Macroprudential Policies and Bank Earnings Quality

Abstract

We investigate the impact of macroprudential policies on bank earnings quality by analysing data from individual banks across 68 countries between 1996 and 2019. We examine earnings quality from two perspectives: the information perspective (i.e., *earnings persistence, and cash flow predictability*), and the opportunistic earnings management perspective (i.e., *meet or beat benchmark, and abnormal loan loss provisions.* Our findings reveal that macroprudential policies affect these dimensions differently. On average, tightening policies related to bank capital and loan supply immediately reduce earnings persistence and cashflow predictability while also lowering the likelihood of meet or beat benchmark. In contrast, the easing of macroprudential policies (typically with delayed effects) exerts a stronger influence on meet or beat benchmark than on earnings persistence and cashflow predictability. These results hold across endogeneity checks, subsample analyses, and alternative model specifications. Overall, our study underscores the need for balanced macroprudential policies to *at once* address information asymmetries, regulatory arbitrage, and agency issues, *and* to promote financial stability.

JEL code: G02; G20.

Key words: macroprudential policies; earnings quality; information perspective; opportunistic earnings management; cross-country analysis.

1. Introduction

Over the past few decades, both developed and developing economies have implemented a wave of reforms, including Basel II, Basel III, and, more importantly, macroprudential policies, which have emerged as essential instruments to curb systemic risk, limit excessive credit expansion, and enhance the resilience of financial institutions. By design, these policy measures aim to pre-empt the recurrence of widespread financial turmoil and to fortify the banking system. Despite the widespread adoption of macroprudential tools, our understanding of these policies and their effectiveness is still evolving (e.g., Claessens, 2015, Boar et al., 2017).[1]

Macroprudential policies exhibit a dual nature, presenting both opportunities and challenges. On the one hand, they promote a more stable financial environment by enforcing discipline, curbing excessive risk-taking, and enhancing the overall transparency of banking operations and financial reporting (*higher earnings quality*). On the other hand, stringent regulations can lead to unintended consequences, such as regulatory arbitrage and strategic manipulation of earnings. Banks may resort to earnings management as a means of navigating complex regulatory landscapes, thereby compromising the reliability of financial disclosures and potentially sowing the seeds for future instability (*lower earnings quality*).

Given the evolving regulatory landscape and the lessons learned from the global financial crisis, it is imperative to critically assess the interplay between macroprudential policies and bank earnings quality.[2] The significant write-downs in the banking industry have

[1] Existing research predominantly focuses on analysing the impact of macroprudential tools on the intermediate target of credit growth risk (Altunbas et al., 2018; Gaganis et al., 2020; Meuleman and Vander Vennet 2020) and directly addressing the goal of managing risk perceptions (Igan et al., 2023). Banks are fragile, given their inevitable leverage and maturity transformation. Macro-prudential policy tools are designed to lessen balance sheet mismatches, reduce interlinkages across banks, and curb pro-cyclicality to maintain financial stability (Claessens et al., 2013).

[2] Major financial institutions, such as Lehman Brothers, Bernard Madoff Securities, and Bear Stearns, used suboptimal accounting practices to mask excessive risk-taking practices that ultimately led to severe financial problems and the global financial crisis. Those high-profile cases suggest that risky bank behaviours set off a downward spiral in accounting quality because banks with elevated risks are more inclined to make opacity-

prompted debate over the effectiveness of regulatory frameworks. While some advocate for stricter regulations to prevent similar occurrences, others argue that the failure of existing regulations to avert such events suggests that additional regulatory measures may be ineffective. Thus, this paper aims to address an important gap in the literature by examining the relation between macroprudential policies and bank earnings quality.[3] We examine earnings quality from two perspectives: the information perspective (i.e., *earnings persistence, and cash flow predictability*), and the opportunistic earnings management perspective (i.e., *meet or beat benchmark, and abnormal loan loss provisions (ALLPs)*)(e.g., Wahlen, 1994; Schipper and Vincent, 2003; Kanagaretnam et al., 2004, 2014; Altamuro and Beatty, 2010; Kanagaretnam et al., 2011).[4] A clearer understanding of this dynamic is essential for refining regulatory frameworks and ensuring that measures designed to safeguard the financial system do not inadvertently compromise the integrity of financial reporting.

We use an international sample of 10,297 banks with some 107,662 bank-year observations representing 68 countries over the 1996-2019 period to test our hypotheses. Our results indicate that tightening policies, whether related to *capital requirements* or *loan supply*, negatively affect earnings persistence and cashflow predictability. For instance, stricter *capital* policies immediately limit banks' ability to reinvest earnings into riskier assets, aligning with the goal of curbing excessive risk-taking. On the contrary, tightening *loan supply* reduces

increasing accounting choices to maintain the appearance of high-growth and low-volatility institutions (Delis et al., 2018). Bank earnings management is also a widespread phenomenon internationally (e.g., Banco Espírito Santo, Yes Bank, ICICI, Punjab National Bank, PMC).

[3] To date, prior studies examine the effect of macroprudential policies on: (i) bank risk (e.g., Igan et al., 2023; Benbouzid et al., 2022; Gaganis et al., 2020; Meuleman and Vander Vennet, 2020; Ezer, 2019); (ii) bank profitability (e.g., Davis et al., 2022); (iii) bank competition (e.g., González, 2022); (iv) credit growth (e.g., Andrieş et al., 2017; Akinci and Olmstead-Rumsey, 2018; Jiménez et al., 2017;); and (v) cross-border effects (e.g.; Franch et al., 2021). However, to the best of our knowledge, no study has examined the relation between macroprudential policies and bank earnings quality.

[4] Although Schipper and Vincent (2003) emphasize the importance of core earnings, our cross-country scope and data gaps on special or nonrecurring items (e.g., restructuring charges, gains or losses on securities sales) prevent us from measuring them fully. Therefore, our main analysis adopts established banking literature frameworks—namely Kanagaretnam et al. (2014), Altamuro and Beatty (2010), and Wahlen (1994). In Sections 7.1–7.3, we further assess earnings quality using the methods of Bushman and Williams (2012), Fonseca and González (2008), and Kanagaretnam et al. (2014).

earnings quality over time, with the full impact unfolding gradually as banks adjust to the regulatory changes. Further, loosening of *general* and *liquidity* macroprudential policies significantly enhance and weaken earnings quality, respectively.[5] These effects develop progressively after the policy change, as banks experience increased financial stability, driven by adjustments in their reserve requirements, taxes, foreign exchange transaction limits, and liquidity position. Finally, the immediate implementation of *demand-side* tightening policies reduces cash flow predictability, with enhancements emerging by the two-period lag. Indeed, initially, higher borrowing costs trigger managerial adjustments such as altering accounting practices that may temporarily damage earnings quality, reflecting agency problem where managers prioritize short-term gains (i.e., *agency theory*). However, over time, these policies improve asset quality and reduce loan defaults, aligning managerial actions with long-term shareholder interests, leading to enhanced earnings quality.

Additionally, our findings indicate that tightening *capital* and *loan* supply policies reduce banks' incentives to manipulate earnings, with a one standard deviation increase in these policies resulting in a 2.3% and 2.7% decrease in benchmark beating behaviour, respectively However, these policies also contribute to higher ALLPs, underscoring the need for a balanced regulatory approach that enhances transparency while addressing unintended consequences. In contrast, while loosening *capital* policies increase meet-or-beat behaviour by 14.9%, loosening *loan* supply policies have a stronger impact, reducing benchmarking behaviour by 42.3%. Furthermore, a one standard deviation increase in loosening of *general* policies corresponds to a 3.0% decrease in benchmark beating behaviour observed after a one-period lag, reflecting the nuanced impact of regulatory adjustments. Moreover, *capital* loosening policies effectively curb income increasing ALLPs, encouraging accurate and reliable financial reporting practices.

[5] While liquidity affects cash flow predictability, we find no appreciable evidence supporting its impact on earnings persistence.

Finally, a one standard deviation increase in tightening *liquidity* policies prompts an immediate 4.7% rise in benchmark beating behaviour while tightening *demand-side* policies leads to a 3.8% increase that materializes after a two-period lag. Similarly, tightening *demand-side* policies generally lead to an increase in income-increasing ALLPs. However, loosening *demand-side* policies result in a 26.3% decrease in benchmark beating behaviour initially, followed by a 14.4% reduction after a subsequent period. Hence, loosening loan policies has a far greater impact on earnings management, compared to tightening policies.

These patterns indicate that banks adjust their earnings management practices strategically in response to the specific regulatory environment, rather than uniformly to policy changes. Our overall findings are consistent with the theoretical frameworks whereby banks act opportunistically to manage their earnings at the expense of shareholders (i.e., *agency theory*), and banks exploit regulatory differences to maintain financial flexibility while navigating constraints (i.e., *regulatory arbitrage theory*). We also find some support for theories related to information asymmetry and signalling.

Our study contributes to several active strands of literature. First, to the best of our knowledge, this paper is the first to empirically examine the association between macroprudential policies and bank earnings quality, using four measures that capture both the informational perspective (i.e., earnings persistence and cash flow predictability) and the opportunistic earnings management perspective (i.e., meet-or-beat benchmarks and ALLPs).[6] Prior research shows that bank managers use discretion in financial reporting for both efficiency and opportunistic motives. Efficiency-driven uses include signalling private information (Wahlen, 1994; Kanagaretnam et al., 2004), managing risk (Bushman and Williams, 2012), reducing perceived risk (Wahlen, 1994; Kanagaretnam et al., 2004), and

[6] Consistent with the methodology of Kanagretnam et al. (2014), our research design minimizes measurement errors in managerial discretion by concentrating on a single industry.

facilitating external financing (Kanagaretnam et al., 2003). Opportunistic uses include meeting or beating earnings benchmarks (Beatty et al., 2002; Kanagaretnam et al., 2014), and income increasing accruals (Kanagaretnam et al., 2010).[7] While prior research has explored the motivations and mechanisms of earnings management (e.g., to meet market expectations or maintain regulatory capital adequacy), the interaction between earnings management practices and broader macroeconomic policies remains underexplored. The use of granular data on macroprudential policy measures alongside bank-level earnings metrics offers a robust methodological framework for analysing how systemic factors influence micro-level behaviours.

Second, this study reveals that some regulatory measures, such as capital and general supply-side constraints, may amplify or mitigate the influence of earnings on future performance depending on their timing and structure. This finding enriches the literature (e.g., Dechow et al., 2010; Kanagaretnam et al. 2011; Claessens and Kodres, 2014) by showing that the impact of earnings on future performance is not static but shaped by the broader regulatory context. By exploring these interaction effects, the study addresses an important gap in the literature on how regulatory policies dynamically interact with earnings quality (Borio and Zhu, 2012). This finding offers a more comprehensive view of how earnings performance and policy stances combine to affect earnings stability, contributing to the theoretical understanding of macroprudential policy transmission.

Third, this study contributes to the literature on macroprudential policies by examining their temporal effects on bank earnings quality. While existing research primarily examines the static impact of macroprudential measures, this study extends the analysis by exploring how their effectiveness evolves over time. Our findings offer practical implications for policymakers by identifying optimal time horizons for implementing and adjusting

[7] Fonseca and González (2008) further show that the extent of income smoothing varies with institutional factors.

macroprudential tools. Understanding the temporal dynamics of these policies can help central banks and regulatory authorities fine-tune their responses, ensuring that interventions remain effective throughout different phases of the economic cycle.

Fourth, our study contributes to the existing banking literature on regulatory oversight, bank opacity, and asset substitution. For instance, Burgstahler and Dichev (1997) highlight that financial institutions face conflicting incentives when reporting earnings. While they may report lower earnings to regulators for economic benefits, they also seek to avoid losses to maintain confidence and minimise regulatory scrutiny. Morgan (2002) emphasises that banks are inherently opaque, making it difficult to assess risks associated with loans and trading assets. This opacity exposes the financial system to systemic risks, including contagion and bank runs. Furthermore, banks' high leverage compounds uncertainty, providing opportunities for risk-taking and asset substitution, which insiders may obscure through earnings management (Shen and Chih, 2005). By manipulating financial reports, banks can conceal their true risk exposure, distorting earnings quality and misleading stakeholders. This makes macroprudential regulation crucial in enforcing transparency and stability.

Finally, from a policy perspective, our study provides new insights into the uniform regulatory approach for banks. Research indicates that imposing new constraints on banks may be redundant and costly. Our findings support the idea of removing or significantly relaxing certain regulatory requirements, as banks are likely to actively manage their earnings. Additionally, our analysis considers banks of varying sizes and types across multiple countries, contributing to the ongoing debate on effective bank regulatory tools. Thus, our study has profound implications for the quality of financial reporting, market discipline, financial soundness, and the broader regulatory and supervisory framework.

The rest of the paper is organised as follows. Section 2 provides a detailed discussion of relevant prior literature and develops several testable hypotheses. Section 3 describes the

data, sampling procedure, and empirical methodology. Section 4 provides the empirical results while section 5 discusses endogeneity concerns. Section 6 documents cross-sectional results, while section 7 reports several robustness tests. Finally, section 8 concludes with some policy implications.

2. Literature review and hypotheses development

2.1 Theory and empirical evidence

2.1.1 Information asymmetry theory

From the perspective of information asymmetry theory, managers generally possess more internal information than shareholders, as they control day-to-day operations (Meckling and Jensen, 1976). Banks, as inherently vulnerable institutions due to the complexity of their operations, further exacerbate the information asymmetry between managers and stakeholders (Morgan, 2002). This opacity limits the ability of dispersed shareholders, debt holders, and regulators to impose effective governance on banks (Pathan and Faff, 2013), and thus could introduce more earnings management. High-quality earnings could provide more relevant information about the features of a bank's financial performance pertinent to specific decisions (Bushman and Williams, 2012) so earnings quality improves when managers' report earnings with less noise or greater accuracy, or undertake reporting actions that disclose information about future earnings and cash flows (Kanagaretnam et al., 2014).

However, information asymmetry creates opportunities for managers to engage in risk-taking for various purposes, which can ultimately undermine earnings quality. For example, earnings management may result in fatter-tailed return distributions (Cohen et al., 2014), incentivizing managers to act in their self-interest. Additionally, information asymmetry allows banks to use earnings smoothing to conceal unfavorable information. Managers often delay disclosing bad news, using their discretion to obscure the firm's performance from public scrutiny (Jin and Myers, 2006), thus generating immediate benefits for bank managers. For

instance, during a poor performance period, managers may deliberately overstate losses, creating the appearance of recovery later (Arya et al., 1998) which reduces earnings quality by making them less informative for investors. The reliance on discretionary tools, such as gains and losses from securities, exacerbates this issue, as these tools are less regulated and audited than other earnings management methods (Cohen et al., 2014). This makes it even more challenging for auditors, regulators, or shareholders to uncover the internal financial realities of banks.

Macroprudential policies, which aim to safeguard financial stability, offer effective solutions to mitigate these risks by reducing information asymmetry and curbing managerial opportunism. In line with this idea, the banking literature suggests that informational transparency plays a crucial role in promoting market discipline as part of prudential bank regulation (Bushman and Williams, 2012), and that price informativeness regarding future earnings is enhanced by stronger investor protection regulations (Haw et al., 2012). Policies that encourage timely loan loss recognition, such as tax incentives, promote accurate financial reporting and limit opportunities for earnings manipulation (Andries et al., 2017). These measures align managerial behaviour with regulatory goals, fostering transparency and reducing the adverse effects of opacity on market stability. Additionally, macroprudential policies offer systemic benefits that extend beyond individual institutions. By enhancing transparency and reducing opacity, these policies strengthen the interconnectedness of financial institutions and curb excessive risk-taking (Galati and Moessner, 2018). Greater transparency improves decision-making by external stakeholders and regulators, thereby enhancing market discipline. Ultimately, macroprudential measures not only mitigate the immediate risks posed by earnings management but also contribute to the long-term resilience of the financial system.

2.1.2 Signaling theory

In contrast to information asymmetry theory, signaling theory suggests that bank earnings management can sometimes serve as a signal to external investors or creditors. This theory posits that in imperfect markets, investors often face incomplete information about firms. To bridge this gap, bank managers use various tools to convey information, reduce asymmetry, and align the stock price more closely with its intrinsic value (Bhattacharya, 1979). Earnings, being a key source of firm-specific information, can thus serve as a channel through which managers signal critical insights to investors (Liu et al., 2002).

Therefore, earnings management may indicate information about a bank's operations. For example, managers often recognize provisions during periods of high earnings to signal operational stability and strong financial health (Beaver et al., 1989). Specifically, Barth, Beaver, and Wolfson (1990) demonstrate that LLPs can signal a bank's commitment to investors. Investors may, in turn, price realized securities gains and losses based on the expectation that managers use these adjustments to offset fluctuations in other earnings. Similarly, Ryan et al. (2006) suggest that earnings smoothing behaviour enhances the informativeness of earnings and more effectively reveals a bank’s liabilities.

Nonetheless, earnings management can also transmit misleading signals that obscure the true financial condition of banks. For instance, Ahmed et al. (1999) find that incomplete information incentivizes managers to use LLPs as a tool for earnings management. By making discretionary adjustments to LLPs, managers can exploit their informational advantage, distorting the accuracy of financial reporting. Similarly, Bergstresser and Philippon (2006) argue that earnings management enables managers to obscure a firm's underlying performance, often with the intent to mislead shareholders or influence contractual outcomes. The reliance of investors on current-period earnings to form expectations about future performance exacerbates this issue (Kim and Sohn, 2013). Graham et al. (2005) observe that such reliance encourages managers to prioritize short-term earnings over long-term stability. For instance,

Greenawalt and Sinkey (1988) report that managers may increase LLPs during periods of high operating income to reduce earnings volatility. Conversely, Collins et al. (1995) show that managers may decrease LLPs during low-earnings periods to artificially inflate reported earnings. These practices reflect the opportunistic perspective of earnings management, where managers prioritize self-interest over transparency and mislead investors about the bank's true financial health (Kanagaretnam et al., 2014).

Yet, signaling theory also highlights the mixed effects of macroprudential policies on earnings management. On one hand, certain policies can enhance the signaling role of LLPs and reduce earnings management. For example, tax deductibility for LLPs incentivizes banks to recognize loan portfolio deteriorations in a timelier manner (Andries et al., 2017). This enhances transparency by providing timely signals regarding bank health and risk-taking to regulators and creditors (Gallemore, 2023), thereby curbing the ability of managers to manipulate earnings for personal benefit. On the other hand, macroprudential policies may inadvertently increase earnings management. Banks under regulatory stress may attempt to send positive signals to external stakeholders by adjusting LLPs to meet regulatory capital and income targets. Lobo and Yang (2001) find that LLPs significantly affect regulatory capital, motivating managers to adjust these provisions under pressure. Similarly, Shrieves and Dahl (2003) report that banks facing regulatory constraints often reduce LLPs to inflate reported earnings, thereby increasing earnings management.

2.1.3 Regulatory arbitrage theory

Regulatory arbitrage theory suggests that efforts to enhance banks' resilience through policy measures can unintentionally reduce profitability, leading banks to engage in activities that are subject to less regulatory oversight. Therefore, stricter regulations enforcement may contrarily result in more earnings management, since managers feel the need to avoid earnings decreases; and thus, potentially compromising earnings quality (Shen and Chih, 2005).

Additionally, stronger incentives for bank insiders to shift risk could encourage more earnings management, as banks may use earnings manipulation to conceal risk-shifting behaviour (Fonseca and González, 2005). In a certain sense, increases in minimum capital requirements may lead to higher risk-taking, as banks attempt to offset the utility loss resulting from stricter regulations (Laeven and Levine, 2009). Gebhardt and Novotny-Farkas (2011) provide evidence that publicly-listed European banks, under regulatory pressure, shift toward less scrutinized measures, which may intensify earnings management. Similarly, Cerrutti et al. (2017) identify a link between macroprudential policies and increased cross-border borrowing, indicating banks' efforts to circumvent regulatory constraints. Hamadi et al. (2016) observe that following the implementation of Basel II, banks altered their income-smoothing practices. Instead of relying on income-increasing discretionary LLPs, they incorporated more forward-looking expected losses to mechanically smooth income, thereby reducing earnings management. Meuleman and Vennet (2020) further explore the effects of macroprudential policies on systemic risk among European banks. They find evidence of risk-shifting behaviours, particularly in retail-oriented banks, and identify that banks often resort to regulatory arbitrage to bypass constraints, potentially increasing risk-taking and negatively impacting their risk profiles.

Consequently, while macroprudential policies aim to mitigate systemic risk, they may unintentionally increase earnings management and reduce earnings quality among banks. Firstly, stricter loan-based policies and concentration limits directly increase costs and reduce banks' charter value (Gonzalez, 2022). To offset declining profit margins, banks may resort to manipulate the earnings as a compensatory strategy, leading to the decrease of earning quality. Secondly, tightening credit supply policies imposes additional costs on banks (Gonzalez, 2022), further incentivizing them to manipulate earnings to sustain profitability. Thirdly, restrictions on bank entry and activities reduce market competition, allowing banks to pass higher costs

onto debtors and depositors through increased margins (Claessens and Laeven, 2004). This reduced competition can exacerbate agency problems, enhancing self-serving managerial behaviours. Additionally, large banks considered "too-big-to-fail" may take on greater risks (Garcia and Ye, 2023), encouraging them to engage in more aggressive earnings management to conceal these risks when faced with stringent regulations, potentially destabilizing the financial system. As a result, stricter macroprudential regulations may not uniformly achieve their intended effects across all banks.

Moreover, while macroprudential policies can reduce risk-shifting behaviour, they may also increase earnings management. For example, Basel III's countercyclical capital buffers effectively curb risk-shifting (Jiménez et al., 2017). However, these policies also exert pressure on banks to increase LLPs, including discretionary components, under tighter regulatory scrutiny (Lobo and Yang, 2001). While this reduces risk-taking, it also gives managers greater discretion to manipulate earnings through adjustments to LLPs (Haq et al., 2024).

2.1.4 Agency theory

Income smoothing by banks is often regarded as an act of managerial self-dealing, exemplifying an agency problem arising from the separation of ownership and control. Both earnings quality and management practices can be influenced by conflicts between bank managers and shareholders. For instance, 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 (Kanagaretnam et al., 2014). While for earnings management, LLPs, a primary tool for earnings management in banks, are highly susceptible to managerial discretion and reflect management's estimates of expected future credit losses. These provisions allow managers to manipulate earnings by overstating or understating expected losses (Bouvatier et al., 2014), resulting in increased

earnings management and a decrease in the usefulness of earnings information for investors and debtors.

Agency theory suggests that macroprudential policies can influence earnings management and quality in many ways. On one hand, stricter regulations may inadvertently encourage earnings manipulation. For instance, Andries et al. (2017) argue that tightening macroprudential policies can lead to higher LLPs, enabling managers to smooth earnings or engage in manipulation. As a result, such manipulations increase earnings management and destroy earnings quality. Similarly, Ezer (2019) finds that sector-specific capital buffers, a form of stricter regulation, can increase risk-taking among banks. Furthermore, certain initiatives by central banks, while aimed at stability, can heighten shareholder risk appetites (Gaganis et al., 2020) and therefore exacerbate agency problems.

On the other hand, macroprudential policies can mitigate agency issues by imposing stricter capital and liquidity requirements. Kanagaretnam et al. (2011) emphasize that such measures discourage excessive risk-taking by accounting for systemic risks. Basel III, for example, introduced enhanced standards for capital, liquidity, and compensation management, which reduce managers' incentives to inflate share values through earnings manipulation (Fahlenbrach and Stulz, 2011). Given the opacity of banking operations, Pathan and Faff (2013) point out that dispersed shareholders and debt holders struggle to effectively monitor managerial behaviour, underscoring the need for macroprudential policies to enhance transparency. Fan et al. (2019) suggest that such policies strengthen monitoring mechanisms, and therefore might reduce the likelihood of undetected earnings manipulation.

2.2 Hypotheses development

The inherent opacity of banks creates opportunities and incentives for managers to engage in quasi-rent-seeking behaviour, including earnings manipulation (Kanagaretnam et al., 2014). In response, macroprudential policies targeting capital, liquidity, and disclosure

requirements have been implemented to promote financial stability and discourage excessive reliance on non-interest income. These policies are often designed to limit risk-taking and improve transparency by imposing tighter regulatory constraints. However, the effectiveness of such interventions, particularly tightening measures, on improving earnings quality remains the subject of debate. While these policies aim to enhance the quality of financial reporting, there is evidence suggesting that macroprudential tightening may, in some cases, undermine it. For instance, capital-based tools such as sector-specific buffers may unintentionally incentivize risk-taking rather than curbing it (Ezer, 2019), and mechanisms embedded in Basel II, namely market discipline and supervisory oversight, often fall short of deterring aggressive behaviour. From the perspective of agency theory, tighter regulations increase pressure on bank managers to meet capital thresholds, which can heighten incentives to manipulate earnings and misrepresent financial performance (Barth et al., 2017). Stricter requirements also tend to raise contemporaneous LLPs, creating more opportunities for income smoothing and discretionary accounting (Andries et al., 2017). Moreover, heightened regulatory pressure may inadvertently amplify shareholder risk appetite, encouraging managers to obscure risk-taking through earnings management (Gaganis et al., 2020). Given these complexities, we state our null hypothesis as follows:

H0: Macroprudential policies are not associated with bank earnings quality

In practice, these effects manifest in several ways. Banks under regulatory stress may strategically adjust LLPs to meet capital or income benchmarks (Lobo & Yang, 2001), while elevated LLP levels due to tighter provisioning rules may prompt further manipulation to manage reported volatility (Andries et al., 2017). Loan-based restrictions and concentration limits can reduce bank charter value and profit margins, increasing incentives to offset these losses through financial reporting discretion (Gonzalez, 2022). Additionally, stricter entry and activity restrictions can limit competition, allowing banks to pass increased costs onto

customers through higher margins. These conditions exacerbate agency problems and support self-serving managerial behaviour (Claessens & Laeven, 2004). These dynamics suggest that, although well-intentioned, macroprudential tightening may sometimes compromise the transparency and reliability of reported earnings.

Conversely, other strands of the literature suggest that loosening macroprudential policies may, under certain conditions, enhance earnings quality. Relaxing specific capital rules, particularly those related to provisioning requirements, may provide banks with greater discretion to incorporate forward-looking information into LLPs, thereby improving the informativeness and decision-usefulness of financial statements (Bushman & Williams, 2012). In this view, earnings management is not purely opportunistic but can also serve an informational function, especially when regulatory flexibility enables better alignment between accounting outcomes and underlying economic conditions.

Empirical studies and theoretical frameworks rooted in information asymmetry and agency theory support the notion that easing regulatory constraints may reduce earnings manipulation. Lowering capital requirements has been associated with a decline in opportunistic earnings management (Barth et al., 2017), while measures such as allowing tax deductibility of LLPs have been shown to expedite recognition of portfolio deteriorations, improving transparency and reducing the need for discretionary adjustments (Andries et al., 2017; Gallemore, 2023). Loosening regulations can also enhance the signalling role of LLPs, offering regulators and creditors clearer insights into a bank's risk profile (Gallemore, 2023).

From the perspective of regulatory arbitrage, relaxing tools such as the countercyclical capital buffer (CCB), leverage ratio (LR) requirements, and risk-weighted asset (RWA) constraints can mitigate the incentives for banks to manage earnings. For example, easing the CCB releases funds for lending, thereby reducing reliance on LLP adjustments to meet profitability targets. Loosening LR requirements allows for higher leverage without breaching

regulatory thresholds, while reduced RWA burdens can lead to a more accurate reflection of asset quality and lessen incentives to manipulate financial results. Furthermore, greater operational flexibility enabled by relaxed liquidity coverage ratios and loan concentration limits may redirect managerial focus from short-term earnings manipulation to long-term value creation and portfolio diversification, reducing the need to obscure underlying risks.

Taken together, these contrasting perspectives highlight the complex and sometimes contradictory effects of macroprudential policy on bank earnings quality. While tightening may enhance discipline, it can also increase managerial incentives to engage in opportunistic behaviour. Conversely, loosening certain constraints may improve transparency and reduce earnings manipulation, though it can also introduce new risks depending on how discretion is exercised. The net impact of macroprudential adjustments on earnings quality is therefore highly context-dependent, shaped by the design of specific policies, their interaction with institutional incentives, and the underlying motives behind managerial reporting behaviour. Accordingly, we state our alternative hypothesis as follows:

H1a: Macroprudential policies are negatively associated with bank earnings quality

H1b: Macroprudential policies are positively associated with bank earnings quality

3. Data and methodology

3.1 Data

Our sample consists of publicly listed and unlisted banks across 68 countries (i.e., 38 developed, 17 emerging, and 13 developing economies), spanning 24 years from 1996 to 2019[8]. This period covers a series of banking and financial market crises and rapid regulatory changes including the introduction of Basel II and III, and the strengthening of capital requirements.

[8] We exclude Covid-19 period from our analysis which not only disrupted global economies (Eichenbaum et al., 2021; Campello et al., 2023) but also triggered a wave of fiscal and monetary policies (Benmelech and Tzur-Ilan, 2020; Berger et al., 2023) that directly affected banks' performance.

We construct a comprehensive dataset consisting of up to 107,662 bank-year observations for earnings quality measures namely earnings persistence and cashflow predictability, respectively. Further, we construct earnings management measures including meeting or beating prior year's earnings and ALLPs of up to 53,583 bank-year observations. In particular, the sample includes commercial, cooperative, Islamic,[9] savings banks, and bank holding companies that provide commercial banking services across developed and developing economies. Our sample composition is reported in Appendix A1.

We extract bank-level information, including balance sheets and income statements, from the Fitch Solutions database. We exclude bank subsidiaries from the final dataset to reduce the impact of double counting. It also excludes banks with less than three consecutive years of observations and banks for which data on the main variables are not available (e.g., non-performing loan, loan charge-offs, government regulation, investor protection). We compile macroeconomic or country-specific control variables such as real gross domestic product (GDP) growth rate, inflation rate from the World Bank Database, and the Economic Freedom Index (EFI) from Heritage Foundation.

We exclude U.S. banks from our main sample to mitigate potential biases resulting from their relatively high representation (i.e., greater than 45%) if they were to be included. This sampling strategy is similar to the one employed in, e.g., Fonseca and Gonzalez (2008), Kanagaretnam et al., (2014), and Haq et al. (2024). Moreover, U.S. banks differ significantly from non-U.S. banks in terms of financial reporting, with U.S. banks adhering to GAAP standards and non-U.S. banks using IFRS, resulting in opaque reports and increased opportunities for managers to engage in earnings management (Henry et al., 2009). Further, Kanagaretnam et al. (2010) argue that U.S. banks operate in a high litigious environment where

[9] Given the nature of Islamic banks in terms of their non-interest banking, the composition and pattern of pre-managed earnings of those banks may differ from that of other conventional banks. Thus, we exclude Islamic banks from our sample and reassess our primary model. We document that our results are predominantly influenced by commercial, bank holding companies, and cooperative banks.

banks were exceptionally profitable before the 2007-2009 financial crisis period, and this may reflect an incentive of banks to maintain a high level of earnings quality/management.

3.2 Variable measurement

3.2.1 Dependent variable – earnings management

The variables used to measure earnings management include *earnings quality* and *opportunistic earnings management*. *Earnings quality* is assessed based on the persistence and predictability of cash flow. *Opportunistic earnings management*, on the other hand, is measured by meeting or surpassing the previous year's earnings benchmark and ALLPs. We interpret frequent changes in earnings and a higher value of income-increasing ALLPs to reflect more aggressive earnings management. Our earnings quality and opportunistic earnings management proxies are based on prior banking research (e.g., Kanagaretnam et al., 2014; Altamuro and Beatty, 2010).

3.2.2 Variable of interest – Macro-prudential policy

Macroprudential data are retrieved from a comprehensive survey—Global Macroprudential Policy Instruments—originally carried out by the IMF's Monetary and Capital Markets Department during 2013–2014. The information from the survey was organized and documented in a cross-country database by Alam et al. (2019). The data, originally available monthly, was aggregated into an annual format prior to calculating the average. Notably, within a given year, up to two tightening events may occur; these events were subsequently averaged to maintain consistency.

We divide supply related measures into capital, loan, general and liquidity which captures financial institution-based policies. Capital comprises: (i) capital requirements for banks, which include risk weights, systemic risk buffers, and minimum capital requirements; (ii) conservation buffers, which include requirements for banks to maintain a capital

conservation buffer, including the one established under Basel III; (iii) leverage ratio, which prevents bank liabilities from exceeding a certain level vis-à-vis the corresponding assets and equity; and (iv) countercyclical capital buffers, which requires banks to hold more capital than they otherwise would during upturns.

Loan consists of the following: (i) limits on credit growth which limits growth or the volume of aggregate credit, the household-sector credit, or the corporate-sector credit by banks, and penalties for high credit growth; (ii) LLP requirements for macroprudential purposes, which include dynamic provisioning and sectoral provisions (e.g. housing loans); (iii) loan restrictions include loan limits and prohibitions, which may be conditioned on loan characteristics (e.g., the maturity, the size, the LTV ratio and the type of interest rate of loans), bank characteristics (e.g., mortgage banks), and other factors; and (iv) limits on foreign currency loans which reduces vulnerability to movements in the foreign exchange rate. General encompasses: (i) reserve requirement ratio, which constrains a bank's capacity to extend loans; and (ii) limits on foreign exchange positions. And finally, liquidity includes liquidity requirements.

Further, our demand related instruments aimed at borrowers' leverage and financial positions which includes: (i) loan to value ratio, which constrains highly levered mortgage loans by requiring higher down payments; (ii) debt services to income ratio, which constrains household indebtedness; and (iii) limits on the loan-to-deposit ratio.

3.2.3 Bank-level and country–level control variables

Altamuro and Beatty (2010) and Beatty et al., (2002) present evidence that large banks are likely to engage in earnings management to avoid a decline in profit. However, according to Cornett et al., (2009), regulators tend to scrutinize large-sized banks more closely, as the failures of big banks can have a severe negative impact on the overall economy. Therefore, we include bank size as a control variable.

Iyer et al., (2016) suggest that bank deposits, including retail and wholesale deposits, are positively associated with earnings quality. However, Jin et al., (2018) argue that during the 2007-2009 period, banks with high deposits had less motivation to meet or exceed prior year's earnings. The impact of the deposit ratio on earnings management is therefore unclear. While retail depositors have no incentive to discipline managers, wholesale depositors, despite their expertise, are unable to overcome banks' opacity issues. Nevertheless, we control for the deposit ratio in our analysis to investigate its potential impact on earnings management.

We include the growth of gross loans as a control variable in our analysis, as it is widely acknowledged that an increase in bank loans can lead to a higher probability of default and an increase in non-performing loans, which can ultimately reduce a bank's equity capital (Beatty, et al., 2002; Beatty and Liao, 2014). Hence, banks with higher loan growth may engage in earnings management to mitigate any capital losses. Moreover, it is often argued that banks manipulate earnings to boost their capital ratios by reducing LLPs (Cornett, et al., 2009). However, the association between capital and earnings management remains mixed.

Maintaining adequate levels of liquidity is crucial for banks to withstand unexpected shocks and sudden withdrawals of funds. If a bank has insufficient internal liquidity, it may not be able to maintain a sufficient capital ratio, which can ultimately result in bankruptcy. Banks with lower liquidity ratios often have less capacity to set aside provisions for loan losses to compensate for lower capital levels. As a result, we anticipate a negative correlation between liquidity ratios and earnings management.

Bank's operational efficiency is measured by cost-to-income ratio. Prior research (e.g., Fries and Taci, 2005) suggest that non-performing loans have a negative relationship with bank efficiency. Hence, decreases in bank efficiency may deplete bank capital, potentially leading to increased earnings management. Köhler (2014) demonstrate that non-interest income can

affect bank stability. Yet, we predict that higher levels of non-interest income are associated with diminishing risk-return trade-offs.

Shen and Chih (2005) find that countries with weak law enforcement and inadequate protection of minority shareholders are susceptible to earnings management. Conversely, a strong legal system can prevent banks from utilizing deposit insurance to pursue risky activities. Consequently, lower risk-taking behaviour may decrease the incentives to engage in earnings manipulation.

Economic freedom index (EFI) is used to gauge regulatory restrictions, where higher scores indicate lower regulation. We anticipate a positive association between earnings management and EFI. Additionally, we introduce macroeconomic variables, such as real-GDP growth and inflation rates, to account for the impact of macroeconomic shocks that may negatively affect bank performance. For example, managers may manipulate LLPs to maintain favourable profitability status in bank statements. Conversely, managers may reduce earnings through LLPs to avoid higher taxes. Therefore, we predict a negative association between earnings management and macroeconomic variables. To eliminate the potential confounding effect of outliers, we winsorize our variables at the 1st and 99th percentiles to enhance the accuracy and reliability of the analysis by mitigating the adverse effects of outliers and extreme values in our large dataset. The details of variable constructions are provided in Appendix A2.

3.3 Empirical methodology

Following the approach of Kanagaretnam et al. (2014), we examine two related yet distinct dimensions of earnings quality: the persistence of earnings (eq. 1) and the ability of current earnings to predict future cash flows (eq. 2). We estimate the following regressions to examine the effect of macroprudential policy on these earnings quality measures:

$$EBT_{i,j,t+1} = \alpha_0 + \beta_1 EBT_{i,j,t} + \beta_2 MP^T_{j,t} + \beta_3 MP^L_{j,t} + \beta_4 MP^T_{j,t-1} + \beta_5 MP^L_{j,t-1} + \beta_6 MP^T_{j,t-2} + \beta_7 MP^L_{j,t-2} + \beta_8(EBT_{i,j,t} \times MP^T_{j,t}) + \beta_9(EBT_{i,j,t} \times MP^L_{j,t}) + \beta_{10}(EBT_{i,j,t} \times MP^T_{j,t-1}) + \beta_{11}(EBT_{i,j,t} \times MP^L_{j,t-1}) + \beta_{12}(EBT_{i,j,t} \times MP^T_{j,t-2}) + \beta_{13}(EBT_{i,j,t} \times MP^L_{j,t-2}) + \Upsilon_1 \sum BANK - LEVEL\ CONTROL_{i,j,t} + \Upsilon_2 \sum_{j=1}^{68} COUNTRY - LEVEL\ CONTROL_{j,t} + \gamma_1 \sum MACRO_{j,t} + \tau_t + \mu_i + \varepsilon_{i,j,t}$$ **(eq. 1)**

$$EBTLLP_{i,j,t+1} = \alpha_0 + \beta_1 EBT_{i,j,t} + \beta_2 MP^T_{j,t} + \beta_3 MP^L_{j,t} + \beta_4 MP^T_{j,t-1} + \beta_5 MP^L_{j,t-1} + \beta_6 MP^T_{j,t-2} + \beta_7 MP^L_{j,t-2} + \beta_8(EBT_{i,j,t} \times MP^T_{j,t}) + \beta_9(EBT_{i,j,t} \times MP^L_{j,t}) + \beta_{10}(EBT_{i,j,t} \times MP^T_{j,t-1}) + \beta_{11}(EBT_{i,j,t} \times MP^L_{j,t-1}) + \beta_{12}(EBT_{i,j,t} \times MP^T_{j,t-2}) + \beta_{13}(EBT_{i,j,t} \times MP^L_{j,t-2}) + \Upsilon_1 \sum BANK - LEVEL\ CONTROL_{i,j,t} + \Upsilon_2 \sum_{j=1}^{68} COUNTRY - LEVEL\ CONTROL_{j,t} + \gamma_1 \sum MACRO_{j,t} + \tau_t + \mu_i + \varepsilon_{i,j,t}$$ **(eq. 2)**

where subscript *i* denotes individual banks, *j* denotes country, and *t* time period (t = 1996, 1999, … 2019). *t−1* and *t−2* denote time lags of one year and two years, respectively. $\tau_t$is the year fixed-effects, $\mu_i$is the bank fixed-effects, and ε denotes the residual term.

$EBT_{i,j,t+1}$ is the earnings before taxes during year *t + 1* scaled by total assets at the beginning of the year; $EBTLLP_{i,j,t+1}$ is earnings before taxes and loan loss provisions during year *t + 1* scaled by total. 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 (eq.1). 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 (eq. 2). Furthermore, MP^T and MP^L correspond to tightening and loosening policies, respectively. We expect the interaction terms to be negative (positive) suggesting that banks can diminish (enhance) their earnings persistence and predictability of future cash flow with tightening (loosening) macroprudential policy.

Finally, we assess *opportunistic earnings management* using logistic regression models. Specifically, Equation (3) models the likelihood of meeting or exceeding the prior year's

earnings, while Equations (3A) and (3B) capture ALLPs. The estimation approach for both models follow the methodology outlined by Kanagaretnam et al. (2014).

$$Meet - beat_{i,j,\Delta t} = \beta_1 MP^{T}_{j,t} + \beta_2 MP^{T}_{j,t-1} + \beta_3 MP^{T}_{j,t-2} + \beta_4 MP^{L}_{j,t} + \beta_5 MP^{L}_{j,t-1} + \beta_6 MP^{L}_{j,t-2} + \beta_7 \Delta CF_{i,j,t} + \beta_8 ALLOW_{i,j,t} + \beta_9 GROWTH_{i,j,t} + \beta_{10} \sum BANK\ \ CONTROL_{i,j,t} + \beta_{11} \sum_{j=1}^{68} COUNTRY\ CONTROL_{j,t} + \gamma_1 \sum MACRO_{j,t} + \tau_t + \mu_i + \varepsilon_{i,j,t} \quad \textbf{(eq. 3)}$$

where, the meet – beat benchmark is an indicator variable that takes a value of one if a bank reflects a change in ROAA from year *t-1* to year *t* in the interval between 0 and 0.001 or zero otherwise.[10] ΔCF is change in earnings before taxes and LLPs from the beginning to the end of year *t* scaled by total assets at the beginning of year *t*. $ALLOW$ represents allowance for loan losses at the end of year *t*, scaled by total assets at beginning of year *t*. $GROWTH$ represents the growth in total assets from beginning to the end of year *t*. MP^{T} and MP^{L} correspond to tightening and loosening policies, respectively.

We expect the coefficients β1, β3, and β5 to be positive while β2, β4, and β6 are anticipated to be negative. This indicates that tightening macroprudential policies reduce banks' incentives to report changes in return on average assets (ROAA) over a given year. Conversely, loosening these policies tends to reinforce this reporting behaviour.

In relation to ALLP , we conduct a two-stage analysis. In the first stage (*see* equation 3A below), we calculate absolute negative residual values, which is the discretionary part of LLP. This is of specific interest because it tends to increase banks reported return.

$$LLP_{i,j,t} = \alpha_0 + \beta_1 BEGLLA_{i,j,t-1} + \beta_2 LCO_{i,j,t-1} + \beta_3 CHLOANS_{i,j,t-1} + \beta_4 LOANS_{i,j,t-1} + \beta_5 NPL_{i,j,t-1} + \tau_t + \mu_i + \varepsilon_{i,j,t} \quad \textbf{(eq.4A)}$$

where, LLP is the loan loss provision at year t, $BEGLLA$ is loan loss allowance at time period t-1, LCO is net loan charge-offs scaled by beginning assets, $CHLOANS$ is change in total loans

[10] We can highlight that our results are qualitatively similar when using a much more stringent criterion by using the interval between 0 and 0.0008 to determine if banks managed earnings to avoid reporting losses.

outstanding scaled by beginning assets, $LOANS$ is loans outstanding scaled by beginning assets, and, NPL is non-performing loans deflated by beginning total assets.

In the second stage (see equation 4B below), we examine the association between tightening (MPT) and loosening (MPL) policies and the ALLP.

$$ALLP_{i,j,t} = \alpha_0 + \beta_1 MP^T_{j,t} + \beta_2 MP^T_{j,t-1} + \beta_3 MP^T_{j,t-2} + \beta_4 MP^L_{j,t} + \beta_5 MP^L_{j,t-1} + \beta_6 MP^L_{j,t-2} + \beta_7 \sum BANK - LEVEL\ CONTROL_{i,j,t} + \beta_8 \sum_{j=1}^{68} COUNTRY - LEVEL\ CONTROL_{j,t} + \gamma_1 \sum MACRO_{j,t} + \tau_t + \mu_i + \varepsilon_{i,j,t}$$

(eq. 4B)

We expect the coefficients β1, β3, and β5 to be positive while β2, β4, and β6 are expected to be negative. This suggests that tightening macroprudential policies may limit, whereas loosening these policies may enhance income-increasing earnings management activities.

We note that the residual from the regression models may be serially and/or cross-sectionally correlated. Therefore, we apply clustered robust errors to account for both serial and cross-sectional correlations (Petersen, 2009).

4. Empirical results

4.1 Descriptive statistics and correlation analysis

The summary statistics related to our main variables are reported in Table 1. Panels A and B provide a detailed overview of the descriptive statistics for variables related to earnings persistence and cashflow predictability, respectively. The average of pre-tax earnings$_{t+1}$ is 0.9%, while the average of the pre-tax and LLP$_{t+1}$ is 1.4%. These findings are consistent with Kanagaretnam, et al. (2011; 2014).

The average value of bank capital macroprudential policy stands at 0.26 for tightening and 0.17 for loosening, suggesting a stronger emphasis on restrictive measures. Similarly, loan policies exhibit mean values of 0.099 for tightening and 0.013 for loosening, reinforcing this pattern. General policy tightening has a mean of 0.126, slightly exceeding the loosening mean of 0.103. Liquidity policies show an even more pronounced divergence, with a tightening mean

of 0.159 compared to just 0.004 for loosening. Lastly, demand-side policies maintain a tightening mean of 0.040, while the loosening mean remains lower at 0.013. These figures collectively highlight a prevailing inclination toward regulatory tightening over loosening measures (Akinci and Olmstead-Rumsey, 2018).

Panel C reports the summary statistics of earnings management measure- meet or beat benchmark. The average meet or beat benchmark is 0.22, indicating that around 22% of the banks in the sample adjust their ROAA to improve earnings over the prior year. Further, the mean values of various macroprudential policy measures highlight a general trend toward tightening across different regulatory dimensions. Specifically, bank capital tightening has the highest mean value at 0.342, whereas bank capital loosening is lower at 0.019. Similarly, loan tightening exhibits a mean of 0.110, compared to 0.015 for its loosening counterpart. General macroprudential policy tightening and loosening show relatively closer values, at 0.111 and 0.092, respectively, suggesting a more balanced approach. A similar pattern is observed in liquidity and demand-side macroprudential policies. Liquidity tightening records a mean of 0.231, while loosening stands at 0.007. Likewise, demand-side macroprudential tightening has a mean of 0.052, compared to 0.017 for loosening.

Finally, Panel D provides the summary statistics for ALLP, a measure of earnings management. ALLP exhibits a mean value of 0.006 consistent with Kanagaretnam, et al. (2014). The mean value of bank capital tightening is at 0.387, while its loosening counterpart is at 0.02. Similarly, loan tightening has a mean of 0.129, in contrast to 0.014 for loosening. In the broader category of general macroprudential policy, the mean for tightening is 0.082, while loosening is slightly lower, at 0.062, suggesting a relatively balanced approach to policy implementation. Liquidity tightening exhibits a substantial mean value of 0.305, while the mean for liquidity loosening is at 0.006, reflecting a significant regulatory emphasis on liquidity management.

Finally, demand-side macroprudential tightening and loosening have means of 0.082 and 0.02, respectively.

<*Insert Table 1 here* >

The correlation matrix for the variables used in our empirical analysis are reported in Table 2. Our preliminary analysis reveals a positive relationship between earnings quality and both tightening and loosening macroprudential policies (*see* Panels A and B). Additionally, we observe that earnings management is positively associated with tightening policies and negatively associated with loosening policies (*see* Panels C and D).

Large banks are characterized by lower earnings quality and higher income-increasing ALLP, alongside a greater tendency for benchmark-beating behaviour. Additionally, we find that increased inefficiency is associated with lower earnings quality and higher ALLP. Banks with higher liquidity and loan growth tend to exhibit better earnings quality and a lower tendency to engage in benchmark-beating behaviour. To ensure that correlations do not lead to multi-collinearity, we check the variance inflation factors (VIF). All VIF values are lower than 10, with means of 2.11, suggesting that multi-collinearity is not a problem.

<*Insert Table 2 here* >

4.2 Main findings

4.2.1 Earnings quality: Earnings persistence

Table 3 reports the results of the fixed effects models on the relationship between macroprudential policies and earnings persistence. The coefficient for EBT is consistently positive and highly significant across all models indicating that higher earnings before tax are associated with greater earnings persistence. Thus, banks with higher pre-tax earnings tend to have more stable and predictable earnings over time. This finding aligns with prior research indicating that profitability is a strong predictor of earnings quality (Altamuro and Beatty, 2010; Kanegretnam et al., 2014).

We start our discussion on the empirical findings with *supply-side-capital*. The coefficient on $MP_t^T \times EBT_t$ is negative and statistically significant suggests contemporaneous impact of tightening of capital policies. Hence, banks exhibit reduced earnings persistence immediately following the policy implementation and is consistent with our hypothesis H1a. One possible explanation could be that banks face constraints on reinvesting earnings into riskier assets, which aligns with the goal of reducing excessive risk-taking. This is consistent with Aiyar et al. (2014), who noted that capital requirements curb the reinvestment of profits in potentially risky ventures by limiting high-leverage growth. Economically, a one standard deviation increases in the interaction between $MP_t^T \times EBT_t$ corresponds to an 8.8% decrease in future pre-tax earnings.[11] The joint significance of the sum of the contemporaneous term and two lags' coefficients is statistically significant across all measures suggesting that the policy has a meaningful influence that extend over multiple time periods.

Next, we evaluate the *supply-side loan,* and our results indicates that the macro prudential-tightening policy reduces earnings persistence and has a dynamic and continuing impact on earnings persistence over time. We find evidence of the anticipatory effects in period *t-1* and delayed effect in period *t-2* suggest that the full impact of the tightening is realized gradually and continues to influence outcomes in the short to medium term. Economically, a one standard deviation increases in tightening loan supply policies, decrease future pre-tax earnings by 9% and 9.4% in periods *t-1,* and *t-2,* respectively. The findings align with our hypothesis H1a whereby tightening macroprudential policies exert negative effects on earnings quality. The combined significance of the contemporaneous term and the coefficients of the

[11] The economic significance of an estimate is calculated as the changes in an explanatory variable measure compared to its respective mean value in response to one standard deviation increases in primary variable of interest. For example, the economic significance corresponding to the estimate for ($MP^T_t \times EBT_t$) in column 1 of Table 3 is calculated as 0.0151× (-0.0525)/0.009=8.8%, where 0.0151 is the standard deviation of ($MP^T_t \times EBT_t$), -0.0525 is the regression coefficient on ($MP^T_t \times EBT_t$), and 0.009 is the mean value of dependent variable (EBTL).

two lags is statistically significant for all measures, suggesting that bank's reaction to stricter loan policy by reducing earnings quality is not temporary but persists over time.

Furthermore, *supply-side general* show that loosening policy is positive and significant, suggesting that when regulatory conditions are relaxed, banks exhibit earnings persistence.[12] More specifically, the positive and statistically significant relationship between loosening macroprudential policy in period *t-1* and earnings persistence indicate that regulatory easing, which likely involved measures such as reserve requirements, enhances the stability and predictability of earnings in subsequent periods. This finding implies that the impact of the regulatory easing (loosening) unfolded in the period after the policy change occurred, thereby, improving the sustainability and persistence of earnings for banks. Economically, a one standard deviation increases in loosening policies for period *t-1* corresponds to a 3.9% increase in earnings quality, a finding that is consistent with our hypothesis H1b.

Finally, for *demand side-LTV and DSTI*, our results show that macro prudential tightening policy enhances earnings persistence. However, the impact of tightening policy being observed with a lag of two years suggesting that the benefits of tighter regulations only materialized with a delay, perhaps because the adjustments required to comply with stricter regulations take time to manifest in more stable earnings performance. Economically, a one standard deviation increase in the tightening policies for period *t-2* contributes to an 16.3% increase in earnings quality, which is significantly larger than the effects of other policies. As at the cut-cumulative level these effects are statistically significant indicating that the policy effect does not disappear over time. Nevertheless, this result supports our hypothesis H1b. We argue that the tightening of LTV and DSTI may impose regulatory constraints, aligning managerial actions with shareholders' long-term interests by reducing credit risk and ensuring

[12] In this case, even though tightening is not showing an immediate effect, the overall net policy might be negative due to the weight of tighter measures, while loosening has a clear, significant positive effect.

sustainable profitability (Shen and Chih, 2005) resulting in an enhancement of earnings quality, thus, supporting the perspective of agency theory.

<Insert Table 3 here >

4.2.2 Earnings quality: Cashflow predictability

The cash flow predictability test results are summarized in Table 4. Our analysis reveals that current pre-tax earnings are positively correlated with future *EBTLLPL* showing statistical significance at the 1% level.

More importantly, we report that the coefficient on the interaction terms $MP_t^T \times EBT$ is negative and statistically significant at the 1% level, suggesting that lower cash flow predictions based on current earnings with tightening of supply-side capital policy at period *t*. Our result is not only statistically significant but also economically meaningful. For instance, a one standard deviation increase in the interaction between this policy and current pre-tax earnings is associated with a 5.3% decrease in future pre-tax and provision earnings. This finding is consistent with the analysis of Laeven and Levine (2009), who suggest that increases in minimum capital requirements may lead to higher risk-taking, as banks attempt to offset the utility loss resulting from stricter regulations. Despite certain differences, this finding supports our hypothesis H1a. These results are substantiated by a joint test of significance of the sum of the contemporaneous term and two lags' coefficients, which suggests that the cumulative index is significant.

