering affecting audit quality[13]. We begin with the larger literature on firm rotation, proceed to the limited partner rotation literature, and then conclude this section with some discussion points.

There are many firm rotation studies finding convincing evidence that audit quality – measured in numerous ways – increases with longer auditor tenure. Long auditor tenure (usually exceeding three years) correlates with fewer material misstatements measured by auditor litigation and Accounting and Auditing Enforcement Releases (St. Pierre and Anderson, 1984; Carcello and Nagy, 2004); more "going concern" opinions both overall and in the year prior to bankruptcy (Louwers, 1998; Geiger and Raghunandan, 2002; Knechel and Vanstraelen, 2007); higher actual earnings quality as measured by discretionary accruals and higher perceived earnings quality as measured by earnings response coefficients (Myers, Myers and Omer, 2003; Gul, Jaggi and Krishnan, 2007; Johnson, Khurana and Reynolds, 2002; Chen, Lin and Lin, 2008; Ghosh and Moon, 2005), and a lower cost of debt (Mansi, Maxwell and Miller, 2004). There is some evidence that suggest long auditor tenure

[13] There is an unpublished paper (Gold et al, 2014) that considers audit committee autonomy and auditor selection regime (including re-tendering and rotations) using an experimental design.

may threaten auditor independence: Carey and Simnett (2006) find that longer audit tenure correlates with lower likelihood to receive going concern opinions and higher likelihood to beat earnings expectations in Australian firms. Davis, Soo, and Trompeter (2009) find that before SOX, firms had lower earnings quality for both long and short tenure firms relative to medium tenure firms. Overall, there is general support that mandatory firm rotation does not increase audit quality although there is no consensus (DeFond and Zhang, 2013; Gold et al, 2012).

Observing partner rotation is generally more difficult than observing firm rotation, and only a few archival studies have been conducted by observing signature changes on audit reports. Archival studies produce mixed results (Chi and Huang, 2005; Carey and Simnett, 2006; Chen et al, 2008; Manry et al, 2008; Chi et al, 2009). On the other hand, experimental studies on audit partner rotation (Dopuch et al, 2001; Gates et al, 2007; Kaplan and Mauldin, 2008) generally support the independence hypothesis. A German study (Gold et al, 2012) distinguishes the effect on audit quality between rotating audit engagement partner and quality review partner. The authors find that mandatory rotation of engagement partner increases audit quality while mandatory rotation of review partner decreases audit quality.

The economic rationale of mandatory re-tendering of audit contract is subtly different from rotation of firm, or partner, which is motivated by the concern that long tenure correlates with the loss of independence (and possibly *professional skepticism*) that degrade audit quality. Given the steep learning curve, a new entrant faces a substantial entry barrier that re-tendering will not always result in a change of audit firm. Therefore, the desirable reasons for rotation does not apply to re-tendering, which is really to introduce contestability, or threat of entry, to reduce the "adverse effect of competition". In addition, mandatory re-tendering increases the risk of opinion shopping and low-balling that can reduce audit quality. Increased competition can threaten audit independence. As Big-Eight becomes Big-Four through consolidation in recent decades, the policy pendulum has swung, from prohibiting audit firms from advertising and participating in bidding competitions, to encouraging competition and contestability today.

b) Prohibition and Limitation of NAS

Large audit firms have not only grown in size and geographical coverage, they have also grown in scope through diversification into tax services and heterogeneous advisory services – ranging from sustainability reporting to information technology consulting. Diversification makes good business sense to provide a “one-stop-shop” for the client, and may possibly reduce cost through economies of scope and knowledge spill-over. While services are provided by different divisions (or even partnerships or separately corporatized entities), these divisions are perceived as “notionally independent” as they are recognized by the same well-known brand name. The U.S. and E.U. audit market reform generally prohibits and limits the provision of NAS to audit client based on the argument of threat to independence, and implicitly lower audit quality.

