

Driving Growth Through Better Capital Budget Execution Lessons from Indonesia

A presentation by:

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Capital Investment as a Driver of Long-Run Growth: A Solow Perspective

Solow Growth Model (Augmented)

$$Y = A \cdot K^{\alpha} \cdot G^{\beta} \cdot L^{1-\alpha-\beta}$$

Where:

Y = Output (GDP)

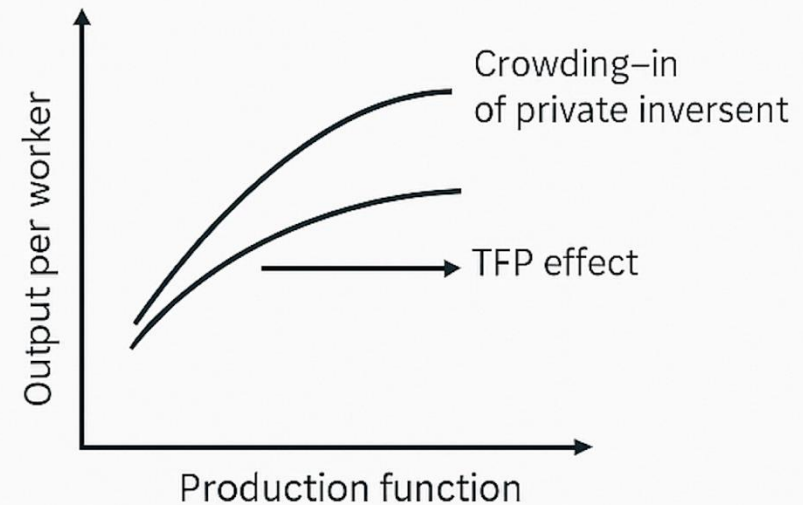
A = Total Factor Productivity (TFP)

K = Private capital

G = Public capital (infrastructure)

L = Labor

α, β = Output elasticities of private and public capital



Key Insights

- Public capital (e.g., roads, power, ports, digital infra) complements private capital
- Boosts productivity of labor and private capital
- Shifts the economy to a higher steady-state GDP per capita

Empirical Evidence on the Growth Impact of Capital Investment

David Alan Aschauer (1989):

Pioneering study examining U.S. public capital and productivity
Using quarterly data: 1949–1985
Instrumental variables estimation method

Findings:

- A 1% increase in the stock of public capital raises GDP by 0.38%
- Elasticity of public capital: 0.39
- Social return to public capital is greater than to private capital

Growth Channels from Capital Spending

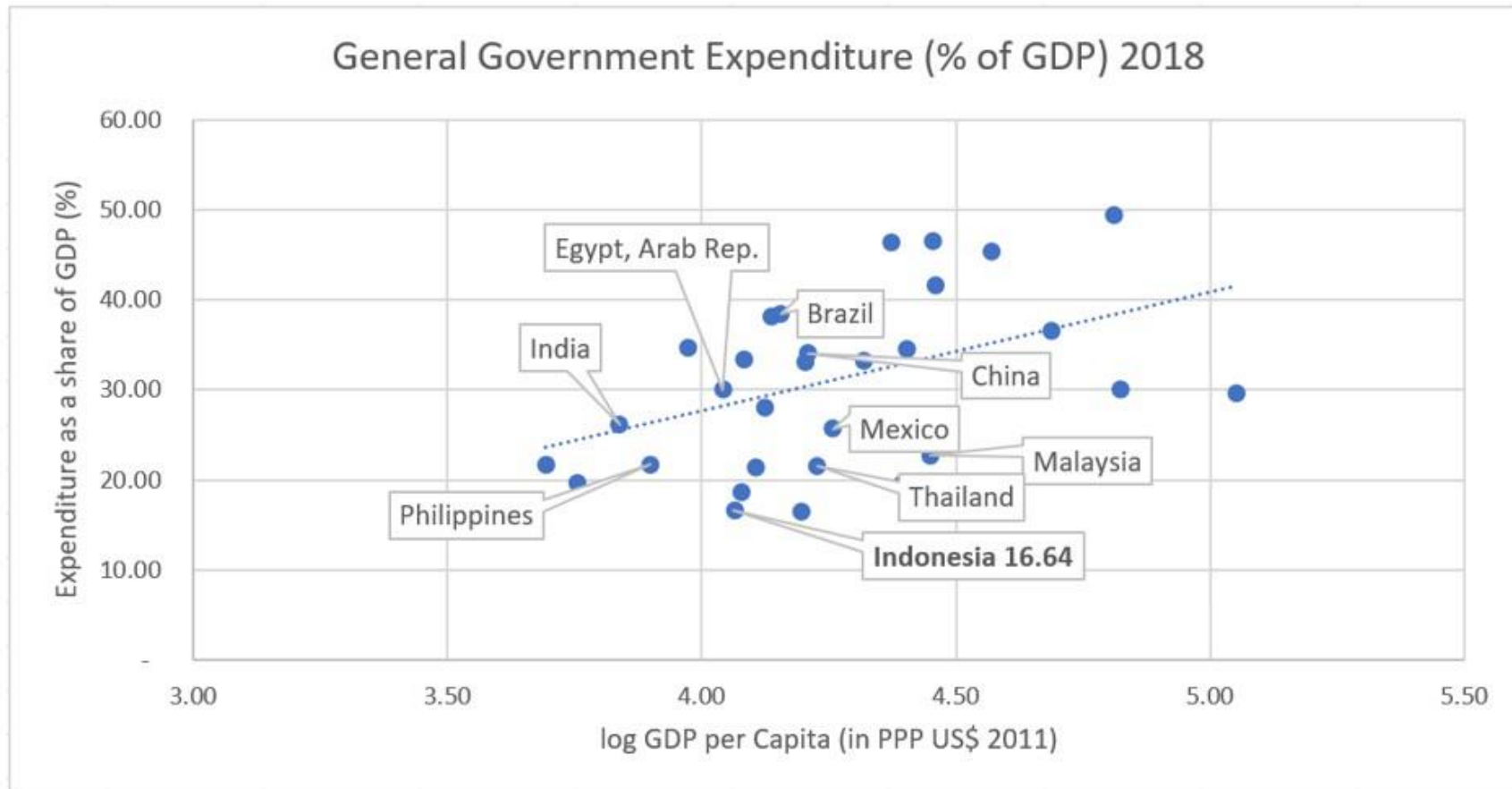
Channel	Effect
Roads, ports, airports	Lower logistics and trade costs
Digital & energy infrastructure	Boosts productivity & innovation
Housing, water, sanitation	Health improvements & efficiency gains
Construction activity	Job creation and multiplier effects