Next, we investigate the results associated with the *supply-side loan* policy. In particular, the tightening of loan-related macroeconomic policies appears to undermine the predictability of banks' cash flows. Economically, a one standard deviation increase in the interaction between this policy at time *t* and current pre-tax earnings is associated with an 8.4% decrease in future pre-tax and provision earnings, as well as a 4.2% and 5.2% decrease, respectively, in cash flow predictability one and two years after. Indeed, under supply-side

regulatory pressure, banks tend to adjust earnings upward to meet capital adequacy targets (Barth et al., 2017). This result is substantiated by a joint test of significance of the sum of the contemporaneous term and two lags' coefficients, which suggests that the cut-cumulative index is significant, suggesting that this policy impact is not short-lived.

In addition, we document that under *supply-side general* policy, that banks tend to increase cashflow predictability in response to the loosening policy with one-year lag indicating that loosening in reserve requirements, taxes and limits on foreign exchange transactions lead to an improvement in cashflow predictability. Economically, a one standard deviation increase in the interaction between this policy at time *t-1* and current pre-tax earnings is associated with a 5.0% increase in cash flow predictability, suggesting that loosening policies could improve earning quality. These results provide further support for our hypothesis H1b. Our finding remains statistically significant when tested for a joint effect, indicating that the policy does have a lasting influence when considering all time periods together.

Turning to the liquidity policy, we find that cashflow predictability decreases in periods *t-1* and *t-2* as the loosening of liquidity policy is implemented. Our finding remains statistically significant when tested for a joint effect. Economically, a one standard deviation increase in these policies during periods *t-1* and *t-2* corresponds to a 33.1% and 23.3% decrease in cash flow predictability, respectively. Although this result is inconsistent with our expectation, it can be explained by the finding that stricter liquidity regulations may reduce agency problems (Fahlenbrach and Stulz, 2011). Therefore, loosening liquidity-related policies could exacerbate the agency problem, thereby damaging earning quality.

Finally, we document that banks tend to decrease their cashflow predictability with the immediate (*t*) implementation of demand-side tightening policy, however, the cashflow predictability increases in time *t-2* with the tightening policy. Economically, a one standard deviation increase in these policies corresponds to a 10.1% decrease in cash flow predictability

at period *t*, but a 6.5% increase in cash flow predictability in period *t-2*. Our findings align with insights from Gonzalez (2022) suggesting that the effects of tightening demand-side policies evolve over time. Specifically, the implementation of loan-based regulations directly increases costs, which may prompt managers to engage in self-serving behaviours to offset declining profit margins, thereby impairing earnings quality in the contemporaneous period (*t*). However, over time, a more stringent regulatory framework may enhance asset quality and reduce loan defaults (Fonseca and Gonzalez, 2008). Consequently, by period *t−2*, firms may benefit from more stable and less volatile profits, as well as lower credit risk, ultimately leading to an improvement in earnings quality. Our result is further confirmed by the joint significance tests.

Overall, we find support for our alternative hypotheses whereby the tightening (loosening) of macroprudential policies is negatively (positively) associated with earnings persistence and cash flow predictability. We argue that bank managers are often incentivised to act opportunistically at the expense of investors by engaging in behaviours that are consistent with agency problems (i.e., excessive risk-taking behaviours, and earnings manipulation). Our findings are therefore consistent with the agency theory.

< Insert Table 4 here >

4.2.3 Earnings management: Meeting or beating prior year's earnings benchmark

Table 5 reports the results for meet or beat earnings benchmark. Regarding *supply-side-capital* policy, we observe a negative coefficient on MP_{t-1}^{T} indicating that banks are unlikely to manipulate their earnings to maintain or exceed their previous year's earnings in the presence of tightening of bank capital. However, we observe the effect in *t-1* period. Economically, a one standard deviation increase in these policies corresponds to a 2.3% decrease in meet-or-beat behaviour at period *t-1*, supporting the finding that stricter capital regulations can mitigate agency problems (Kanagaretnam et al., 2011) and thus, decrease earnings management. Additionally, this association tend to reverse with loosening policy at period *t-2.* Economically,

a one standard deviation increase in these policies corresponds to an 14.9% increase in meet-or-beat behaviour. Contrary to our expectations, this result suggests that loosening policies could intensify earnings management, possibly due to more severe agency problems and reduced transparency in banks. It further highlights the importance of implementing tightening capital regulations to mitigate such issues. Our finding remains statistically significant when tested for a joint effect.

With respect to *supply-side loan policy*, we observe that banks have less tendency to manipulate their earnings to maintain or exceed their previous year's earnings in the presence of loosening and tightening policy at the contemporaneous period. Economically, a one standard deviation increases in tightening supply-side loan policies corresponds to a 2.7% and 1.6% decrease in meet-or-beat behaviour at the *t* and *t-2* periods, respectively. In contrast, a one standard deviation increase in loosening policies corresponds to a 42.3% decrease in meet-or-beat behaviour at the *t* period, indicating that loosening policies have a much stronger influence on reducing earnings management. This result supports our hypothesis H1b.

In relation to *supply side-general* policy, banks tend to manage their earnings, in particular with the tightening policy as we observe this result in both *t-1* and *t-2* period. A one standard deviation increases in tightening supply-side general policies corresponds to a 1.1% and 0.9% increase in meet-or-beat behaviour at the *t-1* and *t-2* periods, respectively consistent with the work of Shen and Chih (2005). In contrast, a one standard deviation increase in loosening policies corresponds to a 3.0% decrease in meet-or-beat behaviour in the *t-1* period (supporting H1b) and a 1.8% increase in the *t-2* period, respectively suggesting that the effects of loosening regulations on LLPs represent a trade-off between signalling effects and information asymmetry. The potential gains from future information may be offset by losses in transparency, which dampen market discipline and increase the opportunity for banks to take less prudent risks (Bushman and Williams (2012).

As for *liquidity*, we find that contemporaneous tightening policy leads to an increase in earnings management. A one standard deviation increases in tightening liquidity policies corresponds to a 4.7% increase in meet-or-beat behaviour at the *t* period.

Finally, demand-side tightening shows a positive coefficient on MP^{T}_{t-2}, supporting our hypothesis H1a. This suggests that banks employ earnings management strategies to smooth earnings or meet regulatory and market expectations following the regulatory change. The significance of this effect in the two-period lag indicates that the impact of regulation on earnings management unfolds over time rather than being purely immediate. Banks may require time to interpret, adapt to, or strategically respond to the new regulations, leading to a delayed but observable increase in earnings management. Economically, a one standard deviation increase in tightening policies corresponds to a 3.8% increase in the meet-or-beat benchmark in the two-period lag. In addition, we observe that loosening demand-side policies in periods *t* and *t-1* exhibit a decrease in earnings management. Economically a one standard deviation increase in loosening policies corresponds to a 26.3%, and 14.4%, decrease in meet-or-beat behaviour at period *t*, and *t-1*, respectively. The result of loosening policies is consistent with our hypothesis H1b, supporting the view that loosening policies reduce earnings management.

< Insert Table 5 here >

4.2.4 Earnings management: Income-increasing abnormal loan loss provision (ALLP)

The results for ALLP are presented in Table 6. The tightening of bank capital increases ALLP, while loosening decreases it. These effects occur in contemporaneous period and consistent with our hypothesis H1a and H1b. Contrary to our expectations, with liquidity tightening policies banks engage in less income increasing earnings management in period *t-1* and *t-2.* However, the result is consistent with Fahlenbrach and Stulz (2011), suggesting that

stricter liquidity standards, mitigate agency problem, limiting managers' ability to manipulate LLPs and reducing earnings management.

Finally, we observe the coefficient of demand-side policies on MP_{t-2}^{T} is positive and statistically significant and aligns with our hypothesis H1a. Hence, under regulatory pressure, banks tend to shift towards less scrutinized measures, potentially intensifying earnings management (Gebhardt and Novotny-Farkas, 2011). Our results are significant under joint test, indicating that the results do not disappear over time.

Overall, we find support for our alternative hypotheses whereby the tightening (loosening) of macroprudential policies is positively (negatively) associated with increased earnings opportunistic management. In particular, we find tightening of macroprudential policies (i.e., *general*, *liquidity*, and *demand*) are associated with an increase in meet-or-beat behaviour whereas loosening of macroprudential policies (i.e., *loan*, *general*, *liquidity*, and *demand*) are associated with a decrease in meet-or-beat behaviour. In terms of ALLPs, we find tightening capital and demand policies are associated with income-increasing ALLPs whereas loosening capital policies effectively curb income-increasing ALLPs. We argue that while macroprudential policies offer effective solutions to reduce information asymmetry and managerial opportunism (i.e., agency issue), banks often attempt to provide various signals to the market and exploit regulatory differences to maintain financial flexibility while navigating constraints. Our findings therefore provide support for theories related to information asymmetry, signalling, regulatory arbitrage, and agency.

<Insert Table 6 here >

4.2.5 Bank-level and country-level control variables

The findings related to bank-level control characteristics are aligned with prior research.[13] For instance, the negative and statistically significant coefficients for bank size indicate that larger banks, with more operational complexity, risk-taking behaviour, and diversified portfolios, often exhibit less predictable earnings (Laeven et al., 2014). Further, higher deposits contribute positively to earnings persistence suggesting that stable deposit bases enhance earnings resilience, reducing reliance on volatile external funding. Further, we document the role of credit growth in supporting earnings quality. Increased lending can enhance profitability when managed within regulatory bounds (Aiyar et al., 2014). The robustness of this result across models supports the argument that prudent loan expansion contributes to earnings quality and stability (Dechow et al., 2010). Further, while inefficient banks are associated with lower earnings quality and higher earnings management, however, banks with higher non-interest income exhibits greater future earnings and earnings management but lower LLP.

5. Endogeneity issue

The endogeneity of macroprudential policy and the complexity of its transmission mechanisms present significant challenges in estimating its impact on bank-level earnings management. Macroprudential measures may be shaped by underlying economic conditions that simultaneously influence banks' reporting behaviour, raising concerns about reverse causality and omitted variable bias. To mitigate these issues, we include key macroeconomic controls (e.g., government deficit and interest rate) to capture broader economic and policy dynamics that may drive macroprudential interventions. In addition, we implement an instrumental variable (IV) strategy using a two-stage least squares (2SLS) approach, complemented by the Lewbel (2012) approach, which generates internal instruments based on

[13] See, for example, Jin, et al. (2018), Kanagaretnam, et al. (2014), Cornett, et al. (2009), Fries and Taci (2005), among others.

heteroskedasticity. Finally, we apply entropy balancing to ensure covariate balance between treatment and control groups. Collectively, these strategies strengthen the identification of a causal relationship between macroprudential policy and earnings management.

5.1 Endogeneity of macroprudential policy and its complex transmission mechanisms

Macroprudential policies are intended to mitigate systemic risk. However, like many policy instruments, they are inherently endogenous, as they are often implemented in response to rising systemic risk. This creates a classic simultaneity problem: elevated systemic risk triggers tighter macroprudential regulation, which is, in turn, aimed at reducing that risk. Nevertheless, the actual transmission mechanism is more complex, involving multiple and sometimes conflicting channels (*see* Figure 1).

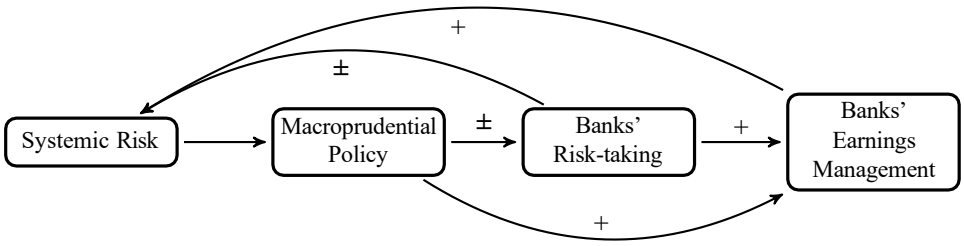

Figure 1: Transmission Channels of Macroprudential Policy

First, while elevated systemic risk typically prompts tighter macroprudential responses, the effect of these policies on bank risk-taking is inherently ambiguous. Although most instruments are designed to curb excessive risk-taking, some may unintentionally encourage it, introducing theoretical indeterminacy into the second link in the causal chain. Even when these policies succeed in reducing individual banks' risk exposure, there is no guarantee that systemic risk will decline. As highlighted by Brunnermeier and Sannikov's (2012, 2016) "Paradox of Prudence," individually prudent actions can collectively result in system-wide fragility.

The complexity deepens when considering earnings management. If macroprudential policies succeed in reducing risk-taking, they may also lower the incentive for banks to engage

in opportunistic earnings management, thereby contributing to systemic stability (Acharya and Ryan, 2016). However, the reverse is also plausible: some policies may directly encourage earnings manipulation, or, if policies fail and risk-taking intensifies, banks may respond by managing earnings more aggressively. In both cases, systemic risk could rise. This conceptual framework illustrates not only the conflicting effects of macroprudential policy on earnings management but also the broader interconnections among regulation, risk-taking behaviour, financial reporting, and systemic vulnerability.

Turning to the empirical implementation, we acknowledge concerns related to endogeneity. Macroprudential policies are not randomly assigned; they are implemented in response to systemic conditions. At the same time, the outcome of interest (i.e., earnings management) can both influence and be influenced by systemic risk. This bidirectional relationship suggests that systemic risk must be accounted for, at least indirectly. While direct measures of systemic risk, such as those proposed by Adrian and Brunnermeier (2016) and Brownlees and Engle (2017), are valuable, their limited cross-country availability leads to considerable sample attrition in international studies. To address this, we broaden our set of macroeconomic controls to better capture systemic conditions. For example, fiscal deficits are known to affect loan loss provisioning (Silva, 2021) and earnings management by shaping expectations around government guarantees and fiscal multipliers (Sargent, 1999).

Although constructing precise monetary policy shocks across a large international sample is not feasible, real interest rates serve as a practical proxy. Monetary policy plays a direct role in shaping banks' incentives and profitability (Bernanke, 2020; Borio et al., 2017; Bernanke and Gertler, 1995). Accordingly, we include both government deficits as a share of GDP and the real interest rate to capture key systemic dynamics that influence bank behaviour.

The results are reported in Table 7. We document that our results are largely robust to our main results for fiscal deficit. Although the inclusion of real interest rate[14] leaves our main result broadly unchanged, however, we find some exceptions. For instance, capital loosening policies have a positive and statistically significant effect on earnings persistence at periods *t* and *t–1*, whereas capital tightening policies show a significant negative impact at *t–2*. For cash flow predictability, loosening policies yield positive, significant effects at *t–1* and *t–2*. Further, earnings management metrics largely align with the baseline regressions; however, under the meet-or-beat benchmark, the effect of capital loosening at *t–2* and loan tightening at *t* becomes insignificant. Regarding ALLP, general loosening policy loosening is negatively and significantly associated at *t* and *t–2*, while liquidity loosening policy has a similar effect at *t*. These divergences are likely due to sample scope limitations rather than a lack of policy impact.[15]

<Insert Table 7 here >

5.2 Endogeneity: Two-stage least square (2SLS)

We re-estimate the model using instrumental variables (IV) to explicitly address potential endogeneity. This approach requires instruments that are correlated with macroprudential regulations but are not directly correlated with earnings management. As an instrumental variable, we use the average strength of macroprudential policies implemented by neighbouring countries. Agénor (2024) argues that international macroprudential policy coordination becomes increasingly relevant in a world where cross-border banking constitutes a significant share of capital flows between countries. This suggests that a country's macroprudential policies may be influenced by those of its neighbouring countries. To

[14] Data on both fiscal deficits and interest rates were obtained from the World Bank database. Due to data limitations related to interest rate risk, the analysis is restricted to a sample of 36 countries.

[15] Our broader sample not only enhances statistical power but also captures greater heterogeneity in regulatory environments and policy transmission mechanisms, thereby offering a more comprehensive and credible validation of the baseline results.

operationalize this concept, we adopt the regional classifications established by the IMF, specifically its regional economic groupings, which consider both geographical proximity and economic linkages. Based on these classifications, we construct the instrumental variable by calculating the average macroprudential policy strength of a country's neighbouring countries.

We generate dummy variables to indicate whether a given country has specific neighbouring countries. If a country is classified as a neighbour, its corresponding dummy variable is set to 1; otherwise, 0. Thus, we generate a variable ranging from 1 to 68 to systematically categorize the neighbouring countries of the sampled countries. Finally, we compute the average macroprudential policy tightening and loosening measures across a country's neighbouring countries, which serves as a proxy for the influence of neighbouring countries' macroprudential policies. Our results remain largely unchanged. The results are reported in Table 8.

<Insert Table 8 here >

5.3 Endogeneity: Two-stage least square (2SLS) - Lewbel (2012) approach

The results of the baseline regression may suffer from potential endogeneity issues. Specifically, bank behaviour such as reserve requirements and monetary policy could influence the implementation of macroprudential policies (Akinci et al., 2018), potentially leading to reverse causality. Additionally, the stage of economic and financial development can impact the choice of macroprudential policies (Cerutti et al., 2017), introducing selection bias that distorts the analysis by creating a sample that may not be representative of the broader banking sector.

There could also be unobservable time-varying factors that are omitted from the model. Although focusing on homogenous firms (i.e., banks) reduces biases in our estimates from such confounding factors, nevertheless, we still address these potential concerns using a standard

two-stage least squares instrumental variables (2SLS-IV) technique.[16] To address such concern, we rely on a Lewbel (2012) heterogeneity-based instrument, which is increasingly used in economics and finance studies (e.g., Broadstock et al., 2018). The technique exploits the heterogeneity in the error term of the first stage regression to generate instruments from within the existing model. We find that our estimates are not subject to under-identification (Anderson canon. corr. LM statistic) and over-identification (Hansen-test) biases[17]. Overall, our main results qualitatively remain unchanged. The results are tabulated in Table 9.

<Insert Table 9 here>

5.4 Propensity score matching - Entropy balancing

To more rigorously examine the impact of macroprudential policies on earnings management we follow the methods outlined by Galati and Moessner (2018). Specifically, we employ entropy balancing which is a robust multivariate matching technique and then re-estimate the model. This approach ensures proper covariate balance between the treated group—banks subject to specific macroprudential policies—and the control group, consisting of banks not exposed to these policies. The entropy balancing process assigns weights to observations such that, after weighting, the means and variances of covariates for the treated and control groups are equal across all matching dimensions.

Using this balanced sample, we re-estimate the baseline regressions. The results are presented in Table 10. Our findings indicate that when compared to the baseline findings, the effects of macroprudential policies on the supply side remain largely consistent. However, the impact of liquidity-related macroprudential policies becomes both economically more

[16] Although exogenous instruments are widely used in instrumental variable regression to account for endogeneity, the difficulty of finding suitable instruments has been well documented (Jiang, 2017).

[17] The IV regression results presented in Table 9 indicate that all first-stage F-values exceed 10 and are significant at the 1% level. The LM test is also significant at the 1% level, leading to the rejection of the null hypothesis of "instrumental variable under-identification." Additionally, the p-value of the Hansen *J*-statistic is not significant, in majority of the cases supporting the validity of the instruments.

significant and statistically more robust in relation to earnings management and earnings quality. Overall, the results obtained through entropy balancing align closely with the baseline findings, reinforcing the validity and robustness of our conclusions in the previous subsection.

<Insert Table 10 here >

6. Cross-sectional heterogeneity

Subsequently, to assess the potential heterogeneity in the effectiveness of macroprudential tools, our empirical model is estimated for subsamples comprising banks and countries that may exhibit common factors. In the next subsections, we investigate the importance of macroprudential policy on earnings management and earnings quality by dividing our sample into bank characteristics including business model, size, listing, economies, and regulatory capital levels.

6.1 Bank business model

It is often argued that macroprudential tools are designed to curtail specific behaviours, their impact will primarily target banks currently exhibiting such behaviours, requiring these institutions to implement corrective measures. Hence, we account for different bank business models and re-run our base model for commercial, bank holding companies, cooperatives, Islamic, and savings banks, separately. It is apparent from our analysis that macroprudential policy impact is not uniform across our sample bank types.

Our findings reveal that capital tightening policies immediately reduce earnings quality for commercial banks, reinforcing our main conclusion that such measures can weaken financial stability. Stricter loan policies consistently undermine earnings quality across various time periods, with commercial banks facing immediate and delayed effects, and cooperatives experiencing declines after two periods. This demonstrates the broader and lasting constraints that tighter credit regulations place on financial resilience, further supporting our main results. Conversely, general macroprudential loosening policies positively affect earnings quality,

particularly in period *t−1* for bank holding companies, cooperatives, and Islamic banks, underpinning our main results that easing restrictions encourage financial stability. However, liquidity loosening policies reduce cash flow predictability for commercial banks and bank-holding companies, especially in the one- and two-period lags, reinforcing our earlier findings. Finally, demand-side tightening enhances long-term earnings quality, particularly in the two-period lag for commercial and savings banks. However, cooperatives experience a decline in earnings persistence, while Islamic banks face reduced cash flow predictability in the current period. These results emphasize our main findings reported in section 4.

We observe some notable exceptions. For instance, cooperatives see an immediate improvement in earnings quality with capital loosening, while Islamic banks and bank holding companies experience a delayed (one-period lag) response. Tighter loan policies increase earning quality in Islamic banks[18] in the current period, while cooperatives and savings observe the same under looser policies across multiple periods. Liquidity tightening reduces earnings persistence in Islamic and savings banks, while liquidity loosening increase cash flow predictability for Cooperatives in periods *t* and *t−2*.

Bank holding companies reduces cash flow predictability with tightening demand-side policies in current period and improves cash flow predictability with loosening policies with two-period lags. However, commercial banks report weakened cash flow predictability with loosening demand-side policies with two-period lags. Taken together, these findings show that banks respond differently to regulatory changes, highlighting the need for tailored policies.

Regarding meet or beat benchmark, our finding suggests that stricter capital regulations reduce the likelihood of banks engaging in earnings manipulation, particularly for cooperatives

[18] Although Quttainah, Song, and Wu (2013) find that some unconventional (Islamic) banks are less likely to manage earnings, however, Zainuldin, Lui and Yii (2018) argue that Islamic banks tend to engage more in earnings management than non-Islamic counterparts because Islamic banks must adhere to Shariah principles.

(*t* and *t-1*) and savings banks (*t-1*). However, loosening capital policy enhances earnings management at period *t-2* for savings banks. These results align with our main findings.

Commercial banks show that loosening of loan policy weakens benchmark beating behaviour in period *t* and *t-1*. This finding is consistent with our earlier findings observed in period *t*. For cooperatives, tightening loan policies reduce earnings manipulation at period *t* consistent with our prior finding, however, we observe loosening policy increases earnings management at period *t-2*. The effect is much complex for savings and bank holding companies, where tightening policies paradoxically increase earnings management at period *t-1*, contrary to our earlier findings.

Similarly, under supply-side general policies, commercial (*t-1 & t-2*) (savings (*t-2*)) banks show a positive association with earnings manipulation, particularly under tightening (loosening) policies. Indeed, supporting our findings that a trade-off between stricter regulation, which may spur earnings manipulation, and more relaxed regulation, which can enhance transparency. We also observe a decline in earnings management at period *t* for cooperatives and savings banks under loosening and tightening policies, respectively.

Besides, commercial and cooperatives tend to show a positive association with tighter liquidity policies, encouraging earnings management at period *t,* consistent with our main findings. Finally, it is evident that demand side policy is mainly driven by commercial banks. For instance, loosening policy tend to decline earning management in period *t*, *t-1* and *t-2*, while tightening policy enhances it at period *t-2*, consistent with our earlier findings.

Under ALLP, a negative association is observed between capital loosening policy and ALLP for commercial and savings banks, suggesting a weaker propensity for earnings manipulation observed at period *t,* consistent with our earlier findings. In contrast bank holding companies show a positive association with ALLP and loosening capital policy over period *t* and *t-1*. Similar evidence is observed for cooperatives at period *t-1*.

Bank holding companies and savings exhibit a positive association with loan tightening policy at period *t* and *t-1,* respectively, reinforcing evidence of increased earnings management. In addition, liquidity tightening decreases income increasing LLP for commercial banks, and cooperative at period *t-2* and *t-1*, respectively. And loosening of liquidity policy tend to reduce earnings management of savings banks in period *t-1*. Finally, bank holding companies and savings banks tend to increase ALLP with demand-side tightening policy at period *t-2* consistent with our prior findings. Yet, commercial banks tend to increase (decrease) ALLP with tightening (loosening) policy at period *t* (*t-1*), while loosening policy helps savings banks to reduce earnings management observed in period *t*. Our results are tabulated in Appendices A3 to A6.

6.2 Large versus small banks

Policymakers must consider the trade-offs between reducing systemic risk and ensuring that macroprudential measures do not disproportionately harm smaller institutions or lead to market distortions. Hence, the differentiated application of macroprudential tools based on bank size and systemic importance can help balance the goals of financial stability and economic growth.

Capital tightening policies lead to a reduction in earnings persistence and cashflow predictability for both large and small banks during period *t.* Loan tightening policy exhibit a decline in cashflow predictability for small and large banks in period *t.* Yet, this result also holds for large and small banks with delayed effects. Liquidity loosening policies show a decrease in cashflow predictability in large banks at period *t-1.* General and demand-side policies predominantly influence small banks. For instance, we observe an increase in earnings quality with delayed effects. These results are largely consistent with our prior findings.

Further, we provide insights that large banks exhibit an increase in earnings persistence with loan loosening policy at period $t-2$, suggesting that easing credit restrictions can stabilize

earnings by allowing banks to expand lending and diversify their revenue streams. We also show liquidity loosening policies results in an increase in earning persistence in small banks at period *t*. This suggests that relaxed liquidity constraints help smaller institutions better manage earnings stability in the short-term, as these banks often face tighter liquidity pressures compared to larger institutions. Finally, small banks document that tightening demand-side policy leads to a decrease in cashflow predictability in period *t*.

We observe that capital tightening reduces meet or beat benchmark behaviour for both small and large banks at period *t-1* with the effect being more pronounced for small banks, and small banks tend to increase meet or beat benchmark with loosening policy observed at period *t-2*. Supply-loans policies generally exert a stabilizing effect on earnings management for large banks under both tightening and loosening policies at period *t.* Further, loosening policy decreases meet or beat benchmark behaviour for both small and large banks at period *t-1.* Tightening of liquidity allows large banks to engage in meet or beat benchmark at period *t.* We find large banks reduce earnings management under demand-side loosening policy in periods *t* and *t−1*, while a tightening policy in period *t−2* increases the likelihood of meeting or exceeding benchmark targets. Overall, these results are in line with our previous analysis.

In contrast, supply-general policies drive similar earnings management trends for both small and large banks, albeit at different timeframes: large banks increase (decrease) earnings management at period *t-1 (t)*, while small banks do so at period *t*. We provide some evidence that small banks tend to decrease earning management with liquidity loosening at period *t-2.*

Conversely, under supply-side capital, ALLP shows a positive association for small banks at both periods *t* and *t-2*, while large banks exhibit a positive association at *t* and a negative association at *t−2*. Moreover, capital tightening policies at period *t−2* increase earnings management for small banks, underscoring their sensitivity to these policies. Large

banks show a positive association with supply-general tightening, highlighting a divergence in how earnings manipulation manifests across policy dimensions.

Liquidity policies reveal contrasting dynamics for small and large banks. For instance, tightening at period *t* increases earnings management for large banks, while loosening at period *t−2* reduces earnings management for large banks. ALLP follows a time-varying pattern for large banks under liquidity tightening: it increases at period *t* but decreases at *t−1*. This indicates that liquidity policies may influence earnings management and LLP in opposing ways over time, particularly for larger institutions.

Demand-side policies primarily impact large banks. Tightening measures increase earnings management and ALLP consistently across periods *t*, *t−1*, and *t−2*. However, loosening policies decrease earnings management at periods *t*, and *t−1*. For smaller banks, the effects of demand-side policies are less pronounced, emphasizing the greater sensitivity of larger banks to these measures. We report our result in Appendices A7 to A10.

6.3 Bank status

Analyzing the status of banks, including distinctions between listed and unlisted, as well as foreign and domestic institutions, is crucial for understanding their earnings management/quality behaviour and banks respond to macroprudential policies. Listed banks, with greater access to capital markets, may face different pressures and opportunities compared to unlisted banks, while foreign banks might be subject to distinct regulatory frameworks than domestic ones.

Our findings reveal that bank capital policies exhibit divergent effects across listed and unlisted banks. Specifically, for unlisted banks, a tightening of capital reduces earnings persistence during both the current period (*t*) and two periods prior (*t-2*). Cashflow predictability reveals similar evidence for unlisted banks at period *t*. Overall, these results are

consistent with prior findings. Conversely, a loosening of capital policy is associated with increased earnings persistence in the *t−2* period for listed banks.

Similarly, loan policies demonstrate nuanced effects on earnings persistence. For unlisted banks, a tightening of loan policies reduces earnings persistence in the *t−1* period. Similarly, unlisted banks exhibit a decline in cashflow predictability in period *t-1* and *t-2* with the loan tightening policy. These are consistent with our prior results. In contrast, listed banks, experience a rise in earnings persistence with loan loosening policy at period *t−1and t-2*.

General policy changes also yield some notable distinctions. Unlisted banks display an increase in earnings persistence and cashflow predictability during the *t−1* period in response to a loosening of general policies, underscoring their sensitivity to broader policy adjustments, consistent with our prior results.

Further, listed banks reveal a decrease in earnings persistence and cashflow predictability when liquidity policies are tightened in the *t−1* period, however, this trend reverses in the *t-2* period, where liquidity tightening leads to an increase in earnings quality. Nonetheless, listed and unlisted banks reveal a decrease in cashflow predictability in period *t-2* and *t-1* with a loosening of liquidity policy, in line with our main results.

Finally, for unlisted banks, tightening demand-side policies reduce earnings persistence and cashflow predictability in the *t* period. Yet, we find an increase in earnings persistence in period *t-2*. A similar pattern emerges for listed banks, with tightening policy increasing persistence in period *t−2*. These results are largely consistent with our main findings.

Nevertheless, while tightening policies often disrupt earnings stability in the short-term for domestic banks, loosening policies tend to have a delayed stabilizing effect. Foreign banks, in contrast, benefit from demand-side tightening measures, which promote earnings persistence over the medium term. More specifically, capital tightening policies are associated with a reduction in earnings persistence and cashflow predictability for domestic banks at period *t,*

indicating that stricter regulatory requirements constrain operational flexibility and destabilize earnings, consistent with our findings. In contrast, for foreign banks, a negative relationship emerges at period *t−1 (t)* under capital loosening (tightening) policies, suggesting that relaxed capital constraints may introduce variability and diminish earnings quality due to increased exposure to international risks and market volatility.

Domestic banks show loan tightening policies to be associated with a decline in earnings persistence at period *t−1*, in confirmation with our main results. However, at period *t−2*, the association becomes positive, indicating that the delayed effects of eased credit restrictions allow banks to stabilize earnings quality (i.e., earnings persistence and cashflow predictability).

Under liquidity loosening policies at period *t−1*, domestic banks demonstrate an increase in earnings persistence. Finally, demand-side tightening policies show a pronounced impact on foreign banks, where an increase (decrease) in earnings persistence (cashflow predictability) is observed at period *t−2 (t),* reflecting our main results.

Our findings on the meet-or-beat benchmark indicate that tightening bank capital policies for unlisted banks reduces earnings management at period *t−1*, however, this effect reverses at the period *t−2*. Loosening of bank capital policies increase earnings management at period *t−2*, with a stronger effect compared to tightening policies among unlisted banks. These outcomes correspond with our primary findings.

Moreover, supply-side loans tightening measures show a negative association with earnings management for unlisted banks at periods *t* and *t−2*, while loosening policies, on the other hand, reduce earnings management for listed banks at the period *t* and for unlisted banks at the period *t−1*. These effects support our primary results.

Supply-side general tightening policies appear to increase the meet-or-beat benchmark for listed banks at the period *t−1*, consistent with our main results. Liquidity tightening policies

increase earnings management for both listed and unlisted banks at period *t*, with a more pronounced effect for listed banks, consistent with our main results. Demand-side macroprudential policies impact listed banks, where tightening measures increase earnings management at periods *t−2,* while loosening policies reduce it at period t and *t−2*, mostly in line with our prior results. For unlisted banks, tightening demand-side policies reduce earnings management at period *t−1*, whereas loosening policies consistently reduce earnings management across periods *t* and *t−1*.

Additionally, domestic banks show a decrease in the meet-or-beat benchmark under loan tightening and loosening policies at period *t*, align with our prior findings. We observe an increase earnings management under general tightening policies at period *t−1,* consistent with prior results, while loosening policy tends to reduce earnings management at period *t* and increase in period *t-2*.

Demand-side tightening policies increase earnings management for domestic banks at period *t−2*, consistent with prior result. Similar result is observed for foreign banks in period *t.* Loosening policies decrease earnings management for foreign banks at period *t-2*.

Regarding ALLP, both listed and unlisted banks exhibit a positive association with bank capital tightening policies at period *t*, consistent with our prior findings. This association, however, turns negative for listed banks at period *t−2*.

Additionally, tightening and loosening of supply-side loan policies are associated with an increase in ALLP for listed banks at periods *t*. For unlisted banks, loosening supply-side policies increase earnings manipulation at period *t−2*.

The impact of liquidity tightening policies is observed in a reduction of earnings manipulation for unlisted banks at period *t−1* and *t-2*. Finally, demand-side loosening policies decrease it at period *t−1*. In contrast, tightening demand-side policies at period *t−2* lead to an increase in earnings manipulation for unlisted banks.

Bank capital tightening and loan loosening policies increase earnings management for domestic banks at period *t−2*, while domestic banks display a decrease in earnings management with general-loosening policies at period *t−1* and liquidity-tightening policies at period *t−2*. Our results are reported in Appendices A11-A14.

6.4 Advanced, emerging, and developing economies

Macroprudential policies in developed economies may target systemic interconnectedness and "*too big to fail*" institutions, while in developing and emerging economies, these policies may target sector-specific risks - real estate. Emerging economies often use counter-cyclical macroprudential measures, like reserve requirements, to dampen volatility, while developed economies use advanced tools to manage economic cycle. Thus, the association between earnings management and macroprudential policies may vary among developed, developing, and emerging economies due to differences in financial systems, vulnerabilities, and economic priorities. Accordingly, we divide our sample into advanced, emerging, and developing economies. We report our results in Appendices A15-A18.

Capital tightening lowers earnings persistence in advanced economies but strengthens it in developing ones. Loan tightening reduces persistence in advanced economies, while loosening enhances it. Emerging economies face weaker earnings persistence and cash flow predictability under tighter loan and capital policies, whereas developing economies thrive with loosening. General loosening boosts earnings persistence in developing economies and cash flow predictability in emerging ones. Liquidity loosening and demand-side tightening diminish cash flow predictability across all economies. These findings strongly reinforce our main results.

In advanced economies, liquidity loosening reduces earnings persistence, while tightening lowers it in both advanced and developing economies. Tightening bank capital decreases cash flow predictability, whereas loosening has mixed effects. Loan loosening

reduces cash flow predictability in emerging economies, while developing economies experience declines under both general tightening and loosening. However, tightening improves predictability in developing economies. Liquidity tightening and loosening boost cash flow predictability in developing economies, while emerging economies see increases with demand-side tightening but declines with loosening. These findings underscore the complex impact of monetary policies on financial stability.

Regarding earnings management, bank capital-tightening negatively impact the ability to meet or beat benchmarks in advanced and developing economies. Developing economies show tightening capital increases ALLP. Further, in advanced and developing economies, loan tightening policies negatively impact benchmarks. Liquidity tightening increases meet or beat benchmark in advanced and emerging economies while in developing economies, it reduces earnings management. These results are largely consistent with our main results.

6.5 Capital <7%, 7%<Capital<10%, and Capital >10%

We categorize banks into three groups based on their regulatory capital levels: less than 7%, between 7% and 10%, and greater than 10% (Bushman and Williams, 2012). Banks with capital levels below 7% may face significant incentives to engage in earnings management, however, regulatory scrutiny at such low levels of capitalization could constrain these activities. In the 7–10% capital range, earnings management practices may still be prevalent, though likely to a lesser extent, as these banks are less likely to attract intense regulatory oversight. Consequently, the influence of loan provisioning practices on earnings management is expected to be more pronounced for banks with capital below 10%, relative to their better-capitalized peers. This underscores the importance of macroprudential policies in ensuring robust provisioning practices among lower-capitalized banks to safeguard financial stability.

Moreover, even well-capitalized banks can contribute to systemic risks through mechanisms such as excessive credit expansion, interconnectedness with other financial

institutions, and asset bubbles. Macroprudential policies targeting these institutions may focus on countercyclical capital buffers, limits on leverage, and enhanced transparency to ensure that their practices are consistent with broader financial stability objectives. In this context, macroprudential policy is not only concerned with vulnerabilities in undercapitalized banks but also with pre-empting systemic risks posed by highly capitalized banks.

Systemic expected shortfall (SES) quantifies the expected capital shortfall of financial institutions during periods of systemic stress, serving as a key indicator of systemic risk contribution. While SES is model-driven, stratifying institutions by capital adequacy (e.g., Capital < 7%, 7% < Capital < 10%, and Capital > 10%) enhances its analytical value. These categories do not represent SES values themselves but provide a meaningful framework for interpreting SES across varying levels of financial resilience. Empirical patterns often show that institutions with lower capital ratios exhibit higher SES, indicating greater vulnerability during crises. Reporting SES by capital bands enables clearer identification of systemic risk concentrations and supports more targeted supervisory and macroprudential interventions. This approach enhances transparency, prioritizes regulatory attention, and strengthens the systemic risk assessment framework. We report our results in Appendices A19-A22.

For well-capitalized banks (i.e., Capital > 10%), capital tightening policies are associated with a reduction in earnings quality, as measured by persistence and predictability, during the current period (*t*). Loan tightening policies negatively affect earnings quality across periods *t*, *t−1*, and *t−2*, while demand-side tightening increases earnings persistence in *t−2*. General loosening improves earnings quality in *t-1*, whereas liquidity loosening reduces cash flow predictability in both *t-1* and *t-2*. Demand-side tightening increases earnings quality in *t-2* but reduces cash flow predictability in *t.* These findings indicate that our main results are largely driven by well-capitalized banks.

Moderately capitalized banks exhibit mixed responses to loan tightening. Specifically, loan tightening reduces earnings persistence in *t−1* but increases it in *t−2*. Cash flow predictability improves in *t* but declines in *t−1* under the same policy. General tightening enhances earnings quality in *t.* Liquidity tightening boosts earnings quality in *t* but reduces it in *t-1*. Demand-side loosening improves earnings quality in *t*, with some exceptions. For example, it also improves cashflow predictability in *t-2*. Further, demand-side tightening enhances cash flow predictability in *t*. Thus, moderately capitalized banks offer differentiated insights into how macroprudential policy affects earnings quality, somewhat diverging from our baseline results.

Under-capitalized banks demonstrate further contrasts. Loan loosening enhances earnings persistence but decreases predictability in *t−1*. Loan tightening reduces cash flow predictability in *t−1* but improves it in *t−2*. General and liquidity loosening tend to reduce both earnings persistence and cashflow predictability in *t-2*. Demand-side tightening increases earning persistence in both *t* and *t-2*. While demand-side policies (i.e., tightening and loosening) reduce cash flow predictability in *t-1*, tightening increases it in *t-2.* These findings suggest that under-capitalized banks provide additional insights into the relationship between macroprudential policy and earnings quality.

The ability of banks to meet or beat benchmarks and manage ALLPs shows both commonalities and differences across capital adequacy categories. Well-capitalized banks respond differently. Loosening enhances their ability to meet benchmarks and reduces ALLP stress, whereas tightening exacerbates ALLP provisioning demands and adversely affects lending and overall performance, revealing their vulnerability to restrictive measures. Moderately capitalized banks consistently benefit from both tightening and loosening policies in meeting benchmarks and reducing ALLP stress. Tightening improves their lending and general metrics, while loosening bolsters resilience and lowers provisioning demands,

contributing positively to financial stability. Conversely, under-capitalized banks yield mixed outcomes. While tightening can reduce capital stress and ALLPs, supporting risk management, their ability to meet benchmarks remains inconsistent, highlighting their greater sensitivity to policy shifts.

Although we do not find strong evidence linking liquidity policies and meet or beat benchmarks, our analysis reveals important associations between liquidity policies and ALLPs. Notably, liquidity tightening is positively associated with ALLPs for under-capitalized banks but negatively associated for well-capitalized banks in *t−1*, suggesting that the impact of liquidity policies varies with capitalization levels.

Furthermore, demand-side tightening influences benchmark performance and LLPs with a lag for well-capitalized banks—effects typically emerging two periods after implementation, in line with our main findings. For moderately capitalized banks, demand-side tightening increases ALLPs in t but reduces them in *t−2*, highlighting the temporal dynamics of LLP responses. This reinforces the importance of considering lagged effects when assessing macroprudential policy effectiveness. Loosening policies show a more complex, time-varying relationship with LLPs. We observe negative associations in *t−1* and *t−2*—indicating reduced provisioning requirements likely due to improved credit conditions—while a contemporaneous positive association stands in contrast to these findings.

7. Robustness tests

7.1 LLP smoothing and Forward-NPL (Bushman and Williams, 2012)

To investigate the impact of macroprudential policies on discretionary provisions, this paper adopts the framework of Bushman and Williams (2012) to estimate policies' effects on forward-looking non-performing loans (NPL) and LLP smoothing behaviours, as described below:

$$LLP_{i,jt} = \alpha_0 + \alpha_{1,2,3}\sum_{k=t-2}^{k=t}(EBTLLP_{i,jt} \times MP_k^T) + \alpha_{4,5,6}\sum_{k=t-2}^{k=t}(EBTLLP_{i,jt} \times MP_k^L) +$$

$$\beta_{1,2,3}\sum_{k=t-2}^{k=t}(\Delta NLP_{i,jt+1} \times MP_k^T) + \beta_{4,5,6}\sum_{k=t-2}^{k=t}(\Delta NLP_{i,jt+1} \times MP_k^L) + \alpha_7 EBTLLP_{i,jt} +$$

$$\alpha_8\Delta NPL_{i,jt+1} + \alpha_9 CAP_{i,jt-1} + \alpha_{10}Size_{i,jt-1} + \alpha_{11}\Delta GDP_{i,jt} + \varepsilon_{i,jt} \quad \textbf{(eq. 5)}$$

The variable $\text{LLP}_{i,j,t}$ represents the loan loss provision scaled by lagged total loans for bank *i* in country *j* during year *t*. $EBTLLP_{i,j,t}$denotes earnings before taxes and LLPs for period *t*, scaled by lagged total loans that is a positive coefficient representing earning smoothing behaviour. Banks record loss provisions based solely on the level of earnings without reference to information about the loan portfolio. Thus, banks record large provisions because earnings are high and low provisions because earnings are low (Bushman and Williams, 2012).

MP_k^T and MP_k^L separately reflect the tightening and loosening macroprudential policies implemented in country *j* during the year *t, t-1* and *t-2*. $\Delta NPL_{i,j,t+1}$ is the change in non-performing loans over period *t+1*, scaled by lagged total assets. Additional, control variables include equity capital to total assets ($CAP_{i,j,t-1}$) at the beginning of the period, the natural logarithm of total assets ($Size_{i,j,t-1}$), and the percentage change in GDP per capita ($\Delta GDP_{i,j,t}$) to capture macroeconomic trends influencing the overall economy.

The effects of macroprudential policies on forward-looking discretion in loan provisioning are reflected in the coefficients $\alpha_{1-6}$and β_{1-6}. Specifically, $\alpha_{1,2,3}$measures the impact of tightening macroprudential policies on smoothing behaviour, while $\alpha_{4,5,6}$captures the impact of loosening macroprudential policies on smoothing behaviours. $\beta_{1,2,3}$. measures the impact of tightening macroprudential policies on forward-NPL, while $\beta_{4,5,6}$. captures the impact of loosening macroprudential policies on forward-NPL. Our results are reported in Appendix A23.

We document that $EBTLLP_{i,j,t}$ is generally positive across our macroprudential policies. While macroprudential policies influence loan loss provision smoothing, we find no significant evidence for forward-looking NPL. For instance, with loan and liquidity tightening policies,

banks engage in earnings smoothing, as observed in period *t-1*. However, tightening policies weaken earnings smoothing behaviour—specifically for liquidity in period *t* and for the demand side in both periods *t* and *t-1*. Conversely, the loosening of loan and demand-side policies tends to reduce earnings smoothing and is observed immediately. However, we find that the loosening of general and demand-side policies enhances earnings smoothing, which becomes evident in period *t-2*.

Macroprudential policies may prompt more self-serving managerial behaviours as bank managers attempt to mitigate the impact of shrinking profit margins. These behaviours, which often have delayed effects, ultimately compromise the earnings quality of the affected banks. Moreover, consistent with the findings of Nichols et al. (2009) and Beatty and Liao (2011), these managerial actions elevate the potential risks associated with bank loans. As a result, both managers and shareholders may adopt increasingly pessimistic expectations about the future performance of loan portfolios, further influencing provisioning decisions in the current period.

7.2 Income smoothing by managing LLPs (Fonseca and González, 2008)

While estimating ALLPs is a widely used empirical strategy, it is accompanied by several important theoretical limitations. First, the use of residuals from a first-stage regression as explanatory variables in a second-stage model introduces the risk of generated regressor bias, which can undermine the validity and reliability of the resulting estimates (Chen et al., 2023). Second, interpreting these residuals as *"abnormal"* or indicative of earnings management assumes that the first-stage model fully captures all economically justified determinants of provisioning. This assumption is particularly problematic in the context of macroprudential regulation.

Some macroprudential policies are explicitly designed to increase provisioning levels as a means of enhancing banks' resilience to future credit losses (Akinci and Olmstead-Rumsey, 2018). In such cases, elevated provisions may not reflect discretionary or opportunistic

behaviour, but rather the intended outcome of sound regulatory intervention. Overlooking this nuance risks conflating prudent policy-induced provisioning with earnings management. This distinction is critical, especially given historical evidence that under-provisioning has been a major contributor to systemic fragility in past financial crises (Laeven and Majnoni, 2003).

To address these concerns, we follow the methodology of Fonseca and González (2008)[19] and directly model LLPs as a function of *EBTLLP*, along with a comprehensive set of bank-specific and macroeconomic variables. To capture potential regulatory influences on discretionary provisioning, we include interaction terms between *EBTLLP* and macroprudential policy indicators. This allows us to assess whether changes in macroprudential policy alter earnings management behaviour through their impact on provisioning decisions. Our empirical model is specified as follows:

$$\frac{LLP_{i,j,t}}{A_{i,j,t-1}} = \beta_0 + \beta_1\left(\frac{LLP_{i,j,t-1}}{A_{i,j,t-2}}\right) + \beta_2\left(\frac{LLP_{i,j,t-2}}{A_{i,j,t-3}}\right) + \beta_3\frac{EBTLLP_{i,j,t}}{A_{i,j,t-1}} + \beta_4\frac{CLOANS_{i,j,t}}{A_{i,j,t-1}} +$$

$$\beta_5\frac{LLA_{i,j,t-1}}{A_{i,j,t-1}} + \beta_6\frac{TIER\,1_{i,j,t}}{RWA_{i,j,t}} + \alpha_{1,2,3}\sum_{k=t-2}^{k=t}(EBTLLP_{i,j,t} \times MP_k^T) + \alpha_{4,5,6}\sum_{k=t-2}^{k=t}(EBTLLP_{i,j,t} \times$$

$$MP_k^L) + \beta_7\,GDPGR + \beta_8\sum_{j=1}^{68} Country_j + \beta_9\sum_{t=1996}^{2019} Year_t + + \mu_i + \varepsilon_{it} \qquad \textbf{(eq. 6)}$$

$LLP_{i,j,t}$ denotes the loan loss provisions of bank *i*, country *j,* year *t*. To account for persistence in provisioning behaviour, we include both the first and second lags of LLP, capturing potential changes in the speed of adjustment beyond the initial year. We expect both coefficients, β_1 and β_2 to be positive, reflecting continuity in provisioning practices over time. $EBTLLP_{i,j,t}$ represents earnings smoothing; a higher coefficient indicates higher income smoothing. $CLOANS_{i,j,t}$ represents the change in total loans, while $LLA_{i,j,t-1}$ represents the total

[19] In addition, following Fonseca and González (2008), we adopt the generalized method of moments (GMM) estimators for dynamic panel data models, as developed by Arellano and Bond (1991). This approach addresses three key econometric issues: (i) unobserved bank-specific effects, eliminated through first-differencing; (ii) the autoregressive nature of LLP, modelled with lagged dependent variables; and (iii) endogeneity of explanatory variables, controlled for using instruments based on lagged values.

allowance for loan losses. Both variables capture the non-discretionary components of LLP, as they are directly related to bank default risk. Finally, $TIER1_{i,j,t}$ represents capital management scaled by risk-weighted assets (RWA).

Our key variables of interest are $EBTLLP_{i,j,t} \times MP_k^T$ and $EBTLLP_{i,j,t} \times MP_k^L$. These interaction terms capture how changes in macroprudential policies (i.e., tightening and loosening) affect banks' earnings management via the discretionary reporting of provisions. We hypothesize that stronger macroprudential policy frameworks reduce managers' incentives to smooth earnings. Specifically, tightening measures may enhance the stability and transparency of banks, thereby, lowering the perceived need to manipulate earnings in response to regulatory or market scrutiny . In contrast, loosening measures may offer banks greater flexibility and discretion, which could increase the likelihood of earnings manipulation aimed at shaping risk perceptions or meeting performance thresholds.

Our empirical findings provide robust evidence of income smoothing behaviour as reflected by the consistently positive and statistically significant coefficient on *EBTLLP* across all model specifications. Furthermore, the positive and statistically significant coefficients on the two lagged dependent variables reinforce the appropriateness of a dynamic framework for modelling bank loan loss provisioning.

We also find that bank capital tightening policies have a time-dependent effect on earnings smoothing. While a positive relationship is observed contemporaneously—suggesting that banks initially respond to capital pressure by smoothing earnings—a negative effect emerges with a two-period lag. This pattern indicates that, over time, banks may adapt to the regulatory environment, shifting toward more transparent and sustainable financial reporting practices. This finding is in line with the argument that macroprudential discipline, once internalized, encourages banks to adopt more prudent behaviour (Bushman and Williams, 2012).

Loan and liquidity loosening policies are associated with reduced income smoothing, with significant effects materializing after a two-period lag. Similarly, demand-side loosening leads to a decline in earnings management, with effects appearing within a single period. These outcomes suggest that a more accommodative credit environment—characterized by relaxed lending standards and liquidity buffers—reduces perceived risk and the incentive for banks to engage in defensive earnings management through provisioning (Bikker and Metzemakers, 2005; Laeven and Majnoni, 2003). When dynamic provisioning frameworks are relaxed, banks experience less pressure to use LLPs as a signalling mechanism for prudence (Bushman and Williams, 2012). Additionally, loosening liquidity requirements ease short-term funding pressures, allowing banks greater operational flexibility and further decreasing the motivation to smooth earnings (Repullo and Saurina, 2011). Collectively, these results highlight how the easing of regulatory and financial constraints diminishes incentives for income smoothing.

Finally, we assess the validity of our instrumental variables using the *Hansen J-statistic* for over-identifying restrictions, which confirms that the instruments are not correlated with the error term. As expected, we detect first-order serial correlation (AR1) due to the differencing process. However, tests for second-order serial correlation in the first-differenced residuals (AR2) are consistently rejected across all model specifications. The results are presented in Appendix A24.

7.3 Loan charge-offs

We build on the work of Kanagaretnam et al. (2014) and measure future charge-offs as a measure of earnings management by applying the following model:

$$CHGOFF_{i,j,t+1} = \alpha_0 + \beta_1 LLP_{i,j,t} + \beta_2 MP^T_{j,t} + \beta_3 MP^L_{j,t} + \beta_4 MP^T_{j,t-1} + \beta_5 MP^L_{j,t-1} + \beta_6 MP^T_{j,t-2} + \beta_7 MP^L_{j,t-2} +$$
$$\beta_8 \sum_{k=t-2}^{k=t} LLP_{i,j,t} \times MP^T_{j,k} + \beta_9 \sum_{k=t-2}^{k=t} LLP_{i,j,t} \times MP^L_{j,k} \quad + \gamma_1 \sum BANK - LEVEL\ CONTROL_{i,j,t} +$$
$$\gamma_2 \sum_{j=1}^{68} COUNTRY - LEVEL\ CONTROL_{j,t} + \gamma_3 \sum MACRO_{j,t} + \tau_t + \mu_i + \varepsilon_{i,j,t} \qquad \textbf{(eq. 7)}$$

where $\text{CHGOFF}_{i,j,t+1}$ is the loan charge-offs by the bank during year $t + 1$, scaled by total assets at the beginning of the year; $LLP_{i,j,t}$ is loan loss provisions during year t, scaled by total assets at the beginning of year t; and all other variables are as previously defined.[20] k represents time period t, t-*1* and t-*2*. MP^{T} and MP^{L} represents supply and demand-side tightening and loosening macroprudential policies, respectively.

Our results are reported in Appendix A25. The findings are statistically significant when tested for a joint effect. Of interest is the coefficient on the interaction variable $LLP_{i,j,t} \times MP_{j,t}^{T}$. A positive sign is consistent with the argument that supply-side bank capital policy strengthens the validity of the LLPs in predicting next period's loan charge-offs. More importantly, we find that the coefficient is positive and significant at the 1% level for tightening policy at contemporaneous period. This evidence strongly supports our prediction that tightening policies increase the likelihood that current LLPs made by banks will cover loan charge-offs in the distant future.

