Manag Int Rev (2015) 55:615–646
DOI 10.1007/s11575-015-0249-4

mir Management International Review

RESEARCH ARTICLE

The Role of Institutional Environments in Cross-Border Mergers: A Perspective from Bidders' Earnings Management Behavior

Bok Baik · Kwanghee Cho · Wooseok Choi · Jun-Koo Kang

Received: 22 February 2014 / Revised: 2 February 2015 / Accepted: 20 February 2015 /
Published online: 22 March 2015

Abstract This study examines the effects of targets' institutional environments on bidders' earning management behavior around cross-border mergers. Earnings management is a widely used strategy for the bidder to reduce the risk of overpayment and the related costs in mergers. We hypothesize that the extent to which the bidder engages in earnings management differs across the level of uncertainty resulting from the target's institutional environments such as language, culture, religion, the quality of accounting standards, and political and legal environments. Consistent with our hypothesis, we find that the earnings management behavior of US bidders becomes more evident when they acquire targets from countries with greater institutional differences, such as non-Christian countries, countries with a low level of political stability, countries with a low level of democracy and freedom of the press and media, countries with high corruption and countries with a low level of government effectiveness. Overall, these results suggest that the bidder engages in earnings management to reduce the risk of overpayment arising from uncertainty caused by institutional differences.

B. Baik
College of Business and Administration, Seoul National University, Seoul, Korea
e-mail: bbaik@snu.ac.kr

K. Cho (✉)
College of Business, Dongguk University, Seoul, Korea
e-mail: phdcho@dongguk.edu

W. Choi
Korea University Business School, Seoul, Korea
e-mail: choiw@korea.ac.kr

J.-K. Kang
Division of Banking and Finance, Nanyang Business School, Nanyang Technological University, Singapore, Singapore
e-mail: jkkang@ntu.edu.sg

Keywords Cross-border mergers · Bidders · Institutional environments · Earnings management

1 Introduction

In this study, we examine the effect of targets' institutional environments on bidders' strategic behavior in cross-border mergers. Specifically, we focus on bidders' earning management behavior around cross-border mergers. Cross-border merger and acquisition activity has substantially increased over the past two decades, reaching $3.8 trillion in 2006 (Kang and Kim 2010). Meanwhile, articles in the financial press have often reported that managers of acquiring firms (bidders) have strong incentives to manage earnings prior to cross-border mergers. For instance, in 2004, Inverness Medical Innovations Inc. acquired a German firm, Diagnostika, for $2.6 million in cash and 155,209 shares of its common stock and then subsequently restated $4.2 million in its net revenue due to aggressive revenue recognition during the next year.[1] Earnings management, a purposeful manipulation of earnings figures to obtain private gain (Schipper 1989), is one of a firm's representative strategic and opportunistic behaviors and has a significant effect on firm value. It occurs when corporate managers use judgment in preparing financial statements to mislead certain stakeholders or to influence contractual outcomes based on earnings figures (Healy and Wahlen 1999). Cross-country institutional differences such as institutional structure, the quality of accounting standards, legal system, national culture, and capital markets are known to affect a firm's incentive to engage in earnings management (Dechow et al. 2010; Han et al. 2010).

Despite the significant growth in cross-border mergers and related earnings management behavior by the acquiring firm, few studies have systematically investigated the incentives and determinants of such earnings management behavior in cross-border mergers. In this study, we investigate how the institutional differences that acquiring firms face in cross-border mergers affect the incentives of bidders to engage in earnings management. Specifically, using various targets' home country factors as the measures of institutional differences that bidders face in cross-border mergers, we examine whether the incentives of bidders to manage earnings prior to the cross-border mergers are greater when they acquire targets from countries with high institutional differences.

Cross-border mergers are associated with highly opaque environments. Therefore, opaqueness caused by institutional differences is likely to affect the incentives of acquirers to engage in earnings management significantly. Jandik and Kali (2009) examine how contractual arrangements (cross-border mergers, joint ventures, and strategic alliances) between firms are affected by differences in the extent of institutional differences between the US and other countries. In the pre-acquisition period, the bidder has to gain knowledge on the target to determine a bid price and

[1] "Inverness Medical Innovations acquires German distributor, Viva Diagnostika," *Dow Jones Newswires*, June 7, 2004; "Inverness Medical Innovations Announces Second Quarter 2005 Results," *Dow Jones Newswires*, August 3, 2005.

premium. The cost of knowledge acquisition generally increases as institutional differences between the target and bidder increase. Prior studies suggest that, in cross-border mergers, such uncertainty caused by institutional differences may result in significant costs to the bidder including overbidding and pre-contractual opportunism by the target (Mukherji et al. 2013; Malhotra and Zhu 2013).

Earnings management is an important strategy for the bidder to compensate for these costs. Bidders are generally assumed to have incentives to inflate earnings as much as possible prior to cross-border mergers for a favorable contracting term (i.e., lower bid prices). Greater institutional differences provide the bidder with higher incentives to manage earnings upward to avoid the risk of the overpayment. To the extent that the institutional difference that the bidders face in the cross-border mergers varies, we expect that the bidder's earnings management is affected by various institutional environments. To capture the characteristics of the target's institutional environments, we use a variety of country-specific variables, such as differences in language, culture, religion, the quality of accounting standards, and political and legal environments (e.g., the extents of democracy and freedom of the press and media, political stability, corruption, and government effectiveness).

Our empirical analyses are based on a large sample of US acquiring firms in cross-border mergers from 1984 to 2012. We investigate how earnings management by bidding firms in cross-border mergers is affected by institutional differences that bidders face. We expect that the effect of institutional differences on the bidder's earnings management would be evident, especially in *the stock swap merger*.[2] Considering that bidders can potentially manipulate the value of the "currency" exchanged (i.e., the bidder's stock) by inflating their stock price, those seeking to minimize the number of shares provided to target firms have stronger incentives to engage in earnings management, thereby increasing their stock prices prior to the stock swap merger compared with other types of mergers.

Consistent with our prediction, we find that, in cross-border stock swap mergers, earnings management behavior by bidders is more evident when US bidders acquire targets from countries with greater institutional differences, such as non-Christian countries, countries with a low level of political stability, countries with a low level of democracy and freedom of the press and media, countries with high corruption, countries with a low level of government effectiveness, and countries with a high institutional difference factor (composite index). This positive relation between bidders' earnings management and institutional differences is more pronounced when bidders do not have any international acquisition experience prior to the cross-border merger, suggesting that the international experience of bidders influences the ability to overcome potential costs associated with cross-border mergers (Very and Schweiger 2001; Dikova and Sahib 2013; Mukherji et al. 2013). These results are robust to controlling for country fixed effects and deal- and bidder-specific characteristics. Overall, we find that bidders in cross-border mergers are more likely to engage in income-increasing earnings management when they face a high level of uncertainty about targets caused by institutional differences.

[2] The stock swap merger represents the cross-border merger with a method of financing that involves at least one share of common stock.

Our findings contribute to the literature on cross-border mergers and the strategic behavior of multinational enterprises. First, this study investigates how bidders strategically behave to reduce merger costs. Prior studies on cross-border mergers have generally focused on merger terms, post-merger performance, post-merger firm value, and determinants of cross-border mergers. However, few studies have examined the strategic behavior of bidders around the merger.[3] Using the earnings management of bidders in cross-border mergers as their strategic behavior to reduce the risk of overpayment and costs, we provide evidence that bidders strategically use earnings management to compensate for the costs associated with high uncertainty about the target.

Second, unlike prior studies that focus only on a small, limited number of institutional difference factors in cross-border mergers, we consider various factors in the analyses, particularly those that encompass targets' institutional environments, and a composite index from these factors, and show that these factors consistently affect the strategic behavior of multinational enterprises who seek to acquire international firms.

Third, Aggarwal and Goodell (2014) state that the role of soft variables such as national culture and institutional differences are generally ignored in prior studies that examine financial behavior of firms. They posit that such soft variables should be considered in examining a firm's financial behavior in addition to traditional variables from financial statements. In response to the call from Aggarwal and Goodell (2014), this study fills this gap in the literature by examining the effect of various soft variables on a firm's strategic financial reporting choice.

The remainder of this paper proceeds as follows. In Sect. 2, we review prior research and develop a hypothesis. In Sect. 3, we discuss data and the research design. Section 4 presents the empirical results. Section 5 concludes the paper.

2 Prior Research and Hypothesis

2.1 Institutional Differences and Due Diligence in Cross-Border Mergers

The bidder performs due diligence for the fair and clear appreciation of the value of the target. In their review paper, Shimizu et al. (2004) classify cross-border mergers from the following three perspectives: (1) mode of entry in a foreign market, (2) dynamic learning process from a foreign culture, and (3) value-creating strategy. Due diligence is related to the second perspective, that is, cross-border mergers as a dynamic learning process from a foreign culture. Hopkins (1999) suggests that due diligence is particularly important in cross-border mergers to reduce the "lemons problem" resulting from the bidder's lack of information. The bidder examines the various aspects of the target including financial performance, accounting differences, cultures, languages, and political environments through the due diligence process (Angwin 2001; Very and Schweiger 2001).

[3] An exception is the literature on the inter-organizational imitation strategy of a bidder to reduce the risk and cost of cross-border mergers (Lieberman and Asaba 2006).

Uncertainty caused by institutional differences is expected to be high in cross-border mergers because the collection of value-relevant information is likely to be more difficult and costly in cross-border mergers than in domestic mergers. In a cross-border merger, the seller (target) is generally more informed than the buyer (bidder) regarding its true value because of the informational disadvantages faced by the foreign bidder. Difficulties faced by foreign firms compared with domestic firms are called "liability of foreignness" (Zaheer 1995; Zaheer and Mosakowski 1997; Shimizu et al. 2004). An important reason for liability of foreignness is informational disadvantage, that is, the increased cost of obtaining information in a foreign market. The high level of uncertainty resulting from institutional differences makes it difficult for the bidder to perform due diligence, thereby increasing its costs in the cross-border merger. For example, when higher institutional differences exist between the target and bidder, the latter is more likely to overbid (i.e., pay higher premiums) because of uncertainty about the true value of the target. The target's contractual opportunism that overstates its value to obtain an excess premium makes these costs greater (Milgrom and Roberts 1992; Malhotra and Zhu 2013).

