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# Effects of International Institutional Factors on Earnings Quality of Banks

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**Effects of International Institutional Factors on  
Earnings Quality of Banks**

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## **Effects of International Institutional Factors on Earnings Quality of Banks**

### **Abstract**

We examine the relation between legal, extra-legal and political institutional factors and earnings quality of banks across countries. We predict that earnings quality is higher in countries with legal, extra-legal and political systems that reduce the consumption of private control benefits by insiders and afford outside investors greater protection. Using a sample of banks from 29 countries over the period from 1993 to 2006, we find all five measures of earnings quality studied are higher in countries with stronger legal, extra-legal and political institutional structures. Our findings highlight the implications of institutional environments for financial reporting quality and are relevant to bank regulators who are considering additional regulations on bank financial reporting.

**JEL classification:** G34; G38; M41

**Keywords:** *International institutional factors, Earnings quality, Bank loan loss provisions, Bank loan charge-offs.*

# **Effects of International Institutional Factors on Earnings Quality of Banks**

## **1. Introduction**

We investigate whether differences in country-wide legal, extra-legal and political institutions explain cross-country differences in earnings quality of banks. We examine earnings quality from two perspectives: an information perspective and an opportunistic earnings management perspective. The information perspective indicates that earnings quality increases as managers report less noisy or more accurate earnings or take reporting actions that reveal information about banks' future earnings and cash flows. By contrast, earnings quality decreases if managers act opportunistically and take actions that disguise the true underlying economic performance of the bank in an effort to enhance their own welfare at the expense of investors. We examine the implications of differences in international institutional factors on earnings persistence, predictability of future cash flows, future loan write-offs, earnings benchmark-beating behavior, and income-increasing abnormal loan loss provisions.

Recent research shows that the reporting environment is shaped by country-specific institutional structures including legal and judicial systems, product-market competition, press coverage, tax compliance and political economy (Ball et al. 2000; Ball et al. 2003; Bushman et al. 2004; Gul 2006). Another stream of research documents the role of legal, extra-legal and political institutions in reducing the consumption of private control benefits by insiders (LaPorta et al. 1998; Dyck and Zingales 2004; Haw et al. 2004). The potential for private control benefits provides incentive to insiders to distort financial reports, thus decreasing their credibility (Leuz

et al. 2003). Strong institutional structures constrain the consumption of private control benefits and improve the credibility of financial statements.

Prior research on the relation between international institutional factors and earnings quality excludes firms in banking and financial services (e.g., Ball et al. 2000; Leuz et al. 2003). Given the importance to national and global economies of this highly leveraged sector of the economy, that firms in this sector are very different from industrial firms, and the recent concern with the quality of reported earnings following the meltdown in this sector, a study of factors affecting earnings quality in the banking industry clearly is warranted. In an attempt to better understand differences in earnings quality of banks, we provide empirical evidence on the relation between several dimensions of earnings quality of banks and cross-country differences in legal, extra-legal, and political institutional structures.

In addition to the important role banks play in the economy of a country; studying attributes of earnings quality of banks has several advantages. First, measures of abnormal accruals, a commonly used proxy for earnings quality in prior research, are subject to serious measurement error (Guay et al. 1996; McNichols 2000; 2002; Jones et al. 2008).<sup>1</sup> For example, McNichols (2002) questions the construct validity of a proxy based on aggregate accruals because of the complexity associated with modeling the estimation errors in aggregate accruals. In their review of research on earnings management, Healy and Wahlen (1999) highlight the paucity of evidence on earnings management and suggest examination of specific accruals. Similarly, McNichols (2002) notes that the potential to develop models of specific accruals is largely untapped and recommends focusing on a specific accrual to better

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<sup>1</sup> Jones et al. (2008) find that the commonly used discretionary accrual measures do not capture many instances of extreme earnings management including fraudulent earnings and restatement of financial statements.

understand the forces shaping management's accrual choices. Our study can be viewed as a response to the calls by Healy and Wahlen (1999) and McNichols (2002).

Second, this study mitigates error in measuring managerial discretion by focusing on a single industry. By focusing on a single, mature industry, our study avoids the drawbacks of pooling firms at different stages of their life-cycle in a single sample. Thus, our results are likely to be attributable more to differences in institutional factors than to omitted variables related to differences in industry characteristics and/or firms' life-cycles. Focusing on a single, relatively homogeneous industry also facilitates control over other determinants of cross-sectional differences in properties of earnings and increases the reliability of the inferences from our empirical analyses. Furthermore, focusing on a single accrual (loan loss provisions) facilitates a better separation into its nondiscretionary and discretionary components, thus permitting a more accurate assessment of earnings quality.

Finally, banking has been a profitable industry until 2007. It ranked second after pharmaceuticals in profitability among *Fortune 500* firms in the US in 2001 (Public Citizen 2002) and third in return on revenues in 2005 (CNNMoney.com). These high levels of profitability provide opportunities and incentives for managers to earn quasi-rents from distorting earnings. Overall, the above reasons indicate that focusing on the banking industry provides an appealing context for examining the relation between international institutional factors and earnings quality.

We hypothesize that banks in countries with stronger legal, extra-legal and political institutions will exhibit higher earnings quality. We use earnings persistence, cash flow predictability, the ability of current period's loan loss provisions to predict next period's loan charge-offs, the extent of earnings management to just-meet-or-beat prior year's earnings, and the extent of income-increasing earnings management through abnormal loan loss provisions as measures of earnings quality. We use the

rule of law index and the efficiency of the judicial system (LaPorta et al. 1998) and the law and order index (Economic Freedom of the World Annual Report 2005) as well as a principal component extracted from these three variables as proxies for the legal environment. We proxy for extra-legal institutional structures with competition between banks, newspaper circulation and tax compliance (Dyck and Zingales 2004), and a principal component derived from these three variables. For political involvement of the government in business, we use risk of expropriation, state ownership and cost of starting a business (Bushman et al. 2004), and a principal component extracted from these three variables.

We use an international bank sample from the *BankScope* database representing 29 countries for the period between 1993 and 2006 to test our hypotheses. Our results indicate that country-wide legal, extra-legal and political institutions have strong association with all our measures of earnings quality. In particular, we document that international institutional factors greatly increase the information value of bank earnings. Earnings persistence, cash flow predictability, and the ability of current period's loan loss provisions to predict next period's loan charge-offs are all enhanced by strong legal, extra-legal and political institutions. Furthermore, our results show that international institutional factors constrain opportunistic earnings management by managers of banks. We find that higher quality legal, extra-legal and political systems reduce earnings management to just-meet-or-beat prior year's earnings and reduce income increasing abnormal loan loss provisions.

Our results contribute to the literature in several ways. First, our results extend prior research on the effects of international institutional factors to the banking industry. Our study identifies international institutional characteristics that are associated with relatively higher quality of earnings in banks around the world. In

particular, we provide evidence on the relations between country-specific institutional structures and past practices related to loan write-offs and income-increasing managerial discretion in the estimation of loan loss provisions. Second, we employ a broader test of earnings quality that spans both the information perspective and opportunistic earnings management perspective. Third, our research design mitigates error in measuring managerial discretion by focusing on a single industry. By so doing, our study confirms the findings of past research focusing on industrial firms that has recently come under scrutiny (Watts 2009).

Because our results may be driven by country-specific bank monitoring variables that are correlated with the international institutional factors studied, we repeat the analysis after controlling for cross-country differences in bank regulation, bank supervision, and level of financial development (Fonseca and Gonzalez 2008). Our results are robust to controlling for these additional variables. Furthermore, because country-specific accounting rules may also affect a bank manager's ability to manage earnings (Hung 2001; Leuz et al. 2003), we re-estimate our regression models after including the accrual index and the degree of a country's tax-book conformity (Hung 2001) to control for cross-country differences in accounting rules. Once again, including these additional controls does not qualitatively alter our main results.

Our study is timely and relevant given the recent banking crisis that has placed particular emphasis on earnings quality of banks, especially related to loan write-offs and adequacy of loan loss provisions. The recent, massive write-downs in the banking industry have led some to argue for increased regulation, while others argue that the failure of existing regulation to prevent these events indicates that additional regulation is futile (Altamuro and Beatty 2008). By providing evidence that enhances our understanding of how institutional features related to legal, extra-legal



and political institutions are associated with earnings quality, our results will serve as an important input on decisions to enhance the effectiveness of current regulations on bank financial reporting.

The paper is organized as follows. We discuss related research in the next section and present the measures of earnings quality used in the study in section three. We describe the sample selection and data in section four, discuss the results in section five, and provide our conclusions in the final section.

## **2. Related Literature**

Earnings quality research in the banking industry has focused on examining the ability of accounting earnings to signal future bank performance and on earnings management using specific items, such as loan loss provisions (LLP). However, with the recent high profile banking crisis, the ability of bank earnings to reflect bank performance has been questioned. Also of interest are the underlying incentives for earnings management and effectiveness of internal and external control systems in reducing earnings management. The extant literature on the use of LLP to manage earnings has mainly dealt with detecting earnings management. For example, Wahlen (1994) and Collins et al. (1995), among others, find evidence that banks use LLP to manage income. However, the possible underlying motives or factors that restrain managers' opportunistic behavior that could explain bank earnings management remain largely unexplored.<sup>2</sup> In this paper, we focus on the effects of international institutional factors on earnings quality of banks using a broad set of earning quality

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<sup>2</sup> Notable exceptions are Beatty et al. (2002), Kanagaretnam et al. (2003) and Kanagaretnam et al. (2004). These papers provide evidence that meeting earnings thresholds, job security, reduction of earnings variability, and need for external financing are some of the factors explaining cross-sectional differences in earnings management through LLP.

measures including timely recognition of loan charge-offs and banks' use of LLP to increase income.<sup>3</sup>

Recent research on industrial firms shows that strong country-level institutions can reduce consumption of private control benefits by insiders (LaPorta et al. 1998; Dyck and Zingales 2004; Haw et al. 2004). By reducing private control benefits, institutional structures improve the credibility of financial statements. Consistent with this line of inquiry, Leuz et al. (2003) report that earnings management decreases with the strength of legal environment. Haw et al. (2004) find that extra-legal institutions such as competition laws, media pressure and tax enforcement constrain earnings management. Bushman et al. (2004) report lower transparency for firms in political environments with high risk of expropriation, state ownership, and cost of starting a business. Strong institutional structures also encourage more timely disclosure and greater transparency (Darrough and Stoughton 1990; Pagano and Volpin 2001, 2005).<sup>4</sup>

### ***2.1 Effect of legal variables on earnings quality***

Legal systems protect outsiders by giving them the rights to discipline insiders and to enforce contracts. La Porta et al. (1998) report that the extent of legal protection of outside investors varies across countries. Outside investors use financial reports to monitor the activities of insiders and rely on the legal system to give them the power to take appropriate action in times of doubt. Hung (2001) argues that managers are more likely to behave opportunistically in an environment with weak

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<sup>3</sup> As with all accruals, discretionary LLP will also reverse over time. In the short term, opportunistic income increasing discretionary LLP will result in under-provision of reserves which will be harmful to banks.

<sup>4</sup> To our knowledge, Fonseca and Gonzalez (2008) and Shen and Chih (2005) are the only two studies that examine earnings management in banks in an international setting. Compared to these studies, our paper employs both a broader set of institutional factors and earnings quality tests using more recent data.

shareholder protection and shows that a higher use of accrual accounting negatively affects the value relevance of accounting measures for countries with weak shareholder protection. Leuz et al. (2003) argue that earnings management is more pervasive in countries with weak legal protection of outside investors because insiders enjoy more private benefits and have stronger incentives to hide the true firm performance. They document that earnings management is negatively related to outsider rights and legal enforcement. DeFond et al. (2007) provide evidence that annual earnings announcements are more informative in countries with less earnings management and that, on average, earnings announcements are more informative in countries with strong investor protection institutions. Overall the evidence suggests that the legal protection offered to shareholders improves the inherent quality of financial statements.