Further, under liquidity macroprudential policy, our results show that a tightening policy surges the likelihood that current LLPs made by banks will cover loan charge-offs in the near future. This result is observed at the contemporaneous period. Yet, loosening policy also enhances the probability that *LLP* will be sufficient to cover future charge-offs, however, at period t-*2*.

7.4 Macroprudential policies: SIFI and Other

In this section, we report the results of our final two macro-prudential policies: "SIFI" and "Other".[21] Our results are reported in Appendix A26. Our findings indicate that the observed negative effect of "SIFI" on earnings quality, manifested as reduced earnings persistence at contemporaneous period, as well as its diminished impact on the likelihood of

[20] Although not tabulated, we redo our analysis using gross charge-offs and our results remain unchanged.
[21] "SIFI" represent measures taken to mitigate risks includes capital and liquidity surcharges. "Other" incorporates macroprudential measures such as stress testing, restrictions on profit distribution, and structural measures (e.g., limits on exposures between financial institutions).

meeting or exceeding benchmarks and ALLP in periods *t−1* and *t−2*, respectively. This is particularly pronounced during periods of policy tightening. Hence, these regulatory measures, designed to address risks associated with globally and domestically systemically important financial institutions, appear to adversely affect earnings quality while favourably influence earning management.

Although "other" macroprudential measure provides similar results as discussed under "SIFI", however, we find some variations for earning management. For instance, the negative coefficient on macroprudential-other loosening policy diminishes (increases) bank's earnings management activity such as the meet or beat benchmark (ALLP) at the contemporaneous period (at both *t* and *t-1*). Furthermore, "other" tightening policies lead to a reduction in ALLP during periods *t-1* and *t−2*.

7.5 Hierarchical linear model (HLM)

To separate the within country and cross-country effects of macroprudential policy on earnings outcome, we employ the following HLM specification (*see* Greene, 2011). Given that our data structure is multi-level, we estimate the HLM using the iterative maximum likelihood fitting procedure. The decomposition allows us to explore the potentially different associations between macroprudential policies and earnings quality/management both within a country and across countries. (Griffin, Li and Xu, 2021; Li, Griffin, Yue, and Zhao, 2013). This framework adjusts for the biases introduced by varying sample sizes across countries and for the distortion in standard errors due to within-country clustering. Our results are reported in Appendix A27.

Our results document that both at bank and country-level capital tightening (loosening) policy decreases (increases) earnings persistence at period *t*. Loan tightening policy decreases earnings persistence in period t for both bank and country level analysis. We also observe this finding in *t-1* and *t-2* period for both bank and country level analysis. Similarly, both loosening and tightening general policy decreases earnings persistence at period *t* at bank and country

level. Although this result holds in period *t-1* and *t-2* for tightening policy, however, earnings persistence increases with loosening policy in period *t-1* and *t-2* for both bank and country level analysis. Liquidity tightening policy increases (decreases) earning persistence in period *t* (*t-2*). Demand side tightening policy tends to increase earnings persistence in period *t-1* and *t-2* for both country and bank-level analysis.

At bank and country level, capital tightening policy decreases cashflow predictability at period *t* and *t-2*. However, capital loosening policy shows an increase in cashflow predictability at period *t-1* and *t-2*. We observe both at bank and country-levels, loan tightening policy decreases cashflow predictability at period *t, t-1* and *t-2* period. Similar evidence is observed for loosening policy in period *t* and *t-2*. Further, bank and country-levels result represent that both tightening and loosening of general policies reduce cashflow predictability at period *t* and *t-1*, however, loosening policy increases cashflow predictability at period *t-1*. Liquidity loosening policy tend to decrease cashflow predictability at period *t-1* and *t-2*. At bank-level, we find decreases in cashflow predictability at period *t* for demand-side tightening and loosening policies, however, it becomes positive in period *t-2* for the tightening policy. At country-level, we find a decrease at period *t* and an increase in period *t-2* for demand side tightening policy.

With regard to earnings management, net macro prudential policy at period *t (t-1)* is positive (negative) and statistically significant at bank-level and country-level, respectively. Mainly these results are representing the tightening policy. Further, under loans net macro prudential policy at *t-1* (*t*) period positive (negative) and statistically significant at bank and country levels, respectively. In both cases driven by tightening policy during the specified period. However, we also observe some variations such as the loosening policy at time period *t* exhibits a negative association with meet or beat benchmark at both bank and country-levels. However, the result evaporates for bank-level but remains marginally significant at *t-1* period

for country-level. Regarding general-supply-side macro prudential policy measure, both bank- and country levels net macro prudential policy is positive and statistically significant. These results are mainly driven by loosening policy in period *t-2*. Further, at bank-level, tightening policy leads to a negative association with meet or beat benchmark at period *t*. Similar evidence is observed at period *t* and *t-1* for loosening policy across both bank and country level. Further, at country level tightening policy is positive with meet or beat benchmark at period *t-1*. Both bank-and country levels net macro prudential policy at *t* period positive and statistically significant. These results are mainly driven by liquidity tightening policy. Similar evidence is observed for bank-level at period *t-1*. Finally, at bank-level, net macro prudential policy is positive and statistically significant for period *t, t-1, t-2.* At country-level, net macro prudential policy is positive and statistically significant for period *t-2*. Mainly driven by demand-side tightening policy in period *t-2*. We also observe demand-side loosening policy reduces meet or beat benchmark at period *t, t-1 and t-2.*

With regard to ALLP, at country-level, net macroprudential policy is positive and significant at *t* period. Mainly the result is representing the capital tightening policy. Further, at bank and country-levels, loosening policy tend to reduce ALLP at period *t*, while at bank-level we observe negative association with ALLP and loosening and tightening policies at period *t* and *t-1* period, respectively.

At bank-level, loans tightening macroprudential policy is positive and significant at *t-2* period. At bank and country levels, the negative association at period *t-1* and *t-2* is mainly driven by liquidity tightening policy. Finally, both bank and country levels represent positive and significant at period *t-2,* driven by demand side tightening policy. Although at bank-level we observe a negative association with ALLP and tightening policy at period *t*. Further, some variations such as at bank level loosening policy reduces the ALLP at *t-1* and *t-2* period.

7.6 Crisis effect

We provide evidence on association between macroprudential policy and earnings quality/management during financial/banking crisis spanning our sample period. We extract crisis period data from World Bank database[22] for our sample countries. The results are reported in Appendix A28.

Our results demonstrate that tightening bank capital policies during crises significantly reduce earnings persistence, indicating that stricter capital requirements disrupt banks' ability to maintain stable and predictable earnings patterns. During non-crisis periods, capital tightening has a similar effect, reducing earnings persistence but with a smaller magnitude compared to crisis periods. In addition, loosening policies at period *t-1* decrease earnings persistence, suggesting a delayed regulatory effect that discourages stable earnings quality practices.

Loosening loan policies during crises significantly reduce earnings persistence, implying that increased credit availability discourages banks to manage earnings. Loosening policies from two periods prior increase earnings persistence, suggesting that delayed effects of lenient policies encourage a stable yet managed earnings pattern. During non-crisis period, tightening loan policies from the prior period reduce earnings persistence, also tightening policies from two periods prior disrupt earnings persistence, reflecting sustained regulatory impacts.

While tightening of general policies during crisis period and from two periods prior increase earnings persistence, indicating that regulatory constraints can lead to managed and stable earnings outcomes, even with a delay, however, tightening general policies reduce

[22] A banking crisis is defined as systemic if two conditions are met: (i) significant signs of financial distress in the banking system (as indicated by significant bank runs, losses in the banking system, and/or bank liquidations), (ii) significant banking policy intervention measures in response to significant losses in the banking system. The first year that both criteria are met is considered as the year when the crisis start becoming systemic. The end of a crisis is defined the year before both real GDP growth and real credit growth are positive for at least two consecutive years (Laeven and Valencia, 2018).

earnings persistence contemporaneously, suggesting that stricter regulations directly discourage earnings stability in non-crisis periods. Loosening policies from the prior period increase earnings persistence, reflecting delayed effects that promote managed stability in earnings during non-crisis period.

The impact of liquidity and demand-side policies varies, with tightening encouraging (discouraging) earnings persistence during crises (non-crisis period). For instance, tightening liquidity policies increase earnings persistence, suggesting that constraints on liquidity may push banks to manage their earnings more predictably during crisis period. Further, tightening demand-side policies from two periods prior increase earnings persistence in both crisis and non-crisis periods, highlighting that stricter demand constraints encourage stable, managed earnings over time.

Furthermore, our results reveal that macroprudential policies have significant implications for cashflow predictability, with contrasting effects depending on the type of policy and time horizon. For instance, tightening capital policies significantly reduce cashflow predictability, indicating that stricter capital requirements create uncertainty in cashflows by constraining banks' operational flexibility in both volatile and non-crisis period. However, this effect is smaller in non-crisis period, suggesting consistent but less pronounced disruptions in cashflow stability.

Tightening liquidity policies significantly increase cashflow predictability during crises, as banks may adopt more disciplined cash management practices to cope with reduced liquidity, thereby stabilizing cashflows. Tightening demand-side policies in non-crisis period reduce cashflow predictability, indicating that higher constraints on borrower demand result in less stable cash inflows for banks. Tightening policies from two periods prior increase cashflow predictability, highlighting a delayed regulatory effect where stricter demand-side measures steady cashflow patterns over time.

In contrast, loosening loan policies during crises significantly reduce cashflow predictability, possibly due to increased lending risks and higher variability in cash inflows, as banks respond to relaxed credit restrictions by extending loans to riskier borrowers. Loosening general policies from the prior period increase cashflow predictability, reflecting that relaxed regulations allow banks greater flexibility to manage cash flows effectively, leading to improved stability during non-crisis period. Interestingly, loosening liquidity policies from two periods prior decrease cashflow predictability, suggesting a delayed destabilizing effect where relaxed liquidity constraints do not allow banks to better align cashflows over time.

With regard earnings management measures, our results suggest that tightening of monetary policy in terms of bank capital in *t-1* (non-crisis) period, substantially reduces the likelihood of meeting or beating the benchmark. Similar evidence is observed for loans, however, with further lag of *t-2* period. Conversely, under general macroprudential policy we provide mixed evidence. In non-crisis period, while the effect of tightening policy exhibits a positive association with meet or beat benchmark at period *t-1*, the loosening policy reflects a negative effect on the earnings management measure at the same period. It is also observable that the tightening policy further enhances the earnings management measure in period *t-2.* On the demand side, during crisis periods, our results indicate a highly significant negative impact in period *t-1*, suggesting a substantial reduction in the probability of meeting or beating the benchmark due to historical tightening of demand-side policy.

With regard to ALLP, during crisis period, our results suggest that loosening of bank capital policy increases ALLP, yet it decreases at *t-1* period. Further, non-crisis period provides some mixed evidence such as tightening of bank capital increases earnings management at period *t* and continues at period *t-2*, however, loosening policy seems to decrease earnings management at period *t*. As for general loosening policy during crisis period, we find a decrease

in earnings management at period *t-1* and *t-2*. Finally, loosening of liquidity tends to decrease earning management at period *t-2* and in non-crisis period.

7.7 Evidence on U.S. banks

We re-run all our regression models by including U.S. banks in our sample,[23] and we summarize our findings as follows. First, with regard to supply side -capital and loan policies our results remain largely unchanged, with the exception that loosening of these policies decreases earnings quality immediately. Second, general, liquidity and demand side policies not only affect USA banks differently compared to their counterparts but also varies between earnings quality metrics such as persistence and cashflow predictability. For instance, while tightening of general policies reduces persistence over *t*, *t-1*, and *t-2*, it increases cashflow predictability in *t-1*. However, loosening of this policy appears to decrease cashflow predictability in t. Liquidity tightening immediately reduces persistence and predictability but appears to enhance earnings persistence in *t-1*. And, demand side loosening policies decreases persistence and predictability in period *t-1*, *t-2*, respectively. These findings highlight the nuanced and time-sensitive effects of policy adjustments on U.S. banks' earnings quality.

Third, capital, loan, general, and demand-side policies exhibit similar patterns. For example, tightening these policies immediately reduce banks' benchmark-beating behaviour. However, such tightening enhances earnings management behaviour in periods *t-1* and *t-2*, particularly for capital and demand-side policies, while loan policies tend to weaken earnings management in period *t-2*. Fourth, the disciplining role of liquidity tightening tend to show some delayed effect (two-period lag) while we observe an increase in earnings management in period *t*, consistent with earlier findings. Nevertheless, while capital loosening polices tend to increase benchmark beating behaviour, the other policies generally reduce earnings

[23] Considering only U.S. sample in our analysis cannot provide meaningful results due to the time invariant macro-level variables included in our analysis, which gives rise to multicollinearity problem when a single country is evaluated.

management behaviour. Finally, capital tightening policy decreases ALLP with lagged effect, while loan tightening policy has an immediate effect. Furthermore, the loosening of liquidity and demand policies reduces ALLP in period t and in periods *t-1* and *t-2*, respectively. In contrast, tightening the demand policy increases ALLP, highlighting the distinctive behaviour of U.S. banks. Our results are reported in Appendix A29.

7.8 Regression with two-way clustering

We follow the work of Faccio and Xu (2015) and conduct a two-way clustering of standard errors at the bank-level and at the country-level. The results are largely consistent with those reported in our main analysis. Our results are reported in Appendix A30. Our results show that capital tightening policy decreases earnings quality in period *t*. Loans tightening policy decreases earnings quality over period *t*, *t-1* and *t-2* period. Demand-side tightening policy increases earnings quality in period *t-2*. Finally, liquidity loosening policy decreases cashflow predictability in period *t-2*.

Furthermore, meet or beat benchmark indicates that while capital tightening policy decreases earnings management at period *t-1*, however, loan tightening and loosening policy decreases earnings management at period *t*. Although marginally significant, we find that liquidity (demand-side) tightening (loosening) increases (decreases) earnings management in period *t*. ALLP increases with capital tightening policy and decreases with capital loosening policy in period *t*. Demand-side tightening policy increases ALLP and loosening policy decreases earnings management observed in period *t-2.*

7.9 Managerial Incentives

The influence of managerial incentives on earnings management is well established in the literature. For example, Cheng and Warfiled (2005) find that managers with high equity-based incentives are more likely to report earnings that meet or just beat analysts' forecasts, while being less likely to report large positive earnings surprises. Similarly, Bergstresser and

Philippon (2006) show that firms led by more incentivized CEOs (i.e., those whose overall compensation is more closely tied to share price performance) exhibit higher levels of earnings management. Given this evidence, it is important for our study to account for the role of managerial incentives, as they may confound the relationship between macroprudential policy and earnings management.

Ideally, one would control directly for CEO-level compensation structures. However, such data are not widely available, especially in the context of cross-country analysis. To address this limitation, we incorporate a range of country-level proxies that capture the broader institutional environment influencing managerial incentives. Specifically, we consider: (i) the importance of stock market, (ii) governance quality, and (iii) supervisory power, private monitoring, and bank competition. These factors are consistent with the literature suggesting that firms' reporting incentives are shaped not only by managerial pay structures but also by institutional conditions such as legal enforcement and financial market development (Burgstahler et al., 2006).

To capture the role of public equity markets in shaping reporting behaviour, we follow Beck and Levine (2002) and Fonseca and Gonzalez (2008) by including controls for stock market turnover ratio, stock market value added, and market capitalization. These measures reflect the size, liquidity, and depth of national equity markets, which may influence the extent to which managerial incentives are aligned with market expectations.

We also incorporate country-specific governance indicators from Kaufman and Kray (2021), which includes measures of voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption. These indicators provide a comprehensive view of institutional quality, which can influence both managerial behaviour and the effectiveness of regulatory enforcement.

In addition, we account for supervisory and market discipline by including variables that reflect bank supervisory power, private monitoring, and bank competition (e.g., Barth, Caprio and Levine, 2001; Giroud and Mueller, 2011; Markarian and Santalo, 2014). These institutional features may affect both the incentives and opportunities for managers to engage in earnings management.

Our main results are qualitatively similar when controlling for these country-level institutional factors as discussed in section 4.[24] This strengthens our confidence that the observed effects of macroprudential policy on earnings management are not driven by unobserved variation in managerial incentive environments across countries.

8. Conclusion

This study investigates the influence of macroprudential policies on bank earnings management, analysing data from 68 countries between 1996 and 2019. The findings indicate that while tightening macroprudential measures reduce earnings quality, loosening policies improve it, with tightening actions having a more pronounced and immediate effect. Demand-side policies, such as loan-to-value (LTV) and debt-service-to-income (DSTI) ratios, lower non-performing loans and boost market confidence, leading to greater stability in bank cash flows and profitability. Conversely, supply-side measures, like increased risk weights on assets, can result in regulatory arbitrage, encouraging concentration in low-risk asset classes that may elevate systemic risks and earnings volatility.

The study also highlights the differing impacts of tightening and loosening policies, with loosening measures generally exhibiting delayed effects. Supply-side policies align private and societal interests by discouraging short-term managerial behaviour and reducing "meet-or-beat" tendencies, while liquidity-focused tightening policies mitigate excessive risk-taking and curtail ALLPs. However, restricting low-risk mortgage lending through demand-

[24] For the sake of brevity, the results are not tabulated, but available upon request.

side policies may inadvertently drive banks toward higher-risk assets, increasing non-performing loans and earnings manipulation.

In further tests, we find evidence of heterogeneity in the effectiveness of macroprudential tools in influencing earnings quality/management. The overall results are robust to endogeneity concern, subsample analyses, and hold across various model specifications. Our study highlights the importance of balancing supply- and demand-side measures to address agency issues, minimize information asymmetry, and foster financial stability, offering valuable insights for policymakers crafting effective regulatory strategies.

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Table 1: Descriptive statistics

This table presents summary statistics. Panels A and B represents the descriptive statistics for earnings quality and earnings management, respectively. Capital^{T}=bank capital tightening, Capital^{L}=bank capital loosening, Loan^{T}=Loan tightening, Loan ^{L}=Loan loosening, General^{T}=general tightening, General ^{L}= general loosening, Liquidity^{T}=liquidity tightening, Liquidity ^{L}= Liquidity loosening, Demand^{T}=demand tightening, Demand ^{L}= Demand loosening. All other variable definitions are provided in Appendix A.2.

Panel A: Earnings Quality- Earnings persistence and Cashflow predictability

	Earnings Persistence					*Cashflow Predictability*				
Variables	NOBS	Mean	St. Dev.	Min	Max	NOBS	Mean	St. Dev.	Min	Max
EBTL	107662	0.009	0.017	-0.134	0.150					
EBTLLPL						107657	0.014	0.018	-0.070	0.161
EBT	107662	0.009	0.018	-0.135	0.150	107657	0.009	0.018	-0.135	0.150
Capital^{T}	107662	0.264	0.575	0.000	4.083	107657	0.264	0.575	0.000	4.083
Capital^{L}	107662	0.017	0.119	0.000	1.000	107657	0.017	0.119	0.000	1.000
Loan^{T}	107662	0.099	0.361	0.000	3.000	107657	0.099	0.361	0.000	3.000
Loan^{L}	107662	0.013	0.091	0.000	1.833	107657	0.013	0.092	0.000	1.833
General^{T}	107662	0.126	0.489	0.000	6.167	107657	0.126	0.489	0.000	6.167
General^{L}	107662	0.103	0.322	0.000	3.083	107657	0.103	0.322	0.000	3.083
Liquidity^{T}	107662	0.159	0.362	0.000	2.000	107657	0.159	0.362	0.000	2.000
Liquidity^{L}	107662	0.004	0.060	0.000	1.000	107657	0.004	0.060	0.000	1.000
Demand^{T}	107662	0.040	0.220	0.000	3.500	107657	0.040	0.220	0.000	3.500
Demand^{L}	107662	0.013	0.100	0.000	1.667	107657	0.013	0.100	0.000	1.667
Size	107662	20.715	2.035	15.165	26.966	107657	20.715	2.035	15.165	26.966
DEPOSIT	107662	0.635	0.244	0.000	0.962	107657	0.635	0.244	0.000	0.962
LIQ	107662	0.338	0.656	0.007	13.895	107657	0.338	0.656	0.007	13.895
GRLOANS	107662	0.111	0.305	-0.773	3.223	107657	0.111	0.305	-0.773	3.223
LEV	107662	0.106	0.098	0.004	0.938	107657	0.106	0.098	0.004	0.938
EFF	107662	0.686	0.226	-0.059	2.490	107657	0.686	0.226	-0.059	2.490
NONIN	107662	0.448	0.148	0.092	0.953	107657	0.448	0.148	0.092	0.953
EFI	107662	66.941	8.178	1.000	88.900	107657	66.941	8.179	1.000	88.900
GDP	107662	2.411	2.301	-3.064	10.000	107657	2.411	2.301	-3.064	10.000
INF	107662	2.712	3.327	-0.924	20.478	107657	2.712	3.327	-0.924	20.478

Panel B: Earnings Management- Meet or beat benchmark and Abnormal LLP

	Meet or beat benchmark					*Income increasing abnormal LLP*				
	NOBS	Mean	St. Dev.	Min	Max	NOBS	Mean	St. Dev.	Min	Max
Meet or beat benchmark	53583	0.222	0.416	0.000	1.000					
Abnormal LLP						18397	0.006	0.006	0.000	0.271
Capital^{T}	53583	0.342	0.570	0.000	4.083	18397	0.387	0.587	0.000	4.083
Capital^{L}	53583	0.019	0.129	0.000	1.000	18397	0.020	0.127	0.000	1.000
Loan^{T}	53583	0.110	0.359	0.000	3.000	18397	0.129	0.371	0.000	3.000
Loan^{L}	53583	0.015	0.102	0.000	1.833	18397	0.014	0.105	0.000	1.833
General^{T}	53583	0.111	0.485	0.000	6.167	18397	0.082	0.395	0.000	6.167
General^{L}	53583	0.092	0.306	0.000	3.083	18397	0.062	0.262	0.000	3.083
Liquidity^{T}	53583	0.231	0.415	0.000	2.000	18397	0.305	0.452	0.000	2.000
Liquidity^{L}	53583	0.007	0.081	0.000	1.500	18397	0.006	0.071	0.000	1.000
Demand^{T}	53583	0.052	0.248	0.000	3.500	18397	0.082	0.316	0.000	3.500
Demand^{L}	53583	0.017	0.116	0.000	1.667	18397	0.020	0.125	0.000	1.667
GROWTH	53583	0.083	0.318	-0.998	36.435	18397	0.064	0.305	-0.991	31.367
CASHFLOW	53583	-0.039	0.951	-21.500	19.340					
ALLOW	53583	0.022	0.042	0.000	4.376					
GROWTH						18397	0.064	0.305	-0.991	31.367
PASTLLP						18397	0.003	0.017	-0.282	1.809
EBTLLPL						18397	0.012	0.011	-0.070	0.155
Size	53583	21.388	2.106	15.165	27.389	18397	21.700	2.182	15.384	26.966
DEPOSIT	53583	0.668	0.231	0.000	0.962	18397	0.666	0.191	0.000	0.962
LIQ	53583	0.283	0.457	0.007	15.443	18397	0.641	0.149	0.000	0.954
GRLOANS	53583	0.096	0.228	-0.773	3.223	18397	0.203	0.413	0.007	13.895
LEV	53583	0.097	0.070	0.004	0.938	18397	0.101	0.064	0.007	0.938
EFF	53583	0.668	0.211	-0.059	2.490	18397	0.644	0.191	-0.059	2.374
NONIN	53583	0.420	0.149	0.092	0.953	18397	0.422	0.128	0.092	0.953
EFI	53583	67.159	8.424	1.000	89.400	18397	68.088	7.734	1.000	88.900
GDP	53583	2.374	2.402	-3.064	10.000	18397	2.232	2.295	-3.064	10.000
INF	53583	2.448	3.203	-0.924	20.478	18397	2.269	2.541	-0.924	20.478

Table 2: Correlation analysis

This table presents correlation matrix. Panels A, B, C and D represents the correlation for earnings persistence, cashflow predictability, meet or beat benchmark and income increasing abnormal LLP, respectively. ***,**,*significant at the 1%, 5% and 10% significance level, respectively.

Panel A: Earnings persistence

	EBTL	EBT	*MPP- Tight*	*MPP- Loose*	SIZE	DEPOSIT	LIQ	GRLOANS	LEV	EFF	NONIN	EFI	GDP
EBTL	1												
EBT	0.66***	1											
MPP- Tight	0.01***	0.02***	1										
MPP- Loose	-0.01***	0.00	0.17***	1									
Size	-0.10***	-0.09***	-0.02***	-0.02***	1								
DEPOSIT	-0.21***	-0.22***	-0.04***	-0.06***	0.08***	1							
LIQ	0.17***	0.17***	0.08***	0.03***	-0.14***	-0.35***	1						
GRLOANS	0.11***	0.14***	-0.02***	0.00	-0.05***	-0.13***	0.02***	1					
LEV	0.30***	0.33***	0.11***	0.05***	-0.36***	-0.47***	0.51***	0.06***	1				
EFF	-0.28***	-0.40***	0.05***	0.02***	-0.23***	0.01***	0.07***	-0.01***	0.05***	1			
NONIN	0.05***	0.05***	0.12***	-0.04***	-0.23***	-0.27***	0.06***	0.02***	0.08***	0.11***	1		
EFI	-0.15***	-0.15***	-0.04***	-0.11***	0.13***	0.30***	-0.06***	-0.17***	-0.10***	-0.01***	0.04***	1	
GDP	0.16***	0.17***	-0.04***	0.01***	0.02***	-0.11***	0.04***	0.19***	0.09***	-0.11***	-0.03***	-0.29***	1
INF	0.17***	0.18***	0.03***	0.13***	-0.17***	-0.31***	0.10***	0.20***	0.18***	0.01***	0.09***	-0.54***	0.28***

Panel B: Cashflow predictability

	EBTLLPL	EBT	*MPP-Tight*	*MPP-Loose*	SIZE	DEPOSIT	LIQ	GRLOANS	LEV	EFF	NONIN	EFI	GDP
EBTLLPL	1												
EBT	0.63***	1											
MPP- Tight	0.00	0.02***	1										
MPP- Loose	0.00	0.00	0.17***	1									
Size	-0.10***	-0.09***	-0.02***	-0.02***	1								
DEPOSIT	-0.24***	-0.22***	-0.04***	-0.06***	0.08***	1							
LIQ	0.16***	0.17***	0.08***	0.03***	-0.14***	-0.35***	1						
GRLOANS	0.15***	0.14***	-0.02***	0.00	-0.05***	-0.13***	0.02***	1					
LEV	0.32***	0.33***	0.11***	0.05***	-0.36***	-0.47***	0.51***	0.06***	1				
EFF	-0.32***	-0.40***	0.05***	0.02***	-0.23***	0.01***	0.07***	-0.01***	0.05***	1			
NONIN	0.03***	0.05***	0.12***	-0.04***	-0.23***	-0.27***	0.06***	0.02***	0.08***	0.11***	1		
EFI	-0.21***	-0.15***	-0.04***	-0.11***	0.13***	0.30***	-0.06***	-0.17***	-0.10***	-0.01***	0.04***	1	
GDP	0.17***	0.17***	-0.04***	0.01***	0.02***	-0.11***	0.04***	0.19***	0.09***	-0.11***	-0.03***	-0.29***	1
INF	0.24***	0.18***	0.03***	0.13***	-0.17***	-0.31***	0.10***	0.20***	0.18***	0.01***	0.09***	-0.54***	0.28***

Panel C: Meet or beat benchmark

	Meet or Beat	*MPP-Tight*	*MPP-Loose*	GROWTH	CFLOW	ALLOW	Size	DEPOSIT	LIQ	GR LOANS	LEV	EFF	NONIN	EFI	GDP
Meet or Beat	1														
MPP- Tight	0.02***	1													
MPP- Loose	-0.02***	0.17***	1												
GROWTH	-0.00*	0.00	0.00	1											
CFLOW	0.02***	0.00	-0.02***	0.01***	1										
ALLOW	0.00	0.00	0.00	0.51***	0.00	1									
Size	0.10***	-0.02***	-0.02***	0.02***	0.02***	0.00	1								
DEPOSIT	0.10***	-0.04***	-0.06***	-0.01***	0.02***	0.00	0.08***	1							

LIQ	-0.06***	0.08***	0.03***	0.00	-0.01***	0.00	-0.14***	-0.35***	1						
GRLOANS	-0.06***	-0.02***	0.00	0.06***	0.04***	0.03***	-0.05***	-0.13***	0.02***	1					
LEV	-0.11***	0.11***	0.05***	0.00	0.00	0.00	-0.36***	-0.47***	0.51***	0.06***	1				
EFF	-0.02***	0.05***	0.02***	0.00	-0.20***	0.00	-0.23***	0.01***	0.07***	-0.01***	0.05***	1			
NONIN	0.06***	0.12***	-0.04***	0.00	-0.01***	0.00	-0.23***	-0.27***	0.06***	0.02***	0.08***	0.11***	1		
EFI	0.14***	-0.04***	-0.11***	0.00	0.02***	0.00	0.13***	0.30***	-0.06***	-0.17***	-0.10***	-0.01***	0.04***	1	
GDP	-0.07***	-0.04***	0.01***	0.00	-0.01***	0.00	0.02***	-0.11***	0.04***	0.19***	0.09***	-0.11***	-0.03***	-0.29***	1
INF	-0.13***	0.03***	0.13***	0.00	-0.05***	0.00	-0.17***	-0.31***	0.10***	0.20***	0.18***	0.01***	0.09***	-0.54***	0.28***

Panel D: Abnormal LLP

	Abnormal LLP	*MPP-Tight*	*MPP-Loose*	Size	GROWTH	PASTLLP	EBTLLPL	DEPOSIT	LOANS	LIQ	LEV	EFF	NONIN	EFI	GDP
Abnormal LLP	1														
MPP- Tight	0.05***	1													
MPP- Loose	-0.01	0.17***	1												
Size	-0.19***	-0.03***	-0.02***	1											
GROWTH	-0.01	0.00	0.00	0.01***	1										
PASTLLP	-0.04***	0.00	0.00	0.00	0.00	1									
EBTLLPL	-0.12***	0.01***	0.00	-0.10***	0.00	0.00	1								
DEPOSIT	-0.03***	-0.05***	-0.06***	0.08***	-0.01**	0.00	-0.24***	1							
LOANS	0.14***	0.00	-0.02***	0.08***	-0.00*	0.00	0.00	0.10***	1						
LIQ	0.08***	0.08***	0.03***	-0.14***	0.00	0.00	0.15***	-0.35***	-0.36***	1					
LEV	0.19***	0.12***	0.05***	-0.36***	0.00	0.00	0.31***	-0.47***	-0.24***	0.50***	1				
EFF	0.13***	0.05***	0.02***	-0.24***	0.00	0.00	-0.32***	0.01***	-0.11***	0.06***	0.04***	1			
NONIN	0.07***	0.13***	-0.03***	-0.23***	0.00	0.00	0.05***	-0.30***	-0.01***	0.07***	0.10***	0.13***	1		
EFI	0.06***	-0.05***	-0.10***	0.16***	0.00	0.00	-0.21***	0.33***	0.09***	-0.07***	-0.09***	-0.01***	-0.11***	1	
GDP	-0.08***	-0.04***	0.01***	0.02***	0.00	0.01**	0.17***	-0.11***	-0.05***	0.04***	0.09***	-0.12***	-0.02***	-0.30***	1
INF	0.05***	0.05***	0.13***	-0.18***	0.00	0.00	0.24***	-0.32***	-0.08***	0.10***	0.18***	0.02***	0.16***	-0.53***	0.28***

Table 3: Macroprudential policy and earnings persistence

The table presents the results for earnings quality, and the components of macroprudential policy. The dependent variable is earnings persistence, a measure of earning quality. And the key variable of interest is the components of macro-prudential policy for time ***t, t-1 and t-2***. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. NOBS presents the number of observations, and R^ 2 is the adjusted R-squared. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side - capital	***Supply side - loan***	***Supply side- general***	***Liquidity***	***Demand-LTV & DSTI***
	(1)	(2)	(3)	(4)	(5)
EBT_t	0.343***	0.340***	0.3241***	0.3207***	0.318***
	(0.0137)	(0.0140)	(0.0144)	(0.0133)	(0.0134)
Size	-0.0029***	-0.0029***	-0.0030***	-0.0030***	-0.003***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
DEPOSIT	0.0016*	0.0012	0.0015*	0.0015*	0.0014
	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)
LIQ	0.0002	0.0002	0.0002	0.0002	0.0002
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
GRLOANS	0.0015***	0.0015***	0.0016***	0.0016***	0.002***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
LEV	-0.0005	-0.0005	-0.0008	-0.0006	-0.0006
	(0.0029)	(0.0029)	(0.0029)	(0.0029)	(0.0029)
EFF	-0.0044***	-0.0045***	-0.0046***	-0.0047***	-0.005***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
NONIN	0.0015	0.0039***	0.0049***	0.0044***	0.005***
	(0.0009)	(0.0009)	(0.0010)	(0.0010)	(0.0010)
EFI	-0.0001***	-0.0001**	-0.0001**	-0.0001**	-0.0001*
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
GDP	0.0004***	0.0005***	0.0005***	0.0005***	0.001***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
INF	0.0001	0.0001*	0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
MP_t^T	0.0001	0.0006**	0.0001	-0.0003	0.0006*
	(0.0002)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
MP_t^L	-0.0056***	-0.0012	-0.0002	-0.0021*	-0.0004
	(0.0007)	(0.0011)	(0.0003)	(0.0011)	(0.0009)
MP_{t-1}^T	-0.0004**	0.0011***	-0.0001	0.0002	-0.0002
	(0.0002)	(0.0003)	(0.0002)	(0.0004)	(0.0003)
MP_{t-1}^L	-0.0018**	0.0004	0.0007***	-0.0019*	0.0005
	(0.0007)	(0.0010)	(0.0003)	(0.0011)	(0.0009)
MP_{t-2}^T	-0.0002	-0.0009***	0.0003	0.0006	-0.0004
	(0.0002)	(0.0003)	(0.0002)	(0.0004)	(0.0003)
MP_{t-2}^L	-0.0013	-0.0012	-0.0003	-0.0006	-0.0013*
	(0.0010)	(0.0008)	(0.0003)	(0.0010)	(0.0007)
$MP_t^T \times EBT_t$	-0.0525***	-0.0391*	-0.0125	0.0070	-0.0198
	(0.0151)	(0.0207)	(0.0135)	(0.0254)	(0.0210)
$MP_t^L \times EBT_t$	0.0620	-0.0311	-0.0145	0.0549	0.0164
	(0.0503)	(0.0573)	(0.0169)	(0.0657)	(0.0663)
$MP_{t-1}^T \times EBT_t$	-0.0002	-0.0441**	-0.0143	-0.0122	0.0286
	(0.0174)	(0.0191)	(0.0118)	(0.0323)	(0.0209)
$MP_{t-1}^L \times EBT_t$	0.0674	-0.0379	0.0408**	-0.0069	-0.0909
	(0.0547)	(0.0574)	(0.0170)	(0.0612)	(0.0760)
$MP_{t-2}^T \times EBT_t$	-0.0349*	-0.0423**	-0.0184	-0.0427	0.07***
	(0.0193)	(0.0204)	(0.0129)	(0.0298)	(0.021)
$MP_{t-2}^L \times EBT_t$	0.0186	0.0082	0.0205	0.0332	-0.0012
	(0.0598)	(0.0519)	(0.0194)	(0.0619)	(0.0538)
Intercept	0.0717***	0.0704***	0.0716***	0.071***	0.071***
	(0.0063)	(0.0063)	(0.0063)	(0.0063)	(0.0063)
Bank & year fixed effects	YES	YES	YES	YES	YES
NOBS	107662	107662	107662	107662	107662
Φ-test	12.73***	6.37***	6.24***	1.76**	4.30***
R-squared	0.1655	0.1627	0.1609	0.1595	0.1598

Table 4: Macroprudential policy and cashflow predictability

The table presents the results for earnings quality, and the components of macroprudential policy. The dependent variable is cashflow predictability, a measure of earning quality. And the key variable of interest is the components of macro-prudential policy for time ***t, t-1 and t-2***. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. NOBS presents the number of observations, and R^ 2 is the adjusted R-squared. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side - capital	***Supply side - loan***	***Supply side- general***	***Liquidity***	***Demand-LTV and DSTI***
	(1)	(2)	(3)	(4)	(5)
EBT_t	0.2529***	0.2601***	0.2359***	0.2352***	0.2380***
	(0.0121)	(0.0124)	(0.0128)	(0.0119)	(0.0121)
Size	-0.0013***	-0.0013***	-0.0014***	-0.001***	-0.001***
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
DEPOSIT	0.0003	-0.0002	0.0004	0.0003	0.0002
	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)
LIQ	-0.0003	-0.0004	-0.0004	-0.0004	-0.0004
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
GRLOANS	0.0014***	0.0014***	0.0015***	0.0015***	0.0015***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
LEV	0.0033	0.0033	0.0034	0.0032	0.0032
	(0.0030)	(0.0030)	(0.0030)	(0.0030)	(0.0030)
EFF	-0.0104***	-0.0104***	-0.011***	-0.011***	-0.011***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
NONIN	-0.0040***	-0.0024***	-0.0011	-0.0019**	-0.002**
	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)
EFI	-0.0002***	-0.0001***	-0.0001***	-0.0001***	-0.0001***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
GDP	0.0001***	0.0001***	0.0002***	0.0002***	0.0002***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
INF	0.0001	0.0001**	0.0001	0.0001	0.0001
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
MP_t^T	-0.0002	0.0011***	0.0001	-0.0001	0.0005
	(0.0002)	(0.0003)	(0.0002)	(0.0003)	(0.0003)
MP_t^L	-0.0030***	-0.0008	-0.0003	-0.0015**	-0.0003
	(0.0006)	(0.0009)	(0.0002)	(0.0007)	(0.0007)
MP_{t-1}^T	-0.0003*	0.0002	-0.0005***	-0.0001	-0.0003
	(0.0002)	(0.0003)	(0.0002)	(0.0003)	(0.0003)
MP_{t-1}^L	-0.0002	-0.0001	0.0004	0.0001	0.0001
	(0.0006)	(0.0009)	(0.0002)	(0.0009)	(0.0006)
MP_{t-2}^T	-0.0006***	-0.0009***	-0.0002	0.0009**	-0.0005*
	(0.0002)	(0.0002)	(0.0002)	(0.0004)	(0.0003)
MP_{t-2}^L	-0.0014	0.0007	-0.0004	0.0002	0.0012**
	(0.0009)	(0.0008)	(0.0003)	(0.0008)	(0.0005)
$MP_t^T \times EBT_t$	-0.0522***	-0.0565***	-0.0128	0.0182	-0.0598**
	(0.0142)	(0.0209)	(0.0113)	(0.0214)	(0.0236)
$MP_t^L \times EBT_t$	0.0144	-0.0716	-0.0121	0.0192	-0.0554
	(0.0448)	(0.0514)	(0.0152)	(0.0427)	(0.0571)
$MP_{t-1}^T \times EBT_t$	0.0078	-0.0337*	-0.0034	0.0026	0.0062
	(0.0169)	(0.0176)	(0.0103)	(0.0232)	(0.0171)
$MP_{t-1}^L \times EBT_t$	0.0545	-0.0370	0.0449***	-0.1026**	-0.0572
	(0.0457)	(0.0543)	(0.0156)	(0.0451)	(0.0583)
$MP_{t-2}^T \times EBT_t$	-0.0107	-0.0431**	-0.0032	-0.0195	0.0470**
	(0.0181)	(0.0170)	(0.0120)	(0.0270)	(0.0194)
$MP_{t-2}^L \times EBT_t$	0.0971*	-0.0828*	0.0074	-0.0878**	-0.0236
	(0.0522)	(0.0484)	(0.0174)	(0.0371)	(0.0396)
Intercept	0.0579***	0.0562***	0.0570***	0.0575***	0.0576***
	(0.0057)	(0.0058)	(0.0058)	(0.0058)	(0.0058)
Bank & year fixed effects	YES	YES	YES	YES	YES
NOBS	107657	107657	107657	107657	107657
Φ-test	8.99***	8.09***	7.25***	3.06***	3.65***
R-squared	0.1556	0.1560	0.1529	0.1514	0.1516

Table 5: Macroprudential policy and meet or beat benchmark

The table presents the results for earnings management, and the components of macroprudential policy. The dependent variable is meet or beat benchmark, a measure of earning management. And the key variable of interest is the components of macro-prudential policy for time ***t, t-1 and t-2***. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. NOBS presents the number of observations, and R^ 2 is the adjusted R-squared. Variable definitions are provided in Appendix A2. Φ-test represents joint test-Wald test for macro-prudential policy. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side - capital	***Supply side - loan***	***Supply side-general***	***Liquidity***	***Demand-LTV & DSTI***
	(1)	(2)	(3)	(4)	(5)
GROWTH	-.0493	-.0687	-.0605	-.0586	-.0575
	(.0674)	(.0687)	(.0681)	(.0684)	(.0677)
CASHFLOW	.0783***	.076***	.0788***	.0777***	.0772***
	(.0159)	(.0158)	(.0158)	(.0158)	(.0158)
ALLOW	-4.499***	-4.255***	-4.306***	-4.38***	-4.282***
	(.7403)	(.7209)	(.7244)	(.7221)	(.719)
Size	-.0498	-.0162	-.0356	-.0377	-.0185
	(.0421)	(.0425)	(.0423)	(.0423)	(.0425)
DEPOSIT	.1519	.1241	.1175	.1881	.1307
	(.1707)	(.168)	(.1689)	(.168)	(.1682)
LIQ	-.064	-.0695	-.0678	-.0658	-.0731
	(.0517)	(.052)	(.0522)	(.0519)	(.0522)
GRLOANS	-.0677	-.0655	-.0576	-.053	-.0644
	(.0759)	(.076)	(.0759)	(.076)	(.0759)
LEV	-1.509***	-1.467***	-1.618***	-1.55***	-1.463***
	(.456)	(.4568)	(.4592)	(.458)	(.458)
EFF	-.8446***	-.8436***	-.8503***	-.849***	-.8442***
	(.1079)	(.1077)	(.1081)	(.108)	(.1078)
NONIN	.3741**	.3942**	.3831**	.4178**	.4233**
	(.1765)	(.1711)	(.1691)	(.17)	(.1697)
EFI	.0322***	.0321***	.034***	.032***	.0339***
	(.0055)	(.0055)	(.0056)	(.0055)	(.0056)
GDP	.0458***	.0523***	.0436***	.048***	.047***
	(.0089)	(.0089)	(.0091)	(.0089)	(.0089)
INF	-.0058	-.0021	-.0063	-.0068	-.0056
	(.0083)	(.0083)	(.0084)	(.0082)	(.0082)
MP_t^T	-.0351	-.1526***	.0239	.203***	.0034
	(.0291)	(.0387)	(.0315)	(.0518)	(.0529)
MP_t^L	.0061	-.6131***	-.064	.0896	-.4639***
	(.1032)	(.153)	(.0521)	(.158)	(.1258)
MP_{t-1}^T	-.1504***	.0442	.0798***	-.0748	-.0457
	(.0334)	(.0403)	(.0308)	(.0624)	(.0544)
MP_{t-1}^L	.016	-.208	-.1385***	-.0826	-.2539**
	(.1073)	(.1364)	(.0485)	(.1971)	(.1261)
MP_{t-2}^T	.0409	-.0837*	.0659**	-.0831	.1514***
	(.0345)	(.0431)	(.0286)	(.0665)	(.056)
MP_{t-2}^L	.2744**	-.0726	.0866*	-.32	-.216*
	(.1206)	(.1292)	(.0452)	(.2156)	(.1195)
NOBS	53583	53583	53583	53583	53583
Bank & year fixed effects	YES	YES	YES	YES	YES
Φ-test	30.73^{***}	36.19^{***}	28.28^{***}	20.58^{***}	34.77^{***}
Pseudo R^2	.025	.025	.024	.024	.025
ll	-19133.79	-19130.08	-19135.18	-19138.97	-19131.03
Chi^2	960.602	968.014	957.826	950.237	966.11

Table 6: Macroprudential policy and abnormal LLP

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side - capital	***Supply side - loan***	***Supply side- general***	***Liquidity***	***Demand-LTV & DSTI***
	(1)	(2)	(3)	(4)	(5)
Size	-.0008*	-.0008*	-.0008*	-.0008*	-.0008*
	(.0004)	(.0004)	(.0004)	(.0004)	(.0004)
GROWTH	.0005	.0005	.0005	.0005	.0005
	(.0004)	(.0004)	(.0004)	(.0004)	(.0004)
PASTLLP	.0208	.0207	.0206	.0205	.0208
	(.0147)	(.0147)	(.0147)	(.0147)	(.0148)
EBTLLPL	-.0088	-.0074	-.007	-.0081	-.0083
	(.0142)	(.0141)	(.0142)	(.0141)	(.0142)
DEPOSIT	.0032	.003	.0029	.003	.0029
	(.0023)	(.0022)	(.0023)	(.0023)	(.0023)
LOANS	.0045***	.0046***	.0046***	.0046***	.0046***
	(.0016)	(.0015)	(.0015)	(.0015)	(.0015)
LIQ	.0014*	.0014*	.0014*	.0014*	.0014*
	(.0008)	(.0008)	(.0008)	(.0008)	(.0008)
LEV	.008*	.008*	.0081*	.0083*	.0082*
	(.0043)	(.0043)	(.0043)	(.0043)	(.0043)
EFF	.0032***	.0032***	.0032***	.0032***	.0032***
	(.0011)	(.0011)	(.0011)	(.0011)	(.0011)
NONIN	.0002	.0006	.0005	.0005	.0005
	(.0005)	(.0005)	(.0005)	(.0006)	(.0005)
EFI	0.000***	0.000***	0.000***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
GDP	0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
INF	0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
MP_t^T	.0002***	-.0001	.0001	0.0001	.0001
	(.0001)	(.0001)	(.0001)	(.0001)	(.0001)
MP_t^L	-.0011***	.0002	-.0003	-.0004	-.0002
	(.0004)	(.0002)	(.0002)	(.0003)	(.0002)
MP_{t-1}^T	0.001	.0003	0.0001	-.0002**	.0001
	(.0001)	(.0002)	(.0001)	(.0001)	(.0001)
MP_{t-1}^L	.0001	.0004	-.0002	-.0002	-.0003
	(.0003)	(.0003)	(.0002)	(.0004)	(.0002)
MP_{t-2}^T	-.0001	.0002*	0.0001	-.0004**	.0002***
	(.0001)	(.0001)	(.0001)	(.0002)	(.0001)
MP_{t-2}^L	.0001	.0004	-.0002	-.0003	-.0003
	(.0004)	(.0003)	(.0001)	(.0004)	(.0002)
Intercept	.0122	.0129	.0123	.0121	.0121
	(.0098)	(.0099)	(.0099)	(.0098)	(.0099)
NOBS	18397	18397	18397	18397	18397
Bank & year fixed effects	YES	YES	YES	YES	YES
Φ-test	3.50^{***}	1.27	1.34	1.21	2.93^{***}
R-squared	.0838	.0824	.0822	.0823	.0823

Table 7: Endogeneity of macroprudential policy and its complex transmission mechanisms

The table presents the results for earnings quality and earnings management, and the components of macroprudential policy including factors that affect bank systemic risk such as fiscal deficit and real interest rate. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

Panel A: Earnings persistence

	Fiscal deficit					***Interest rate***				
	Supply - capital	*Supply - loan*	*Supply- general*	*Liquidity*	*Demand*	*Supply - capital*	*Supply - loan*	*Supply- general*	*Liquidity*	*Demand*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.345***	0.341***	0.324***	0.3219***	0.3184***	0.3206***	0.3108***	0.2882***	0.2914***	0.2852***
	(0.014)	(0.014)	(0.015)	(0.0132)	(0.0134)	(0.0181)	(0.0184)	(0.0193)	(0.0171)	(0.0169)
MP_t^T	0.0001	0.0006**	0.0001	(0.0005)	0.0006*	(0.0001)	0.0011***	0.0003	0.0001	0.0009**
	(0.0002)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0004)	(0.0003)	(0.0005)	(0.0004)
MP_t^L	-0.0055***	-0.0009	-0.0003	-0.0021*	-0.0003	-0.006***	-0.0012	0.0001	-0.0017	0.0008
	(0.0007)	(0.0011)	(0.0003)	(0.0011)	(0.0009)	(0.0008)	(0.0013)	(0.0004)	(0.0014)	(0.0010)
MP_{t-1}^T	-0.0004*	0.0011***	0.0000	0.0000	-0.0002	0.0000	0.0012***	-0.0002	0.0011*	-0.0004
	(0.0002)	(0.0003)	(0.0002)	(0.0004)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0006)	(0.0004)
MP_{t-1}^L	-0.0019**	0.0004	0.001**	-0.0021*	0.0007	-0.003***	0.0002	0.0008**	-0.003***	0.0017
	(0.0007)	(0.0010)	(0.0002)	(0.0011)	(0.0009)	(0.0011)	(0.0012)	(0.0004)	(0.0012)	(0.0010)
MP_{t-2}^T	-0.0002	-0.0009***	0.0004	0.0005	-0.0004	-0.0003	-0.001***	0.0002	0.0006	-0.0007*
	(0.0002)	(0.0003)	(0.0002)	(0.0004)	(0.0003)	(0.0003)	(0.0004)	(0.0003)	(0.0005)	(0.0004)
MP_{t-2}^L	-0.0013	-0.0012	-0.0004	-0.0008	-0.0010	-0.004***	-0.0008	-0.0004	-0.0011	-0.0009
	(0.0010)	(0.0008)	(0.0003)	(0.0010)	(0.0007)	(0.0016)	(0.0010)	(0.0004)	(0.0013)	(0.0007)
$MP_t^T \times EBT_t$	-0.0536***	-0.0440**	-0.0123	0.0028	-0.0184	-0.0429**	-0.0461*	-0.0201	-0.0231	-0.0091
	(0.0152)	(0.0215)	(0.0136)	(0.0254)	(0.0212)	(0.0190)	(0.0247)	(0.0142)	(0.0294)	(0.0250)
$MP_t^L \times EBT_t$	0.0558	-0.0275	-0.0003	0.0526	0.0303	0.1343**	-0.0092	0.0070	0.0526	0.0135
	(0.0509)	(0.0580)	(0.0168)	(0.0658)	(0.0673)	(0.0644)	(0.0661)	(0.0225)	(0.0717)	(0.0768)
$MP_{t-1}^T \times EBT_t$	0.0004	-0.0390**	-0.0135	-0.0121	0.0340	-0.0158	-0.0305	-0.0068	-0.0095	0.0430*
	(0.0175)	(0.0192)	(0.0118)	(0.0326)	(0.0207)	(0.0209)	(0.0210)	(0.0124)	(0.0375)	(0.0220)
$MP_{t-1}^L \times EBT_t$	0.0564	-0.0386	0.0382**	-0.0068	-0.0875	0.1571**	-0.0051	0.0405*	0.0488	-0.1096
	(0.0551)	(0.0578)	(0.0169)	(0.0610)	(0.0771)	(0.0700)	(0.0644)	(0.0210)	(0.0600)	(0.0812)
$MP_{t-2}^T \times EBT_t$	-0.0332*	-0.0450**	-0.0200	-0.0457	0.0701***	-0.0545**	-0.0359	-0.0090	-0.0375	0.0996***
	(0.0194)	(0.0206)	(0.0130)	(0.0300)	(0.0207)	(0.0225)	(0.0226)	(0.0135)	(0.0325)	(0.0234)
$MP_{t-2}^L \times EBT_t$	0.0040	0.0182	0.0222	0.0332	-0.0145	0.0891	-0.0062	0.0302	0.0465	-0.0222
	(0.0611)	(0.0520)	(0.0189)	(0.0620)	(0.0547)	(0.0822)	(0.0556)	(0.0249)	(0.0656)	(0.0576)
Size	-0.0028***	-0.0029***	-0.0030***	-0.0029***	-0.0029***	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
DEPOSIT	0.0013	0.0008	0.0011	0.0012	0.0011	0.0006	(0.0005)	0.0000	(0.0004)	(0.0003)
	(0.0009)	(0.0008)	(0.0008)	(0.0009)	(0.0008)	(0.0013)	(0.0012)	(0.0012)	(0.0012)	(0.0012)
LIQ	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
GRLOANS	0.0015***	0.0016***	0.0016***	0.0016***	0.0016***	0.0015***	0.0016***	0.0016***	0.0016***	0.0016***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
LEV	(0.0010)	(0.0011)	(0.0013)	(0.0012)	(0.0012)	(0.0012)	(0.0018)	(0.0021)	(0.0019)	(0.0021)
	(0.0029)	(0.0029)	(0.0029)	(0.0029)	(0.0029)	(0.0038)	(0.0038)	(0.0038)	(0.0038)	(0.0038)
EFF	-0.0045***	-0.0045***	-0.0047***	-0.0047***	-0.0047***	-0.003***	-0.003***	-0.004***	-0.004***	-0.004***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)

