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Government as Shareholder or Guardian? A Critical Look at SOE Policy in Indonesia*

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Executive Summary
The objectives behind the disbursement of State Capital Injections (Penyertaan Modal Negara/PMN) in Indonesia have historically varied and have been administered on a case-by-case basis. This paper provides both a descriptive overview and an empirical analysis of the determinants influencing PMN allocations to state-owned enterprises (SOEs). Specifically, it assesses the impact of capital injections on financially distressed, often termed ”zombie”—SOEs, compared to a counterfactual scenario.
Employing a panel data fixed-effects regression model, we identify key financial characteristics associated with PMN disbursement. Our findings reveal that SOEs with higher returns on equity and lower debt-to-asset ratios are less likely to receive PMN, indicating a preference for supporting financially weaker firms. Conversely, SOEs with higher debt-to-capital and cash-to-short-term debt ratios—indicators of elevated financial risk—are more likely to obtain fiscal support. Moreover, prior receipt of PMN and the existence of explicit government mandates significantly increase the likelihood of additional capital injections.
Survival analysis further suggests that each 1% increase in PMN reduces the probability of an SOE becoming illiquid in the following fiscal year by approximately 4.4%. In addition, receiving PMN in the previous year decreases the likelihood of a firm becoming a zombie enterprise by 37.5%. These findings underscore the need for greater transparency and consistency in the PMN allocation process. We argue that the government should establish clear eligibility criteria and performance benchmarks for SOEs to access capital injections. Imposing harder budget constraints and institutionalizing performance accountability could reduce the fiscal burden and enhance SOE efficiency.

JEL Classification: C23, G33, H81, H82, L32

Keywords
state capital injection — fiscal transfers — state-owned enterprises — zombie firms — fixed effects — survival analysis — Indonesia

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1. Introduction

State-owned enterprises (SOEs) in Indonesia have deep historical and constitutional roots, closely tied to Article 33 of the 1945 Constitution. Specifically, paragraph (2) of Article 33 states: “*Branches of production which are important for the State and which affect the lives of most people shall be controlled by the State*.” While the phrase “controlled by the State” is often interpreted as implying state ownership, it need not necessarily entail full public ownership; control could also take institutional or regulatory forms. Moreover, paragraph (3) of the same article affirms that “*the land, the waters, and the natural resources within the territory of the State shall be used for the greatest benefit of the people*.” Again, while this underscores state stewardship, it does not unambiguously prescribe direct state ownership as the only mechanism to achieve public benefit. These constitutional provisions form the ideological and legal foundation for the role of SOEs in Indonesia’s political economy.

Over the past decade, the economic performance of Indonesian SOEs has been highly uneven. A handful of SOEs operate as competitive, profit-oriented firms, while others suffer from persistent inefficiencies and are often classified as “zombie” enterprises—entities that remain operational despite being financially nonviable. In 2022, the ten largest SOEs accounted for approximately 85% of total SOE assets, while the remaining 51 SOEs collectively represented only 15%. Many of these smaller SOEs exhibit weak financial health and limited strategic relevance.

Among commercially oriented SOEs, institutional rigidities remain a common challenge. These enterprises tend to exhibit higher bureaucratic complexity compared to private firms, yet lack strong market-based incentives to drive efficiency. Although several reforms, such as the public listing of certain SOEs, have improved transparency and governance, structural constraints persist. These include unstable leadership, inadequate long-term planning, weak internal reform capacity, and limited decision-making autonomy. Moreover, issues such as operational mismanagement and deficits in human capital further widen the performance gap between SOEs and their private-sector counterparts.

Empirical data also reflect this underperformance. Publicly listed SOEs report lower returns on equity (ROE) compared to comparable private firms. Additionally, SOEs display a lower sales expense ratio relative to operating revenue, by roughly 2 percentage points compared to non-SOEs (see Figure 1). While this may reflect cost control efforts, it also raises questions about whether SOEs are underinvesting in growth-enabling expenditures such as

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This paper was developed while **Mohamad Ikhsan** served as an Advisor to the Minister of State-Owned Enterprises, and Lovina AM Putri worked as a research assistant at **Prospera**.

marketing and innovation. Overall, the current structure and governance of SOEs reveal the tension between fulfilling public mandates and maintaining commercial viability in a competitive economic environment.

On the other hand, a significant number of Indonesian state-owned enterprises (SOEs) are mandated to deliver Public Service Obligations (PSOs). These enterprises are more appropriately viewed as development-oriented entities, serving strategic sectors with high social relevance, rather than as purely commercial actors seeking to maximize profits (Ginting & Naqvi, 2020). To fulfill these public mandates, the government provides compensation through State Capital Injections (*Penyertaan Modal Negara*, or PMN), which serve to partially offset the financial burdens incurred by SOEs in the delivery of public goods and services.

Over the past decade, numerous SOEs—particularly those operating in infrastructure and utility sectors—have received PMN to support the provision of PSOs. During the COVID-19 pandemic, several SOEs that had not previously been involved in PSO delivery were mobilized to support urgent public policy objectives. For example, SOEs in the banking sector facilitated the distribution of social assistance, while pharmaceutical SOEs were instrumental in implementing the national vaccination campaign. In these instances, PMN functioned as both a liquidity buffer and an operational enabler.

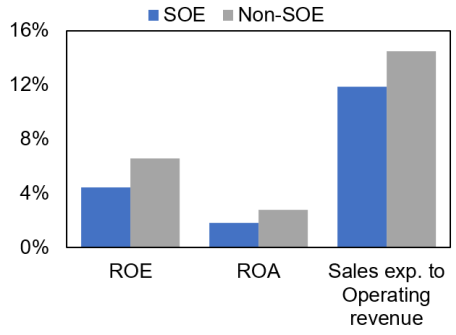

Figure 1. SOE's Performance Relative to Non-SOE Companies (in percentage)
Source: S&P Capital IQ, Authors' Analysis

PMN typically involves the provision of additional cash or assets, often via debt, transferred from the government to the SOE. From a fiscal perspective, such transactions shift the liability from the state budget to the balance sheets of SOEs. In addition to PMN, the government also compensates SOEs through production subsidies (e.g., for fertilizers), implicit subsidies, and sovereign guarantees. However, PMN remains the primary mechanism of fiscal support, with the state often recovering a portion of its investment via annual dividend payments from SOEs.

Despite its objectives, the PMN mechanism raises concerns about soft versus hard budget constraints. The soft budget constraint (SBC) dilemma—originally articulated by Kornai (1986)—becomes particularly relevant when viewed through a political economy lens. Governments often face political costs when choosing to restructure or close down SOEs, and may instead opt for bailouts, subsidies, or capital injections, even in cases where the probability of success is limited (Sheshinski & López-Calva, 2003; Dewatripont & Maskin, 1995; Ikhsan, 2002). Empirical evidence suggests that persistent SBC practices—such as recurrent bailouts of loss-making SOEs—tend to erode efficiency, discourage fiscal discipline, and distort market signals.

In contrast, reformist approaches advocate for the imposition of hard budget constraints (HBCs), which involve reducing subsidies, enhancing revenue performance, and restructuring or privatizing underperforming SOEs. While such measures may improve fiscal efficiency, they often come at a high social and political cost, particularly in terms of potential layoffs and diminished employment-generating capacity. This trade-off underscores the dual economic and social mandates that SOEs are expected to fulfill in the Indonesian context (Khatri & Ikhsan, 2020; ADB, 2022; Ikhsan, 2022).