While reformers appear to be (almost) unanimous in prohibiting selected NAS and capping allowable NAS, audit firms contest the type of NAS prohibited and the rationale for the cap. The threat to auditor’s independence, and implicitly lower audit quality, when providing NAS depends on the nature of the NAS provided. NAS involving making management decisions, self-review, creating self-interest and advocacy are clear-cut threats to independence, for which no safeguard would be deemed adequate by outside parties, and should be prohibited. Other NAS requires weighing the risk of independence against the safeguards instituted. The effectiveness of the safeguards depends on existing internal governance of the firm and external enforcement and oversight mechanisms which varies according to the situation. For example, auditors are to report on the remunerations from NAS activities and such remunerations are capped. Beattie and Fearnley (2002: 21) show that certain NAS are definitely prohibited but there are wide disagreements among jurisdictions on prohibiting the other NAS.

There are also two competing hypotheses – the independence hypothesis and the expertise hypothesis – on the debate on prohibiting NAS that are not clear-cut threats to independence. This situation is déjà vu of the audit tenure-audit quality debate with some differences.

First, the rationales driving the independence hypotheses are different. The audit tenure-audit quality debate uses DeAngelo (1981b) audit quality definition as the basis to argue how long tenure threatens independence. The empirical literature then examines the relation between audit quality and tenure. On the other hand, the independence-NAS debate arises without a formal theory, but from the rapid rise of NAS in the revenue mix of audit firms in the last few decades leading to beliefs that provision of (other) NAS compromises auditor's independence. There are two main concerns: auditors become beholden to management because they wish to retain the additional income from NAS; and auditors identify too closely with management and lose their *professional scepticism*. The empirical literature in this debate has traditionally examined independence in appearance through survey, but has more recently started to look at the NAS-audit quality nexus.

Second, the economics driving the expertise hypothesis is also different. The audit tenure-audit quality debate leverages on economies of learning that reduces time cost, for auditor and management, in the subsequent years. The NAS-independence debate relies on the economies of scope, that providing NAS with auditing produces lower cost jointly (or higher quality at the same cost) than producing both services separately. Arrunada (1999a, 1999b) explains two types of economies of scope: knowledge spill-over arising from the transfer of information and knowledge;

and contractual economies arising from better use of assets and/or safeguards already developed when contracting and ensuring quality in auditing. Whether economies of scope with auditing are significant depends on the type of NAS and the deployment of specialised human resource.

Third, the empirical literature in the NAS-independence relation can be divided into two streams of research: the older stream of research examines independence in appearance through mostly surveys and stock price reaction – via the earnings response coefficient – and the newer stream examines independence proxied by audit quality directly (Frankel, Johnson, and Nelson, 2002; Ruddock, Taylor, and Taylor, 2006).

Francis (2006) provides a good review of the empirical literature. Survey studies (Schulte, 1965; Pany and Reckers, 1987) and earnings response coefficient studies (Krishnan, Heibatollah, and Zhang, 2005; Francis and Ke, 2006) both show that providing NAS reduces independence in appearance. Evidence on auditor's impairment of independence in fact – which infringes ethical codes and regulations, and likely involves fraud – is very hard to obtain. Indeed, the difficulty in obtaining evidence is the argument to ban all NAS in the U.S. audit market reform. Therefore, researchers use audit quality, such as earning quality, as a proxy for independence in fact. Frankel, Johnson, and Nelson (2002), which is cited in the congressional hearings leading to the passage of SOX, shows positive and statistically significant correlation between NAS prices and aggressive discretions over accrual, implying high NAS price lowers audit quality. However, subsequent studies (Ashbaugh et al, 2003; Chung and Kallapur, 2003; Larcker and Richardson, 2004) show that the result is not robust and it is sensitive to sample and measurement used.

c) Other Components: Joint Audit and Enhancing the Audit Committees

This section discusses two other components in the audit reform package.

The rationale commonly stated for encouraging joint audit – through joint effort between a Big-Four and a non Big-Four – is to improve audit quality and encourage competition (U.K. Competition Commission, 2013). There is no empirical evidence presented thus far on the relationship between joint audit and audit quality. Deng et al (2013) develop a theoretical model that joint audit can lower audit quality through (1) the free-rider problem that lower the precision of audit evidence, and (2) the possible creation of internal opinion shopping that lowers independence. A common argument is that joint audit increases the number of firms in the market and increase competition particularly for the PIE segment. However, given that joint audit suffers from increased transaction cost, the price advantage from increased competition is nominal.