Indonesia: Key Statistics and Overview



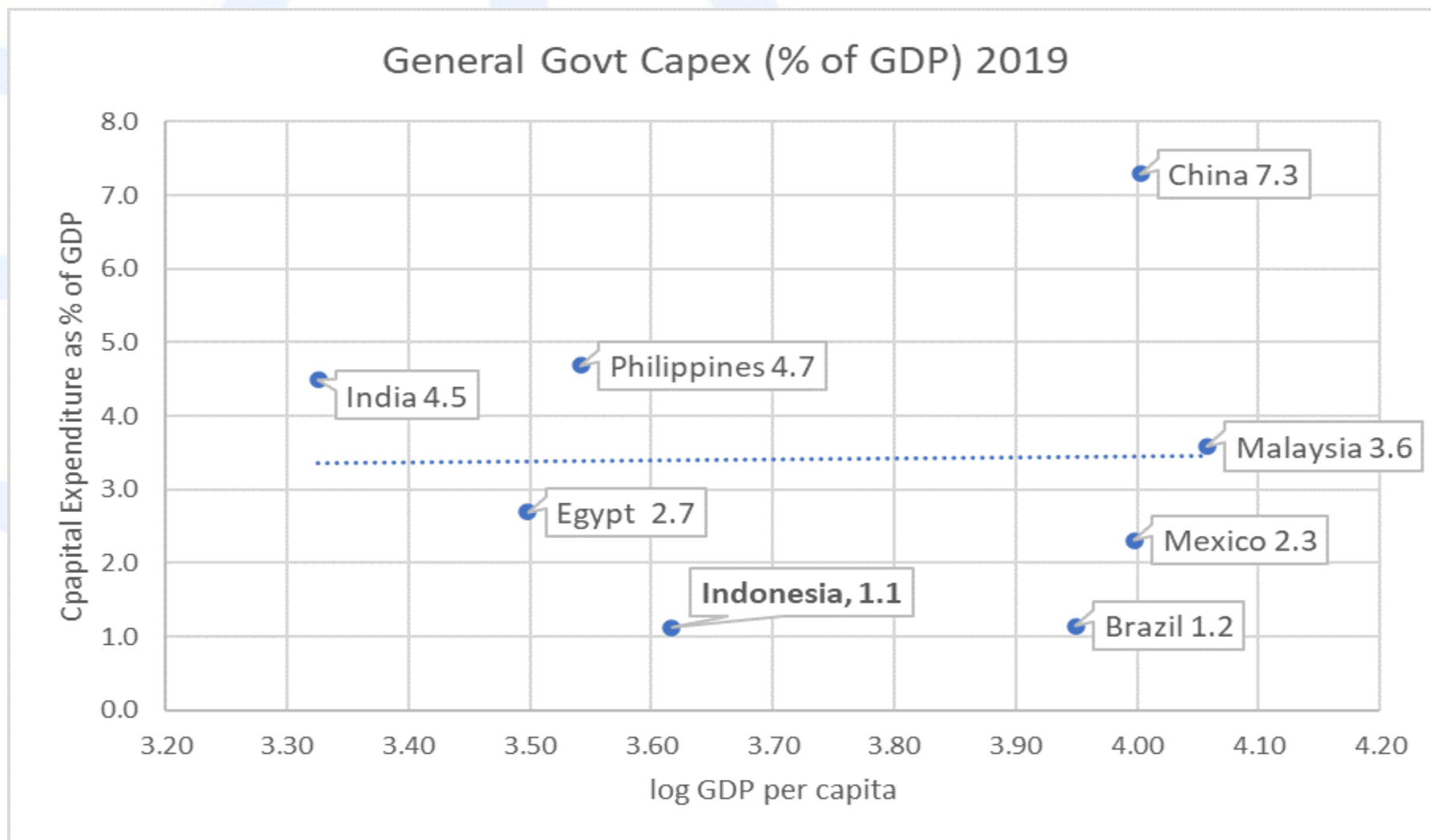
- **Archipelago Size:** Over 17,000 islands (6,000 inhabited), making it the world's largest archipelago.
- **Population:** Approximately 273 million (4th most populous country as of 2023).
- **GDP:** Around USD 1.2 trillion – largest economy in Southeast Asia, growing at 5% per annum.
- **GDP Per Capita:** Approximately USD 4,500 (upper middle-income country), aspiring to become high-income (USD 14,000) by 2045.
- **Annual Budget:** USD 209 billion (2023), focused on economic growth and infrastructure.