This article pursues two primary objectives. First, it reviews recent developments in PMN disbursement to Indonesian SOEs. Second, it empirically investigates the determinants of PMN allocations—evaluating whether PMN functions as a fiscal buffer for financially distressed SOEs, a form of state investment, or a tool for supporting business expansion. Using the most recent data, this study explores the extent to which soft budget constraints shape the government's allocation of capital injections.

In addition, the article applies survival analysis to compare the outcomes of SOEs that received PMN with those that did not, particularly in terms of financial viability and resilience. These analyses aim to provide empirical insights for future research while offering practical policy recommendations to enhance the effectiveness and accountability of PMN disbursements.

The article proceeds as follows:

- Section 1 introduces the background and context of the study.
- Section 2 reviews the relevant literature, outlining the conceptual and empirical foundations of PMN disbursements and comparative international experiences.
- Section 3 details the data sources and methodological approach.
- Section 4 presents the key findings, structured into three subsections:
  - 4.1 analyzes the evolution of PMN disbursement across Indonesian SOEs;
  - 4.2 identifies the financial and institutional determinants of PMN allocations; and
  - 4.3 assesses the impact of PMN on SOEs' financial survivability.
- Section 5 concludes with a summary of findings and policy implications.

2. Literature Review

Dappe et al. (2022) identify a comprehensive typology of fiscal support mechanisms extended to state-owned enterprises (SOEs). The first is an **operational subsidy**, where the government provides direct fiscal transfers to cover annual operational shortfalls and to compensate SOEs for fulfilling quasi-fiscal activities. In some countries, these subsidies are institutionalized and disbursed proactively to offset the cost of mandated public service obligations (PSOs). The second type is **equity injection**, which allows the government to re-

capitalize or bail out SOEs either directly through budgetary allocations or indirectly via shareholding arrangements. A third mechanism is **long-term debt or concessional loans** from government agencies or affiliated creditors (excluding state-owned banks). In addition, **government rollover credit** is used when a state-owned bank or another SOE extends or restructures existing loans to an underperforming SOE. Lastly, **tax deferrals** can be granted to SOEs to ease liquidity pressures or address urgent capital needs—often without requiring parliamentary approval.

Equity injections are intended to strengthen SOEs' balance sheets and restore financial viability. In some cases, **debt-for-equity swaps** are utilized to reduce cash outlays by the government while bolstering SOE equity positions, albeit with limited immediate liquidity gains. For example, during the 2007–2008 global financial crisis, governments in advanced economies such as the United States, United Kingdom, and the Netherlands temporarily increased public ownership by injecting equity into struggling financial institutions (World Bank, 2014). Similarly, China disbursed RMB 4 trillion in combined fiscal spending, credit expansion, and capital injections to shield its economy from systemic financial risks (Liu et al., 2022). In Brazil, from the late 1950s through the 1980s, the state—primarily via the National Bank of Economic Development—functioned as a dominant shareholder of major industrial SOEs, including steel mills, and regularly financed them through capital infusions and convertible debt instruments (Musacchio & Lazzarini, 2014).

In the Indonesian context, capital injections generally serve two distinct purposes:

1. To finance investment and growth, thereby improving SOE profitability and yielding fiscal returns to the government through dividends; and
2. To support financially distressed SOEs, especially those in essential sectors such as electricity (PLN), water (PAM), telecommunications (Telkom), and energy (Pertamina, PGN).

SOEs also play a critical role in advancing state development agendas, including infrastructure projects (e.g., through BUMN Karya firms) and food security programs (e.g., through BULOG). As such, PMN is occasionally deployed as a policy instrument to prevent operational failures that could have systemic or political repercussions.

Despite the variety of fiscal instruments, the **debate over soft versus hard budget constraints (SBC vs. HBC)** remains central to the discourse on SOE reform. Kornai (1998) distinguishes between **endogenous** and **exogenous** sources of SBC. Endogenous SBC arises from governmental paternalism, driven by employment guarantees, electoral incentives, or political loyalty, while exogenous SBC results from **time-inconsistency problems**, wherein the state finds it costlier to cancel uneconomic projects than to continue financing them (Dewatripont & Maskin, 1995). Lin & Tan (1999) argue that SBCs often originate from the **state's accountability problem**, wherein governments distort input/output pricing and investment decisions, undermining allocative efficiency and enabling resource misallocation. In such cases, governments justify resource transfers to SOEs as responses to market failures or incomplete markets, even when doing so sustains inefficiency. As Lin et al. (1998) caution, state-imposed burdens on SOEs under market conditions exacerbate moral hazard and compromise economic discipline.

Recent empirical evidence reinforces these concerns. In China, SBC practices have been shown to increase moral hazard and reduce investment sensitivity to internal funds (Chow et al., 2010). In response, reform strategies increasingly emphasize the need for **harder budget constraints, enhanced financial transparency, and greater exposure to competitive pressures**, alongside full or partial privatization, to improve SOE performance (IMF, 2020; World Bank, 2019).

However, **literature on the determinants of government financing to SOEs remains limited**, with most studies focusing on the impact of fiscal support rather than the criteria governing its disbursement. Cull & Xu (2003), examining China between 1980 and 1994, found that government transfers were not significantly correlated with profitability or productivity. Instead, they were more strongly associated with indicators of state control and strategic importance. More recently, Dong & Liu (2022) report that capital injections deteriorate **Total Factor Productivity** (TFP) and **return on assets** (ROA), primarily due to weakened incentives for technological upgrading and managerial efficiency. Furthermore, increased capital transfers were associated with higher fixed asset investment and labor costs, often leading to **resource idleness** and declining profitability. Conversely, Geng & Pan (2019) find that equity injections during periods of liquidity distress can stabilize SOEs and reduce the probability of default, although they caution against frequent bailouts that entrench inefficiencies.

The determinants of PMN disbursement can be analyzed by evaluating the influence of SOEs' prior-year financial performance on government transfer decisions. Dappe et al. (2022) found that stronger financial ratios—indicating sounder fiscal health—reduced the likelihood of receiving fiscal support. Using Altman's Z-score framework (Altman, 2018), which incorporates indicators of liquidity, leverage, and asset turnover, the study reports that a **one-standard-deviation decline in Z-score** was associated with a **100–180 % increase** in fiscal injection. In macroeconomic crisis scenarios, **fully government-owned SOEs** were more adversely affected and received proportionally larger transfers. Dappe et al. (2024) show that fiscal transfers remained elevated for up to three years following the initial shock, highlighting the **persistent nature of fiscal risk** and the government's reluctance to allow strategic SOEs to fail. This provides compelling evidence of soft budget constraints in action

3. Data and Method

This article aims to examine the **determinants of government behavior in allocating financing to state-owned enterprises (SOEs)** and to **evaluate the impact of State Capital Injections (PMN)** on SOE survivability over the period 2014–2023. The analysis draws on a comprehensive dataset comprising: (i) direct government financing statistics from the Ministry of Finance, (ii) SOE financial statement data sourced from the Ministry of State-Owned Enterprises (SOE/Badan Usaha Milik Negara[BUMN]), and (iii) sec-

toral GDP figures from Statistics Indonesia (BPS). These data span from 2013 to 2023 to allow for lagged variable estimation.