Audit committee, invented in the U.S. and widely adopted in Europe following the 1992 U.K. Cadbury Report, is for the purpose to instil independence between management and audit staff, and ensuring that the Board is fully aware of audit issues. The composition of audit committee has expanded significantly in recent years to consist of mostly (if not all) independent directors with at least one financial expert. These changes were meant to strengthen the audit quality of the audited firm. Even though audit committee has less knowledge than management of the firm's actual performance or operations, the audit committee may improve audit quality by countering financial reporting bias (Caskey, Nagar, and Petacchi, 2010). However, survey evidence suggest that audit committees are often passive and have largely ceremonial role to influence audit quality (Beasley, Carcello, Hermanson and Neal, 2009; Cohen, Krishnamoorthy and Wright, 2002 and 2010). So, what does non-survey evidence say?

The empirical literature generally find that both the independence and expertise of members of audit committees are associated with fewer restatements (Abbott, Parker, and Peters, 2004), smaller discretionary accrual (Klein, 2002; Xie, Davidson, and DaDalt, 2003; Bedard, Chtourou, and Courteau, 2004); positive correlation with more conservative accounting (Krishnan and Visvanathan, 2008) and higher accruals quality (Dhaliwal, Naiker, and Navissi, 2010). In addition, the independence of audit committee correlates with a higher incidence of going concern opinions (Carcello and Neal, 2000), fewer auditors resignations (Lee, Mande, Ortman, 2004), less earnings management through benchmark beating (Vafeas, 2005), and a lower cost of debt (Anderson, Mansi, and Reeb, 2004).

5. Conclusion

This paper reviews the complex policy space for audit market reform in the major capital markets. It identifies two incentives driving the formulation of the policy: (1) restoring public confidence in auditing through improving audit quality, and (2) controlling the "adverse effect of competition" in the context of increasing market concentration of audit firm for PIEs. We examine these two incentives more closely to provide an understanding of the policy components in U.S., E.U. and U.K. audit market reform. The primary incentive appears to be improving audit quality.

We see that audit market reform usually comprises of several components with choices within a component. Each component is motivated by a hypothesized analytical relationship between a policy variable choice and audit quality (the primary incentive) with occasional consideration of the market concentration issue. The empirical evidence in the literature on the hypothesized analytical relationship provides a basis for policy consideration.

Mandatory firm or partner rotation, together with mandatory re-tendering is motivated by the view that long audit tenure reduces audit quality. The independence hypothesis predicts that tenure lowers audit quality. However, the competing expertise hypothesis predicts that audit tenure increases audit quality. These competing hypotheses produce a theoretical conundrum that requires empirical resolution. There is general support, but no consensus partly due to diverse audit quality measurement, that mandatory firm rotation does not increase audit quality. Audit partner rotation produces mixed results from archival studies although experimental study tends to support the independence hypothesis. There is also a study that shows evidence that rotating engagement partner increases audit quality but rotating review partner does not. There is no current empirical evidence of re-tendering on audit quality, but analytical argument shows that low-balling and opinion shopping can lower audit quality in re-tendering. Analysing the adoption and repeal of mandatory audit firm and partner rotation in different jurisdictions suggests that mandatory audit partner rotation appears to be a better accepted compromise than mandatory audit firm rotation.

Prohibiting and limiting NAS provided by the incumbent auditor is motivated by the view that audit independence is threatened. There is consensus that some NAS – such as those requiring making management decision – should be prohibited as no safeguard is deemed sufficient to mitigate the perceived threat to independence. However the jury is still out for the other NAS. The empirical evidence, although more dated, clearly indicates that providing other NAS can lower independence in appearance. For the case of independence in fact, using audit quality as a proxy for independence, there is no robust evidence that it is compromised. Given that independence in appearance is established, and independence in fact is hard to prove, the perception problem can cause periodic confidence crises. This reputational risk should be weighed against the potential loss of economies of scope in lowering cost. Thus, an incumbent auditor may be better off voluntarily limiting or ceasing the provision of NAS.