Indonesia has one of the lowest expenditure-to-GDP ratios among emerging markets and its MIC peers...



- Low Revenue-to-GDP ratio (14% in 2018)
- Fiscal deficit capped at 3% of GDP
- Public Debt capped at 60% of GDP
- This leads to a low aggregate budget expenditure (16.6% of GDP).
- Low Capital Expenditure at 12% of aggregate expenditure and 1.7% of GDP

Indonesia has one of the lowest Government Capital Expenditure to GDP Ratio among Emerging Markets and MIC peers



- Infrastructure investment can support growth and reduce inequality.
- Underinvestment has left the country with a large infrastructure gap
- Additional capital investments, as much as 3-4% of GDP, are required.

Source: World Bank staff calculations from World Bank data

Allocation is low, execution of Capital budget is 'low' and 'slow'

Low allocation for capital expenditure in state budget:

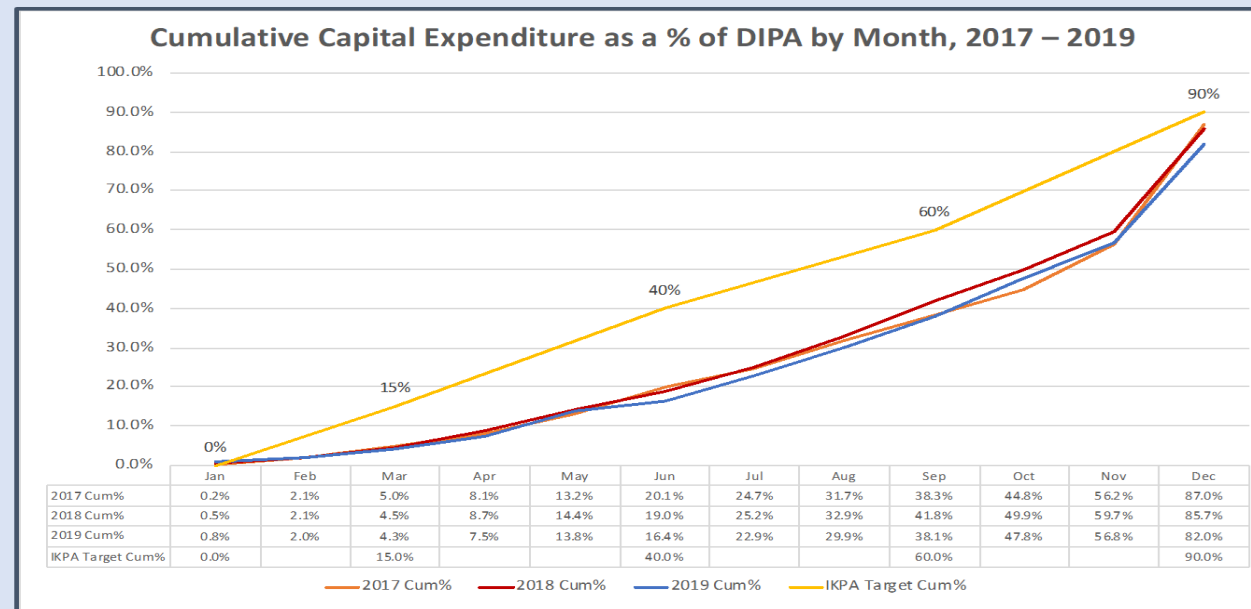
- (a) only 1.2 % of GDP
- (b) only 11.5% of aggregate expenditure budget

Low disbursement against the final Budget budget allocation

- 2017: 87%
- 2018: 86%
- 2019: 82%

Slow most disbursements taking place in the fourth quarter

- 2017: 49%
- 2018: 44%
- 2019: 44%



Realization has been **low**, and the **pace of execution slow** compared to the **Ministry of Finance Targets**, and worsening in recent years