The **first part of the analysis** presents a descriptive overview of PMN disbursement trends and explores their correlation with key macroeconomic indicators. The **second part** applies a fixed-effects linear panel regression to identify the financial and institutional determinants of PMN allocation. This empirical specification controls for **year, sector, and firm-level fixed effects** to mitigate omitted variable bias and account for unobserved heterogeneity. The model framework is adapted from Dappe et al. (2022), and is estimated using the following functional form:

$$\begin{aligned} PMN_{ijt} = {} & \beta_0 + \beta_1 EROA_{it-1} + \beta_2 ROE_{it-1} + \beta_3 ROI_{it-1} \\ & + \beta_4 DAR_{it-1} + \beta_5 DER_{it-1} + \beta_6 DCR_{it-1} \\ & + \beta_7 DSC_{it-1} + \beta_8 AER_{it-1} + \beta_9 CR_{it-1} \\ & + \beta_{10} \ln(GDP)_{it-1} + \beta_{11} PC_{it} + \beta_{12} COVID_{it} \\ & + \beta_{13} DIV_{it-1} + \beta_{14} PGV_{it-1} + \beta_{15} PSN_{it} \\ & + \beta_{16} PSN\_PGV_{it} + \alpha_i + \gamma_j + \tau_t + \varepsilon_{ijt} \end{aligned} \quad (1)$$

Where PMN_{ijt} is the natural log of government financing the dependent variable. Control variables include productivity and corporate health variables a year before observation, such as $EROA_{it-1}$ (EBITDA Return on Assets), ROE_{it-1} (Return on Equity Ratio), ROI_{it-1} (Return on Investment Ratio), DAR_{it-1} (Debt to Assets Ratio), DER_{it-1} (Debt to Equity Ratio), DCR_{it-1} (Debt to Capital Ratio), DSC_{it-1} (Debt Service Coverage Ratio, calculated by EBIT DA divided by the total of interest expense and maturing long-term debts), AER_{it-1} (Assets to Equity Ratio), and CR_{it-1} (Cash to short-term maturing debts). Meanwhile, other control variables as a proxy of macroeconomic indicators and signaling variables of mandates include $\ln(GDP)_{it-1}$ (Real Sectoral GDP growth in the prior year), PC_{it} (dummy variable of public company, 1 = public and 0 = non-public), $COVID_{it}$ (dummy variable of COVID-19 pandemic period, 1 = 2020 onwards and 0 = before 2020), DIV_{it-1} (percentage of company profit transferred as dividend in a year before observation), PGV_{it-1} (amount of previous PMN in a year before observation), PSN_{it} (dummy variable of National Strategic Projects Assignment, 1 = assigned and 0 = otherwise), and PSN_PGV_{it} is the interaction variable between PSN and PGV.

To estimate the impact of **State Capital Injections (PMN)** on the **survivability of state-owned enterprises (SOEs)**, this study employs a **Cox proportional hazards model with multiple failure events**, following the specification by Wei et al. (1989). The dependent variable is a **dummy indicator for zombie firm status**, defined as an SOE that satisfies at least one of the following conditions: (i) negative net profit, (ii) negative equity, or (iii) an interest coverage ratio (ICR) below one. These conditions are assessed annually and may persist or reoccur over multiple years.

Given the repeated nature of firm-level distress, we implement **stratification in the survival analysis** to account for **ordered failure events**, where each re-entry into a zombie state is treated as a distinct episode. This approach is consistent with the frameworks proposed by **Deng & Wang (2022)** and **Parker et al. (2002)**, which are well-suited for analyzing firm-level financial distress in longitudinal settings.

The model estimates the likelihood of a firm entering or re-entering zombie status based on prior-year capital injections and a set of control variables. The formal model specification is as follows:

$$\begin{aligned} ZombieCompanyStatus_{it} = {} & \alpha PGV_{it} + \beta_1 EROA_{it} \\ & + \beta_2 ROE_{it} + \beta_3 ROI_{it} + \beta_4 DAR_{it} + \beta_5 DER_{it} \\ & + \beta_6 DCR_{it} + \beta_7 AER_{it} + \beta_8 CR_{it} + \beta_9 \ln(GDP)_{it} \\ & + \beta_{10} DIV_{it} + \beta_{11} PSN_{it} + \beta_{12} PC_{it} + \beta_{13} COVID_{it} \end{aligned} \quad (2)$$

Where $ZombieCompanyStatus_{it}$ is a dummy variable describing a company's status in a specific year (1 = zombie company; 0 = otherwise). The main variable of interest, PGV_{it-1} (amount of previous PMN in a year before observation), act as the primary impulse to the financial condition or zombie company status. Productivity and corporate health variables in a year before observation include $EROA_{it-1}$ (EBITDA Return on Assets), ROE_{it-1} (Return on Equity Ratio), ROI_{it-1} (Return on Investment Ratio), DAR_{it-1} (Debt to Assets Ratio), DER_{it-1} (Debt to Equity Ratio), DCR_{it-1} (Debt to Capital Ratio), AER_{it-1} (Assets to Equity Ratio), and CR_{it-1} (Cash to short-term maturing debts). Macroeconomic indicators and signaling variables of mandates include $\ln(GDP)_{it-1}$ (Real Sectoral GDP growth in the prior year), DIV_{it-1} (percentage of company profit transferred as dividend in a year before observation), PSN_{it} (dummy variable of National Strategic Projects Assignment, 1 = assigned and 0 = otherwise), PC_{it} (dummy variable of public company, 1 = public and 0 = non-public), $COVID_{it}$ (dummy variable of COVID-19 pandemic period, 1 = 2020 onwards and 0 = before 2020).

4. Results

4.1 Descriptive Analysis

The **objectives of State Capital Injections (*Penyertaan Modal Negara*, PMN)** have historically been heterogeneous and case-specific, with disbursements tailored to individual SOE needs. Between 2005 and 2023, the Indonesian government allocated a total of **IDR318.75 trillion** in PMN to **50 state-owned enterprises (SOEs)**. Disbursement patterns varied over time and across sectors. From 2008 to 2014, the **financial and insurance sectors** were the primary recipients of PMN, reflecting the state's emphasis on financial stabilization. In contrast, from **2015 to 2023**, the **construction sector** emerged as the dominant beneficiary, in line with the government's infrastructure acceleration agenda.

More recently, between **2021 and 2023**, PMN allocations have increasingly supported **pandemic recovery efforts**, targeting SOEs engaged in **utilities (e.g., electricity)** and construction, including strategic infrastructure and housing projects aligned with national economic recovery directives. Over the cumulative 2005–2023 period, the **largest PMN** recipients included:

- **PT Hutama Karya** (infrastructure and toll road development)

Table 1. Description of Variables: Fixed Effect Panel Data Method

Control Variables	Description	Hypothesized Correlation
Productivity and Corporate Health Variables		
EROA	EBITDA Return on Assets in the prior year	-
ROE	Return on Equity Ratio in the prior year	-
ROI	Return on Investment Ratio in the prior year	-/+
DAR	Debt to Assets Ratio in the prior year	-
DER	Debt to Equity Ratio in the prior year	+
DCR	Debt to Capital Ratio in the prior year	+
DSC	EBITDA/(Interest expense + Maturing LT Debts) in prior year	-
AER	Assets to Equity Ratio in the prior year	-
CR	Cash to Short-term Maturing Debts in the prior year	-/+
Macro and Signaling Variables		
GDP	Real Sectoral GDP growth in the prior year	-
PC	Dummy variable of Public Company	-
COVID	Dummy variable of COVID-19 Period	+
DIV	% of company profit transferred as dividends in the prior year	-
PGV	Number of previous PMN transfer	+
PSN	Dummy variable of National Strategic Projects Assignment	+
PSN_PGV	Interaction variable of PSN and PGV	+