There is currently no documented empirical evidence on the relationship between joint audit and audit quality. However, theoretical model shows that joint audit can lower audit quality through the free-rider problem and internal opinion shopping. We are therefore skeptical of the value in promoting joint audit in audit market reform.

Independent and competent audit committees counterbalance management bias in financial reporting and increase the audit quality. Although survey evidence suggest that audit committees are passive and have ceremonial roles, non-survey literature generally finds that both audit committee independence and expertise are associated with higher audit quality. This is particularly the case as legislations have also sharpened and strengthen the profile of audit committees. We therefore believe that enhancing the audit committee is a useful policy tool.

Finally, this paper shows that policy making is challenging because judgement cannot be substituted by empirical evidence. The audit market reform policy is a very complex nexus of relationships and economic interactions. Professional reports often present general analytical arguments – comprising the audit quality and market concentration arguments – before reporting the prescribed package of components. Academic literature tends to deliberate deeply on a hypothesized analytical relationship and focus on part of the package. This paper synthesizes both approaches, summarises the empirical evidence for each analytical relation, and contributes a structure to guide further empirical work. The results from empirical evidence are never unanimous – many questions will arise from their validity arising from measurements (construct validity), analytical framework (internal validity) and extrapolation outside the sample (external validity). Policy decisions are often obtained from analytical arguments long before there is an empirical consensus.

Reference

Abbott, L.J., Parker, S. and Peters, G.F. 2004, ’Audit Committee Characteristics and Restatements’, *Auditing: A Journal of Practice and Theory*, 23(1): 69-87.

Akerlof, G. 1970, ‘The Market for Lemons: Qualitative Uncertainty and the Market Mechanism’, *Quarterly Journal of Economics*, 84(3): 488-500.

American Institute of Certified Public Accountants 1978, *Commission on Auditors' Responsibilities Report, Conclusions, and Recommendations*. New York: Commission on Auditors' Responsibilities.

Anderson, R.C., Mansi, S.A. and Reeb, D.M. 2004, ‘Board Characteristics, Accounting Report Integrity, and the Cost of Debt’, *Journal of Accounting and Economics*, 37(3): 315-342.

Arruñada, B. 1999, *The Economics of Audit Quality: Private Incentives and the Regulation of Audit and Non-audit Services*, Kluwer, Dordrecht.

Arruñada, B. 1999b, ‘The Provision of Non-audit Services by Auditors: Let the Market Evolve and Decide’, *International Review of Law and Economics*, 19: 513-531.

Ashbaugh, H., LaFond, R. and Mayhew, B.W. 2003, ‘Do Non-audit services Compromise Auditor Independence? Further Evidence’, *The Accounting Review*, 78 (3): 611–39

Auditing Practices Board 2010*, Integrity, Objectivity and Independence. APB Ethical Standard 1 (Revised)*, APB, London.

Beasley, M.S., Carcello, J.V., Hermanson, D.R. and Neal, T.L. 2009, ‘The Audit Committee Oversight Process’, *Contemporary Accounting Research*, 26(1): 65-122.

Beattie, V. and Fearnley, S. 2002, *Auditor Independence and Non-audit Services: A Literature Review*, London: The Institute of Chartered Accountants in England and Wales

Beck, P., Frecka, T. and Solomon, I. 1988, ‘A model for the market for MAS and audit service: knowledge spillovers and auditor-auditee bonding’, *Journal of Accounting Literature* 7 (1): 50-64.

Bedard, J., Chtourou, S. M. and Courteau, L. 2004, ‘The Effect of Audit Committee Expertise, Independence, and Activity on Aggressive Earnings Management’*, Auditing: A Journal of Practice & Theory,* 23 (2), 13–35.

Carcello, J.V. and Neal, T.L. 2000, ‘Audit Committee Composition and Auditor Reporting’*, The Accounting Review*, 75(4), 453-467.