The first two legal variables we use to measure the characteristics of the legal system are from LaPorta et al. (1998): the rule of law index (*RULE*) and the efficiency of the judicial system (*EFF*). The third variable is the law and order index (*LAWORDER*) from the Economic Freedom of the World annual report (2005). We also create a principal component (*LEGAL*) extracted from *RULE*, *EFF*, and *LAWORDER*. Detailed descriptions of these variables are provided in Appendix 1. These legal variables capture the features of the legal system and tradition as well as the efficiency of enforcement. We expect higher values of these variables to be related to higher earnings quality of banks.

## ***2.2 Effect of extra-legal variables on earnings quality***

The extra-legal institutions considered in this study are drawn primarily from Dyck and Zingales (2004). These include strength of product competition, per capita circulation of daily newspapers, and rate of tax compliance. While an effective legal

system impedes opportunistic actions and expropriation devices that are clear and detectable, a number of executive actions fall in the “grey” areas that are not clear and detectable by law. Rather, they can be constrained more effectively by the marketplace and reputation effects. Haw et al. (2004) show how these extra-legal institutions, in conjunction with the legal systems, can constrain opportunistic earnings management.

In the banking industry, competition among banks effectively reduces the consumption of private benefits because such consumption will make the bank less competitive, less profitable, and in turn, less attractive to managers (Haw et al. 2004). Further, in a competitive market, the market is likely to significantly penalize managers involved in any deliberate distortion of earnings. These forces limit opportunistic behavior and reduce the opportunity for earnings management by banks.

We also argue that discipline is imposed on managers partly by the fear of reputation loss resulting from opportunistic actions in reporting. Higher newspaper coverage and a better-educated investor population that reads newspapers affect the magnitude of this reputation loss. Free, fair and extensive press diffusion therefore leads to more accurate reporting by managers, thus increasing the informativeness of earnings.

Our third proxy for extra-legal institutions is related to tax compliance. Tax authorities have the objective of verifying the income produced by the firm (Dyck and Zingales 2004), albeit as per tax rules rather than GAAP. However, the verification role carried out by tax authorities produces a degree of assurance on the unbiasedness of earnings for investors in regimes where tax regulation enforcement is strong. Tax law enforcement is measured by the degree of tax compliance.

We use competition between banks (*COMPBANK*), newspaper circulation (*NEWS*), and tax compliance (*TAX*), and a principal component (*ELEG*) to proxy for extra-legal institutions. Higher values of these variables indicate a stronger extra-legal environment. Therefore, we expect the extra-legal variables to be positively related to earnings quality of banks.

### ***2.3 Effect of political economy variables on earnings quality***

Pagano and Volpin (2005) argue that both the legal system and economic outcomes are determined by the political system. Bushman et al. (2004) assert that the pressure to protect expropriation and corruption by politicians and their cronies could adversely affect the accuracy of reported financial information in state-owned enterprises. Furthermore, the government could impose additional cost on entrants to shield the economic rents of politically connected firms from competition and in the process restrict the flow of information to the public to avoid undesirable scrutiny. Additionally, if there is a high potential for direct expropriation by the government, more transparent firms face higher risk of expropriation. This is because they would be viewed as being noncooperative with corrupt politicians and because the transparency allows the government to muster arguments for expropriation of the firm's assets and profits. Using risk of expropriation, cost of starting a business, and state ownership as measures of the political economy of a country, Bushman et al. (2004) find that these variables are significant in determining corporate financial transparency in a country. They define financial transparency as the intensity of financial disclosures and their interpretation and dissemination by analysts and the media.<sup>5</sup> Consistent with Bushman et al. (2004), we measure political involvement of

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<sup>5</sup> A number of other recent studies also identify country-specific political variables as determinants of political development and reporting incentives (LaPorta et al. 1997, 2000, 2002; Rajan and Zingales 2003).

the government in business by the risk of expropriation (*RISKEXP*), state ownership (*SOE*), and cost of starting a business (*STARTBUS*). We also use a principal component (*POLITICAL*) to proxy for political variables. We code these political system variables such that higher values of these variables indicate lower political risks. Higher values of our political variables indicate a higher level of financial transparency, resulting in more accurate reporting (i.e., increase in the informativeness of earnings) and less opportunistic earnings management. Therefore, we expect these variables to be positively associated with earnings quality of banks.

### **3. Measures of Earnings Quality**

Our main prediction is that banks in countries with better legal, extra-legal and political environments have higher earnings quality. We employ several traditional proxies of earnings quality such as earnings persistence, predictability of cash flows and managing earnings to just-meet-or-beat prior year's earnings, and bank specific proxies such as the ability of current period's loan loss provisions to predict next period's loan charge-offs and earnings management through current period's income increasing abnormal loan loss provisions. Our earnings quality proxies closely resemble the measures used by Altamuro and Beatty (2008) who examine the effect of FDICIA (Federal Deposit Insurance Corporation Improvement Act of 1991)-mandated internal control requirements on earnings quality of US banks. Our proxy for abnormal loan loss provisions is based on prior banking research on loan loss provisions (Wahlen 1994; Kanagaretnam et al. 2004).

#### ***3.1 Earnings persistence and predictability of cash flows***

We examine two related but distinct measures of earnings quality: earnings persistence, and the ability of current earnings to predict future cash flows. We

estimate earnings persistence as the coefficient on current period earnings (defined as net income before income taxes) in a regression of future earnings on current earnings. We measure earnings' ability to predict future cash flows as the coefficient from a regression of one-period-ahead earnings before taxes and loan loss provisions on current period net income before taxes.<sup>6</sup> We estimate the following regressions to investigate the effect of international institutional factors on these earnings quality measures:

$$EBT_{t+1} = \beta_0 + \beta_1 EBT_t + \beta_2 MEASURE + \beta_3 MEASURE *EBT_t + \beta_4 SIZE_t + \beta_5 BANK + \beta_6 CR\_RIGHT + \beta_7 DISC\_INDEX + \langle \text{Year Controls} \rangle + e \quad (1)$$

$$EBTLLP_{t+1} = \beta_0 + \beta_1 EBT_t + \beta_2 MEASURE + \beta_3 MEASURE *EBT_t + \beta_4 SIZE_t + \beta_5 BANK + \beta_6 CR\_RIGHT + \beta_7 DISC\_INDEX + \langle \text{Year Controls} \rangle + e \quad (2)$$

Where:

- EBT<sub>t+1</sub> = earnings before taxes during year t+1 scaled by total assets at the beginning of the year;
- EBTLLP<sub>t+1</sub> = earnings before taxes and loan loss provisions during year t+1 scaled by total assets at the beginning of the year;
- MEASURE = one of nine individual international institutional variables or one of three principal components that proxy for legal, extra-legal and political variables;<sup>7</sup>
- SIZE<sub>t</sub> = log of total assets at the beginning of the year;
- BANK = a bank system dummy, which equals 1 for countries whose financial system is bank-dominated and 0 for countries whose financial system is market-oriented, as per the classification of Demircuc-Kunt and Levine (1999);
- CR\_RIGHTS = an index aggregating different creditor rights as reported in La Porta et al. (1998). The index ranges from 0 to 4; and
- DISC\_INDEX = a disclosure index as reported in La Porta et al. (1998). The index ranges from 0 to 90.

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<sup>6</sup> Prior research in banking (Whalen 1994; Altamuro and Beatty 2008, among others) has used earnings before taxes and loan loss provisions as a proxy for cash flow, since loan loss provisions are the single largest accrual for banks.

<sup>7</sup> We mean-center the country level variables to reduce problems with multicollinearity among the interaction terms (Neter et al. 1989; Aiken and West 1991).

We include the three country specific variables, *BANK*, *CR\_RIGHTS* and *DISC\_INDEX*, as control variables in all our regressions. We do not offer directional predictions on the coefficients of these variables. Prior studies (e.g., Kwok and Tadesse 2006; Purda 2008) indicate that a firm's perceived risk (and the associated earnings quality due to earnings management) is influenced by whether the financial system in the country is bank- or market-based (*BANK*).<sup>8</sup> We control for creditor rights (*CR\_RIGHTS*) since Shen and Chih (2005) and Fonseca and Gonzalez (2008) suggest that the rights accorded to creditors likely reduce earnings management, as stronger creditor rights against borrower expropriation reduce bank risk in lending activities and thus their incentives to manage earnings. Lastly, we include level of disclosure (*DISC\_INDEX*) as a control variable, since greater transparency in accounting disclosure can reduce banks' incentives to manage earnings (Fonseca and Gonzalez 2008).

In models (1) and (2), the coefficient of interest is the coefficient on the interaction variable  $MEASURE*EBT_t$  which is predicted to have a positive sign, consistent with the argument that international institutional factors enhance earnings persistence and predictability of cash flows in banks.

### **3.2 *Loan loss provisions and future loan charge-offs***

Beatty and Altamuro (2008) document a weaker relation between the current period's loan loss provisions and next period's loan charge-offs for banks with higher earnings management. We predict that if international institutional factors strengthen the validity of the loan loss provisions, then we should observe a stronger relation

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<sup>8</sup> Kwok and Tadesse (2006) show that countries characterized by higher uncertainty avoidance are more likely to have a bank-based system while Purda (2008) reports that firms located in a country with a bank-oriented system are perceived as posing a lower credit risk.



between current period loan loss provisions and next period charge-offs. We use the following model to test this hypothesis:

$$\begin{aligned} \text{CHGOFF}_{t+1} = & \gamma_0 + \gamma_1 \text{LLP}_t + \gamma_2 \text{MEASURE} + \gamma_3 \text{MEASURE} * \text{LLP}_t + \gamma_4 \text{SIZE}_t \\ & + \gamma_5 \text{BANK} + \gamma_6 \text{CR\_RIGHT} + \gamma_7 \text{DISC\_INDEX} + \langle \text{Year Controls} \rangle + e \quad (3) \end{aligned}$$

Where:

$\text{CHGOFF}_{t+1}$  = loans charged off by the bank during year t+1, scaled by total assets at the beginning of the year; and  
 $\text{LLP}_t$  = provisions for loan losses during year t, scaled by total assets at the beginning of year t.

And all other variables are as previously defined.

The coefficient of interest is the coefficient on the interaction variable  $\text{MEASURE} * \text{LLP}_t$ , which is predicted to have a positive sign, consistent with the argument that international institutional factors strengthen the validity of the loan loss provisions in predicting next period's loan charge-offs, i.e., current period loan loss provisions better reflect expected loan charge-offs in the next period.

### 3.3 *Managing earnings to just-meet-or-beat prior year's earnings*

Beatty et al. (2002) and Altamuro and Beatty (2008) report that managers have incentive to manage earnings to just-meet-or-beat prior period's earnings. We examine whether international institutional factors dampen this incentive.<sup>9</sup> We include all available additional control variables (size, growth, loans, leverage, change in cash flow, and loan loss allowance) to be consistent with the above literature, and estimate the following logit model:

$$\begin{aligned} \text{SMALL\_POS}_{\Delta t} = & \alpha_0 + \alpha_1 \text{MEASURE} + \alpha_2 \text{SIZE}_t + \alpha_3 \text{GROWTH}_t + \alpha_4 \text{LOANS}_t \\ & + \alpha_5 \text{LEV}_t + \alpha_6 \Delta \text{CASH\_FLOW}_t + \alpha_7 \text{ALLOW}_t + \alpha_8 \text{BANK} \\ & + \alpha_9 \text{CR\_RIGHT} + \alpha_{10} \text{DISC\_INDEX} + \langle \text{Year Controls} \rangle + e \quad (4) \end{aligned}$$

<sup>9</sup> A recent survey of managers by Graham et al. (2005) finds that meeting or beating prior period's earnings is one of the most important benchmarks for corporate managers.

