The past decade has seen tremendous changes in the regulation of the auditing profession. Auditing has gone from an essentially self-regulated profession prior to 2002 to one that is now highly supervised by government regulators. The story of these changes tells us much about what regulation may, or may not, be able to accomplish in regards to audit quality, and also suggests that we can expect to observe many unintended consequences of the current regulatory climate. What those unintended consequences will be are not known, but economic theory suggests that some of the consequences may run counter to the espoused regulatory objective to push auditors to higher levels of audit quality.

As a result of the regulatory attention it now receives, the auditing profession faces an interesting and awkward conundrum. The two most common complaints about auditors are that (i) fees are too high (or the complementary statement that the Big 4 have too much pricing power) and (ii) audit quality is too low. The former problem is captured by a quote by Annette Nazareth (2007), then a member of the US Securities and Exchange Commission (SEC): ‘[The SEC has] heard complaints about auditors over-auditing in part because they fear that PCAOB inspectors would otherwise find their audits insufficient.’ The latter problem is reflected in a quote by Pierre Delsaux (2009) who was a member of the European Commission: ‘[There was] not enough control on what the banks were doing. We need good external control, specifically, auditing.’

The reason why these two viewpoints constitute a conundrum is because economic theory tells us that it is difficult to reconcile these problems in a competitive market.

For example, efforts to reduce prices (fees) may lead to a loss of quality unless significant effectiveness improvements can be realised. On the other hand, efforts to increase quality may lead to higher prices unless significant efficiency improvements can be realised. Failure to achieve the mentioned improvements in efficiency and effectiveness can, in extremis, lead to a death spiral for an industry – as prices (fees) are beaten down via competitive pressures, quality may deteriorate, which puts further pressure on prices. This potential problem is compounded in an industry with flat (or declining) demand, and presents two questions. Does the auditing profession fit this model? Can the audit quality conundrum be solved via regulatory intervention? Fortunately, I do not think we are headed into a death spiral, but we may find that regulation both helps and harms the profession. The extent to which each occurs depends on the nature of auditing, the form of regulation, and the inevitable unintended
consequences of changing the fundamental regulatory regime of an entire profession.

The regulatory hydra

There is little doubt that the regulatory infrastructure has expanded dramatically in the past decade. Prior to 2002 and the twin audit fiascos of Enron and Worldcom, the auditing profession was mostly self-regulated with standards being issued by US or international bodies such as the Financial Accounting Standards Board (FASB), the International Accounting Standards Board (IASB), the Auditing Principles Board, and the International Auditing and Assurance Standards Board (IAASB, previously known as the International Auditing Practices Committee). These bodies shared a common trait: they were more or less self-regulatory, meaning the auditing profession had a great deal of influence over the standards issued by these bodies. This structure changed radically with the passage of the Sarbanes-Oxley Act of 2002 which, among other things, established the Public Company Accounting Oversight Board (PCAOB) to set regulations for the auditing profession in the US. No longer would the profession control its own operations or even its own destiny.

Among notable changes ushered in with the PCAOB were restrictions on the nature of non-audit services that accounting firms could offer their audit clients and, potentially most importantly, the introduction of inspections of audit work by government inspectors. In Australia, some of the same changes, albeit less draconian, were embedded in the Corporate Law Economic Reform Program (CLERP 9) in 2004, which came on the heels of the HIH Insurance audit scandal. Following these legal mandates, which have been mirrored in many countries, a new international organisation of audit regulators was formed, the International Forum of Independent Audit Regulators (IFIAR), to facilitate audit regulation on a global basis. By October 2013, 46 countries had formed national audit regulatory bodies and joined IFIAR. Whether all these regulatory changes have (or will) improve audit quality on a systematic basis depends on how the new rules, standards and regulation interface with the fundamental economics of a professional service. In the remainder of this article, I will discuss how the economics of the auditing profession may influence the impact of increased regulation on audit quality.

Defining audit quality

The most common definition of audit quality, from DeAngelo (1981) is that it is 'the market-assessed joint probability that a given auditor will both (a) discover a breach in the client’s accounting system and (b) report the breach.' This definition has two distinct elements that can be considered separately:

- auditor knowledge or expertise which influences the likelihood that an auditor discovers errors in a client’s financial statements, and
- auditor objectivity or independence which relates to the likelihood that an auditor will correct (via an adjusting entry) or reveal (via the auditor’s report) a client’s error when it is discovered.