Table 2. Description of Variables: Survival Analysis Method

Control Variables	Description	Hypothesized Correlation
Main Variable of Interest		
PGV	Number of previous PMN transfer	+
Productivity and Corporate Health Variables		
EROA	EBITDA Return on Assets in the prior year	-
ROE	Return on Equity Ratio in the prior year	-
ROI	Return on Investment Ratio in the prior year	-/+
DAR	Debt to Assets Ratio in the prior year	-
DER	Debt to Equity Ratio in the prior year	+
DCR	Debt to Capital Ratio in the prior year	+
AER	Assets to Equity Ratio in the prior year	-
CR	Cash to Short-term Maturing Debts in the prior year	-/+
Macro and Signaling Variables		
GDP	Real Sectoral GDP growth in the prior year	-
DIV	% of company profit transferred as dividends in the prior year	-
PSN	Dummy variable of National Strategic Projects Assignment	+
PC	Dummy variable of Public Company	-
COVID	Dummy variable of COVID-19 Period	+

- **PT Perusahaan Listrik Negara (PLN)** (electricity and utilities), and
- **PT Bahana Pembinaan Usaha Indonesia (Bahana PUI)** (financial services and investment holding)

In addition to cash-based capital injections, the government may also provide **non-cash PMNs**, such as the transfer of **receivables, payables, profit-to-equity conversions**, or **state assets** (e.g., land, buildings, machinery, equipment). However, such non-cash disbursements remain relatively limited in practice. Between **2015 and 2023**, only **10 SOEs** received non-cash PMNs, totaling **IDR7.97 trillion**. Notable recipients include:

- **PT Rajawali Nusantara Indonesia** (wholesale trade and agribusiness), which received non-cash support as part of its financial restructuring
- **PT Krakatau Steel** (mining and steel industry), which utilized non-cash PMN in 2016 to improve its solvency and operational capacity

These patterns illustrate how both **fiscal priorities** and **sectoral mandates** have shaped the structure and purpose of PMN disbursement, highlighting the evolving role of SOEs in Indonesia's economic development strategy.

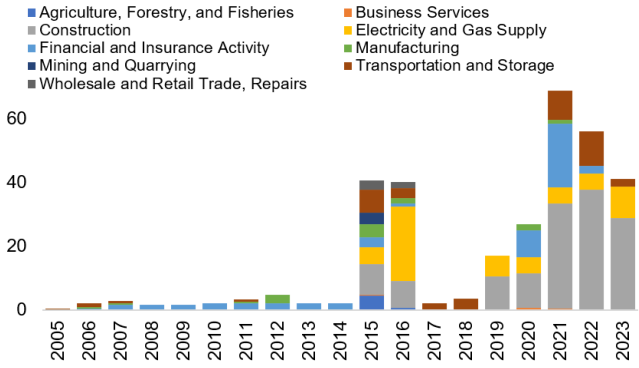

Figure 2. Cash PMN by Sector (in IDR trillion)
Source: Ministry of SOE

Sectoral financial performance plays a significant role in influencing the allocation of State Capital Injections (PMN). An analysis of sectoral trends reveals that SOE revenue is predominantly driven by enterprises operating in the **mining and quarrying, financial and insurance**,

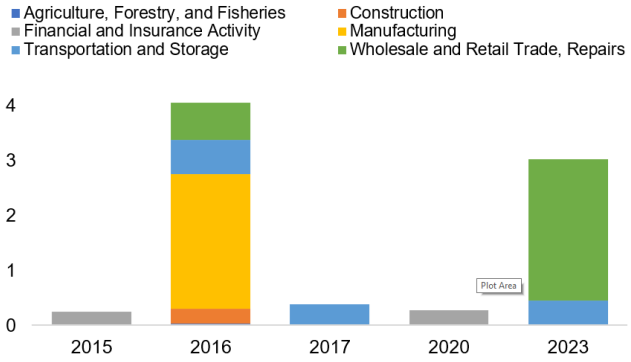

Figure 3. Non-cash PMN by Sector (in IDR trillion)
Source: Ministry of SOE

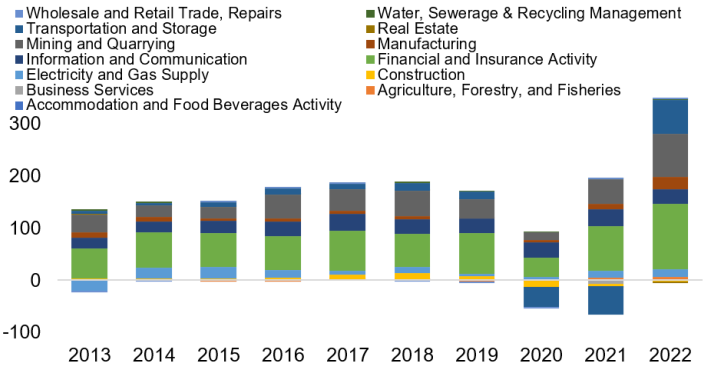

Figure 4. Profit (Loss) by Sector (in IDR trillion)
Source: Ministry of SOE

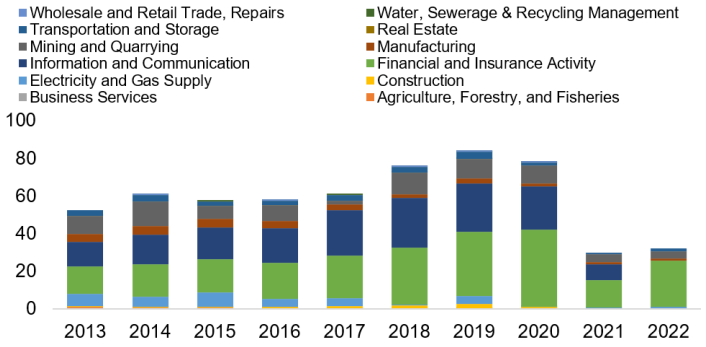

Figure 5. Dividend Contribution by Sector (in IDR trillion)
Source: Ministry of SOE

and **electricity and gas** sectors. Collectively, these three sectors account for approximately **70% of total SOE revenue**, underscoring their structural importance within the state-owned portfolio.

During the **COVID-19 pandemic**, the **transportation and construction** sectors experienced the most severe revenue contractions and operational disruptions, reflected in their substantial financial losses. As a result, SOEs in these sectors were among the primary recipients of **post-pandemic PMN disbursements**, which were deployed to support financial recovery and restore service delivery capacity.

Conversely, the **financial services** and **information and communication technology (ICT)** sectors made the largest contributions to government revenues through **dividend payments**, while the **mining and quarrying sector** was the primary contributor to **tax revenues** from SOEs. Due to their relatively strong financial performance and fiscal contributions, these sectors have been **less likely to receive PMN**, as they are viewed as fiscally self-sustaining.

The **government's PMN allocation strategy** tends to prioritize sectors that are either in acute financial distress or are deemed **critical to national economic recovery and infrastructure development**, particularly transportation, construction, and utilities. This approach aligns with the findings of **Tao et al. (2017)**, who examined China's SOE support mechanisms and found that fiscal subsidies were strategically directed toward **financially distressed but politically connected firms**. These subsidies played a crucial role in enabling SOEs to address short-term liquidity pressures, overcome operational constraints, and maintain business continuity during adverse economic conditions.