Where:

SMALL_POS $_{\Delta t}$	=	an indicator variable taking the value one if the bank has a change in ROA (income before taxes scaled by total assets) from year t-1 to year t in the interval between 0 and 0.001, zero otherwise;
GROWTH $_t$	=	the growth in total assets from the beginning to the end of year t;
LOANS $_t$	=	total loans scaled by total assets at the beginning of year t;
LEV $_t$	=	total equity divided by total assets at beginning of year t;
$\Delta$ CASH_FLOW $_t$	=	change in cash flows (earnings before taxes and loan loss provisions) from the beginning to the end of year t scaled by total assets at the beginning of year t; and
ALLOW $_t$	=	allowance for loan losses at the end of year t, scaled by total assets at beginning of year t.

And all other variables are as previously defined.

The coefficient of interest is the coefficient on *MEASURE* which is predicted to have a negative sign, consistent with the argument that higher quality international institutional environments dampen managers' incentive to manage earnings to just-meet-or-beat prior year's earnings.

### 3.4 *Income increasing abnormal loan loss provisions*

We use a two-stage approach to examine the relation between international institutional factors and income increasing earnings management. We first estimate the normal or nondiscretionary component of LLP by regressing LLP on beginning loan loss allowance, net loan charge-offs, change in total loans outstanding, total loans outstanding, loan categories, and controls for period and country effects using the following model:<sup>10</sup>

$$\begin{aligned}
 LLP_{it} = & \lambda_0 + \lambda_1 BEGLLA + \lambda_2 LCO + \lambda_3 CHLOANS + \lambda_4 LOANS \\
 & + \langle \text{LOAN CATEGORIES} \rangle + \langle \text{YEAR CONTROLS} \rangle + \langle \text{COUNTRY} \\
 & \text{CONTROLS} \rangle + e_{it}
 \end{aligned} \tag{5}$$

<sup>10</sup> These variables have also been used in several prior studies (e.g., Wahlen 1994; Kanagaretnam et al. 2004) to estimate the normal component of LLP.

Where (all variables are deflated by beginning total assets):

LLP	=	provisions for loan losses;
BEGLLA	=	beginning loan loss allowance;
LCO	=	net loan charge-offs;
CHLOANS	=	change in total loans outstanding;
LOANS	=	total loans outstanding; and
LOAN CATEGORIES	=	loans to municipalities / government ( <i>MUN</i> ), mortgages ( <i>MORT</i> ), hire-purchase / lease ( <i>LEASE</i> ), other loans ( <i>OTH</i> ), loans to group companies / associates ( <i>GRP</i> ), loans to other corporate ( <i>OCORP</i> ) and loans to banks ( <i>BK</i> ).

The residuals from model (5) are the abnormal or discretionary component of LLP, referred to as *ALLP*.

In the second stage, we test the association between international institutional factors and the absolute value of negative (income-increasing) *ALLP*. Negative *ALLP* are of particular interest because of their positive impact on reported earnings. We control for the following factors that prior research has documented are associated with abnormal accruals (Ashbaugh et al. 2003): firm size, asset growth, level of past accruals, and performance. We use log of assets to measure size and prior period's LLP to proxy for level of past accruals. We represent performance by earnings before LLP. Our model is as follows:

$$\begin{aligned}
 ALLP = & \delta_0 + \delta_1 MEASURE + \delta_2 SIZE + \delta_3 GROWTH + \delta_4 PASTLLP + \delta_5 EBTLLP \\
 & + \delta_6 BANK + \delta_7 CR\_RIGHT + \delta_8 DISC\_INDEX \\
 & + <YEAR CONTROLS> + \varepsilon
 \end{aligned}
 \tag{6}$$

Where:

ALLP	=	absolute value of negative abnormal loan loss provisions;
PASTLLP	=	prior year's LLP divided by total assets at the beginning of the year;
EBTLLP	=	earnings before taxes and loan loss provisions divided by total assets at the beginning of the year;

And all other variables are as previously defined.

The coefficient of interest in model (6) is the coefficient on *MEASURE*. A negative coefficient is consistent with our prediction of international institutional factors constraining income increasing earnings management.

#### **4. Data Description**

We obtain financial data for the international (non-US) banks for the period 1993-2006 from the *BankScope* database.<sup>11</sup> We select sample countries from the 48 countries listed in La Porta et al. (1998). We drop 9 countries (Ireland, Kenya, Pakistan, Sri Lanka, Zimbabwe, Ecuador, Indonesia, Jordan, and Venezuela) for which La Porta et al. (1998) do not report the accounting disclosure index and creditor rights index. We delete another 10 countries (Argentina, Belgium, Denmark, Egypt, Finland, Malaysia, Nigeria, Sweden, Switzerland, and Uruguay) due to missing bank-specific information (such as loan charge offs, loan loss provisions, loan loss allowance, etc). We retain the remaining 29 countries in our study. These include Australia, Austria, Brazil, Canada, Chile, Columbia, France, Germany, Greece, Hong Kong, India, Israel, Italy, Japan, Korea, Mexico, Netherlands, New Zealand, Norway, Peru, Philippines, Portugal, Singapore, South Africa, Spain, Taiwan, Thailand, Turkey, and the United Kingdom.

We present the sample distribution by year and by country in Panel A and Panel B of Table 1, respectively. The samples for the earnings persistence and cash flow predictability tests are relatively larger than the samples for the just-meet-or-beat, future charge-offs and abnormal loan loss provisions tests because of the less stringent data requirements. We present the legal, extra-legal, and

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<sup>11</sup> As in Fonseca and Gonzalez (2008), we omit US banks to avoid potential bias they may be caused by the high percentage they represent of the sample (greater than 50% of the sample for the loan charge-offs, just-meet-or beat prior year's earnings, and ALLP tests).

political variables and their respective principal components in Panel C of Table 1. Panel D reports the correlations among the country-level institutional variables.

[Insert Table 1 here]

## 5. Empirical Results

The residuals from the regression models may be serially and/or cross-sectionally correlated. We therefore use OLS/logistic regressions with clustered robust errors to account for both serial and cross-sectional correlations (Rogers 1993; Williams 2000; Petersen 2009). For all tests, we report Wald or t statistics based on clustered standard errors after correcting for both serial and cross-sectional correlations in the residuals.<sup>12</sup>

### 5.1 Earnings persistence and cash flow predictability tests

We report the descriptive statistics for the earnings persistence and cash flow predictability tests in Table 2. Panel A shows the descriptive statistics of variables used in equations (1) and (2) and Panel B reports the correlations among those variables.

[Insert Table 2 here]

The results for the earnings persistence test are reported in Table 3. In all the models, future *EBT* is positively and significantly associated with current *EBT* at the 1% level, consistent with the results reported in prior studies (e.g., Altamuro and Beatty 2008). Of primary interest is  $\beta_3$ , the coefficient on the interaction variable *MEASURE\*EBT*. A positive  $\beta_3$  indicates higher earnings persistence with stronger legal, extra-legal, and political environments. Consistent with our prediction, we find

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<sup>12</sup> Petersen (2009) suggests that, in the presence of cross-sectional and time-series dependence, one dependence effect can be addressed parametrically (e.g., including time dummies for cross-sectional dependence) and then standard errors clustered on the other dependence effect (e.g., clustering by firms for time-series dependence) can be estimated. As we have more firm than year observations, we use year dummies and cluster by firms because a larger number of clusters leads to standard errors that are less biased.

that  $\beta_3$  is positive and significant at the 1% level for eleven of the twelve institutional variables, indicating strong support for the hypothesis that international institutional factors enhance earnings persistence in banks.

[Insert Table 3 here]

Table 4 reports results for the cash flow predictability test. All the models in Table 4 show that future cash flow is positively and significantly associated with *EBT*, consistent with the finding in Altamuro and Beatty (2008). More importantly, all the institutional variables (with the exception of *TAX*) show a positive and significant coefficient for  $\beta_3$ . This evidence is consistent with our prediction that international institutional factors enhance the ability of earnings to predict future cash flows in banks.

[Insert Table 4 here]

## ***5.2 Future charge-offs test***

We report the results of the future charge-offs test in Table 5. Panel A presents the descriptive statistics of variables used in equation (3) and Panel B tabulates the correlations among the variables used in the regression. We report the regression results in Panel C. Of interest is  $\gamma_3$ , the coefficient on the interaction variable *MEASURE\*LLP<sub>t</sub>*. A positive sign for  $\gamma_3$  is consistent with the argument that international institutional factors strengthen the validity of the loan loss provisions in predicting next period's loan charge-offs. Consistent with prior studies (e.g., Altamuro and Beatty 2008), the coefficient of *LLP* is positive and significant at the 1% level in all models. More importantly, we find that  $\gamma_3$  is positive and significant for nine out of the twelve institutional variables. This evidence generally supports our prediction that strong legal, extra-legal, and political factors increase the likelihood

that current loan loss provisions made by banks will cover loan charge-offs in the near future.

[Insert Table 5 here]

### ***5.3 Meeting or beating prior year's earnings test***

We report the results of the earnings benchmark test in Table 6. Panel A presents the descriptive statistics of variables used in equation (4). On average, 13% of our sample firms report a small increase in earnings over the prior year. Panel B shows the correlations among the variables used in the regression. We report the results for the logistic regressions in Panel C. A negative sign for  $\alpha_1$ , the coefficient of interest, suggests that firms are less likely to manage earnings to just-meet-or-beat prior year's earnings when the legal, extra-legal, and political environments are stronger. Consistent with our prediction, we find that  $\alpha_1$  is negative and significant at conventional levels (10% or better) for ten of the twelve institutional variables. In particular, the three principal component factors *LEGAL*, *ELEG* and *POLITICAL* have strong negative associations with benchmark-beating behavior. These results provide support for the contention that strong legal, extra-legal, and political institutions constrain earnings management by banks to just-meet-or-beat prior year's earnings.

[Insert Table 6 here]

### ***5.4 Income-increasing abnormal loan loss provisions test***

We report the results for the abnormal loan loss provisions test in Table 7. Panel C reports the results of the first-stage regression for estimating abnormal LLP. Consistent with prior studies (e.g., Kanagaretnam et al. 2008), *BEGLLA* is negatively associated with *LLP* since a higher initial loan loss allowance will require a lower

*LLP* in the current period. As expected, *LCO* and *LOANS* are positively associated with *LLP*, consistent with the evidence reported in Kanagaretnam et al. (2008). The residuals from model (5) represent the abnormal component of *LLP*. Panels A and B of Table 7 present descriptive statistics and correlation coefficients respectively for the 7,680 bank-years used in estimating equation (6).

We are primarily interested in how international institutional factors may affect income-increasing earnings management and hence we report in Panel D the regression results for the 4,682 bank-years with negative (income-increasing) *ALLP* values. For completeness, we also discuss the untabulated results for the 2,998 bank-years with positive (income-decreasing) *ALLP* values. Of interest is  $\delta_1$ , the coefficient on *MEASURE*. A negative sign for  $\delta_1$  suggests less income-increasing earnings management when international institutional factors strengthen. Recall that we are using absolute values, so that smaller values of absolute, negative *ALLP* indicate less income-increasing earnings management. Consistent with expectations, the coefficient  $\delta_1$  is negative for ten of the twelve institutional variables (including all three principal component factors) that capture different aspects of legal, extra-legal and political environments in a country. These results support our contention that strong institutional factors constrain income-increasing earnings management by banks.