2.2 Hypothesis: Effect of Institutional differences on Earnings Management in Cross-Border Mergers

Earnings management is one of important strategies for a bidder to compensate for the costs resulting from uncertainty caused by institutional differences. As Arthur Levitt, the former chairman of the Securities and Exchange Commission in the US stated, it is a wide-spread phenomenon in the business world. Prior research defines earnings management in several ways. The two most widely used definitions are as follows:

1. Earnings management is "a purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain (as opposed to, say, merely facilitating the neutral operation of the process)" (Schipper 1989).
2. "Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers." (Healy and Wahlen 1999).

Prior literature on earnings management shows that managers have incentives to manage accounting numbers around important corporate events. For instance, prior studies document that managers accelerate the receipt of revenues or defer expenses in an effort to increase short-term stock price performance prior to management buyouts, seasoned equity offerings, initial public offerings, and stock acquisitions of other firms (Perry and Williams 1994; Teoh et al. 1998; Erickson and Wang 1999). In their extensive review of earnings quality, Dechow et al. (2010) state that a firm's earnings management behavior is influenced by cross-country differences such as the quality of accounting standards, legal system and various incentives provided by capital markets. The cross-border merger is a critical corporate event that may

significantly affect business strategies and firm value. As the stock price of the bidder increases, the number of the bidder's shares that are used to pay for the merger will decrease, thereby reducing the merger cost. Therefore, bidding firms are expected to have strong incentives to manage earnings around cross-border mergers to achieve their strategic goals (i.e., reduce the risk of overbid by providing less shares).[4]

Schipper (1989) suggests that an opaque environment would make earnings management more prevalent. With respect to cross-country earnings management behavior, Han et al. (2010) posit that national culture and institutional structure are important factors that affect a firm's earnings management behavior around the world. In this study, we focus on the institutional difference between the bidder and target country as a key determinant of earnings management by the bidder prior to the cross-border merger, and examine whether the incentives of the bidder to engage in earnings management are higher when it acquires a target with greater institutional differences. To the extent that country-specific institutional differences, such as the differences in language, culture, religion, the quality of accounting standards, and political and legal environments, constitute significant restrictions on the due diligence performed by bidders, we expect that these variables have a significant effect on the incentives of the bidder to inflate earnings prior to the cross-border mergers. The discussion so far leads to the following hypothesis regarding the effect of targets' institutional differences on bidders' earnings management in cross-border mergers:

> *Hypothesis: In a cross-border stock swap merger, bidders are more likely to engage in earnings management for targets with higher institutional differences than those with lower institutional differences, as measured by the target country's institutional environments.*

2.3 Discussion on Institutional Environments in the Target Countries

In this section, we briefly discuss the target home country variables that are likely to affect the extent of institutional differences between the bidder and target, and their predicted effects on earnings management.[5]

[4] Besides the foreign stock acquisition, there would be others incentives for a firm to engage in earnings management. These other incentives include capital market concern and contracting such as compensation and debt contracting. Although we include relevant variables to control for these other incentives, we cannot completely rule out the possible influence of such incentives on the results of this study.

[5] Although we do not have a formal hypothesis per each institutional variable because the institutional variables such as language, religion, culture, etc. are some representative proxies for the institutional environment of a target home country, our expectation regarding each proxy can be summarized as follows: In a stock swap cross-border merger, the bidder has more incentives to manage earnings (1) when the native language of the target is not English; (2) when the primary religion of the target is different from that of the US (i.e., not Christian); (3) when the cultural difference between the bidder and target is higher; (4) when the target has a lower quality of accounting standards; (5) when the target has a lower level of democracy and freedom of the press; (6) when the target has the lower level of political stability; (7) when the target has a higher level of corruption; and (8) when the target has a lower level of government effectiveness.

2.3.1 Language Barriers

Grinblatt and Keloharju (2001) show that Finnish investors with Swedish as their native language are more likely to buy stocks of companies that have Swedish-speaking CEOs than are Finnish investors with Finnish as their native language. Kang and Kim (2010) document that foreign block acquirers in countries that do not share a common language with the US are less likely to engage in post-acquisition governance activities in US targets compared with other foreign block acquirers because of the higher information asymmetry and monitoring costs associated with their governance activity. Similarly, Berger et al. (2000) show that language barriers impede cross-border bank mergers within Europe. These studies suggest that language barriers play an important role in the business decisions of a firm.

In the context of cross-border mergers, the bidder from a country that does not share the same language as the target country may face language barriers in their communications with the target. Mukherji et al. (2013) argue that the difference in language can lead to information asymmetry between the bidder and target. Therefore, language differences may limit the ability of the bidder to obtain value-relevant information on the target, thereby making it difficult for the bidder to evaluate the fair market value of the target. To the extent that these communication problems reduce the target's ability to perform the due diligence process, we expect that US firms acquiring targets from countries where the native language is not English engage in more aggressive earnings management compared with those acquiring targets from countries where the native language is English.[6] In the analyses, we measure the existence of a language barrier using a *Non-English* indicator, which takes the value of one if the primary language of the target home country is not English, and zero otherwise.

2.3.2 Differences in Religion and Culture

Prior research shows that religion and culture affect firm decisions. With respect to religion, Hilary and Hui (2009) suggest that the level of religiosity in a firm's environment affects the firm's corporate behavior and investment decisions. Stulz and Williamson (2003) show that the liberalization and development of financial markets are related to major cultural factors such as religion. Recently, Baxamusa and Jalal (2014) find that religion affects leverage levels of firms in the US.

With respect to culture, Roth and O'Donnell (1996) argue that a greater cultural distance makes it more difficult for headquarters to obtain accurate information on foreign subsidiaries. Kogut and Singh (1988) find that cultural differences affect the choice of entry mode in foreign firms. Krug and Nigh (1998) show that the cultural distance between a foreign acquirer and a US target influences post-acquisition top management turnover in the latter. Datta and Puia (1995) demonstrate that cultural distance affects the shareholder wealth of the acquiring firm. Angwin (2001) argues

[6] Note that this expectation has nothing to do with the superiority of languages. In other words, this argument does not mean that English is superior to other languages. We simply examine institutional differences related to languages from the perspective of US bidders.

that national cultural differences affect the bidder's due diligence and play important roles in influencing the bidder's perception of the target. Mukherji et al. (2013) suggest that cultural differences create opaque environments between the bidder and target. National culture is also known to influence a firm's cost of equity capital around the world (Gray et al. 2013). Finally, Aggarwal and Goodell (2014) posit that given the need to constrain opportunistic behavior by contracting parties, it would be important to understand the role of culture and other behavioral norms in reducing transaction costs. In their review of the role of culture, Aggarwal and Goodell (2014) further state that culture is significantly related to capital structure choices.

Overall, these findings suggest that differences in religion and culture between the bidder and target can deter the due diligence activity of the bidder because of high information search costs, which affects the incentives of the bidder to engage in earnings management in the cross-border merger. To measure the extent of institutional differences attributed to cultural distance, we use a *high cultural distance* indicator, which takes the value of one if the cultural distance between the target home country and the US is above the sample median and zero otherwise. This indicator variable employs Kogut and Singh's (1988) index of national cultural distance, which is based on differences in scores along each of Hofstede's (1980) four cultural dimensions (power distance, uncertainty avoidance, masculinity, and individualism) between the target host country and the foreign investor's home country.[7] We use a *Non-Christian* indicator, which takes the value of one if the primary religion of the target home country is not Christian and zero otherwise, to proxy for institutional differences attributed to religious differences between the U.S acquirer and the foreign target.[8]

2.3.3 *Differences in Accounting Quality*

The differences in the quality of accounting standards among countries make it difficult for the bidder to accurately analyze the target's financial statements, one of the critical information sources to determine the value of the target as well as the contracting term. To the extent that high-quality accounting standards reduce the scope for expropriation by making corporate accounts more transparent, the quality of accounting standards in a country can significantly affect the governance decisions and institutional environments of a firm. For example, La Porta et al. (1998) argue that the quality of accounting standards is an important element of law enforcement. Jandik and Kali (2009) use the quality of accounting standards as the measure for the extent of opaqueness in the business environment, showing that the accounting standards of a country affect the choice of organizational structure by multinational firms. In the cross-border merger setting, Angwin (2001) suggests that

[7] We also use the individual Hofstede measures instead of the Kogut and Singh aggregate measure as proxies for cultural distances. The results are qualitatively the same.

[8] Note that arguments in this section have nothing to do with the superiority of religion and culture. For instance, we do not argue that Christian countries are superior to countries with other religions. We simply examine institutional differences related to religion and culture from the perspective of US bidders whose country is classified as a Christian country.

assessing different national accounting standards is an important due diligence process. Very and Schweiger (2001) also suggest that accounting difference is one of important problems that bidders face in a cross-border merger.

Therefore, we expect that institutional differences between the target and bidder increases as the quality of accounting standards in the target country decreases. In other words, we expect the bidder acquiring the target in a country with a lower quality of accounting standards to have stronger incentives to engage in earnings management around the merger. We measure the quality of accounting standards using the accounting standards index reported in La Porta et al. (1998). Specifically, we use a *low quality of accounting standard* indicator, which takes the value of one if the quality of accounting standards is above the sample median, and zero otherwise.[9]

2.3.4 Democracy and Freedom of the Press and Media

For every market participant, institutional differences are less likely to be severe in a society that has a democratic system of government and that enjoys freedom of the press and media, as these factors tend to encourage economic transparency and in turn reduce institutional differences. Sirri and Tufano (1998) show that mutual fund flows are directly related to the media attention received by the fund, which lowers consumer search costs. Tkac (1999) shows that large firms have greater media coverage and hence, less trading based on private information. Consistent with these arguments, we posit that the acquiring firm has stronger incentives to engage in earnings management when it attempts to acquire targets in a country that disrespects democracy and freedom of the press.