Carcello, J. V. and Nagy, A.L. 2004, ‘Audit Firm Tenure and Fraudulent Financial Reporting’, *Auditing: A Journal of Practice & Theory*, 23 (2): 55-69.

Carey, P. and Simnett, R. 2006, ‘Audit Partner Tenure and Audit Quality’, *The Accounting Review*, 81(3): 653-676.

Caskey, J., Nagar, V. and Petacchi, P. 2010, 'Reporting Bias with an Audit Committee', *The Accounting Review*, 85(2): 447-481.

Chen, C.Y., Lin, C.J. and Lin, Y.C. 2008, 'Audit Partner Tenure, Audit Firm Tenure, and Discretionary Accruals: Does Long Auditor Tenure Impair Earnings Quality?', *Contemporary Accounting Research*, 25(2): 415-445.

Chi, W. and Huang, H. 2005, 'Discretionary Accruals, Audit-Firm Tenure and Audit-Partner Tenure: Empirical Evidence from Taiwan', *Journal of Contemporary Accounting & Economics*, 1 (1): 65-92.

Chi, W., Huang, H., Liao, Y. and Xie, H. 2009, 'Mandatory audit partner rotation, audit quality, and Market Perception: Evidence from Taiwan', *Contemporary Accounting Research*, 26(2): 359-391.

Chung, H. and Kallapur, S. 2003, 'Client Importance, Non-audit services and Abnormal Accruals', *The Accounting Review*, 78 (4): 931–55.

Cohen, J., Krishnamoorthy, G. and Wright, A.M. 2002, 'Corporate Governance and the Audit Process', *Contemporary Accounting Research*, 19(4): 573-594.

Cohen, J., Krishnamoorthy, G. and Wright, A. 2010, 'Corporate Governance in the Post-Sarbanes-Oxley era: Auditors' Experiences', *Contemporary Accounting Research*, 27(3): 751-786.

Davis, L.R., Soo, B.S., and Trompeter, G.M. 2009, 'Auditor Tenure and the Ability to Meet or Beat Earnings Forecasts', *Contemporary Accounting Research*, 26(2): 517-548.

DeAngelo, L. E. 1981a, 'Auditor Independence, Low-Balling and Disclosure Regulation' *Journal of Accounting & Economics*, 3 (2): 113-127.

DeAngelo, L. E. 1981b, 'Auditor Size and Audit Quality', *Journal of Accounting & Economics*, 3 (3): 183-199.

DeFond, M. and Zhang, J. 2013, 'A Review of Archival Auditing Research'. *Journal of Accounting and Economics Conference*, 2013.

Deng, M., Lu, T., Simunic, D.A. and Ye, Mi. 2013, 'Do Joint Audits Improve or Impair Audit Quality?', *Rotman School of Management Working Paper No. 2111710; CAAA Annual Conference 2013*. Available at http://dx.doi.org/10.2139/ssrn.2111710

Dhaliwal, D., Naiker, V. and Navissi, F. 2010, 'The Association between Accruals Quality and the Characteristics of Accounting Experts and Mix of Expertise on Audit Committees', *Contemporary Accounting Research*, 27(3): 787-827.

Dopuch, N., King, R. R. and Schwartz, R. 2001, 'An Experimental Investigation of Retention and Rotation Requirements', *Journal of Accounting Research*, 39 (1): 93-117.

Ewelt-Knauer, C., Gold, A. and Pott, C. 2012, 'What Do we Know about Mandatory Audit Firm Rotation?' *Institute of Chartered Accountants in Scotland (ICAS) Research Publication*, Edinburgh. Available at: http://icas.org.uk/MAFR.pdf.

European Commission 2006, Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts, amending council directives 78/660/EEC and 83/349/EEC and repealing council directive 84/253/EEC. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2006L0043:20080321:EN:PDF

Francis, J.R. 2006, 'Are Auditors Compromised by Nonaudit Services? Assessing the Evidence', *Contemporary Accounting Research*, 23(3): 747-760.

Francis, J.R. and Ke, B. 2006, 'Disclosure of Fees Paid to Auditors and the Market Valuation of Earnings Surprises', *Review of Accounting Studies*, 11: 495-523.