[Insert Table 7 here]

In untabulated results, we find mixed evidence with respect to income-decreasing earnings management by banks. Specifically, legal variables (*RULE*, *EFF*, and *LEGAL*) are not associated with *ALLP*, though *LAWORDER* is weakly and negatively associated with *ALLP* ( $t=-1.83$ ,  $p=0.07$ ). On the other hand, we find that extra-legal variables (*NEWS*, *TAX*, and *ELEG*) are positively associated with *ALLP* at the 5% level or less. *COMPBANK*, however, is negatively associated with *ALLP* ( $t=-$



4.49,  $p < 0.01$ ). For the set of political variables, *RISKEXP*, *SOE*, and *POLITICAL* are negatively and significantly associated with *ALLP* at the 10% level or less, while *STARTBUS* is not significantly associated with *ALLP*. Overall, our results for the *ALLP* test suggest that institutional factors are effective in constraining income-increasing earnings management but not income-decreasing earnings management.

### 5.5 Sensitivity checks

We conduct several additional tests to assess the robustness of our findings. First, we control for the effects of bank-specific monitoring to ensure that our results are not driven by this omitted variable. As suggested by Fonseca and Gonzalez (2008), bank regulation, bank supervision, and the level of financial development may affect the extent of earnings management and hence the earnings quality of banks. We use the measure of regulatory restrictions on nontraditional bank activities (*BANKREG*), the official supervisory power index (*OFFICAL*), and the private monitoring index (*MONITOR*) developed by Barth et al. (2001) to proxy for bank regulation,<sup>13</sup> and the ratio of financial system deposits to GDP developed by Beck and Levine (2002) to measure the level of financial development (*FINDEV*). Untabulated results after including *BANKREG*, *OFFICIAL*, *MONITOR*, and *FINDEV* in our regression models, indicate that our main results are robust to the inclusion of these variables. Specifically, we continue to find a strong impact of institutional factors on banks' earnings quality.

Second, following Leuz et al. (2003), we include contemporaneous per capita GDP as an additional control variable in all our regression models because extant

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<sup>13</sup> *BANKREG* ranges from 4 to 16; higher values indicate more restrictions on bank activities and non-financial ownership and control. *OFFICAL* ranges from 0 to 14; it captures the power of supervisors to take prompt corrective action, to restructure and reorganize troubled banks, and to declare a troubled bank insolvent. *MONITOR* ranges from 0 to 7; it measures the extent of monitoring by outsiders such as certified auditors, international rating agencies, etc. Higher values of *OFFICIAL* and *MONITOR* indicate greater power of supervisors and greater private oversight.

research indicates that per capita GDP affects financing, ownership, and payout policies across countries. Once again, we do not find any material change in results after including per capita GDP in the regression models.

Third, we use several methods of controlling for the potential effects of country-level accounting rules and ownership concentration on our earnings quality tests. Accounting rules in a country may limit a manager's ability to distort reported earnings and affect the properties of reported earnings (Hung 2001). Further, accounting rules may be correlated with our institutional variables, as they are likely to reflect the influence of a country's institutional environment. To address this concern, we control for accounting rules in our regression models. We use the accrual index (*ACCR*) and the degree of a country's tax-book conformity (*TAXBK*), both constructed by Hung (2001), to proxy for accounting rules. Unreported results indicate that the inclusion of either *ACCR* or *TAXBK* in the models does not qualitatively change our main results. We also employ 2SLS estimation to address the potentially endogenous relation between accounting rules and institutional environments in affecting earnings quality of banks. Similar to Leuz et al. (2003), we use the institutional variables representing legal, extra-legal and political institutions (one at a time) as well as three dummy variables for legal origin, indicating English, French, German, and Scandinavian legal origins, as instrumental variables. The 2SLS analysis indicates that our main results are robust to controlling for the potential endogeneity between accounting rules and international institutional structures.

Prior research also suggests that firms' ownership structures may affect the properties of reported earnings (e.g., Fan and Wong, 2001; Ball et al., 2003). We re-estimate our regressions using the proxy for ownership concentration (*OWNCON*)

constructed by La Porta et al. (1998) as an additional control variable.<sup>14</sup> The inclusion of *OWNCON* in the regression models as well as our 2SLS analysis do not alter our main results, suggesting that international institutional factors are strongly related to earnings quality of banks after controlling for ownership structure.<sup>15</sup>

Our fourth sensitivity test is related to the benchmark beating behavior test. In the just-meet-or-beat prior year's earnings test, we consider firms meeting or beating prior year's earnings when the scaled change in earnings is between 0 and 0.001. As a robustness check, following Altamuro and Beatty (2008), we use the more stringent bin-width criterion of 0 and 0.0008 in scaled change in earnings instead of 0 to 0.001 to classify firms as meeting or beating their earnings benchmark. Our results are similar to those reported in the main analysis except for the following: the coefficient on *LAWORDER* is negative but insignificant ( $p=0.12$ ) and the coefficient on *RISKEXP* is positive but insignificant ( $p=0.20$ ). In our main analysis, the coefficient on *LAWORDER* is significantly negative at the 10% level while the coefficient on *RISKEXP* is positive and significant at the 10% level.

Fifth, we control for beginning non-performing loans, change in non-performing loans and tier-one capital ratio in the first stage regression of the abnormal loan loss provisions test. Due to additional data requirements, the sample size is reduced to 2,415 bank-years, of which 1,410 bank-years have income-increasing abnormal loan loss provisions. The results for the second stage regression indicate that the coefficient estimates for our legal variables (*RULE*, *EFF*, *LAWORDER* and *LEGAL*) are all negative and significant at the 1% level (two-tailed). We find weaker results for the extra-legal variables. Only *COMPBANK* is

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<sup>14</sup> Ownership concentration (*OWNCON*) is the average percentage of common shares owned by the three largest shareholders in the 10 largest non-financial, private-owned domestic firms in a given country.

<sup>15</sup> We note one limitation of this approach - our measure of *OWNCON* is based on ownership of non-financial firms, hence this measure may not be directly applicable to our setting.

negative and significant at the 1% level (two-tailed) whereas the other extra-legal variables are not significant. We obtain results consistent with the main analysis for the set of political variables (*RISKEXP*, *SOE*, *STARTBUS*, and *POLITICAL*). Specifically, the coefficients on the political variables (except *STARTBUS*) are all negative and significant at the 1% level (two-tailed).

In the main analysis, we include each institutional variable and each principal component for the legal, extra-legal and political variables in the regression analysis one at a time. In our sixth sensitivity analysis, we re-estimate all our earnings quality tests with all three principal components (*LEGAL*, *ELEG*, and *POLITICAL*) in the same regression. In the earnings persistence test, we find that the coefficients on *LEGAL\*EBT<sub>t</sub>* and *POLITICAL\*EBT<sub>t</sub>* are both positive and significant at the 5% level (two-tailed) while the coefficient on *ELEG\*EBT<sub>t</sub>* is not reliably different from zero. In the cash flow predictability test, we find a similar pattern: *LEGAL\*EBT<sub>t</sub>* and *POLITICAL\*EBT<sub>t</sub>* are both positively and significantly (at the 5% and 1% levels respectively in a two-tailed test) related to the ability of current earnings before taxes to predict next period's cash flow. In the future loan charge-offs test, we find that the coefficient on *LEGAL\*LLP<sub>t</sub>* is positive and significant at the 5% level (two-tailed) but not the coefficients on *ELEG\*LLP<sub>t</sub>* and *POLITICAL\*LLP<sub>t</sub>*. In the just-meet-or-beat prior year's earnings test, we find that only *ELEG* is negative and significant at the 1% level. The coefficients on *LEGAL* and *POLITICAL* are both negative but insignificant. Finally, in the abnormal loan loss provisions regression, we find a negative and significant (at the 1% level in a two-tailed test) coefficient on *LEGAL* and a positive and significant coefficient on *ELEG* and *POLITICAL*. Further analysis indicates that these results may be sensitive to high levels of multicollinearity as the variance inflation factors for these variables exceed 10.

We also estimate the abnormal loan loss provisions regression with two principal components at a time instead of all three. When *LEGAL* is combined with *ELEG* or *POLITICAL*, the coefficient on *LEGAL* is negative and significant and the coefficients on *ELEG* and *POLITICAL* are positive and significant. When *ELEG* and *POLITICAL* are included in the model, the coefficient on *POLITICAL* is negative and significant and the coefficient on *ELEG* is not significant.

We also use a single variable which is the first principal component from a factor analysis that includes all nine legal, extra-legal and political variables.<sup>16</sup> We redo all our analyses using this combined factor and our untabulated results show that all our five measures of bank earnings quality are significantly associated with this variable in the predicted direction.

Finally, because Japanese banks constitute a large portion of the total sample for all our tests, and German banks account for 35% of the samples in the earnings persistence and cash flow predictability tests, we examine whether exclusion of these countries affects our main results. We find that the results remain qualitatively unchanged when we exclude these countries' banks from the analysis.

## **6. Conclusions**

We study the relations between cross-country legal, extra-legal and political institutions and earnings quality of banks across countries. While prior research has studied the implications of country-specific institutional factors for financial reporting, it has largely excluded firms in banking and financial services. Our study attempts to fill that gap.

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<sup>16</sup> The correlations among the three principal component variables (factors), *LEGAL*, *ELEG* and *POLITICAL*, range from 0.69-0.89, indicating high levels of collinearity between these variables (please see Panel D of Table 1). However, the correlations among the nine individual institutional variables are relatively much smaller and are only in the range between 0.17- 0.66. Thus, we compute a single factor using all nine variables and this single variable explains 54% of the total variance.

We examine earnings quality from two perspectives: an information perspective and an opportunistic earnings management perspective. We use three measures that reflect the information value of bank financial reporting -- the persistence of earnings before taxes, the predictability of current period's earnings before taxes for next period's cash flows, and the ability of current period's loan loss provisions to predict next period's loan charge-offs, and two measures of earnings management -- earnings benchmark-beating behavior and income-increasing abnormal loan loss provisions. We test whether these earnings quality measures are related to characteristics of a country's legal, extra-legal and political institutions. Following La Porta et al. (1998), we use the Rule of Law index and efficiency of the judicial system as proxies for the country-level legal protection of outside investors. We also use the law and order index (*LAWORDER*) from the Economic Freedom of the World annual report (2005) as an additional legal measure. We use the strength of bank competition, per capita circulation of newspapers and rate of tax compliance to measure the effectiveness of extra-legal institutions (Dyck and Zingales 2004), and the risk of expropriation, state ownership and cost of starting a business to proxy for the political economy (Bushman et al. 2004).

Our sample includes banks from 29 countries and spans the period from 1993 to 2006. We find a consistent and strong association between factors reflecting country-wide legal, extra-legal and political institutions and each of our five measures of earnings quality. In particular, we document that international institutional factors greatly increase the information value of accounting numbers. Stronger legal, extra-legal and political institutions are associated with higher levels of earnings persistence, cash flow predictability, and ability of current period's loan loss provisions to predict next period's loan charge-offs. We also find that the international institutional factors constrain opportunistic earnings management by

managers of banks. Higher quality legal, extra-legal and political systems reduce earnings management to just-meet-or-beat the previous year's earnings and reduce income increasing abnormal loan loss provisions.