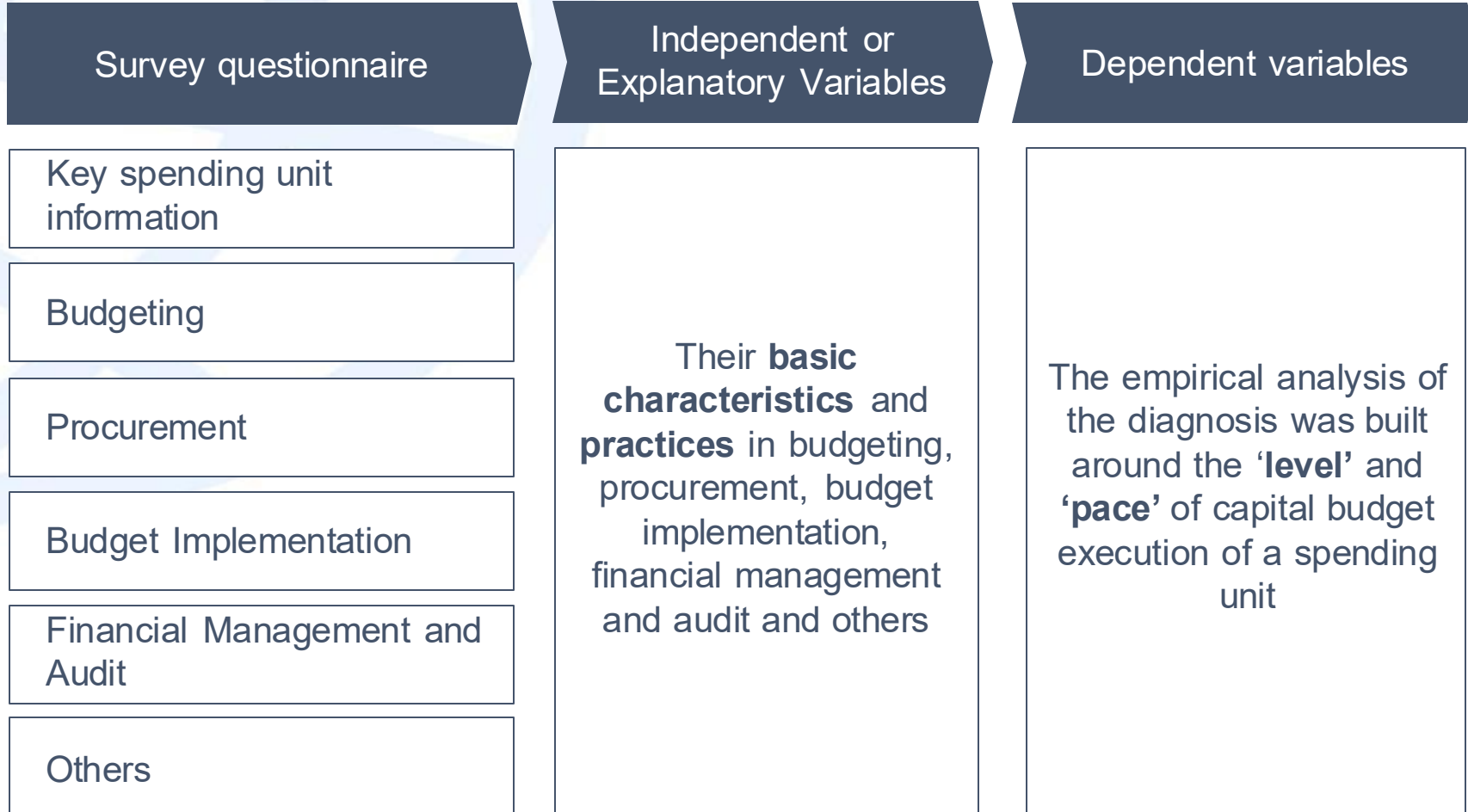
DG Treasury, Ministry of Finance, requested the World Bank to conduct a **joint study** to diagnose the **reasons for 'low' and 'slow'** capital budget execution, in August 2019. **Data collection** was joint; **analysis and recommendations** are of the Bank.



Multifaceted Approach in this study

1. Continuation of previous analytical work – PEFA (2017), PIMA (2018). PER (2019), MAPS (2021) (**UPSTREAM**), and Budget Tracking Study (2012) (**DOWNSTREAM**)
2. This 2019 study was a **DOWNSTREAM** analysis of capital budget execution in Indonesia, with a deep dive into the Ministry of Public Works and Housing.
3. An **online survey on capital expenditure budget** for **over 11,000** spending units with capital budget allocation using MS Forms.
4. **Regression analysis** to explain 'low' level and 'slow' pace of capital budget execution with explanatory variables.
5. **Two field missions** in the West Java and North Sumatra provinces to get direct feedback from the staff of spending units, KPPNs, and KANWILs.
6. **Discussion with key stakeholders** to determine the key findings and recommendations.

Methodology for the Diagnostic Analysis



Capital Budget Allocations are highly concentrated among a few spending units...