To proxy for democracy and freedom of the press and media, we use an indicator variable based on the voice and agreement index from the World Bank's worldwide governance indicators (WGIs) for the country in which the target firm is located, namely, a *low voice and agreement* indicator that is equal to one if the WGI's voice and agreement index is below the sample median, and zero otherwise.[10]

2.3.5 Political Stability

Political risk ranges from the outright expropriation of foreign assets to unexpected changes that hurt the profitability of foreign projects. Prior literature shows that political instability has a negative effect on investment and savings (Venieris and

[9] The low quality of accounting standard indicator does not directly measure the quality of accounting disclosure per se, and rather, it represents the quality of accounting standards in one country (i.e., legislative differences among countries).

[10] The voice and agreement index measures the extent to which the citizens of a country are able to participate in selecting their government, as well as the freedom of expression, freedom of association, and freedom of media in a country. Information on WGIs complied by the World Bank is available starting from 1996; see http://info.worldbank.org/governance/wgi/index.asp. WGIs include several indices of country risk, such as voice and agreement, political stability and absence of violence, government effectiveness, and rule of law. One advantage of using WGI measures is that these indicators have been published every other year from 1996, thereby providing time-series data useful for measuring the extent of institutional differences in the target home country.

Gupta 1986), economic growth (Mauro 1995), and firm value (Kaminsky and Schmukler 2002). Eleswarapu and Venkataraman (2006) find that adverse selection risk is significantly lower for stocks from countries with more stable political systems. Furthermore, foreigners are less likely to have an intricate social knowledge of political connections (Leuz et al. 2010). Faccio (2006, 2010) shows that political connection is an important determinant of firm value in a country with a weak legal system. Fisman (2001) finds that in Indonesia, a significant portion of firm value comes from political connection. These findings suggest that foreign investors entering into countries with high political instability face greater uncertainty than domestic investors.

Overall, prior research suggests that high uncertainty exists in a cross-border merger agreement for a target located in a country characterized by high political instability. To the extent that a high level of political instability increases institutional differences and thus reduces the ability of the bidder to evaluate the value of the target, we expect the bidder acquiring the target in a country with higher political instability to have stronger incentives to engage in earnings management. To proxy for political instability, we use a *low political stability and absence of violence* indicator that is equal to one if the WGI's political stability and absence of violence index is below the sample median, and zero otherwise.

2.3.6 Corruption

Following Becker and Stigler (1974), several studies use agency models to explain corruption (Banfield 1975; Rose-Ackerman 1999, 2007). Taking the principal and agent problem as a given, Shleifer and Vishny (1993) explore the consequences of corruption for resource allocation. Mauro (1995) focuses on the effects of corruption on economic growth, showing that corruption significantly lowers investment levels. Murphy et al. (1991) argue that incentives for investment are influenced by corruption because investors can expect to receive less for their efforts and face greater uncertainty. Leuz et al. (2003) posit that a corruption is an important determinant of a firm's earnings management behavior in an international setting. Recently, Gonzalez and Garcia-Meca (2014) show that a country's effort to reduce corruption and to improve the effectiveness of government can help reduces a firm's earnings management behavior.

To the extent that corruption in the target country distorts the efficient flow of communication and increases institutional differences, the bidder is expected to have more incentives to engage in earnings management if they acquire the target in a country with a higher level of corruption. We proxy for the high degree of corruption in a target country using a *high corruption* indicator that is equal to one if the WGI's corruption index is below the sample median, and zero otherwise.

2.3.7 Government Effectiveness

Government effectiveness captures the capacity of the government to implement sound policies. It also represents policy consistency, determining whether a change in government leadership entails major policy disruption. To put it simply,

government effectiveness assesses the quality of a country's bureaucracy. Shleifer and Vishny (1993) and La Porta et al. (1999) argue that the structure of government institutions and political process serves as an important determinant of the levels of corruption and compliance with regulations. For example, greater interventionism should be related to lower efficiency because entrusting officials with greater regulatory power invites corruption and bureaucratic delay. Therefore, government ineffectiveness likely functions as a unique source of institutional differences. Consistent with this argument, Kho et al. (2009) provide evidence that government ineffectiveness increases opaqueness in the business environment. In addition, as stated above, Gonzalez and Garcia-Meca (2014) demonstrate that government effectiveness is significantly related to a firm's earnings management behavior. Therefore, we expect that US bidders have strong incentives to engage in earnings management if they acquire targets in a country with a low level of government effectiveness. We capture government ineffectiveness using a *low government effectiveness* indicator that is equal to one if the WGI's government effectiveness index is below the sample median, and zero otherwise.

3 Data and Models

3.1 Data

Our sample consists of cross-border mergers between 1984 and 2012. The sample includes both stock swap and non-stock swap mergers. Since our research question focuses on stock swap mergers, we use an indicator variable for the stock swap merger to separate out the effect of stock swap mergers on a firm's earnings management behavior. The initial sample of US bidders that acquire foreign targets comes from Thomson Financial's Security Data Corporation (SDC) Platinum database.[11] We exclude financial and regulated firms because managerial incentives to manage earnings in these firms could be different from those in other firms due to potential differences in regulations. We also exclude mergers with a missing payment method as well as mergers that lack necessary financial data on COMPUSTAT for analyses. We further delete deals with insufficient stock return data on the Center for Research in Securities Prices (CRSP) tape. These restrictions result in a final sample of 853 mergers. The numbers of actual sample observations used in the analyses vary depending on the model specifications and the availability of the testing variables used in each analysis. The characteristics of sample firms including performances, size, growth rate, etc. are not significantly different from those of the total samples in the SDC database, suggesting the representativeness of our sample observations.

[11] SDC database provides data about global mergers and acquisitions from the 1970s, and the coverage is significantly improved from 1980s. It covers over 900,000 global M&A transactions from the 1970s including more than 280,000 US target and 620,000 non-US target transactions. The database arguably provides the most comprehensive coverage on the global M&As and is the most widely used in the academic study of M&As.

3.2 Measure of Earnings Management

An important summary measure of firm performance is "earnings" measured following accrual accounting principles. Firms are required to use accrual-basis accounting principles, not cash-basis. Therefore, prior studies generally measure earnings management as abnormal accruals.[12] Abnormal accruals are the most widely used measure of earnings management in academic research, and represent the non-normal or discretionary components of reported earnings. In prior studies, abnormal accruals are measured as the difference between actual accruals and the expected accruals estimated from a time-series or cross-sectional model. To separate total accruals into discretionary and non-discretionary parts, we estimate the following modified Jones (1991) model for each quarter and two-digit SIC code industry:

$$\frac{TA_{it}}{A_{it-1}} = \beta_0 \frac{1}{A_{it-1}} + \beta_1 \frac{(\Delta REV_{it} - \Delta AR_{it})}{A_{it-1}} + \beta_2 \frac{PPE_{it}}{A_{it-1}} + \varepsilon_{it} \quad (1)$$

where TA_{it} represents total accruals[13] of firm i at time t, ΔREV_{it} represents change in revenue of firm i at time t, ΔAR_{it} represents change in accounts receivable of firm i at time t, PPE_{it} represents property, plant, and equipment of firm i at time t, and A_{it-1} represents lagged total assets of firm i. The error term (residual) represents abnormal accruals (i.e., the degree of earnings management). The modified Jones model assumes that the change in revenue and the level of property, plant, and equipment are not affected by managerial discretion, whereas the change in accounts receivable and other unobserved activities result from managerial discretion, which is captured in the error term. A higher value of the residual represents a higher level of earnings management.

Kothari et al. (2005) show that existing methods of estimating abnormal accruals are misspecified when the partitioning event is related to firm performance. To control for the impact of performance on estimated abnormal accruals, Kothari et al. (2005) suggest the use of a performance-matched firm's abnormal accruals. Therefore, following Kothari et al. (2005), for each sample observation, we determine a matched firm-quarter with the sample fiscal-quarter within the same two-digit SIC industry and with a similar lagged ROA, defined as the ratio of operating income$_{it-1}$ to average total assets$_{it-1}$. We then compute performance-adjusted abnormal accruals by subtracting the abnormal accruals of the matched firm-quarter. We use the performance-adjusted abnormal accruals as our measure for earnings management.[14]

[12] Abnormal accruals are also called as discretionary accruals in prior research.

[13] Following Dechow et al. (1996), we define total accruals as follows:
$TA_{it} = (\Delta CA_{it} - \Delta CL_{it} - \Delta CASH_{it} + \Delta STD_{it} - DEP_{it})$
where, for firm i at time t, TA represents total accruals, ΔCA represents change in current assets, ΔCL represents change in current liabilities, ΔCASH represents change in cash holdings, ΔSTD represents change in long-term debt in current liabilities, and DEP represents depreciation and amortization expense.

[14] The performance-matched model is the most widely used measure of earnings management in prior research. We also use alternative methods from prior studies to measure earnings management, such as Dechow and Dichev (2002), Hribar and Collins (2002) and Wysocki (2008). Our findings are robust to the various measurements of earnings management.