In a related study, Leuz et al (2003) document that earnings management is negatively associated with the quality of minority shareholder rights and legal enforcement. Their findings highlight an important link between investor protection and the quality of accounting earnings. Our study extends their findings to the banking industry. In doing so, we are able to reduce one of the stated main limitations of their study, i.e., the errors in measuring the level of earnings management. Although our study is to some extent subject to such a limitation, it mitigates the errors in measuring earnings management by focusing on a single accrual and a single, relatively homogeneous industry. Our study also has a broader scope in that it not only focuses on international institutional factors that limit opportunistic managerial actions such as meeting or beating past year's earnings and income increasing accrual decisions, but it also examines how international factors enhance the information value of accounting numbers.

Our study is timely and relevant given the importance of the banking sector in a country's economy and the recent banking crisis that has placed particular emphasis on earnings quality of banks, especially related to loan charge-offs and adequacy of loan loss provisions. The many recent, large write-downs in the banking industry have led some to argue for increased regulation, while others argue that the failure of existing regulation to prevent these events indicates that additional regulation is futile. In particular, our empirical results inform policy-makers on the relationship that existed between legal, extra-legal and political institutional structures and the earnings quality of banks prior to the current banking crisis. By documenting what has worked in the past in different institutional settings around the world, our results

are important to regulators as they contemplate additional regulations on bank financial reporting.



## Appendix 1

### Legal variables

RULE	=	Rule of law index as reported in La Porta et al. (1998). It is the assessment of the law and order tradition in the country produced by the country risk rating agency International Country Risk (ICR). Scale from zero to 10, with higher scores for greater tradition for law and order.
EFF	=	Efficiency of judicial system reported in La Porta et al. (1998). It is the assessment of the 'efficiency and integrity of the legal environment as it affects business, particularly foreign firms, produced by the country risk rating agency Business International Corp. It 'may be taken to represent investors' assessment of conditions in the country in question.' Scale from zero to 10, with higher scores for higher efficiency levels.
LAWORDER	=	Law and order from the Economic Freedom of the World: 2005 Annual Report. It ranges from 0 to 10, with higher values indicating greater law enforcement.
LEGAL	=	Principal component extracted from <i>RULE</i> , <i>EFF</i> and <i>LAWORDER</i> .

### Extra-legal variables

COMPBANK	=	Competitiveness of banking industry from the Economic Freedom of the World: 2005 Annual Report. It ranges from 0 to 10, with higher values indicating greater bank competitiveness.
NEWS	=	The circulation of daily newspapers divided by population, as reported in Dyck and Zingales (2004).
TAX	=	The rate of tax compliance measure from Dyck and Zingales (2004). It ranges from 0 to 6, with higher values indicating greater tax compliance.
ELEG	=	Principal component extracted from <i>COMPBANK</i> , <i>NEWS</i> and <i>TAX</i> .

### Political variables

RISKEXP	=	Risk of expropriation by government reported in La Porta et al. (1998). Computed according to International Country Risk Guide's assessment of the risk of 'outright confiscation' or 'forced nationalization'. It ranges from 0 to 10, with higher values indicating lower risk of expropriation.
SOE	=	State ownership from Economic Freedom of the World: 2005 Annual Report. It ranges from 0 to 10, with higher values indicating lower state investment.

STARTBUS	=	Cost of starting a business from Economic Freedom of the World: 2005 Annual Report. It ranges from 0 to 10, with higher values indicating lower cost of starting a business in a country.
POLITICAL	=	Principal component extracted from <i>RISKEXP</i> , <i>SOE</i> and <i>STARTBUS</i> .

Following prior literature, we also use the following three variables as country-specific control variables:

**Country control variables**

BANK	=	Bank oriented system dummy, which equals 1 for countries whose financial system is bank-dominated and 0 for countries whose financial system is market-oriented, as per the classification of Demirguc-Kunt and Levine (1999).
CR_RIGHT	=	An index aggregating different creditor rights. Ranges from 0 to 4 (La Porta et al. 1998).
DISC_INDEX	=	Disclosure index as reported in La Porta et al. (1998). It ranges from 0 to 90, with higher values indicating greater disclosure requirement.

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**Table 1**

<b>Panel A: Distribution of bank-year observations by year</b>				
<b>YEAR</b>	Earnings Persistence and Cash Flow	Future Charge	Just-meet-or-beat	Abnormal LLP
	Predictability	Offs		
1993	357	71	99	48
1994	730	120	145	86
1995	1037	174	213	132
1996	1385	201	271	158
1997	1452	198	274	150
1998	1983	353	400	290
1999	3235	398	452	347
2000	4882	1020	1097	517
2001	4930	1191	1179	1152
2002	4796	1337	1199	1105
2003	4628	1402	1202	1063
2004	4353	1367	1153	960
2005	4249	1345	1214	889
2006	2631	854	1160	783
<b>Total</b>	<b>40648</b>	<b>10031</b>	<b>10058</b>	<b>7680</b>

**Table 1 (continued)****Panel B: Distribution of bank-year observations by country**

Country	Earnings Persistence and Cash Flow Predictability	Future Charge Offs	Just-meet-or-beat	Abnormal LLP
Australia	387	236	338	231
Austria	1472	14	46	14
Brazil	1204	683	666	687
Canada	498	285	69	65
Chile	220	20	166	19
Columbia	316	22	154	22
France	3454	30	338	17
Germany	14271	53	72	43
Greece	177	19	108	14
Hong Kong	688	407	435	375
India	467	101	208	101
Israel	132	107	113	96
Italy	5439	1306	180	10
Japan	4724	3866	3215	3196
Korea	284	97	221	100
Mexico	351	58	152	57
Netherlands	373	36	63	20
New Zealand	77	54	68	54
Norway	470	166	383	166
Peru	172	30	24	29
Philippines	321	142	111	137
Portugal	358	145	277	143
Singapore	223	71	55	68
Spain	1348	335	486	330
Taiwan	471	214	352	231
Thailand	295	197	114	185
Turkey	433	122	210	107
South Africa	382	245	216	241
United Kingdom	<u>1641</u>	<u>970</u>	<u>1218</u>	<u>922</u>
	<b>40648</b>	<b>10031</b>	<b>10058</b>	<b>7680</b>

**Table 1 (continued)**

**Panel C: Institutional variables**

Country	Legal Variables				Extra-Legal Variables				Political Variables			
	RULE	EFF	LAWORDER	LEGAL	COMPBANK	NEWS	TAX	ELEG	RISKEXP	SOE	STARTBUS	POLITICAL
Australia	10.00	10.00	10.00	1.23	6.53	3.00	4.58	0.88	9.27	10.00	7.37	1.17
Austria	10.00	9.50	10.00	1.15	5.73	2.90	3.60	0.30	9.69	4.00	5.42	-0.04
Brazil	6.32	5.75	3.33	-1.09	7.13	0.40	2.14	-1.14	7.62	8.00	5.73	-0.28
Canada	10.00	9.25	10.00	1.10	5.08	1.60	3.77	-0.01	9.67	10.00	7.55	1.39
Chile	7.02	7.25	8.33	0.04	5.95	1.00	4.20	0.08	7.50	10.00	5.65	-0.15
Colombia	2.08	7.25	1.67	-1.77	5.58	0.50	2.11	-1.19	6.95	2.00	3.75	-1.91
France	8.98	8.00	8.33	0.48	6.67	2.20	3.86	0.27	9.65	4.00	5.15	-0.15
Germany	9.23	9.00	8.33	0.68	7.17	3.10	3.41	0.31	9.90	6.00	6.40	0.62
Greece	6.18	7.00	5.00	-0.65	7.00	-	-	-	7.12	6.00	4.08	-1.30
Hong Kong	8.22	10.00	8.33	0.69	7.32	8.00	4.56	2.34	8.29	10.00	9.02	1.43
India	4.17	8.00	6.67	-0.54	6.35	-	-	-	7.75	4.00	5.93	-0.57
Israel	4.82	10.00	8.33	0.16	5.43	2.90	3.69	0.34	8.25	2.00	7.68	0.08
Italy	8.33	6.75	10.00	0.42	5.70	1.00	1.77	-1.22	9.35	6.00	5.08	-0.09
Japan	8.98	10.00	8.33	0.81	4.18	5.80	4.41	1.51	8.52	6.00	5.85	-0.10
Korea	5.35	6.00	6.67	-0.69	3.17	3.90	3.29	0.33	8.31	7.00	5.38	-0.26
Mexico	5.35	6.00	3.33	-1.20	5.87	1.00	2.46	-0.85	7.29	8.00	3.70	-1.18
Netherlands	10.00	10.00	10.00	1.23	8.18	3.10	3.40	0.34	9.98	10.00	7.58	1.52
New Zealand	10.00	10.00	10.00	1.23	7.85	2.20	5.00	0.91	9.69	10.00	7.85	1.51
Norway	10.00	10.00	10.00	1.23	6.23	5.90	3.96	1.38	9.88	4.00	6.83	0.57
Peru	2.50	6.75	5.00	-1.27	6.58	0.80	2.66	-0.77	5.54	8.00	3.57	-1.88
Philippines	2.73	4.75	3.33	-1.82	5.67	0.80	1.83	-1.25	5.22	7.00	5.63	-1.32
Portugal	8.68	5.50	8.33	0.01	7.27	0.80	2.18	-1.00	8.90	6.00	5.65	-0.04
Singapore	8.57	10.00	10.00	1.00	4.55	3.20	5.05	1.11	9.30	8.00	8.02	1.22
South Africa	4.42	6.00	3.33	-1.35	6.78	0.34	2.40	-1.04	6.88	4.00	5.88	-0.91
Spain	7.80	6.25	6.67	-0.26	6.12	1.00	1.91	-1.13	9.52	4.00	5.67	-0.01
Taiwan	8.52	6.75	6.67	-0.06	5.57	2.70	3.25	0.05	9.12	2.00	7.58	0.37
Thailand	6.25	3.25	8.33	-0.74	3.75	0.60	3.41	-0.54	7.42	4.00	7.28	-0.18
Turkey	5.18	4.00	6.67	-1.04	5.10	1.10	2.07	-1.05	7.00	7.00	5.22	-0.81
United kingdom	8.57	10.00	10.00	1.00	7.42	3.30	4.67	1.04	9.71	8.00	7.73	1.27



**Table 1 (continued)**

**Panel D: Correlation between institutional variables**

	RULE	EFF	LAWORDER	LEGAL	NEWS	COMPBANK	TAX	ELEG	RISKEXP	SOE	STARTBUS	POLITICAL
RULE	1.00											
EFF	0.58	1.00										
LAWORDER	0.83	0.67	1.00									
LEGAL	0.91	0.82	0.93	1.00								
NEWS	0.56	0.74	0.59	0.73	1.00							
COMPBANK	0.26	0.24	0.10	0.24	0.01	1.00						
TAX	0.57	0.78	0.65	0.74	0.67	0.13	1.00					
ELEG	0.58	0.82	0.62	0.77	0.88	0.14	0.90	1.00				
RISKEXP	0.88	0.61	0.81	0.87	0.61	0.28	0.45	0.53	1.00			
SOE	0.29	0.22	0.30	0.31	0.19	0.31	0.38	0.28	0.12	1.00		
STARTBUS	0.46	0.59	0.56	0.61	0.50	0.17	0.65	0.66	0.49	0.22	1.00	
POLITICAL	0.80	0.69	0.83	0.88	0.66	0.28	0.64	0.69	0.83	0.36	0.82	1.00

**Table 2**  
**Descriptive Statistics and Correlations for**  
**Earnings Persistence and Cash Flow Predictability Tests**

<b>Panel A: Descriptive Statistics</b>					
	Mean	Median	Q1	Q3	Std Dev
$EBT_{t+1}$	0.0087	0.0063	0.0027	0.0115	0.0920
$EBTLLP_{t+1}$	0.0152	0.0107	0.0066	0.0161	0.0907
$EBT_t$	0.0089	0.0064	0.0027	0.0115	0.0863
$SIZE_t$	6.8270	6.6139	5.4815	8.0080	1.9513

  

<b>Panel B: Correlations</b>				
	$EBT_{t+1}$	$EBTLLP_{t+1}$	$EBT_t$	$SIZE_t$
$EBT_{t+1}$	1.0000	0.7775	0.7283	-0.0817
$EBTLLP_{t+1}$		1.0000	0.6053	-0.1034
$EBT_t$			1.0000	-0.1086
$SIZE_t$				1.0000

Definitions of the variables are as follow:  $EBT_t$  ( $EBT_{t+1}$ ) is earnings before taxes during year t (t+1) scaled by total assets at the beginning of year;  $EBTLLP_{t+1}$  is earnings before taxes and before loan loss provisions during year t+1 scaled by total assets at the beginning of year;  $SIZE$  is the log of total assets at the beginning of year t.