These two dimensions suggest two desirable aspects of the audit — independence and competence — that are essentially ‘traits’ that a consumer may be willing to pay for. That is, they are valuable aspects of an economic good in much the same way that good petrol consumption and engine power are desirable attributes of a car. Both traits are considered positive – more auditor independence improves audit quality as does more auditor expertise. However, it is important to note that the DeAngelo definition treats the two ‘traits’ as orthogonal – the level of one does not influence the level of the other. This relationship is illustrated in Figure 1 where the ray emanating from the origin of the graph indicates increasing levels of audit quality.

Depicting audit quality in this manner reveals that there could be four extreme conditions that might occur, at least in an unregulated or lightly-regulated market. First, a specific engagement might entail low independence and low expertise. Such an engagement may not be desirable from...
a societal point of view and, to the extent that auditing is an economic good, such a condition may have no economic value and generate no buyers. At the opposite extreme, we may see no suppliers because extremely high independence and expertise may not be technically feasible. This theoretical limit on audit quality is implicitly recognised in the audit-risk model which assumes that zero risk is not a feasible outcome and every audit has a non-zero level of residual risk.1 The other two extremes are potentially more interesting because they reflect a condition where the auditor is highly independent but possesses little expertise or knowledge (‘uninformed independence’) or has tremendous expertise but little independence (‘conflicted expertise’). Since none of the four ‘corner’ conditions may be desirable or attainable, this diagram illustrates the potential existence of an ‘assurance opportunity set’ away from the extremes (Figure 2).

If an assurance opportunity set exists, at least in an unregulated market, the next step is to assess the viable combinations of independence and expertise that might be demanded by the market. Figure 3 illustrates how the trade-off between independence and expertise might be depicted using indifference curves. First, we need to reconsider the assumption that independence and expertise are truly orthogonal constructs. While this may be the case when considered outside any specific engagement, within an engagement an auditor can only gain expertise with regards to that client by interacting with the system and personnel that are the subject of the audit. This interaction – whether due to economic, psychological or personality reasons – is likely to cause a curvilinear relationship between the two traits. That is, both traits are desirable (complementary), meaning that clients would like both traits, but there is an implicit trade-off between them in the context of a single client. Any given combination of a unique level of independence with a unique level of expertise implies a given level of audit quality. Higher levels of audit quality can be depicted with an ascending set of curves moving away from the origin. For example, the curve A₁A₂ would reflect a relatively ‘low’ level of audit quality, which might be described as ‘moderate assurance’ using the terminology of auditing standards. This level of audit quality might be demanded by a client that simply needs an audit to qualify for a bank loan. B₁ is on an indifference curve that would reflect ‘reasonable assurance’ under the auditing standards (which actually means ‘high’ assurance) and might be appropriate for a publicly traded client. Finally, C₁ falls on an indifference curve where assurance is very high and potentially exceeds what is required by auditing standards.
Figure 3 illustrates that a consumer might contract on (demand) any given combination of assurance, independence and expertise that falls within the assurance opportunity set. Further, the shape of the curves implies that for any given level of audit quality, there is an implicit tradeoff between independence and expertise. The slope of the curve (as measured by a tangent to the curve at any point) reflects the marginal rate of technical substitution between independence and expertise. The curves are drawn to suggest that independence and expertise are not perfect complements but that there is a diminishing marginal benefit of substituting more expertise for less independence. An auditor can be too close to a client. In many regulatory or standard-setting situations, it is the failure to recognise this implicit trade-off (i.e. treating independence and expertise as unrelated) that could lead to negative unintended consequences. This is explained in more detail in the next section.

**Regulating audit quality**

Figure 3 might be used to describe the demand for auditing in an unregulated market. However, the profession, potential clients and regulators would probably all agree that allowing auditors and clients to contract on any level of assurance or any combination of independence and expertise might eventually undermine the credibility of the profession and reduce the value of audits. Consequently, the profession (or regulators) may desire to impose a minimum level of assurance. For example, they might conclude that the engagement implied by $A_2$ is not socially desirable because of the low level of independence. To avoid the occurrence of such audits, the profession (or regulators) might impose minimum requirements for independence as illustrated with the horizontal line in Figure 4. Note, this line is meant to illustrate the existence of a constraint and is not intended to indicate the ‘optimal’ level of independence. The impact of the independence constraint is to make $A_2$ an unacceptable engagement, as well as some of the engagements associated with the lower end of the curve with $B_1$. It is interesting to note that the auditing profession had independence rules, typically embedded in a code of professional conduct or ethics, long before there were regulatory rules for independence.