3.3 Main Estimation Model

To test whether the extent of institutional differences that the bidder face in the cross-border merger affects its incentives to manage earnings upward prior to the merger, we estimate the following regression:

$$EM_{it} = \beta_0 + \beta_1 STOCK_{it} + \beta_2 ID_{it} + \beta_3 STOCK_{it} \times ID_{it} + \sum_{i=4}^{21} \beta_i CONTROLS_{it} + \sum_{i=1}^{34} \gamma_i COUNTRY_i + \sum_{i=1}^{8} \gamma_i INDUSTRY_i + \varepsilon_{it} \quad (2)$$

where *EM* represents earnings management measured as the performance-matched cumulative abnormal accruals from quarter −2 to quarter −1 before the merger,[15] *STOCK i*s an indicator variable that takes the value of one if the method of financing involves at least one share of common stock and zero otherwise, and *ID* is the institutional difference variables in the target country discussed earlier.[16] Our key variable of interest is the interaction term (*Stock* × *D*). We expect the coefficient on $\beta_3$to be positive because the incentives of the bidder in the stock swap merger to manage earnings increases as institutional differences increase.

We include various control variables in the estimation model. The first one is the acquirer's past international experience. If acquirers have prior experience in the foreign country prior to the cross-border merger, they may have fewer uncertainty in relation to the merger because they have already accumulated information about operating in the foreign country (Very and Schweiger 2001; Dikova and Sahib 2013; Mukherji et al. 2013). This situation will reduce the incentives of the bidder to engage in earnings management. As a proxy for a bidder's previous experience in the foreign country, we use an indicator variable that takes the value of one if the bidder acquired other foreign firms during the three years prior to the cross-border merger, and zero otherwise.

In addition to the past international experience, we include *bidder-specific* environmental variables (*CONTROLS*) in the regressions because a firm's incentives to engage in earnings management depend on such environmental variables surrounding the firm (Richardson 2000; Dechow et al. 2010). Specifically, these variables are related to the incentives of a firm to engage in earnings management other than the foreign stock acquisition, such as capital market incentives and contracting. Therefore, we include these variables to exclude the possible influence of other incentives of earnings management and to examine the exact effect of our main variables of interest. As the measures of the environmental variables, we use bid-ask spread, analyst following, institutional ownership, and industrial relatedness

[15] The mean (median) value of abnormal accruals is 0.0045 (0.0061) with the standard deviation of 0.1001. The distribution is negatively skewed (−0.2855). We use the logarithm of EM because the distribution using the logarithm is more likely to be Gaussian. The result without the logarithm is qualitatively the same as that with the logarithm, but has lower explanatory power.

[16] We use an indicator variable for each institutional difference to facilitate the interpretation of the interaction term. The coefficient on the indicator variable is called *a differential intercept coefficient* and can be explained as an intercept shift between high level and low level of institutional differences.

between the bidder and target. Firm managers generally have incentives to manage earnings to alter the market perception of the firm and thus to obtain more fund and favorable contracting terms. These variables are known to affect such incentives of firm managers.

The rationales for including these variables in the regressions are as follows. Richardson (2000) shows that the bid-ask spread is positively associated with earnings management. Chang et al. (2006) among others argue that security analysts help less sophisticated investors by synthesizing complex information. They show that analyst coverage is negatively associated with opaqueness in the business environment. Lower institutional ownership suggests that observed market prices impound less information. Lack of industrial relatedness between the bidder and target suggests that investors face more difficulties in understanding firms' operation and their future profitability. Therefore, firms with lower institutional ownership and those acquiring targets in different industries are expected to face more uncertainty.

The estimation model also includes control variables that may influence the target's strategic earnings management behavior. These variables include the target's foreign institutional ownerships, differences in the structure of laws and their enforcement in target countries (common law indicator that equals one if the legal origin of the foreign country is English common law and zero otherwise, antidirector rights index, and rule of law index), and other variables discussed in Panel A of Table 3, such as book-to-market ratio, firm size, relative size, leverage, earnout indicator, tender indicator,[17] hostile indicator, IPO size/total number of population and log (GDP per capita) and target country tax rate. Finally, the regression controls for country fixed effects (*COUNTRY*) and industry fixed effects (INDUSTRY) to alleviate the potential effects of other country and industry attributes.

4 Results

4.1 Descriptive Statistics

Table 1 shows the distribution of 853 foreign mergers across years and target host countries. As shown in the panel, there is an increasing trend over the later part of the sample period. The table also shows that the number of targets from G7 countries that US bidders acquire during the sample period accounts for 59.8 % of the total sample. The industry distribution of the 853 foreign mergers is presented in Table 2. Most bidders are in manufacturing (56 %), services (30.6 %), and mining and construction (6.5 %). The distribution of the target industries shows a similar pattern.

[17] Tender offers are generally associated with cash transactions and thus a tender offer indicator is likely to have a strong negative correlation with *STOCK*. In untabulated tests, we re-estimate all regressions in the tables after deleting a tender indicator variable and find that the results are unchanged.

Table 1 Distribution of US bidders by year and target host country

Year	G-7 countries						Australia	Netherlands	Others	Total
	Canada	UK	Germany	Japan	France	Italy				
1984	0	1	0	0	0	0	0	0	1	2
1985	1	0	0	0	0	0	0	0	0	1
1986	0	1	0	0	0	0	0	0	0	1
1987	0	0	0	0	0	0	0	1	0	1
1988	1	0	0	0	1	0	0	0	0	2
1989	2	3	0	0	1	0	2	0	0	8
1990	1	3	0	0	0	0	2	0	1	7
1991	3	2	0	0	2	0	0	1	0	8
1992	6	4	1	0	1	1	2	1	3	19
1993	3	1	2	0	2	1	0	2	1	12
1994	4	5	2	0	2	1	1	1	4	20
1995	9	8	0	1	2	0	1	1	5	27
1996	6	5	4	0	6	0	1	1	11	34
1997	10	18	2	1	0	0	4	2	10	47
1998	18	23	10	0	2	0	1	4	5	63
1999	12	14	3	0	2	0	1	1	17	50
2000	19	11	1	3	0	1	3	0	13	51
2001	13	8	1	0	2	0	1	0	9	34
2002	10	11	4	0	1	1	1	0	10	38
2003	7	10	3	0	1	2	1	3	13	40
2004	9	16	5	0	5	0	4	0	13	52
2005	12	7	2	0	8	1	2	2	20	54
2006	11	2	2	0	0	1	6	4	20	46
2007	1	3	0	0	1	2	0	2	4	13
2008	9	2	0	1	3	1	1	1	25	43
2009	9	2	1	0	1	0	0	4	13	30
2010	4	13	2	0	2	0	4	2	22	49
2011	10	10	5	2	3	0	1	3	19	53
2012	8	7	0	2	2	0	3	1	25	48
Total	198	190	50	10	50	12	42	37	264	853

The sample consists of 853 US bidders in foreign mergers between 1984 and 2012. We initially identify the sample from Thomson Financial's Security Data Corporation Platinum database. The numbers of actual sample observations used in the analyses vary depending on the model specifications and the availability of the testing variables used in each analysis

Panel A of Table 3 reports the sample characteristics of the 853 US bidders as well as deal characteristics. The mean fraction of US bidders that acquired other firms in a foreign country during the three years prior to the cross-border merger is 53 %. The mean bid-ask spread, measured as the negative of the difference between bid and ask prices divided by the average of the two, is 0.011 with a median of

Table 2 Distribution of US bidders and foreign targets by industry

Industry (two-digit SIC)	US bidder	Foreign target
Agriculture, forestry, and fishing (01–09)	3 (0.3 %)	2 (0.2 %)
Mining and construction (10–17)	56 (6.5 %)	59 (6.9 %)
Manufacturing (20–39)	469 (56.0 %)	377 (44.2 %)
Transportation and public utilities (40–49)	9 (1.1 %)	23 (2.7 %)
Wholesale and retail trade (50–59)	47 (5.5 %)	78 (9.2 %)
Finance, insurance, and real estate (60–67)	7 (0.08 %)	16 (1.9 %)
Services (70–89)	262 (30.6 %)	296 (34.7 %)
Other (90–99)	0 (0 %)	2 (0.2 %)
Total	853 (100 %)	853 (100 %)

0.002. The mean analyst following is 11.6, indicating that the bidder is, on average, followed by 11 analysts. On average, institutional investors own 55.6 % of the number of shares outstanding in acquiring firms. Using the four-digit industry classification, we find that approximately 23 % of US firms acquired foreign targets operating in the same industry. The mean bidder size as measured by total assets is $4.74 billion, and the average leverage ratio (debt over the sum of debt plus the market value of equity) and average book-to-market ratio of the sample bidders are 22 and 43 %, respectively. Relative size (deal size divided by the market value of bidder equity) has a mean of 23 %. The mean foreign institutional ownership at the target country level is 13.6 %, with a median of 18.6 %. Approximately 8.8 % of our sample of foreign mergers have earnout (i.e., performance-related pay) provisions, whereas the corresponding number for all domestic mergers from SDC databse during our sample period is only 3.5 %. These figures suggest that bidders in cross-border mergers have strong incentives to use a mechanism to reduce the valuation risk associated with institutional differences. Approximately 2 % of takeovers are hostile, and 15 % are tender offers (i.e., public, open offer). Out of the 853 bidders, 409 (48 %) finance the acquisition through an exchange of common stock, and 444 (52 %) use cash and other financing as the method of payment. Of the 409 stock swap bidders, 265 finance the acquisition entirely through stocks, and 144 use a mixed offer in which stock and cash financing are combined. We also find that the mean (median) score of the antidirector (shareholder) rights index for target countries is 3.19 (4).[18] Approximately 34 % of targets have English common law as their legal origin. We measure the quality of a target country's rule of law using the WGI's *rule of law* index and find that its average score is 1.87. Finally, we measure the extent of a target country's financial market development using the ratio of initial public offering (IPO) size (i.e., equity issued by newly listed firms) to the total number of population and find that the average is approximately 1.11. The average gross domestic product (GDP) per capita of a target country is $26,069 with a median of $23,458.