**Table 3**  
**Regression Results for the Earnings Persistence Test**

MEASURE	Coef.	Legal Variables					Extra-legal variables				Political variables			
		BASIC	RULE	EFF	LAWORDER	LEGAL	COMPBANK	NEWS	TAX	ELEG	RISKEXP	SOE	STARTBUS	POLITICAL
Intercept	$\beta_0$	0.004 (1.16)	0.023 (5.66)***	0.015 (4.04)***	0.018 (5.15)***	0.020 (4.68)***	0.016 (4.46)***	0.006 (1.39)	-0.000 (-0.05)	-0.003 (0.63)	0.031 (7.35)***	0.011 (2.98)***	0.016 (4.36)***	0.025 (5.87)***
EBT	$\beta_1$	0.858 (9.79)***	0.493 (7.44)***	0.611 (15.72)***	0.634 (14.38)***	0.555 (12.48)***	0.436 (7.48)***	0.786 (11.61)***	0.859 (9.99)***	0.822 (11.22)***	0.527 (9.78)***	0.502 (7.81)***	0.659 (14.91)***	0.508 (9.94)***
MEASURE	$\beta_2$		-0.001 (-2.52)**	-0.002 (-5.37)***	-0.001 (-2.76)**	-0.003 (-2.86)**	-0.001 (-0.24)	-0.002 (-3.50)***	-0.001 (-0.62)	-0.002 (-2.39)**	-0.001 (-0.31)	-0.001 (-3.07)***	-0.001 (-1.08)	-0.001 (-0.43)
MEASURE*EBT	$\beta_3$		<b>0.152</b> <b>(6.54)***</b>	<b>0.130</b> <b>(7.03)***</b>	<b>0.104</b> <b>(6.03)***</b>	<b>0.294</b> <b>(7.96)***</b>	<b>0.232</b> <b>(8.97)***</b>	<b>0.119</b> <b>(2.46)**</b>	<b>0.001</b> <b>(0.01)</b>	<b>0.135</b> <b>(2.23)**</b>	<b>0.241</b> <b>(6.78)***</b>	<b>0.118</b> <b>(6.94)***</b>	<b>0.168</b> <b>(4.49)***</b>	<b>0.273</b> <b>(7.58)***</b>
SIZE	$\beta_4$	-0.016 (-1.19)	-0.040 (-3.07)***	-0.039 (-2.86)***	-0.034 (-2.52)***	-0.040 (-3.02)***	-0.040 (-2.99)***	-0.020 (-1.51)	-0.011 (-0.75)	-0.016 (-1.10)	-0.036 (-2.79)***	-0.046 (-3.09)***	-0.037 (-2.63)***	-0.044 (-3.26)***
BANK	$\beta_5$	-0.009 (-2.79)***	-0.007 (-4.11)***	-0.005 (-4.11)***	-0.007 (-4.72)***	-0.007 (-3.93)***	-0.006 (-4.62)***	-0.004 (-3.43)***	-0.004 (-2.85)***	-0.004 (-3.25)***	-0.010 (-5.47)***	-0.006 (-5.14)***	-0.005 (-5.42)***	-0.007 (-5.48)***
CR_RIGHT	$\beta_6$	-0.041 (-1.43)	-0.073 (-2.07)**	-0.064 (-1.73)*	-0.079 (-2.23)**	-0.078 (-1.83)*	-0.115 (-4.13)***	-0.054 (-1.74)*	-0.031 (-0.94)	-0.040 (-1.26)	-0.113 (-2.79)***	-0.083 (-2.28)**	-0.113 (-1.95)*	-0.150 (-2.39)**
DISC_INDEX	$\beta_7$	0.003 (0.53)	-0.012 (-2.66)***	-0.004 (-0.82)	-0.009 (-2.05)**	-0.009 (-1.93)*	-0.004 (-0.68)	0.003 (0.45)	0.009 (1.36)	0.006 (0.90)	-0.024 (-4.96)***	0.003 (0.54)	-0.008 (-2.04)***	-0.016 (-3.66)***
Year Controls		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
N		40648	40648	40648	40648	40648	40648	40004	40004	40004	40648	40648	40648	40648
Adj R <sup>2</sup> (%)		65.02	67.86	67.21	66.97	67.56	67.93	65.89	65.08	65.41	67.41	67.91	66.42	67.60

For ease of presentation, the coefficient of SIZE, CR\_RIGHT and DISC\_INDEX has been multiplied by 100. The regression model is:

$$EBT_{t+1} = \beta_0 + \beta_1 EBT_t + \beta_2 MEASURE + \beta_3 MEASURE * EBT_t + \beta_4 SIZE_t + \beta_5 BANK + \beta_6 CR\_RIGHT + \beta_7 DISC\_INDEX + \langle \text{Year Controls} \rangle + e$$

The definitions of the institutional variables are provided in the Appendix and the definitions of the firm-level variables are as defined in the footnotes of Table 2. We run the regression clustered by firm, and with year dummies. To conserve space, we do not report the coefficient estimates for the year dummies. For each variable, we report the regression coefficient, followed by the t statistic in parentheses. \*, \*\*, and \*\*\* denote significance at 10%, 5%, and 1% levels, two-tailed, respectively.

**Table 4**  
**Regression Results for the Cash Flow Predictability Test**

MEASURE	Coef.	BASIC MODEL	Legal Variables				Extra-legal variables				Political variables			
			RULE	EFF	LAWORDER	LEGAL	COMPBANK	NEWS	TAX	ELEG	RISKEXP	SOE	STARTBUS	POLITICAL
Intercept	$\beta_0$	0.004 (.756)***	0.050 (10.78)***	0.052 (11.67)***	0.040 (10.58)***	0.045 (9.59)***	0.049 (12.21)***	0.044 (9.60)***	0.038 (6.60)***	0.042 (7.98)***	0.054 (11.50)***	0.043 (11.07)***	0.049 (11.29)***	0.050 (10.29)***
<b>EBT</b>	$\beta_1$	<b>0.894</b> <b>(8.63)***</b>	<b>0.475</b> <b>(7.10)***</b>	<b>0.606</b> <b>(14.63)***</b>	<b>0.630</b> <b>(13.66)***</b>	<b>0.542</b> <b>(12.15)***</b>	<b>0.383</b> <b>(6.40)***</b>	<b>0.816</b> <b>(10.29)***</b>	<b>0.895</b> <b>(8.83)***</b>	<b>0.855</b> <b>(9.88)***</b>	<b>0.514</b> <b>(9.42)***</b>	<b>0.456</b> <b>(7.08)***</b>	<b>0.638</b> <b>(13.46)***</b>	<b>0.468</b> <b>(9.14)***</b>
MEASURE	$\beta_2$	-0.002 (-5.11)***	-0.002 (-5.11)***	-0.001 (-4.85)***	-0.003 (-6.97)***	-0.006 (-5.93)***	-0.001 (-3.26)***	-0.001 (-1.48)	0.001 (0.05)	-0.001 (-0.62)	-0.003 (-4.49)***	-0.002 (-6.18)***	-0.001 (-1.52)	-0.004 (-3.38)***
<b>MEASURE*EBT</b>	$\beta_3$	<b>0.174</b> <b>(7.17)***</b>	<b>0.151</b> <b>(7.52)***</b>	<b>0.123</b> <b>(6.84)***</b>	<b>0.342</b> <b>(8.85)***</b>	<b>0.282</b> <b>(10.30)***</b>	<b>0.130</b> <b>(2.50)***</b>	<b>-0.005</b> <b>(-0.03)</b>	<b>0.147</b> <b>(2.27)**</b>	<b>0.276</b> <b>(7.34)***</b>	<b>0.146</b> <b>(8.43)***</b>	<b>0.215</b> <b>(5.31)***</b>	<b>0.333</b> <b>(8.93)***</b>	
SIZE	$\beta_4$	-0.068 (-4.33)***	-0.095 (-6.65)***	-0.097 (-6.51)***	-0.093 (-6.15)***	-0.096 (-6.52)***	-0.101 (-7.16)***	-0.085 (-5.54)***	-0.074 (-4.45)***	-0.080 (-4.92)***	-0.096 (-6.74)***	-0.108 (-6.69)***	-0.095 (-6.17)***	-0.104 (-6.98)***
BANK	$\beta_5$	-0.007 (-5.70)***	-0.010 (-6.64)***	-0.010 (-8.67)***	-0.009 (-7.60)***	-0.009 (-6.74)***	-0.010 (-8.82)***	-0.009 (-7.94)***	-0.008 (-5.82)***	-0.008 (-7.07)***	-0.011 (-7.15)***	-0.023 (-9.85)***	-0.009 (-9.09)***	-0.011 (-9.80)***
CR_RIGHT	$\beta_6$	-0.129 (-4.40)***	-0.144 (-4.38)***	-0.185 (-5.47)***	-0.117 (-3.68)***	-0.129 (-3.47)***	-0.201 (-7.07)***	-0.201 (-6.15)***	-0.148 (-4.38)***	-0.178 (-5.42)***	-0.144 (-3.98)***	-0.158 (-4.82)***	-0.222 (-4.42)***	-0.159 (-2.97)***
DISC_INDEX	$\beta_7$	-0.016 (-3.28)***	-0.025 (-4.77)***	-0.029 (-5.50)***	-0.015 (-3.39)***	-0.019 (-3.54)***	-0.024 (-4.74)***	-0.024 (-4.08)***	-0.020 (-2.91)***	-0.023 (-3.57)***	-0.032 (-5.95)***	-0.016 (-3.15)***	-0.029 (-5.96)***	-0.026 (-4.70)***
Year Controls		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
N		40648	40648	40648	40648	40648	40648	40004	40004	40004	40648	40648	40648	40648
Adj R <sup>2</sup> (%)		72.85	76.68	75.89	75.64	76.38	77.23	73.92	72.93	73.33	76.06	77.35	75.21	76.76

For ease of presentation, the coefficient of SIZE, CR\_RIGHT and DISC\_INDEX has been multiplied by 100. The regression model is:

$$EBTLLP_{t+1} = \beta_0 + \beta_1 EBT_t + \beta_2 MEASURE_t + \beta_3 MEASURE *EBT_t + \beta_4 SIZE_t + \beta_5 BANK_t + \beta_6 CR\_RIGHT_t + \beta_7 DISC\_INDEX_t + \langle \text{Year Controls} \rangle + e$$

The definitions of the institutional variables are provided in the Appendix and the definitions of the firm-level variables are as defined in the footnotes of Table 2. We run the regression clustered by firm, and with year dummies. To conserve space, we do not report the coefficient estimates for the year dummies. For each variable, we report the regression coefficient, followed by the t statistic in parentheses. \*, \*\*, and \*\*\* denote significance at 10%, 5%, and 1% levels, two-tailed, respectively.