A closer examination of Figure 4 suggests that an audit high on independence but low on expertise ($A_1$) may also not be a good idea since it is not clear if the auditor would have any basis for actually issuing an informed audit opinion. This observation suggests that a minimum level of competence (i.e. knowledge, expertise) is also desirable, which can be depicted by imposing a vertical constraint as illustrated in Figure 5 to reflect the impact on
Audit quality and regulation

Audit practice of standards such as those issued by the IIAASB or PCAOB. Now we can observe that A1 is also not an acceptable engagement. The net effect of the two regulatory/standard constraints is to essentially preclude any audits with the assurance level associated with A1 or A2 and most (but not all) of the engagements on the B assurance curve. Whether socially desirable or not, B1 would still be an acceptable audit under these ‘rules’.

This simple series of illustrations reveals how regulation and standard setting can influence audit quality, at least in theory. Whether the constraints illustrated in Figure 5 are, on balance, good or bad is not the question for this article – but it is important to keep three key points in mind. First, regulation prohibits consumers from purchasing some economically viable options (e.g. A1 or A2). This may be good if the consumer is uninformed or otherwise might be misled by the seller into purchasing too little ‘assurance’. For example, this problem could occur if management contracts with the auditor but emphasises its own purpose over the objectives of the other stakeholders in an organisation (i.e. shareholders), which is one reason why many jurisdictions now lodge the power to hire or fire an auditor with the Board of Directors or a subcommittee of the Board. Second, by construction, the costs of audits will need to increase to compensate for higher levels of independence and expertise, that is, more assurance costs for some clients. However, remember that this decision is being made by regulators rather than the parties directly involved in the contract (e.g. shareholders). A third consideration is that the nature of the constraints must be ‘interpreted’ by various parties or stakeholders to the audit contract. This may be particularly important in an environment where there is ex post inspection of audit work by a regulator. In that case, the ex ante interpretation of auditing standards – even by regulators – may differ from the ex post interpretation used during an inspection, making the location of the vertical constraint even less clear.

Ultimately, the question of audit quality comes down to whether the intended benefits of regulation exceed the increased costs. Figure 5 suggests that more regulation is better than less, only when an audit fits the assumptions that underlie the indifference curves as drawn. Further, the analysis does not admit that there could be a maximum level of regulation. If an audit does not fit into a neo-classical micro-economic perspective, it is quite possible that not only will regulation have unintended consequences but that those consequences could be quite severe. In the end, the same exact curves could be used to illustrate the trade-off of bagels (x-axis) and toasters (y-axis) since possession of a toaster is likely to increase the enjoyment one obtains from a bagel. However, to state the obvious, an audit is not a toaster, so the question then remains: does audit quality behave as expected in the presence of increased regulation? The answer depends on what we mean when we talk about an audit as an economic good or activity.

What is an audit?

Defining an audit would seem to be a simple task. Merriam-Webster (2014) has a no-frills definition: ‘a complete and careful examination of the financial records of a business or person.’ He then generalises the definition slightly by adding: ‘a careful check or review of something.’ While those definitions would probably suffice for most purposes, a deeper understanding of the attributes of an audit is necessary in order to begin to assess whether regulation will have its intended effect or result in serious unintended consequences. To do this, it is important to realise that an audit has four critical attributes that influence how
economic theory might relate to auditing:

- The value of an audit derives from the economic needs of stakeholders (independent of regulation). This means that mandating an audit does not create its value, at least not all—or even a significant portion—of its value. The value of the audit derives from its use as a risk-management tool by various stakeholders in an organisation.

- The outcome of an audit is inherently uncertain and ultimately unobservable. Zero risk is not possible either practically or economically. This is especially true during the conduct of the audit but is also true when an audit is examined after its completion (i.e. inspection).

- The audit process is idiosyncratic to the client. While firms may use standardised approaches, the audit must be individually tailored to the risks, controls, transactions, systems and conditions of a specific client.

- Expertise, or judgment, is the ultimate source of value in any professional service, including auditing. It is what a professional knows, how they analyse a situation, and how they reach a conclusion that drives the value of their expertise. Being ‘in compliance’ may help improve auditor judgment but cannot replace auditor judgment.

Now consider how these key attributes might interact with a regulatory view of auditing. First, a regulatory view might overemphasise the compliance view of an audit—the perception that being in compliance with regulations and standards drives the value of the audit. While compliance is certainly a desirable (and necessary) attribute, it is unlikely that stakeholders will purchase an audit simply because it ‘meets standards’. Thus, mere compliance is probably not sufficient condition for creating economic value via an audit—meeting standards without reducing risk will have little economic value because the assumption that compliance equates to risk reduction may not hold in all circumstances.