[18] The range for the antidirector score is zero to six, with a higher score indicating better investor protection (La Porta et al. 1998).

Table 3 Descriptive statistics for US acquirers, deal-specific characteristics, and the extent of institutional differences that US acquirers face in the host country

	Mean	Median	Q1	Q3	Standard deviation
Panel A: Bidder-/target-, deal-, and country-specific characteristics					
Experience (indicator)	0.53	0	0	1	0.78
Spread	0.011	0.002	0.0004	0.010	0.024
Analyst following	11.6	9.0	3	17	11.4
Institutional ownership (%)	55.6	63.9	29.1	81.6	32.6
Same industry (indicator using the first four digits of the SIC)	0.23	0	0	1	0.42
Log (total assets)	6.49	6.50	4.97	8.01	2.17
Leverage (debt/(debt + market value of equity))	0.22	0.16	0.06	0.47	0.19
Book to market (book value equity/market value of equity)	0.43	0.36	0.20	0.86	0.47
Relative size (offer price/market value of bidder equity)	0.23	0.07	0.02	0.17	0.55
Target foreign institutional ownership (%)	13.6	18.6	7.7	21.2	7.8
Earnout (indicator)	0.088	0	0	0	0.28
Hostile (indicator)	0.02	0	0	0	0.16
Tender (indicator)	0.15	0	0	0	0.35
Stock financing (indicator)	0.48	0	0	1	0.50
Antidirector rights	3.19	4.0	2.0	4.0	1.48
Common law (indicator)	0.34	0	0	0	0.48
Rule of law	1.87	1.73	1.39	1.83	8.44
IPO size/number of population	1.11	0.35	0.25	3.11	1.40
Log (GDP)	9.97	10.06	9.88	10.36	0.76
Target country tax rate (%)	28.7	27.5	26.0	33.0	4.4
Panel B: Extent of institutional differences that US bidders face in the foreign country					
Non-English (indicator)	0.43	0	0	1	0.49
Non-Christian country (indicator)	0.13	0	0	0	0.34
Cultural distance (score)	0.78	0.12	0.07	1.51	1.01

Table 3 continued

	Mean	Median	Q1	Q3	Standard deviation
Accounting standard (score)	71.16	74.0	64	78	7.45
Voice and agreement (score)	1.57	1.34	1.02	1.48	6.46
Political stability and absence of violence (score)	1.05	0.92	0.27	1.08	5.45
Control of corruption (score)	2.04	1.99	1.45	2.16	6.38
Government effectiveness (score)	1.58	1.82	1.44	2.01	0.63
Factor (composite index)	0.00	−0.27	−0.83	1.01	0.92

Experience is an indicator variable that takes the value of one if the bidder acquired other firms in the foreign country during the three years prior to the cross-border merger and zero otherwise. *Spread* is the negative of the difference between bid and ask prices divided by the average of the two. *Analyst following* is the number of analysts following the bidder. *Institutional ownership* is the number of shares held by institutional investors divided by total shares outstanding for the bidder. *Target foreign institutional ownership* is the mean foreign institutional ownership at the target country level measured by Ferreira et al. (2010). *Earnout* is an indicator variable that takes the value of one if the merger has an earnout provision and zero otherwise. *Hostile* is an indicator variable that takes the value of one if the takeover is hostile and zero otherwise. *Tender* is an indicator variable that takes the value of one if the merger is a tender offer and zero otherwise. *Stock financing* is an indicator variable that takes the value of one if the method of financing involves at least one share of common stock and zero otherwise. *Common law* is an indicator variable that takes the value of one if the target has English common law as its legal origin and zero otherwise. *Antidirector rights* index measures the shareholder rights in a target country, with a higher score indicating better investor protection (La Porta et al., 1998). *Rule of law* measures the quality of a target country's law and is obtained from the worldwide governance indicators (WGI)

Non-English is an indicator variable that takes the value of one if the primary language of the foreign country is not English and zero otherwise. *Non-Christian* is an indicator variable that takes the value of one if the primary religion of the foreign country is not Christian and zero otherwise. *Cultural distance* is Kogut and Singh (1988)'s index of national cultural distance, which is based on the differences in scores along each of Hofstede's (1980) four cultural dimensions (power distance, uncertainty avoidance, masculinity, and individualism) between the U.S. and the host country. *Accounting standards* index measures a target country's accounting quality and is obtained from La Porta et al. (1998). *Voice and agreement*, *political stability & absence of violence*, *control of corruption*, and *government effectiveness* are from the WGI of the country to which the target firm belongs. Following Kho et al. (2009), we score all of WGI measures on a scale from −2.5 to 2.5, with higher scores corresponding to lower institutional differences. *Factor* is a composite index that is created by transforming eight institutional difference variables into a single factor using a principal components analysis. *Factor* indicator takes the value of one if the composite score is above the sample median and zero otherwise

In Panel B of Table 3, we report the summary statistics for the extent of country-specific institutional differences that bidders face in cross-border mergers. In 43 % of the acquisitions, the primary language of the target country is not English. In 13 % of the acquisitions, the primary religion of the target country is not Christian.[19] The mean cultural distance between the US and the target's home country is 0.78.[20] In comparison, Krug and Nigh (1998) find that the mean cultural distance for a sample of 108 US target firms acquired by foreign firms between 1986 and 1989 is approximately 0.98, and Kang and Kim (2010) show that the mean cultural distance for a sample of 268 block share acquisitions of US targets by foreign firms between 1981 and 1999 is 1.18. The mean accounting standards index is 71.16.

Panel B of Table 3 also presents the summary statistics for the WGI measures for the home countries of the target firms. Following Kho et al. (2009), we score all of the WGI measures on a scale from −2.5 to 2.5, with higher scores corresponding to better governance/lower institutional differences.[21] The average scores for voice and agreement, political stability, control of corruption, and government effectiveness are 1.57, 1.05, 2.04, and 1.58, respectively. Transforming all these institutional difference variables into a single factor using the principal components analysis, we find that its mean and median values are 0.00 and −0.27, respectively. As expected, Pearson correlation analysis shows that our measures for the extent of country-specific institutional differences are highly and significantly correlated to one another (untabulated). For example, the cultural distance measure is positively associated with the score measuring voice and agreement (0.04), whereas the government effectiveness measure is positively associated with the scores measuring voice and agreement and political stability (0.12 and 0.14, respectively). Spearman correlation analysis exhibits similar results. However, the correlations between the country-specific and bidder-specific institutional difference variables are generally small (mostly below 0.12) and insignificant, suggesting that these variables independently serve as different measures of institutional differences.

4.2 Univariate Analysis

As stated in Sect. 2, we expect that the extent of the bidder's earnings management is higher in cross-border mergers than in domestic mergers because of higher institutional differences in cross-border mergers. In this section, we test this prediction using a control sample of US bidders that acquire targets in domestic mergers. We match the US bidders involved in domestic mergers to US bidders involved in foreign mergers based on acquirer industry (first two digits of the SIC

[19] In our sample, non-Christian countries include China, Hong Kong, Japan, and Taiwan.

[20] We specifically measure cultural difference as follows: $CDj = \sum_{i=1,2,3,4} [(I_{ij} - I_{us})^2/Vi]/4$, where CDj is the cultural distance between country j and the U.S., I_{ij} is the country j's score on the ith cultural dimension, Ius is the score of the U.S. on this dimension, and V_i is the variance of the score on the ith dimension (Hofstede 1980; Kogut and Singh 1988).

[21] Given that information on WGI scores is unavailable prior to 1996, we use WGI scores in 1996 as those for the period from 1984 to 1995. The results without observations prior to 1996 are qualitatively the same.

code), bidder size (total assets), financing method (stock versus cash), and year of acquisition.

Table 4 compares the bidder's earnings management measured as abnormal accruals between our sample of 853 US bidders in cross-border mergers and a matched sample of 853 US bidders in domestic mergers. For the sample of 853 US bidders in cross-border mergers, we find that the mean and median cumulative abnormal accruals from two quarters before (quarter −2) to one quarter before the merger announcement date (quarter −1) are 0.5 and 0.6 %, respectively, both of which are statistically significant at the 5 % level. However, the corresponding mean and median abnormal accruals for the 853 US bidders in domestic mergers are not significantly different from zero. Tests of differences in both mean and median earnings management across the sample of bidders in foreign acquisitions and those in domestic acquisitions reject the null hypothesis that they are equal. In an unreported analysis, we also compare the level of earnings management between the first and last 10 years of the sample period, finding no significant difference.

4.3 Main Findings

The results from Eq. (2) are provided in Table 5. Our key variables of interest are the interaction terms between the stock financing indicator and the nine proxies for institutional differences, which are expected to have positive coefficient estimates. The results are generally consistent with our prediction that the bidder are more likely to manage earnings upward when institutional differences, as measured by the target country's institutional environments, is more pronounced. In regression (1), we use *Non-English* indicator as the measure for the extent of an institutional difference that bidders face in cross-border mergers. We find that the coefficient on the interaction term between *STOCK* indicator and *Non-English* indicator is positive (0.022) but insignificant ($p = 0.16$), suggesting that a language barrier is not significantly related to a bidder's incentive to engage in income-increasing earnings management.

The low R^2 reported in Table 5 is typical in the studies using abnormal accruals as a dependent variable (e.g., Boynton et al. 1992; Becker et al. 1998; Erickson and Wang 1999; Guidry et al. 1999; Klein 2002; Lee et al. 2006; Chan et al. 2008; Gong et al. 2008; Cohen et al. 2008; Sawicki and Shrestha 2008; Jian and Wong 2010; Carver et al. 2011, among others). Abnormal accruals are residuals from the estimation model (Eq. 1), and thus the low R^2 is inevitable in this setting. Brown et al. (1999) posit that the too low R^2 in accounting research are caused by scale effects. In addition, from the econometrics point of view, the coefficient represents the trend of a specific variable, whereas R^2 measures the scatter around the regression line. Wooldridge (2013) specifically state that "In the social sciences, low R^2 in regression equations are not uncommon, especially for cross-sectional analysis", arguing that a significant coefficient in the regression with a very low R^2 can be a good estimate of the ceteris paribus relationship. Therefore, the interpretation of a specific coefficient in this study is not likely to be significantly influenced by the value of R^2.[22]

[22] We appreciate anonymous reviewers for suggesting this issue and encourage us to make it clear for the better interpretation of the empirical results in this study.

