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How Do Banks Set Their Propping Behavior Through Related Party Transactions During a Bail-In Regime? Evidence From an Emerging Market

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ABSTRACT

This study investigates the impact of the enactment of bail-in regimes in 2016 in Indonesia on bank owners' propping behavior. Based on Indonesian banking data for the period 2011–2020, we use the difference-in-differences method to examine whether related party transactions substantially increase or decrease after the introduction of bail-in as an indicator of propping. We find that while the requirement for sufficient capital allocated to shock absorbance increases, bank owners may provide capital via related deposits. These deposits are typically beneficial to bank stability, increase liquidity, and can act as a propping channel. However, the deposits are also more exposed to risks, and consequently decrease.

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INTRODUCTION

Bank owners commonly tend to also have stakes in non-financial firms, which may lead to conflicts of interest (Barry et al., 2011). For instance, owners can channel resources from banks to their related parties and benefit at the cost of minority shareholders, or even taxpayers in the case of a bailout. This type of transaction is harmful and can take many forms (e.g., related loans, placements, and security purchases) where firm resources flow to related parties. This form of harmful related party transactions often comes with relaxed or loose terms (e.g., higher maturity, no collateral required, or lower interest rate) compared to similarly risky non-related transactions (Habib et al., 2017a, 2017b; Johnson et al., 2000; La Porta et al., 2003). However, with the enactment of bail-in regimes, banks are required to be self-sufficient in withstanding the shock, reducing the incentive to undertake such risky activities by bank owners.

Rather, bank owners have a greater incentive to increase bank stability by reevaluating their portfolio to the extent of providing financial aid and thereby bolster their banks' soundness, particularly in hard times (Gopalan et al., 2007; Maigoshi et al., 2016; Yeh et al., 2012). Owners can use their corporate group's resources to support banks in many forms (e.g., related debt or deposits), which in turn can benefit minority shareholders. Owners are expected to behave this way during bail-ins to avoid losing their stake.

Bail-in has become one of the major agendas in post-financial crisis reforms (Hüser et al., 2018). Typically, in a bailout regime, banks, as one of the most heavily regulated industries, expect external funding when they experience distress. Note that unlike any other industry, the social cost of bank failure is comparably high and can lead to a disastrous financial recession. Therefore, bailouts are more common in the financial industry, particularly in banking, compared to other industries. However, the major issue with bailouts is that they facilitate the extraction of value from the government, which in turn is at the cost of the taxpayer (Dubiel-Teleszynski et al., 2019; Leanza et al., 2021). Moreover, with a higher potential for preferential treatment, banks have an incentive to take excessive risk while shifting the cost to the taxpayer money. Mo et al. (2021) use Chinese state-owned enterprise data to show that after the enactment of no-bailout reforms, the number of bond defaults significantly decreased than that under the bailout regime. The reform forced banks and investors to reallocate their capital more carefully, and promoted more healthy economic growth and efficient capital allocation. Although this evidence is based on the non-financial industry, it highlights major problems of bailouts, particularly the shifting of the cost of failure to the government.

Meanwhile, a bail-in regime shifts the burden of resolution back from taxpayers to creditors. Specifically, bank creditors share the losses with shareholders whenever capital injection may be required to avoid liquidation that may endanger their situation and potentially trigger systemic failure (Hüser et al., 2018). However, it also reduces the incentive for risk-taking because creditors and investors are more likely to avoid excessive risk-taking behavior. Therefore, bail-in has a positive impact by promoting market discipline and improving capital allocation efficiency (Fiordelisi et al., 2020).

These ongoing debates have precipitated into debates over bail-in versus bail-out. Many empirical and theoretical studies have revealed various impacts of bail-ins and bailouts on risk-taking behavior and financial stability (Barucci et al., 2019; Berger and Roman, 2020; Casiraghi, 2020; Cuadros-Solas et al., 2021; del Viva et al., 2021; Dubiel-Teleszynski et al., 2019; Fiordelisi et al., 2020; Fiordelisi and Mare, 2014; Haufler, 2021; Hüser et al., 2018; Leanza et al., 2021; Mo et al., 2021b; Souza et al., 2019).

Although these studies have comprehensively discussed bail-in versus bailout, especially in post-crisis reform, one important dimension has not been truly highlighted: financial institutions' owners. For instance, Mo et al. (2021) shows that after China's no-bailout reform, Chinese SOE bonds tend to have significantly lower default rates than non-SOE bonds. Therefore, the ownership dimension is a key to understanding the bail-in/bailout phenomenon. For instance, even under bail-ins, state-owned banks benefit from larger capital injections compared to their private counterparts. State banks may also benefit from cross-subsidization to counteract financial distress (Cull et al., 2017; Ge et al., 2020; Sheshinski and López-Calva, 2003; Yao et al., 2013). This preserves the risk-taking incentive for state-owned banks even after the enactment of bail-in regimes. Moreover, entities with government ownership are more likely to adopt non-profit maximization motives that are detrimental to their performance and risk-taking (Bai et al., 2000; Berger et al., 2009, 2005; Bonin et al., 2005; Chen et al., 2016; Iannotta et al., 2013; Lassoued et al., 2016; Lin and Li, 2008; Megginson, 2017, 2005).

