

Practice Note “Audit Production”

Presented to:

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Production is the process by which inputs are transformed into outputs through factors of production. In the case of an audit, audit effort (labor and time) is used to produce assurance over client financial statements.

As is typical for services, labor is the most important factor in the production of audits. Although audit production is crucial to understanding the economics of auditing, the literature on audit production is sparse due to the difficulty of observing and measuring the factors of production.

This practice note is organized in a Q&A-format, to get a quick overview of the project's relevance.

How can the economics of auditing be described?

When we refer to the economics of auditing, we are referring to two factors. The first factor is the supply of auditing, which covers the inputs and their associated costs to produce an audit. The second factor is the demand for auditing, which covers the preferences of client-firms and investors for different types of audits. In this study, we focus on the supply side given the sparse literature on the production of audits and the rich data that FAR might eventually provide.

Why is it important to understand the economics of auditing?

Given that auditing provides assurance for the financial statements provided to investors, it is important to understand the incentives and costs of producing such assurance, which help facilitate capital investment.

What do we already know about audit production?

The auditing literature has explored audit supply from four main perspectives: (1) *the effort perspective*, which investigates and generally finds that audit effort (audit hours) is associated with measures of audit quality; (2) *the efficiency perspective*, which investigates what characteristics of the engagement, client, or market influence relative efficiencies across audit engagements; (3) *the productivity perspective*, which investigates aggregate productivity changes of the audit industry over time; and (4) *the learning perspective*, which investigates whether efficiencies occur through learning in service settings.

What do we still need to know/learn?

We have limited knowledge about differences in productivity and learning across auditors. Further, we do not understand how auditor skills combine with technology in order to produce audits. This is especially important given the shift by audit firms toward using machine learning and big data techniques.

Production function estimates would allow us to characterize and model the supply side of the audit market, opening up a host of new analyses. Examples of such investigations include evaluating productivity growth in the audit industry, characterizing differences in productivity and learning across auditors / audit teams, examining the relationships between productivity growth and changes in audit technologies and the use of technology, testing whether more efficient auditors are rewarded by the market, measuring to what extent fee variation reflects differences in costs, and (given additional information on inputs into non-audit services) estimation of the extent of knowledge spillovers—positive or negative—of non-audit services on the provision of audit services. Many of these analyses would be novel in the accounting and auditing literature and would also add much needed depth to the broader productivity and industrial organization literatures, which have had limited contact with the business services sector.

What can practitioners/regulators do with that knowledge?

That knowledge could assist practitioners in improving and transitioning their production processes toward technology given the tight labor market for auditors and would inform the current public debate with regards to the future structuring of the auditing profession (e.g., audit quality metrics).