Over 80% of the 2019 Capital Budget Allocations were directed to just over 3% of Spending Units

In Billion Indonesian Rupiah

Budget (DIPA) Bracket	Number of Spending Units (SUs)	% of SU to total	Budget	% budget to total
Less than 10 Billion	10,204	88.1%	9,972	4.7%
10-50 Billion	837	7.2%	18,512	8.8%
50-100 Billion	185	1.6%	12,915	6.1%
More than 100 Billion	363	3.1%	169,377	80.4%
Total	11,589	100.0%	210,776	100.0%

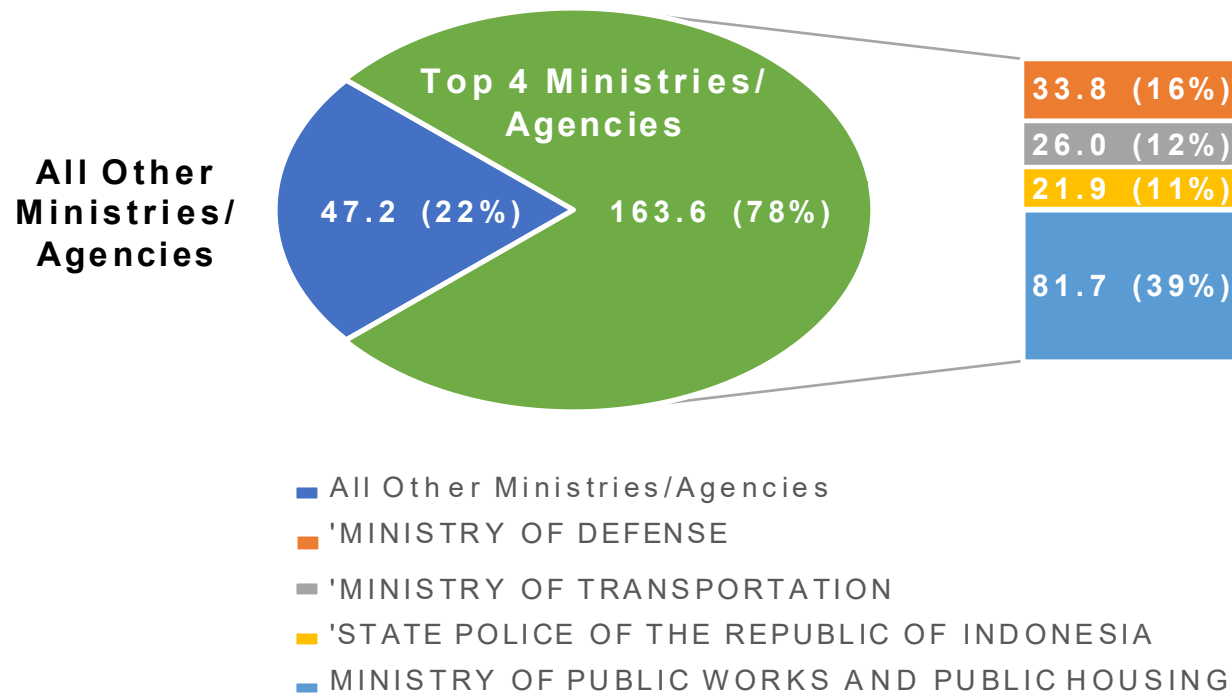
Source: MOF PPID

Note: 1 Billion Indonesian Rupiah = USD 61,300

This concentration is also evident among ministries/agencies...