NONIN	0.0010	0.0033***	0.0042***	0.0037***	0.0040***	0.0017	0.0045***	0.0064***	0.0054***	0.0061***
	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0010)	(0.0013)	(0.0013)	(0.0013)	(0.0013)	(0.0013)
EFI	-0.0001***	-0.0001**	-0.0001**	-0.0001*	-0.0001*	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	0.0004***	0.0004***	0.0005***	0.0005***	0.0005***	0.0003***	0.0003***	0.0004***	0.0004***	0.0004***
	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
INF	0.0000	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001**	0.0001	0.0001	0.0001
	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Fiscal Deficit	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***					
	0.0000	0.0000	0.0000	0.0000	0.0000					
Real Interest Rate						0.0000	(0.0001)	-0.0001**	-0.0001**	-0.0001*
						0.0000	0.0000	0.0000	0.0000	0.0000
Intercept	0.0700***	0.0690***	0.0701***	0.0694***	0.0694***	0.0605***	0.0601***	0.0609***	0.0595***	0.0608***
	(0.0062)	(0.0062)	(0.0063)	(0.0063)	(0.0063)	(0.0073)	(0.0074)	(0.0074)	(0.0074)	(0.0074)
NOBS	106867	106867	106867	106867	106867	51715	51715	51715	51715	51715
R^2	0.1675	0.1645	0.1624	0.1614	0.1616	0.1460	0.1420	0.1395	0.1385	0.1391
F-test	70.6219	69.4082	70.1260	68.2156	71.8839	44.5868	44.8602	46.6762	43.5225	46.1573

Panel B: Cashflow predictability

	Fiscal deficit					***Interest rate***				
	Supply-capital	*Supply - loan*	*Supply-general*	*Liquidity*	*Demand*	*Supply-capital*	*Supply - loan*	*Supply-general*	*Liquidity*	*Demand*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.3451***	0.3408***	0.3236***	0.3219***	0.3184***	0.2316***	0.2365***	0.2026***	0.2089***	0.2072***
	(0.0137)	(0.0140)	(0.0146)	(0.0132)	(0.0134)	(0.0152)	(0.0154)	(0.0163)	(0.0150)	(0.0148)
MP_t^T	0.0001	0.0006**	0.0001	(0.0005)	0.0006*	-0.0008***	0.0015***	0.0004	0.0007*	0.0005
	(0.0002)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0004)	(0.0003)	(0.0004)	(0.0003)
MP_t^L	-0.0055***	-0.0009	-0.0003	-0.0021*	-0.0003	-0.0039***	0.0000	-0.0003	-0.0018*	0.0000
	(0.0007)	(0.0011)	(0.0003)	(0.0011)	(0.0009)	(0.0007)	(0.0011)	(0.0003)	(0.0009)	(0.0009)
MP_{t-1}^T	-0.0004*	0.0011***	0.0000	0.0000	-0.0002	-0.0001	0.0002	-0.0006**	0.0004	-0.0007**
	(0.0002)	(0.0003)	(0.0002)	(0.0004)	(0.0003)	(0.0003)	(0.0003)	(0.0002)	(0.0004)	(0.0003)
MP_{t-1}^L	-0.0019**	0.0004	0.0006**	-0.0021*	0.0007	-0.0010	0.0006	0.0011***	-0.0014	0.0010
	(0.0007)	(0.0010)	(0.0002)	(0.0011)	(0.0009)	(0.0009)	(0.0011)	(0.0003)	(0.0010)	(0.0007)
MP_{t-2}^T	-0.0002	-0.0009***	0.0004	0.0005	-0.0004	-0.0007**	-0.0011***	-0.0004*	0.0008	-0.0010**
	(0.0002)	(0.0003)	(0.0002)	(0.0004)	(0.0003)	(0.0003)	(0.0003)	(0.0002)	(0.0005)	(0.0004)
MP_{t-2}^L	-0.0013	-0.0012	-0.0004	-0.0008	-0.0010	-0.0038***	0.0013	0.0000	-0.0002	0.0010*
	(0.0010)	(0.0008)	(0.0003)	(0.0010)	(0.0007)	(0.0014)	(0.0009)	(0.0004)	(0.0010)	(0.0005)
$MP_t^T \times EBT_t$	-0.0536***	-0.0440**	-0.0123	0.0028	-0.0184	-0.0511***	-0.0685***	-0.0244**	-0.0145	-0.0150
	(0.0152)	(0.0215)	(0.0136)	(0.0254)	(0.0212)	(0.0172)	(0.0242)	(0.0118)	(0.0233)	(0.0182)
$MP_t^L \times EBT_t$	0.0558	-0.0275	-0.0003	0.0526	0.0303	0.0951*	-0.0735	0.0046	0.0374	-0.0226
	(0.0509)	(0.0580)	(0.0168)	(0.0658)	(0.0673)	(0.0551)	(0.0588)	(0.0202)	(0.0465)	(0.0663)
$MP_{t-1}^T \times EBT_t$	0.0004	-0.0390**	-0.0135	-0.0121	0.0340	-0.0119	-0.0189	0.0027	0.0152	0.0239
	(0.0175)	(0.0192)	(0.0118)	(0.0326)	(0.0207)	(0.0197)	(0.0192)	(0.0109)	(0.0247)	(0.0182)
$MP_{t-1}^L \times EBT_t$	0.0564	-0.0386	0.0382**	-0.0068	-0.0875	0.1481***	-0.0096	0.0431**	-0.0636	-0.0634
	(0.0551)	(0.0578)	(0.0169)	(0.0610)	(0.0771)	(0.0555)	(0.0613)	(0.0191)	(0.0421)	(0.0627)
$MP_{t-2}^T \times EBT_t$	-0.0332*	-0.0450**	-0.0200	-0.0457	0.0701***	-0.0196	-0.0414**	0.0092	-0.0140	0.0727***
	(0.0194)	(0.0206)	(0.0130)	(0.0300)	(0.0207)	(0.0211)	(0.0182)	(0.0124)	(0.0284)	(0.0208)
$MP_{t-2}^L \times EBT_t$	0.0040	0.0182	0.0222	0.0332	-0.0145	0.2261***	-0.0585	0.0186	-0.0986***	-0.0214

	(0.0611)	(0.0520)	(0.0189)	(0.0620)	(0.0547)	(0.0730)	(0.0515)	(0.0214)	(0.0368)	(0.0433)
Size	-0.0028***	-0.0029***	-0.0030***	-0.0029***	-0.0029***	-0.0011***	-0.0012***	-0.0012***	-0.0011***	-0.0012***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
DEPOSIT	0.0013	0.0008	0.0011	0.0012	0.0011	(0.0002)	(0.0010)	(0.0001)	(0.0007)	(0.0005)
	(0.0009)	(0.0008)	(0.0008)	(0.0009)	(0.0008)	(0.0013)	(0.0012)	(0.0012)	(0.0012)	(0.0012)
LIQ	0.0003	0.0002	0.0002	0.0002	0.0002	(0.0005)	(0.0005)	(0.0005)	(0.0005)	(0.0005)
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
GRLOANS	0.0015***	0.0016***	0.0016***	0.0016***	0.0016***	0.0015***	0.0015***	0.0016***	0.0016***	0.0016***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
LEV	(0.0010)	(0.0011)	(0.0013)	(0.0012)	(0.0012)	0.0037	0.0029	0.0033	0.0031	0.0030
	(0.0029)	(0.0029)	(0.0029)	(0.0029)	(0.0029)	(0.0038)	(0.0038)	(0.0038)	(0.0038)	(0.0038)
EFF	-0.0045***	-0.0045***	-0.0047***	-0.0047***	-0.0047***	-0.0104***	-0.0105***	-0.0107***	-0.0108***	-0.0108***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0008)	(0.0008)	(0.0008)	(0.0008)	(0.0008)
NONIN	0.0010	0.0033***	0.0042***	0.0037***	0.0040***	-0.0043***	-0.0024**	(0.0004)	(0.0012)	(0.0010)
	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0010)	(0.0012)	(0.0011)	(0.0012)	(0.0012)	(0.0012)
EFI	-0.0001***	-0.0001**	-0.0001**	-0.0001*	-0.0001*	-0.0001*	-0.0001*	-0.0001*	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	0.0004***	0.0004***	0.0005***	0.0005***	0.0005***	0.0000	0.0001	0.0001**	0.0001*	0.0001**
	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
INF	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001*	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0001)	(0.0001)	0.0000	0.0000
Fiscal Deficit	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***					
	0.0000	0.0000	0.0000	0.0000	0.0000					
Real interest rate						0.0001**	0.0001**	0.0000	0.0000	0.0000
						0.0000	0.0000	0.0000	0.0000	0.0000
Intercept	0.0700***	0.0690***	0.0701***	0.0694***	0.0694***	0.0517***	0.0514***	0.0517***	0.0503***	0.0522***
	(0.0062)	(0.0062)	(0.0063)	(0.0063)	(0.0063)	(0.0070)	(0.0072)	(0.0071)	(0.0071)	(0.0071)
NOBS	106867	106867	106867	106867	106867	51713	51713	51713	51713	51713
R^2	0.1675	0.1645	0.1624	0.1614	0.1616	0.1396	0.1371	0.1342	0.1316	0.1318
F-test	70.6219	69.4082	70.1260	68.2156	71.8839	37.2429	36.4571	38.7382	36.7266	38.0245

Panel C: Meet or beat benchmark

	Fiscal deficit					***Interest rate***				
	Supply - capital	*Supply - loan*	*Supply-general*	*Liquidity*	*Demand*	*Supply - capital*	*Supply - loan*	*Supply-general*	*Liquidity*	*Demand*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
MP_t^T	-0.0324	-0.1505***	0.0255	0.2076***	0.0067	-0.0519	-0.0539	0.0068	0.2964***	-0.0271
	(0.0292)	(0.0391)	(0.0318)	(0.0521)	(0.0531)	(0.0384)	(0.0481)	(0.0335)	(0.0716)	(0.0666)
MP_t^L	-0.0013	-0.6313***	-0.0494	0.0902	-0.4731***	0.1314	-0.6046***	-0.0191	0.1387	-0.4254***
	(0.1040)	(0.1561)	(0.0531)	(0.1580)	(0.1275)	(0.1222)	(0.1723)	(0.0650)	(0.1827)	(0.1415)
MP_{t-1}^T	-0.1541***	0.0412	0.0777**	-0.0727	-0.0504	-0.1631***	0.0758	0.0974***	-0.0999	0.0156
	(0.0335)	(0.0407)	(0.0310)	(0.0626)	(0.0548)	(0.0435)	(0.0501)	(0.0329)	(0.0848)	(0.0664)
MP_{t-1}^L	0.0262	-0.2332*	-0.1397***	-0.0812	-0.2368*	-0.1191	-0.2881*	-0.1285**	0.0354	-0.1892
	(0.1081)	(0.1381)	(0.0492)	(0.1972)	(0.1270)	(0.1335)	(0.1683)	(0.0613)	(0.2449)	(0.1396)
MP_{t-2}^T	0.0400	-0.0942**	0.0648**	-0.0828	0.1479***	0.1449***	-0.1124**	0.0622**	-0.0640	0.1708**
	(0.0345)	(0.0434)	(0.0289)	(0.0668)	(0.0564)	(0.0459)	(0.0473)	(0.0307)	(0.0897)	(0.0683)

MP_{t-2}^{L}	0.3154***	-0.0890	0.0837*	-0.3151	-0.2278*	0.2280	-0.1449	-0.0144	-0.4433*	-0.2256*
	(0.1216)	(0.1309)	(0.0456)	(0.2157)	(0.1206)	(0.1669)	(0.1602)	(0.0575)	(0.2658)	(0.1293)
GROWTH	-0.0512	-0.0695	-0.0613	-0.0605	-0.0582	-0.1220	-0.1363	-0.1229	-0.1247	-0.1192
	(0.0680)	(0.0693)	(0.0686)	(0.0690)	(0.0682)	(0.0835)	(0.0848)	(0.0836)	(0.0846)	(0.0831)
CASHFLOW	0.0806***	0.0786***	0.0813***	0.0801***	0.0798***	0.0607***	0.0576***	0.0615***	0.0601***	0.0605***
	(0.0160)	(0.0160)	(0.0160)	(0.0160)	(0.0159)	(0.0183)	(0.0182)	(0.0183)	(0.0183)	(0.0182)
ALLOW	-4.4724***	-4.2464***	-4.2756***	-4.3506***	-4.2665***	-4.4177***	-4.1792***	-4.4109***	-4.4006***	-4.2485***
	(0.7418)	(0.7225)	(0.7252)	(0.7231)	(0.7204)	(0.8842)	(0.8532)	(0.8668)	(0.8628)	(0.8545)
Size	-0.0571	-0.0235	-0.0425	-0.0441	-0.0264	-0.0684	-0.0309	-0.0561	-0.0528	-0.0261
	(0.0425)	(0.0428)	(0.0426)	(0.0426)	(0.0428)	(0.0509)	(0.0514)	(0.0511)	(0.0511)	(0.0517)
DEPOSIT	0.1150	0.0894	0.0883	0.1559	0.1015	0.3238	0.2586	0.2149	0.3052	0.2668
	(0.1718)	(0.1691)	(0.1700)	(0.1690)	(0.1692)	(0.2124)	(0.2057)	(0.2063)	(0.2060)	(0.2057)
LIQ	-0.0592	-0.0649	-0.0630	-0.0610	-0.0681	-0.0613	-0.0714	-0.0680	-0.0668	-0.0790
	(0.0514)	(0.0518)	(0.0520)	(0.0517)	(0.0520)	(0.0672)	(0.0682)	(0.0679)	(0.0676)	(0.0684)
GRLOANS	-0.0662	-0.0645	-0.0568	-0.0522	-0.0628	0.0109	0.0149	0.0293	0.0275	0.0121
	(0.0763)	(0.0764)	(0.0763)	(0.0764)	(0.0763)	(0.0910)	(0.0911)	(0.0908)	(0.0911)	(0.0909)
LEV	-1.5582***	-1.5123***	-1.6636***	-1.6018***	-1.5086***	-1.4311***	-1.3282**	-1.4611***	-1.4464***	-1.3005**
	(0.4568)	(0.4576)	(0.4601)	(0.4589)	(0.4589)	(0.5340)	(0.5341)	(0.5355)	(0.5353)	(0.5361)
EFF	-0.8506***	-0.8469***	-0.8543***	-0.8546***	-0.8493***	-0.8119***	-0.8190***	-0.8252***	-0.8279***	-0.8164***
	(0.1083)	(0.1081)	(0.1085)	(0.1085)	(0.1083)	(0.1350)	(0.1351)	(0.1357)	(0.1354)	(0.1353)
NONIN	0.4107**	0.4397**	0.4185**	0.4497***	0.4673***	0.4445*	0.3047	0.1994	0.2941	0.3235
	(0.1799)	(0.1749)	(0.1726)	(0.1731)	(0.1736)	(0.2314)	(0.2207)	(0.2180)	(0.2178)	(0.2193)
EFI	0.0325***	0.0320***	0.0345***	0.0322***	0.0340***	0.0382***	0.0375***	0.0399***	0.0370***	0.0402***
	(0.0056)	(0.0056)	(0.0057)	(0.0056)	(0.0057)	(0.0066)	(0.0066)	(0.0067)	(0.0066)	(0.0068)
GDP	0.0478***	0.0551***	0.0450***	0.0495***	0.0493***	0.0462***	0.0535***	0.0426***	0.0474***	0.0508***
	(0.0092)	(0.0092)	(0.0093)	(0.0092)	(0.0091)	(0.0116)	(0.0114)	(0.0115)	(0.0114)	(0.0113)
INF	-0.0028	0.0013	-0.0036	-0.0041	-0.0028	0.0057	0.0128	0.0033	0.0035	0.0030
	(0.0084)	(0.0084)	(0.0085)	(0.0083)	(0.0083)	(0.0097)	(0.0096)	(0.0098)	(0.0095)	(0.0096)
Fiscal deficit	(0.0049)	(0.0075)	(0.0045)	(0.0043)	(0.0062)					
	(0.0064)	(0.0064)	(0.0064)	(0.0064)	(0.0064)					
Real Interest rate						0.0022	-0.0006	-0.0026	-0.0026	-0.0031
						(0.0053)	(0.0053)	(0.0053)	(0.0052)	(0.0052)
NOBS	53,237	53,237	53,237	53,237	53,237	33,459	33,459	33,459	33,459	33,459
Loglikelihood	-19000	-19000	-19000	-19000	-19000	-12000	-12000	-12000	-12000	-12000
Chi^2	962	969	956	951	965	750	748	743	746	750

Panel D: Abnormal LLP

	Fiscal deficit					***Interest rate***				
	Supply - capital	*Supply - loan*	*Supply-general*	*Liquidity*	*Demand*	*Supply - capital*	*Supply - loan*	*Supply-general*	*Liquidity*	*Demand*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
MP_{t}^{T}	0.0002***	0.0000	0.0001	-0.0001	0.0001*	0.0001	-0.0001	0.0001	-0.0001	0.0000
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0002)	(0.0001)
MP_{t}^{L}	-0.0013***	0.0003	-0.0003	-0.0004	-0.0002	-0.0018***	0.0003	-0.0005***	-0.0012***	-0.0001
	(0.0004)	(0.0002)	(0.0002)	(0.0003)	(0.0002)	(0.0006)	(0.0003)	(0.0002)	(0.0004)	(0.0002)
MP_{t-1}^{T}	0.0000	0.0003	0.0000	-0.0003**	0.0001	0.0001	0.0003	0.0000	0.0000	0.0000
	(0.0001)	(0.0002)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0003)	(0.0001)	(0.0002)	(0.0001)

MP_{t-1}^{L}	0.0000	0.0003	-0.0003	-0.0002	-0.0002	-0.0002	-0.0001	-0.0004**	-0.0003	-0.0001
	(0.0003)	(0.0003)	(0.0002)	(0.0004)	(0.0002)	(0.0004)	(0.0004)	(0.0002)	(0.0006)	(0.0003)
MP_{t-2}^{T}	-0.0001	0.0002	0.0000	-0.0003	0.0002**	-0.0002**	0.0003*	0.0000	-0.0002	0.0002**
	(0.0001)	(0.0001)	(0.0001)	(0.0002)	(0.0001)	(0.0001)	(0.0002)	(0.0001)	(0.0004)	(0.0001)
MP_{t-2}^{L}	0.0001	0.0004	-0.0002*	-0.0003	-0.0003	0.0002	0.0001	-0.0007***	-0.0004	-0.0002
	(0.0004)	(0.0003)	(0.0001)	(0.0004)	(0.0002)	(0.0011)	(0.0006)	(0.0002)	(0.0006)	(0.0003)
Size	-0.0008*	-0.0008*	-0.0008*	-0.0008*	-0.0008*	-0.0014***	-0.0014***	-0.0013***	-0.0013***	-0.0014***
	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0005)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
GROWTH	0.0005	0.0005	0.0005	0.0005	0.0005	0.0014***	0.0013***	0.0013***	0.0013***	0.0013***
	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
PASTLLP	0.0218	0.0217	0.0216	0.0214	0.0217	0.0278	0.0266	0.0275	0.0265	0.0268
	(0.0150)	(0.0151)	(0.0150)	(0.0150)	(0.0151)	(0.0206)	(0.0210)	(0.0207)	(0.0210)	(0.0211)
EBTLLPL	-0.0103	-0.0089	-0.0085	-0.0098	-0.0097	-0.0212	-0.0190	-0.0177	-0.0201	-0.0201
	(0.0144)	(0.0144)	(0.0145)	(0.0145)	(0.0145)	(0.0165)	(0.0165)	(0.0164)	(0.0164)	(0.0165)
DEPOSIT	0.0034	0.0032	0.0031	0.0031	0.0031	(0.0001)	(0.0005)	(0.0008)	(0.0006)	(0.0006)
	(0.0023)	(0.0023)	(0.0023)	(0.0023)	(0.0023)	(0.0011)	(0.0010)	(0.0010)	(0.0010)	(0.0010)
LOANS	0.0047***	0.0048***	0.0048***	0.0048***	0.0048***	0.0044***	0.0045***	0.0044***	0.0046***	0.0045***
	(0.0016)	(0.0016)	(0.0016)	(0.0016)	(0.0016)	(0.0016)	(0.0015)	(0.0015)	(0.0016)	(0.0016)
LIQ	0.0015*	0.0015*	0.0016*	0.0016*	0.0015*	0.0006	0.0007	0.0007	0.0007	0.0007
	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0005)	(0.0005)	(0.0004)	(0.0005)	(0.0005)
LEV	0.0086*	0.0087*	0.0088**	0.0089**	0.0089**	0.0051	0.0047	0.0049	0.0049	0.0049
	(0.0045)	(0.0044)	(0.0044)	(0.0045)	(0.0045)	(0.0052)	(0.0052)	(0.0052)	(0.0052)	(0.0052)
EFF	0.0032***	0.0032***	0.0032***	0.0032***	0.0032***	0.0030***	0.0029***	0.0029***	0.0029***	0.0029***
	(0.0011)	(0.0011)	(0.0011)	(0.0011)	(0.0011)	(0.0008)	(0.0008)	(0.0008)	(0.0008)	(0.0008)
NONIN	0.0001	0.0005	0.0003	0.0004	0.0004	-0.0016**	(0.0006)	(0.0005)	(0.0007)	(0.0008)
	(0.0005)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0007)	(0.0008)	(0.0007)	(0.0008)	(0.0007)
EFI	0.0000***	0.0000***	0.0000***	0.0000***	0.0000**	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001*	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fiscal Deficit	0.0000*	0.0000**	0.0000*	0.0000**	0.0000					
	0.0000	0.0000	0.0000	0.0000	0.0000					
Real Interest Rate						0.0000	0.0000	0.0000	0.0000	0.0000
						0.0000	0.0000	0.0000	0.0000	0.0000
Intercept	0.0111	0.0119	0.0112	0.0110	0.0111	0.0258***	0.0264***	0.0257***	0.0255***	0.0257***
	(0.0099)	(0.0100)	(0.0100)	(0.0100)	(0.0101)	(0.0074)	(0.0074)	(0.0072)	(0.0073)	(0.0074)
NOBS	18257	18257	18257	18257	18257	9993	9993	9993	9993	9993
R^2	0.08	0.08	0.08	0.08	0.08	0.11	0.10	0.10	0.10	0.10
F	36	34	35	34	35	28	27.3022	27.2957	26.9997	27.3239

Table 8: Endogeneity test: Instrumental variable (IV) approach

The table represents the results for 2SLS-IV approach. Panels A and B reports the results for earnings quality and earnings management respectively. In all cases bank and year fixed effects were incorporated. For meet or beat benchmark we apply IV-probit model (see Panel B columns 1-5). Variable definitions are provided in Appendix A2. ***, **, * statistically significant at the 1%, 5% and 10% significance level, respectively.

Panel A: Earnings Quality

	Earnings Persistence					Cashflow Predictability				
	Supply capital	Supply- loan	Supply general	Liquidity	Demand	Supply capital	Supply loan	Supply general	Liquidity	Demand
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.345***	0.341***	0.327***	0.321***	0.318***	0.2532***	0.2632***	0.2395***	0.2355***	0.238***
	(0.0138)	(0.014)	(0.0144)	(0.0133)	(0.0134)	(0.0121)	(0.0124)	(0.0128)	(0.0119)	(0.0121)
MP_t^T	-0.0003	0.001**	0.0000	-0.0003	0.0006*	-0.0002	0.0011***	0.0000	-0.0003	0.0005
	(0.0002)	(0.0003)	(0.0003)	(0.0004)	(0.0003)	(0.0002)	(0.0003)	(0.0002)	(0.0003)	(0.0003)
MP_t^L	-0.006***	-0.0011	-0.0002	-0.0021*	-0.0002	-0.0030***	-0.0005	-0.0003	-0.0013*	-0.0001
	(0.0007)	(0.0011)	(0.0003)	(0.0011)	(0.0009)	(0.0006)	(0.0009)	(0.0002)	(0.0007)	(0.0007)
MP_{t-1}^T	0.0002	0.0008***	-0.0002	0.0003	0.0003	-0.0007***	0.0005**	-0.0002	0.0007*	-0.0004
	(0.0003)	(0.0003)	(0.0003)	(0.0005)	(0.0005)	(0.0002)	(0.0003)	(0.0002)	(0.0003)	(0.0003)
MP_{t-1}^L	-0.0023***	0.0004	0.0006**	-0.0015	0.0006	0.0007	0.0012	0.0005*	0.0029***	-0.0008
	(0.0008)	(0.0010)	(0.0003)	(0.0015)	(0.0011)	(0.0008)	(0.0008)	(0.0003)	(0.0011)	(0.0008)
MP_{t-2}^T	0.0003	-0.0001	0.0009***	0.0002	-0.0013***	-0.0004*	0.0002	0.0001	0.0006	-0.0005
	(0.0003)	(0.0003)	(0.0003)	(0.0005)	(0.0005)	(0.0002)	(0.0003)	(0.0002)	(0.0004)	(0.0004)
MP_{t-2}^L	0.0007	-0.0022**	0.0002	-0.0002	-0.0008	0.0006	0.0010	0.0003	0.0040***	0.0001
	(0.0010)	(0.0009)	(0.0003)	(0.0012)	(0.0009)	(0.0011)	(0.0007)	(0.0003)	(0.0008)	(0.0006)
$MP_t^T \times EBT_t$	-0.0395**	-0.0419**	-0.0092	0.0065	-0.0203	-0.053***	-0.0572***	-0.0086	0.0226	-0.06***
	(0.0154)	(0.0208)	(0.0134)	(0.0257)	(0.0210)	(0.0145)	(0.0209)	(0.0112)	(0.0214)	(0.0235)
$MP_t^L \times EBT_t$	0.0727	-0.0333	-0.0144	0.0565	0.0176	0.0152	-0.0751	-0.0113	0.0344	-0.0674
	(0.0503)	(0.0573)	(0.0169)	(0.0661)	(0.0666)	(0.0447)	(0.0516)	(0.0152)	(0.0436)	(0.0579)
$MP_{t-1}^T \times EBT_t$	-0.0148	-0.0380*	-0.0113	-0.0145	0.0172	0.0135	-0.0360**	-0.0081	-0.0088	0.0071
	(0.0177)	(0.0194)	(0.0121)	(0.0329)	(0.0232)	(0.0174)	(0.0178)	(0.0106)	(0.0227)	(0.0178)
$MP_{t-1}^L \times EBT_t$	0.0884	-0.0379	0.0437**	-0.0131	-0.100	0.0458	-0.0595	0.0434***	-0.157***	-0.0329
	(0.0546)	(0.0566)	(0.0170)	(0.0664)	(0.0782)	(0.0465)	(0.0535)	(0.0156)	(0.0517)	(0.0615)
$MP_{t-2}^T \times EBT_t$	-0.0434**	-0.0556***	-0.0330**	-0.0360	0.0915***	-0.0125	-0.0580***	-0.0112	-0.0115	0.0446**
	(0.0195)	(0.0206)	(0.0132)	(0.0305)	(0.0221)	(0.0184)	(0.0173)	(0.0123)	(0.0267)	(0.0205)
$MP_{t-2}^L \times EBT_t$	-0.0162	0.0322	0.0119	0.0241	-0.0135	0.0702	-0.0836*	-0.0048	-0.159***	0.0007
	(0.0615)	(0.0526)	(0.0190)	(0.0603)	(0.0559)	(0.0542)	(0.0478)	(0.0172)	(0.0344)	(0.0421)
Size	-0.0029***	-0.0029***	-0.0031***	-0.0030***	-0.003***	-0.0013***	-0.0014***	-0.0014***	-0.001***	-0.001***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
DEPOSIT	0.0014	0.0013	0.0015*	0.0015*	0.0014	0.0000	0.0001	0.0003	0.0002	0.0002
	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)
LIQ	0.0002	0.0002	0.0002	0.0002	0.0002	(0.0003)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
GRLOANS	0.0015***	0.0016***	0.0016***	0.0016***	0.0016***	0.0014***	0.0014***	0.0015***	0.0015***	0.002***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
LEV	(0.0007)	(0.0004)	(0.0010)	(0.0006)	(0.0006)	0.0031	0.0034	0.0031	0.0031	0.0033
	(0.0029)	(0.0029)	(0.0029)	(0.0029)	(0.0029)	(0.0030)	(0.0030)	(0.0030)	(0.0030)	(0.0030)
EFF	-0.0045***	-0.0045***	-0.0047***	-0.0047***	-0.005***	-0.0104***	-0.0104***	-0.0106***	-0.011***	-0.011***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
NONIN	0.0024**	0.0043***	0.0047***	0.0044***	0.0046***	-0.0036***	-0.0019**	(0.0014)	-0.0018**	-0.002**
	(0.0010)	(0.0009)	(0.0010)	(0.0010)	(0.0010)	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)

EFI	-0.0001***	-0.0001**	-0.0001**	-0.0001**	-0.0001**	-0.0002***	-0.0001***	-0.0001***	-0.0001***	-0.000***
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	0.0005***	0.0005***	0.0005***	0.0005***	0.0005***	0.0001***	0.0001***	0.0002***	0.0002***	0.0002***
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INF	0.0001	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NOBS	106934	106934	106934	106934	106934	106929	106929	106929	106929	106929
R^2	0.08	0.08	0.08	0.08	0.08	0.0723	0.0722	0.0691	0.0675	0.0681
F_value (first stage) MPT_t-1	13306***	4197***	2881***	12676***	1642***	13306.00***	4122***	3281***	12474***	1642***
F_value (first stage) MPL_t-1	4314***	3630***	1585***	1230***	4266***	4314.41***	3142***	14941***	1496***	4266***
F_value (first stage) MPT_t-2	12382***	4515***	2711***	14345***	2044***	12382.14***	4781***	2844***	14265***	2043***
F_value (first stage) MPL_t-2	4827***	3712***	14447***	1095***	4613***	4826.94***	3734***	19970***	1426***	4612***
Instruments relevance (LM χ)	2329***	1489***	1019***	164***	305***	2329.152***	1433***	876***	150***	305***
J-statistics (p-value)	0.116	0.001	0.235	0.081	0.332	0.1483	0.6486	0.0732	0.4612	0.2081

Panel B: Earnings Management

	Meet or beat Benchmark					Abnormal LLP				
	Supply capital	Supply- loan	Supply general	Liquidity	Demand	Supply capital	Supply loan	Supply general	Liquidity	Demand
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
MP_t^T	0.0165	-0.1257***	-0.0503***	0.2250***	-0.1767***	-0.0001	0.0007***	0.0001	0.0000	0.0001*
	(0.0219)	(0.0269)	(0.0191)	(0.0304)	(0.0378)	(0.0001)	(0.0001)	(0.0002)	(0.0001)	(0.0001)
MP_t^L	-0.1234**	-0.5064***	-0.0842***	0.1126	-0.4172***	-0.0002	0.0002	-0.0005***	-0.0004	-0.0002
	(0.0600)	(0.0920)	(0.0291)	(0.0818)	(0.0793)	(0.0004)	(0.0003)	(0.0002)	(0.0003)	(0.0002)
MP_{t-1}^T	-0.0032	-0.0177	0.0668***	0.0128	-0.1983***	0.0000	0.0003	0.0001	-0.0005***	0.0002
	(0.0240)	(0.0283)	(0.0194)	(0.0377)	(0.0416)	(0.0001)	(0.0003)	(0.0001)	(0.0002)	(0.0001)
MP_{t-1}^L	-0.0648	-0.0360	-0.1045***	-0.0288	-0.3540***	0.0003	0.0006**	-0.0001	0.0003	-0.0002
	(0.0594)	(0.0819)	(0.0271)	(0.1388)	(0.0820)	(0.0003)	(0.0003)	(0.0002)	(0.0004)	(0.0004)
MP_{t-2}^T	0.0017	-0.0798***	-0.0147	-0.0471	0.0020	0.0002	-0.0001	0.0000	-0.0003	0.0000
	(0.0263)	(0.0298)	(0.0186)	(0.0399)	(0.0402)	(0.0001)	(0.0002)	(0.0001)	(0.0002)	(0.0002)
MP_{t-2}^L	-0.1616**	-0.0433	-0.0230	-0.1000	-0.2472***	-0.0006*	0.0004	-0.0003*	-0.0002	0.0000
	(0.0741)	(0.0733)	(0.0265)	(0.1330)	(0.0711)	(0.0004)	(0.0003)	(0.0002)	(0.0004)	(0.0005)
GROWTH	-0.1212***	-0.1290***	-0.1195***	-0.1249***	-0.1139***	0.0004	0.0004	0.0012**	0.0005	0.0005
	(0.0334)	(0.0333)	(0.0330)	(0.0334)	(0.0329)	(0.0003)	(0.0003)	(0.0005)	(0.0004)	(0.0004)
CASHFLOW	0.0338***	0.0316***	0.0328***	0.0324***	0.0314***					
	(0.0043)	(0.0042)	(0.0042)	(0.0042)	(0.0042)					
ALLOW	-2.3188***	-2.3283***	-2.4126***	-2.3647***	-2.3207***					
	(0.4558)	(0.4551)	(0.4575)	(0.4490)	(0.4458)					
PASTLLP						0.0069	0.0076	-0.0018	0.0207	0.0207
						(0.0138)	(0.0139)	(0.0270)	(0.0150)	(0.0148)
EBTLLPL						-0.0008	-0.0008	-0.0070	-0.0084	-0.0082
						(0.0150)	(0.0150)	(0.0166)	(0.0142)	(0.0141)
Size	0.0300***	0.0306***	0.0294***	0.0309***	0.0339***	-0.001	-0.0007	-0.0013***	-0.0007*	-0.0008*
	(0.0033)	(0.0033)	(0.0033)	(0.0033)	(0.0033)	(0.0005)	(0.0005)	(0.0004)	(0.0004)	(0.0004)
DEPOSIT	0.3637***	0.3378***	0.3441***	0.3481***	0.3418***	0.0035	0.0035	0.0014	0.0031	0.0029
	(0.0333)	(0.0333)	(0.0330)	(0.0330)	(0.0328)	(0.0026)	(0.0026)	(0.0011)	(0.0023)	(0.0022)
LIQ	-0.0240	-0.0257	-0.0287	-0.0276	-0.0271	0.0016	0.0016	0.0009*	0.0014*	0.0014*

	(0.0167)	(0.0172)	(0.0176)	(0.0173)	(0.0177)	(0.0009)	(0.0009)	(0.0004)	(0.0008)	(0.0008)
GRLOANS	-0.0922***	-0.0918***	-0.0886***	-0.0877***	-0.0966***	0.0046***	0.0045***	0.0054***	0.0042***	0.0046***
	(0.0339)	(0.0338)	(0.0337)	(0.0337)	(0.0336)	(0.0017)	(0.0017)	(0.0015)	(0.0015)	(0.0015)
LEV	-1.5795***	-1.5545***	-1.5956***	-1.5309***	-1.5133***	0.0111**	0.0112**	0.0107**	0.0098**	0.0082*
	(0.1400)	(0.1389)	(0.1404)	(0.1387)	(0.1385)	(0.0051)	(0.0051)	(0.0054)	(0.0045)	(0.0043)
EFF	-0.2093***	-0.2060***	-0.2191***	-0.2182***	-0.2457***	0.0034***	0.0035***	0.0042***	0.0032***	0.0032***
	(0.0276)	(0.0274)	(0.0277)	(0.0275)	(0.0280)	(0.0012)	(0.0012)	(0.0009)	(0.0011)	(0.0011)
NONIN	0.5732***	0.6048***	0.6062***	0.6026***	0.4434***	(0.0001)	0.0000	(0.0001)	0.0007	0.0005
	(0.0477)	(0.0475)	(0.0460)	(0.0460)	(0.0473)	(0.0006)	(0.0005)	(0.0007)	(0.0006)	(0.0005)
EFI	0.0116***	0.0107***	0.0102***	0.0115***	0.0122***	0.0000**	0.0000**	0.0000*	0.0000**	0.0000**
	(0.0010)	(0.0010)	(0.0011)	(0.0010)	(0.0010)	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	(0.0011)	0.0041	(0.0018)	(0.0025)	0.0112***	0.0000	0.0000	0.0000	0.0000	0.0000
	(0.0031)	(0.0031)	(0.0033)	(0.0030)	(0.0032)	0.0000	0.0000	0.0000	0.0000	0.0000
INF	-0.0258***	-0.0218***	-0.0265***	-0.0264***	-0.0249***	(0.0001)	(0.0001)	0.0000	0.0000	0.0000
	(0.0028)	(0.0028)	(0.0028)	(0.0027)	(0.0027)	0.0000	0.0000	(0.0001)	0.0000	0.0000
cons	-2.3054***	-2.2184***	-2.1705***	-2.3757***	-2.3123***					
	(0.1309)	(0.1273)	(0.1299)	(0.1276)	(0.1242)					
NOBS	74372	74372	74372	74372	74372	16223	16223	17679	17321	17679
Log Likelihood	170000	270000	-13000	460000	390000					
Chi^2	3100	3100	3100	3100	3300					
F_value (first stage) MPT_t-1						$5268^{.***}$	$3367^{.***}$	$2753^{.***}$	$18960^{.***}$	$2147^{.***}$
F_value (first stage) MPL_t-1						$5060^{.***}$	$2144^{.***}$	11014^{***}	$2219^{.***}$	$8696^{.***}$
F_value (first stage) MPT_t-2						$6485^{.***}$	1001***	1390^{***}	$14265^{.***}$	$1923^{.***}$
F_value (first stage) MPL_t-2						$3865^{.***}$	$2657^{.***}$	$11370^{.***}$	$1426^{.***}$	$4422^{.***}$
Instruments relevance (LM χ)						$751^{.***}$	$291^{.***}$	$218^{.***}$	$47^{.***}$	$361^{.***}$
J-statistics (p-value)						0.001	0.06	0.31	0.14	0.54

Table 9 Endogeneity test: Lewbel approach

The table represents the results for Lewbel approach, estimate causal relationships in the presence of endogeneity, where standard instrumental variable (IV) methods may not be applicable. Instruments relevance (LM-χ) and Hansen *J* -statistics are reported in the table. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Earnings Persistence					***Cashflow Predictability***				
	Supply -capital	*Supply-Loan*	*Supply- general*	*Liquidity*	*Demand side*	*Supply - capital*	*Supply-Loan*	*Supply-general*	*Liquidity*	*Demand side*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT_t	0.3326***	0.3425***	0.3198***	0.3185***	0.3185***	0.2591***	0.2693***	0.2324***	0.2301***	0.2409***
	(0.0164)	(0.0161)	(0.0153)	(0.0135)	(0.0134)	(0.0141)	(0.0137)	(0.0138)	(0.0119)	(0.0121)
MP_t^T	-0.0021	0.0050**	0.0011***	-0.0013	-0.0013	-0.0027**	0.0003	0.0005	-0.0055**	0.0036***
	(0.0014)	(0.0020)	(0.0004)	(0.0025)	(0.0033)	(0.0012)	(0.0013)	(0.0004)	(0.0024)	(0.0013)
MP_t^L	-0.0111**	0.0115	-0.0001	0.0049	0.0018	0.0044	-0.0002	0.0017	0.0013	0.0017*
	(0.0047)	(0.0074)	(0.0019)	(0.0069)	(0.0023)	(0.0032)	(0.0013)	(0.0016)	(0.0026)	(0.0009)
MP_{t-1}^T	-0.0023	0.0040**	-0.0005*	-0.0020	0.0003	0.0019	0.0076***	-0.0011***	-0.0045**	-0.0009
	(0.0022)	(0.0017)	(0.0003)	(0.0022)	(0.0012)	(0.0017)	(0.0026)	(0.0003)	(0.0019)	(0.0006)
MP_{t-1}^L	-0.0098	-0.0224*	-0.0023**	-0.0177	0.0019	-0.0011	0.0003	-0.0037***	-0.0006	0.0010
	(0.0064)	(0.0122)	(0.0011)	(0.0195)	(0.0025)	(0.0039)	(0.0013)	(0.0010)	(0.0020)	(0.0008)
MP_{t-2}^T	0.0029	-0.0074***	0.0007**	-0.0012	0.0008	0.0007	-0.0030	0.0004*	0.0030	0.0008
	(0.0025)	(0.0024)	(0.0003)	(0.0022)	(0.0010)	(0.0024)	(0.0019)	(0.0003)	(0.0024)	(0.0006)
MP_{t-2}^L	0.0068	0.0002	-0.0020	0.0015	-0.0017	0.0119**	0.0046**	-0.0021	0.0046	0.0020***
	(0.0065)	(0.0155)	(0.0017)	(0.0088)	(0.0026)	(0.0054)	(0.0021)	(0.0015)	(0.0031)	(0.0007)
$MP_t^T \times EBT_t$	-0.0071	-0.1220**	-0.0339**	0.0058	0.0373	0.0141	-0.0321	-0.0210	0.0622*	-0.1437***
	(0.0318)	(0.0482)	(0.0150)	(0.0423)	(0.0939)	(0.0296)	(0.0324)	(0.0135)	(0.0375)	(0.0389)
$MP_t^L \times EBT_t$	0.1428	-0.3259*	-0.0178	-0.2045	-0.0661	-0.0691	-0.0649	-0.0476	-0.0688	-0.1087**
	(0.0892)	(0.1710)	(0.0346)	(0.2604)	(0.1008)	(0.0668)	(0.0569)	(0.0291)	(0.0821)	(0.0553)
$MP_{t-1}^T \times EBT_t$	0.0171	-0.0957***	-0.0047	0.0098	0.0206	-0.0446	-0.1542***	0.0113	0.0479	0.0253
	(0.0492)	(0.0364)	(0.0120)	(0.0541)	(0.0335)	(0.0414)	(0.0473)	(0.0117)	(0.0384)	(0.0235)
$MP_{t-1}^L \times EBT_t$	0.1930**	0.4843*	0.0963***	0.4136	-0.1179	0.1232*	-0.0136	0.1200***	-0.0681	-0.0759
	(0.0882)	(0.2797)	(0.0264)	(0.5108)	(0.1066)	(0.0748)	(0.0598)	(0.0248)	(0.0540)	(0.0590)
$MP_{t-2}^T \times EBT_t$	-0.1121**	0.0421	-0.0299**	-0.0239	0.0440	-0.0342	0.0076	-0.0239*	-0.0774*	0.0206
	(0.0517)	(0.0469)	(0.0138)	(0.0426)	(0.0336)	(0.0456)	(0.0362)	(0.0123)	(0.0470)	(0.0230)
$MP_{t-2}^L \times EBT_t$	-0.1272	-0.0032	0.0517	-0.0686	0.0215	-0.1312	-0.1410**	0.0388	-0.1850**	-0.0310
	(0.1155)	(0.3370)	(0.0386)	(0.2254)	(0.0731)	(0.0951)	(0.0679)	(0.0350)	(0.0744)	(0.0424)
Size	-0.0030***	-0.0029***	-0.0030***	-0.0031***	-0.0031***	-0.0014***	-0.0015***	-0.0013***	-0.0016***	-0.0015***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0002)	(0.0003)	(0.0002)	(0.0003)	(0.0002)
DEPOSIT	0.0016	0.0009	0.0017*	0.0018**	0.0014	(0.0003)	0.0007	0.0006	0.0011	0.0003
	(0.0015)	(0.0011)	(0.0009)	(0.0009)	(0.0009)	(0.0012)	(0.0010)	(0.0009)	(0.0009)	(0.0009)
LIQ	0.0003	0.0002	0.0002	0.0002	0.0002	(0.0003)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
GRLOANS	0.0013***	0.0013***	0.0016***	0.0016***	0.0016***	0.0015***	0.0014***	0.0015***	0.0015***	0.0015***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
LEV	(0.0008)	0.0003	(0.0004)	(0.0006)	(0.0008)	0.0026	0.0036	0.0035	0.0031	0.0030
	(0.0031)	(0.0030)	(0.0029)	(0.0029)	(0.0029)	(0.0031)	(0.0030)	(0.0030)	(0.0030)	(0.0030)
EFF	-0.0044***	-0.0041***	-0.0045***	-0.0046***	-0.0046***	-0.0104***	-0.0104***	-0.0104***	-0.0105***	-0.0106***
	(0.0006)	(0.0007)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
NONIN	0.0005	0.0010	0.0053***	0.0045***	0.0047***	0.0007	-0.0029**	(0.0009)	-0.0024**	-0.0015*

	(0.0034)	(0.0014)	(0.0010)	(0.0010)	(0.0010)	(0.0029)	(0.0012)	(0.0009)	(0.0010)	(0.0009)
EFI	-0.0001***	-0.0001**	(0.0001)	-0.0001*	(0.0001)	-0.0001***	-0.0001***	-0.0001***	-0.0001***	-0.0001***
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	0.0004***	0.0004***	0.0005***	0.0006***	0.0005***	0.0001*	0.0002***	0.0002***	0.0003***	0.0002***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	0.0000	(0.0001)	0.0000	(0.0001)	(0.0001)	0.0000
INF	0.0001	0.0003***	0.0001**	0.0000	0.0000	0.0000	0.0002***	0.0001***	0.0000	0.0000
	(0.0001)	(0.0001)	(0.0001)	0.0000	0.0000	(0.0001)	(0.0001)	0.0000	0.0000	0.0000
NOBS	106934	106934	106934	106934	106934	106929	106929	106929	106929	106929
R-squared	0.07	0.02	0.07	0.07	0.07	0.0521	0.0438	0.0581	0.0548	0.0657
F_value (first stage) MP_t^T	342	132***	4680***	174***	54***	522***	527***	4681***	307***	12474***
F_value (first stage) MP_t^L	343	41***	188***	61***	166***	482***	3263***	188***	158***	1496***
F_value (first stage) MP_{t-1}^T	268***	146***	7678***	222***	104***	375***	282***	7677***	334***	14265***
F_value (first stage) MP_{t-1}^L	46***	66***	367***	84***	318***	258***	1011***	368***	451***	2167***
F_value (first stage) MP_{t-2}^T	409***	99***	7432***	243***	89***	293***	124***	7431***	429***	670.99***
F_value (first stage) MP_{t-2}^L	99***	48***	361***	37***	198***	99***	498***	361***	47***	3298.28***
Instruments relevance (LM χ)	96***	41***	133***	43***	39***	136***	118***	135***	86***	150***
J-statistics (p-value)	0.34	0.05	0.06	0.90	0.21	0.19	0.08	0.43	0.75	0.46

..Contd.

	Meet Or Beat Benchmark					***Abnormal LLP***				
	Supply capital	*Supply-Loan*	*Supply- general*	*Liquidity*	*Demand side*	*Supply capital*	*Supply-Loan*	*Supplygeneral*	*Liquidity*	*Demand side*
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
MP_t^T	-0.1906	0.3750	-0.1983**	0.4219**	-0.0088	0.0000	0.0010**	0.0006**	0.0020*	0.0008***
	(0.1554)	(0.2485)	(0.0859)	(0.1701)	(0.1184)	(0.0007)	(0.0005)	(0.0003)	(0.0011)	(0.0002)
MP_t^L	-0.3674	-2.2254***	0.6117***	-0.8252	-0.3361***	0.0062	-0.0006	-0.0007	0.0019	0.0002
	(0.2564)	(0.5524)	(0.2071)	(0.8452)	(0.1169)	(0.0056)	(0.0005)	(0.0008)	(0.0027)	(0.0002)
MP_{t-1}^T	0.2878**	-0.6437**	-0.0627	0.0546	-0.0250	-0.0001	-0.0007	0.0002	0.0036**	0.0007***
	(0.1297)	(0.2653)	(0.0603)	(0.2970)	(0.0886)	(0.0004)	(0.0010)	(0.0002)	(0.0014)	(0.0002)
MP_{t-1}^L	0.0839	0.3138	-0.0695	-0.4738	-0.2593**	0.0036*	-0.0004	-0.0003	-0.0005	-0.0005**
	(0.3174)	(0.3668)	(0.1831)	(0.6887)	(0.1312)	(0.0021)	(0.0004)	(0.0008)	(0.0016)	(0.0002)
MP_{t-2}^T	0.0159	0.1880	0.1635*	0.1213	0.1923**	-0.0012**	-0.0004	0.0001	-0.0018	0.0000
	(0.1886)	(0.2641)	(0.0875)	(0.2568)	(0.0753)	(0.0006)	(0.0003)	(0.0002)	(0.0018)	(0.0002)
MP_{t-2}^L	-1.4568*	0.1987	0.2572	0.9254	0.0206	0.0014	-0.0001	-0.0005	0.0076*	-0.0002
	(0.8142)	(0.4246)	(0.4681)	(1.8074)	(0.1393)	(0.0021)	(0.0005)	(0.0006)	(0.0045)	(0.0002)
Size	0.0288***	0.0322***	0.0264***	0.0309***	0.0310***	(0.0007)	-0.0008*	-0.0008*	-0.0007*	-0.0008*
	(0.0038)	(0.0033)	(0.0039)	(0.0034)	(0.0033)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
DEPOSIT	0.3512***	0.3356***	0.3821***	0.3284***	0.3590***	0.0018	0.0027	0.0026	0.0028	0.0029
	(0.0357)	(0.0415)	(0.0347)	(0.0374)	(0.0328)	(0.0026)	(0.0023)	(0.0022)	(0.0023)	(0.0022)
LIQ	-0.0263	-0.0295*	-0.0204	-0.0317*	-0.0274	0.0015*	0.0014*	0.0014*	0.0015*	0.0014*
	(0.0170)	(0.0171)	(0.0178)	(0.0175)	(0.0176)	(0.0008)	(0.0008)	(0.0008)	(0.0008)	(0.0008)
GRLOANS	-0.0890***	-0.0828**	-0.1004***	-0.0926***	-0.0958***	0.0060***	0.0047***	0.0045***	0.0051***	0.0045***
	(0.0340)	(0.0332)	(0.0346)	(0.0345)	(0.0337)	(0.0016)	(0.0015)	(0.0015)	(0.0016)	(0.0015)
LEV	-1.5663***	-1.4509***	-1.4916***	-1.5131***	-1.5308***	0.0104**	0.0084**	0.0079*	0.0075*	0.0080*
	(0.1407)	(0.1554)	(0.1453)	(0.1407)	(0.1384)	(0.0042)	(0.0043)	(0.0042)	(0.0043)	(0.0042)
EFF	-0.2030***	-0.2024***	-0.1747***	-0.2336***	-0.2176***	0.0029***	0.0032***	0.0032***	0.0030***	0.0033***
	(0.0297)	(0.0269)	(0.0370)	(0.0291)	(0.0281)	(0.0011)	(0.0011)	(0.0011)	(0.0011)	(0.0011)
NONIN	0.5678***	0.6131***	0.6155***	0.5542***	0.5850***	0.0000	0.0003	0.0006	0.0018*	0.0010*

	(0.1207)	(0.0704)	(0.0788)	(0.0621)	(0.0502)	(0.0012)	(0.0006)	(0.0006)	(0.0010)	(0.0006)
EFI	0.0095***	0.0102***	0.0158***	0.0106***	0.0114***	0.0000***	0.0000**	0.0000***	0.0000**	0.0000**
	(0.0015)	(0.0013)	(0.0037)	(0.0012)	(0.0010)	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	0.0031	0.0079	(0.0107)	(0.0004)	(0.0007)	(0.0001)	0.0000	0.0000	(0.0001)	0.0000
	(0.0042)	(0.0049)	(0.0084)	(0.0037)	(0.0034)	(0.0001)	0.0000	0.0000	0.0000	0.0000
INF	-0.0295***	-0.0178***	-0.0177***	-0.0256***	-0.0257***	0.0000	0.0000	0.0000	0.0000	0.0000
	(0.0035)	(0.0050)	(0.0042)	(0.0030)	(0.0027)	0.0000	0.0000	0.0000	0.0000	0.0000
GROWTH	-0.1204***	-0.1636***	-0.0987***	-0.1229***	-0.1126***	0.0005	0.0005	0.0005	0.0003	0.0005
	(0.0341)	(0.0343)	(0.0356)	(0.0340)	(0.0328)	(0.0004)	(0.0004)	(0.0004)	(0.0003)	(0.0004)
CASHFLOW	0.0347***	0.0322***	0.0318***	0.0324***	0.0325***	-	-	-	-	-
	(0.0043)	(0.0045)	(0.0046)	(0.0042)	(0.0042)	-	-	-	-	-
ALLOW	-2.2968***	-2.2096***	-2.3146***	-2.3658***	-2.3532***	-	-	-	-	-
	(0.4439)	(0.4366)	(0.4465)	(0.4471)	(0.4478)	-	-	-	-	-
PASTLLP	-	-	-	-	-	0.0194	0.0216	0.0206	0.0196	0.0211
	-	-	-	-	-	(0.0147)	(0.0151)	(0.0148)	(0.0147)	(0.0150)
EBTLLPL	-	-	-	-	-	-0.0089	-0.0099	-0.0053	-0.0070	-0.0080
	-	-	-	-	-	(0.0149)	(0.0140)	(0.0138)	(0.0142)	(0.0141)
NOBS	74372	74372	74372	74372	74372	17679	17679	17679	17679	17679
R^2						-0.26	-0.17	-0.15	-0.29	-0.15
Log Likelihood	19000	100000	-210000	280000	210000					
Chi^2	3300	3600	3300	3200	3100					
F_value (first stage) MP_t^T	-	-	-	-	-	69.69	201^{***}	426	89^{***}	306^{***}
F_value (first stage) MP_t^L	-	-	-	-	-	28.31	253^{***}	105	43^{***}	1140^{***}
F_value (first stage) MP_{t-1}^T	-	-	-	-	-	143^{***}	161^{***}	471^{***}	112^{***}	715^{***}
F_value (first stage) MP_{t-1}^L	-	-	-	-	-	119^{***}	497^{***}	129^{***}	54^{***}	1862^{***}
F_value (first stage) MP_{t-2}^T	-	-	-	-	-	227^{***}	298^{***}	686^{***}	72^{***}	809^{***}
F_value (first stage) MP_{t-2}^L	-	-	-	-	-	132^{***}	423^{***}	58^{***}	37^{***}	2172^{***}
Instruments relevance (LM χ)	-	-	-	-	-	23^{***}	76^{***}	43^{***}	49^{***}	94^{***}
J-statistics (p-value)	-	-	-	-	-	0.27	0.35	0.06	0.11	0.30

Table 10: Endogeneity test: Entropy balancing

The table represents the results for entropy balancing approach. Panel A and Panel C reports the balancing detail for treatment and control groups. Panels B and D reports the results applied on the balanced sample. Panels B and D includes bank and year fixed effects. Variable definitions are provided in Appendix A2. ***, **, * statistically significant at the 1%, 5% and 10% significance level, respectively.