Table 4 Mean and median earnings management for US bidders in cross-border mergers and US bidders (control sample) in domestic mergers

	Mean (n = 853)	Median (n = 853)
Mean and median earnings management		
Foreign	0.005**	0.006**
Domestic	0.001	−0.002
Test of difference: *p* value	0.004**	0.008**

Earnings management is measured as cumulative abnormal accruals from quarter −2 to quarter −1 prior to the merger announcement date, which is estimated by the method suggested by Kothari et al. (2005). The control bidders are obtained by matching US bidders involved in domestic mergers to US bidders in foreign mergers by acquirer industry (first two digits of the SIC code), bidder size (book value of assets), method of financing (stock versus cash), and year of acquisition. Abnormal accruals are the differences between the actual accruals and the nondiscretionary accruals. Predicted (i.e., nondiscretionary) accruals are estimated using the cross-sectional adaptation of the modified Jones (1991) model adjusted for lagged ROA (i.e., the performance-matched model by Kothari et al. (2005)). Quarter −1 (−2) denotes one (two) quarter(s) before the merger announcement date

** Significance at the 0.05 level

In regression (2), we replace *Non-English* indicator with *Non-Christian* indicator. The coefficient on the interaction between *STOCK* indicator and *Non-Christian* indicator is positive (0.042) and significant ($p = 0.07$). Thus, US acquirers in stock swap transactions that purchase targets in a country where the primary religion is not Christian engage in more aggressive earnings management prior to acquisitions. In regression (3), we use the cultural distance between the US and the foreign target home country as a proxy for an institutional difference. We find that the interaction effect of cultural distance and stock financing on the bidder's earnings management is positive (0.027) but insignificant ($p = 0.17$), suggesting that cultural distance is not a significant determinant of a bidder's incentive to engage in earnings management, possibly due to the globalization of different cultures. This result shows that the cultural distance itself is not significantly related to a firm's opportunistic financial reporting behavior although it significantly influences a firm's choice of capital structure as suggested by Aggarwal and Goodell (2014). When we use the individual Hofstede's measures such as individualism, long-term orientation, masculinity, power distance, uncertainty avoidance as proxies for cultural distances, none of them turns out to be significant, confirming our result using the Kogut and Singh's aggregate measure. In regression (4), we use *Low quality of accounting standard indicator* as the measure of an institutional difference. The coefficient on the interaction of this indicator with *STOCK* indicator is not significant, suggesting that a target country's accounting quality does not significantly influence a bidder's earning management. The insignificant coefficient on *Low quality of accounting standard indicator* may be due to the global harmonization of accounting standards such as International Financial Reporting Standard (IFRS).

Regressions (5) through (8) use the institutional difference variables constructed from the WGI indices discussed earlier. Regression (5) shows that democracy and

Table 5 OLS regression of earnings management for US bidders in cross-border mergers on explanatory variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Stock financing (indicator): a	0.001 (0.93)	0.005 (0.54)	−0.003 (0.78)	0.015 (0.20)	−0.009 (0.38)	−0.006 (0.59)	−0.009 (0.18)	−0.015 (0.16)	0.012 (0.15)
Non-English (indicator): b	0.009 (0.53)								
Non-Christian (indicator): c		−0.007 (0.70)							
High cultural distance (indicator): d			0.005 (0.75)						
Low accounting quality (indicator): e				0.001 (0.93)					
Low voice and agreement (indicator): f					−0.008 (0.46)				
Low political stability and absence of violence (indicator): g						−0.012 (0.31)			
High corruption (indicator): h							0.037*** (<0.01)		
Low government effectiveness (indicator): i								−0.029** (0.02)	
Factor (indicator): j									−0.001 (0.38)
(a) × (b)	0.022 (0.16)								
(a) × (c)		0.042* (0.07)							
(a) × (d)			0.027 (0.17)						
(a) × (e)				−0.010 (0.50)					
(a) × (f)					0.043*** (<0.01)				
(a) × (g)						0.034** (0.03)			

Table 5 continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(a) × (h)							0.038*** (0.01)		
(a) × (i)								0.051*** (<0.01)	
(a) × (j)									0.025*** (<0.01)
Experience (indicator)	−0.005* (0.06)	−0.005* (0.08)	−0.004 (0.35)	−0.006* (0.07)	−0.008* (0.09)	−0.005 (0.12)	−0.004* (0.08)	−0.005 (0.12)	−0.005* (0.08)
Spread	0.263 (0.12)	0.277* (0.09)	0.263 (0.11)	0.271* (0.10)	0.285* (0.08)	0.281* (0.09)	0.294* (0.07)	0.273* (0.09)	0.27* (0.10)
Analyst following	−0.001 (0.26)	−0.005 (0.30)	−0.004 (0.35)	−0.004 (0.34)	−0.004 (0.33)	−0.005 (0.26)	0.004 (0.33)	−0.004 (0.32)	−0.01 (0.24)
Institutional ownership	0.006 (0.74)	0.004 (0.82)	0.006 (0.74)	0.007 (0.69)	0.006 (0.71)	0.003 (0.84)	0.007 (0.67)	0.007 (0.66)	0.01 (0.80)
Same industry (indicator)	−0.005 (0.54)	−0.007 (0.49)	−0.005 (0.55)	−0.006 (0.46)	−0.004 (0.64)	−0.006 (0.53)	−0.004 (0.64)	−0.004 (0.61)	−0.005 (0.58)
Target foreign institutional ownership	0.11 (0.18)	0.071 (0.35)	0.137* (0.07)	0.097 (0.16)	0.115* (0.10)	0.057 (0.43)	0.073 (0.29)	0.089 (0.20)	0.068 (0.42)
Book to market	0.003 (0.67)	0.004 (0.63)	0.005 (0.50)	0.005 (0.49)	0.004 (0.63)	0.004 (0.61)	0.005 (0.48)	0.004 (0.55)	0.005 (0.56)
Size (log assets)	−0.002 (0.35)	−0.001 (0.38)	−0.002 (0.28)	−0.002 (0.28)	−0.001 (0.37)	−0.002 (0.43)	−0.001 (0.41)	−0.002 (0.25)	−0.001 (0.45)
Relative size (offer price/market value of bidder equity)	−0.014* (0.06)	−0.016** (0.03)	−0.017** (0.02)	−0.017** (0.03)	−0.016** (0.03)	−0.01** (0.03)	−0.016** (0.02)	−0.018** (0.02)	−0.017** (0.03)
Leverage	−0.026 (0.26)	−0.029 (0.21)	−0.026 (0.27)	−0.029 (0.20)	−0.024 (0.29)	−0.031 (0.17)	−0.035 (0.13)	−0.030 (0.19)	−0.033 (0.16)
Earnout (indicator)	0.013 (0.33)	0.012 (0.36)	0.013 (0.33)	0.014 (0.30)	0.012 (0.36)	0.012 (0.37)	0.016 (025)	0.016 (0.23)	0.013 (0.35)

Table 5 continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Tender (indicator)	0.017 (0.14)	0.018 (0.13)	0.008 (0.49)	0.016 (0.18)	0.011 (0.35)	0.015 (0.21)	0.012 (0.28)	0.013 (0.27)	0.013 (0.29)
Hostile (indicator)	−0.003 (0.87)	−0.005 (0.82)	−0.002 (0.26)	−0.002 (0.91)	−0.001 (0.29)	−0.005 (0.83)	0.001 (0.95)	−0.002 (0.91)	−0.007 (0.75)
Antidirector rights	0.007 (0.15)	0.001 (0.71)	0.009 (0.16)	0.004 (0.39)	0.004 (0.34)	0.003 (0.48)	0.003 (0.49)	0.002 (0.50)	0.003 (0.51)
Common law (indicator)	0.012 (0.21)	0.015 (0.12)	0.012 (0.21)	0.013 (0.38)	0.006 (0.47)	0.013 (0.15)	0.017* (0.09)	0.010 (0.31)	0.013 (0.17)
Rule of law	0.003 (0.71)	0.003 (0.71)	0.005 (0.51)	0.007 (0.40)	0.009 (0.33)	0.004 (0.61)	0.010 (0.26)	0.009 (0.32)	0.001 (0.91)
IPO size/number of population	0.002 (0.46)	−0.003 (0.64)	0.001 (0.71)	0.001 (0.67)	−0.001 (0.79)	0.021 (0.40)	0.001 (0.97)	0.001 (0.75)	0.002 (0.47)
Log (GDP per capita)	−0.006 (0.31)	0.003 (0.32)	−0.006 (0.31)	−0.007 (0.24)	−0.006 (0.34)	−0.004 (0.49)	−0.009 (0.15)	−0.007 (0.24)	−0.005 (0.44)
Target country tax rate	−0.007 (0.45)	−0.008 (0.39)	−0.009 (0.78)	−0.002 (0.73)	−0.008 (0.76)	−0.01 (0.35)	−0.01 (0.81)	−0.012 (0.97)	−0.01 (0.97)
Intercept	0.035 (0.64)	0.027 (0.72)	0.028 (0.73)	0.059 (0.42)	0.050 (0.50)	0.044 (0.55)	0.099 (0.18)	0.08 (0.21)	0.042 (0.59)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted-R^2	0.02	0.02	0.013	0.014	0.02	0.02	0.02	0.02	0.02
No. of observations	767	764	764	764	764	767	764	764	764

The dependent variable is defined as log(1 + earnings management). Earnings management is measured as cumulative abnormal accruals from quarter −2 to quarter −1 prior to the merger announcement date, which is estimated by the method suggested by Kothari et al. (2005). Other variables are defined in Table 3

***, **, and * denotes significance at the 0.01, 0.05 and 0.10 level, respectively. *p* values are in parentheses

freedom of the press and media are important determinants of the bidder's earnings management. The interaction between *STOCK* indicator and *Low voice and agreement* indicator is positively (0.043) and significantly related to earnings management ($p < 0.01$). Regression (6) shows that political uncertainty in the target country increases the incentives of the US bidder to engage in earnings management prior to mergers, as we find a significantly positive (0.034) effect of the interaction between *STOCK* indicator and *Low political stability and absence of violence* indicator on earnings management ($p = 0.03$). In regression (7), the effect of the interaction between *STOCK* indicator and *High corruption* indicator on earnings management is positive (0.038) and significant ($p < 0.01$). In regression (8), we find a significantly positive (0.051) coefficient on the interaction between *STOCK* indicator and *Low government effectiveness* indicator ($p < 0.01$). These results suggest that greater institutional differences measured in terms of WGI indices provide the bidder with stronger incentives to engage in earnings management.