This study investigates the impact of the enactment of bail-in regimes in 2016 in Indonesia. Indonesia provides a unique setting for two reasons: First, Indonesia is considered to have pyramidal ownership features, where private banks are normally owned by businesses that have stakes in non-financial firms. Second, current regulations forbid private entities from having multiple stakes in the banking industry, giving more incentives for bank owners to further maintain their ownership. Our work contributes to the growing body of knowledge on ownership structure and related party transactions by examining the behavior of undertaking such transactions in an emerging market setting. Therefore, our findings and their implications can be particularly relevant for policymakers, regulators, and minority shareholders, and investors in general.

DATA AND METHODOLOGY

We use data on Indonesian banks for the period 2011–2018 to analyze the impact of the regulations on propping, including their deposit portfolios. Indonesian Financial Service Authorities enacted the POJK No.14/03/2017 on bank supervision, POJK No.15/03/2017 on action plan on systematically important banks, and POJK No.16/03/2017 on bridge banks as a mandate of Undang-Undang No. 9 Tahun 2016 on the prevention and mitigation of financial system crises. Under these regulations, banks are no longer allowed to be bailed out, and instead subject to bail-in: bank creditors and depositors must bear some of the burden of providing relief during financial distress. Hence, the main objective is to improve market discipline. This is especially important for larger depositors whose deposits are above 2 billion rupiah, as this is the limit of the deposit insurance guarantee per account.

Here, our main interest is to see how the aforementioned anti-bailout regulation has changed bank owners' propping behavior. We employ the following econometric model:

$$Propping_{it} = \beta_0 + \beta_1 DBailIn_{it} + + \sum_m \theta_m Control_i + \varepsilon_i \quad (1)$$

where DBailIn is a dummy variable that equals one if the period is after the enactment of the regulation, and zero otherwise. We expect this bail-in dummy to be negatively related to propping behavior. Bank owners will reduce their exposure to risk by reducing their related deposits, as depositors will bear some of the losses in the case of bail-in. We use the related deposit ratio to total assets (RDTA) and related deposit ratio to total deposit (RDTD) as proxies for propping.

We also employ a set of control variables, following empirical research, that may influence propping. First, referring to Achsanta et al. (2021) and Meslier et al. (2017), we consider competition using the Lerner index, where the market power is the markup price above the marginal price. We expect it to have a negative effect on propping. This is because banks with high market power may rely less on internal propping, as they can more easily access deposits compared to banks with low market power. Second, we include size as the natural logarithm of total assets and expect it to have a negative effect. Larger banks tend to be more resilient to shocks; hence, they are less likely to rely on propping. Third, we employ loan loss provisions to account for credit risk and expect it to have a positive effect. Fourth, we control for efficiency, measured by the cost-to-income ratio; liquidity, measured by gross loans to total assets; and solvency, measured by the ratio of total equity to total assets. We expect these to negatively affect propping. The standard errors are adjusted at the bank level to mitigate heteroscedasticity and autocorrelation issues.

EMPIRICAL RESULT

The results in Table 1 show that bail-in is not significantly related to propping behavior in Indonesian banks. However, this result is seemingly driven by bank characteristics. Credit risk has a significant negative impact on propping. Thus, propping decreases when credit risk increases. Furthermore, liquidity, solvency, and size are negatively related to propping, implying that propping is unnecessary for good-performing banks.

Table 1 The impact of the bail-in regime's enactment on propping

	(1) RDTD	(2) RDTA
BailIn	-0.0160	-0.0115
	(-1.40)	(-1.45)
Lerner	0.0562	0.0493
	(1.13)	(1.40)
CIR	0.0207	0.0176
	(0.43)	(0.50)
LLRGL	-0.735***	-0.577***
	(-3.63)	(-4.07)
GLTA	-0.128**	-0.0803**
	(-2.33)	(-2.12)
EQTA	-0.0405	-0.109
	(-0.35)	(-1.41)
LogTA	-0.0102***	-0.00724***
	(-3.83)	(-3.88)
cons	0.327***	0.236***
	(5.02)	(5.10)
N	554	554
N_g		
r2	0.0606	0.0552

Note: *t*-statistics in parentheses. * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Next, we analyze the effect of marker power. The results in Table 2 indicate that after the enactment of the bail-in regime, banks with low marker power tend to reduce their reliance on propping to decrease the risk associated with related party transactions. These banks are less resilient to economic shock due to their smaller scale; hence, bank owners find the propping risky as they have to bear part of the losses from their deposit. Thus, they reduce the proportion of related deposits after the bail-in enactment. We observe similar results from Table 1, except for solvency for banks with high market power.