Francis, J. R., Michas, P. N. and Seavey, S. E. 2013, 'Does Audit Market Concentration Harm the Quality of Audited Earnings? Evidence from Audit Markets in 42 Countries', *Contemporary Accounting Research*, 30 (1): 325–355.

Frankel, R.M., Johnson, M.F. and Nelson, K.K. 2002, 'The Relation between Auditors' Fees for Nonaudit Services and Earnings Management', *The Accounting Review*, 77: 71-105.

Gates, S. K., Lowe, D. J. and Reckers, P. M. J. 2007, 'Restoring Public Confidence in Capital Markets through Auditor Rotation', *Managerial Auditing Journal*, 22 (1): 5-17.

Geiger, M. A. and Raghunandan, K. 2002, 'Auditor Tenure and Audit Reporting Failures', *Auditing: A Journal of Practice & Theory*, 21 (1): 67-78.

Ghosh, A. and Moon, D. 2005, 'Auditor Tenure and Perceptions of Audit Quality', *The Accounting Review*, 80(2): 585-612.

Gold, A., Lindscheid, F., Pott, C. and Watrin, C. 2012, 'The Effect of Engagement and Review Partner Tenure and Rotation on Audit Quality: Evidence from Germany', *SSRN Working Paper Series*. Available at dx.doi.org/10.2139/ssrn.1631947

Gold, A., Klynsmit, P., Wallage, P. and Wright, A. 2014, 'The Impact of Auditor Selection Regime and Audit Committee Autonomy on Investment Decisions', *SSRN Working Paper Series*. Available at SSRN: http://dx.doi.org/10.2139/ssrn.2484415

Gul, F.A., Jaggi, B.L. and Krishnan, G.V. 2007, 'Auditor Independence: Evidence on the Joint Effects of Auditor Tenure and Nonaudit fees', *Auditing: A Journal of Practice and Theory*, 26(2): 117-142.

Hoyle, J. 1978, 'Mandatory Auditor Rotation: The Arguments and an Alternative', *The Journal of Accountancy*, 145 (5): 69-78.

International Auditing and Assurance Standards Board 2013*, A Framework for Audit Quality,* The International Federation of Accountants (IFAC): New York. Available at www.ifac.org/publications-resources/framework-audit-quality

International Federation of Accountants 2013, *Handbook of the Code of Ethics for Professional Accountants, 2013 edition*, International Federation of Accountants (IFAC): New York. Available at: www.ifac.org/sites/default/files/publications/files/2013-IESBA-Handbook.pdf

Johnson, V. E., Khurana, I.K. and Reynolds, J.K. 2002, ’Audit-Firm Tenure and the Quality of Financial Reports’, *Contemporary Accounting Research*, 19 (4): 636-660.

Kaplan, S. E., and Mauldin, E. G. 2008, ‘Auditor Rotation and the Appearance of Independence: Evidence from Non-professional Investors’, *Journal of Accounting and Public Policy*, 27: 177-192.

Klein, A. 2002, ‘Audit Committee, Board of Director Characteristics and Earnings Management’, *Journal of Accounting and Economics*, 33: 375-400.

Knapp, M. C. 1991, ‘Factors that Audit Committee Members use as Surrogates for Audit Quality’, *Auditing: A Journal of Practice & Theory*, 10 (1): 35-52.

Knechel, R.W. and Vanstraelen, A. 2007, ‘The Relationship between Auditor Tenure and Audit Quality implied by Going Concern Opinions’, *Auditing: A Journal of Practice & Theory*, 26(1): 113-131.

Krishnan, G.V. and Visvanathan, G. 2008, ‘Does the SOX definition of an Accounting Expert matter? The Association between Audit Committee Directors’ Accounting Expertise and Accounting Conservatism’, *Contemporary Accounting Research*, 25(3): 827-857.

Krishnan, J., Heibatollah, S. and Zhang, Y. 2005, ‘Does the Provision of Nonaudit Services affect Investor Perceptions of Auditor Independence?’, *Auditing: A Journal of Practice & Theory*, 24(2): 111-135.