Panel A: Entropy Balancing-Earnings quality

	Earnings Persistence						Cashflow Predictability					
	Treat			Control			Treat			Control		
	Mean	Variance	Skewness	Mean	Variance	Skewness	Mean	Variance	Skewness	Mean	Variance	Skewness
EBT	0.01	0.00	1.24	0.01	0.00	-0.78	0.01	0.00	1.24	0.01	0.00	-0.78
Size	20.86	4.89	0.32	20.86	4.89	0.34	20.86	4.89	0.32	20.86	4.89	0.34
DEPOSIT	0.62	0.07	-0.89	0.62	0.07	-1.29	0.62	0.07	-0.89	0.62	0.07	-1.29
LIQ	0.38	0.82	9.87	0.38	0.82	9.67	0.38	0.82	9.87	0.38	0.82	9.67
GRLOANS	0.11	0.09	3.64	0.11	0.09	3.78	0.11	0.09	3.64	0.11	0.09	3.78
LEV	0.12	0.01	3.57	0.12	0.01	4.17	0.12	0.01	3.57	0.12	0.01	4.17
EFF	0.69	0.06	1.92	0.69	0.06	1.81	0.69	0.06	1.92	0.69	0.06	1.81
NONIN	0.45	0.03	0.84	0.45	0.03	0.18	0.45	0.03	0.84	0.45	0.03	0.18
EFI	65.96	94.57	-0.69	65.96	94.57	0.01	65.96	94.57	-0.69	65.96	94.57	0.01
GDP	2.42	5.66	0.55	2.42	5.66	0.04	2.42	5.66	0.55	2.42	5.66	0.04
INF	2.90	12.25	1.94	2.90	12.25	2.30	2.90	12.25	1.94	2.90	12.25	2.30

Panel B: Post-balancing sample --Earnings quality

	Earnings Persistence					Cashflow Predictability				
	Supply -capital	Supply-loan	Supply-general	Liquidity	Demand side	Supply -capital	Supply -loan	Supply-general	Liquidity	Demand side
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.3387***	0.3155***	0.3363***	0.3438***	0.3095***	0.2461***	0.2517***	0.2320***	0.2439***	0.2011***
	(0.0198)	(0.0223)	(0.0168)	(0.0193)	(0.0249)	(0.0164)	(0.0190)	(0.0153)	(0.0180)	(0.0213)
MP_t^T	0.0001	0.0006*	0.0001	0.0001	0.0003	-0.0003	0.0011***	0.0001	0.0000	0.0002
	(0.0002)	(0.0003)	(0.0003)	(0.0004)	(0.0004)	(0.0002)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
MP_t^L	-0.0050***	-0.0017	0.0001	-0.0019**	-0.0013	-0.0030***	-0.0014	-0.0002	-0.0021**	-0.0010
	(0.0007)	(0.0012)	(0.0004)	(0.0009)	(0.0009)	(0.0007)	(0.0009)	(0.0003)	(0.0008)	(0.0007)
MP_{t-1}^T	-0.0004*	0.0010***	-0.0002	0.0006	-0.0001	-0.0003	0.0002	-0.0007***	0.0003	-0.0005*
	(0.0002)	(0.0003)	(0.0003)	(0.0004)	(0.0004)	(0.0002)	(0.0003)	(0.0002)	(0.0003)	(0.0003)
MP_{t-1}^L	-0.0013	0.0001	0.0004	-0.0024	-0.0005	-0.0003	0.0003	-0.0001	0.0007	-0.0011*
	(0.0009)	(0.0011)	(0.0004)	(0.0016)	(0.0009)	(0.0007)	(0.0010)	(0.0004)	(0.0013)	(0.0006)
MP_{t-2}^T	-0.0002	-0.0011***	0.0004	0.0006	-0.0003	-0.0005**	-0.0010***	-0.0001	0.0011***	-0.0005*
	(0.0003)	(0.0003)	(0.0003)	(0.0004)	(0.0004)	(0.0002)	(0.0003)	(0.0002)	(0.0004)	(0.0003)
MP_{t-2}^L	-0.0009	-0.0015*	0.0005	-0.0023*	-0.0003	-0.0012	0.0005	-0.0003	0.0001	0.0008
	(0.0011)	(0.0009)	(0.0005)	(0.0013)	(0.0008)	(0.0011)	(0.0008)	(0.0003)	(0.0008)	(0.0005)
$MP_t^T \times EBT_t$	-0.0497***	-0.0314	-0.0128	-0.0344	-0.0164	-0.0442***	-0.0585**	-0.0161	-0.0034	-0.0325
	(0.0169)	(0.0229)	(0.0145)	(0.0274)	(0.0228)	(0.0155)	(0.0227)	(0.0122)	(0.0225)	(0.0249)
$MP_t^L \times EBT_t$	0.0569	-0.0467	-0.0297	0.0751	0.0701	0.0279	-0.0568	-0.0146	0.0596	-0.0092
	(0.0559)	(0.0636)	(0.0218)	(0.0623)	(0.0617)	(0.0519)	(0.0597)	(0.0165)	(0.0502)	(0.0549)
$MP_{t-1}^T \times EBT_t$	0.0008	-0.0395*	-0.0118	-0.0578*	0.0084	0.0066	-0.0306	0.0019	-0.0214	0.0167
	(0.0183)	(0.0202)	(0.0128)	(0.0333)	(0.0220)	(0.0177)	(0.0187)	(0.0112)	(0.0233)	(0.0201)
$MP_{t-1}^L \times EBT_t$	0.0654	-0.0355	0.0513**	0.0564	-0.0395	0.0676	-0.0631	0.0663***	-0.1393*	0.0127
	(0.0644)	(0.0613)	(0.0216)	(0.0928)	(0.0647)	(0.0558)	(0.0576)	(0.0203)	(0.0727)	(0.0464)
$MP_{t-2}^T \times EBT_t$	-0.0333	-0.0356	-0.0235*	-0.0624**	0.0346	-0.0130	-0.0408**	-0.0051	-0.0360	0.0433**
	(0.0209)	(0.0224)	(0.0142)	(0.0300)	(0.0235)	(0.0195)	(0.0188)	(0.0129)	(0.0273)	(0.0198)
$MP_{t-2}^L \times EBT_t$	0.0012	-0.0081	-0.0039	0.1575**	-0.0483	0.0830	-0.1033**	0.0232	-0.0837*	-0.0208

	(0.0703)	(0.0559)	(0.0249)	(0.0765)	(0.0569)	(0.0624)	(0.0520)	(0.0173)	(0.0447)	(0.0408)
Size	-0.0026***	-0.0029***	-0.0029***	-0.0029***	-0.0030***	-0.0009**	-0.0012***	-0.0013***	-0.0011***	(0.0003)
	(0.0004)	(0.0004)	(0.0003)	(0.0004)	(0.0005)	(0.0004)	(0.0004)	(0.0003)	(0.0004)	(0.0004)
DEPOSIT	0.0018	0.0009	0.0013	0.0018	0.0026*	(0.0004)	0.0003	0.0002	(0.0005)	(0.0001)
	(0.0014)	(0.0015)	(0.0012)	(0.0013)	(0.0014)	(0.0012)	(0.0015)	(0.0010)	(0.0011)	(0.0014)
LIQ	(0.0003)	(0.0004)	0.0002	(0.0005)	(0.0001)	(0.0006)	-0.0008**	(0.0003)	-0.0008*	-0.0013***
	(0.0005)	(0.0004)	(0.0004)	(0.0006)	(0.0005)	(0.0004)	(0.0004)	(0.0003)	(0.0005)	(0.0004)
GRLOANS	0.0016***	0.0012***	0.0017***	0.0022***	0.0016***	0.0015***	0.0013***	0.0016***	0.0023***	0.0013***
	(0.0004)	(0.0004)	(0.0004)	(0.0005)	(0.0005)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
LEV	0.0010	0.0033	(0.0004)	(0.0041)	0.0006	0.0036	0.0074*	0.0001	0.0007	0.0063
	(0.0048)	(0.0043)	(0.0038)	(0.0042)	(0.0044)	(0.0052)	(0.0041)	(0.0036)	(0.0042)	(0.0043)
EFF	-0.0037***	-0.0060***	-0.0045***	-0.0041***	-0.0055***	-0.0093***	-0.0114***	-0.0120***	-0.0090***	-0.0086***
	(0.0009)	(0.0011)	(0.0009)	(0.0010)	(0.0017)	(0.0009)	(0.0010)	(0.0009)	(0.0010)	(0.0015)
NONIN	0.0038***	0.0039**	0.0051***	0.0052***	0.0029**	-0.0027**	-0.0032**	(0.0005)	(0.0002)	0.0010
	(0.0013)	(0.0016)	(0.0012)	(0.0014)	(0.0013)	(0.0012)	(0.0014)	(0.0011)	(0.0013)	(0.0013)
EFI	0.0000	0.0000	-0.0001**	(0.0001)	-0.0001**	-0.0001***	-0.0001*	-0.0001***	-0.0001***	-0.0001***
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	0.0004***	0.0005***	0.0004***	0.0003***	0.0002***	0.0001	0.0001*	0.0001**	0.0002***	0.0001**
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
INF	0.0001*	0.0002***	0.0000	0.0001	0.0001**	0.0000	0.0002***	0.0000	0.0000	0.0001***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Intercept	0.0625***	0.0711***	0.0700***	0.0687***	0.0731***	0.0499***	0.0558***	0.0560***	0.0504***	0.0358***
	(0.0105)	(0.0097)	(0.0079)	(0.0099)	(0.0117)	(0.0088)	(0.0092)	(0.0073)	(0.0087)	(0.0089)
Bank & year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NOBS	107662	107662	107662	107662	107662	107657	107657	107657	107657	107657
R^2	0.57	0.56	0.56	0.59	0.59	0.66	0.65	0.65	0.71	0.71

Panel C: Entropy Balancing-Earnings management

	Meet or Beat Benchmark						Abnormal LLP					
	Treat			Control			Treat			Control		
	Mean	Variance	Skewness	Mean	Variance	Skewness	Mean	Variance	Skewness	Mean	Variance	Skewness
CASHFLOW	-0.0660	2.0480	0.0500	-0.0660	2.0500	-0.5480	-	-	-	-	-	-
ALLOW	0.0290	0.0120	71.0500	0.0290	0.0120	129.3000	-	-	-	-	-	-
DEPOSIT	0.6070	0.0750	-0.7510	0.6070	0.0750	-0.8220	-	-	-	-	-	-
GRLOANS	0.1030	0.0750	3.5830	0.1030	0.0760	3.1800	-	-	-	-	-	-
EFI	64.6400	82.0100	-0.4750	64.6400	82.0200	0.1100	65.7000	70.7500	-0.7310	65.7000	70.7600	-0.0674
GDP	2.3710	6.2470	0.4770	2.3710	6.2490	0.5050	2.4050	6.4410	0.5425	2.4050	6.4420	0.5521
INF	3.1740	13.5600	1.7850	3.1760	13.5800	1.7530	2.6260	10.2300	2.0780	2.6270	10.2300	3.0450
SIZE	21.0500	5.0580	0.2070	21.0500	5.0590	0.3050	21.1800	4.5570	0.2860	21.1800	4.5560	-0.4491
GROWTH	0.0830	0.1510	33.7800	0.0830	0.1530	14.6800	0.1425	41.2000	148.4000	0.1422	41.1700	23.2200
LIQ	0.3680	0.6900	10.2900	0.3680	0.6900	10.4400	0.3200	0.5635	11.5600	0.3205	0.5654	8.2550
LEV	0.1230	0.0120	3.6200	0.1230	0.0120	2.7720	0.1129	0.0086	4.1360	0.1130	0.0086	2.4600
EFF	0.6910	0.0600	1.8110	0.6910	0.0600	2.0140	0.6702	0.0567	2.0790	0.6702	0.0567	1.8070
NONIN	0.4340	0.0300	1.0640	0.4340	0.0300	0.1220	0.4120	0.0235	1.1290	0.4120	0.0235	-0.1612
PASTLLP	-	-	-	-	-	-	0.0114	0.8053	186.0000	0.0114	0.8046	32.0900
EBTLLP	-	-	-	-	-	-	0.0141	0.0003	2.5430	0.0141	0.0003	0.1076
LOANS	-	-	-	-	-	-	0.6485	0.0596	-0.9270	0.6485	0.0596	-1.3070

Panel D: Post-balancing sample -Earnings management

	Meet or beat benchmark					Abnormal LLP				
	Supply -capital	Supply-loan	Supply-general	Liquidity	Demand side	Supply -capital	Supply -loan	Supply-general	Liquidity	Demand side
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
MP_t^T	0.1483***	0.0237	-0.0646**	0.1463***	-0.0760	0.0002*	-0.0001	0.0001	0.0000	0.0003*
	(0.0247)	(0.0339)	(0.0324)	(0.0339)	(0.0466)	(0.0001)	(0.0001)	(0.0002)	(0.0002)	(0.0001)
MP_t^L	-0.0327	-0.6884***	-0.1729***	0.2008	-0.5779***	-0.0011**	0.0001	-0.0005***	-0.0003	-0.0001
	(0.0977)	(0.2391)	(0.0537)	(0.1373)	(0.1248)	(0.0005)	(0.0003)	(0.0002)	(0.0004)	(0.0002)
MP_{t-1}^T	-0.0396	0.0896**	0.0354	0.0968**	-0.0621	0.0000	0.0002	0.0001	-0.0002	0.0002
	(0.0259)	(0.0382)	(0.0329)	(0.0460)	(0.0481)	(0.0001)	(0.0003)	(0.0001)	(0.0002)	(0.0001)
MP_{t-1}^L	-0.2766***	0.2038	-0.3396***	0.1809	-0.3575***	0.0001	0.0006	-0.0001	-0.0002	-0.0004
	(0.0939)	(0.1857)	(0.0449)	(0.1928)	(0.1247)	(0.0003)	(0.0004)	(0.0002)	(0.0005)	(0.0005)
MP_{t-2}^T	0.0760***	0.0171	0.0596**	0.0167	0.1164**	-0.0001	0.0003**	0.0000	-0.0002	0.0003*
	(0.0286)	(0.0436)	(0.0290)	(0.0433)	(0.0494)	(0.0001)	(0.0002)	(0.0001)	(0.0002)	(0.0001)
MP_{t-2}^L	-0.3125***	0.1203	0.1301***	0.0361	-0.2754**	0.0002	0.0004	-0.0003*	-0.0001	0.0000
	(0.1061)	(0.1230)	(0.0473)	(0.2010)	(0.1175)	(0.0005)	(0.0004)	(0.0002)	(0.0005)	(0.0003)
GROWTH	-0.1874**	-0.1162	-0.1396*	-0.2657***	-0.2958***	0.0003	0.0022***	0.0012**	0.0012**	0.0012**
	(0.0779)	(0.0988)	(0.0801)	(0.0720)	(0.1090)	(0.0004)	(0.0007)	(0.0005)	(0.0005)	(0.0005)
CASHFLOW	0.0734***	0.0448***	0.0487***	0.1090***	0.0987***	-	-	-	-	-
	(0.0123)	(0.0136)	(0.0152)	(0.0120)	(0.0169)	-	-	-	-	-
ALLOW	-5.1781***	-4.9250***	(0.5405)	-8.8035***	-5.9924***	-	-	-	-	-
	(1.1521)	(1.3943)	(0.6189)	(0.8365)	(1.3467)	-	-	-	-	-
PASTLLP	-	-	-	-	-	0.0231	-0.0241	-0.0018	-0.0026	-0.0014
	-	-	-	-	-	(0.0294)	(0.0378)	(0.0270)	(0.0270)	(0.0270)
EBTLLPL	-	-	-	-	-	-0.0113	-0.0042	-0.0070	-0.0092	-0.0100
	-	-	-	-	-	(0.0198)	(0.0199)	(0.0166)	(0.0165)	(0.0165)
Size	0.0364***	0.0214	0.0209*	0.0449***	0.1005***	-0.0011**	-0.0018***	-0.0013***	-0.0013***	-0.0013***
	(0.0108)	(0.0165)	(0.0124)	(0.0065)	(0.0106)	(0.0005)	(0.0006)	(0.0004)	(0.0004)	(0.0004)
DEPOSIT	0.7543***	0.8600***	0.7422***	0.6241***	0.8939***	-0.0007	0.0024	0.0014	0.0015	0.0014
	(0.1159)	(0.1482)	(0.1044)	(0.0726)	(0.1094)	(0.0011)	(0.0015)	(0.0011)	(0.0011)	(0.0011)
LIQ	-0.2209***	-0.0662	-0.0566	-0.2341**	-0.0588	0.0007*	0.0016	0.0009*	0.0009**	0.0009**
	(0.0629)	(0.0747)	(0.0613)	(0.1092)	(0.0589)	(0.0004)	(0.0011)	(0.0004)	(0.0004)	(0.0004)
GRLOANS	-0.3812***	-0.3964***	-0.2219**	-0.2601***	-0.1449	0.0045**	0.0036	0.0054***	0.0055***	0.0054***
	(0.0957)	(0.1170)	(0.0953)	(0.0787)	(0.1122)	(0.0018)	(0.0024)	(0.0015)	(0.0015)	(0.0015)
LEV	-3.4371***	-3.2785***	-3.4317***	-4.1477***	-2.5106***	0.0087*	0.0111*	0.0107**	0.0111**	0.0109**
	(0.3924)	(0.5453)	(0.6810)	(0.3466)	(0.4303)	(0.0052)	(0.0065)	(0.0054)	(0.0054)	(0.0054)
EFF	-0.5057***	-0.7079***	-0.5223***	-0.4272***	-0.4450***	0.0047***	0.0037***	0.0042***	0.0043***	0.0043***
	(0.0771)	(0.1063)	(0.1043)	(0.0654)	(0.0814)	(0.0009)	(0.0011)	(0.0009)	(0.0009)	(0.0009)
NONIN	1.0069***	0.5769***	0.3676**	1.1613***	0.5201***	(0.0009)	(0.0002)	(0.0001)	(0.0001)	0.0000
	(0.1425)	(0.2119)	(0.1489)	(0.0958)	(0.1597)	(0.0007)	(0.0010)	(0.0007)	(0.0007)	(0.0007)
EFI	0.0100***	0.0119***	0.0185***	0.0138***	0.0126***	0.0000**	0.0000	0.0000*	0.0000**	0.0000*
	(0.0024)	(0.0031)	(0.0031)	(0.0019)	(0.0030)	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	(0.0020)	-0.0281**	-0.0326***	-0.0512***	-0.0205**	0.0001*	0.0001	0.0000	0.0000	0.0000
	(0.0089)	(0.0117)	(0.0092)	(0.0060)	(0.0088)	(0.0001)	(0.0001)	0.0000	0.0000	0.0000
INF	-0.0741***	-0.0600***	-0.0673***	-0.0541***	-0.0668***	-0.0001*	(0.0001)	0.0000	0.0000	0.0000
	(0.0136)	(0.0173)	(0.0088)	(0.0063)	(0.0085)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)

Intercept						0.0252**	0.0592***	0.0476***	0.0465***	0.0471***
						(0.0107)	(0.0123)	(0.0086)	(0.0086)	(0.0087)
Bank & Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NOBS	74,372	74,372	74,372	74,372	74,372	18397	18397	18397	18397	18397
Log Likelihood	-35000	-21000	-26000	-23000	-14000					
Chi2	1333.64	775.07	1063.67	1949.71	871.27					
R^2						0.995	0.9988	0.9989	0.9989	0.9989

Appendix A1: Sample distribution-bank-year observations, by country

	Earnings persistence		Cashflow predictability		Just-meet or beat benchmark		Abnormal LLP	
	NOBS	Percent	NOBS	Percent	NOBS	Percent	NOBS	Percent
Algeria	174	0.002	174	0.002	21	0.000	0	0
Argentina	877	0.008	877	0.008	324	0.006	51	0.28
Australia	405	0.004	405	0.004	335	0.006	230	1.25
Austria	5295	0.049	5293	0.049	307	0.006	46	0.25
Azerbaijan	300	0.003	300	0.003	91	0.002	43	0.23
Bahrain	266	0.002	266	0.002	159	0.003	77	0.42
Bangladesh	630	0.006	630	0.006	351	0.007	154	0.84
Belgium	862	0.008	862	0.008	136	0.003	46	0.25
Bulgaria	1685	0.016	1685	0.016	737	0.014	59	0.32
Brazil	9	0.000	9	0.000	9	0.000	251	1.36
Brunei	363	0.003	363	0.003	262	0.005	0	0
Canada	983	0.009	983	0.009	765	0.014	423	2.3
Chile	255	0.002	255	0.002	183	0.003	73	0.4
China	1677	0.016	1677	0.016	1310	0.024	309	1.68
Colombia	456	0.004	456	0.004	262	0.005	13	0.07
Costa Rica	684	0.006	684	0.006	421	0.008	148	0.8
Croatia	591	0.005	591	0.005	424	0.008	132	0.72
Czech Republic	409	0.004	409	0.004	286	0.005	107	0.58
Denmark	1384	0.013	1384	0.013	601	0.011	167	0.91
Ecuador	361	0.003	361	0.003	247	0.005	47	0.26
El Salvador	117	0.001	117	0.001	96	0.002	9	0.05
Finland	426	0.004	426	0.004	338	0.006	18	0.1
France	4396	0.041	4396	0.041	2591	0.048	762	4.14
Germany	29656	0.275	29655	0.275	7697	0.144	4,203	22.85
Greece	197	0.002	197	0.002	111	0.002	55	0.3
Hong Kong	653	0.006	653	0.006	481	0.009	275	1.49
Hungary	594	0.006	594	0.006	167	0.003	25	0.14
India	1172	0.011	1172	0.011	597	0.011	138	0.75
Indonesia	1275	0.012	1275	0.012	934	0.017	379	2.06
Ireland	331	0.003	331	0.003	111	0.002	67	0.36
Israel	214	0.002	214	0.002	208	0.004	133	0.72
Italy	9330	0.087	9330	0.087	6790	0.127	2,898	15.75
Japan	10364	0.096	10364	0.096	10036	0.187	1,683	9.15
Jordan	286	0.003	286	0.003	258	0.005	83	0.45
Korea	181	0.002	181	0.002	156	0.003	238	1.29
Kuwait	297	0.003	297	0.003	147	0.003	60	0.33
Latvia	577	0.005	576	0.005	460	0.009	34	0.18
Lebanon	158	0.001	158	0.001	99	0.002	92	0.5
Lithuania	757	0.007	757	0.007	553	0.010	50	0.27
Malaysia	697	0.006	697	0.006	420	0.008	374	2.03
Mexico	120	0.001	120	0.001	62	0.001	56	0.3
Morocco	641	0.006	641	0.006	285	0.005	0	0
Netherlands	202	0.002	202	0.002	155	0.003	113	0.61
New Zealand	400	0.004	400	0.004	66	0.001	116	0.63

Nigeria	1710	0.016	1710	0.016	1432	0.027	21	0.11
Norway	467	0.004	467	0.004	182	0.003	939	5.1
Pakistan	479	0.004	479	0.004	349	0.007	153	0.83
Philippines	944	0.009	944	0.009	303	0.006	92	0.5
Poland	689	0.006	689	0.006	452	0.008	132	0.72
Portugal	414	0.004	414	0.004	163	0.003	235	1.28
Romania	7386	0.069	7386	0.069	2624	0.049	51	0.28
Russia	186	0.002	186	0.002	195	0.004	289	1.57
Saudi Arabia	188	0.002	188	0.002	141	0.003	94	0.51
Singapore	239	0.002	239	0.002	180	0.003	68	0.37
Slovakia	305	0.003	305	0.003	221	0.004	41	0.22
Slovenia	416	0.004	416	0.004	349	0.007	62	0.34
South Africa	632	0.006	632	0.006	366	0.007	147	0.8
Spain	2201	0.020	2201	0.020	1081	0.020	551	3
Sri Lanka	245	0.002	245	0.002	167	0.003	72	0.39
Sudan	34	0.000	34	0.000	0	0.000	0	0
Sweden	1240	0.012	1240	0.012	982	0.018	504	2.74
Switzerland	5607	0.052	5607	0.052	2162	0.040	0	0
Thailand	342	0.003	342	0.003	257	0.005	117	0.64
Tunisia	247	0.002	247	0.002	123	0.002	0	0
Turkey	484	0.004	484	0.004	225	0.004	125	0.68
United Arab Emirates	397	0.004	397	0.004	371	0.007	137	0.74
United Kingdom	1997	0.019	1996	0.019	1132	0.021	330	1.79
Yemen	106	0.001	106	0.001	77	0.001	0	0
Total	**107662**	**100**	**107657**	**100**	**53583**	**100**	**18397**	**100**

Appendix A2: Variable definition

Variable of interests	Definition	Source
	Macro prudential policies (Variable of interest)	
	Supply side - Capital	
Capital requirements	Includes risk weights, systemic risk buffers, and minimum capital requirements for banks.	IMF database
Conservation buffers	Requires banks to maintain a capital conservation buffer, including the one under Basel III.	IMF database
Leverage ratio	Prevents bank liabilities from exceeding a certain level relative to assets and equity.	IMF database
Countercyclical capital buffers	Requires banks to hold additional capital during economic upturns to enhance stability.	IMF database
	Supply side - Loans	
Limits on Credit Growth	Restricts growth or volume of aggregate, household-sector, or corporate-sector credit and imposes penalties for high credit growth.	IMF database
Loan loss provision requirements	Includes dynamic provisioning and sectoral provisions (e.g., housing loans) for macroprudential purposes.	IMF database
Loan Restrictions	Imposes limits or prohibitions on loans based on characteristics like maturity, size, LTV ratio, interest rate type, or bank type.	IMF database
Limits on foreign currency loans	Reduces vulnerability to foreign exchange rate fluctuations.	
	Supply side- General	
Reserve requirement ratio	Constrains a bank's capacity to extend loans by setting mandatory reserves.	IMF database
Limits on foreign exchange positions	Restricts exposure to foreign exchange risk.	IMF database
	Liquidity	
Liquidity	Liquidity requirements	IMF database
	Demand-side	
Loan to value ratio	Constrains highly levered mortgage loans by requiring higher down payments	IMF database
Debt services to income ratio	Constrains household indebtedness.	IMF database
Limits on the Loan-to-Deposit Ratio	Constrains excessive credit expansion	IMF database
	Dependent variables (Earnings quality measurements)	
1. Earnings persistence analysis		
EBT	Earnings before taxes during year t scaled by total assets at the beginning of the year.	Fitch Solutions
EBTL	Earnings before taxes during year t + 1 scaled by total assets at the beginning of the year.	Fitch Solutions
2. Cash-flows predictability analysis		
EBTLLP	Earnings before taxes and loan loss provisions during year t scaled by total assets at the beginning of the year.	Fitch Solutions
EBTLLPL	Earnings before taxes and loan loss provisions during year t + 1 scaled by total assets at the beginning of the year.	Fitch Solutions
3. Meeting or beating prior year's earnings benchmark analysis		
Meet or beat benchmark	An indicator variable taking the value one if the bank has a change in ROAA (income before taxes scaled by total assets) from year t-1 to year t in the interval between 0 and 0.001, zero otherwise.	Fitch Solutions
4. Abnormal loan loss provisions two stage analyses		
LLP	Loan loss provisions during year t scaled by total assets at the beginning of year.	Fitch Solutions
ALLP	Absolute value of negative residual of loan loss provisions	Fitch Solutions
	Bank-level variables	
SIZE	Natural logarithm of total assets at the beginning of year t	Fitch Solutions
DEPOSIT	Bank deposits scaled by total assets at the beginning of the year	Fitch Solutions
GROWTH	The growth in total assets from the beginning to the end of year t	Fitch Solutions
GRLOANS	The ratio of (Gross Loans $_{t}$ – Gross Loans $_{t-1}$) to Gross Loans $_{t-1}$	Fitch Solutions
LEV	The ratio of total equity to total assets	Fitch Solutions
LIQ	The ratio of liquid assets to liquid assets and marketable debt securities	Fitch Solutions
EFF	Cost to income ratio (Total Non-Interest Expenses / Total Non-Interest Operating Income + Net Interest Income + Equity-accounted Profit/ Loss - Operating).	Fitch Solutions
NONIN	Bank noninterest income to total income (%)	Fitch Solutions
LISTED	Indicator variable taking the value one if the bank is publicly listed banks, 0 otherwise.	Fitch Solutions

CF	The 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.	Fitch Solutions
PASTLLP	Prior year's LLP divided by total assets at the beginning of the year.	Fitch Solutions
ALLOW	The allowance for loan losses at the end of year t, scaled by total assets at beginning of year t.	Fitch Solutions
BEGLLA	The beginning loan loss allowance scaled by beginning assets.	Fitch Solutions
LCO	The net loan charge-offs scaled by beginning assets.	Fitch Solutions
CHLOANS	The change in total loans outstanding scaled by beginning assets	Fitch Solutions
LOANS	Total loans outstanding scaled by beginning assets	Fitch Solutions
NPL	Non-performing loans deflated by beginning total assets	Fitch Solutions
	Country/Macro-level variables	
Economic freedom index (*EFI*)	The score includes property rights, judicial effectiveness, government integrity, tax burden, government spending, fiscal health, business freedom, labour freedom, monetary freedom, trade freedom, investment freedom, financial freedom.	Heritage Foundation
GDP	GDP growth (annual %)	World Bank
INF	Inflation, consumer prices (annual %)	World Bank

Appendix A3: Macroprudential policy and earnings persistence- by bank type

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. Comm=commercial banks, BHC=bank holding companies, Coops=cooperatives, IB=Islamic banks, Savings=Savings banks.

	Supply-capital					***Supply-Loans***					***Supply side- general***				
	Comm	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
EBT	0.3482***	0.2716***	0.2530***	0.329***	0.2423***	0.3445***	0.2871***	0.2503***	0.3275***	0.2242***	0.3261***	0.2563***	0.2217***	0.3651***	0.2493***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0002)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
$MP^{T}t$	-0.0002	-0.0011	0.0004	0.0012	0.0004	0.0010**	0.0012	-0.002***	-0.004**	-0.0003	0.0002	0.0021	-0.0022*	0.0026	-0.002***
	(0.5754)	(0.5649)	(0.3280)	(0.4280)	(0.1243)	(0.0103)	(0.2961)	(0.0040)	(0.0387)	(0.5161)	(0.4383)	(0.2207)	(0.0826)	(0.3573)	(0.0036)
$MP^{L}t$	-0.007***	-0.0008	-0.002***	-0.002	-0.004**	-0.0013	-0.0070	-0.005***	-0.0060*	-0.0011	-0.0001	-0.0022	-0.0007	-0.0009	-0.0004
	(0.0000)	(0.8420)	(0.0003)	(0.7814)	(0.0136)	(0.3199)	(0.1772)	(0.0001)	(0.0796)	(0.6176)	(0.8085)	(0.1996)	(0.3762)	(0.7401)	(0.4956)
$MP^{T}t-1$	-0.0001	0.0009	-0.001***	-0.0013	-0.0001	0.0011***	0.0001	0.0008*	0.0005	0.0006	-0.0001	-0.0011	-0.0010	-0.0030	0.0002
	(0.8542)	(0.5702)	(0.0000)	(0.4836)	(0.6510)	(0.0031)	(0.9536)	(0.0879)	(0.7597)	(0.1555)	(0.7679)	(0.6547)	(0.3617)	(0.1662)	(0.8504)
$MP^{L}t-1$	-0.002**	-0.0036	-0.003***	-0.0150	0.0014	0.0010	-0.0034	-0.005***	0.0013	-0.0030	0.0007*	0.0016	-0.0011**	0.0007	0.0003
	(0.0294)	(0.6931)	(0.0000)	(0.2110)	(0.1668)	(0.4266)	(0.5890)	(0.0060)	(0.6754)	(0.3035)	(0.0613)	(0.4610)	(0.0231)	(0.7331)	(0.5457)
$MP^{T}t-2$	-0.0004	-0.0025	-0.001**	-0.0001	-0.0002	-0.001***	0.0017*	-0.0006	-0.0026*	0.0005	0.0003	-0.0004	0.0028***	0.0019	-0.0007
	(0.2604)	(0.4224)	(0.0225)	(0.9363)	(0.5711)	(0.0008)	(0.0840)	(0.4478)	(0.0832)	(0.1297)	(0.2586)	(0.8477)	(0.0071)	(0.2215)	(0.4805)
$MP^{L}t-2$	-0.0011	0.0059	0.0113***	0.0078	-0.0012	-0.0006	-0.021***	-0.007***	0.0012	-0.008**	-0.0002	-0.0036*	-0.001***	-0.0018	0.0010
	(0.3372)	(0.3157)	(0.0028)	(0.1922)	(0.4177)	(0.5651)	(0.0067)	(0.0001)	(0.7265)	(0.0292)	(0.6833)	(0.0790)	(0.0016)	(0.5352)	(0.1784)
$MP_t^{T}\times EBT_t$	-0.059***	0.0886	0.0543	-0.0338	-0.0406	-0.053**	-0.0875	0.0702	0.1716**	0.0031	-0.0172	0.0150	0.1204	-0.1862*	0.0975
	(0.0008)	(0.3912)	(0.3612)	(0.6393)	(0.2106)	(0.0227)	(0.1096)	(0.3745)	(0.0117)	(0.9655)	(0.2215)	(0.8551)	(0.2551)	(0.0965)	(0.1028)
$MP_t^{L}\times EBT_t$	0.0661	-0.1516	0.2430**	0.2590	0.1316*	-0.0558	0.3143	0.3602***	0.1878	0.2274	-0.0152	0.0080	-0.0369	0.2974**	-0.0376
	(0.2196)	(0.6008)	(0.0365)	(0.5563)	(0.0970)	(0.3902)	(0.1483)	(0.0077)	(0.1172)	(0.2712)	(0.4148)	(0.9057)	(0.5065)	(0.0227)	(0.5604)
$MP_{t-1}^{T}\times EBT_t$	-0.0085	-0.1269*	0.0167	0.1295	0.0433*	-0.0407*	0.0940	-0.133**	-0.148***	0.0182	-0.0159	0.0405	0.1261	0.1102	-0.0333
	(0.6832)	(0.0516)	(0.7150)	(0.1008)	(0.0546)	(0.0504)	(0.2891)	(0.0263)	(0.0038)	(0.7737)	(0.1990)	(0.6659)	(0.2989)	(0.1508)	(0.6238)
$MP_{t-1}^{L}\times EBT_t$	0.0553	0.6882**	0.3345***	1.5072**	-0.1117	-0.0691	0.4350	0.3462**	-0.0675	0.1818	0.0393**	0.1457	0.1797***	-0.1376	-0.0423
	(0.3290)	(0.0281)	(0.0000)	(0.0375)	(0.2808)	(0.2849)	(0.2702)	(0.0434)	(0.5205)	(0.4252)	(0.0358)	(0.1037)	(0.0008)	(0.1154)	(0.3552)
$MP_{t-2}^{T}\times EBT_t$	-0.0291	0.0197	-0.104***	-0.0093	-0.0109	-0.045**	-0.1587	0.1083	0.0236	0.1073**	-0.0175	0.1175	-0.2030	-0.182***	-0.0289
	(0.1912)	(0.8956)	(0.0057)	(0.9086)	(0.7538)	(0.0442)	(0.1030)	(0.4070)	(0.7911)	(0.0154)	(0.1979)	(0.4091)	(0.1101)	(0.0086)	(0.6316)
$MP_{t-2}^{L}\times EBT_t$	0.0391	0.0800	-1.087***	-0.3462	0.2209	-0.0525	0.9297***	0.5047***	-0.0848	0.6037**	0.0156	0.1161	0.1038**	-0.1087	-0.0665
	(0.5040)	(0.8340)	(0.0052)	(0.4114)	(0.1528)	(0.3603)	(0.0005)	(0.0030)	(0.6215)	(0.0247)	(0.4758)	(0.1493)	(0.0183)	(0.2558)	(0.4143)
Intercept	0.0877***	0.1957***	0.0263***	0.0352	0.0272*	0.0849***	0.2104***	0.0245***	0.0330	0.0277*	0.0861***	0.2099***	0.0243***	0.0238	0.0285*
	(0.0000)	(0.0000)	(0.0001)	(0.4612)	(0.0945)	(0.0000)	(0.0000)	(0.0012)	(0.4866)	(0.0979)	(0.0000)	(0.0000)	(0.0010)	(0.6037)	(0.0795)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	46839	1707	37729	892	20495	46839	1707	37729	892	20495	46839	1707	37729	892	20495
R-squared	0.1709	0.2364	0.1935	0.2207	0.1555	0.1678	0.2372	0.1837	0.2369	0.1613	0.1646	0.2356	0.1891	0.2489	0.1547

Contd..

	Liquidity					***Demand-side***				
	Comm	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.3181***	0.2925***	0.2504***	0.3444***	0.2495***	0.3155***	0.2814***	0.2536***	0.3614***	0.2424***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0001)	(0.0000)	(0.0000)	(0.0000)
$MP^{T}t$	-0.0002	-0.0017	-0.0012	0.0041*	-0.0003	0.0004	0.0008	0.0007*	0.0017	0.0011
	(0.7210)	(0.7002)	(0.1275)	(0.0562)	(0.5845)	(0.2998)	(0.6025)	(0.0966)	(0.5706)	(0.1095)
$MP^{L}t$	-0.0011	-0.0236	-0.0078***	-0.0040	-0.0031*	-0.0007	-0.0067	-0.0033	-0.0063	0.0015
	(0.3587)	(0.1619)	(0.0000)	(0.4165)	(0.0594)	(0.4673)	(0.2354)	(0.2367)	(0.5401)	(0.5079)
$MP^{T}t-1$	0.0011*	-0.0019	-0.0005	0.0003	0.0001	-0.0006*	0.0002	-0.0013	-0.0052	0.0020**
	(0.0778)	(0.5971)	(0.4430)	(0.9414)	(0.9177)	(0.0857)	(0.9082)	(0.2230)	(0.2607)	(0.0302)
$MP^{L}t-1$	-0.0021*	0.0156**	-0.0024*	0.0806***	-0.0076***	0.0020*	-0.0012	-0.0059***	0.0042	-0.0064***
	(0.0827)	(0.0285)	(0.0560)	(0.0022)	(0.0000)	(0.0715)	(0.7294)	(0.0030)	(0.1525)	(0.0041)
$MP^{T}t-2$	0.0005	0.0014	0.0033***	0.0002	0.0011**	-0.0007	0.0021	0.0003	-0.0023	0.0001
	(0.4545)	(0.5884)	(0.0000)	(0.9474)	(0.0218)	(0.1151)	(0.2629)	(0.6371)	(0.1694)	(0.8983)
$MP^{L}t-2$	0.0008	-0.0009	-0.0021	-0.0062	-0.0061*	-0.0016*	-0.0068*	-0.0061***	-0.0031	-0.0023
	(0.5006)	(0.8613)	(0.2652)	(0.8880)	(0.0712)	(0.0712)	(0.0574)	(0.0039)	(0.5389)	(0.2680)
$MP_t^{T}\times EBT_t$	0.0205	-0.1478	0.0568	-0.1670**	-0.0244	0.0219	-0.1405	-0.1324***	-0.1828	-0.1169*
	(0.4683)	(0.5402)	(0.5309)	(0.0475)	(0.7030)	(0.3003)	(0.1636)	(0.0040)	(0.2036)	(0.0599)
$MP_t^{L}\times EBT_t$	0.0266	0.1572	0.5678***	0.1152	0.0222	0.0246	0.3430	0.1933	-0.0509	-0.0308
	(0.7004)	(0.6671)	(0.0000)	(0.6457)	(0.8696)	(0.7194)	(0.4648)	(0.4987)	(0.9211)	(0.8623)
$MP_{t-1}^{T}\times EBT_t$	-0.0330	0.1992	-0.0096	-0.0093	0.0119	0.0428*	0.0094	0.1138	-0.0446	-0.1005
	(0.3911)	(0.3654)	(0.8975)	(0.9446)	(0.8372)	(0.0574)	(0.9062)	(0.2252)	(0.7561)	(0.2312)
$MP_{t-1}^{L}\times EBT_t$	0.0251	-1.1818***	-0.0525	-10.6880***	0.1585*	-0.1647*	0.1336	0.3734*	-0.0391	0.0168
	(0.6888)	(0.0001)	(0.5419)	(0.0004)	(0.0508)	(0.0763)	(0.5116)	(0.0782)	(0.8225)	(0.8999)
$MP_{t-2}^{T}\times EBT_t$	-0.0297	-0.0832	-0.1445	-0.1006	-0.1646**	0.0772***	-0.0529	-0.0038	-0.0130	0.1797**
	(0.4090)	(0.5620)	(0.1115)	(0.4225)	(0.0162)	(0.0020)	(0.6320)	(0.9501)	(0.7899)	(0.0306)
$MP_{t-2}^{L}\times EBT_t$	-0.0004	-0.2552	0.5708***	-3.2212	0.0568	-0.0337	0.2328	0.3483*	-0.0582	0.0676
	(0.9950)	(0.1550)	(0.0069)	(0.5109)	(0.8028)	(0.6332)	(0.2647)	(0.0782)	(0.7737)	(0.5030)
Intercept	0.0860***	0.2019***	0.0254***	0.0127	0.0254	0.0845***	0.2058***	0.0247***	0.0253	0.0295*
	(0.0000)	(0.0001)	(0.0005)	(0.8152)	(0.1163)	(0.0000)	(0.0001)	(0.0013)	(0.5827)	(0.0764)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	46839	1707	37729	892	20495	46839	1707	37729	892	20495
R-squared	0.1634	0.2339	0.1811	0.2209	0.1584	0.1641	0.2278	0.1793	0.2343	0.1643

Appendix A4: Macroprudential policy and cashflow predictability- by bank type

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. Comm=commercial banks, BHC=bank holding companies, Coops=cooperatives, IB=Islamic banks, Savings=Savings banks.

	Supply-capital					***Supply side -Loan***					***Supply side- general***				
	Comm	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
EBT	0.265***	0.221***	0.107***	0.163**	0.1322***	0.2748***	0.2239***	0.1114***	0.2006***	0.1244***	0.2485***	0.1986***	0.0831**	0.2054***	0.1489***
	(0.000)	(0.000)	(0.009)	(0.010)	(0.0000)	(0.0000)	(0.0002)	(0.0064)	(0.0029)	(0.0000)	(0.0000)	(0.0004)	(0.0195)	(0.0025)	(0.0000)
$MP^{T}t$	-0.001*	-0.0016	0.0008**	0.0002	-0.0002	0.0018***	0.0003	-0.0010*	-0.0025*	-0.0004*	0.0002	0.0016	-0.0017	0.0004	-0.002***
	(0.084)	(0.3366)	(0.0331)	(0.8828)	(0.4248)	(0.0000)	(0.7970)	(0.0747)	(0.0728)	(0.0943)	(0.3662)	(0.7666)	(0.3942)	(0.7309)	(0.0073)
$MP^{L}t$	-0.003***	0.0033	-0.005***	-0.0019	-0.004***	0.0003	-0.0069	-0.007***	0.0038*	-0.0040*	-0.0005	-0.0001	-0.0002	0.0002	-0.0006
	(0.0004)	(0.6332)	(0.0000)	(0.8059)	(0.0015)	(0.7827)	(0.1681)	(0.0000)	(0.0903)	(0.0523)	(0.1287)	(0.9658)	(0.5901)	(0.8866)	(0.1922)
$MP^{T}t-1$	0.0001	-0.0002	-0.001***	-0.0023	0.0001	0.0002	-0.0001	-0.0003	-0.0001	-0.0005**	-0.0005**	-0.0011	-0.0005	0.0007	-0.0013
	(0.83)	(0.8756)	(0.0000)	(0.1115)	(0.4525)	(0.5356)	(0.9590)	(0.4657)	(0.9345)	(0.0341)	(0.0360)	(0.4023)	(0.4930)	(0.6697)	(0.1330)
$MP^{L}t-1$	0.0001	-0.0002	-0.007***	-0.0101	0.0012	0.0009	-0.0054	-0.003***	0.0055	-0.0043**	0.0004	0.0022	0.0002	-0.0002	0.0004
	(0.8531)	(0.9805)	(0.0000)	(0.3781)	(0.2068)	(0.4063)	(0.4009)	(0.0000)	(0.1331)	(0.0117)	(0.2393)	(0.2932)	(0.7245)	(0.8920)	(0.4277)
$MP^{T}t-2$	-0.001***	-0.0016	-0.001***	-0.0001	-0.0006**	-0.0008**	-0.0005	-0.0010	-0.003	-0.001***	-0.0002	-0.0016	-0.0010	-0.0018	0.0000
	(0.0008)	(0.4083)	(0.0009)	(0.9220)	(0.0393)	(0.0117)	(0.7436)	(0.1442)	(0.2330)	(0.0003)	(0.4602)	(0.4908)	(0.1047)	(0.1257)	(0.9891)
$MP^{L}t-2$	-0.0012	0.0133	-0.0010	0.0072	0.0006	0.0023**	-0.014***	-0.005***	0.0004	-0.0017	0.0001	-0.0010	-0.0006	-0.0031	-0.0008**
	(0.2853)	(0.3267)	(0.4889)	(0.2261)	(0.6892)	(0.0208)	(0.0012)	(0.0006)	(0.8870)	(0.3370)	(0.7419)	(0.6035)	(0.2868)	(0.1305)	(0.0213)
$MP_t^{T}\times EBT_t$	-0.0548***	0.0294	0.0110	0.0284	-0.0057	-0.075***	-0.0797*	0.0072	0.1120*	0.0529	-0.0218*	-0.0342	0.1036	-0.155***	0.1180**
	(0.0008)	(0.7629)	(0.8271)	(0.7446)	(0.8446)	(0.0012)	(0.0570)	(0.9311)	(0.0854)	(0.2046)	(0.0615)	(0.8768)	(0.5732)	(0.0021)	(0.0460)
$MP_t^{L}\times EBT_t$	0.0147	-0.1530	0.1910**	0.3604	0.0809	-0.1032*	0.4623	0.4404***	-0.1887	0.2728	-0.0169	-0.0002	0.0390	0.2191**	-0.0360
	(0.7380)	(0.5653)	(0.0204)	(0.5558)	(0.3575)	(0.0692)	(0.1445)	(0.0018)	(0.1184)	(0.2192)	(0.3069)	(0.9971)	(0.2326)	(0.0498)	(0.3235)
$MP_{t-1}^{T}\times EBT_t$	-0.0050	-0.0760	0.0157	0.1335*	0.0444**	-0.0300	-0.0113	-0.0463	-0.1392**	0.0622	-0.0051	0.0052	0.0113	-0.0694	0.0188
	(0.7979)	(0.2931)	(0.6961)	(0.0548)	(0.0317)	(0.1171)	(0.8758)	(0.4842)	(0.0246)	(0.1146)	(0.6380)	(0.9232)	(0.8533)	(0.2823)	(0.6875)
$MP_{t-1}^{L}\times EBT_t$	0.0321	0.5469**	0.3824***	1.7954***	-0.1000	-0.0547	0.5791*	0.1987***	-0.2450**	0.2352	0.0438**	0.1229	0.1481***	-0.1043*	-0.0409
	(0.4914)	(0.0362)	(0.0000)	(0.0042)	(0.4528)	(0.3671)	(0.0567)	(0.0075)	(0.0466)	(0.1627)	(0.0104)	(0.1042)	(0.0024)	(0.0570)	(0.3214)
$MP_{t-2}^{T}\times EBT_t$	-0.0016	-0.0112	-0.120***	-0.0359	0.0640**	-0.052***	-0.2581**	0.0139	-0.0009	0.0901**	-0.0070	0.1105	0.1330*	0.0092	-0.0643
	(0.9381)	(0.9230)	(0.0010)	(0.4961)	(0.0384)	(0.0051)	(0.0208)	(0.8951)	(0.9929)	(0.0163)	(0.5775)	(0.4551)	(0.0585)	(0.8780)	(0.1917)
$MP_{t-2}^{L}\times EBT_t$	0.0996*	-0.4065	0.1716***	-0.0426	-0.0300	-0.1402**	0.7651***	0.4932***	-0.0797	0.0536	0.0051	0.0908	0.0021	-0.166***	-0.0340
	(0.0543)	(0.6436)	(0.0022)	(0.9325)	(0.8165)	(0.0110)	(0.0005)	(0.0006)	(0.4749)	(0.7189)	(0.7897)	(0.2395)	(0.9669)	(0.0011)	(0.3087)
Intercept	0.0630***	0.1547***	0.0319***	0.0090	0.0357***	0.0608***	0.1590***	0.0314***	-0.0001	0.0336***	0.0616***	0.1639***	0.0318***	-0.0023	0.0333***
	(0.0000)	(0.0044)	(0.0000)	(0.8646)	(0.0022)	(0.0000)	(0.0025)	(0.0000)	(0.9986)	(0.0037)	(0.0000)	(0.0040)	(0.0000)	(0.9637)	(0.0034)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	46839	1707	37726	891	20494	46839	1707	37726	891	20494	46839	1707	37726	891	20494
R-squared	0.1632	0.2090	0.1819	0.2537	0.1632	0.1643	0.2135	0.1700	0.2668	0.1592	0.1596	0.1984	0.1787	0.2772	0.1612

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	Liquidity					*Demand-side*				
	Comm	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.2416***	0.2240***	0.1174***	0.1530**	0.1382***	0.2454***	0.2063***	0.1157***	0.2004***	0.1298***
	(0.0000)	(0.0000)	(0.0065)	(0.0137)	(0.0000)	(0.0000)	(0.0007)	(0.0061)	(0.0009)	(0.0000)
$MP^{T}t$	0.0001	-0.0044	-0.0011	-0.0009	-0.0013***	0.0009**	0.0019	0.0001	-0.0005	-0.0014***
	(0.7287)	(0.3104)	(0.2079)	(0.5597)	(0.0042)	(0.0207)	(0.1802)	(0.8961)	(0.7716)	(0.0006)
$MP^{L}t$	-0.0003	-0.0195	-0.0050***	-0.0138***	-0.0052***	0.0007	-0.0098	-0.0049*	-0.0047	-0.0021
	(0.6322)	(0.2165)	(0.0069)	(0.0000)	(0.0040)	(0.3328)	(0.1591)	(0.0569)	(0.2746)	(0.2017)
$MP^{T}t\text{-}1$	0.0007	0.0017	-0.0022***	-0.0046*	-0.0006	-0.0006**	-0.0006	-0.0001	-0.0026	0.0008
	(0.1487)	(0.5795)	(0.0033)	(0.0810)	(0.1936)	(0.0432)	(0.6753)	(0.8511)	(0.3973)	(0.1142)
$MP^{L}t\text{-}1$	0.0002	0.0171**	-0.0033*	-0.0290	-0.0024	0.0013*	-0.0015	-0.0036***	0.0002	-0.0044***
	(0.8203)	(0.0221)	(0.0550)	(0.2226)	(0.1352)	(0.0690)	(0.5661)	(0.0025)	(0.9420)	(0.0005)
$MP^{T}t\text{-}2$	0.0007	0.0000	0.0018**	-0.0023	0.0013***	-0.0005	0.0036	0.0009*	-0.0036**	-0.0008
	(0.2057)	(0.9832)	(0.0230)	(0.2867)	(0.0015)	(0.1344)	(0.1740)	(0.0962)	(0.0200)	(0.3562)
$MP^{L}t\text{-}2$	0.0012	-0.0017	-0.0018	0.0220	-0.0045	0.0020***	-0.0084***	-0.0027*	-0.0056	0.0011
	(0.1299)	(0.7931)	(0.1962)	(0.4616)	(0.1628)	(0.0005)	(0.0013)	(0.0898)	(0.1101)	(0.3620)
$MP_t^{T}\times EBT_t$	0.0299	-0.0346	-0.0301	0.0889	0.0163	-0.0525*	-0.2334**	-0.0370	-0.2038**	0.0495
	(0.2034)	(0.8674)	(0.6841)	(0.2709)	(0.7691)	(0.0644)	(0.0400)	(0.5267)	(0.0277)	(0.1650)
$MP_t^{L}\times EBT_t$	-0.0186	0.0741	0.2683***	0.7902***	0.2035*	-0.0940*	0.5460	0.2364	-0.1553	0.0770
	(0.6495)	(0.8215)	(0.0022)	(0.0002)	(0.0820)	(0.0602)	(0.3236)	(0.3879)	(0.3564)	(0.6119)
$MP_{t-1}^{T}\times EBT_t$	-0.0170	0.0081	0.1078	0.1939*	0.0654	0.0105	0.0955	0.1017	-0.1889*	-0.0160
	(0.5206)	(0.9705)	(0.2108)	(0.0672)	(0.1805)	(0.5703)	(0.3653)	(0.2148)	(0.0767)	(0.7376)
$MP_{t-1}^{L}\times EBT_t$	-0.1041**	-1.1247***	0.0727	0.4637	0.0735	-0.1191*	0.1137	0.1308	0.0797	0.0265
	(0.0192)	(0.0003)	(0.2050)	(0.8719)	(0.5507)	(0.0705)	(0.4239)	(0.3336)	(0.5109)	(0.8014)
$MP_{t-2}^{T}\times EBT_t$	-0.0090	0.0317	-0.1784	-0.0047	-0.0986**	0.0476**	-0.2114	-0.0141	0.0355	0.1787**
	(0.7791)	(0.8575)	(0.1707)	(0.9601)	(0.0247)	(0.0237)	(0.2210)	(0.8160)	(0.4150)	(0.0170)
$MP_{t-2}^{L}\times EBT_t$	-0.1353***	-0.0187	0.2131**	-5.7146	0.1361	-0.0954**	0.6631***	0.2211	0.2037	-0.0130
	(0.0004)	(0.9242)	(0.0485)	(0.1716)	(0.5114)	(0.0250)	(0.0012)	(0.1473)	(0.1114)	(0.8671)
Intercept	0.0614***	0.1572***	0.0321***	0.0180	0.0339***	0.0622***	0.1611***	0.0318***	-0.0012	0.0368***
	(0.0000)	(0.0085)	(0.0000)	(0.7433)	(0.0038)	(0.0000)	(0.0041)	(0.0000)	(0.9816)	(0.0011)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	46839	1707	37726	891	20494	46839	1707	37726	891	20494
R-squared	0.1581	0.1990	0.1671	0.2567	0.1581	0.1585	0.2116	0.1649	0.2768	0.1621

Appendix A5: Macroprudential policy and meet or beat benchmark- by bank type

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. Comm=commercial banks, BHC=bank holding companies, Coops=cooperatives, IB=Islamic banks, Savings=Savings banks.

