Auditing and Control Issues Related to Fair Value Measurement of Derivative Instruments

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With the advent of world financial crisis triggered by the bankruptcy of Lehman Brothers, fair value measurement of derivative instruments (especially Level 3 of the fair value hierarchy) becomes a hot topic in international accounting research. As for fair value measurement of derivative instruments, IFRS and U.S. GAAP require reporting entity to use "quoted market price." However in the case of customized derivative instruments, because of the lack of trading market reporting entity applies "valuation model" such as Black–Scholes Model to estimate the theoretical price of fair value. In this case, unobservable inputs using estimates and assumptions determine the fair value of customized and complex derivative instruments. *AICPA Audit Guide for SAS 92* pointed out the difficulties to audit derivative instruments as follows. For auditors, the increases in the number and use of complex derivative instruments have resulted in changes in the approach to auditing of financial statements of many entities. For example, evaluating audit evidence related to assertions about derivative instruments frequently requires the use of "considerable judgment," particularly for valuation assertions, which can be particularly sensitive to changes in underlying assumptions or based on highly subjective estimates. Auditor needs special knowledge and skills for assessment of inherent and control risk and design of substantive procedures. In the process of substantive procedures, auditor's knowledge of financial engineering and information technology is necessary for sensibility analysis. This paper explores new auditing approach to subjective fair value measurement of derivative instruments derived from valuation metrics. To elaborate the research of International Standards on Auditing (ISA) related to fair value measurement of derivative instruments, we need to develop the new auditing theory on Soft Accounting Information.