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Ryan J. Riordan is a post-doctoral researcher at the Karlsruhe Institute of Technology. His work is focused on the intersection of accounting, finance and information systems. He has studied the effects of enriched accounting information on stock returns, Algorithmic trading on market quality, technology in information processing in capital markets, and the impact of high-frequency trading on transitory volatility. Ryan has experience in academia and in practice and has worked as a derivatives trader, IT-consultant, and as the educational trading room manager at Carleton University’s, Sprott School of Business.

**Topic:** Interactive Data: Technology, Liquidity, and Cost of Capital

**Abstract:**

This paper examines the introduction of the voluntary filing program of financial reports using XBRL by the Securities and Exchange Commission (SEC) as a quasi-natural experiment to isolate the effects of an improvement in the information environment of program participants. The voluntary SEC XBRL program, generally referred to as Interactive Data, has allowed firms to file annual and quarterly reports using eXtensible Business Reporting Language (XBRL). XBRL is a machine-readable Interactive Data format, designed to improve the financial information environment of a firm and the accessibility of financial information.

We study three documented results of voluntary disclosure (Healy and Palepu, 2001), improved stock liquidity, reduced cost of capital, and increased information intermediation and find statistically significant results for medium-term cost of capital and for information intermediation, but no significant influence on liquidity so far. Historically the transfer and communication of financial information has been a laborious and time-consuming activity. However, in 1998 the development of interactive data technology called XBRL (eXtensible Business Reporting Language) was started. XBRL is a machine-readable interactive data format designed to improve the financial information environment of a firm and the accessibility of its financial information. It is designed to improve the consumability of financial information by automatically processing reported financial results and making them available to the public immediately.

The Securities and Exchange Commission (SEC) had adopted this interactive data technology by introducing voluntary reporting with it in 2008. It had been made mandatory for some big companies by June 2010 and will become mandatory for all reporting companies by June 2011. Canada will wait to examine the American experience before proceeding from the voluntary approach that is now being used.

Dr. Riordan has posed a single research question with respect to XBRL. Does voluntary disclosure lead to a decreased cost of capital with XBRL? To address this question he proposed to test three hypotheses with respect to the employment of XBRL:

1. The cost of capital has increased.
2. Liquidity should increase.
3. There should be an increase in information intermediaries.

These hypotheses were tested by subjecting the financial information of 162 firms to rigorous financial analyses using sets of mathematical equations. The results of the analyses suggested that only the first hypothesis could be supported. Accordingly, there is some evidence that voluntary disclosure does lead to a decreased cost of capital with XBRL.