Importantly, the study by Tao et al. underscores that such **targeted fiscal interventions** are not merely stopgap measures but serve to **enhance firm survivability** and long-term performance. Subsidies and capital injections, when effectively deployed, can stabilize strategic enterprises, mitigate broader economic contagion effects, and support the delivery of essential public goods and services.

Empirical observations over the years suggest a notable **inverse relationship between sectoral GDP performance and subsequent PMN disbursements**. Sectors that demonstrate stronger GDP growth in a given year tend to receive **lower levels of PMN in the following year**, whereas sectors with **weaker GDP performance—particularly construction—tend to receive larger capital injections**. This trend reflects the financial vulnerability of many construction-related SOEs, which often operate under conditions of elevated leverage and persistent financial distress.

In contrast, sectors that demonstrate **higher value-added creation** are more likely to receive **greater PMN allocations**, signaling a complementary criterion in the government's fiscal prioritization. A salient example is the **electricity and gas supply sector**, where **PT Perusahaan Listrik Negara (PLN)** has consistently received PMN between 2013 and 2022. The sustained disbursements to this sector are underpinned by its significant contribution to national value-added and its **relatively dominant market share**, especially when compared to other infrastructure-related sectors such as transportation and construction.

This trend indicates that the government's approach to PMN allocation is not purely reactive to financial distress, but also **strategically oriented toward sectors with substantial economic multipliers** and long-term growth potential. The focus on value-added creation underscores a **developmental fiscal logic**, whereby capital injections are designed not only to stabilize struggling SOEs but also to **amplify their role in driving economic output, service provision, and public utility expansion**.

By **targeting sectors with both strategic importance and demonstrable value-added**, the government aims to enhance the **efficiency and economic impact of PMN disbursements**. This dual emphasis—on financial recovery

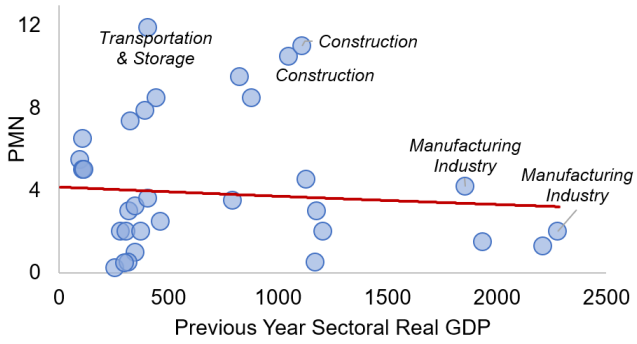

Figure 6. Sectoral GDP and PMN Disbursement (in IDR trillion)
Source: Ministry of SOE and BPS (2023), Authors' Analysis

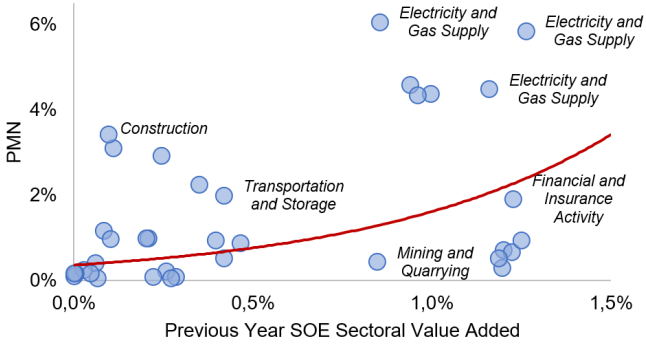

Figure 7. SOE Value Added and PMN Disbursement (in % to GDP)
Source: Ministry of SOE and BPS (2023), Authors' Analysis

and value generation—suggests an evolving policy stance that blends **short-term stabilization objectives with long-term developmental goals**, ultimately reinforcing the role of SOEs as key enablers of inclusive and resilient economic growth.

Each year, approximately **11–14% of Indonesia's state-owned enterprises (SOEs)** receive **State Capital Injections (PMN)**, primarily to support **capital restructuring** or to finance **new investment projects**. However, only a limited subset of these SOEs receive **explicit government mandates** when implementing their activities. Notably, SOEs with formal mandates are predominantly concentrated in the **transportation and storage sector**—including firms such as **PT Kereta Api Indonesia (PT KAI)**, **PT Garuda Indonesia**, **PT Angkasa Pura**, and **PT Pelabuhan Indonesia**. These enterprises often receive PMN either to **build critical supporting infrastructure** (e.g., ports, airports, rail systems) or to stabilize operations during periods of **financial distress**.

Despite the emphasis on fiscal support for strategic or mandated SOEs, **not all financially distressed or illiquid SOEs receive PMN**. A firm is categorized as a **zombie company** when it meets one or more of the following criteria: (i) **negative net profit**, (ii) **negative equity**, or (iii) an **interest coverage ratio (ICR) below one**. Based on this definition, an average of **more than 30% of SOEs** fall into the zombie category each year, with the number of such firms **increasing markedly during the COVID-19 pandemic** (2020–2022).

Importantly, **a significant portion of zombie SOEs do not receive PMN**. On average, around **30% of zombie SOEs receive no fiscal injection annually**, a figure that rose during the pandemic as fiscal space tightened and the government's support became more selective. In **2022**, an estimated **59% of SOEs were classified as zombie companies**, primarily due to severe erosion of equity positions. However, **fewer than 10% of these financially distressed firms** received PMN in that year.

This trend highlights a **mismatch between financial need and fiscal support**, raising important questions about **the criteria used for PMN allocation**, the role of **mandate signaling**, and the government's broader strategy for managing underperforming or insolvent SOEs. It also underscores the need for more **transparent and rules-based frameworks** to ensure that capital injections are both **fiscally sustainable and economically justified**.

4.2 Government Behaviour in Allocating SOE State Capital Injection

Direct fiscal support to state-owned enterprises (SOEs) in Indonesia generally follows two principal mechanisms. First, PMN (State Capital Injections) may be provided to **stimulate investment**, to enhance the SOE's future profitability and its subsequent fiscal contributions, such as taxes and dividends, to the state. Second, PMN may serve as **financial relief** for SOEs facing economic distress. Many SOEs operate in **strategic sectors** delivering essential public services, such as electricity, water, telecommunications, and energy, or are entrusted with advancing national development agendas, including **infrastructure provision** and **food security programs**. In such contexts, PMN becomes a critical tool to **prevent systemic failures** that may arise from the collapse of a large or strategic SOE. The disbursement of PMN typically involves an evaluation of the firm's financial position, sectoral importance, and potential impact on public service delivery and economic stability, ensuring that resources are allocated where they are most needed.

PMN is most commonly allocated to SOEs undergoing **significant financial strain**. This capital injection helps to improve their **capital structure**, strengthen **debt ratios**, and restore **operational stability**. By stabilizing these financially fragile enterprises, PMN plays a vital role in avoiding bankruptcy and safeguarding the continuity of public services. It is also essential for SOEs tasked with implementing **large-scale infrastructure mandates**, where long-term and capital-intensive investment requirements cannot be met without government support. PMN thus enables the realization of priority infrastructure initiatives that might otherwise remain financially unviable.

