Do investors exploit bank earnings management information to earn profits in stock markets?

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Abstract

This study investigates whether investors exploit bank earnings management information to earn profits by trading on the basis of this informational advantage in stock markets. We argue that investors are divergent in capability to detect bank earnings management, which will be subsequently reflected in their trading positions. We answer the questions if bank accounting regulations, enforcement regimes, institutional quality and IFRS adoption play the roles in shaping investors' behaviours in exploiting trading profits on the basis of detecting bank earnings management. Our research, on the sample of 198 banks across 13 Asia-Pacific countries from 2002-2017, finds that there is a significant positive relationship between bank income-decreasing earnings management and bid-ask spreads. Our study also sheds light on the signalling effects of bank accounting regulations/enforcement/institutions/IFRS adoption in guiding investors' behaviours in response to bank earnings management.

Motivations

The 1997 Asian financial crisis underlined the disadvantages of debt (Dvořák, 2005) - Weaknesses in bank regulations and supervision have been pointed out as one of the factors leading to the 2007-2009 global crisis (Cihak et al., 2013) - Investors are concerned about the possibility of the next financial crisis (Eichengreen, 2015).

Therefore, it is necessary to understand the nature of information asymmetry in stock markets, the behavior of investors as well as the effectiveness of bank accounting regulations, enforcement regimes, institutional quality and IFRS adoption **(legitimate factors)** to encourage equity financing.

The literature ignores the incentives to exploit earnings management in banking sector in emerging markets and how those legitimate factors shape the trading behaviours of investors from the perspective of information receivers where earnings management is present.

Objectives

Examine whether investors exploit bank earnings management information to earn profits in stock markets.

Investigate the roles of bank accounting regulations, enforcement regimes, institutional quality and IFRS adoption in shaping investors' behaviors in exploiting trading profits on the basis of detecting bank earnings management.

Study the joint effects between bank accounting regulations and enforcement regimes.

Data & Variable Measurements

198 banks in 13 countries in Asia-Pacific from 2002-2017 with a total of 1,387 observations. Bank-level data from Thomson Reuters Eikon. Bank regulations and enforcement data and country's institutional quality from World Bank database. IFRS adoption data from www.ifrs.org.

Bid-ask spread:

Follow Abad et al. (2016): $Spread = \frac{(a_t - b_t)}{(a_t + b_t)/2}$

Bank earnings management: Following Kanagaretnam et al. (2010),

$$LLP = \alpha_0 + \alpha_1 BEGLLA + \alpha_2 CHLOAN + \alpha_3 LOAN + \alpha_4 NPL + < YEAR\ CONTROL > + < COUNTRY\ CONTROL > + \varepsilon$$

The residuals from the above equation are the abnormal or discretionary component of LLP, referred to as abnormal loan loss provisions (ALLP).

Bank regulations and enforcements: Following Duru et al. (2018), bank accounting regulations and enforcement variables are constructed using the World Bank's Bank Regulation and Supervision Survey related to disclosure practices.

Country's institutional quality: The first principal component of the six Worldwide Governance Indicators (WGI).

IFRS Adoption levels (based on IFRS website in November 2018): Dummy variable: coded "0" for non-adoption and "1" for adoption.

Methods

Regression Model:

$$\begin{aligned} SPREAD = {} & \beta_0 + \beta_1 \boldsymbol{EM} + \beta_2 REG + \beta_3 ENF + \beta_4 INST \\ & + \beta_5 IFRS + \beta_6 REG \times ENF + \beta_7 \boldsymbol{EM \times REG} \\ & + \beta_8 \boldsymbol{EM \times ENF} + \beta_9 \boldsymbol{EM \times INST} \\ & + \beta_{10} \boldsymbol{EM \times IFRS} + \beta_{11} \boldsymbol{EM \times REG \times ENF} \\ & + \beta_{12} CONTROLS + < YEAR\ CONTROL > + \varepsilon \end{aligned}$$

Where

SPREAD	Bid-ask spread.
EM	Bank earnings management
REG	Bank accounting regulations
ENF	Bank enforcement regimes
INST	Country's institutional quality
IFRS	IFRS adoption
YEAR	Year dummies
CONTROLS	Bank-level and country-level control variables including stock volatility (VOL), trading volume (TURN), return on assets (ROA), number of analyst following (AF), banks' size (SIZE) ownership concentration (*OWN*) and GDP growth rate (GDP).

Income-Decreasing Earnings Management

	Whole sample		**Emerging markets**	
Dependent: SPREAD	FEM	SGMM	FEM	SGMM
EM	30.14***	120.7***	26.09***	44.70*
EMxREG	-6.748***	-27.38***	-5.828***	-10.95*
EMxENF	-1.591***	-6.662***	-1.382***	-2.513*
EMxINST	-0.124***	-1.121***	-0.0821**	0.107
EMxIFRS	-0.142	0.318	-0.0621	-0.0142
EMxREGxENF	0.356***	1.498***	0.309**	0.607*
Year Dummies	Yes	Yes	Yes	Yes
N	313	177	228	182

Note: ***, ** and * denote statistical significance at the 1%, 5% or 10% levels, respectively.
Robust standard errors are reported in parentheses.

Income-Increasing Earnings Management

	Whole sample		**Emerging markets**	
Dependent: SPREAD	FEM	SGMM	FEM	SGMM
EM	-54.99***	-566.6**	-49.55**	-397.6**
EMxREG	10.84***	127.4**	9.211**	104.6**
EMxENF	3.570***	34.18**	3.177**	22.96**
EMxINS	0.259	0.885	0.503*	-0.685
EMxIFRS	0.362	-0.122	0.600	-5.720
EMxREGxENF	-0.717***	-7.641**	-0.606**	-6.077*
Year Dummies	Yes	Yes	Yes	Yes
N	604	362	423	257

Note: ***, ** and * denote statistical significance at the 1%, 5% or 10% levels, respectively.
Robust standard errors are reported in parentheses.

Conclusions

Even in the highly regulated banking industry investors exploit bank earnings management information to obtain profits in stock markets when earnings are managed downward.

Strong bank regulations and enforcement regimes can signal to investors of banking integrity in financial reporting, yet, signalling effects from these two legitimate factors tend to be mutually substitutable.

Institutional quality and IFRS adoption have weak effects on guiding trading behaviors of informed investors in exploiting earnings management.

Policy implications: Regardless of the institutional quality and IFRS adoption level, the adverse effect of bank earnings management on information environment can be offset by good accounting regulations and enforcement mechanisms. Therefore, bank accounting regulations and enforcement mechanisms should be prioritized.

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