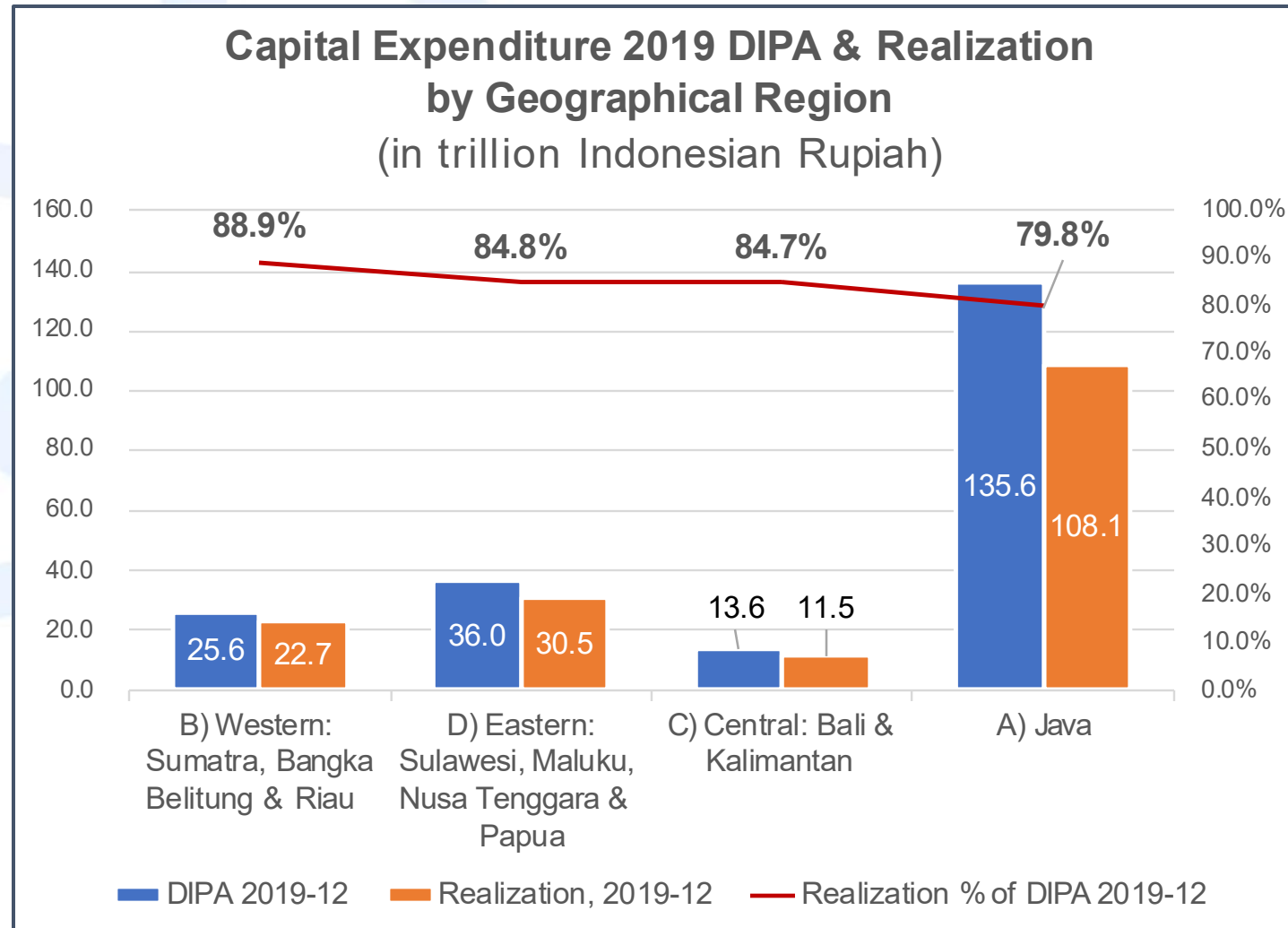
With **Top 4 Ministries/Agencies** allocated nearly **78 %** of the Capital Expenditure Budget in 2019...

Capital Expenditure 2019 DIPA Allocation of Ministries/Agencies
(in trillion Indonesian Rupiah)

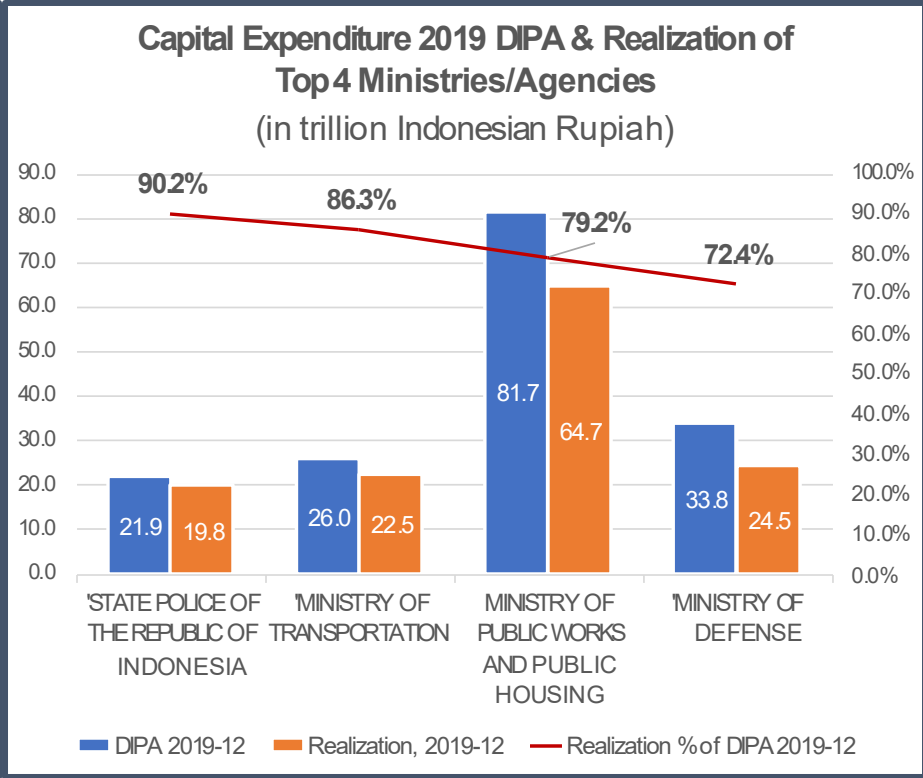
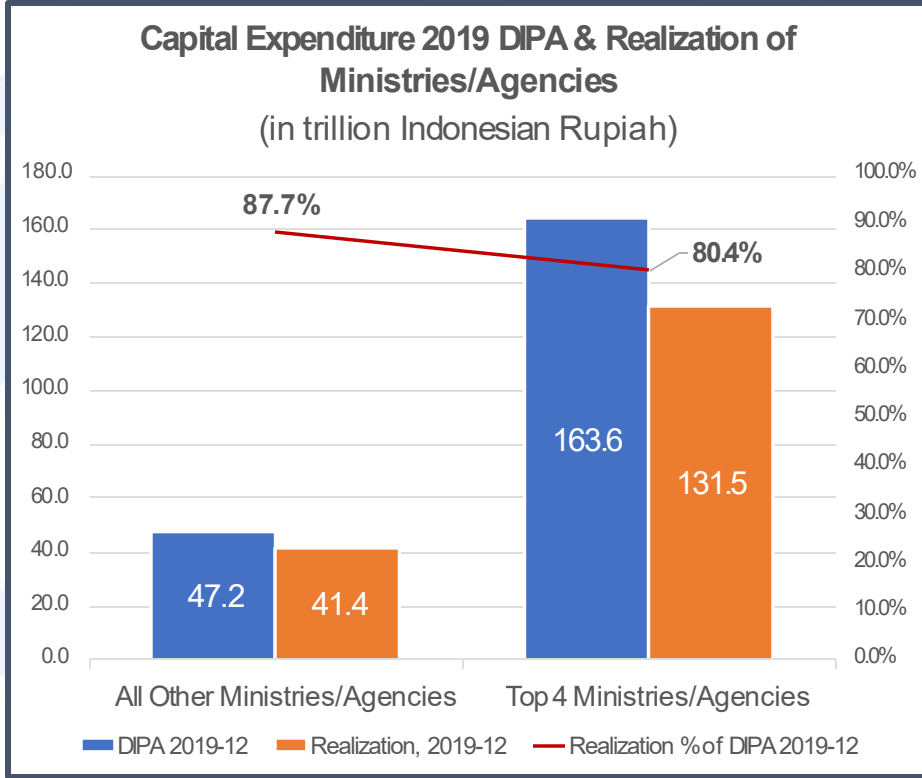