	Supply side- capital					***Supply side-Loans***					***Supply side-General***				
	Comm	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**	**(13)**	**(14)**	**(15)**
$MP^{T}t$	-0.007	0.037	-.157**	0.569	0.013	-0.034	0.171	-.581***	0.198	-0.126	0.026	0.097	0.234	-0.108	-.558**
	(0.042)	(0.213)	(0.07)	(0.403)	(0.075)	(0.047)	(0.283)	(0.124)	(0.407)	(0.135)	(0.034)	(0.439)	(0.179)	(0.498)	(0.278)
$MP^{L}t$	-0.212	-1.101	0.149	-47.06	0.063	-.657***	-0.815	0.175	-0.275	-0.719	-0.086	0.475	-.355**	1.213	0.197
	(0.163)	(1.009)	(0.195)	(10244)	(0.319)	(0.181)	(0.918)	(0.399)	(1.162)	(0.63)	(0.067)	(0.382)	(0.142)	(0.78)	(0.175)
$MP^{T}t$-1	-.074*	-0.164	-.269***	0.247	-.342***	-0.003	.531**	0.008	-0.087	.492***	.069**	0.369	0.03	0.006	.376*
	(0.045)	(0.236)	(0.087)	(0.383)	(0.09)	(0.049)	(0.256)	(0.143)	(0.448)	(0.136)	(0.034)	(0.411)	(0.152)	(0.521)	(0.219)
$MP^{L}t$-1	0.027	0.18	0.236	-49.635	-0.266	-.374**	0.924	-0.583	1.536*	.874**	-.112*	-0.078	-0.054	-0.345	0.021
	(0.153)	(0.854)	(0.215)	(14273.2)	(0.439)	(0.174)	(0.937)	(0.394)	(0.835)	(0.418)	(0.064)	(0.421)	(0.113)	(0.786)	(0.158)
$MP^{T}t$-2	0.019	0.274	0.1	0.242	.174**	-0.089	-0.003	0.026	0.036	0.068	.069**	0.175	0.125	-0.395	-0.177
	(0.05)	(0.253)	(0.079)	(0.407)	(0.087)	(0.055)	(0.323)	(0.155)	(0.474)	(0.116)	(0.031)	(0.356)	(0.133)	(0.432)	(0.236)
$MP^{L}t$-2	0.161	-1.036	0.172	-50.114	.709**	-0.159	0.632	1.015***	0.482	-0.275	.1*	0.022	-0.138	0.501	.446***
	(0.163)	(0.994)	(0.267)	(7743.709)	(0.33)	(0.163)	(1.011)	(0.344)	(1.121)	(0.434)	(0.06)	(0.423)	(0.097)	(0.641)	(0.146)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	23979	1081	20118	610	7776	23979	1081	20118	610	7776	23979	1081	20118	610	7776
Pseudo R^2	0.02	0.071	0.042	0.19	0.032	0.021	0.075	0.043	0.183	0.033	0.021	0.07	0.041	0.187	0.031
ll	-7719	-357	-7726	-150	-2989	-7710	-356	-7723	-151	-2989	-7713	-357	-7733	-150	-2992
Chi^2	23979	1081	20118	610	7776	334.97	57.362	688.547	67.868	201.119	329.127	54.009	667.29	69.462	194.353

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	Liquidity					***Demand-side***				
	Comm	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	.271***	-0.164	.282**	-0.395	-.237*	0.013	0.267	-.517*	-0.455	0.169
	(0.071)	(0.386)	(0.139)	(0.455)	(0.135)	(0.069)	(0.292)	(0.268)	(0.85)	(0.107)
$MP^{L}t$	0.036	1.196	0.634	3.323	-1.109	-.46***	-0.669	-1.163**	0.244	-0.554
	(0.197)	(1.031)	(0.394)	(2.51)	(1.094)	(0.145)	(0.752)	(0.559)	(0.928)	(0.463)
$MP^{T}t$-1	-0.008	0.346	-.516***	0.221	-.255*	-0.029	0.345	-0.054	0.384	0.124
	(0.085)	(0.46)	(0.182)	(0.503)	(0.14)	(0.069)	(0.286)	(0.276)	(0.791)	(0.113)
$MP^{L}t$-1	0.113	-42.89	0.649	-139.653	-50.868	-.323**	0.023	0.101	2.057**	-0.176
	(0.221)	(1872.4)	(0.644)	(20989.245)	(3958.592)	(0.152)	(0.753)	(0.384)	(1.019)	(0.488)
$MP^{T}t$-2	-0.014	0.16	-0.057	0.006	-0.177	.21***	0.446	-0.07	0.587	0.102
	(0.089)	(0.475)	(0.197)	(0.644)	(0.15)	(0.071)	(0.28)	(0.304)	(0.712)	(0.12)
$MP^{L}t$-2	-0.378	1.367	0.72	-192.385	-47.394	-.329**	0.744	0.218	-0.884	0.231
	(0.259)	(1.238)	(0.638)	(191083.22)	(3297.987)	(0.145)	(0.75)	(0.366)	(1.07)	(0.404)
Intercept	.271***	-0.164	.282**	-0.395	-.237*	0.013	0.267	-.517*	-0.455	0.169
	(0.071)	(0.386)	(0.139)	(0.455)	(0.135)	(0.069)	(0.292)	(0.268)	(0.85)	(0.107)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	23979	1081	20118	610	7776	23979	1081	20118	610	7776
Pseudo R^2	0.021	0.072	0.042	0.187	0.033	0.022	0.073	0.041	0.187	0.03
ll	-7712.72	-357.196	-7731.96	-150.625	-2988.81	-7701.65	-356.607	-7734.82	-150.595	-2997.81
Chi^2	329.701	55.166	671.228	69.267	201.174	351.824	56.343	665.514	69.326	183.181

Appendix A6: Macroprudential policy and abnormal LLP- by bank type

The table presents the results for earnings management-abnormal LLP, and the components of macroprudential policy... Standard errors are reported in parenthesis... *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. Comm=commercial banks, BHC=bank holding companies, Coops=cooperatives, IB=Islamic banks, Savings=Savings banks.

	Supply side- capital					***Supply side-Loans***					***Supply side-General***				
	Comm	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
$MP^{T}t$	0.0000*	0.0000	0.0000	0.0010	0.0000	0.0000	0.0010***	0.0000	0.0010	0.0000	0.0000	0.0000	0.0000	-0.0010	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0010)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0010)	(0.0000)	(0.0000)	(0.0000)	(0.0010)	(0.0010)	(0.0000)
$MP^{L}t$	-0.001**	0.0020**	0.0010	0.0000	-0.001**	0.0000	-0.0010	0.0010	0.0020	-0.0010	0.0000	0.0000	0.0000	0.0010	0.0000
	(0.0010)	(0.0010)	(0.0010)	(0.0000)	(0.0010)	(0.0000)	(0.0010)	(0.0010)	(0.0010)	(0.0010)	(0.0000)	(0.0010)	(0.0010)	(0.0010)	(0.0010)
$MP^{T}t-1$	0.0000	0.0000	0.0000	0.0010	0.0000	0.0000	0.0000	0.0000	0.0000	0.001**	0.0000	0.001*	0.0000	0.0010	-0.001*
	(0.0000)	(0.0000)	(0.0000)	(0.0010)	(0.0000)	(0.0000)	(0.0000)	(0.0010)	(0.0010)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0010)	(0.0010)
$MP^{L}t-1$	0.0000	0.0020**	0.0030***	0.0000	-0.0010	0.0000	0.0030	0.0000	0.0020	0.0000	0.0000	0.0000	0.0010	-0.0010	0.0000
	(0.0000)	(0.0010)	(0.0010)	(0.0000)	(0.0000)	(0.0000)	(0.0040)	(0.0010)	(0.0020)	(0.0010)	(0.0000)	(0.0010)	(0.0010)	(0.0010)	(0.0010)
$MP^{T}t-2$	0.0000**	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.001	0.0010	0.0010*	0.0000	0.0010	-0.001*	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0010)	(0.0000)	(0.0000)	(0.0000)	(0.0010)	(0.0010)	(0.0000)	(0.0000)	(0.0010)	(0.0000)	(0.0010)	(0.0010)
$MP^{L}t-2$	0.0010	0.0000	0.0000	0.0060	-0.001*	0.0000	0.0000	0.0000	0.0050***	0.0000	0.0000	0.0010	0.0010	-0.0010	0.0000
	(0.0010)	(0.0010)	(0.0010)	(0.0100)	(0.0000)	(0.0000)	(0.0020)	(0.0010)	(0.0020)	(0.0010)	(0.0000)	(0.0010)	(0.0000)	(0.0010)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	8298	441	5881	251	3526	8298	441	5881	251	3526	8298	441	5881	251	3526
R-squared	0.066	0.244	0.279	0.701	0.139	0.064	0.252	0.271	0.713	0.139	0.063	0.251	0.273	0.706	0.139

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	Liquidity					***Demand-side***				
	Comm	**BHC**	**Coops**	**IB**	**Savings**	**Comm**	**BHC**	**Coops**	**IB**	**Savings**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	-0.0001	-0.0004	0.0005	-0.0007	0.0000	.0003**	0.0003	-0.0003	-0.0001	-0.0001
	(0.0002)	(0.0007)	(0.0005)	(0.0007)	(0.0002)	(0.0001)	(0.0002)	(0.0004)	(0.0011)	(0.0001)
$MP^{L}t$	-0.0005	0.0013	-0.0040	0.0000	0.0000	-0.0002	0.0000	0.0000	0.0002	-0.0017**
	(0.0004)	(0.0012)	(0.0025)	(0.0026)	(0.0006)	(0.0002)	(0.0004)	(0.0006)	(0.0015)	(0.0007)
$MP^{T}t-1$	0.0000	-0.0005	-0.0010***	0.0011	-0.0002	0.0002	.0007***	0.0002	-0.0007	0.0002
	(0.0002)	(0.0006)	(0.0003)	(0.0015)	(0.0003)	(0.0002)	(0.0002)	(0.0003)	(0.0008)	(0.0001)
$MP^{L}t-1$	-0.0001	0.0019	-0.0023	-0.0251	-0.0014***	-0.0008***	0.0005	-0.0006	0.0017	0.0015
	(0.0004)	(0.0017)	(0.0029)	(0.0254)	(0.0005)	(0.0002)	(0.0004)	(0.0008)	(0.0014)	(0.0012)
$MP^{T}t-2$	-0.0006**	-0.0005	-0.0004	0.0000	-0.0002	0.0000	.0008***	0.0002	-0.0004	.0006***
	(0.0003)	(0.0006)	(0.0004)	(0.0011)	(0.0005)	(0.0001)	(0.0002)	(0.0005)	(0.0014)	(0.0002)
$MP^{L}t-2$	-0.0003	0.0006	-0.0018	0.0000	-0.0001	-0.0002	0.0005	-0.0011	-0.0004	0.0000
	(0.0005)	(0.0016)	(0.0019)	(0.0000)	(0.0007)	(0.0002)	(0.0007)	(0.0007)	(0.0016)	(0.0010)
Intercept	0.0174	-0.0084	-0.0280***	0.0404	0.0028	0.0168	-0.0029	-0.0289***	0.0457	0.0028
	(0.0122)	(0.0156)	(0.0099)	(0.0341)	(0.0147)	(0.0124)	(0.0152)	(0.0099)	(0.0361)	(0.0142)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	8298	441	5881	251	3526	8298	441	5881	251	3526
R-squared	0.0641	0.2314	0.2738	0.6997	0.1375	0.0647	0.245	0.2713	0.7004	0.1428

Appendix A7: Macroprudential policy and earnings persistence-by bank size

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	Large	**Small**	**Large**	**Small**	**Large**	**Small**	**Large**	**Small**	**Large**	**Small**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.3285***	0.3021***	0.3315***	0.2976***	0.3239***	0.2812***	0.3180***	0.2775***	0.3198***	0.2739***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
$MP^{T}t$	0.0005**	-0.0002	-0.0000	0.0010**	0.0007*	-0.0007*	-0.0004	0.0003	-0.0001	0.0010*
	(0.0497)	(0.4022)	(0.9400)	(0.0156)	(0.0630)	(0.0899)	(0.2840)	(0.6520)	(0.7236)	(0.0598)
$MP^{L}t$	-0.003***	-0.007***	-0.0008	-0.0042*	-0.0001	-0.0003	-0.0002	-0.0033*	-0.0003	-0.0004
	(0.0003)	(0.0000)	(0.4573)	(0.0532)	(0.7574)	(0.6509)	(0.9005)	(0.0565)	(0.7919)	(0.7690)
$MP^{T}t$-1	-0.0003	-0.0003	0.0006	0.0014***	0.0007**	-0.001***	-0.0004	0.0009	-0.0003	0.0002
	(0.2740)	(0.4208)	(0.1888)	(0.0004)	(0.0163)	(0.0080)	(0.4710)	(0.1581)	(0.3855)	(0.8140)
$MP^{L}t$-1	-0.0017*	-0.003**	0.0008	-0.0016	0.0011***	0.0007	-0.0012	-0.003**	0.0014	-0.0007
	(0.0615)	(0.0301)	(0.4763)	(0.3590)	(0.0007)	(0.1399)	(0.5600)	(0.0460)	(0.2749)	(0.6851)
$MP^{T}t$-2	-0.0001	-0.0003	0.0002	-0.002***	-0.0002	-0.0004	0.0002	0.0008	-0.0003	-0.0006
	(0.7875)	(0.3010)	(0.6869)	(0.0002)	(0.4823)	(0.3716)	(0.6350)	(0.2157)	(0.5562)	(0.3115)
$MP^{L}t$-2	-0.0010	-0.0020	-0.005***	-0.0002	0.0001	-0.0004	-0.0011	0.0000	-0.003***	-0.0006
	(0.4590)	(0.1638)	(0.0001)	(0.9090)	(0.7953)	(0.3603)	(0.4736)	(0.9929)	(0.0062)	(0.6093)
$MP_t^{T}\times EBT_t$	-0.057**	-0.045**	-0.0282	-0.0413	-0.0177	-0.0065	0.0359	0.0103	0.0240	-0.0518
	(0.0209)	(0.0253)	(0.4439)	(0.1050)	(0.4373)	(0.6873)	(0.2021)	(0.7741)	(0.3065)	(0.1438)
$MP_t^{L}\times EBT_t$	0.0240	0.0837	0.0400	-0.0358	-0.0221	-0.0254	-0.0907	0.1892**	-0.0269	0.1006
	(0.7580)	(0.1692)	(0.5894)	(0.6694)	(0.3554)	(0.2891)	(0.3674)	(0.0187)	(0.7739)	(0.2414)
$MP_{t-1}^{T}\times EBT_t$	-0.0033	0.0125	-0.0669*	-0.0286	-0.045***	-0.0025	-0.0049	-0.0108	0.0286	0.0299
	(0.9177)	(0.5432)	(0.0647)	(0.1929)	(0.0048)	(0.8700)	(0.8917)	(0.8121)	(0.1806)	(0.4327)
$MP_{t-1}^{L}\times EBT_t$	0.0984	0.0781	-0.0188	-0.0240	0.0209	0.0519**	-0.0359	0.0230	-0.1512	-0.0682
	(0.2195)	(0.2868)	(0.8217)	(0.7492)	(0.3577)	(0.0301)	(0.7415)	(0.7628)	(0.1938)	(0.4864)
$MP_{t-2}^{T}\times EBT_t$	0.0206	-0.053**	-0.0300	-0.0347	0.0236	-0.0283*	0.0238	-0.0852*	0.0304	0.0978***
	(0.4439)	(0.0299)	(0.2968)	(0.1722)	(0.2030)	(0.0733)	(0.4666)	(0.0575)	(0.3823)	(0.0004)
$MP_{t-2}^{L}\times EBT_t$	0.0143	0.0180	0.2687***	-0.0849	0.0407	-0.0022	0.0748	-0.0311	0.1094	-0.0676
	(0.8844)	(0.8067)	(0.0006)	(0.2348)	(0.1364)	(0.9362)	(0.4547)	(0.6830)	(0.2130)	(0.3206)
Intercept	0.0664***	0.0859***	0.0656***	0.0847***	0.0669***	0.0818***	0.0680***	0.0827***	0.0651***	0.0835***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	58430	49232	58430	49232	58430	49232	58430	49232	58430	49232
R^2	0.1729	0.1340	0.1737	0.1308	0.1740	0.1297	0.1711	0.1275	0.1716	0.1274

Appendix A8: Macroprudential policy and cashflow predictability-by bank size

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	Large	**Small**	**Large**	**Small**	**Large**	**Small**	**Large**	**Small**	**Large**	**Small**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.2062***	0.2409***	0.2121***	0.2492***	0.1929***	0.2222***	0.1976***	0.2186***	0.1985***	0.2222***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
$MP^{T}t$	0.0004*	-0.001**	0.0011**	0.0012***	0.0002	-0.0002	-0.0003	0.0004	0.0000	0.0005
	(0.0931)	(0.0368)	(0.0227)	(0.0016)	(0.4145)	(0.6386)	(0.3639)	(0.4813)	(0.9282)	(0.3280)
$MP^{L}t$	-0.003***	-0.003***	-0.0007	-0.0025	0.0001	-0.0007	0.0006	-0.003***	-0.0004	-0.0009
	(0.0000)	(0.0002)	(0.3331)	(0.1649)	(0.7096)	(0.1270)	(0.3961)	(0.0042)	(0.7180)	(0.4130)
$MP^{T}t\text{-}1$	-0.0004	-0.0001	0.0003	0.0002	-0.0002	-0.001**	0.0001	0.0004	-0.0004	-0.0002
	(0.1883)	(0.6608)	(0.4434)	(0.6310)	(0.3807)	(0.0179)	(0.7504)	(0.4660)	(0.1235)	(0.6589)
$MP^{L}t\text{-}1$	0.0000	-0.0013	0.0003	-0.0021	0.0010***	-0.0002	0.0031**	-0.002**	0.0003	-0.0007
	(0.9655)	(0.2438)	(0.7468)	(0.2113)	(0.0001)	(0.6635)	(0.0330)	(0.0235)	(0.7875)	(0.4946)
$MP^{T}t\text{-}2$	-0.001***	-0.001**	-0.001**	-0.001***	-0.0004*	-0.0007*	0.0004	0.0014**	0.0001	-0.001**
	(0.0092)	(0.0167)	(0.0285)	(0.0001)	(0.0626)	(0.0699)	(0.2474)	(0.0329)	(0.7967)	(0.0290)
$MP^{L}t\text{-}2$	-0.0002	-0.0020	0.0001	-0.0005	0.0003	-0.001***	0.0011	-0.0013	0.0006	-0.0002
	(0.8536)	(0.2073)	(0.8723)	(0.7131)	(0.4023)	(0.0036)	(0.3349)	(0.2881)	(0.4303)	(0.8070)
$MP_t^{T}\times EBT_t$	-0.053***	-0.052***	-0.071*	-0.053**	0.0056	-0.0149	0.0312	0.0140	-0.0058	-0.093**
	(0.0063)	(0.0057)	(0.0766)	(0.0338)	(0.7347)	(0.2835)	(0.2679)	(0.6302)	(0.7944)	(0.0197)
$MP_t^{L}\times EBT_t$	0.0348	0.0083	0.0032	-0.0920	-0.0210	-0.0198	-0.0642	0.0881	-0.0460	-0.0334
	(0.5191)	(0.8857)	(0.9577)	(0.2275)	(0.3357)	(0.3501)	(0.2490)	(0.1264)	(0.5795)	(0.6429)
$MP_{t-1}^{T}\times EBT_t$	-0.0238	0.0245	-0.064**	-0.0142	-0.0256*	0.0048	-0.0344	0.0223	0.0079	0.0267
	(0.4521)	(0.2425)	(0.0226)	(0.5003)	(0.0803)	(0.7167)	(0.2484)	(0.4852)	(0.6791)	(0.3386)
$MP_{t-1}^{L}\times EBT_t$	-0.0133	0.0795	-0.0010	-0.0360	0.0224	0.0598***	-0.195**	-0.0626	-0.0725	-0.0507
	(0.7908)	(0.1986)	(0.9889)	(0.6254)	(0.2847)	(0.0056)	(0.0172)	(0.1925)	(0.4740)	(0.4015)
$MP_{t-2}^{T}\times EBT_t$	0.0427	-0.0280	-0.0075	-0.053**	0.0376**	-0.0125	0.0119	-0.0296	-0.0146	0.1061***
	(0.1212)	(0.2268)	(0.7642)	(0.0137)	(0.0207)	(0.4032)	(0.7148)	(0.4316)	(0.5048)	(0.0000)
$MP_{t-2}^{L}\times EBT_t$	-0.0039	0.1292*	0.0180	-0.1009	0.0102	-0.0023	-0.0959	-0.0708	0.0598	-0.0637
	(0.9575)	(0.0706)	(0.7598)	(0.1351)	(0.6886)	(0.9254)	(0.1272)	(0.1630)	(0.4417)	(0.1214)
Intercept	0.0468***	0.0700***	0.0467***	0.0688***	0.0478***	0.0672***	0.0480***	0.0682***	0.0484***	0.0678***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	58428	49229	58428	49229	58428	49229	58428	49229	58428	49229
R^2	0.15	0.13	0.15	0.13	0.15	0.13	0.15	0.13	0.15	0.13

Appendix A9: Macroprudential policy and meet or beat benchmark- by bank size

The table presents the results for earnings management, and the components of macroprudential policy. The dependent variable is meet or beat benchmark, a measure of earning management. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. NOBS presents the number of observations, and R^ 2 is the adjusted R-squared. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side-Capital		***Supply side-Loans***		***Supply side-General***		***Liquidity***		***Demand-side***	
	Large	**Small**	**Large**	**Small**	**Large**	**Small**	**Large**	**Small**	**Large**	**Small**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	-0.030	-0.068*	-0.144***	-0.073*	-0.089**	0.155***	0.203***	0.053	-0.001	-0.009
	(0.385)	(0.052)	(0.002)	(0.088)	(0.013)	(0.004)	(0.001)	(0.539)	(0.991)	(0.913)
$MP^{L}t$	-0.197	-0.008	-1.204***	-0.099	-0.0627	-0.0395	-0.0589	0.0450	-0.492***	-0.382
	(0.145)	(0.954)	(0.000)	(0.664)	(0.2491)	(0.6209)	(0.7530)	(0.8539)	(0.0002)	(0.198)
$MP^{T}t-1$	-0.165***	-0.173***	0.0214	-0.048	0.0780**	0.0704	-0.0825	-0.1533	-0.0275	-0.055
	(0.000)	(0.000)	(0.638)	(0.281)	(0.021)	(0.183	(0.277)	(0.126)	(0.647)	(0.558)
$MP^{L}t-1$	-0.306**	0.085	-0.260*	-0.171	-0.159***	-0.175***	0.0178	-0.099	-0.350***	-0.124
	(0.033)	(0.546)	(0.070)	(0.457)	(0.001)	(0.009)	(0.936)	(0.754)	(0.008)	(0.639)
$MP^{T}t-2$	-0.051	0.087**	-0.020	-0.061	-0.011	0.060	-0.079	0.007	0.216***	0.113
	(0.221)	(0.037)	(0.695)	(0.269)	(0.715)	(0.244)	(0.328)	(0.946)	(0.0004)	(0.244)
$MP^{L}t-2$	0.1577	0.352**	-0.0419	-0.089	0.070	0.022	0.116	-0.827**	-0.002	-0.471*
	(0.274)	(0.031)	(0.758)	(0.655)	(0.1314)	(0.723)	(0.622)	(0.0208)	(0.989)	(0.066)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country - level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	53113	37005	53113	37005	53113	37005	53113	37005	53113	37005
ll	-21000	-13000	-21000	-13000	-21000	-13000	-21000	-13000	-21000	-13000
Chi^2	955	597	991	570	945	583	935	573	963	571

Appendix A10: Macroprudential policy and abnormal LLP- by bank size

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side- Capital		***Supply side-Loans***		***Supply side-General***		***Liquidity***		***Demand-side***	
	Large	**Small**	**Large**	**Small**	**Large**	**Small**	**Large**	**Small**	**Large**	**Small**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	0.0001*	0.001***	0.0001	0.0001	0.0002***	-0.0014	0.0002**	-0.001***	0.0002***	-0.0001
	(0.0001)	(0.0002)	(0.0001)	(0.000)	(0.0001)	(0.001)	(0.0001)	(0.0004)	(0.0001)	(0.000)
$MP^{L}t$	-0.0005**	-0.0016*	-0.0001	0.0017	-0.0002	0.0002	-0.0004	-0.0012	-0.0004***	0.0002
	(0.0002)	(0.0008)	(0.0002)	(0.001)	(0.0001)	(0.001)	(0.0003)	(0.0015)	(0.0001)	(0.001)
$MP^{T}t-1$	0.0000	-0.0001	0.0001	0.0014	0.0000	-0.0005	-0.0002**	-0.0003	0.0003***	-0.001*
	(0.0001)	(0.0002)	(0.0001)	(0.001)	(0.0001)	(0.001)	(0.0001)	(0.0004)	(0.0001)	(0.000)
$MP^{L}t-1$	0.0004	-0.0010	0.0002	-0.0009	-0.0004***	0.0006	-0.0002	-0.0003	-0.0003*	-0.0006
	(0.0003)	(0.0007)	(0.0002)	(0.001)	(0.0001)	(0.001)	(0.0003)	(0.0016)	(0.000)	(0.001)
$MP^{T}t-2$	-0.0002**	0.0004**	0.0000	0.0015	0.0000	-0.0003	-0.0002**	-0.0003	0.0002***	-0.001
	(0.0001)	(0.0002)	(0.0001)	(0.001)	(0.0001)	(0.001)	(0.0001)	(0.0005)	(0.0001)	(0.000)
$MP^{L}t-2$	0.0004	-0.0008	0.0005**	-0.0018	-0.0001	0.0000	-0.0006*	-0.0014	-0.0002	-0.0009
	(0.000)	(0.001)	(0.0002)	(0.003)	(0.0001)	(0.000)	(0.000)	(0.001)	(0.0002)	(0.001)
Intercept	0.012***	0.0350	0.012***	0.0353	0.012***	0.0261	0.012***	0.0376	0.012***	0.0309
	(0.0041)	(0.0455)	(0.0042)	(0.044)	(0.0041)	(0.045)	(0.0041)	(0.0450)	(0.0042)	(0.045)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	12380	6017	12380	6017	12380	6017	12380	6017	12380	6017
R^2	0.14	0.09	0.14	0.09	0.14	0.09	0.14	0.08	0.14	0.08

Appendix A11A: Macroprudential policy and earnings persistence- Listed versus unlisted banks,

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	Listed	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.357***	0.396***	0.355***	0.379***	0.345***	0.353***	0.360***	0.370***	0.366***	0.361***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
MP^Tt	0.0000	0.0002	0.0002	0.0001	0.0004	-0.0002	-0.0017*	0.0003	-0.0001	0.0009**
	(0.9747)	(0.2603)	(0.7974)	(0.7518)	(0.5942)	(0.5408)	(0.0503)	(0.4894)	(0.9308)	(0.0360)
MP^Lt	-0.004**	-0.005***	-0.0028	-0.0017	-0.0003	-0.001**	-0.0020	-0.0015	0.0009	-0.0001
	(0.0119)	(0.0000)	(0.1020)	(0.2198)	(0.6566)	(0.0465)	(0.2126)	(0.2707)	(0.7364)	(0.8730)
MP^Tt-1	-0.0002	-0.001***	0.0011	0.0008**	-0.0002	-0.0001	0.0023***	-0.0001	0.0011	-0.0000
	(0.7335)	(0.0045)	(0.1903)	(0.0127)	(0.8239)	(0.7152)	(0.0075)	(0.9134)	(0.3104)	(0.8993)
MP^Lt-1	-0.0010	-0.0012	-0.0018	0.0005	0.0000	0.0002	-0.007***	-0.0000	0.0019	0.0009
	(0.5982)	(0.1638)	(0.2975)	(0.6274)	(0.9821)	(0.4734)	(0.0006)	(0.9834)	(0.3994)	(0.3716)
MP^Tt-2	0.0004	-0.0001	-0.0002	-0.001**	-0.0001	0.0001	-0.003***	0.0006	-0.002**	-0.0002
	(0.5444)	(0.7907)	(0.7843)	(0.025)	(0.9408)	(0.6271)	(0.0011)	(0.2287)	(0.0180)	(0.5248)
MP^Lt-2	-0.004***	-0.0012	-0.005***	-0.0016	-0.0002	-0.0001	0.0011	-0.0008	-0.004**	-0.0003
	(0.002)	(0.2847)	(0.0017)	(0.1116)	(0.8190)	(0.7095)	(0.5757)	(0.5347)	(0.0110)	(0.7261)
$MP_t^T \times EBT_t$	-0.0257	-0.053***	-0.0119	-0.0099	0.0240	-0.0021	0.0640	-0.0223	0.0375	-0.067**
	(0.6147)	(0.0023)	(0.7768)	(0.6889)	(0.5262)	(0.8959)	(0.1428)	(0.4564)	(0.4263)	(0.0258)
$MP_t^L \times EBT_t$	0.1821	0.0366	0.1502*	0.0237	0.0541	-0.0045	0.0578	0.0503	-0.1120	0.0084
	(0.1469)	(0.5109)	(0.0777)	(0.7427)	(0.1827)	(0.8274)	(0.5788)	(0.4873)	(0.5163)	(0.9007)
$MP_{t-1}^T \times EBT_t$	0.0344	0.0027	-0.0304	-0.060**	0.0165	-0.0138	-0.117***	-0.0067	-0.0667	0.0078
	(0.3727)	(0.8965)	(0.5222)	(0.0123)	(0.6932)	(0.3435)	(0.0090)	(0.8623)	(0.3272)	(0.7497)
$MP_{t-1}^L \times EBT_t$	0.0852	0.0291	0.2122**	-0.0438	0.0455	0.0642***	0.2630***	-0.0989	-0.2034	-0.1221
	(0.6019)	(0.6448)	(0.0299)	(0.5136)	(0.3571)	(0.0015)	(0.0042)	(0.2376)	(0.2954)	(0.1379)
$MP_{t-2}^T \times EBT_t$	0.0039	-0.049**	0.0329	-0.0476*	0.0179	-0.0068	0.1719***	-0.0409	0.1340**	0.0533**
	(0.9262)	(0.0337)	(0.4430)	(0.0506)	(0.6624)	(0.6386)	(0.0012)	(0.2300)	(0.0249)	(0.0144)
$MP_{t-2}^L \times EBT_t$	0.2798***	0.0008	0.2094**	0.0086	0.0490	0.0333	-0.0401	0.0776	0.1653	-0.0652
	(0.0059)	(0.9897)	(0.0120)	(0.8972)	(0.3578)	(0.1269)	(0.7208)	(0.3077)	(0.2063)	(0.2737)
Intercept	0.0794***	0.0657***	0.0778***	0.0646***	0.0799***	0.0662***	0.0802***	0.0650***	0.0729***	0.0651***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	10613	76790	10613	76790	10613	76790	10613	76790	10613	76790
R-squared	0.26	0.20	0.26	0.19	0.26	0.19	0.26	0.19	0.26	0.19

Appendix A11B: Macroprudential policy and earnings persistence- Foreign versus domestic banks

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. FOR=foreign banks, DOM=domestic banks.

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	FOR	**DOM**	**FOR**	**DOM**	**FOR**	**DOM**	**FOR**	**DOM**	**FOR**	**DOM**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.375***	0.411***	0.363***	0.406***	0.364***	0.383***	0.366***	0.3970***	0.362***	0.399***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
$MP^{T}t$	-0.0003	0.0008**	-0.0002	0.0002	-0.0008	0.0006	0.0009	-0.0009*	0.0002	0.0009*
	(0.5594)	(0.0164)	(0.7616)	(0.7894)	(0.1763)	(0.2081)	(0.4213)	(0.0791)	(0.7551)	(0.0570)
$MP^{L}t$	-0.0025	-0.005***	-0.0052**	-0.0032*	-0.002***	-0.0004	-0.0017	-0.0010	-0.0029*	0.0027
	(0.1660)	(0.0000)	(0.0374)	(0.0564)	(0.0034)	(0.2848)	(0.4264)	(0.5618)	(0.0874)	(0.2022)
$MP^{T}t$-1	0.0003	-0.0008**	-0.0003	0.0014**	-0.0005	-0.0002	-0.0011	0.0011	-0.0008	0.0009
	(0.6606)	(0.0333)	(0.6750)	(0.0426)	(0.3318)	(0.5435)	(0.3183)	(0.1132)	(0.1712)	(0.1363)
$MP^{L}t$-1	-0.0000	-0.0011	0.0013	-0.0011	0.0009	0.0001	0.0014	-0.005***	0.0019	0.0012
	(0.9766)	(0.3005)	(0.6109)	(0.3650)	(0.1554)	(0.7543)	(0.6368)	(0.0067)	(0.3421)	(0.5752)
$MP^{T}t$-2	-0.0005	-0.0002	-0.0003	-0.0009*	0.0001	0.0000	0.002***	0.0001	-0.0013*	-0.0001
	(0.4835)	(0.5973)	(0.6874)	(0.0714)	(0.8522)	(0.9100)	(0.0080)	(0.8676)	(0.0566)	(0.8621)
$MP^{L}t$-2	0.0006	-0.0011	-0.006***	-0.0030**	0.0005	-0.0000	0.0015	-0.0001	0.0004	-0.004***
	(0.7105)	(0.4440)	(0.0024)	(0.0117)	(0.5284)	(0.9395)	(0.2709)	(0.9555)	(0.7663)	(0.0009)
$MP_t^{T}\times EBT_t$	-0.0543*	-0.097***	0.0146	-0.0599	0.0352	-0.0069	-0.0143	0.0477	-0.0163	-0.0572*
	(0.0877)	(0.0009)	(0.6903)	(0.1317)	(0.2033)	(0.8008)	(0.8191)	(0.2012)	(0.7408)	(0.0507)
$MP_t^{L}\times EBT_t$	-0.0460	0.1406*	0.1876	0.1443*	0.0017	0.0025	0.0154	-0.0346	0.2125	-0.2657*
	(0.6286)	(0.0769)	(0.1698)	(0.0889)	(0.9596)	(0.9252)	(0.8725)	(0.7610)	(0.1095)	(0.0701)
$MP_{t-1}^{T}\times EBT_t$	0.0127	0.0302	-0.0576	-0.121***	-0.0352	0.0025	-0.0096	-0.0856*	0.0089	-0.0492
	(0.7913)	(0.4282)	(0.2739)	(0.0071)	(0.2650)	(0.9129)	(0.8476)	(0.0655)	(0.7910)	(0.2726)
$MP_{t-1}^{L}\times EBT_t$	-0.234**	0.1277	0.0779	0.0920	0.0425	0.0314	-0.1838	0.2207**	-0.2170	-0.1220
	(0.0122)	(0.1619)	(0.5868)	(0.2724)	(0.3345)	(0.3007)	(0.2347)	(0.0431)	(0.1391)	(0.5373)
$MP_{t-2}^{T}\times EBT_t$	0.0254	0.0134	-0.0224	0.0619**	-0.0328	0.0216	0.0031	-0.0070	0.074***	0.0288
	(0.5546)	(0.7044)	(0.5587)	(0.0297)	(0.3249)	(0.3924)	(0.9466)	(0.8908)	(0.0090)	(0.5605)
$MP_{t-2}^{L}\times EBT_t$	0.0634	0.0121	0.1755	0.0639	-0.0475	0.0492	-0.0472	-0.0612	-0.0434	0.1735*
	(0.4392)	(0.9054)	(0.1481)	(0.3692)	(0.3291)	(0.1094)	(0.5841)	(0.6169)	(0.6945)	(0.0712)
Intercept	0.089***	0.077***	0.088***	0.074***	0.089***	0.078***	0.089***	0.078***	0.090***	0.075***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country - level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	8863	30355	8863	30355	8863	30355	8863	30355	8863	30355
R^2	0.22	0.25	0.22	0.25	0.23	0.24	0.22	0.24	0.22	0.24

Appendix A12A: Macroprudential policy and cashflow predictability-Listed versus unlisted banks

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	Listed	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.2684***	0.2878***	0.2743***	0.2875***	0.2601***	0.2488***	0.2702***	0.2651***	0.2761***	0.2682***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
$MP^{T}t$	0.0002	-0.0002	0.0006	0.0007**	0.0005	-0.0001	-0.002***	0.0003	-0.0000	0.0007**
	(0.7716)	(0.4453)	(0.4279)	(0.0325)	(0.2996)	(0.7097)	(0.0026)	(0.4439)	(0.9752)	(0.0239)
$MP^{L}t$	-0.0012	-0.003***	-0.0004	-0.0016*	-0.0002	-0.001**	-0.0005	-0.002**	0.0014	-0.0008
	(0.1657)	(0.0004)	(0.7939)	(0.0922)	(0.6882)	(0.0284)	(0.7416)	(0.0234)	(0.5508)	(0.1679)
$MP^{T}t-1$	-0.0000	-0.0004	0.0007	0.0002	-0.0006	-0.001***	0.0012*	0.0003	0.0006	0.0000
	(0.9683)	(0.1064)	(0.4561)	(0.4755)	(0.2924)	(0.0088)	(0.0618)	(0.3911)	(0.3999)	(0.8790)
$MP^{L}t-1$	0.0018*	-0.0002	0.0010	-0.0008	0.0004	-0.0001	-0.0001	0.0002	0.0015	0.0002
	(0.0914)	(0.7751)	(0.4999)	(0.5096)	(0.4608)	(0.8454)	(0.9531)	(0.9058)	(0.4214)	(0.7938)
$MP^{T}t-2$	-0.0004	-0.0003	-0.001**	-0.001**	-0.0007	-0.0005*	-0.0017*	0.0002	-0.0016*	-0.0001
	(0.4509)	(0.1064)	(0.0190)	(0.0122)	(0.1233)	(0.0759)	(0.0564)	(0.5275)	(0.0979)	(0.6913)
$MP^{L}t-2$	-0.0001	-0.0015	0.0005	0.0001	0.0004	-0.0006*	0.0040***	-0.0017	0.0017	0.0009
	(0.8692)	(0.1640)	(0.7335)	(0.9328)	(0.5345)	(0.0593)	(0.0000)	(0.1328)	(0.2513)	(0.1173)
$MP_t^{T}\times EBT_t$	-0.0313	-0.048***	-0.0452	-0.0265	-0.0067	-0.0012	0.0433	0.0090	-0.0249	-0.076***
	(0.4075)	(0.0030)	(0.2945)	(0.2932)	(0.8074)	(0.9305)	(0.1825)	(0.7193)	(0.5988)	(0.0019)
$MP_t^{L}\times EBT_t$	-0.0882	0.0125	0.0224	-0.0053	0.0253	-0.0070	-0.0100	0.0101	-0.1701	-0.0377
	(0.3109)	(0.8021)	(0.8210)	(0.9248)	(0.5032)	(0.6951)	(0.9065)	(0.8436)	(0.2715)	(0.4221)
$MP_{t-1}^{T}\times EBT_t$	0.0286	0.0039	-0.0493	-0.061***	0.0106	0.0023	-0.082**	-0.0150	-0.0486	-0.0268
	(0.3846)	(0.8521)	(0.3332)	(0.0029)	(0.7488)	(0.8532)	(0.0173)	(0.5863)	(0.2467)	(0.1548)
$MP_{t-1}^{L}\times EBT_t$	-0.0825	0.0426	0.0510	-0.0030	0.0256	0.0663***	-0.0388	-0.164**	-0.1358	-0.0854*
	(0.3174)	(0.4355)	(0.6084)	(0.9649)	(0.4574)	(0.0007)	(0.6640)	(0.0233)	(0.4053)	(0.0865)
$MP_{t-2}^{T}\times EBT_t$	0.0299	-0.0191	0.0289	-0.043**	0.0333	0.0168	0.1394***	0.0062	0.0793	0.0182
	(0.4146)	(0.3757)	(0.3683)	(0.0295)	(0.2193)	(0.2319)	(0.0067)	(0.8300)	(0.1647)	(0.4333)
$MP_{t-2}^{L}\times EBT_t$	0.0530	0.0786	-0.0056	-0.0770	0.0068	0.0284	-0.208***	-0.0215	0.0464	-0.0566
	(0.4237)	(0.1860)	(0.9513)	(0.2186)	(0.8641)	(0.1598)	(0.0003)	(0.6543)	(0.7087)	(0.1360)
Intercept	0.0509***	0.0555***	0.0499***	0.0536***	0.0514***	0.0553***	0.0526***	0.0547***	0.0516***	0.0547***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	10613	76786	10613	76786	10613	76786	10613	76786	10613	76786
R^2	0.25	0.18	0.26	0.18	0.26	0.18	0.26	0.18	0.27	0.18

Appendix A12B: Macroprudential policy and cashflow predictability- Foreign versus domestic banks

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. FOR=foreign banks, DOM=domestic banks.

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	FOR	**DOM**	**FOR**	**DOM**	**FOR**	**DOM**	**FOR**	**DOM**	**FOR**	**DOM**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.3094***	0.2905***	0.3147***	0.2943***	0.2927***	0.2629***	0.2954***	0.2803***	0.3028***	0.2843***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$MP^{T}t$	0.0003	0.0002	0.0010*	0.0010*	-0.0010*	0.0009**	0.0000	-0.001**	0.001*	0.001
	(0.4296)	(0.5119)	(0.0556)	(0.0654)	(0.0721)	(0.0450)	(0.9556)	(0.0240)	(0.0543)	(0.227)
$MP^{L}t$	-0.0013	-0.003**	0.0008	-0.003**	-0.0013*	-0.0002	-0.0019	0.0015	-0.0016	0.0011
	(0.2742)	(0.0138)	(0.5949)	(0.026)	(0.0502)	(0.5435)	(0.1594)	(0.1348)	(0.2074)	(0.5024)
$MP^{T}t-1$	-0.0000	-0.0003	-0.0001	0.0014***	-0.002***	-0.0006*	-0.0000	0.0009	-0.001**	0.0003
	(0.9359)	(0.4084)	(0.7449)	(0.0077)	(0.0001)	(0.0565)	(0.9556)	(0.1019)	(0.0398)	(0.4921)
$MP^{L}t-1$	0.0005	-0.0008	0.0036**	-0.0010	0.0008	0.0001	0.0019	-0.0007	0.0008	0.0012
	(0.6624)	(0.3439)	(0.0205)	(0.4532)	(0.1325)	(0.7559)	(0.5411)	(0.6903)	(0.4823)	(0.4131)
$MP^{T}t-2$	-0.002***	-0.0004	-0.0003	-0.001***	0.0001	-0.001***	0.002**	0.0002	-0.0006	0.0004
	(0.0087)	(0.3030)	(0.5249)	(0.0092)	(0.7357)	(0.0035)	(0.0160)	(0.8022)	(0.1564)	(0.4638)
$MP^{L}t-2$	0.0029**	-0.0005	0.0011	0.0000	0.0007	-0.0002	-0.0024	0.0022	0.0011	0.0016
	(0.0483)	(0.6929)	(0.3923)	(0.9747)	(0.3234)	(0.5802)	(0.1523)	(0.1125)	(0.3108)	(0.1473)
$MP_t^{T}\times EBT_t$	-0.090***	-0.060**	-0.0370	-0.081**	0.0455	-0.0281	0.0422	0.0540	-0.093**	-0.052*
	(0.0027)	(0.0257)	(0.2472)	(0.0426)	(0.1026)	(0.2380)	(0.2808)	(0.1547)	(0.0404)	(0.0661)
$MP_t^{L}\times EBT_t$	-0.0927	0.0464	-0.0882	0.0766	-0.0187	-0.0102	-0.0129	-0.136**	0.0385	-0.1614
	(0.2174)	(0.6032)	(0.2920)	(0.2885)	(0.5426)	(0.6717)	(0.8428)	(0.0213)	(0.7344)	(0.1909)
$MP_{t-1}^{T}\times EBT_t$	0.0234	0.0089	-0.0619	-0.112***	-0.0040	0.0015	-0.0522	-0.088**	-0.048*	-0.011
	(0.5284)	(0.8178)	(0.1156)	(0.0011)	(0.8792)	(0.9409)	(0.1718)	(0.0336)	(0.0691)	(0.6989)
$MP_{t-1}^{L}\times EBT_t$	-0.168**	0.0732	-0.0246	0.0963	0.0498	0.0336	-0.2635*	0.0154	-0.1337	-0.1403
	(0.0309)	(0.4011)	(0.8228)	(0.2506)	(0.2460)	(0.2387)	(0.0575)	(0.8698)	(0.1571)	(0.3278)
$MP_{t-2}^{T}\times EBT_t$	0.0806**	0.0132	-0.0431	0.0472	-0.0333	0. 073***	0.0256	0.0053	0.0131	-0.0282
	(0.0245)	(0.6928)	(0.1148)	(0.1035)	(0.1787)	(0.0005)	(0.5278)	(0.9155)	(0.6288)	(0.5038)
$MP_{t-2}^{L}\times EBT_t$	-0.0866	0.0116	-0.0860	-0.0430	-0.0422	0.0440*	-0.0301	-0.174**	0.0386	-0.0091
	(0.3169)	(0.9058)	(0.3486)	(0.5527)	(0.4028)	(0.0762)	(0.6468)	(0.0149)	(0.6380)	(0.9299)
Intercept	0.0641***	0.0623***	0.0648***	0.0604***	0.0636***	0.0632***	0.0647***	0.0632***	0.0645***	0.0637***
	(0.0001)	(0.0000)	(0.0000)	(0.0000)	(0.0001)	(0.0000)	(0.0001)	(0.0000)	(0.0001)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	8861	30355	8861	30355	8861	30355	8861	30355	8861	30355
R^2	0.25	0.20	0.25	0.21	0.25	0.21	0.25	0.20	0.25	0.20

Appendix A13A: Macroprudential policy and meet or beat benchmark- Listed versus unlisted banks

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side-Capital		***Supply side-Loans***		***Supply side-General***		***Liquidity***		***Demand side***	
	Listed	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	0.027	-0.043	0.032	-0.226***	-0.084	0.036	0.306***	0.203***	0.099	-0.039
	(0.073)	(0.034)	(0.084)	(0.048)	(0.060)	(0.044)	(0.111)	(0.062)	(0.099)	(0.068)
$MP^{L}t$	-0.458	0.065	-1.27***	-0.337*	0.002	-0.108	0.032	0.179	-0.70***	-0.40**
	(0.321)	(0.115)	(0.317)	(0.201)	(0.115)	(0.067)	(0.289)	(0.203)	(0.224)	(0.168)
$MP^{T}t\text{-}1$	0.102	-0.194***	0.15*	0.035	0.245***	-0.002	-0.045	-0.059	0.115	-0.169**
	(0.078)	(0.039)	(0.084)	(0.05)	(0.058)	(0.044)	(0.137)	(0.075)	(0.098)	(0.071)
$MP^{L}t\text{-}1$	-0.109	0.072	0.014	-0.414**	-0.106	-0.107*	0.047	-0.010	0.10	-0.421**
	(0.300)	(0.121)	(0.252)	(0.197)	(0.115)	(0.06)	(0.334)	(0.264)	(0.214)	(0.168)
$MP^{T}t\text{-}2$	-0.065	0.09**	0.105	-0.108**	0.091*	0.009	-0.122	-0.066	0.392***	-0.007
	(0.086)	0(.04)	(0.095)	(0.053)	(0.054)	(0.039)	(0.148)	(0.081)	(0.096)	(0.074)
$MP^{L}t\text{-}2$	0.439*	0.293**	-0.296	0.087	0.025	0.097*	-0.274	-0.241	-0.50**	-0.119
	(0.266)	(0.140)	(0.267)	(0.177)	(0.114)	(0.056)	(0.381)	(0.282)	(0.225)	(0.15)
Bank-level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	8475	39413	8475	39413	8475	39413	8475	39413	8475	39413
Pseudo R^2	.036	.026	.039	.026	.039	.025	.036	.025	.041	.026
Log Likelihood	-2837	-14428	-2827	-14429	-2827	-14441	-2836	-14440	-2822	-14436
Chi^2	210	775	229	773	231	748	212	751	240	758

Appendix A13B: Macroprudential policy and meet or beat benchmark- Foreign versus domestic banks

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. FOR=foreign banks, DOM=domestic banks.

	Supply side- Capital		***Supply side-Loans***		***Supply side-General***		***Liquidity***		***Demand-side***	
	FOR	**DOM**	**FOR**	**DOM**	**FOR**	**DOM**	**FOR**	**DOM**	**FOR**	**DOM**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
MP^Tt	-.019	.002	.043	-.128**	-.064	-.066	.132	.114	.28**	-.045
	(.101)	(.046)	(.125)	(.061)	(.113)	(.047)	(.168)	(.077)	(.127)	(.072)
MP^Lt	.483	-.26	.034	-.996***	.056	-.163**	.281	-.174	.042	-.592***
	(.328)	(.198)	(.385)	(.237)	(.163)	(.082)	(.48)	(.295)	(.297)	(.168)
MP^Tt-1	.067	-.089*	.089	.098	.119	.156***	.137	.032	-.134	.052
	(.105)	(.051)	(.128)	(.06)	(.097)	(.044)	(.19)	(.096)	(.145)	(.07)
MP^Lt-1	-.362	-.186	.001	-.046	.207	-.129*	.296	-.568	-.47	-.155
	(.376)	(.195)	(.413)	(.199)	(.143)	(.077)	(.448)	(.363)	(.345)	(.168)
MP^Tt-2	-.035	-.049	-.176	.011	-.041	.053	-.063	-.033	.039	.165**
	(.122)	(.054)	(.142)	(.073)	(.094)	(.041)	(.207)	(.1)	(.15)	(.072)
MP^Lt-2	-.143	.266	-.853	-.189	.047	.166**	.119	-.343	-.972**	-.18
	(.367)	(.172)	(.58)	(.21)	(.152)	(.072)	(.486)	(.37)	(.387)	(.161)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	4726	20654	4726	20654	4726	20654	4726	20654	4726	20654
Pseudo R^2	.033	.029	.033	.03	.033	.03	.032	.029	.037	.03
ll	-1374	-7553	-1374	-7543	-1375	-7544	-1376	-7554	-1368	-7544
Chi^2	93	453	94	471	93	470	91	450	105	469

Appendix A14A: Macroprudential policy and abnormal LLP- Listed versus Unlisted banks

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side- Capital		***Supply side-Loans***		***Supply side-General***		***Liquidity***		***Demand side***	
	Listed	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**	**Listed**	**Unlisted**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
$MP^{T}t$	.0002**	.0002**	.0004***	-.0002	.0001	.0002	.0003*	-.0001	.0002*	.0001
	(.0001)	(.0001)	(.0001)	(.0001)	(.0001)	(.0002)	(.0002)	(.0002)	(.0001)	(.0001)
$MP^{L}t$	-.0004	-.001*	.0007**	-.0001	0	-.0002	-.0004	0	-.0003	-.0002
	(.0004)	(.0005)	(.0003)	(.0004)	(.0002)	(.0002)	(.0005)	(.0004)	(.0002)	(.0003)
$MP^{T}t-1$	0	-.0001	-.0001	.0002	.0001	-.0001	-.0001	-.0004**	0	.0002
	(.0001)	(.0001)	(.0001)	(.0001)	(.0001)	(.0001)	(.0002)	(.0001)	(.0001)	(.0001)
$MP^{L}t-1$	.0007	.0002	.0001	-.0003	-.0003	-.0002	-.0007	.0005	-.0006***	0
	(.0004)	(.0003)	(.0003)	(.0005)	(.0002)	(.0002)	(.0006)	(.0005)	(.0002)	(.0004)
$MP^{T}t-2$	-.0002*	0	-.0001	.0003*	0	0	.0002	-.0005**	-.0001	.0004***
	(.0001)	(.0001)	(.0001)	(.0002)	(.0001)	(.0001)	(.0002)	(.0003)	(.0001)	(.0001)
$MP^{L}t-2$	.0004	.0002	.0002	.0012**	-.0001	0	-.0004	-.0001	-.0004	-.0002
	(.0004)	(.0005)	(.0004)	(.0006)	(.0002)	(.0002)	(.0005)	(.0006)	(.0003)	(.0003)
Intercept	.0268***	.0126	.0267***	.013	.0266***	.0133	.0264***	.0128	.0251***	.0134
	(.0092)	(.0083)	(.0092)	(.0083)	(.0094)	(.0083)	(.0091)	(.0083)	(.0092)	(.0083)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	3634	12932	3634	12932	3634	12932	3634	12932	3634	12932
R^2	.1946	.1199	.1967	.1192	.1938	.1188	.1934	.12	.1951	.1189

Appendix A14B: Macroprudential policy and abnormal LLP- Foreign banks versus domestic banks

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. FOR=foreign banks, DOM=domestic banks.