SOEs that demonstrate **strong financial performance**, particularly those with **higher productivity** as measured by **Return on Equity (ROE)**, are **less likely to receive PMN**. These firms tend to have **sufficient internal resources** and **self-financing capacity** to fund operational activities and capital expenditures, reducing their dependence on government assistance. Consequently, the government can prioritize the allocation of PMN toward underperforming or strategically mandated firms, improving the overall efficiency and targeting of fiscal transfers.

Box 1. Why Did SOEs Receive Lower PMN Disbursements After 2016?

Following a period of elevated State Capital Injection (PMN) disbursements during 2015–2016, the Government significantly **reduced PMN allocations to SOEs in 2017 and 2018**. This shift marked a deliberate policy adjustment aimed at **reducing SOEs' fiscal dependence** on the state budget, particularly among infrastructure-focused or "*Karya*" SOEs that had previously received substantial injections.

One rationale behind this reduction was to **encourage greater financial discipline and mobilize alternative sources of capital**, including commercial borrowing and private co-financing mechanisms. For example, **PT Kereta Api Indonesia (PT KAI)** received targeted PMN during 2017–2018, specifically to expand operational capacity and support the development of **Light Rail Transit (LRT)** systems in Jakarta and its surrounding areas. However, broader PMN disbursements to other infrastructure-related SOEs were scaled back during this period.

Notably, the **electricity and gas supply sector**, particularly **PT Perusahaan Listrik Negara (PLN), did not receive any PMN in 2017–2018**, marking a significant pause in state support to one of the traditionally largest SOE recipients. Instead, much of the 2017 PMN allocation was redirected to **financial and infrastructure financing institutions** under the **Ministry of Finance**, such as **Indonesia Eximbank** and various **public service agencies (BLUs)**. These entities were tasked with supporting broader development financing without relying directly on conventional SOE channels.

This strategic reprioritization reflects the Government's evolving fiscal stance—**transitioning from direct capital injections to more diversified and sustainable financing models**, while still supporting public investment goals.

Other public service agencies received PMN:
1. National Education Development Agency BLU Rp2.5 tn.
2. State Asset Management Agency BLU Rp21.65 in
3. Maritime and Fisheries Business Capital Management Agency BLU Rp500 bn.
4. BPJS Health Funding Reserves Rp3.6 in
5. Government Investment Center Funding Reserves Rp5 tn.

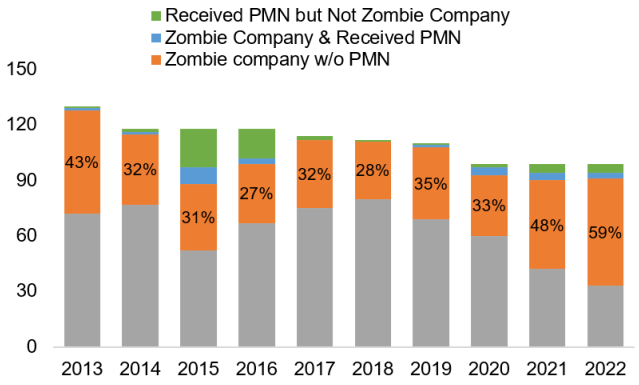

Figure 8. Number of Zombie SOEs and PMN Disbursement (in % to total share)
Source: Ministry of SOE

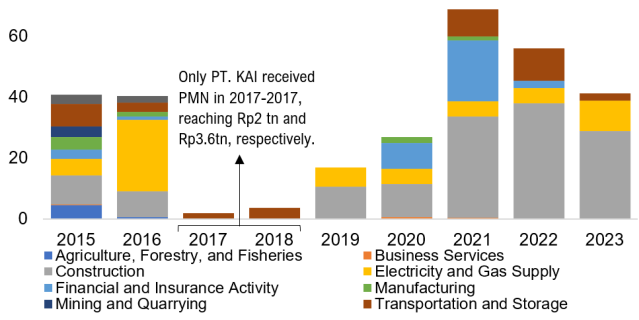

Figure 9. Cash PMN by Sector (in IDR trillion)
Source: Ministry of SOE

Figure 10. Cash PMN Disbursement to Other SOEs/PSOs/Govt. Owned Companies (in IDR trillion))
Source: Ministry of SOE

Several financial indicators influence the likelihood of PMN disbursement. A **higher debt-to-capital ratio** signals elevated financial risk due to the firm's reliance on debt financing and increases the probability of receiving PMN. Conversely, a **lower debt-to-asset ratio**, while indicative of sound financial structure, is generally **not a primary driver** in PMN allocation decisions. Similarly, a **higher cash-to-short-term debt ratio** suggests an SOE's strong liquidity position and ability to meet short-term obligations, reducing the necessity for fiscal intervention. These patterns indicate that PMN is often deployed **not merely to address immediate liquidity constraints**, but to shore up broader **balance sheet vulnerabilities** and sustain **strategic operations**.

Another critical factor influencing PMN disbursement is the **history of past capital injections**. SOEs that have received PMN in prior years—particularly those involved in **National Strategic Projects (*Proyek Strategis Nasional*, PSN)**—are more likely to receive continued support. These long-term projects demand consistent funding and policy

commitment, often across multiple budget cycles. The **continuity of government mandates** and the **strategic value** of these initiatives strongly shape fiscal allocation decisions, reinforcing the institutional logic of repeated capital injections to ensure project completion and national development goals

The estimation results for the **determinants of cash PMN disbursement** reveal patterns that closely mirror those observed in the **total PMN regression model**, as presented in **Table 3**. However, one key distinction emerges: the **magnitude of the effect of prior-year cash PMN disbursements** is **larger** than that observed in the total PMN model. This indicates a **stronger path dependence** in cash-based transfers, suggesting that once an SOE receives a cash injection, it is more likely to continue receiving such support in subsequent years. The results highlight a **precedent-setting effect**, whereby historical disbursements significantly influence current fiscal allocation decisions.

Beyond this temporal dynamic, several firm-level characteristics are systematically associated with the likelihood of receiving cash PMN:

- **Low Return on Equity (ROE)**: A lower ROE serves as a proxy for diminished operational productivity and profitability. SOEs with weak ROE are more likely to rely on external capital injections to sustain operations and improve financial performance, making them stronger candidates for PMN disbursement.
- **High Debt-to-Capital Ratio**: This ratio reflects a firm's capital structure and indicates a greater reliance on debt financing. A higher debt-to-capital ratio increases the perceived **financial risk** associated with the firm, thereby increasing the probability of receiving PMN to **reduce leverage** and **stabilize the balance sheet**.
- **Low Debt-to-Asset Ratio**: While generally a favorable financial indicator, a lower debt-to-asset ratio alone does not significantly influence PMN disbursement. It suggests a healthier capital structure but is not necessarily a priority criterion for fiscal support.
- **High Cash-to-Short-Term Debt Ratio**: This liquidity indicator reflects a firm's ability to meet short-term debt obligations. A higher ratio implies that the firm has adequate liquidity buffers, indicating that PMN is not solely intended to resolve **short-term liquidity crises**, but rather to support broader **financial restructuring and operational sustainability**.

In addition, the regression results confirm that **SOEs with a history of receiving PMN** and those **designated as implementers of National Strategic Projects (PSN)** are significantly more likely to receive PMN in the current period. These findings underscore the government's commitment to **long-term strategic projects**, which often span multiple fiscal cycles and require sustained funding support. The **institutional logic** behind such allocations reflects both the continuity of public mandates and the need to maintain **policy momentum** in executing large-scale infrastructure and public service projects.