Finally, in regression (9), we use a *factor* (composite index) indicator as the measure for the extent of institutional differences that bidders face in cross-border mergers. We find that the coefficient estimate on the interaction term between the composite index and *STOCK* indicator is positive (0.025) and significant ($p < 0.01$). This result indicates that the bidder's earnings management generally increases as the institutional difference between the bidder and the target increase, supporting our hypothesis. We also perform analyses using the factor score constructed with continuous institutional difference variables instead of indicator variables. In untabulated tests, we find the consistent result, confirming that in general, institutional differences are significantly related to a bidder's earnings management behavior.

With respect to bidder-specific institutional difference variables, we find that the coefficient on the indicator variable for past cross-border merger experience is negative and significant in most regressions. This result is consistent with the finding of Richardson (2000), who shows that firms in opaque business environments engage in more aggressive earnings management. However, the coefficients on other control variables are generally not significant except for that on the relative size of offer price to the market value of the bidder's equity.

To further examine how the past cross-border merger experience of the US bidder affects its incentives to engage in earnings management prior to the merger, we re-estimate the regression (9) of Table 5 (i.e., the regression with the composite index) separately for bidders with and without prior cross-border merger experience. We expect that the positive effect of the interaction term between the *factor* indicator and *STOCK* indicator on the bidder's earnings management to be more evident in a subsample of bidders with no previous international merger experience than in a subsample of bidders with previous international merger experience. Consistent with our prediction, the results reported in Table 6 show that the coefficient on the interaction term between the *factor* and *STOCK* indicator is positive and significant in bidders with no international merger experience, whereas it is not significant in those with international merger experience. The difference in coefficients on the interaction term between the two subsamples is statistically

Table 6 The effect of bidders' prior international experience on the relation between institutional differences and earnings management in cross-border mergers

	Firms with international merger experience in the past 3 years	Firms with *no* international merger experience in the past 3 years
Stock financing (indicator): a	−0.001 (0.52)	0.017 (0.19)
Factor (indicator): b	−0.005 (0.69)	−0.003 (0.83)
a × b	0.014 (0.16)	0.031*** (0.01)
Spread	0.616** (0.02)	0.144 (0.53)
Analyst following	0.006 (0.35)	−0.013** (0.05)
Institutional ownership	−0.031 (0.22)	0.036 (0.18)
Same industry (indicator)	−0.029* (0.10)	0.006 (0.59)
Target foreign institutional ownership	−0.043 (0.69)	0.18 (0.15)
Book to market	0.021** (0.02)	−0.014 (0.31)
Size (log assets)	−0.001 (0.69)	−0.002 (0.50)
Relative size (offer price/market value of bidder equity)	−0.023*** (<0.01)	−0.001 (0.92)
Leverage	−0.031 (0.34)	−0.019 (0.56)
Earnout (indicator)	0.022 (0.21)	0.013 (0.53)
Tender (indicator)	0.011 (0.58)	0.011 (0.50)
Hostile (indicator)	−0.003 (0.93)	−0.011 (0.74)
Antidirector rights	−0.002 (0.54)	0.009 (0.25)
Common law (indicator)	0.009 (0.58)	0.010 (0.43)
Rule of law	0.001 (0.94)	−0.002 (0.31)
IPO size/number of population	0.004 (0.30)	−0.000 (0.85)
Log (GDP per capita)	−0.006 (0.47)	−0.006 (0.51)
Target country rate	−0.002 (0.79)	−0.002 (0.64)
Intercept	0.084 (0.44)	0.034 (0.76)
Country fixed effects	Yes	Yes

Table 6 continued

	Firms with international merger experience in the past 3 years	Firms with *no* international merger experience in the past 3 years
Industry fixed effects	Yes	Yes
Adjusted-R^2	0.014	0.02
No. of observations	446	319
p-value for test of difference (a × b)	0.05	

The dependent variable is log (1 + earnings management). Earnings management is measured as cumulative abnormal accruals from quarter -2 to quarter-1 prior to the merger announcement date, which is estimated by the method suggested by Kothari et al. (2005). Other variables are defined in Table 3

***, **, and * denotes significance at the 0.01, 0.05 and 0.10 level, respectively. p-values are in parentheses

significant ($p = 0.05$). This finding suggests that prior international merger experience reduces opaqueness resulting from institutional differences that the bidder faces in the cross-border merger, thereby reducing the bidder's incentive to manage earnings.

Overall, these results suggest that the heightened institutional difference faced by the foreign bidder is an important determinant of the extent to which it engages in earnings management to reduce the cost of the cross-border merger.

5 Conclusions

Although the earnings management behavior of a bidding firm is a wide-spread phenomenon, little evidence exists regarding the determinant of this behavior in cross-border mergers. In this study, we hypothesize that opaque institutional environments in target home countries provide bidders with incentives to manage earnings upward prior to cross-border mergers. Earnings management is one of the widely used strategies for the bidder to reduce the risk of overbid, thereby reducing the overall merger cost. As expected, we find that the bidder's earnings management is more evident in cross-border mergers than in domestic mergers. More important, we find that earnings management by bidders in stock-based foreign acquisitions is significantly higher, particularly when they acquire targets from countries with higher institutional differences, such as countries that do not have a similar religion to the US Earnings management is also higher when the targets are from countries with less freedom of press, less political stability, high corruption, and less government effectiveness.

Overall, the findings of this study suggest that the incentives of the bidder to manage earnings are influenced by institutional differences in the target home country. The bidder generally has an incentive to engage in earnings management as a means to compensate for the increased cost arising from uncertainty about the contract. Such earnings management is costly to both the bidder and target, leading to inefficiency in merger activities. Therefore, the mitigation of institutional differences would be crucial to the reduction of the opportunistic earnings management behavior by the bidder. In other words, a mutual understanding on one another's institutional environments would be critical to a successful international merger.

One limitation of this study is the low R^2. Although the low R^2 is inevitable for the study that uses abnormal accruals as a dependent variable, one might argue that the overall low explanatory power of the estimation model makes the study less reliable. We admit that the overall explanatory power needs to be improved in the future study. One way to improve the overall explanatory power would be to use an alternative dependent variable rather than that from the residual model as used in this study. However, we believe that the interpretation of the individual coefficient can still convey valid implication despite the low R^2, providing a meaningful initial step toward identifying the determinants of earnings management behavior in the cross-border mergers.

Another limitation of this study is that we are unable to examine target firm-specific characteristics because financial information on foreign targets in our sample is largely unavailable. Many of target firms are privately held, restricting our ability to use target firm characteristics to proxy for institutional differences. In addition, to the extent that institutional differences influence a firm's choice between cross-border mergers and other types of organizational structure such as international strategic alliances and international joint ventures, this study, which focuses only on cross-border mergers, is likely to be subject to the selection bias. Although it is beyond the scope of this study, it would be interesting to examine whether the results documented in this paper would also hold for international strategic alliances and international joint ventures.

Acknowledgments Baik acknowledges financial support from the Institute of Management Research, Seoul National University. Choi acknowledges that this study is supported by Korea University Business School Grant.

References

Aggarwal, R., & Goodell, J. (2014). Culture, institutions, and financing choices: how and why are they related? *Research in International Business and Finance, 31*, 101–111.

Angwin, D. (2001). Mergers and acquisition across European borders: national perspectives on preacquisition due diligence and the use of professional advisers. *Journal of World Business, 36*(1), 32–57.

Banfield, E. (1975). Corruption as a feature of government organization. *Journal of Law and Economics, 18*(3), 587–605.

Baxamusa, M., & Jalal, A. (2014). Does religion affect capital structure? *Research in International Business and Finance, 31*, 112–131.

Becker, C., DeFond, M., Jiambalvo, J., & Subramanyam, K. (1998). The effect of audit quality on earnings management. *Contemporary Accounting Research, 15*(1), 1–24.

Becker, G., & Stigler, J. (1974). Law enforcement, malfeasance, and compensation of enforcers. *Journal of Legal Studies, 3*(1), 1–19.

Berger, A., DeYoung, R., & Udell, G. (2000). Efficiency barriers to the consolidation of the European financial services industry. *European Financial Management, 7*(1), 117–130.

Boynton, C., Dobbins, P., & Plesko, G. (1992). Earnings management and the corporate alternative minimum tax. *Journal of Accounting Research, 30*(3), 131–153.

Brown, S., Lo, K., & Lys, T. (1999). Use of R2 in accounting research: measuring changes in value relevance over the last four decades. *Journal of Accounting and Economics, 28*(2), 83–115.