	Supply side- Capital		***Supply side-Loans***		***Supply side-General***		***Liquidity***		***Demand-side***	
	FOR	DOM	FOR	DOM	FOR	DOM	FOR	DOM	FOR	DOM
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	0.000	0.000	0.000	0.000	0*	0*	.0002	.0001	.0003	.0001
	(0.000)	(0.000)	(0)	(0)	(0)	(0)	(.0003)	(.0002)	(.0002)	(.0001)
$MP^{L}t$	.001	-.001	0.000	.001**	0	0*	.0005	-.0005	-.0003	-.0003*
	(.001)	(.001)	(.001)	(0)	(0)	(0)	(.0005)	(.0005)	(.0006)	(.0002)
$MP^{T}t-1$	0.000	0.000	0.000	0.000	0	0	-.0004	-.0001	.0003	.0001*
	(0.000)	(0.000)	(0.000)	(0)	(0)	(0)	(.0004)	(.0001)	(.0003)	(.0001)
$MP^{L}t-1$	0.000	0.000	-.002**	.001	0	-.001***	-.0001	-.0007	-.0007	-.0003*
	(.001)	(0.000)	(.001)	(0)	(0)	(0)	(.001)	(.0005)	(.0005)	(.0002)
$MP^{T}t-2$	0.000	0.000**	0.000	0.000	0	0	.0003	-.0007**	.0002	.0002
	(0.000)	(0.000)	(0)	(0)	(0)	(0)	(.0003)	(.0003)	(.0002)	(.0001)
$MP^{L}t-2$	.001	.001	.001	.001***	0	0	.0006	-.0002	-.0005	-.0001
	(.001)	(0.000)	(.001)	(0)	(0)	(0)	(.0013)	(.0004)	(.0005)	(.0002)
Intercept	.01	.027***	.012	.028***	.011	.027***	.0117	.0271***	.01	.0274***
	(.011)	(.008)	(.011)	(.008)	(.011)	(.008)	(.0109)	(.0082)	(.0112)	(.0082)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country - level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	1737	7711	1737	7711	1737	7711	1737	7711	1737	7711
R^2	.118	.142	.119	.141	.117	.142	.1147	.1416	.119	.1399

Appendix A15: Macroprudential policy and earnings persistence - Advanced, Emerging and developing economies

the table presents the results for earnings quality, and the components of macroprudential policy. The dependent variable is earnings persistence, a measure of earning management. And the key variable of interest is net, tight and loose policies for time periods ***t, t-1, t-2***. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. ADV=advanced economies, EMER=emerging economies, DEV= developing economies.

	Supply side- Capital			***Supply- Loans***			***Supply-General***			***Liquidity***			***Demand side***		
	ADV	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
EBT	0.338***	0.333***	0.285***	0.338***	0.329***	0.272***	0.325***	0.308***	0.239***	0.342***	0.2991***	0.309***	0.339***	0.297***	0.306***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.004)	(0.000)	(0.000)	(0.005)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.008)
MP^Tt	0.0008***	-0.0009**	-0.3586***	-0.0006**	0.0011**	-0.0496*	-0.003***	0.000	1.558***	-0.001	-0.001	-0.055	0.0012*	-0.000	-0.078
	(0.0001)	(0.0299)	(0.0000)	(0.0372)	(0.0164)	(0.0639)	(0.0002)	(0.919)	(0.000)	(0.237)	(0.409)	(0.384)	(0.0505)	(0.725)	(0.118)
MP^Lt	-0.0033***	-0.007***	0.0000	-0.004***	-0.0008	-0.0195*	-0.002***	0.0006	1.890***	0.0026	-0.001	-0.228***	-0.001	0.001	-0.071**
	(0.0000)	(0.0000)	(.)	(0.0031)	(0.5662)	(0.0992)	(0.0001)	(0.2421)	(0.001)	(0.1192)	(0.405)	(0.000)	(0.752)	(0.168)	(0.032)
MP^Tt-1	-0.0010***	0.0008	0.0179***	-0.0001	0.0016***	-0.2893***	0.0006	-0.0002	-0.6114***	-0.0005	0.0013*	-0.1947***	0.0003	-0.0005	0.1645*
	(0.0000)	(0.1306)	(0.0002)	(0.7627)	(0.0002)	(0.0001)	(0.3401)	(0.5122)	(0.0000)	(0.2536)	(0.0554)	(0.0000)	(0.5665)	(0.2682)	(0.0562)
MP^Lt-1	-0.0006	-0.0027*	0.0000	-0.0032**	0.0014	0.1874***	0.0000	0.0009*	-0.4471***	0.0104**	-0.003***	0.0000	-0.0005	0.0023*	-0.0653
	(0.4314)	(0.0536)	(.)	(0.0392)	(0.2539)	(0.0000)	(0.8788)	(0.0516)	(0.0000)	(0.0482)	(0.0063)	(.)	(0.7391)	(0.0784)	(0.2289)
MP^Tt-2	0.0001	-0.0003	0.1100**	0.0003	-0.001***	0.0556	-0.0001	0.0004	-2.1932***	0.0014***	0.0013**	-0.0572***	0.0003	-0.0009**	0.2549*
	(0.7139)	(0.5891)	(0.0449)	(0.2834)	(0.0066)	(0.1862)	(0.8198)	(0.1210)	(0.0002)	(0.0029)	(0.0491)	(0.0000)	(0.5129)	(0.0395)	(0.0516)
MP^Lt-2	-0.0013	-0.0014	0.0000	-0.008***	-0.0004	0.6405***	-0.0004	-0.0002	-3.2817***	-0.009***	0.0007	0.0000	-0.0022*	-0.0003	-0.0660***
	(0.1787)	(0.3572)	(.)	(0.0000)	(0.6948)	(0.0000)	(0.2205)	(0.6492)	(0.0001)	(0.0036)	(0.5304)	(.)	(0.0595)	(0.7456)	(0.0000)
$MP_t^T \times EBT_t$	-0.0391	-0.0366*	0.1070	-0.0846**	-0.0356	0.2229	0.0966	-0.0131	0.2929	-0.0292	0.0254	0.0439	-0.134***	0.0377	-0.0452
	(0.1160)	(0.0777)	(0.3379)	(0.0237)	(0.1620)	(0.1999)	(0.1433)	(0.3525)	(0.1882)	(0.5211)	(0.4299)	(0.6366)	(0.0062)	(0.1085)	(0.6557)
$MP_t^L \times EBT_t$	-0.0240	0.1233*	0.0000	0.3464**	-0.0501	0.2289***	0.0160	-0.0201	0.2754***	-0.339***	0.0733	0.2947	-0.0152	-0.0153	0.3056
	(0.7486)	(0.0556)	(.)	(0.0372)	(0.4653)	(0.0002)	(0.5718)	(0.3351)	(0.0011)	(0.0034)	(0.3286)	(0.1384)	(0.9295)	(0.8040)	(0.1048)
$MP_{t-1}^T \times EBT_t$	0.0464	-0.0330	-0.0508	-0.0238	-0.0506**	-0.1878	-0.0276	-0.0109	0.5419	0.0590	-0.0332	0.1263	-0.0226	0.0522**	0.1622
	(0.1234)	(0.1668)	(0.6327)	(0.6517)	(0.0241)	(0.1052)	(0.6290)	(0.3835)	(0.1355)	(0.3166)	(0.4178)	(0.2668)	(0.5902)	(0.0430)	(0.1110)
$MP_{t-1}^L \times EBT_t$	0.0515	0.1055	0.0000	0.3053*	-0.0796	0.0170	0.0511*	0.0383*	0.3504***	-0.9471**	0.0357	0.0000	-0.1220	-0.1037	-0.1086
	(0.6318)	(0.1273)	(.)	(0.0741)	(0.2333)	(0.9016)	(0.0540)	(0.0826)	(0.0002)	(0.0122)	(0.5381)	(.)	(0.3589)	(0.2643)	(0.2994)
$MP_{t-2}^T \times EBT_t$	-0.0745***	-0.0337	0.154***	-0.0091	-0.0302	0.2248**	0.0382	-0.0184	-0.1920	-0.159***	-0.0193	-0.1220**	0.0650	0.1023***	0.0132
	(0.0087)	(0.1983)	(0.0045)	(0.8772)	(0.2152)	(0.0407)	(0.5386)	(0.1777)	(0.3380)	(0.0022)	(0.5978)	(0.0374)	(0.1757)	(0.0000)	(0.9188)
$MP_{t-2}^L \times EBT_t$	0.1882**	0.0134	0.0000	0.451***	-0.0691	-0.0283	0.0113	0.0319	0.2494***	0.4920**	-0.0065	0.0000	0.0038	-0.0326	0.1593*
	(0.0217)	(0.8565)	(.)	-0.0846**	-0.0356	0.2229	(0.7486)	(0.1928)	(0.0026)	(0.0182)	(0.9174)	(.)	(0.9697)	(0.6849)	(0.0971)
Intercept	0.0283***	0.1176***	-0.0230	0.0274***	0.1133***	0.0615	0.0299***	0.1145***	0.0673	0.0278***	0.1135***	0.0059	0.0283***	0.1143***	1.1424*
	(0.0000)	(0.0000)	(0.9707)	(0.0001)	(0.0000)	(0.9263)	(0.0000)	(0.0000)	(0.9205)	(0.0000)	(0.0000)	(0.9930)	(0.0000)	(0.0000)	(0.0543)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	78941	28057	664	78941	28057	664	78941	28057	664	78941	28057	664	78941	28057	664
R^2	0.1836	0.1678	0.3796	0.1836	0.1648	0.3864	0.1821	0.1618	0.3951	0.1822	0.1604	0.3786	0.1814	0.1609	0.3853

Appendix A16: Macroprudential policy and cashflow predictability - Advanced, Emerging and developing economies

the table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. ADV=advanced economies, EMER=emerging economies, DEV= developing economies.

	Supply-capital			***Supply- Loans***			***Supply-General***			***Liquidity***			***Demand side***		
	ADV	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
EBT	0.2449***	0.2471***	0.1590**	0.2474***	0.2584***	0.1560**	0.2465***	0.2236***	0.1767***	0.2468***	0.2191***	0.1606**	0.2444***	0.2243***	0.2015***
	(0.0000)	(0.0000)	(0.0164)	(0.0000)	(0.0000)	(0.0124)	(0.0000)	(0.0000)	(0.0072)	(0.0000)	(0.0000)	(0.0132)	(0.0000)	(0.0000)	(0.0063)
$MP^T t$	0.0006***	-0.001***	-0.3353***	-0.0004	0.0019***	-0.0406*	-0.0013*	-0.0000	1.4333***	-0.0008**	0.0002	-0.0704	0.0004	0.0004	-0.0779*
	(0.0047)	(0.0027)	(0.0000)	(0.1239)	(0.0000)	(0.0565)	(0.0542)	(0.9875)	(0.0003)	(0.0282)	(0.6578)	(0.1669)	(0.3921)	(0.4291)	(0.0579)
$MP^L t$	-0.002***	-0.004***	0.0000	-0.004***	0.0002	-0.0106	-0.0005*	-0.0005	1.7397***	0.0003	-0.0003	-0.2070***	-0.0000	0.0016*	-0.0672**
	(0.0016)	(0.0015)	(.)	(0.0004)	(0.8913)	(0.2160)	(0.0570)	(0.1948)	(0.0005)	(0.7670)	(0.6902)	(0.0000)	(0.9832)	(0.0652)	(0.0185)
$MP^T t\text{-}1$	-0.001***	0.0006	0.0155***	-0.0005*	0.0003	-0.2819***	-0.0003	-0.0005**	-0.5565***	-0.0003	0.0002	-0.1724***	0.0005	-0.0010**	0.1649**
	(0.0000)	(0.1925)	(0.0000)	(0.0510)	(0.5195)	(0.0000)	(0.5363)	(0.0138)	(0.0000)	(0.4467)	(0.7348)	(0.0000)	(0.1445)	(0.0105)	(0.0250)
$MP^L t\text{-}1$	0.0001	-0.0001	0.0000	-0.0029**	0.0014	0.1971***	0.0001	0.0006	-0.3953***	0.0111**	-0.0007	0.0000	-0.0006	0.0011	-0.0697
	(0.8044)	(0.9602)	(.)	(0.0105)	(0.2081)	(0.0000)	(0.6282)	(0.1617)	(0.0000)	(0.0252)	(0.4056)	(.)	(0.5438)	(0.1387)	(0.1213)
$MP^T t\text{-}2$	0.0002	-0.002***	0.1146**	-0.001***	-0.0007*	0.0634*	0.0003	-0.0002	-2.0193***	0.0009*	0.0015**	-0.0544***	-0.0002	-0.0005	0.2479**
	(0.3515)	(0.0016)	(0.0112)	(0.0038)	(0.0658)	(0.0639)	(0.3719)	(0.3686)	(0.0001)	(0.0637)	(0.0176)	(0.0000)	(0.6393)	(0.2501)	(0.0250)
$MP^L t\text{-}2$	-0.0011	-0.0019	0.0000	-0.0020*	0.0022**	0.6179***	-0.001***	0.0005	-3.0023***	-0.0031	0.0009	0.0000	-0.0003	0.0041***	-0.0588***
	(0.2986)	(0.2267)	(.)	(0.0691)	(0.0346)	(0.0000)	(0.0021)	(0.2727)	(0.0001)	(0.4420)	(0.2554)	(.)	(0.7477)	(0.0000)	(0.0000)
$MP_t^T \times EBT_t$	-0.0407*	-0.0433**	-0.0107	-0.0699*	-0.066***	0.0863	-0.0148	-0.0209*	0.2707**	-0.0221	0.0329	0.0791***	-0.0838**	-0.0409	-0.1636**
	(0.0803)	(0.0260)	(0.8907)	(0.0802)	(0.0098)	(0.2751)	(0.8367)	(0.0791)	(0.0174)	(0.6134)	(0.2003)	(0.0020)	(0.0332)	(0.1922)	(0.0288)
$MP_t^L \times EBT_t$	-0.0357	0.0571	0.0000	0.2452*	-0.0859	-0.1291*	-0.0316	-0.0106	0.0954	-0.237***	-0.0039	0.3738**	-0.1231	-0.0953*	0.0587
	(0.6347)	(0.3082)	(.)	(0.0805)	(0.1583)	(0.0756)	(0.2260)	(0.5663)	(0.2428)	(0.0002)	(0.9272)	(0.0273)	(0.4009)	(0.0761)	(0.3340)
$MP_{t-1}^T \times EBT_t$	0.0646**	-0.0279	0.0126	-0.0558	-0.0327	-0.0766	0.0111	-0.0024	-0.0157	0.0371	0.0021	-0.0111	-0.0249	0.0230	0.0090
	(0.0391)	(0.2214)	(0.7972)	(0.2305)	(0.1091)	(0.1205)	(0.8040)	(0.8284)	(0.8797)	(0.5045)	(0.9400)	(0.8175)	(0.3752)	(0.2888)	(0.9456)
$MP_{t-1}^L \times EBT_t$	-0.0227	0.0721	0.0000	0.2052	-0.0594	-0.3301***	0.0057	0.0605***	-0.0685	-0.8803**	-0.0856**	0.0000	-0.0529	-0.0638	-0.1365***
	(0.7979)	(0.2436)	(.)	(0.1101)	(0.3482)	(0.0000)	(0.8061)	(0.0026)	(0.5034)	(0.0150)	(0.0229)	(.)	(0.6455)	(0.1712)	(0.0066)
$MP_{t-2}^T \times EBT_t$	-0.0712**	0.0053	0.0891	-0.0407	-0.0448**	0.2896***	-0.0011	-0.0021	-0.2521**	-0.1006*	0.0012	-0.0278	0.0470	0.0573**	0.1078
	(0.0173)	(0.8293)	(0.1418)	(0.4977)	(0.0217)	(0.0000)	(0.9802)	(0.8703)	(0.0240)	(0.0889)	(0.9706)	(0.5370)	(0.3070)	(0.0138)	(0.2004)
$MP_{t-2}^L \times EBT_t$	0.1444	0.1144*	0.0000	0.1479	-0.1414**	0.0633	-0.0225	0.0152	-0.1465**	0.0891	-0.129***	0.0000	0.0628	-0.109***	0.1014*
	(0.1959)	(0.0768)	(.)	(0.1511)	(0.0203)	(0.6177)	(0.4470)	(0.4983)	(0.0389)	(0.7732)	(0.0005)	(.)	(0.4559)	(0.0019)	(0.0561)
Intercept	0.0328***	0.0862***	0.1776	0.0311***	0.0822***	0.2713	0.0344***	0.0837***	0.2004	0.0322***	0.0811***	0.2140	0.0326***	0.0848***	1.1881**
	(0.0000)	(0.0000)	(0.7238)	(0.0000)	(0.0000)	(0.6132)	(0.0000)	(0.0000)	(0.7123)	(0.0000)	(0.0000)	(0.6939)	(0.0000)	(0.0000)	(0.0145)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	78937	28056	664	78937	28056	664	78937	28056	664	78937	28056	664	78937	28056	664
R^2	0.19	0.15	0.43	0.19	0.15	0.46	0.19	0.15	0.44	0.19	0.15	0.44	0.19	0.15	0.44

Appendix A17: Macroprudential policy and meet or beat benchmark- Advanced, Emerging and developing economies

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. ADV=advanced economies, EMER=emerging economies, DEV= developing economies.

	Supply-Capital			***Supply-Loans***			***Supply-general***			***Liquidity***			***Demand side***		
	ADV	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
$MP^{T}t$	-.065*	-.016	-4.091***	-.259***	-.029	-4.815***	.171	.003	3.106	.114*	.264***	.772	.159**	-.124	-2.209
	(.036)	(.059)	(1.369)	(.069)	(.055)	(1.294)	(.125)	(.037)	(8.022)	(.068)	(.092)	(.633)	(.066)	(.1)	(6.441)
$MP^{L}t$	.089	-.036	-	-.489*	-.573***	-13.269	-.198**	-.077	-.562	-.549	.069	-3.209	-.315	-.597***	.831
	(.129)	(.203)	-	(.278)	(.192)	(0)	(.081)	(.075)	(2.95)	(.491)	(.178)	(0)	(.194)	(.191)	(3.43)
$MP^{T}t$-1	-.137***	-.115*	.172	.197***	.037	1.822**	.156	.03	1.551	-.123	-.027	-2.831***	.006	.056	-2.192
	(.042)	(.064)	(.81)	(.07)	(.056)	(.906)	(.12)	(.036)	(6.631)	(.082)	(.103)	(.493)	(.069)	(.096)	(4.609)
$MP^{L}t$-1	.227	-.202	-	-.122	-.053	3.48***	-.164**	-.121*	.015	-.307	-.036	-2.506	.187	-.29	.166
	(.141)	(.196)	-	(.237)	(.177)	(1.098)	(.073)	(.073)	(0)	(.434)	(.241)	(0)	(.196)	(.195)	(1.127)
$MP^{T}t$-2	.074*	.134*	-1.261	-.071	-.029	-2.97	.105	.052	.628	-.091	.076	.416	.043	.283***	2.678
	(.043)	(.072)	(1.478)	(.065)	(.066)	(0)	(.122)	(.033)	(0)	(.09)	(.108)	(.522)	(.074)	(.094)	(3.256)
$MP^{L}t$-2	.471***	-.049	-	.047	.056	-0.0000	.091	.08	1.529	-1.156*	-.225	-	.246	-.389**	.577
	(.153)	(.215)	-	(.238)	(.162)	(0)	(.066)	(.069)	(0)	(.623)	(.242)	-	(.199)	(.18)	(1.18)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country - level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	38706	14526	351	38706	14526	351	38706	14526	351	38706	14526	351	38706	14526	351
Pseudo R^2	.033	.022	.135	.033	.022	.125	.033	.022	.134	.033	.022	.135	.033	.026	.134
ll	-14791	-4108	-97	-14790	-4106	-98	-14796	-4107	-97	-14801	-4107	-97	-14802	-4091	-97.36
Chi^2	1019	183	30	1020	187	28	1009	184	30	1001	186	30	999	218	30

Appendix A18: Macroprudential policy and Abnormal LLP- Advanced, Emerging and developing economies

The table presents the results for earnings management, and the components of macroprudential policy. The dependent variable is abnormal LLP, a measure of earning management. And the key variable of interest is net, tight and loose policies for time periods ***t, t-1, t-2***. The bank and country-level control variables are also included. Standard errors are reported in parenthesis. NOBS presents the number of observations, and R^ 2 is the adjusted R-squared. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-capital			***Supply-Loans***			***Supply-General***			***Liquidity***			***Demand-side***		
	ADV	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**	**ADV**	**EMER**	**DEV**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
$MP^{T}t$	.0001***	.0004*	.0308***	.0001	0	.0075	.0003*	0	-.0616**	.0002**	-.0005	-.0008	.0001	.0004	-.0018
	(.0001)	(.0002)	(.0089)	(.0001)	(.0001)	(.008)	(.0002)	(.0001)	(.0293)	(.0001)	(.0003)	(.0024)	(.0001)	(.0003)	(.0012)
$MP^{L}t$	-.0004	-.0023**	-	.0002	.0004	-.0019	-.0009***	.0002	.0452*	.0004	-.001*	.0048	-.0003	.0001	.0052**
	(.0002)	(.0011)	-	(.0003)	(.0004)	(.0015)	(.0002)	(.0002)	(.0226)	(.0004)	(.0006)	(.0112)	(.0002)	(.0003)	(.0024)
$MP^{T}t-1$	-.0001	.0004*	-.0033	.0001	.0005	.0033	-.0004**	.0001	.0254*	-.0005***	.0005	.0062	.0001	0	.004
	(.0001)	(.0002)	(.0025)	(.0001)	(.0003)	(.0025)	(.0002)	(.0001)	(.0144)	(.0001)	(.0004)	(.0088)	(.0001)	(.0004)	(.0034)
$MP^{L}t-1$	.0009***	-.0016**	-	.0006**	-.0004	-.0078	-.0002	-.0002	.0388*	-.0001	.0005		.0003	-.0011***	-.0011
	(.0003)	(.0007)	-	(.0003)	(.0004)	(.0069)	(.0003)	(.0002)	(.0204)	(.0005)	(.0006)		(.0003)	(.0004)	(.0017)
$MP^{T}t-2$	.0001	-.0004*	.0088***	0	.0004**	.0109**	.0004	.0001	.0236*	-.0001	-.0014**	-.0003	.0004***	0	.0047
	(.0001)	(.0002)	(.0026)	(.0002)	(.0002)	(.0053)	(.0003)	(.0001)	(.0126)	(.0002)	(.0006)	(.0026)	(.0001)	(.0002)	(.0054)
$MP^{L}t-2$	.0004	-.0011	-	.0006*	-.0002	-.0038	-.0003**	-.0002	-.022**	-.0002	-.0004		-.0005	-.0006	.002***
	(.0003)	(.001)	-	(.0003)	(.0006)	(.0052)	(.0001)	(.0002)	(.0088)	(.0005)	(.0005)		(.0003)	(.0005)	(.0004)
Intercept	-.0021	.0179	.3426***	-.0012	.0183	.1422	-.0007	.018	-.6082**	-.0021	.0176	.0463	-.0004	.0167	.0871**
	(.0049)	(.0193)	(.0918)	(.0049)	(.0193)	(.1102)	(.0049)	(.0196)	(.2859)	(.0049)	(.0194)	(.062)	(.0049)	(.0192)	(.0431)
Bank - level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	14055	4188	154	14055	4188	154	14055	4188	154	14055	4188	154	14055	4188	154
R^2	.18	.07	.32	.18	.06	.32	.18	.06	.32	.18	.06	.32	.18	.06	.32

Appendix A19: Macroprudential policy and earnings persistence- Regulatory capital ratio >7%; 7%< Regulatory capital ratio <10%, and Regulatory capital ratio>10%

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-capital			***Supply-Loans***			***Supply-General***			***Liquidity***			***Demand-side***		
	Cap.<7%	**7%<Cap.<10%**	**Cap.>10%**	**Cap.<7%**	**7%<Cap.<10%**	**Cap.>10%**	**Cap.<7%**	**7%<Cap.<10%**	**Cap.>10%**	**Cap.<7%**	**7%<Cap.<10%**	**Cap.>10%**	**Cap.<7%**	**7%<Cap.<10%**	**Cap.>10%**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
EBT	-0.112	0.297***	0.348***	-0.151	0.345***	0.344***	-0.083	0.271***	0.325***	-0.127	0.257***	0.323***	-0.172	0.306***	0.320***
	(0.368)	(0.000)	(0.000)	(0.189)	(0.000)	(0.0000)	(0.514)	(0.000)	(0.000)	(0.258)	(0.000)	(0.000)	(0.123)	(0.000)	(0.000)
$MP^{T}t$	0.004	-0.0002	0.0002	-0.003	-0.0055*	0.0008***	0.0005	-0.0004	0.0000	0.017***	0.0064	-0.0004	0.004	-0.001	0.0004
	(0.506)	(0.889)	(0.377)	(0.584)	(0.0540)	(0.0087)	(0.919)	(0.772)	(0.879)	(0.002)	(0.1148)	(0.268)	(0.288)	(0.740)	(0.282)
$MP^{L}t$	0.0148	-0.007**	-0.006***	0.0005	-0.001	-0.001	-0.006	0.0003	-0.0002	-0.027**	-0.014	-0.002**	0.008	-0.004	-0.0003
	(0.155)	(0.012)	(0.000)	(0.960)	(0.865)	(0.331)	(0.170)	(0.826)	(0.517)	(0.011)	(0.274)	(0.021)	(0.432)	(0.390)	(0.761)
$MP^{T}t-1$	0.002	-0.003	-0.0004*	-0.005	0.001	0.001***	0.008	0.003***	-0.0002	-0.003	-0.004	0.0004	-0.008	0.001	-0.0002
	(0.876)	(0.197)	(0.068)	(0.533)	(0.737)	(0.0003)	(0.206)	(0.0053)	(0.421)	(0.822)	(0.440)	(0.309)	(0.322)	(0.813)	(0.653)
$MP^{L}t-1$	0.0155	-0.0030	-0.002**	0.011	0.005	0.0003	-0.003	0.0001	0.001***	-0.03***	-0.022	-0.002*	-0.003	-0.004	0.001
	(0.286)	(0.315)	(0.028)	(0.286)	(0.356)	(0.7754)	(0.458)	(0.939)	(0.008)	(0.001)	(0.105)	(0.062)	(0.612)	(0.342)	(0.559)
$MP^{T}t-2$	0.002	-0.0003	-0.0003	0.002	-0.004**	-0.001***	0.014***	0.001	0.0002	0.0027	-0.006	0.001*	0.0054	-0.002	-0.001
	(0.79)	(0.860)	(0.171)	(0.803)	(0.0103)	(0.0045)	(0.008)	(0.529)	(0.3441)	(0.687)	(0.2840)	(0.076)	(0.408)	(0.339)	(0.16)
$MP^{L}t-2$	0.0050	-0.0084	-0.0009	-0.0145	-0.0054	-0.0011	0.001	-0.001	-0.0004	-0.018	-0.016**	-0.001	0.006	-0.0235	-0.001*
	(0.737)	(0.15)	(0.3521)	(0.262)	(0.275)	(0.179)	(0.721)	(0.608)	(0.151)	(0.100)	(0.022)	(0.347)	(0.434)	(0.134)	(0.098)
$MP_t^{T}\times EBT_t$	0.095	-0.033	-0.059***	0.040	0.3224*	-0.0455**	-0.2212	0.1004	-0.0113	-0.353**	0.448**	0.007	0.397***	0.065	-0.009
	(0.201)	(0.708)	(0.0001)	(0.602)	(0.0505)	(0.0314)	(0.430)	(0.242)	(0.406)	(0.038)	(0.016)	(0.780)	(0.007)	(0.543)	(0.693)
$MP_t^{L}\times EBT_t$	0.618*	-0.018	0.057	0.281	0.305	-0.043	-0.049	0.083	-0.014	-0.725**	-0.7749	0.0765	-0.6136	0.6258***	0.0036
	(0.052)	(0.915)	(0.272)	(0.117)	(0.197)	(0.471)	(0.623)	(0.6622)	(0.410)	(0.037)	(0.351)	(0.203)	(0.699)	(0.0003)	(0.958)
$MP_{t-1}^{T}\times EBT_t$	0.010	-0.020	-0.0002	-0.083	-0.417***	-0.0425**	-0.341**	-0.159*	-0.0120	0.0527	-0.209	-0.020	0.084	-0.129	0.022
	(0.930)	(0.878)	(0.9895)	(0.585)	(0.0001)	(0.030)	(0.040)	(0.067)	(0.3159)	(0.716)	(0.373)	(0.564)	(0.534)	(0.290)	(0.324)
$MP_{t-1}^{L}\times EBT_t$	-0.296	-0.290	0.058	0.494***	-0.171	-0.0407	-0.2057	0.0748	0.042**	-0.334	-0.341	0.0033	0.042	-0.146	-0.108
	(0.283)	(0.2072)	(0.3099)	(0.005)	(0.502)	(0.4925)	(0.170)	(0.2562)	(0.017)	(0.612)	(0.454)	(0.9595)	(0.834)	(0.667)	(0.172)
$MP_{t-2}^{T}\times EBT_t$	-0.070	0.0402	-0.0273	0.1372	0.371***	-0.0458**	0.2021	0.1601	-0.0181	-0.0170	-0.3751	-0.0421	0.351**	0.067	0.071***
	(0.552)	(0.7582)	(0.1749)	(0.497)	(0.002)	(0.0275)	(0.233)	(0.1175)	(0.1677)	(0.923)	(0.2161)	(0.1755)	(0.037)	(0.728)	(0.0004)
$MP_{t-2}^{L}\times EBT_t$	0.126	0.297	0.0004	0.146	0.366	-0.003	0.205	0.060	0.025	-1.63***	0.323	0.061	-0.116	0.205	-0.014
	(0.851)	(0.181)	(0.994)	(0.707)	(0.2834)	(0.953)	(0.286)	(0.348)	(0.199)	(0.000)	(0.490)	(0.287)	(0.467)	(0.423)	(0.799)
Intercept	0.266*	0.0521*	0.0734***	0.077***	0.0726***	0.1734	0.077***	0.073***	0.1734	0.179*	0.060**	0.073***	0.219	0.062**	0.072***
	(0.087)	(0.051)	(0.000)	(0.008)	(0.000)	(0.114)	(0.008)	(0.000)	(0.114)	(0.052)	(0.026)	(0.000)	(0.107)	(0.031)	(0.000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	730	4110	102822	4110	102822	730	4110	102822	730	730	4110	102822	730	4110	102822
R^2	0.19	0.24	0.17	0.22	0.16	0.19	0.22	0.16	0.19	0.24	0.25	0.16	0.19	0.23	0.16

Appendix A20: Macroprudential policy and cashflow predictability- Regulatory capital ratio >7%; 7%< Regulatory capital ratio <10%, and Regulatory capital ratio>10%

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-capital			***Supply-Loans***			***Supply-General***			***Liquidity***			***Demand-side***		
	Cap.<7%	**7%<Cap.<10%**	**Cap.>10%**	**Cap.<7%**	**7%<Cap.<10%**	**Cap.>10%**	**Cap.<7%**	**7%<Cap.<10%**	**Cap.>10%**	**Cap.<7%**	**7%<Cap.<10%**	**Cap.>10%**	**Cap.<7%**	**7%<Cap.<10%**	**Cap.>10%**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
EBT	-0.147	0.1792***	0.258***	-0.1490	0.183***	0.266***	-0.0504	0.111***	0.238***	-0.150*	0.136***	0.238***	-0.146	0.141***	0.241***
	(0.136)	(0.000)	(0.0000)	(0.1049)	(0.0000)	(0.0000)	(0.4671)	(0.0022)	(0.0000)	(0.0883)	(0.0001)	(0.0000)	(0.1126)	(0.0000)	(0.0000)
MP^Tt	0.0011	0.0007	-0.0001	-0.0025	-0.0004	0.001***	-0.0018	-0.0016*	0.0001	0.0059	-0.0004	-0.0001	0.0050*	0.0018**	0.0004
	(0.723)	(0.5206)	(0.5288)	(0.3487)	(0.7500)	(0.0000)	(0.5536)	(0.0732)	(0.8113)	(0.3573)	(0.9026)	(0.6436)	(0.0846)	(0.0205)	(0.2922)
MP^Lt	0.013**	-0.0028	-0.003***	0.0113	-0.0028	-0.0007	-0.0003	0.0007	-0.0004	-0.0134	-0.0001	-0.0010	-0.0077	-0.009***	-0.0001
	(0.0384)	(0.1086)	(0.0000)	(0.2076)	(0.4300)	(0.4658)	(0.9299)	(0.3253)	(0.1542)	(0.1304)	(0.9900)	(0.1672)	(0.2457)	(0.0014)	(0.8972)
MP^Tt-1	-0.0035	-0.0010	-0.0003	-0.008**	0.0001	0.0003	0.0065**	-0.0002	-0.001**	-0.0091	0.0011	-0.0000	-0.0075	0.0008	-0.0003
	(0.4825)	(0.3565)	(0.1414)	(0.0285)	(0.9159)	(0.3191)	(0.0298)	(0.8336)	(0.0115)	(0.1792)	(0.7600)	(0.8897)	(0.2189)	(0.4012)	(0.2355)
MP^Lt-1	0.0149*	0.0032	-0.0002	-0.0061	-0.0012	-0.0001	0.0060**	-0.0004	0.0003	-0.0108	-0.0061	0.0001	-0.014***	-0.0008	0.0002
	(0.0990)	(0.3485)	(0.7794)	(0.4649)	(0.5620)	(0.9520)	(0.0293)	(0.5573)	(0.1886)	(0.1292)	(0.3330)	(0.9287)	(0.0042)	(0.7524)	(0.7712)
MP^Tt-2	-0.0041	-0.0022	-0.001***	0.0019	-0.0017*	-0.001***	0.0061	0.0001	-0.0003	0.0043	-0.0030	0.0009**	-0.0011	0.0029**	-0.0006*
	(0.4009)	(0.1180)	(0.002)	(0.6625)	(0.0842)	(0.0009)	(0.2330)	(0.9003)	(0.2176)	(0.3430)	(0.2606)	(0.0237)	(0.8592)	(0.0433)	(0.0673)
MP^Lt-2	0.0044	-0.0017	-0.0012	-0.0163	-0.0020	0.0008	-0.0007	-0.0001	-0.0005*	-0.0099	-0.0115	0.0002	-0.0024	-0.0037	0.0013**
	(0.6794)	(0.6876)	(0.2209)	(0.3638)	(0.2692)	(0.3321)	(0.7942)	(0.9289)	(0.0598)	(0.2723)	(0.1906)	(0.7650)	(0.6515)	(0.4271)	(0.0145)
$MP_t^T\times EBT_t$	0.0587	-0.0712	-0.057***	0.0081	0.262***	-0.062***	0.0320	0.165***	-0.0141	-0.1399	0.2995**	0.0185	0.0706	0.0945**	-0.052**
	(0.4289)	(0.2496)	(0.0001)	(0.9114)	(0.0080)	(0.0037)	(0.8501)	(0.0092)	(0.2259)	(0.3786)	(0.0473)	(0.4041)	(0.5761)	(0.0332)	(0.0399)
$MP_t^L\times EBT_t$	0.1312	-0.0005	0.0089	-0.1518	0.2047	-0.0779	-0.1099	-0.0039	-0.0107	0.2647	0.0848	-0.0098	-0.5034	0.423***	-0.0659
	(0.5343)	(0.9963)	(0.8486)	(0.3296)	(0.1255)	(0.1443)	(0.2292)	(0.9540)	(0.4972)	(0.2416)	(0.7518)	(0.8138)	(0.2853)	(0.0082)	(0.2619)
$MP_{t-1}^T\times EBT_t$	-0.0266	-0.0840	0.0077	-0.223**	-0.196***	-0.0338*	-0.2018*	0.0131	-0.0044	0.0421	-0.487***	0.0015	-0.398***	-0.025	0.006
	(0.7465)	(0.3326)	(0.6598)	(0.0130)	(0.0000)	(0.0608)	(0.0879)	(0.8515)	(0.6783)	(0.7574)	(0.0004)	(0.9513)	(0.0015)	(0.6722)	(0.7280)
$MP_{t-1}^L\times EBT_t$	-0.0942	-0.1833	0.0503	-0.613***	-0.2265	-0.0362	-0.0204	0.0829*	0.049***	-0.5728	-0.0297	-0.102**	-0.1971***	0.1231	-0.0636
	(0.5376)	(0.4884)	(0.2962)	(0.0000)	(0.1172)	(0.5200)	(0.8627)	(0.0912)	(0.0024)	(0.2660)	(0.8847)	(0.0266)	(0.0051)	(0.5196)	(0.3005)
$MP_{t-2}^T\times EBT_t$	-0.0511	0.0150	-0.0051	0.368***	0.0328	-0.047***	0.0115	0.1268	-0.0032	0.0089	-0.0311	-0.0150	0.2537**	0.1176	0.0479**
	(0.5908)	(0.8764)	(0.7871)	(0.0051)	(0.5098)	(0.0067)	(0.9334)	(0.1523)	(0.7928)	(0.9230)	(0.8377)	(0.5926)	(0.0353)	(0.1030)	(0.0179)
$MP_{t-2}^L\times EBT_t$	0.1299	0.4340*	0.0912	0.0201	-0.1273	-0.087*	-0.279**	0.0588	0.0128	-0.674**	0.0576	-0.078**	0.1272	0.5021**	-0.0308
	(0.7220)	(0.0970)	(0.1007)	(0.9520)	(0.2568)	(0.0870)	(0.0215)	(0.3686)	(0.4722)	(0.0317)	(0.8944)	(0.0341)	(0.5177)	(0.0182)	(0.4597)
Intercept	-0.0273	-0.0076	0.061***	-0.0322	-0.0073	0.059***	-0.0277	-0.0067	0.060***	-0.0749	-0.0021	0.061***	-0.0513	0.0015	0.061***
	(0.8030)	(0.7073)	(0.0000)	(0.7042)	(0.7162)	(0.0000)	(0.7350)	(0.7472)	(0.0000)	(0.3983)	(0.9115)	(0.0000)	(0.5891)	(0.9401)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	730	4110	102817	730	4110	102817	730	4110	102817	730	4110	102817	730	4110	102817
R^2	0.25	0.24	0.16	0.32	0.24	0.16	0.35	0.23	0.15	0.29	0.23	0.15	0.27	0.23	0.15

Appendix A21: Macroprudential policy and meet or beat benchmark- 7%< Regulatory capital ratio <10%, and Regulatory capital ratio>10%

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A1. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	7%<Cap.<10%	**Cap.>10%**	**7%<Cap.<10%**	**Cap.>10%**	**7%<Cap.<10%**	**Cap.>10%**	**7%<Cap.<10%**	**Cap.>10%**	**7%<Cap.<10%**	**Cap.>10%**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	-.399	-.028	.839	-.148***	.22	.013	-.825	.21***	-.622	.019
	(.454)	(.03)	(.802)	(.039)	(.192)	(.033)	(1.182)	(.053)	(.706)	(.054)
$MP^{L}t$	.166	.013	-254.28	-.577***	-.616	-.03	111.622	.082	-1.083	-.452***
	(1.482)	(.105)	(15414)	(.154)	(.431)	(.053)	(398460)	(.161)	(1.604)	(.127)
$MP^{T}t$-1	.259	-.144***	-1.467	.048	-.733	.089***	-.565	-.092	-.945	-.044
	(.553)	(.034)	(.953)	(.041)	(.647)	(.031)	(1.152)	(.063)	(.644)	(.055)
$MP^{L}t$-1	-3.571	.033	2.761	-.215	-.881**	-.132***	97.856	-.096	.673	-.231*
	(4.603)	(.108)	(1.724)	(.139)	(.381)	(.05)	(398459)	(.201)	(1.559)	(.128)
$MP^{T}t$-2	.508	.05	3.183***	-.079*	.522	.067**	.44	-.08	.298	.172***
	(.502)	(.035)	(1.13)	(.044)	(.405)	(.029)	(1.585)	(.068)	(.905)	(.057)
$MP^{L}t$-2	1.776	.25**	-218.669	-.069	-.085	.114**	95.871	-.3	-11.379	-.207*
	(1.639)	(.123)	(13845)	(.132)	(.32)	(.047)	(398464)	(.219)	(661)	(.121)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country - level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	2382	49044	2382	49044	2382	49044	2382	49044	2382	49044
Pseudo R^2	.083	.022	.088	.022	.086	.022	.09	.022	.081	.022
ll	-908	-17417	-903	-17414	-905	-17416	-901	-17421	-909	-17413
Chi^2	164	791	175	799	169	793	178	785	161	800

Appendix A22: Macroprudential policy and ALLP- Regulatory capital ratio >7%; 7%< Regulatory capital ratio <10%, and Regulatory capital ratio>10%

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side- Bank capital			***Supply side-Loans***			***Supply side-General***			***Liquidity***			***Demand side***		
	Cap.<7 %	**7%<Cap. <10%**	**Cap.>10 %**	**Cap.<7 %**	**7%<Cap.<1 0%**	**Cap.>10 %**	**Cap.<7 %**	**7%<Cap.<1 0%**	**Cap.>10 %**	**Cap.< 7%**	**7%<Cap. <10%**	**Cap.>10 %**	**Cap.<7 %**	**7%<Cap. <10%**	**Cap.> 10%**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
$MP^{T}t$	-.002	-.001*	0***	.003	0	0	.002*	0	0	-.0005	.0003	0	-.0093*	.0007	.0001*
	(.003)	(0)	(0)	(.002)	(.001)	(0)	(.001)	(0)	(0)	(.002)	(.0012)	(.0001)	(.0051)	(.0009)	(.0001)
$MP^{L}t$	-	.025	-.001**	-	.001	0	-.021***	-.002***	0	.0041	-.0213***	-.0005	.0141	.018***	-.0003
	-	(.016)	(0)	-	(.001)	(0)	(.007)	(0)	(0)	(.0058)	(.0023)	(.0003)	(.0086)	(.0053)	(.0002)
$MP^{T}t$-1	-.005*	-.001	0	-.004*	-.001	0	.008	.001**	0	.009**	-.0016	-.0003**	.0039	.0018	.0001
	(.003)	(0)	(0)	(.002)	(.002)	(0)	(.008)	(0)	(0)	(.0034)	(.0029)	(.0001)	(.0089)	(.0022)	(.0001)
$MP^{L}t$-1	-	.019	0	-	.002**	0	-.063*	0	0	.007		-.0001	.0129	-.0023**	-.0003
	-	(.012)	(0)	-	(.001)	(0)	(.033)	(.001)	(0)	(.0082)		(.0004)	(.0121)	(.001)	(.0002)
$MP^{T}t$-2	.003	-.001	0	-.025***	0	0**	.01**	0	0	.0041	.0007	-.0004*	-.0003	-.002**	.000***
	(.003)	(.001)	(0)	(.006)	(.001)	(0)	(.004)	(0)	(0)	(.0034)	(.0023)	(.0002)	(.0077)	(.0008)	(.0001)
$MP^{L}t$-2	-	.022*	0	-	.003***	0	-.03	-.002***	0	.0102*	.0003	-.0005	.0046	-.0041***	-.0002
	-	(.012)	(0)	-	(.001)	(0)	(.019)	(0)	(0)	(.0059)	(.0007)	(.0004)	(.0033)	(.0012)	(.0002)
Intercept	.629***	.006	.009	.75***	.011	.01	.843***	.019	.01	.814***	.0132	.0091	.859***	.0057	.0095
	(.164)	(.016)	(.011)	(.163)	(.017)	(.011)	(.209)	(.017)	(.011)	(.2032)	(.0153)	(.0108)	(.1894)	(.0179)	(.0109)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	118	1070	17209	118	1070	17209	118	1070	17209	118	1070	17209	118	1070	17209
R^2	.90	.41	.08	.91	.40	.08	.92	.41	.08	.92	.40	.08	.92	.40	.08

Appendix A23: Macroprudential policy and Forward-looking NPL and LLP smoothing *(Bushman and Williams, 2012)*

The table presents the results for forward looking NPL and income smoothing, and the components of macroprudential policy. Specifically, the coefficient of MP_{t-1}×EBLLP measures the impact of macroprudential policies on smoothing behaviours, while the coefficient MP_{t-1}× ΔNPL_{t+1} captures their effects on forward-NPL ***, **, * statistically significant at the 1%, 5% and 10% significance level, respectively.

	Supply side - capital	***Supply side -Loan***	***Supply side- general***	***Liquidity***	***Demand side***
	(1)	(2)	(3)	(4)	(5)
$EBLLP_t$	1.3785**	-0.0096	0.0093	1.5296***	1.5797***
	(0.5429)	(0.2034)	(0.1943)	(0.4759)	(0.4537)
MP_t^T	0.0156	-0.0347	-0.0072	-0.1545	0.0071
	(0.0725)	(0.0324)	(0.0211)	(0.1769)	(0.0278)
MP_t^L	-0.2256	-0.0164	0.0167	-0.0187	0.1284
	(0.1855)	(0.0394)	(0.0139)	(0.0669)	(0.0823)
MP_{t-1}^T	-0.0716	0.0978**	0.0063	-0.0159	0.0281
	(0.0438)	(0.0382)	(0.0070)	(0.0329)	(0.0472)
MP_{t-1}^L	-0.1536	-0.0102	0.0201	0.1451**	0.1560
	(0.1115)	(0.0683)	(0.0179)	(0.0651)	(0.1056)
MP_{t-2}^T	0.0170	-0.1031**	-0.0094	0.1295	0.0354
	(0.0415)	(0.0462)	(0.0088)	(0.1650)	(0.0231)
MP_{t-2}^L	0.0513	-0.0707	-0.0411	-0.1220	0.1030
	(0.0470)	(0.0782)	(0.0271)	(0.1993)	(0.0741)
MP_t^T× $EBLLP_t$	-0.7897	0.8149	0.2015	-1.4952***	-1.5532***
	(0.6374)	(0.5112)	(0.3028)	(0.4639)	(0.4558)
MP_t^L×$EBLLP_t$	-1.5831	-2.2022***	-0.0737	-0.1998*	-4.3550***
	(1.1902)	(0.3297)	(0.1506)	(0.1102)	(1.2735)
MP_{t-1}^T× $EBLLP_t$	2.8514	2.5291***	0.0086	0.9384***	-1.4478***
	(2.1341)	(0.2504)	(0.1145)	(0.3220)	(0.4297)
MP_{t-1}^L× $EBLLP_t$	-1.4227	2.1268	-0.2416	3.1837*	-0.2552
	(2.1969)	(2.5155)	(0.1635)	(1.8807)	(0.2793)
MP_{t-2}^T× $EBLLP_t$	-2.5147	-0.6318	0.2318	-3.7051	-1.9758
	(3.2417)	(0.8306)	(0.1775)	(2.7590)	(1.3456)
MP_{t-2}^L× $EBLLP_t$	-1.9455	2.3597	1.2714***	-1.4610*	4.5314**
	(2.5970)	(1.8162)	(0.3181)	(0.8573)	(2.0569)
ΔNPL_{t+1}	-0.0206	0.0017	0.0024	-0.0327	-0.0072
	(0.0210)	(0.0054)	(0.0060)	(0.0291)	(0.0074)
MP_t^T× ΔNPL_{t+1}	-0.0205	-0.0478	-0.0014	0.0716	-0.0001
	(0.0265)	(0.0456)	(0.0026)	(0.0704)	(0.0206)
MP_{t-1}^T× ΔNPL_{t+1}	0.0172	-0.0012	0.0044	-0.0312	0.0703
	(0.0148)	(0.0104)	(0.0040)	(0.0352)	(0.0803)
MP_{t-2}^T× ΔNPL_{t+1}	0.0111	0.0157	-0.0129*	0.0017	-0.0089
	(0.0122)	(0.0187)	(0.0074)	(0.0140)	(0.0190)
MP_t^L× ΔNPL_{t+1}	0.0231	0.0338	-0.0047	-0.0124	-0.0218
	(0.0287)	(0.0377)	(0.0052)	(0.0357)	(0.0354)
MP_{t-1}^L× ΔNPL_{t+1}	0.0251	-0.0025	-0.0035	0.0046	0.0105
	(0.0158)	(0.0103)	(0.0031)	(0.0231)	(0.0199)
MP_{t-2}^L× ΔNPL_{t+1}	0.0186	0.0191	0.0129	0.0987	0.0163
	(0.0243)	(0.0130)	(0.0084)	(0.0739)	(0.0126)
Intercept	11.1221**	3.1043	3.0533	10.1894*	12.1518**
	(5.2649)	(2.5873)	(2.4393)	(5.3797)	(5.6700)
Bank -level control	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes
Bank & year fixed effects	Yes	Yes	Yes	Yes	Yes
NOBS	58137	58137	58137	58137	58137
R^2	0.55	0.80	0.81	0.59	0.60

Appendix A24: Macroprudential policy and income smoothing *(Fonseca and Gonzalez, 2008)*

The table presents the results for income smoothing, and the components of macroprudential policy. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side - capital	*Supply side -Loan*	*Supply side- general*	*Liquidity*	*Demand side*
	(1)	(2)	(3)	(4)	(5)
LLP_{t-1}	0.0618*	0.0693**	0.0701**	0.0675**	0.0692**
	(0.0371)	(0.0350)	(0.0348)	(0.0333)	(0.0345)
LLP_{t-2}	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***
	0.0000	0.0000	0.0000	0.0000	0.0000
EBTLLP	0.2118***	0.2977***	0.3080***	0.3225***	0.3050***
	(0.0305)	(0.0258)	(0.0271)	(0.0264)	(0.0252)
MP_t^T	-0.0016***	0.0001	0.0009*	0.0004	0.0001
	(0.0004)	(0.0005)	(0.0005)	(0.0004)	(0.0004)
MP_t^L	0.0033***	0.0011	0.0011**	0.0033*	0.0030***
	(0.0012)	(0.0015)	(0.0005)	(0.0017)	(0.0010)
MP_{t-1}^T	0.0012**	0.0009*	0.0001	0.0000	-0.0003
	(0.0005)	(0.0005)	(0.0006)	(0.0006)	(0.0003)
MP_{t-1}^L	0.0076**	0.0021	0.0008	0.0022	0.0019**
	(0.0031)	(0.0013)	(0.0005)	(0.0015)	(0.0009)
MP_{t-2}^T	0.0012	0.0009	-0.0003	0.0006	-0.0004
	(0.0008)	(0.0007)	(0.0004)	(0.0005)	(0.0007)
MP_{t-2}^L	0.0013	0.0050***	0.0008*	0.0046***	0.0011
	(0.0012)	(0.0016)	(0.0005)	(0.0015)	(0.0011)
$MP_t^T \times EBTLLP_t$	0.0932***	0.0107	-0.0069	-0.0432*	-0.0435*
	(0.0218)	(0.0222)	(0.0204)	(0.0227)	(0.0243)
$MP_t^L \times EBTLLP_t$	-0.0451	-0.0019	-0.0308	-0.1093	-0.1296***
	(0.0562)	(0.0717)	(0.0205)	(0.0835)	(0.0496)
$MP_{t-1}^T \times EBTLLP_t$	-0.0357	-0.0044	0.0014	-0.0201	-0.0040
	(0.0235)	(0.0234)	(0.0246)	(0.0290)	(0.0202)
$MP_{t-1}^L \times EBTLLP_t$	-0.2623*	-0.0811	-0.0201	-0.0665	-0.0315
	(0.1501)	(0.0649)	(0.0213)	(0.0690)	(0.0506)
$MP_{t-2}^T \times EBTLLP_t$	-0.0733**	-0.0454	0.0157	-0.0304	0.0226
	(0.0365)	(0.0310)	(0.0194)	(0.0282)	(0.0446)
$MP_{t-2}^L \times EBTLLP_t$	0.0168	-0.1693**	-0.0365*	-0.1792***	0.0034
	(0.0593)	(0.0692)	(0.0210)	(0.0684)	(0.0604)
Intercept	0.0035***	0.0011***	0.0035***	0.0035***	0.0036***
	(0.0005)	(0.0004)	(0.0006)	(0.0005)	(0.0005)
Bank-level controls	Yes	Yes	Yes	Yes	Yes
Country-level controls	Yes	Yes	Yes	Yes	Yes
NOBS	47,454	47,454	47,454	47,454	47,454
AR (1) t-stats	-3.43**	-2.19**	-2.85**	-2.84**	-2.81**
AR (2) t-stats	-0.53	-0.11	-0.55	-0.22	-0.14
Hansen *J*-statistics	0.32	0.42	0.30	0.48	0.41

Appendix A25: Macroprudential policy and charge-offs-*(Kanagaretnam et al., 2014)*