4.3 Does State Capital Injection Affect SOE's Survivability?

In years when a **state-owned enterprise (SOE)** faces a heightened risk of becoming a **zombie company**, a **1% increase in PMN (*Penyertaan Modal Negara*)** transfers from the previous year can **reduce the likelihood of illiquidity by approximately 4.38%**, holding other variables constant (see Table 3). This finding underscores the **strategic and stabilizing role** of PMN disbursements, reflecting the government's intent to support financially vulnerable SOEs in maintaining operational continuity. SOEs play a pivotal role in delivering **essential public services**, making their financial stability a national priority. For example, **PT Perusahaan Listrik Negara (PLN)** ensures electricity distribution, while **Pertamina** serves as the country's primary energy provider. The continued operation of such entities is crucial for both **infrastructure resilience** and **public welfare**, justifying sustained state support to prevent systemic disruptions.

Further analysis reveals that **receiving a PMN transfer in the previous year** is associated with a **37.5% reduction in the risk of an SOE becoming a zombie firm**. This substantial decrease reinforces the view that capital injections are **effective in forestalling financial distress**. However, it is also possible that **financially stronger or strategically important SOEs are more likely to receive PMN**, suggesting that the government's disbursement strategy is **not limited to distressed firms**, but also includes **support for SOEs executing critical national projects**. This broader targeting ensures that key enterprises remain **robust, resilient, and capable of fulfilling their developmental mandates**.

Among firm-level indicators, **higher EBITDA Return on Assets (EROA)** from the prior year is associated with a **lower risk of illiquidity**. EROA serves as a measure of **operational efficiency and core earning capacity**, independent of financing structure and tax effects. Strong EBITDA margins signal **healthy cash flows**, which are essential for meeting both short- and long-term obligations, and act as a buffer against financial distress.

Paradoxically, however, a **higher Return on Investment (ROI)** in the prior year is linked to a **greater probability of a firm becoming a zombie.** This counterintuitive result may stem from the **underlying fragility of the firm's financial position**, such as **negative equity** or a **low interest coverage ratio (ICR)**. Negative equity indicates that the firm's liabilities exceed its assets—an unsustainable financial structure—while a low ICR signals difficulty in covering interest obligations with operating income. These structural vulnerabilities can **undermine otherwise strong operational performance**, illustrating that profitability alone is insufficient to ensure firm viability.

Liquidity also plays a central role. An SOE's ability to **cover short-term maturing debt** is a key determinant of its zombie status. Even when net income or equity remains negative, firms that can **effectively manage short-term obligations** are better positioned to maintain solvency and avoid financial collapse. This emphasizes the importance of **short-term liquidity management and cash flow planning**. Firms with sufficient liquidity can recover from temporary distress and avoid slipping into a zombie state—defined by chronic underperformance and dependence on external support for survival.

Historically, **PMN (*Penyertaan Modal Negara*)** disbursements to Indonesia's state-owned enterprises (SOEs)

Table 3. Total PMN Regression Result

VARIABLES	(1)	(2)	(3)	(4)
	Panel Data FE Resgression ln(Total PMN, deflated)			
EBITDA Return on Asset in the prior year	-2.260	-2.263	-2.197	-2.224
	(1.922)	(1.921)	(1.928)	(1.925)
Return on Equity in the prior year	-0.0878**	-0.0858**	-0.0774*	-0.0772*
	(0.0437)	(0.0429)	(0.0402)	(0.0399)
Return on Investment in the prior year	2.516	2.528	2.405	2.438
	(2.143)	(2.142)	(2.159)	(2.155)
Debt to Asset Ratio in the prior year	-0.668*	-0.660*	-0.709**	-0.698*
	(0.341)	(0.342)	(0.355)	(0.355)
Debt to Equity Ratio in the prior year	0.158	0.155	0.163	0.159
	(0.104)	(0.103)	(0.113)	(0.112)
Debt to Capital Ratio in prior year	0.697**	0.691**	0.709**	0.703**
	(0.302)	(0.303)	(0.319)	(0.319)
Debt Service Coverage Ratio in prior year	-0.000876	-0.000853	-0.000915	-0.000882
	(0.000778)	(0.000775)	(0.000792)	(0.000788)
Assets to Equity Ratio in the prior year	-0.160	-0.157	-0.166	-0.162
	(0.104)	(0.103)	(0.112)	(0.112)
Cash to Short-Term Maturing Debt in prior year	0.153***	0.150***	0.159***	0.157***
	(0.0243)	(0.0238)	(0.0277)	(0.0270)
Ln(Sectoral GDP) in the prior year	0.700	0.678	0.936	0.865
	(1.127)	(1.133)	(1.098)	(1.106)
Public Company = 1	-0.0788	-0.0973	-0.0421	-0.0563
	(0.185)	(0.182)	(0.189)	(0.187)
COVID Year = 1	0.629	0.644	0.545	0.562
	(0.487)	(0.490)	(0.469)	(0.472)
% of company profit transferred as dividends in the prior year	0.507	0.502	0.445	0.442
	(0.437)	(0.435)	(0.390)	(0.391)
Ln(Previous PMN Transfer) in the prior year	0.0873*		0.00855	
	(0.0519)		(0.0466)	
Previous PMN Transfer in the prior year = 1		0.928*		0.298
		(0.475)		(0.421)
National Strategic Projects = 1	-0.368	-0.361		
	(0.536)	(0.536)		
National Strategic Projects*Previous PMN Transfer			2.025*	1.825*
			(1.070)	(1.069)
Constant	-13.71	-13.29	-18.51	-17.10
	(22.55)	(22.65)	(21.99)	(22.13)
Observations	1,044	1,044	1,044	1,044
R-squared	0.163	0.166	0.173	0.174
Number of SOE	131	131	131	131

Note: Robust standard error in parentheses with *, **, and *** denotes statistical significance at 10%, 5%, and 1%. The model includes time (year), sector, and SOE firm-level fixed effect.

have been determined on a **case-by-case basis**, responding to financial distress, economic shocks, or the fulfillment of government mandates. These fiscal transfers have been delivered in both **cash and non-cash forms**, with allocations often influenced by sectoral priorities and institutional performance. The analysis reveals a **negative correlation between sectoral GDP growth and PMN disbursements**, indicating that sectors with weaker macroeconomic performance—such as construction and transportation—are more likely to receive fiscal support. Conversely, SOEs with **higher value-added contributions** are also prioritized, reflecting the government's effort to target PMN toward enterprises that drive broader economic development.

Importantly, only a **small subset of SOEs receiving PMN are directly assigned social mandates**, and **not all financially distressed or illiquid SOEs receive support**, highlighting a selective and strategic approach to disbursement.

This study provides two key contributions to the understanding of **fiscal transfer dynamics** in emerging market SOEs:

First, the fixed-effects panel regression model shows that SOEs with **higher Return on Equity (ROE)** and **lower debt-to-asset ratios** are **less likely** to receive PMN. These firms exhibit stronger productivity and financial independence, reducing the perceived need for fiscal support. In contrast, SOEs with **higher debt-to-capital** and **cash-to-short-term debt ratios** are more likely to receive PMN, as these indicators signal elevated financial risk and liquidity constraints. Additionally, **previous PMN disbursements** and the presence of **government-assigned mandates** significantly increase the likelihood of receiving continued support—particularly for SOEs engaged in **National Strategic Projects (PSN)**. These findings suggest that disbursements follow a **soft budget constraint logic**, where long-term projects and political commitments justify ongoing capital injections despite financial underperformance.