Second, treating the audit as if the outcome can be observable after the audit is completed can lead to auditors being more concerned about being second-guessed by inspectors than actually finding the right answers during the course of the audit. Demonstrable defence of the audit process used in an engagement may supplant defence of an auditor’s conclusions. Further, both the auditors conducting the engagement and the inspectors examining an engagement may be essentially correct in the conclusions they reach since the actual residual risk of the audit is unobservable. However, the conclusions of an inspector will trump the conclusions of the auditor in most situations whether or not they are ‘more’ correct.

Third, the focus on process may cause an auditor to overly standardise the process rather than tailoring it to the circumstances of the client. Variations from a standardised audit process may need to be defended to inspectors, and may become the breach through which inspectors question the entire audit. As a result, auditors may find it easier to downplay the idiosyncrasies of the client when planning and conducting an audit, or at least follow the standardised processes more rigorously than may be appropriate.

Finally, the pre-eminent role of professional judgment provides the basis for economic value, and allows an auditor to function in an uncertain environment and adapt to the unique aspects of each client. The combined effects of these four key attributes are the foundation of any professional service, and are especially relevant in the auditing profession. Failure to adequately reflect their reality in the regulatory or standard-setting process is likely to lead to significant unintended consequences.

Conclusion

The evolution of auditing from a self-regulated to a government-regulated profession has created significant challenges for auditors, clients and regulators. This shift has certainly had a positive and important effect on audit quality in general. However, regulation will always lead to unintended consequences. Failure to match the reality of the economics of auditing to the regulatory approaches adopted could lead to
results contrary to the objective of improving audit quality. Further, the manner in which regulation is imposed and managed can have far-reaching consequences for the audit profession. Causing auditors to continually defend their judgments, to answer for alleged failures in audit documentation that do not translate into broader audit failure, and to be belittled in front of the public and clients is unlikely to improve their professional standing, attitude or satisfaction in providing professional services. Such a negative environment runs the risk of undermining the trust the public holds in auditors in spite of increasing regulation; reducing the economic benefits and rewards of the profession; and eventually leading to a drain of professional talent that could harm the long-term prospects of a profession built on trust. Failure to match regulatory actions to the true economics of the audit profession runs the risk that all these negative, but unintended, consequences may eventually arise. In fact, if regulators are not careful, they could end up exacerbating the opening conundrum, resulting in more expensive audits that, simultaneously, are heavily criticised by inspectors as being less effective.

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1 This observation also reflects one of the limitations of the DeAngelo (1981) model of audit quality because she does not assume an upper limit to achievable audit quality. At best, audit quality can asymptotically approach a theoretical maximum.

2 Regulators implicitly acknowledge this trade-off when they express concerns about economic bonds (auditors being paid by the client) or social bonds (getting to know a client too well) undermining audit quality.

3 When two goods or traits are perfect complements, the indifference curves form a right angle which suggests a singular rate of substitution between the two traits. For example, for a person with two feet, left and right shoes are perfectly complementary and the marginal rate of substitution is by definition one-to-one.

4 This phenomenon is a variation of the well-known adverse selection problem – where consumers cannot evaluate or trust the quality of an economic good, demand for that good will drop, as will its value in exchange. In the extreme, adverse selection could cause a market to collapse completely. This potential problem is exacerbated if the audit manifests significant attributes of a credence good (Causholli and Knechel 2012, Causholli et al. 2013).

5 Of course, as we have seen in the US with SOX, independence rules arising from regulation are likely to be more stringent than those that are self-imposed by the profession.

6 The potential difference between ex ante interpretation of audit standards for conducting the audit and ex post interpretation of standards by regulatory inspectors suggests the possibility of ‘shadow’ standards that differ from the formal standards. For example, the speed limit on a motorway may officially be 100 k/h. However, many drivers believe that as long as they do not exceed 110 k/h, traffic police will not bother them. In this case, the shadow standard is perceived to be more lenient than the official standard. For auditing, the opposite case is probably more important – the shadow standard used by inspectors is more stringent than the official standard.

7 Due to regulation, the view of the inspectors has more authority (by fiat) than the view of the engagement team, but that does not make the inspector ‘more right’.

References


Delsaux, P 2007, Public remarks to International Symposium on Audit Research, Maastricht University, Netherlands, June 2009.


Nazareth, AL 2007, Remarks before the Council of Institutional Investors.