**Table 5**  
**Loan Loss Provisions and Future Loan Charge-Offs Test**

<b>Panel A: Descriptive Statistics</b>					
	Mean	Median	Q1	Q3	Std Dev
CHGOFF	0.0032	0.0011	0.0000	0.0039	0.0057
LLP	0.0054	0.0032	0.0012	0.0066	0.0111
SIZE	7.6784	7.5194	6.2256	8.9790	2.0638

  

<b>Panel B: Correlations</b>				
	CHGOFF	LLP	SIZE	
CHGOFF	1.00	0.38	0.21	
LLP		1.00	0.10	
SIZE			1.00	

Table 5 (continued)

Panel C: Regression Results for Future Loan Charge-Offs Test														
MEASURE	Coef.	Basic	Legal Variables				Extra-legal variables				Political variables			
			RULE	EFF	LAWORDER	LEGAL	COMPBANK	NEWS	TAX	ELEG	RISKEXP	SOE	STARTBUS	POLITICAL
Intercept	$\gamma_0$	0.011 (7.38)***	0.009 (5.57)***	0.009 (5.09)***	0.006 (4.15)***	0.006 (3.35)***	0.009 (5.78)***	0.010 (6.59)***	0.009 (5.47)***	0.006 (3.22)***	0.010 (6.42)***	0.010 (6.79)***	0.008 (5.31)***	0.006 (3.65)***
LLP	$\gamma_1$	0.111 (6.17)***	0.115 (6.90)***	0.126 (7.10)***	0.112 (6.39)***	0.115 (6.79)***	0.183 (7.69)***	0.111 (6.23)***	0.116 (5.63)***	0.101 (5.60)***	0.137 (6.93)***	0.127 (7.78)***	0.121 (7.25)***	0.107 (5.92)***
MEASURE	$\gamma_2$		-0.041 (-4.63)***	-0.022 (-3.22)***	-0.046 (-6.42)***	-0.125 (-6.08)***	0.006 (0.60)	-0.011 (-2.37)**	-0.024 (-2.65)***	-0.006 (-0.77)	-0.048 (-3.50)***	-0.045 (-5.83)***	0.048 (3.14)***	0.061 (2.31)**
MEASURE*LLP	$\gamma_3$		<b>0.028</b> (3.67)***	<b>0.017</b> (3.01)***	<b>-0.008</b> (-1.07)	<b>0.042</b> (2.40)**	<b>0.061</b> (4.95)***	<b>0.012</b> (2.17)**	<b>-0.000</b> (-0.00)	<b>0.026</b> (2.10)**	<b>0.070</b> (3.73)***	<b>0.026</b> (3.99)***	<b>-0.019</b> (-1.59)	<b>0.050</b> (2.17)**
SIZE	$\gamma_4$	0.026 (6.55)***	0.027 (6.86)***	0.028 (6.89)***	0.023 (5.95)***	0.028 (7.03)***	0.029 (7.27)***	0.027 (6.71)***	0.028 (6.93)***	0.023 (5.84)***	0.025 (6.50)***	0.026 (6.57)***	0.019 (5.02)***	0.021 (5.25)***
BANK	$\gamma_5$	-0.002 (-11.51)***	-0.002 (-9.05)***	-0.002 (-9.70)***	-0.002 (-6.85)***	-0.002 (-6.82)***	-0.002 (-7.13)***	-0.002 (-10.65)***	-0.002 (-10.78)***	-0.001 (-4.39)***	-0.003 (-11.31)***	-0.003 (-11.54)***	-0.001 (-2.45)**	-0.001 (-1.79)*
CR_RIGHT	$\gamma_6$	0.022 (2.19)*	0.010 (0.90)	0.022 (2.20)**	0.047 (4.68)***	0.024 (2.37)**	0.012 (1.19)	0.013 (1.24)	0.016 (1.61)	0.010 (0.96)	0.016 (1.63)	0.009 (0.87)	0.003 (0.30)	-0.002 (-0.19)
DISC_INDEX	$\gamma_7$	-0.015 (-9.23)***	-0.012 (-6.11)***	-0.012 (-6.20)***	-0.008 (-4.88)***	-0.008 (-3.70)***	-0.012 (-7.53)***	-0.014 (-7.87)***	-0.012 (-6.53)***	-0.004 (-1.89)*	-0.014 (-8.10)***	-0.013 (-7.83)***	-0.006 (-2.75)***	-0.005 (-2.16)**
Year Controls		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
N		10031	10031	10031	10031	10031	10031	9911	9911	9911	10031	10031	10031	10031
Adjusted R-square		12.05	13.09	13.04	13.79	13.29	15.08	12.30	12.07	13.50	13.54	13.73	13.66	14.30

For ease of presentation, the coefficient of SIZE, MEASURE, CR\_RIGHT and DISC\_INDEX has been multiplied by 100. The regression model is:

$$CHGOFF_{t+1} = \gamma_0 + \gamma_1 LLP_t + \gamma_2 MEASURE_t + \gamma_3 MEASURE*LLP_t + \gamma_4 SIZE_t + \gamma_5 BANK_t + \gamma_6 CR\_RIGHT_t + \gamma_7 DISC\_INDEX_t + \langle \text{Year Controls} \rangle + e$$

Definitions for the firm-specific variables are as follow: CHGOFF<sub>t+1</sub> is loans charged off by the bank during year t+1, scaled by total assets at the beginning of the year; LLP<sub>t</sub> is the provisions for loan losses during year t, scaled by total assets at the beginning of year t; SIZE is the log of total assets at the beginning of year t. The definitions for the institutional variables are provided in the Appendix. We run the regression clustered by firm, and with year dummies. To conserve space, we do not report the coefficient estimates for the year dummies. For each variable, we report the regression coefficient, followed by the t statistic in parentheses. \*\*, \*\*\*, and \*\*\*\* denote significance at 10%, 5%, and 1% levels, two-tailed, respectively.

**Table 6**  
**Meeting or Beating Prior Year's Earnings Benchmark Test**

<b>Panel A: Descriptive Statistics</b>						
	Mean	Median	Q1	Q3	Std Dev	
SMALL_POS $\Delta$	0.1258	0.0000	0.0000	0.0000	0.3316	
SIZE	7.9274	7.7977	6.5455	9.1858	2.0034	
GROWTH	0.1165	0.0528	0.0054	0.1523	0.3583	
LOANS	0.6125	0.6073	0.4558	0.7737	0.2821	
LEV	0.0967	0.0672	0.0489	0.1007	0.1026	
$\Delta$ CASH_FLOW	0.0023	0.0008	-0.0015	0.0037	0.0303	
ALLOW	0.0109	0.0104	0.0054	0.0161	0.0067	

  

<b>Panel B: Correlations</b>							
	SMALL_POS $\Delta$	SIZE	GROWTH	LOANS	LEV	$\Delta$ CASH_FLOW	ALLOW
SMALL_POS $\Delta$	1.00	0.14	-0.01	0.04	-0.13	-0.03	-0.08
SIZE		1.00	0.08	0.12	-0.42	0.05	0.03
GROWTH			1.00	0.35	0.09	0.27	-0.05
LOANS				1.00	-0.09	0.10	0.17
LEV					1.00	0.08	0.00
$\Delta$ CASH_FLOW						1.00	0.04
ALLOW							1.00

**Table 6 (continued)**

<b>Panel C: Regression Results for the Meeting or Beating Prior Year's Earnings Benchmark Test</b>													
		<b>Legal Variables</b>				<b>Extra-legal variables</b>				<b>Political variables</b>			
<b>MEASURE</b>	<b>Coef.</b>	<b>RULE</b>	<b>EFF</b>	<b>LAWORDER</b>	<b>LEGAL</b>	<b>COMPBANK</b>	<b>NEWS</b>	<b>TAX</b>	<b>ELEG</b>	<b>RISKEXP</b>	<b>SOE</b>	<b>STARTBUS</b>	<b>POLICITCAL</b>
Intercept	$\alpha_0$	-1.973 (9.07)***	-1.833 (8.14)***	-2.152 (11.27)***	-2.283 (15.70)***	-4.236 (50.74)***	-2.574 (16.66)***	-2.431 (14.13)***	-2.987 (21.36)***	-4.611 (39.10)***	1.140 (1.94)	-1.996 (9.26)***	-4.060 (39.87)***
Measure	$\alpha_1$	<b>-0.072</b> <b>(2.98)*</b>	<b>-0.158</b> <b>(27.05)***</b>	<b>-0.060</b> <b>(2.94)*</b>	<b>-0.366</b> <b>(12.96)***</b>	<b>0.049</b> <b>(2.20)</b>	<b>-0.105</b> <b>(23.80)***</b>	<b>-0.184</b> <b>(13.73)***</b>	<b>-0.212</b> <b>(22.80)***</b>	<b>0.125</b> <b>(3.47)*</b>	<b>-0.222</b> <b>(38.30)***</b>	<b>-0.158</b> <b>(7.44)***</b>	<b>-0.170</b> <b>(4.14)**</b>
SIZE	$\alpha_2$	0.134 (56.21)***	0.115 (40.62)***	0.134 (55.73)***	0.129 (51.97)***	0.119 (44.00)***	0.112 (38.57)***	0.121 (45.27)***	0.115 (40.36)***	0.119 (43.21)***	0.117 (43.95)***	0.135 (57.91)***	0.136 (75.02)***
GROWTH	$\alpha_3$	-0.757 (22.88)***	-0.864 (26.72)***	-0.749 (23.07)***	-0.835 (26.46)***	-0.821 (25.40)***	-0.826 (24.69)***	-0.810 (24.17)***	-0.838 (25.14)***	-0.673 (18.78)***	-0.857 (27.11)***	-0.777 (24.09)***	-0.704 (21.54)***
LOANS	$\alpha_4$	0.658 (17.67)***	0.608 (15.79)***	0.679 (18.35)***	0.711 (20.26)***	0.446 (8.79)***	0.549 (12.90)***	0.552 (12.78)***	0.548 (12.74)***	0.438 (8.77)***	0.665 (18.95)***	0.685 (18.92)***	0.571 (16.05)***
LEV	$\alpha_5$	-4.393 (30.63)***	-5.039 (35.38)***	-4.377 (30.27)***	-4.786 (32.92)***	-5.217 (36.96)***	-4.721 (32.79)***	-4.896 (32.19)***	-4.880 (33.07)***	-4.323 (30.37)***	-4.947 (35.72)***	-4.119 (28.68)***	-4.097 (29.84)***
$\Delta$ CASH_FLOW	$\alpha_6$	-2.301 (10.94)***	-2.502 (12.36)***	-2.198 (10.20)***	-2.351 (11.32)***	-2.348 (11.50)***	-2.475 (11.55)***	-2.383 (11.17)***	-2.460 (11.55)***	-2.267 (10.54)***	-2.415 (11.95)***	-2.273 (10.67)***	-2.300 (10.02)***
ALLOW	$\alpha_7$	-50.532 (70.60)***	-51.16 (73.14)***	-50.80 (68.77)***	-53.71 (76.32)***	-42.26 (52.08)***	-46.044 (60.24)***	-49.444 (67.86)***	-49.095 (65.13)***	-41.845 (48.42)***	-51.356 (74.76)***	-51.933 (72.32)***	-48.286 (70.55)***
BANK	$\alpha_8$	0.266 (7.61)***	0.311 (10.08)***	0.247 (6.64)***	0.273 (7.75)***	0.565 (37.01)***	0.444 (19.38)***	0.304 (9.82)***	0.372 (14.49)***	0.402 (16.15)***	-0.775 (16.25)***	0.177 (2.93)*	0.315 (7.92)***
CR_RIGHT	$\alpha_9$	-0.035 (0.81)	0.034 (0.75)	0.001 (0.00)	0.007 (0.04)	-0.037 (1.16)	0.066 (2.54)	0.036 (0.77)	0.059 (2.01)	-0.046 (1.67)	-0.026 (0.49)	0.044 (1.04)	-0.017 (0.22)
DISC_INDEX	$\alpha_{10}$	-0.012 (2.30)	-0.004 (0.25)	-0.011 (2.03)	-0.009 (1.02)	0.021 (13.32)***	-0.009 (1.60)	-0.003 (0.13)	-0.005 (0.45)	0.009 (1.20)	-0.043 (23.96)***	-0.006 (0.41)	0.013 (3.10)*
Year Controls		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
N		10058	10058	10058	10058	10058	10058	10058	10058	10058	10058	10058	10058
Likelihood ratio		371.64***	379.50***	372.25***	372.62***	348.15***	357.89***	350.91***	358.64***	360.52***	376.85***	375.39***	417.83***