Second, the survival analysis demonstrates the **effectiveness of PMN in mitigating financial distress**. A **1% increase in PMN** reduces the probability of an SOE becoming **illiquid in the following year by 4.4%**. Furthermore, receiving PMN in the **previous fiscal year**—regardless of the amount—reduces the **risk of becoming a zombie firm** by **37.5%**. This evidence affirms that PMN plays a criti-

Table 4. Cash PMN Regression Result

VARIABLES	(1)	(2)	(3)	(4)
	Panel Data FE Resgression ln(Cash PMN, deflated)			
EBITDA Return on Asset in the prior year	-2.156	-2.157	-2.087	-2.114
	(1.905)	(1.903)	(1.911)	(1.908)
Return on Equity in the prior year	-0.0762*	-0.0741*	-0.0649*	-0.0646*
	(0.0409)	(0.0400)	(0.0372)	(0.0369)
Return on Investment in the prior year	2.559	2.570	2.437	2.471
	(2.129)	(2.129)	(2.146)	(2.142)
Debt to Asset Ratio in the prior year	-0.616*	-0.607*	-0.664*	-0.652*
	(0.333)	(0.335)	(0.352)	(0.354)
Debt to Equity Ratio in the prior year	0.147	0.144	0.149	0.146
	(0.0976)	(0.0975)	(0.109)	(0.108)
Debt to Capital Ratio in prior year	0.666**	0.659**	0.676**	0.670**
	(0.290)	(0.292)	(0.312)	(0.314)
Debt Service Coverage Ratio in prior year	-0.000736	-0.000713	-0.000755	-0.000721
	(0.000749)	(0.000747)	(0.000773)	(0.000770)
Assets to Equity Ratio in the prior year	-0.148	-0.145	-0.151	-0.148
	(0.0976)	(0.0975)	(0.109)	(0.108)
Cash to Short-Term Maturing Debt in prior year	0.138***	0.136***	0.145***	0.143***
	(0.0241)	(0.0245)	(0.0252)	(0.0253)
Ln(Sectoral GDP) in the prior year	0.643	0.624	0.907	0.835
	(1.242)	(1.248)	(1.235)	(1.242)
Public Company = 1	0.0311	0.0115	0.0696	0.0547
	(0.210)	(0.208)	(0.215)	(0.213)
COVID Year = 1	0.645	0.661	0.559	0.576
	(0.494)	(0.496)	(0.475)	(0.478)
% of company profit transferred as dividends in the prior year	0.504	0.499	0.435	0.433
	(0.437)	(0.435)	(0.387)	(0.389)
Ln(Previous PMN Transfer) in the prior year	0.0959*		0.0117	
	(0.0509)		(0.0458)	
Previous PMN Transfer in the prior year = 1		1.008**		0.331
		(0.464)		(0.410)
National Strategic Projects = 1	-0.609	-0.602		
	(0.623)	(0.623)		
National Strategic Projects*Previous PMN Transfer			2.168**	1.965*
			-1.050	-1.047
Constant	-12.57	-12.18	-17.98	-16.54
	(24.81)	(24.93)	(24.71)	(24.86)
Observations	1,044	1,044	1,044	1,044
R-squared	0.162	0.165	0.173	0.174
Number of SOE	131	131	131	131

Note: Robust standard error in parentheses with *, **, and *** denotes statistical significance at 10%, 5%, and 1%. The model includes time (year), sector, and SOE firm-level fixed effect.

cal role in **stabilizing vulnerable SOEs**, especially those delivering essential public goods or implementing national infrastructure. Moreover, the analysis finds that **operational efficiency**, as reflected in **higher EBITDA-to-asset returns**, is key to enhancing firm resilience. In contrast, a paradoxically high ROI may coincide with poor equity positions or weak interest coverage, reinforcing the need for **holistic financial health metrics** in evaluating SOE viability.

Liquidity management also emerges as a crucial determinant: SOEs that can cover short-term maturing debts—despite operating losses or negative equity—are less likely to become zombie firms, highlighting the importance of **cash flow stability** in short-term survival.

4.4 Policy Implications

The findings carry several implications for the design of **SOE fiscal policy and governance reform**:

1. **Targeted Disbursement Criteria**
   PMN allocation should follow **transparent and rule-based criteria**, prioritizing SOEs based on strategic relevance, financial need, and development impact. This would reduce discretionary fiscal transfers and increase accountability.
2. **Harder Budget Constraints**
   Adopting **stricter budget constraints** can reduce fiscal burdens, discourage excessive reliance on government support, and incentivize SOEs to pursue internal reforms and efficiency improvements.
3. **Performance Monitoring and Mandate Clarity**
   SOEs must be held to **clear performance benchmarks**, with disbursements tied to governance reforms, operational milestones, and mandate fulfillment.
4. **Privatization and Diversification**
   For commercially viable SOEs that do not deliver public goods, **strategic privatization** or public-private partnerships could enhance competitiveness and reduce the need for public capital injections.
5. **Institutional Strengthening**
   Strengthening PMN's fiscal oversight through agencies like the Ministry of Finance and BPKP can ensure that disbursements are justified, performance-linked, and consistent with long-term fiscal sustainability.

Ultimately, these reforms aim to ensure that SOEs continue to serve as reliable instruments of **public service de-**

Table 5. Survival Analysis Regression Result

VARIABLES	(1) Survival Analysis with Strata Illiquid Profit or Equity = 1	(2)
Ln(Previous PMN Transfer) in the prior year	-0.0438**	
	(0.0200)	
Previous PMN Transfer in the prior year = 1		-0.375**
		(0.182)
EBITDA Return on Asset in the prior year	-1.067***	-1.051***
	(0.281)	(0.280)
Return on Equity in the prior year	0.0118	0.0117
	(0.0245)	(0.0247)
Return on Investment in the prior year	1.154***	1.131***
	(0.365)	(0.363)
Debt to Asset Ratio in the prior year	0.436	0.455
	(0.287)	(0.282)
Debt to Equity Ratio in the prior year	-0.00111	-0.00444
	(0.0302)	(0.0290)
Debt to Capital Ratio in prior year	-0.230	-0.253
	(0.277)	(0.270)
Assets to Equity Ratio in the prior year	0.00310	0.00644
	(0.0303)	(0.0291)
Cash to Short-Term Maturing Debt in prior year	0.00868*	0.00867*
	(0.00449)	(0.00449)
Ln(Sectoral GDP) in the prior year	-0.0183	-0.0175
	(0.0430)	(0.0432)
% of company profit transferred as dividends in the prior year	0.0763	0.0744
	(0.133)	(0.132)
Strategic National Project = 1	-0.0334	-0.0311
	(0.115)	(0.115)
Public Company = 1	0.0244	0.0280
	(0.143)	(0.143)
COVID Year = 1	-0.236*	-0.236*
	(0.143)	(0.143)
Observations	427	427

Note: Robust standard error in parentheses with *, **, and *** denotes statistical significance at 10%, 5%, and 1%.

livery, **infrastructure development**, and **economic stabilization**, without becoming chronic fiscal liabilities. A balanced approach—combining **strategic support**, **operational discipline**, and **structural reform**—will be crucial to realizing the full potential of Indonesia's state-owned enterprises in the post-pandemic recovery and beyond.

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