Carver, B., Hollingsworth, C., & Stanley, J. D. (2011). Recent auditor downgrade activity and changes in clients' discretionary accruals. *Auditing: A Journal of Practice & Theory, 30*(3), 33–58.

Chan, K., Farrell, B., & Lee, P. (2008). Earnings management of firms reporting material internal control weaknesses under Section 404 of the Sarbanes-Oxley Act. *Auditing: A Journal of Practice & Theory, 27*(2), 161–179.

Chang, X., Dasgupta, S., & Hilary, G. (2006). Analyst coverage and financing decisions. *Journal of Finance, 61*(6), 3009–3048.

Cohen, D., Dey, A., & Lys, T. (2008). Real and accrual-based earnings management in the pre- and post-Sarbanes-Oxley periods. *The Accounting Review, 83*(3), 757–787.

Datta, D., & Puia, G. (1995). Cross-border acquisitions: an examination of the influence of relatedness and cultural fit on shareholder value creation in US acquiring firms. *Management International Review, 35*(4), 337–359.

Dechow, P., & Dichev, I. (2002). The quality of accruals and earnings: the role of accrual estimation errors. *The Accounting Review, 77*(s-1), 35–59.

Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: a review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics, 50*(2), 344–401.

Dechow, P., Sloan, R., & Sweeney, A. (1996). Causes and consequences of earnings manipulation: an analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research, 13*(1), 1–36.

Dikova, D., & Sahib, P. (2013). Is cultural distance a bane or a boon for cross-border acquisition performance? *Journal of World Business, 48*(1), 77–86.

Eleswarapu, V., & Venkataraman, K. (2006). The impact of legal and political institutions on equity trading costs: a cross country analysis. *Review of Financial Studies, 19*(3), 1081–1111.

Erickson, M., & Wang, S. (1999). Earnings management by acquiring firms in stock for stock mergers. *Journal of Accounting and Economics, 27*(2), 149–177.

Faccio, M. (2006). Politically connected firms. *American Economic Review, 96*(1), 369–386.

Faccio, M. (2010). Differences between politically connected and nonconnected firms: a cross country analysis. *Financial Management, 39*(3), 905–927.

Ferreira, M., Massa, M., & Matos, P. (2010). Shareholders at the gate? Institutional investors and cross-border mergers and acquisitions. *Review of Financial Studies, 23*(2), 601–644.

Fisman, R. (2001). Estimating the value of political connections. *American Economic Review, 91*(4), 1095–1102.

Gong, G., Louis, H., & Sun, A. (2008). Earnings management and firm performance following open-market repurchases. *Journal of Finance, 63*(2), 947–986.

Gonzalez, J., & Garcia-Meca, E. (2014). Does corporate governance influence earnings management in Latin American markets? *Journal of Business Ethics, 121*(3), 419–440.

Gray, S., Kang, T., & Yoo, Y. (2013). National culture and international differences in the cost of equity capital. *Management International Review, 53*(6), 899–916.

Grinblatt, M., & Keloharju, M. (2001). How distance, language, and culture influence stockholdings and trades. *Journal of Finance, 56*(3), 1053–1073.

Guidry, F., Leone, A., & Rock, S. (1999). Earnings-based bonus plans and earnings management by business-unit managers. *Journal of Accounting and Economics, 26*(1), 113–142.

Han, S., Kang, T., Salter, S., & Yoo, Y. (2010). A cross-country study on the effects of national culture on earnings management. *Journal of International Business Studies, 41*(1), 123–141.

Healy, P., & Wahlen, J. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons, 13*(4), 365–383.

Hilary, G., & Hui, G. (2009). Does religion matter in corporate decision making in America. *Journal of Financial Economics, 93*(3), 455–473.

Hofstede, G. (1980). *Culture's consequences: international differences in work-related values*. Beverly Hills: Sage Publications.

Hopkins, H. (1999). Cross-border mergers and acquisitions: global and regional perspectives. *Journal of International Management, 5*(3), 207–239.

Hribar, P., & Collins, D. (2002). Errors in estimating accruals: implications for empirical research. *Journal of Accounting Research, 40*(1), 105–134.

Jandik, T., & Kali, R. (2009). Legal systems, information asymmetry, and firm boundaries: cross-border choices to diversify through mergers, joint ventures, or strategic alliances. *Journal of International Business Studies, 40*(4), 578–599.

Jian, M., & Wong, T. (2010). Propping through related party transactions. *Review of Accounting Studies, 15*(1), 70–105.

Jones, J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research, 29*(2), 193–228.

Kaminsky, G., & Schmukler, S. (2002). Emerging markets instability: do sovereign ratings affect country risk and stock returns? *World Bank Economic Review, 16*(2), 171–195.

Kang, J., & Kim, J. (2010). Do foreign investors exhibit a corporate governance disadvantage? An information asymmetry perspective. *Journal of International Business Studies, 41*(8), 1415–1438.

Kho, B., Stulz, R., & Warnock, F. (2009). Financial globalization, governance, and the evolution of the home bias. *Journal of Accounting Research, 47*(2), 597–635.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics, 33*(3), 375–400.

Kogut, B., & Singh, H. (1988). The effect of national culture of the choice of entry mode. *Journal of International Business Studies, 19*(3), 411–432.

Kothari, S., Leone, A., & Wasley, C. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics, 39*(1), 163–197.

Krug, J., & Nigh, D. (1998). Top management departures in cross-border acquisitions: governance issues in an international context. *Journal of International Management, 4*(4), 267–287.
La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1998). Law and finance. *Journal of Political Economy, 106*(6), 1113–1155.
La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1999). The quality of government. *Journal of Law Economics and Organization, 15*(1), 222–279.
Lee, C. W., Li, L., & Yue, H. (2006). Performance, growth and earnings management. *Review of Accounting Studies, 11*(2–3), 305–334.
Leuz, C., Lins, K. V., & Warnock, F. E. (2010). Do foreigners invest less in poorly governed firms? *Review of Financial Studies, 23*(3), 3245–3285.
Leuz, C., Nanda, D., & Wysocki, P. (2003). Earnings management and investor protection: an international comparison. *Journal of Financial Economics, 69*(3), 505–527.
Lieberman, M., & Asaba, S. (2006). Why do firms imitate each other? *Academy of Management Review, 31*(2), 366–385.
Malhotra, S., & Zhu, P. (2013). Paying for cross-border acquisitions: the impact of prior acquirers' decisions. *Journal of World Business, 48*(2), 271–281.
Mauro, P. (1995). Corruption and growth. *Quarterly Journal of Economics, 110*(3), 681–713.
Milgrom, P., & Roberts, J. (1992). *Economics, organization, and management*. Englewood Cliffs: Prentice Hall.
Mukherji, A., Mukherji, J., Dibrell, C., & Francis, J. (2013). Overbidding in cross-border acquisitions: misperceptions in assessing and valuing knowledge. *Journal of World Business, 48*(1), 39–46.
Murphy, K., Shleifer, A., & Vishny, R. (1991). The allocation of talent: implications for growth. *Quarterly Journal of Economics, 106*(2), 503–530.
Perry, S., & Williams, T. (1994). Earnings management preceding management buyout offers. *Journal of Accounting and Economics, 18*(2), 157–179.
Richardson, V. (2000). Information asymmetry and earnings management: some evidence. *Review of Quantitative Finance and Accounting, 15*(4), 325–347.
Rose-Ackerman, S. (1999). *Corruption and government: causes, consequences, and reform*. New York: Cambridge University Press.
Rose-Ackerman, S. (2007). *International handbook on the economics of corruption*. Northampton: Edward Elgar Publishing.
Roth, K., & O'Donnell, S. (1996). Foreign subsidiary compensation strategy: an agency theory perspective. *Academy of Management Journal, 39*(3), 678–703.
Sawicki, J., & Shrestha, K. (2008). Insider trading and earnings management. *Journal of Business Finance & Accounting, 35*(3–4), 331–346.
Schipper, K. (1989). Commentary on earnings management. *Accounting Horizons, 3*(4), 91–106.
Shimizu, K., Hitt, M., Vaidyanath, D., & Pisano, V. (2004). Theoretical foundations of cross-border mergers and acquisitions: a review of current research and recommendations for the future. *Journal of International Management, 10*(3), 307–353.
Shleifer, A., & Vishny, R. (1993). Corruption. *Quarterly Journal of Economics, 108*(3), 599–617.
Sirri, E., & Tufano, P. (1998). Costly search and mutual fund flows. *Journal of Finance, 53*(5), 1589–1622.
Stulz, R., & Williamson, R. (2003). Culture, openness, and finance. *Journal of Financial Economics, 70*(3), 313–349.
Teoh, S., Welch, I., & Wong, T. (1998). Earnings management and the underperformance of seasoned equity offerings. *Journal of Financial Economics, 50*(1), 63–100.
Tkac, P. (1999). A trading volume benchmark: theory and evidence. *Journal of Financial and Quantitative Analysis, 34*(1), 89–114.
Venieris, Y., & Gupta, D. (1986). Income distribution and sociopolitical instability as determinants of savings: a cross-sectional model. *Journal of Political Economy, 94*(4), 873–883.
Very, P., & Schweiger, D. (2001). The acquisition process as a learning process: evidence from a study of critical problems and solutions in domestic and cross-border deals. *Journal of World Business, 36*(1), 11–31.
Wooldridge, J. (2013). *Introductory econometrics. a modern approach* (5th ed.). Ohio: South-Western, Cengage Learning.
Wysocki, P. (2008). Assessing earnings and accruals quality: U.S. and international evidence. Working paper, MIT.

Zaheer, S. (1995). Overcoming the liability of foreignness. *Academy of Management Journal, 38*(2), 341–363.

Zaheer, S., & Mosakowski, E. (1997). The dynamics of the liability of foreignness: a global study of survival in financial services. *Strategic Management Journal, 18*(6), 439–464.