Larcker, D. F., and Richardson, S. A. 2004, ‘Fees paid to Audit Firms, Accrual Choices and Corporate Governance’, *Journal of Accounting Research*, 42 (3): 625–58.

Lee, H.Y., Mande, V. and Ortman, R. 2004, ‘The Effect of Audit Committee and Board of Director Independence on Auditor Resignation’, *Auditing: A Journal of Practice and Theory*, 23(2): 131-146.

Louwers, T.J. 1998, ‘The Relation between Going-Concern Opinions and the Auditor's Loss Function’, *Journal of Accounting Research*, 36(1): 143-156.

Magee, R. P. and Tseng, M.C. 1990, ‘Audit Pricing and Independence’, *The Accounting Review*, 65 (2): 315-336.

Manry, D. L., Mock, T. J. and Turner, J. L. 2008, ‘Does Increased Audit Partner Tenure Reduce Audit Quality?’, *Journal of Accounting, Auditing & Finance*, 23 (4): 553-572.

Mansi, S.A., Maxwell, W.F. and Miller, D.P. 2004, ‘Does Auditor Quality and Tenure matter to Investors? Evidence from the Bond Market’, *Journal of Accounting Research*, 42(4): 755-793.

Myers, J. N., Myers, L. A. and Omer, T. C. 2003, ‘Exploring the Term of the Auditor-Client Relationship and the Quality of Earnings: A case for Mandatory Auditor Rotation?’ *The Accounting Review*, 78 (3): 779-799.

Pany, K. and Reckers, P.M.J. 1987, ‘Within- vs. Between-Subjects Experimental Designs: A Study of Demand Effects’, *Auditing: A Journal of Practice and Theory*, 7(1): 39-53.

Public Company Accounting Oversight Board 2013*, Standing Advisory Group meeting briefing paper: Audit Quality Indicators.* May 15-16, 2013. Available at: http://pcaobus.org/News/Events/Documents/05152013_SAGMeeting/Audit_Quality_Indicators.pdf.

Public Oversight Board 2000, *Panel on Audit Effectiveness 2000*, The Panel on Audit Effectiveness Report and Recommendations. Stamford, CT: POB.

Raghunandan, Barry, K.L. and Evans III, J. H. 1994, 'An Empirical Investigation of Problem Audits', *Research in Accounting Regulation*, 1 (1): 33-58.

Ruddock, C., Taylor, S. J. and Taylor S. L. 2006, 'Nonaudit Services and Earnings Conservatism: Is Auditor Independence Impaired?', *Contemporary Accounting Research*, 23 (3): 701–46.

Schulte, A. 1965, 'Compatibility of Management Consulting and Auditing', *The Accounting Review*, 40 (3): 587–93.

Solomon, I., Shields, M. D. and Whittington, O. R. 1999, 'What do Industry Specialist Auditors know?', *Journal of Accounting Research*, 37 (1): 191-208.

St. Pierre, K., and Anderson, J. 1984, 'An Analysis of the Factors Associated with Lawsuits against Public Accountants', *The Accounting Review*, 59: 242-263.

U.K. Competition Commission 2013, *Statutory Audit Services for Large Companies Market Investigation: A Report on the Provision of Statutory Audit Services to Large Companies in the U.K.* Available at assets.digital.cabinet-office.gov.uk/media/5329db35ed915d0e5d00001f/131016_final_report.pdf

U.S. Congress 2002, The Sarbanes-Oxley Act of 2002.

U.S. Senate 1977, *Report of the Subcommittee on Reports, Accounting, and Management of the Committee on Government Operations (Metcalf Committee Report),* U.S. Government Printing Office: Washington

Vafeas, N. 2005, 'Audit Committees, Boards, and the Quality of Reported Earnings'*, Contemporary Accounting Research*, 22(4): 1093-1122.

Xie, B., Davidson III, W.N. and DaDalt, P.J. 2003, 'Earnings Management and Corporate Governance: The Role of the Board and the Audit Committee', *Journal of Corporate Finance*, 9: 295-316.