And also, among regions...

Spending units of **Java region** were allocated 64 % of total capital budget in 2019



...yet absorptive capacity and realization seems to be low at the ministry/agency level



Focus on few spending units and ministries with high allocation and consolidation of rest

Diagnosis



Concentrated allocations by ministries

- **Over 80 percent** are directed to only **3 percent of spending units**
- **78 percent** directed towards **4 ministries**.*



Centralized allocations by region

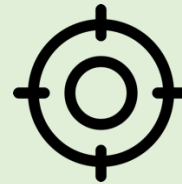
64 percent of the capital budget is allocated to spending units **in the Java region**



...leaving a large no. of SUs with low capital budget allocation

10,204 Spending Units with less than **Rp. 10 Billion** and less than **5%** of the total capital budget allocation

Recommendations



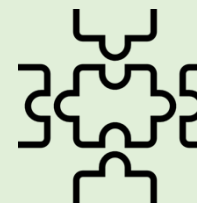
Focus on 4 Ministries and 3 % of Spending Units

Improve planning, budgeting, monitoring, and evaluation to improve budget execution.



Focus on Java Region

Closely supervise budget execution of large infrastructure projects in Java region.



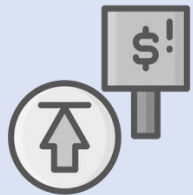
Consolidation of Spending Units by ministries

Opportunities can be explored by respective line ministries to consolidate Spending Units with **less than Rp 10 Billion** allocations at the regional level – **at least the procurement function**.

*Ministry of Public Works and Housing, Ministry of Defense, Ministry of Transportation, and State Police.

Medium-term perspective in investment planning to enable Multi-Year Contracting

Diagnosis



Absence of indicative budget ceilings
Line ministries are not provided with **predictable indicative budget ceilings** for the next 3 years.



Lack of use of multi-year contracts
Only **6 percent** of spending units **used more 90% of their contracts as multi-year contracts**.



Annual contracts are not sufficient for projects requiring 2-3 years implementation cycle
lead to **low efficiency** in contract implementation and **low budget execution**.

Recommendations

Explore possibilities of adopting three-year indicative capital budget ceilings for few ministries

Explore **possibility** for at least 4-line ministries with larger capital budget allocations/projects that would **enable multi-year contracting, which will simplify procurement process and contract management**.



Add Project ID in SPAN Database to track progress of each capital project through its life-time



Review Procurement Plans by MOF/LKPP
MOF/ LKPP to review Procurement Plans of K/Ls and **advise if some contracts should be Multi-Year** before the start of procurement process.

Removing rigidities of annual budgets

Diagnosis



Unspent annual budgets lapse at the end of fiscal year

This impacts implementation of capital projects that started late in the year and could not spend the entire budget. They need to make budget provision in next year and wait till Budget is approved.