Table 2 The impact of the bail-in regime's enactment on propping: high versus low market power

	High RDTD	High RDTA	Low RDTD	Low RDTA
BailIn	-0.0146	-0.00773	-0.0288*	-0.0229**
	(-0.79)	(-0.57)	(-1.94)	(-2.25)
CIR	0.0156	0.00869	-0.0528	-0.0666
	(0.33)	(0.25)	(-0.53)	(-1.01)
LLRGL	-0.662**	-0.566***	-0.617**	-0.454**
	(-2.31)	(-2.70)	(-2.20)	(-2.28)
GLTA	-0.0275	-0.0302	-0.308***	-0.165***
	(-0.43)	(-0.63)	(-3.19)	(-2.78)
EQTA	0.446***	0.250**	-0.460***	-0.388***
	(2.66)	(2.15)	(-3.60)	(-4.39)
LogTA	-0.00894**	-0.00642**	-0.0111***	-0.00732***
	(-2.42)	(-2.44)	(-2.91)	(-2.72)
_cons	0.191**	0.157**	0.568***	0.373***
	(2.19)	(2.43)	(5.89)	(5.76)
N	290	290	264	264
r2	0.0988	0.0838	0.122	0.120

Note: *t*-statistics in parentheses. * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Next, we investigate whether propping behavior differs in government banks compared to private banks. The results in Table 3 show that government banks are less likely to exhibit propping.

Government banks tend to have easier access to financing; hence, after the enactment of bail-in regime, government banks are less likely to use related deposits as vehicles of transfer, particularly to reduce risk exposure from such transactions. Together, our results support the view that banks reduce risky related party transactions, particularly after bailouts are prohibited.

Table 3 The impact of the bail-in regime's enactment on propping: government versus private banks

	Government banks' RDTD	Government banks' RDTA	Private banks' RDTD	Private banks' RDTD
BailIn	-0.0519**	-0.0409***	-0.0192	-0.0129
	(-2.42)	(-2.67)	(-1.45)	(-1.43)
Lerner	0.184*	0.169**	-0.0947*	-0.0669*
	(1.71)	(2.17)	(-1.67)	(-1.73)
CIR	-0.178	-0.0957	-0.0296	-0.0239
	(-1.17)	(-0.87)	(-0.58)	(-0.65)
LLRGL	-1.979***	-1.367***	-0.586**	-0.510***
	(-3.19)	(-3.14)	(-2.54)	(-3.27)
GLTA	-0.0808	-0.0527	-0.127**	-0.0739*
	(-0.57)	(-0.51)	(-2.18)	(-1.88)
EQTA	-0.292	-0.236	0.111	-0.00503
	(-1.09)	(-1.20)	(0.88)	(-0.06)
LogTA	0.00123	0.000802	-0.0175***	-0.0127***
	(0.24)	(0.22)	(-6.53)	(-6.75)
_cons	0.217	0.141	0.459***	0.334***
	(1.27)	(1.15)	(6.96)	(7.13)
N	144	144	410	410
r2	0.182	0.184	0.139	0.127

Note: *t*-statistics in parentheses. * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

CONCLUSION

Using Indonesian banking data for the period 2011–2019, we use the difference-in-differences investigate how bank owners' propping behavior changes after the enactment of bail-in regulations in 2016. We show that bail-in regulations may foster a more prudent banking industry by discouraging excessive risk-taking behavior. Banks become more cautious in lending, particularly to seemingly risky clients. This behavior is also expressed in their decision to receive propping from related parties. As the enactment of the bail-in regime in Indonesia implies that creditors and depositors share part of the losses, it improves market discipline; specifically, depositors in riskier banks face greater risk as the former will suffer losses, thereby decreasing their risk-taking. This includes the bank owners' propping behavior via related deposits. Even if propping is considered beneficial, bank owners may expropriate bank resources in the future.

Furthermore, the propping behavior of government banks and banks with low-market power changes after the enactment of the bail-in regime. This shifting behavior is part of banks' adjustment to tackle riskier liabilities and minimize the associated risks. Therefore, our findings support the view that bail-in promote a more prudent banking industry by prohibiting external aid and reducing banks' risk-taking incentives. Thus, our evidence is of interest to regulators and the industry, particularly in promoting better and more prudent banking systems.

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