### Table 6 (continued)

The regression model is:

$$\text{SMALL\_POS}_{\Delta t} = \alpha_0 + \alpha_1 \text{MEASURE} + \alpha_2 \text{SIZE}_t + \alpha_3 \text{GROWTH}_t + \alpha_4 \text{LOANS}_t + \alpha_5 \text{LEV}_t + \alpha_6 \Delta \text{CASH\_FLOW}_t + \alpha_7 \text{ALLOW}_t + \alpha_8 \text{BANK} + \alpha_9 \text{CR\_RIGHT} + \alpha_{10} \text{DISC\_INDEX} + \langle \text{Year Controls} \rangle + e$$

Definitions for the firm-specific variables are as follow:  $\text{SMALL\_POS}_{\Delta t}$  is an indicator variable taking the value one if the bank has a change in ROA (income before taxes scaled by total assets) from year t-1 to year t in the interval between 0 and 0.001, zero otherwise;  $\text{SIZE}$  is the log of total assets at the beginning of year t;  $\text{GROWTH}_t$  is the growth in total assets from the beginning to the end of year t;  $\text{LOANS}_t$  is total loans scaled by total assets at the beginning of year t;  $\text{LEV}_t$  is total equity divided by total assets at beginning of year t;  $\Delta \text{CASH\_FLOW}_t$  is the change in cash flows (income before taxes and before loan loss provisions) from the beginning to the end of year t scaled by total assets at the beginning of year t; and  $\text{ALLOW}_t$  is the allowance for loan losses at the end of year t, scaled by total assets at beginning of year t. The definitions for the institutional variables are provided in the Appendix. We run the logistic regression clustered by firm, and with year dummies. To conserve space, we do not report the coefficient estimates for the year dummies. For each variable, we report the regression coefficient, followed by the Wald statistic in parentheses. ‘\*’, ‘\*\*’, and ‘\*\*\*’ denote significance at 10%, 5%, and 1% levels, respectively.

**Table 7**  
**Income-increasing Abnormal Loan Loss Provisions Test**

<b>Panel A: Descriptive Statistics</b>					
	Mean	Median	Q1	Q3	Std Dev
ALLP	0.0042	0.0027	0.0013	0.0049	0.0049
SIZE	8.0365	7.9291	6.6894	9.2781	1.9647
GROWTH	0.1052	0.0372	0.0016	0.1310	0.3920
PASTLLP	0.0059	0.0033	0.0012	0.0072	0.0123
EBTLLP	0.0159	0.0091	0.0051	0.0193	0.0255

  

<b>Panel B: Correlations</b>					
	ALLP	SIZE	GROWTH	PASTLLP	EBTLLP
ALLP	1.00	-0.17	-0.04	0.16	0.05
SIZE		1.00	0.13	0.05	0.07
GROWTH			1.00	-0.07	0.45
PASTLLP				1.00	0.16
EBTLLP					1.00

  

<b>Panel C: Stage one regression for estimating ALLP</b>		
Variable	Coef.	Estimate
Intercept	$\lambda_0$	-0.039 (-0.26)
BEGLLA	$\lambda_1$	-0.009 (-3.75)***
LCO	$\lambda_2$	0.022 (5.65)***
CHLOANS	$\lambda_3$	-0.006 (-6.67)***
LOANS	$\lambda_4$	0.010 (14.91)***
MUN	$\lambda_5$	-0.007 (-1.51)
MORT	$\lambda_6$	-0.006 (-8.34)***
LEASE	$\lambda_7$	-0.004 (-2.64)***
OTH	$\lambda_8$	-0.001 (-1.33)
GRP	$\lambda_9$	-0.019 (-6.02)***
OCORP	$\lambda_{10}$	-0.037 (-0.43)
BK	$\lambda_{11}$	-0.014 (-0.24)
Year Dummies		Yes
Country Dummies		Yes
N		7680
Adjusted R-square		9.52

**Table 7 (continued)**

<b>Panel D: Stage two regression for testing the association between income-increasing ALLP and international institutional factors</b>													
		<b>Legal Variables</b>				<b>Extra-legal variables</b>				<b>Political variables</b>			
<b>MEASURE</b>	<b>Coef.</b>	<b>RULE</b>	<b>EFF</b>	<b>LAWORDER</b>	<b>LEGAL</b>	<b>COMPBANK</b>	<b>NEWS</b>	<b>TAX</b>	<b>ELEG</b>	<b>RISKEXP</b>	<b>SOE</b>	<b>STARTBUS</b>	<b>POLITICAL</b>
Intercept	$\delta_0$	1.050 (12.46)***	0.984 (10.75)***	0.978 (12.03)***	0.686 (6.85)***	1.139 (12.40)***	1.019 (11.22)***	0.983 (11.00)***	0.987 (10.16)***	1.248 (13.82)***	1.203 (12.86)***	0.995 (10.54)***	0.896 (9.12)***
<b>MEASURE</b>	$\delta_1$	<b>-0.030</b> <b>(-5.91)***</b>	<b>-0.020</b> <b>(-3.63)***</b>	<b>-0.036</b> <b>(-7.70)***</b>	<b>-0.084</b> <b>(-6.85)***</b>	<b>-0.016</b> <b>(-2.63)***</b>	<b>0.004</b> <b>(0.99)</b>	<b>-0.027</b> <b>(-2.68)***</b>	<b>-0.005</b> <b>(-2.50)**</b>	<b>-0.054</b> <b>(-5.78)***</b>	<b>-0.024</b> <b>(-5.05)***</b>	<b>0.013</b> <b>(1.20)</b>	<b>-0.053</b> <b>(-3.75)***</b>
SIZE	$\delta_2$	-0.018 (-5.84)***	-0.020 (-6.56)***	-0.017 (-5.55)***	-0.019 (-6.13)***	-0.019 (-5.87)***	-0.019 (-5.92)***	-0.020 (-6.26)***	-0.019 (-6.09)***	-0.016 (-4.94)***	-0.020 (-6.49)***	-0.019 (-6.09)***	-0.018 (-5.66)***
GROWTH	$\delta_3$	0.019 (1.19)	0.018 (1.13)	0.019 (1.14)	0.017 (1.11)	0.021 (1.24)	0.020 (1.19)	0.017 (1.09)	0.018 (1.14)	0.022 (1.30)	0.017 (1.10)	0.021 (1.23)	0.019 (1.19)
PASTLLP	$\delta_4$	-0.816 (-1.06)	-0.804 (-1.07)	-0.820 (-1.07)	-0.928 (-1.23)	-0.797 (-1.04)	-0.563 (-0.72)	-0.551 (-0.72)	-0.551 (-0.71)	-0.952 (-1.24)	-0.899 (-1.20)	-0.602 (-0.78)	-0.757 (-0.99)
EBTLLP	$\delta_5$	0.037 (0.09)	0.041 (0.09)	-0.229 (-0.54)	-0.152 (-0.35)	0.288 (0.67)	0.289 (0.68)	0.089 (0.21)	0.221 (0.51)	0.141 (0.33)	-0.019 (-0.04)	0.237 (0.56)	0.130 (0.30)
BANK	$\delta_6$	-0.078 (-4.27)***	-0.092 (-4.84)***	-0.070 (-4.33)***	-0.059 (-3.23)***	-0.157 (-8.68)***	-0.143 (-7.43)***	-0.113 (-6.55)***	-0.127 (-6.84)***	-0.095 (-5.60)***	-0.192 (-9.77)***	-0.123 (-7.26)***	-0.141 (-8.87)***
CR_RIGHT	$\delta_7$	-0.013 (-1.70)*	-0.004 (-0.49)	0.013 (1.68)*	0.001 (0.18)	-0.006 (-0.73)	-0.021 (-2.31)**	-0.010 (-1.10)	-0.016 (-1.76)*	0.001 (0.09)	-0.014 (-1.74)*	-0.017 (-1.81)*	0.002 (0.30)
DISC_INDEX	$\delta_9$	-0.004 (-3.44)***	-0.004 (-3.25)***	-0.003 (-2.98)***	-0.002 (-1.97)**	-0.007 (-7.13)***	-0.007 (-5.62)***	-0.005 (-3.66)***	-0.006 (-4.90)***	-0.004 (-3.96)***	-0.007 (-6.40)***	-0.008 (-6.17)***	-0.005 (-4.55)***
Year Controls		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
N		4682	4682	4682	4682	4682	4616	4616	4616	4682	4682	4682	4682
Adj. R square		13.25	12.22	14.64	13.89	11.80	11.92	12.20	11.88	13.10	12.94	11.60	12.28

**Table 7 (continued)**

Stage one regression is:

$$LLP_{it} = \lambda_0 + \lambda_1 BEGLLA + \lambda_2 LCO + \lambda_3 CHLOANS + \lambda_4 LOANS + \langle LOAN\ CATEGORIES \rangle + \langle YEAR\ CONTROLS \rangle + \langle COUNTRY\ CONTROLS \rangle + e_{it}$$

where LLP is the provisions for loan losses; BEGLLA is the beginning loan loss allowance; LCO is net loan charge-offs; CHLOANS is the change in total loans outstanding; LOANS is total loans outstanding. These variables are deflated by beginning total assets. LOAN CATEGORIES is an indicator variable for different type of loans. They are defined as: Loans to Municipalities / Government (*MUN*); Mortgages (*MORT*), HP / Lease (*LEASE*), Other Loans (*OTH*), Loans to Group companies / Associates (*GRP*), Loans to Other Corporate (*OCORP*), Loans to Banks (*BK*).

Stage two regression is:

$$ALLP = \delta_0 + \delta_1 MEASURE + \delta_2 SIZE + \delta_3 GROWTH + \delta_4 PASTLLP + \delta_5 EBTLLP + \delta_6 BANK + \delta_7 CR\_RIGHT + \delta_8 DISC\_INDEX + \langle YEAR\ CONTROLS \rangle + \varepsilon$$

where ALLP is the absolute value of negative Abnormal loan loss provisions; SIZE is the log of total assets at the beginning of year t; GROWTH is the growth in total assets from the beginning to the end of year t; PASTLLP is prior year's LLP divided by total assets at the beginning of the year; EBP is net income before loan loss provisions divided by total assets at the beginning of the year. The definitions for the institutional variables are provided in the Appendix.

We run the regression clustered by firm, and with year dummies. To conserve space, we do not report the coefficient estimates for the year dummies and country dummies. For each variable, we report the regression coefficient, followed by the t statistic in parentheses. \*, \*\*, and \*\*\* denote significance at 10%, 5%, and 1% levels, two-tailed, respectively.