The table presents the results for earnings management, and the components of macroprudential policy. The dependent variable is net charge-offs, a measure of earning management. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side -capital		***Supply side -Loan***		***Supply side- general***		***Liquidity***		***Demand side***	
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
LLP_t	0.0077***	0.0077***	0.0076***	0.0073***	0.0076***	0.0074***	0.0076***	0.0070***	0.0076***	0.008***
	(0.0013)	(0.0014)	(0.0013)	(0.0013)	(0.0013)	(0.0013)	(0.0013)	(0.0013)	(0.0013)	(0.0013)
MP_t^T	0.0008*	0.0007	-0.0007	-0.0007	-0.0003	-0.0005	-0.0017**	-0.0019**	0.0001	0.0001
	(0.0005)	(0.0005)	(0.0005)	(0.0005)	(0.0005)	(0.0005)	(0.0008)	(0.0008)	(0.0006)	(0.0006)
MP_t^L	0.0031	0.0033	-0.0019	-0.0028	0.0011	0.0012	-0.0005	-0.0035*	0.0011	0.0014
	(0.0042)	(0.0046)	(0.0020)	(0.0024)	(0.0020)	(0.0022)	(0.0023)	(0.0020)	(0.0029)	(0.0036)
MP_{t-1}^T	-0.0000	-0.0001	0.0015	0.0018	-0.0005	-0.0004	-0.0006	-0.0006	0.0013	0.0015
	(0.0004)	(0.0005)	(0.0017)	(0.0020)	(0.0004)	(0.0004)	(0.0008)	(0.0008)	(0.0015)	(0.0018)
MP_{t-1}^L	0.0048	0.0055	0.0026	0.0028	-0.0012**	-0.0013**	-0.0010	-0.0032	0.0013	0.0016
	(0.0053)	(0.0060)	(0.0016)	(0.0019)	(0.0005)	(0.0006)	(0.0021)	(0.0020)	(0.0008)	(0.0010)
MP_{t-2}^T	0.0006	0.0007	-0.0004	-0.0006	-0.0002	-0.0003	-0.0011	-0.0013	-0.0002	-0.0001
	(0.0005)	(0.0005)	(0.0007)	(0.0008)	(0.0004)	(0.0004)	(0.0010)	(0.0010)	(0.0004)	(0.0005)
MP_{t-2}^L	0.0003	0.0003	0.0006	-0.0000	-0.0005	-0.0006	0.0003	-0.0011	0.0002	0.0001
	(0.0015)	(0.0017)	(0.0013)	(0.0015)	(0.0004)	(0.0004)	(0.0015)	(0.0015)	(0.0008)	(0.0008)
$MP_t^T \times LLP_t$		0.0025***		0.0003		0.0011		0.0026**		0.0001
		(0.0008)		(0.0007)		(0.0008)		(0.0013)		(0.0008)
$MP_t^L \times LLP_t$		-0.0034		0.0074		-0.0011		0.0384		-0.0017
		(0.0057)		(0.0045)		(0.0022)		(0.0260)		(0.0042)
$MP_{t-1}^T \times LLP_t$		0.0014		-0.0016		-0.0002		-0.0010		-0.0018
		(0.0009)		(0.0023)		(0.0003)		(0.0019)		(0.0021)
$MP_{t-1}^L \times LLP_t$		-0.0084		-0.0024		0.0010		0.0284*		-0.0020
		(0.0078)		(0.0027)		(0.0009)		(0.0163)		(0.0016)
$MP_{t-2}^T \times LLP_t$		-0.0016**		0.0012		0.0000		0.0024		-0.0003
		(0.0007)		(0.0009)		(0.0003)		(0.0015)		(0.0007)
$MP_{t-2}^L \times LLP_t$		-0.0003		0.0044*		0.0008		0.0149**		0.0010
		(0.0020)		(0.0024)		(0.0008)		(0.0068)		(0.0014)
Intercept	0.0688	0.0689	0.0721*	0.0722*	0.0693	0.0698	0.0721*	0.0711*	0.0728*	0.0728*
	(0.0421)	(0.0421)	(0.0435)	(0.0434)	(0.0426)	(0.0431)	(0.0424)	(0.0424)	(0.0418)	(0.0418)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	38764	38764	38764	38764	38764	38764	38764	38764	38764	38764
Φ-test	0.87	1.92**	1.40	1.22	1.60	2.36*	0.91	1.65	0.88	0.78
R^2	0.0039	0.0039	0.0038	0.0037	0.0038	0.0037	0.0037	0.0038	0.0037	0.0035

Appendix A26: Macroprudential Policies: SIFI and Other

The table presents the results for earnings management, and the impacts of macroprudential policies SIFI and others. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level

	Earnings persistence		***Cashflow predictability***		***Meet or beat***		***Abnormal LLP***	
	SIFI	**Others**	**SIFI**	**Others**	**SIFI**	**Others**	**SIFI**	**Others**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EBT	0.3274***	0.3272***	0.2400***	0.2445***				
	(0.0000)	(0.0000)	(0.0000)	(0.0000)				
MP^Tt	0.0001	-0.0005*	0.0001	-0.0003	0.0378	-0.0524	0.0001	-0.0001
	(0.7408)	(0.0826)	(0.5697)	(0.1491)	(0.0482)	(0.0416)	(0.0001)	(0.0001)
MP^Lt	-0.0006	-0.0008	-0.0000	-0.0011*	0.7366	-0.4470**	0.0014*	0.0005**
	(0.7292)	(0.2011)	(0.9894)	(0.0619)	(0.6845)	(0.1883)	(0.0009)	(0.0002)
MP^Tt-1	-0.0006	-0.0005**	-0.0004	-0.0001	-0.2308***	-0.0359	-0.0002*	-0.0004***
	(0.1576)	(0.0410)	(0.2348)	(0.7742)	(0.0573)	(0.0471)	(0.0001)	(0.0001)
MP^Lt-1	0.0000	-0.0012	0.0000	-0.0002	0.0774	0.2885	0.0000	0.0005**
	(0.000)	(0.1268)	(.)	(0.7754)	(0.8457)	(0.2240)	(0.000)	(0.0002)
MP^Tt-2	-0.0001	-0.0000	-0.0008*	0.0002	0.0351	0.0464	-0.0010***	-0.0004***
	(0.8414)	(0.9727)	(0.0573)	(0.4905)	(0.0632)	(0.0483)	(0.0002)	(0.0001)
MP^Lt-2	0.0000	-0.0008	0.0000	-0.0011	0.0000	-0.3293	0.0000	-0.0004
	(0.000)	(0.5666)	(0.000)	(0.5104)	(0.000)	(0.2123)	(0.000)	(0.0003)
$MP_t^T \times EBT_t$	-0.0743**	-0.0645**	-0.0490*	-0.0616**				
	(0.0167)	(0.0363)	(0.0880)	(0.0303)				
$MP_t^L \times EBT_t$	0.2771	0.0799	0.0281	0.1532*				
	(0.1198)	(0.3520)	(0.8663)	(0.0892)				
$MP_{t-1}^T \times EBT_t$	-0.0235	-0.0445	-0.0042	-0.0539*				
	(0.6090)	(0.2021)	(0.9069)	(0.0720)				
$MP_{t-1}^L \times EBT_t$	0.0000	0.0389	0.0000	0.0229				
	(0.000)	(0.7002)	(0.000)	(0.8320)				
$MP_{t-2}^T \times EBT_t$	-0.0054	-0.0230	0.0516	-0.0315				
	(0.9123)	(0.5357)	(0.2709)	(0.3528)				
$MP_{t-2}^L \times EBT_t$	0.0000	-0.0138	0.0000	-0.0017				
	(0.000)	(0.9240)	(0.000)	(0.9930)				
Intercept	0.0712***	0.0712***	0.0576***	0.0569***			0.0123	0.0126
	(0.0000)	(0.0000)	(0.0000)	(0.0000)			(0.0098)	(0.0098)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	107662	107662	107657	107657	53583	53583	18397	18397
R-squared	0.16	0.16	0.15	0.15			0.08	0.08
Log likelihood					-19000	-19000		
Chi^2					948	947		

Appendix A27A: Macroprudential policy and earnings persistence- Hierarchical linear model (HLM)

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	Bank-level	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.4832***	0.4717***	0.4842***	0.4727***	0.4802***	0.4683***	0.4616***	0.4491***	0.4623***	0.4500***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
$MP^{T}t$	-0.0002	0.0000	0.0004***	0.0004***	0.0005***	0.0003**	-0.0016***	-0.0006**	-0.0003	-0.0002
	(0.1262)	(0.6805)	(0.0059)	(0.0043)	(0.0000)	(0.0143)	(0.0000)	(0.0168)	(0.1695)	(0.5004)
$MP^{L}t$	-0.0044***	-0.0045***	-0.0011**	-0.0017***	0.0003**	0.0001	-0.0021***	-0.0025***	-0.002***	-0.0015***
	(0.0000)	(0.0000)	(0.0407)	(0.0032)	(0.0156)	(0.5597)	(0.0093)	(0.0022)	(0.0010)	(0.0075)
$MP^{T}t-1$	-0.0003**	-0.0005***	0.0008***	0.0010***	0.0003**	0.0001	0.0006**	0.0001	-0.0007***	-0.0007***
	(0.0402)	(0.0010)	(0.0000)	(0.0000)	(0.0161)	(0.4671)	(0.0195)	(0.7371)	(0.0029)	(0.0089)
$MP^{L}t-1$	-0.0001	-0.0001	-0.0002	-0.0005	0.0005***	0.0009***	-0.0013	-0.0018**	-0.0017***	-0.0011**
	(0.8534)	(0.8745)	(0.6547)	(0.3640)	(0.0004)	(0.0000)	(0.1182)	(0.0329)	(0.0011)	(0.0339)
$MP^{T}t-2$	0.0000	0.0000	-0.0013***	-0.0009***	0.0002	0.0003**	0.0005*	0.0002	-0.0008***	-0.0006**
	(0.7429)	(0.7907)	(0.0000)	(0.0000)	(0.1045)	(0.0245)	(0.0532)	(0.5190)	(0.0012)	(0.0204)
$MP^{L}t-2$	-0.0002	-0.0003	-0.0035***	-0.0025***	0.0003**	-0.0003**	-0.0018**	-0.0008	-0.0021***	-0.0019***
	(0.6677)	(0.5855)	(0.0000)	(0.0000)	(0.0383)	(0.0357)	(0.0284)	(0.3207)	(0.0000)	(0.0001)
$MP_t^{T}\times EBT_t$	-0.0425***	-0.0397***	-0.0315***	-0.0286***	-0.0293***	-0.0270***	0.0428***	0.0486***	0.0183	0.0179
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.1407)	(0.1474)
$MP_t^{L}\times EBT_t$	0.0318**	0.0370**	-0.0360	-0.0471**	-0.0219***	-0.0223***	0.0713*	0.0663*	0.0366	0.0476*
	(0.0382)	(0.0156)	(0.1132)	(0.0377)	(0.0002)	(0.0002)	(0.0713)	(0.0913)	(0.2037)	(0.0958)
$MP_{t-1}^{T}\times EBT_t$	0.0005	0.0034	-0.0504***	-0.0492***	-0.0258***	-0.0257***	0.0066	0.0093	0.0420***	0.0385***
	(0.9360)	(0.5777)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.5699)	(0.4209)	(0.0006)	(0.0015)
$MP_{t-1}^{L}\times EBT_t$	0.0426**	0.0423**	-0.0240	-0.0298	0.0351***	0.0285***	0.0093	-0.0034	-0.0367	-0.0310
	(0.0106)	(0.0107)	(0.2722)	(0.1706)	(0.0000)	(0.0000)	(0.8173)	(0.9320)	(0.1428)	(0.2135)
$MP_{t-2}^{T}\times EBT_t$	-0.0451***	-0.0441***	-0.0499***	-0.0465***	-0.0122***	-0.0153***	-0.0396***	-0.0321***	0.0779***	0.0781***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0046)	(0.0004)	(0.0015)	(0.0099)	(0.0000)	(0.0000)
$MP_{t-2}^{L}\times EBT_t$	0.0253	0.0147	0.0274	0.0288	0.0124**	0.0152**	0.0620	0.0577	0.0406*	0.0416*
	(0.1781)	(0.4299)	(0.1953)	(0.1719)	(0.0499)	(0.0158)	(0.1015)	(0.1250)	(0.0762)	(0.0679)
Intercept	0.0134***	0.0154***	0.0144***	0.0136***	0.0133***	0.0125***	0.0134***	0.0128***	0.0143***	0.0131***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	107939	107662	107939	107662	107939	107662	107939	107662	107939	107662
R-squared	0.2226	0.2486	0.2218	0.2479	0.2247	0.2444	0.2202	0.2435	0.2220	0.2443

Appendix A27B: Macroprudential policy and cashflow predictability-- Hierarchical linear model (HLM)

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	Bank-level	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.3081***	0.3021***	0.3179***	0.3109***	0.3018***	0.2932***	0.2896***	0.2818***	0.2954***	0.2871***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
$MP^T t$	-0.0005***	-0.0002*	0.0006***	0.0010***	0.0005***	0.0002*	-0.0018***	-0.0003	-0.0003	0.0000
	(0.0000)	(0.0902)	(0.0000)	(0.0000)	(0.0000)	(0.0599)	(0.0000)	(0.1336)	(0.1113)	(0.8491)
$MP^L t$	-0.0025***	-0.0026***	-0.0006	-0.0010**	0.0002*	-0.0002	-0.0018**	-0.0019***	-0.0010**	-0.0008*
	(0.0000)	(0.0000)	(0.1921)	(0.0453)	(0.0756)	(0.3030)	(0.0135)	(0.0099)	(0.0302)	(0.0898)
$MP^T t\text{-}1$	-0.0005***	-0.0004***	0.0002	0.0003*	-0.0002**	-0.0005***	-0.0005**	-0.0003	-0.0008***	-0.0006**
	(0.0000)	(0.0026)	(0.2068)	(0.0530)	(0.0361)	(0.0000)	(0.0355)	(0.2064)	(0.0006)	(0.0112)
$MP^L t\text{-}1$	0.0002	0.0005	-0.0004	-0.0004	0.0004***	0.0005***	-0.0001	-0.0001	-0.0009*	-0.0005
	(0.5558)	(0.1525)	(0.3438)	(0.3588)	(0.0002)	(0.0009)	(0.8890)	(0.8873)	(0.0526)	(0.2314)
$MP^T t\text{-}2$	-0.0006***	-0.0005***	-0.0011***	-0.0009***	-0.0002*	-0.0002**	0.0002	0.0007***	-0.0008***	-0.0007***
	(0.0000)	(0.0002)	(0.0000)	(0.0000)	(0.0737)	(0.0188)	(0.3677)	(0.0073)	(0.0004)	(0.0056)
$MP^L t\text{-}2$	-0.0011**	-0.0011**	-0.0007	-0.0000	0.0000	-0.0004***	-0.0006	0.0001	-0.0002	0.0007
	(0.0119)	(0.0149)	(0.1141)	(0.9769)	(0.9954)	(0.0049)	(0.3921)	(0.9216)	(0.6703)	(0.1085)
$MP_t^T \times EBT_t$	-0.0480***	-0.0471***	-0.0513***	-0.0526***	-0.023***	-0.0222***	0.0426***	0.0422***	-0.0286**	-0.0299***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0106)	(0.0072)
$MP_t^L \times EBT_t$	-0.0028	-0.0042	-0.0671***	-0.0759***	-0.020***	-0.0165***	0.0259	0.0241	-0.0519**	-0.0365
	(0.8387)	(0.7547)	(0.0009)	(0.0002)	(0.0001)	(0.0018)	(0.4595)	(0.4897)	(0.0447)	(0.1560)
$MP_{t-1}^T \times EBT_t$	0.0102*	0.0101*	-0.0417***	-0.0401***	-0.0081**	-0.0098***	0.0135	0.0178*	0.0173	0.0139
	(0.0556)	(0.0586)	(0.0000)	(0.0000)	(0.0272)	(0.0076)	(0.1897)	(0.0822)	(0.1135)	(0.2008)
$MP_{t-1}^L \times EBT_t$	0.0295**	0.0311**	-0.0245	-0.0343*	0.0393***	0.0394***	-0.0862**	-0.0940***	-0.0412*	-0.0298
	(0.0463)	(0.0349)	(0.2068)	(0.0757)	(0.0000)	(0.0000)	(0.0155)	(0.0081)	(0.0664)	(0.1823)
$MP_{t-2}^T \times EBT_t$	-0.0130**	-0.0117**	-0.0477***	-0.0449***	-0.0020	-0.0045	-0.0185*	-0.0147	0.0526***	0.0517***
	(0.0253)	(0.0449)	(0.0000)	(0.0000)	(0.6036)	(0.2421)	(0.0950)	(0.1819)	(0.0000)	(0.0000)
$MP_{t-2}^L \times EBT_t$	0.0914***	0.0919***	-0.0635***	-0.0701***	-0.0017	0.0015	-0.0872**	-0.0876***	0.0144	0.0189
	(0.0000)	(0.0000)	(0.0008)	(0.0002)	(0.7609)	(0.7865)	(0.0102)	(0.0096)	(0.4812)	(0.3546)
Intercept	0.0348***	0.0373***	0.0389***	0.0359***	0.0387***	0.0353***	0.0359***	0.0356***	0.0392***	0.0361***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	107934	107657	107934	107657	107934	107657	107934	107657	107934	107657
R-squared	0.25	0.18	0.25	0.18	0.25	0.18	0.26	0.18	0.26	0.18

Appendix A27C: Macroprudential policy and meet or beat benchmark- - Hierarchical linear model (HLM)

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side- Capital		***Supply side-Loans***		***Supply side-General***		***Liquidity***		***Demand-side***	
	Bank-level	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	0.127***	-0.0161	-0.0234	-0.176***	-0.0597**	0.0148	0.185***	0.204***	0.0780	-0.0230
	(0.0248)	(0.0281)	(0.0325)	(0.0375)	(0.0291)	(0.0300)	(0.0366)	(0.0504)	(0.0500)	(0.0512)
$MP^{L}t$	0.164*	-0.00998	-0.770***	-0.630***	-0.159***	-0.0972**	0.0915	0.0983	-0.481***	-0.494***
	(0.0954)	(0.0993)	(0.1460)	(0.1480)	(0.0398)	(0.0496)	(0.1420)	(0.1430)	(0.1200)	(0.1220)
$MP^{T}t$-1	-0.0501*	-0.150***	0.127***	0.0239	0.0257	0.0725**	0.103**	-0.0532	0.0682	-0.0678
	(0.0284)	(0.0324)	(0.0355)	(0.0389)	(0.0281)	(0.0294)	(0.0520)	(0.0610)	(0.0512)	(0.0524)
$MP^{L}t$-1	0.0872	0.0178	-0.1340	-0.228*	-0.195***	-0.158***	0.0603	-0.00565	-0.242**	-0.321***
	(0.0976)	(0.1000)	(0.1290)	(0.1330)	(0.0384)	(0.0465)	(0.1830)	(0.1840)	(0.1200)	(0.1230)
$MP^{T}t$-2	0.0576*	0.0353	-0.0633	-0.0800*	0.0318	0.0490*	0.0368	-0.0715	0.233***	0.122**
	(0.0303)	(0.0336)	(0.0404)	(0.0417)	(0.0264)	(0.0276)	(0.0487)	(0.0642)	(0.0524)	(0.0540)
$MP^{L}t$-2	0.0929	0.1770	0.0264	-0.1150	0.130***	0.0926**	-0.2290	-0.2070	-0.0613	-0.247**
	(0.1110)	(0.1130)	(0.1200)	(0.1240)	(0.0355)	(0.0430)	(0.1990)	(0.2000)	(0.1120)	(0.1140)
Intercept	-3.576***	-4.182***	-3.701***	-4.218***	-3.643***	-4.329***	-3.345***	-4.272***	-3.727***	-4.356***
	(0.2260)	(0.3820)	(0.2251)	(0.3790)	(0.2262)	(0.3793)	(0.2270)	(0.3821)	(0.2245)	(0.3789)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	74,585	74,372	74,585	74,372	74,585	74,372	74,585	74,372	74,585	74,372

Appendix A27D: Macroprudential policy and abnormal LLP- - Hierarchical linear model (HLM)

The table presents the results for earnings management, and the components of macroprudential policy. The dependent variable is ALLP, a measure of earning management. And the key variable of interest is net, tight and loose policies for time periods ***t, t-1, t-2***. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. NOBS presents the number of observations, and R^ 2 is the adjusted R-squared. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side- Capital		***Supply side-Loans***		***Supply side-General***		***Liquidity***		***Demand side***	
	Bank-level	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**	**Bank-level**	**Country-level**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
MP^Tt	0.0009	0.0002***	-0.0005***	-0.0009	0.0000	0.0001*	0.0001	-0.0000	-0.0002**	0.0001
	(0.0006)	(0.0007)	(0.0008)	(0.0010)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
MP^Lt	-0.0008***	-0.0008***	0.000296	-0.0002	-0.0001	-0.0002*	-0.0005	-0.0006	-0.0002	-0.0004*
	(0.000237)	(0.000241)	(0.0003)	(0.0003)	(0.0001)	(0.0001)	(0.0004)	(0.0004)	(0.0002)	(0.0002)
MP^Tt-1	-0.0003***	-0.0003	0.0001	0.0002*	0.0000	-0.0000	-0.0003***	-0.0002	-0.0002	0.0001
	(0.0006)	(0.0007)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
MP^Lt-1	-0.0002	0.0003	0.0008	0.0002	0.0003**	-0.0002	0.0002	-0.0002	-0.0006***	-0.0004
	(0.000245)	(0.000247)	(0.0003)	(0.0003)	(0.0001)	(0.0001)	(0.0005)	(0.0005)	(0.0002)	(0.0002)
MP^Tt-2	0.0001	-0.0004	0.0004***	0.0002*	-0.0000	-0.0001	-0.0008***	-0.0003**	0.0002**	0.0002*
	(0.0007)	(0.0008)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0002)	(0.0001)	(0.0001)
MP^Lt-2	0.0005	0.0008	-0.0001	0.0003	0.0001	-0.0002	-0.0008*	-0.0003	-0.0005**	-0.0003
	(0.0003)	(0.003)	(0.0003)	(0.0003)	(0.0001)	(0.0001)	(0.0005)	(0.0005)	(0.0003)	(0.0003)
Intercept	0.0077***	0.0061***	0.0076***	0.0061***	0.0080***	0.0062***	0.0062***	0.0061***	0.0080***	0.0063***
	(0.0013)	(0.0016)	(0.0013)	(0.0016)	(0.0013)	(0.0016)	(0.0013)	(0.0016)	(0.0013)	(0.0016)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	18,397	18,397	18,397	18,397	18,397	18,397	18,397	18,397	18,397	18,397

Appendix A28A: Macroprudential policy and earnings persistence- Crisis versus non-crisis period

The table presents the results for earnings quality, and the components of macroprudential policy. The dependent variable is earnings persistence, a measure of earning quality. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	Crisis	**Non-crisis**	**Crisis**	**Non-crisis**	**Crisis**	**Non-crisis**	**Crisis**	**Non-crisis**	**Crisis**	**Non-crisis**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	-0.1254***	0.3760***	-0.1442***	0.3660***	-0.1285***	0.3266***	-0.1777***	0.3428***	-0.1838***	0.3366***
	(0.0005)	(0.0000)	(0.0002)	(0.0000)	(0.0012)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
$MP^{T}t$	0.0079***	0.0002	0.0007	0.0015***	-0.0055	0.0002	0.0036	0.0002	0.0002	0.0011***
	(0.0001)	(0.3755)	(0.1573)	(0.0001)	(0.1484)	(0.5513)	(0.2981)	(0.4975)	(0.9355)	(0.0055)
$MP^{L}t$	-0.0052	-0.0055***	0.0009	-0.0018	-0.0036**	-0.0000	-0.1266***	-0.0013	-0.0066**	0.0008
	(0.5271)	(0.0000)	(0.6835)	(0.1416)	(0.0115)	(0.8959)	(0.0000)	(0.1548)	(0.0411)	(0.3781)
$MP^{T}t-1$	0.0057**	-0.0003	0.0011	0.0012***	-0.0004	-0.0001	-0.1604***	0.0002	-0.0001	0.0001
	(0.0151)	(0.1496)	(0.4300)	(0.0002)	(0.8283)	(0.8135)	(0.0000)	(0.5730)	(0.9621)	(0.8763)
$MP^{L}t-1$	-0.0131*	-0.0015*	-0.0015	-0.0009	-0.0031*	0.0002	-0.1157***	-0.0026**	-0.0032	0.0009
	(0.0540)	(0.0580)	(0.5294)	(0.3976)	(0.0650)	(0.5078)	(0.0000)	(0.0139)	(0.1623)	(0.3667)
$MP^{T}t-2$	0.0013	-0.0001	0.0001	-0.0008**	-0.0053*	0.0001	0.0414	0.0007*	0.0018	-0.0001
	(0.4635)	(0.5706)	(0.9476)	(0.0167)	(0.0752)	(0.6543)	(0.3679)	(0.0912)	(0.3931)	(0.7314)
$MP^{L}t-2$	0.0031	-0.0015	-0.0140***	-0.0003	-0.0020	-0.0009***	-0.0487**	-0.0020*	-0.0164***	-0.0004
	(0.5811)	(0.1465)	(0.0000)	(0.7438)	(0.2539)	(0.0009)	(0.0107)	(0.0632)	(0.0000)	(0.5311)
$MP_t^{T}\times EBT_t$	-0.4220***	-0.0463***	-0.1295**	-0.0609***	-0.1315**	-0.0040	0.3585***	-0.0295	0.0243	-0.0596**
	(0.0000)	(0.0049)	(0.0385)	(0.0077)	(0.0124)	(0.7948)	(0.0000)	(0.2596)	(0.8061)	(0.0217)
$MP_t^{L}\times EBT_t$	0.0599	0.0555	-0.4896***	0.1161*	-0.0843	0.0137	0.6333**	0.0513	0.3780	-0.0294
	(0.7549)	(0.2910)	(0.0001)	(0.0708)	(0.1080)	(0.4580)	(0.0227)	(0.3598)	(0.3292)	(0.6681)
$MP_{t-1}^{T}\times EBT_t$	-0.2352	-0.0148	0.0918	-0.0497**	-0.1519***	-0.0008	1.7338	-0.0071	0.1271*	0.0172
	(0.2016)	(0.4151)	(0.2793)	(0.0153)	(0.0002)	(0.9513)	(0.1293)	(0.8285)	(0.0590)	(0.5307)
$MP_{t-1}^{L}\times EBT_t$	-0.3683**	0.0586	0.3224	-0.0002	-0.0326	0.0541***	-0.6542***	0.0199	0.4137**	-0.1191
	(0.0286)	(0.3269)	(0.1347)	(0.9971)	(0.5015)	(0.0019)	(0.0053)	(0.7208)	(0.0296)	(0.1347)
$MP_{t-2}^{T}\times EBT_t$	-0.1501	-0.0563***	0.0548	-0.0626***	0.3415***	-0.0145	-2.9099	-0.0520*	0.1640***	0.0516**
	(0.2813)	(0.0050)	(0.3707)	(0.0047)	(0.0001)	(0.2797)	(0.1680)	(0.0865)	(0.0091)	(0.0306)
$MP_{t-2}^{L}\times EBT_t$	0.3845**	-0.0226	0.6473***	-0.0353	0.1444**	0.0390**	-1.3280*	0.0830	0.4678**	-0.0329
	(0.0280)	(0.7367)	(0.0009)	(0.5241)	(0.0239)	(0.0361)	(0.0916)	(0.2141)	(0.0133)	(0.5538)
Intercept	0.2435***	0.0592***	0.2181***	0.0582***	0.2237***	0.0588***	0.2350***	0.0581***	0.2307***	0.0586***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	11381	96281	11381	96281	11381	96281	11381	96281	11381	96281
R^2	0.16	0.18	0.15	0.17	0.16	0.17	0.14	0.17	0.13	0.17

Appendix A28B: Macroprudential policy and cashflow predictability- Crisis versus non-crisis period

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	Crisis	**Non-crisis**	**Crisis**	**Non-crisis**	**Crisis**	**Non-crisis**	**Crisis**	**Non-crisis**	**Crisis**	**Non-crisis**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT	0.0078	0.2718***	-0.0054	0.2744***	0.0099	0.2286***	-0.0345	0.2449***	-0.0368	0.2450***
	(0.7909)	(0.0000)	(0.8685)	(0.0000)	(0.7580)	(0.0000)	(0.2562)	(0.0000)	(0.2336)	(0.0000)
$MP^{T}t$	0.0019	-0.0001	-0.0000	0.0018***	0.0000	0.0001	0.0036	0.0002	0.0031**	0.0006*
	(0.1989)	(0.5380)	(0.9637)	(0.0000)	(0.9908)	(0.6697)	(0.2981)	(0.4975)	(0.0354)	(0.0642)
$MP^{L}t$	0.0032	-0.0035***	-0.0047***	-0.0005	-0.0012	-0.0004	-0.1266***	-0.0013	-0.0093***	0.0002
	(0.3462)	(0.0000)	(0.0047)	(0.5527)	(0.1978)	(0.1455)	(0.0000)	(0.1548)	(0.0000)	(0.8445)
$MP^{T}t-1$	-0.0013	-0.0001	-0.0005	0.0002	-0.0033**	-0.0005**	-0.1604***	0.0002	0.0004	-0.0003
	(0.3285)	(0.5852)	(0.5390)	(0.5324)	(0.0161)	(0.0168)	(0.0000)	(0.5730)	(0.7263)	(0.3080)
$MP^{L}t-1$	-0.0059	-0.0007	-0.0060***	-0.0013	-0.0015	0.0001	-0.1157***	-0.0026**	-0.0067***	0.0004
	(0.1598)	(0.2703)	(0.0000)	(0.1582)	(0.1771)	(0.5553)	(0.0000)	(0.0139)	(0.0000)	(0.5607)
$MP^{T}t-2$	-0.0033***	-0.0004**	-0.0008	-0.0007***	-0.0033*	-0.0004	0.0414	0.0007*	0.0018	-0.0004
	(0.0031)	(0.0377)	(0.2715)	(0.0069)	(0.0920)	(0.1003)	(0.3679)	(0.0912)	(0.1636)	(0.2090)
$MP^{L}t-2$	-0.0016	-0.0020*	-0.0067***	0.0012	-0.0028**	-0.0011***	-0.0487**	-0.0020*	-0.0090***	0.0017***
	(0.7066)	(0.0694)	(0.0007)	(0.1512)	(0.0133)	(0.0000)	(0.0107)	(0.0632)	(0.0000)	(0.0011)
$MP_t^{T}\times EBT_t$	-0.3541***	-0.0531***	-0.0757	-0.0752***	-0.1368**	-0.0042	0.3585***	-0.0295	-0.0085	-0.0660***
	(0.0000)	(0.0004)	(0.1866)	(0.0010)	(0.0135)	(0.7417)	(0.0000)	(0.2596)	(0.8940)	(0.0017)
$MP_t^{L}\times EBT_t$	-0.1984*	0.0153	-0.4528***	0.0147	-0.0741	0.0178	0.6333**	0.0513	-0.0046	-0.0710
	(0.0558)	(0.7558)	(0.0000)	(0.7808)	(0.1644)	(0.3068)	(0.0227)	(0.3598)	(0.9842)	(0.2401)
$MP_{t-1}^{T}\times EBT_t$	-0.1208	-0.0019	0.0227	-0.0351*	-0.1086***	0.0080	1.7338	-0.0071	0.0183	0.0086
	(0.3768)	(0.9163)	(0.7495)	(0.0610)	(0.0083)	(0.4849)	(0.1293)	(0.8285)	(0.4446)	(0.6844)
$MP_{t-1}^{L}\times EBT_t$	-0.0299	0.0545	0.1882	0.0304	-0.0114	0.0524***	-0.6542***	0.0199	0.2435	-0.0744
	(0.8168)	(0.3039)	(0.2870)	(0.5775)	(0.6894)	(0.0010)	(0.0053)	(0.7208)	(0.1631)	(0.2279)
$MP_{t-2}^{T}\times EBT_t$	-0.1827	-0.0248	0.0260	-0.0645***	0.2508***	0.0029	-2.9099	-0.0520*	0.0745***	0.0406*
	(0.2099)	(0.1837)	(0.6245)	(0.0003)	(0.0019)	(0.8185)	(0.1680)	(0.0865)	(0.0062)	(0.0814)
$MP_{t-2}^{L}\times EBT_t$	0.2741***	0.0774	0.1764	-0.0987*	0.1638***	0.0250	-1.3280*	0.0830	0.2132**	-0.0392
	(0.0023)	(0.2041)	(0.1066)	(0.0642)	(0.0000)	(0.1335)	(0.0916)	(0.2141)	(0.0323)	(0.3427)
Intercept	0.0678	0.0556***	0.0397	0.0544***	0.0403	0.0542***	0.0767	0.0549***	0.0654	0.0555***
	(0.1518)	(0.0000)	(0.3940)	(0.0000)	(0.3566)	(0.0000)	(0.1009)	(0.0000)	(0.1603)	(0.0000)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	11380	96277	11380	96277	11380	96277	11380	96277	11380	96277
R^2	0.0866	0.1682	0.0780	0.1693	0.0980	0.1635	0.0488	0.1615	0.0554	0.1619

Appendix A28C: Macroprudential policy and Meet or beat- Crisis versus non-crisis period

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply-Capital		***Supply-Loans***		***Supply-General***		***Liquidity***		***Demand-side***	
	Crisis	**Noncrisis**	**Crisis**	**Noncrisis**	**Crisis**	**Noncrisis**	**Crisis**	**Noncrisis**	**Crisis**	**Noncrisis**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	-0.912	-0.034	-0.72*	-0.133***	0.186	-0.029	-26.478	0.206***	-0.000	.008
	(0.672)	(0.03)	(0.391)	(0.04)	(0.995)	(0.034)	(0.000)	(0.052)	(0.000)	(.054)
$MP^{L}t$	-1.40	0.047	-1.27*	-0.797***	-0.335	-0.041	-109.195	0.107	-0.921	-0.444***
	(1.435)	(0.105)	(0.763)	(0.178)	(0.542)	(0.055)	(0.000)	(0.159)	(1.132)	(0.13)
$MP^{T}t$-1	-0.544	-0.146***	-0.741*	0.065	-0.784	0.066**		-0.072	-3.242**	-0.034
	(0.508)	(0.034)	(0.393)	(0.042)	(0.59)	(0.032)		(0.063)	(1.512)	(0.055)
$MP^{L}t$-1	-0.645	0.003	0.018	-0.130	0.366	-0.183***	-3.587	-0.042	1.779	-0.24*
	(1.813)	(0.11)	(0.895)	(0.142)	(0.566)	(0.052)	(4.074)	(0.198)	(1.10)	(0.13)
$MP^{T}t$-2	-0.741	0.068*	-0.252	-0.101**	-1.824	0.085***		-0.076	-1.328	0.143**
	(0.563)	(0.035)	(0.432)	(0.044)	(1.722)	(0.029)		(0.067)	(0.999)	(0.057)
$MP^{L}t$-2	3.991**	0.263**	0.654	-0.074	0.822	0.043	0.000	-0.314	1.024	-0.214*
	(1.913)	(0.125)	(0.948)	(0.134)	(0.613)	(0.047)	(0.000)	(.217)	(0.99)	(0.123)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	766	49158	766	49158	766	49158	766	49158	766	49158
Pseudo R^2	.128	.021	.126	.022	.125	.021	.12	.02	.14	.02
Log Likelihood	-236	-17952	-236	-17946	-236	-17952	-238	-17956	-233	-17950
Chi^2	69	777	68	790	67	778	63.952	769	73	781

Appendix A28D: Macroprudential policy and Abnormal LLP- Crisis versus non-crisis period

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Supply side- Capital		***Supply side-Loans***		***Supply side-General***		***Liquidity***		***Demand-side***	
	Crisis	**Non-crisis**	**Crisis**	**Noncrisis**	**Crisis**	**Noncrisis**	**Crisis**	**Noncrisis**	**Crisis**	**Non-crisis**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	-.002	0***	-.001	0.000	0.000	0.00		0		0
	(.001)	(0.000)	(.001)	(0)	(.002)	(0.000)		(.0001)		(.0001)
$MP^{L}t$	.012***	-.001**	-.002	0	-.002	0	-.0037	-.0004	-.0011	-.0001
	(.001)	(0.000)	(.001)	(0)	(.004)	(0)	(.0049)	(.0003)	(.0011)	(.0002)
$MP^{T}t-1$	-.001	0	-.002	0	.003	0		-.0002*	.0018	0
	(.001)	(0)	(.001)	(0)	(.005)	(0)		(.0001)	(.0035)	(.0001)
$MP^{L}t-1$	-.02***	0	0	0	-.004**	0	-.0059	-.0002	.0018	-.0004
	(.004)	(0)	(.001)	(0)	(.002)	(0)	(.0044)	(.0004)	(.0014)	(.0002)
$MP^{T}t-2$	-.001	0**	.003	0**	.01	0		-.0004*	.0008	.0002*
	(.001)	(0)	(.002)	(0)	(.007)	(0)		(.0002)	(.0033)	(.0001)
$MP^{L}t-2$	.007	0	.001	.001	-.005**	0	-.0002	-.0006**	-.0018	-.0003
	(.008)	(0)	(.001)	(0)	(.003)	(0)	(.0056)	(.0003)	(.0025)	(.0002)
Intercept	.051	.016	.056	.017	.086	.016	.0607	.0157	.06	.0155
	(.076)	(.01)	(.071)	(.01)	(.077)	(.01)	(.0798)	(.0104)	(.0744)	(.0105)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & Year Fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	1345	17052	1345	17052	1345	17052	1345	17052	1345	17052
R^2	.564	.062	.551	.06	.555	.06	.5359	.0602	.5431	.0598

Table A29A: Macroprudential policy and earnings quality Including US banks

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. ***, **, * statistically significant at the 1%, 5% and 10% significance level, respectively.

	Earnings Persistence					***Cashflow Predictability***				
	Supply side - capital	***Supply side - loan***	***Supply side-general***	***Liquidity***	***Demand***	***Supply side - capital***	***Supply side - loan***	***Supply side-general***	***Liquidity***	***Demand-***
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT_t	0.4692***	0.4679***	0.4661***	0.4566***	0.4551***	0.2805***	0.2771***	0.2728***	0.2713***	0.2702***
	(0.0052)	(0.0051)	(0.0052)	(0.0052)	(0.0052)	(0.0055)	(0.0055)	(0.0056)	(0.0056)	(0.0056)
MP_t^T	0.0004***	0.0006***	0.0003***	0.0001	0.0001	0.0001**	0.0002**	-0.0000	0.0005***	-0.0003**
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
MP_t^L	-0.0013***	-0.0004	0.0005***	-0.0001	-0.0010***	-0.0017***	-0.0017***	0.0007***	-0.0005	-0.0015***
	(0.0002)	(0.0004)	(0.0001)	(0.0004)	(0.0003)	(0.0003)	(0.0004)	(0.0001)	(0.0005)	(0.0004)
MP_{t-1}^T	-0.0001**	0.0005***	0.0003***	0.0003***	0.0000	-0.0002***	-0.0001	-0.0004***	-0.0001	0.0000
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
MP_{t-1}^L	-0.0001	0.0006	-0.0000	-0.0009*	-0.0003	-0.0004	-0.0011**	0.0005***	-0.0005	-0.0009**
	(0.0003)	(0.0004)	(0.0001)	(0.0005)	(0.0003)	(0.0003)	(0.0004)	(0.0001)	(0.0007)	(0.0004)
MP_{t-2}^T	0.0001**	0.0001	0.0003***	0.0005***	0.0005***	-0.0002***	-0.0001	-0.0000	0.0006***	0.0003**
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
MP_{t-2}^L	-0.0001	-0.0002	-0.0002***	-0.0009*	-0.0003	-0.0006	0.0004	-0.0002*	-0.0012**	0.0012***
	(0.0004)	(0.0004)	(0.0001)	(0.0005)	(0.0003)	(0.0005)	(0.0004)	(0.0001)	(0.0005)	(0.0004)
$MP_t^T \times EBT_t$	-0.0531***	-0.0406***	-0.0213***	-0.0300***	0.0038	-0.0513***	-0.0187**	-0.0054	-0.0192**	-0.0023
	(0.0046)	(0.0080)	(0.0062)	(0.0079)	(0.0084)	(0.0050)	(0.0090)	(0.0067)	(0.0082)	(0.0094)
$MP_t^L \times EBT_t$	-0.0693***	-0.0833***	-0.0107	-0.0291	0.0108	0.0444	0.0235	-0.0195**	-0.0005	0.0473
	(0.0228)	(0.0250)	(0.0081)	(0.0332)	(0.0266)	(0.0271)	(0.0291)	(0.0090)	(0.0308)	(0.0311)
$MP_{t-1}^T \times EBT_t$	-0.0006	-0.0264***	-0.0146**	0.0217**	0.0080	0.0033	-0.0238**	0.0182***	0.0048	0.0136
	(0.0045)	(0.0090)	(0.0057)	(0.0094)	(0.0077)	(0.0051)	(0.0104)	(0.0065)	(0.0098)	(0.0086)
$MP_{t-1}^L \times EBT_t$	-0.0281	-0.0263	-0.0064	0.0232	-0.0552**	0.0390	0.0628**	-0.0119	0.0108	0.0160
	(0.0228)	(0.0251)	(0.0077)	(0.0373)	(0.0279)	(0.0264)	(0.0291)	(0.0088)	(0.0376)	(0.0294)
$MP_{t-2}^T \times EBT_t$	-0.0091**	-0.0608***	-0.0205***	0.0130	0.0037	-0.0095*	-0.0387***	-0.0132*	0.0003	-0.0028
	(0.0044)	(0.0087)	(0.0059)	(0.0096)	(0.0087)	(0.0052)	(0.0106)	(0.0067)	(0.0108)	(0.0095)
$MP_{t-2}^L \times EBT_t$	-0.0312	-0.0407*	0.0039	0.0417	-0.0271	-0.0037	-0.0348	0.0172*	0.0457	-0.0591**
	(0.0312)	(0.0246)	(0.0078)	(0.0363)	(0.0243)	(0.0348)	(0.0292)	(0.0089)	(0.0303)	(0.0282)
Intercept	0.0301***	0.0302***	0.0296***	0.0296***	0.0293***	0.0447***	0.0442***	0.0439***	0.0436***	0.0439***
	(0.0014)	(0.0014)	(0.0014)	(0.0014)	(0.0014)	(0.0018)	(0.0018)	(0.0018)	(0.0018)	(0.0018)
Bank -level controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Country-level controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bank & year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NOBS	175252	175252	175252	175252	175252	175248	175248	175248	175248	175248
Φ-test	17.42***	9.24***	8.26***	3.93***	9.17***	16.01***	9.43***	14.19***	1.91**	5.81***
R-squared	0.3497	0.3483	0.3472	0.3469	0.3471	0.2827	0.2810	0.2804	0.2796	0.2799

Table A29B: Macroprudential policy and earnings management Including US banks

The table presents the results for earnings management, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. ***, **, * statistically significant at the 1%, 5% and 10% significance level, respectively.

	Meet or beat benchmark					*Abnormal LLP*				
	Supply side - capital	***Supply side - loan***	***Supply side- general***	***Liquidity***	***Demand***	***Supply side - capital***	***Supply side - loan***	***Supply side- general***	***Liquidity***	***Demand***
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
MP_t^T	-0.0932***	-0.0726**	-0.1355***	0.3225***	-0.1334***	-0.0000*	0.0002***	0.0000	-0.0001*	-0.0001*
	(0.0180)	(0.0325)	(0.0317)	(0.0435)	(0.0374)	(0.0000)	(0.0001)	(0.0001)	(0.0001)	(0.0000)
MP_t^L	-0.0248	-0.4250***	0.0796**	0.1970	-0.5446***	-0.0000	0.0002	-0.0001	-0.0006**	-0.0002
	(0.0849)	(0.1393)	(0.0385)	(0.1524)	(0.1212)	(0.0002)	(0.0002)	(0.0001)	(0.0003)	(0.0002)
MP_{t-1}^T	0.1022***	0.0971***	0.2108***	0.1819***	0.1598***	-0.0001***	0.0000	-0.0001	-0.0001	0.0000
	(0.0201)	(0.0352)	(0.0256)	(0.0483)	(0.0386)	(0.0000)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
MP_{t-1}^L	-0.0093	-0.6748***	0.0370	0.2388	-0.2772**	-0.0001	0.0000	-0.0000	-0.0001	-0.0007***
	(0.0875)	(0.1421)	(0.0367)	(0.1751)	(0.1248)	(0.0002)	(0.0002)	(0.0001)	(0.0003)	(0.0002)
MP_{t-2}^T	0.0463**	-0.2046***	0.0002	-0.2300***	0.3502***	-0.0001	-0.0000	0.0001	-0.0000	0.0001**
	(0.0229)	(0.0384)	(0.0266)	(0.0510)	(0.0384)	(0.0000)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
MP_{t-2}^L	0.5671***	-0.3287***	-0.1158***	0.2378	-0.2496**	-0.0001	0.0001	-0.0000	-0.0004	-0.0007***
	(0.0989)	(0.1254)	(0.0370)	(0.1807)	(0.1184)	(0.0002)	(0.0002)	(0.0001)	(0.0003)	(0.0002)
Intercept						0.0034**	0.0030*	0.0030*	0.0033**	0.0026
						(0.0017)	(0.0016)	(0.0016)	(0.0016)	(0.0016)
Bank -level controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Country-level controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bank & year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
NOBS	125833	125833	125833	125833	125833	71773	71773	71773	71773	71773
Φ-test	63.81***	49.61***	61.45***	27.13***	48.92***	4.05***	0.40	2.21**	3.57**	4.34***
Log Likelihood	-47000.02	-47000.02	-47000.01	-47000.02	-47000.04					
Chi^2	2900.312	2900.312	2900.312	2900.244	3000.178					
R^2						0.4468	0.4467	0.4467	0.4467	0.4470

Appendix A30A: Macroprudential policy, earnings persistence and cashflow predictability- Two-way clustering

The table presents the results for earnings quality, and the components of macroprudential policy. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. NOBS presents the number of observations, and R^ 2 is the adjusted R-squared. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level. Φ-test represents joint test of the interaction terms.

	Earnings Persistence					***Cashflow Predictability***				
	Supply side - capital	***Supply side - Loan***	***Supply side- general***	***Liquidity***	***Demand-side***	***Supply side - capital***	***Supply side - Loan***	***Supply side- general***	***Liquidity***	***Demand-side***
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EBT_t	0.3432***	0.3401***	0.3241***	0.3207***	0.3180***	0.2529***	0.2601***	0.2359***	0.2352***	0.2380***
	(0.0203)	(0.0218)	(0.0275)	(0.0308)	(0.0348)	(0.0241)	(0.0246)	(0.0291)	(0.0303)	(0.0333)
MP_t^T	0.0001	0.0006	0.0001	-0.0003	0.0006	-0.0002	0.0011*	0.0001	-0.0001	0.0005
	(0.0003)	(0.0004)	(0.0003)	(0.0005)	(0.0005)	(0.0003)	(0.0006)	(0.0003)	(0.0005)	(0.0004)
MP_t^L	-0.0056***	-0.0012	-0.0002	-0.0021*	-0.0004	-0.0030***	-0.0008	-0.0003	-0.0015	-0.0003
	(0.0018)	(0.0012)	(0.0005)	(0.0012)	(0.0009)	(0.0009)	(0.0009)	(0.0006)	(0.0014)	(0.0006)
MP_{t-1}^T	-0.0004	0.0011**	-0.0001	0.0002	-0.0002	-0.0003	0.0002	-0.0005**	-0.0001	-0.0003
	(0.0004)	(0.0005)	(0.0004)	(0.0007)	(0.0005)	(0.0004)	(0.0002)	(0.0002)	(0.0006)	(0.0004)
MP_{t-1}^L	-0.0018**	0.0004	0.0007**	-0.0019	0.0005	-0.0002	-0.0001	0.0004	0.0001	0.0001
	(0.0008)	(0.0014)	(0.0003)	(0.0020)	(0.0013)	(0.0006)	(0.0011)	(0.0004)	(0.0017)	(0.0008)
MP_{t-2}^T	-0.0002	-0.0009	0.0003	0.0006	-0.0004	-0.0006	-0.0009	-0.0002	0.0009	-0.0005
	(0.0005)	(0.0010)	(0.0004)	(0.0007)	(0.0005)	(0.0005)	(0.0006)	(0.0004)	(0.0007)	(0.0005)
MP_{t-2}^L	-0.0013	-0.0012	-0.0003	-0.0006	-0.0013	-0.0014	0.0007	-0.0004	0.0002	0.0012
	(0.0012)	(0.0023)	(0.0003)	(0.0021)	(0.0017)	(0.0019)	(0.0014)	(0.0004)	(0.0012)	(0.0010)
$MP_t^T \times EBT_t$	-0.0525***	-0.0391**	-0.0125	0.0070	-0.0198	-0.0522***	-0.0565***	-0.0128	0.0182	-0.0598*
	(0.0127)	(0.0161)	(0.0122)	(0.0356)	(0.0343)	(0.0103)	(0.0172)	(0.0200)	(0.0324)	(0.0315)
$MP_t^L \times EBT_t$	0.0620	-0.0311	-0.0145	0.0549	0.0164	0.0144	-0.0716	-0.0121	0.0192	-0.0554
	(0.0385)	(0.1043)	(0.0310)	(0.0854)	(0.0537)	(0.0362)	(0.0601)	(0.0252)	(0.0485)	(0.0418)
$MP_{t-1}^T \times EBT_t$	-0.0002	-0.0441***	-0.0143	-0.0122	0.0286	0.0078	-0.0337***	-0.0034	0.0026	0.0062
	(0.0197)	(0.0130)	(0.0106)	(0.0246)	(0.0278)	(0.0163)	(0.0113)	(0.0062)	(0.0206)	(0.0250)
$MP_{t-1}^L \times EBT_t$	0.0674	-0.0379	0.0408***	-0.0069	-0.0909	0.0545	-0.0370	0.0449***	-0.1026*	-0.0572
	(0.0525)	(0.0889)	(0.0112)	(0.0840)	(0.0797)	(0.0632)	(0.0688)	(0.0148)	(0.0516)	(0.0548)
$MP_{t-2}^T \times EBT_t$	-0.0349*	-0.0423***	-0.0184	-0.0427	0.0695***	-0.0107	-0.0431***	-0.0032	-0.0195	0.0470**
	(0.0197)	(0.0112)	(0.0202)	(0.0320)	(0.0232)	(0.0211)	(0.0125)	(0.0224)	(0.0390)	(0.0232)
$MP_{t-2}^L \times EBT_t$	0.0186	0.0082	0.0205	0.0332	-0.0012	0.0971	-0.0828	0.0074	-0.0878**	-0.0236
	(0.0848)	(0.0836)	(0.0210)	(0.0844)	(0.0458)	(0.0954)	(0.0759)	(0.0214)	(0.0411)	(0.0416)
Intercept	0.0718***	0.0704***	0.0716***	0.0711***	0.0707***	0.0579***	0.0562***	0.0570***	0.0575***	0.0576***
	(0.0200)	(0.0199)	(0.0195)	(0.0202)	(0.0202)	(0.0139)	(0.0137)	(0.0135)	(0.0141)	(0.0140)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	106934	106934	106934	106934	106934	106929	106929	106929	106929	106929
Φ-test	23.65***	28.07***	8.35***	2.12**	1.97**	17.60***	10.92***	6.04***	3.88***	2.40**
R-squared	0.5189	0.5173	0.5162	0.5154	0.5156	0.6263	0.6265	0.6251	0.6244	0.6245

Appendix A30B: Macroprudential policy, meet or beat benchmark, and abnormal LLP- Two-way clustering

The table presents the results for earnings management, and the components of macroprudential policy. The dependent variable is meet or beat benchmark, and abnormal LLP- measures of earning management. And the key variable of interest is tight and loose policies for time periods ***t, t-1, t-2***. The bank level and country level control variables are also included. Standard errors are reported in parenthesis. Variable definitions are provided in Appendix A2. *** statistically significant at the 1% significance level; ** statistically significant at the 5% significance level; * statistically significant at the 10% significance level.

	Meet or beat benchmark					***Abnormal LLP***				
	Supply side - capital	*Supply side - Loan*	*Supply side- general*	*Liquidity*	*Demand-side*	*Supply side - capital*	*Supply side - Loan*	*Supply side- general*	*Liquidity*	*Demand-side*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$MP^{T}t$	-.003	-.02***	.007	.025*	-.002	.0002**	-.0001	.0001	0	.0001
	(.005)	(.007)	(.008)	(.014)	(.011)	(.0001)	(.0002)	(.0001)	(.0002)	(.0001)
$MP^{L}t$	-.003	-.044*	-.002	.012	-.046**	-.0011*	.0002	-.0003	-.0004	-.0002
	(.014)	(.025)	(.006)	(.015)	(.022)	(.0006)	(.0003)	(.0002)	(.0004)	(.0002)
$MP^{T}t$-1	-.019***	.003	.006	-.007	-.007	0	.0003	0	-.0002	.0001
	(.005)	(.006)	(.004)	(.006)	(.009)	(.0001)	(.0002)	(.0001)	(.0002)	(.0001)
$MP^{L}t$-1	-.008	-.028	-.012*	-.006	-.028	.0001	.0004	-.0002	-.0002	-.0003
	(.011)	(.027)	(.007)	(.026)	(.025)	(.0006)	(.0004)	(.0003)	(.0004)	(.0003)
$MP^{T}t$-2	.003	-.009	.005	-.007	.018	-.0001	.0002	0	-.0004	.0002*
	(.009)	(.007)	(.003)	(.015)	(.012)	(.0001)	(.0002)	(.0001)	(.0003)	(.0001)
$MP^{L}t$-2	.021	-.008	.007	-.024	-.022	.0001	.0004	-.0002	-.0003	-.0003*
	(.013)	(.014)	(.009)	(.022)	(.018)	(.0005)	(.0004)	(.0003)	(.0004)	(.0002)
Intercept	.122	.06	.1	.096	.072	.0122	.0129	.0123	.0121	.0121
	(.129)	(.129)	(.125)	(.128)	(.144)	(.0115)	(.0115)	(.0115)	(.0115)	(.0116)
Bank -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country -level control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank & year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NOBS	74110	74110	74110	74110	74110	17679	17679	17679	17679	17679
R^2	.203	.203	.203	.203	.203	.597	.5964	.5963	.5964	.5964