Recommendations

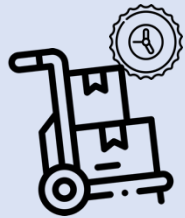


Allow rule-based carry-over budget to the next FY

Only for major and essential projects if the **indicative capital budget ceilings** cannot be given for the outer years

Systematically monitor compliance of early procurement

Diagnosis



Lack of use of early procurement

Only 10 % Spending units claimed that 90% or more of their contracts, primarily those of one ministry - Ministry of Public Works and Housing (**MPWH**) - used provision of early procurement that is supported by a **Ministerial decree**.



Delays in procurement plans preparation

60 percent of spending units prepared their procurement plans **after the start of the new fiscal year**, whereas a government regulation enables beginning of procurement process after approval of budget in previous fiscal year.

Recommendations



Consider issuing Ministerial Decrees like MPWH

Ministerial Decrees will be useful to **carry out early procurement** and systematically monitor **preparation of procurement plans** and use of early procurement.



MOF and National Public Procurement Agency (LKPP) can provide overall supervision and oversight

Review and supervise preparation of procurement plans and beginning of procurement process by line ministries and taking timely corrective actions.

Flexible budget allocation for land acquisition

Diagnosis



Delays due to obtaining land approvals
42 percent of spending units reported that **difficulties in obtaining land approvals delay contract implementation.**



Land value differences

The problem arises when the value of land determined under land acquisition proceedings is greater than the Budget allocation.

Challenges in getting approval of higher land price

In absence of sufficient budget, the delay in getting approval of higher price of land delays project implementation and budget execution, while the increased price of land is final and binding upon all parties.

Recommendations

Allow payment of a higher cost of land if it is within the annual budget allocation or the forward estimate of ministry

Spending units be allowed to pay above the Budget allocation based on actual and finally determined price of land by a Court order under Government Regulation no. 19 of 2021, provided the increased cost of land is within the annual budget allocation or the forward estimate of the concerned line ministry



MOF to approve proposed Budget revisions based on changes in land price

Proposed Budget revision based on increased land price to be approved by the MOF subsequently and increased expenditure reappropriated to relevant account.

Link SAKTI application with SPSE (eProcurement system) and expand its functionality to include “e-invoices” module

Diagnosis



Delays in payments to government vendors

50 percent of spending units face difficulties in ensuring that **vendors submit invoices within 5 days of finishing work.**



Incomplete proofs delays SPM preparations

- **73 percent** report that **incomplete proof in vendors' invoices is the main cause for delays in preparing payment requests (SPMs).**
- Vendors say otherwise...

Recommendations



Link SAKTI with SPSE and facilitate electronic bill submissions

Link SAKTI application with SPSE (eProcurement system) and expand functionality of SAKTI by adding “e-invoice” module to facilitate electronic submission of bills from vendors



MOF to track delays in submissions by vendors and payments by spending units through an online dashboard.

Shift the focus of audit from transactions audit to systems audit and enhance capacity of audit institutions to do so

Diagnosis



Auditing process delays implementation

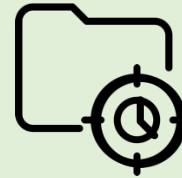
- **14%** of spending units say that **auditors created a delay in implementation**
- **32%** of respondents **prefer splitting activities into multiple contracts to avoid audit** of large sized contracts.



Audit activities primarily focused on financial compliance of transactions

While auditors have an important role in improving accountability in the use of public resources, they have focused on **financial compliance** rather than on the **adequacy and effectiveness of internal controls** and improvement of PFM system in general.

Recommendations



Balancing the focus of auditing

Maintaining a healthy balance between transactions audit and systems audit and between financial compliance and adequacy and effectiveness of internal control systems.



Enhance the capacity of the **Supreme Audit Institution (BPK)** in conducting 'systems', and 'performance' audits.



Enhance capacity of all internal audit units

Enhance capacity of all internal audit units across ministries up to IA-CM Level 3 that requires internal audit units to **focus on evaluation of adequacy and effectiveness of internal control systems**.

Change Management is a must

Diagnosis



Inadequate incentives and enforcement
Monitoring alone may not deliver better results if Spending Units' staff don't have adequate incentives or if the follow-up action from the Echelon 1 (or 2) is not enforced.

Recommendations



A clear reward and sanction rule be formulated, communicated, and enforced.



A 'Help Line' be established at each line ministry's headquarters

To support spending units in **resolving bottlenecks that need coordination** from other units.



Document case studies and facilitate knowledge sharing

Document case **studies of line ministries and regions with high capital budget execution** and facilitate **knowledge sharing with other ministries and regions.**



Identify ways to improve quality of spending

Study the impact of capital budget execution on development outcomes in **different line ministries** and identify ways to improve quality of spending.

Conclusion: Execution Matters for Growth


- *As we've seen from the Solow model, public capital is not just spending — it's a core input to productivity and long-run growth. But Indonesia's capital expenditure, in both size and execution quality, has been insufficient to shift the growth trajectory.*
- *Without reforms in planning, procurement, and institutional coordination, capital budgets remain under-executed — and their growth potential unrealized.*
- *Improving execution isn't just administrative — it's economic policy.*

So, if capital is growth, execution is what unlocks it.

Relevance for Indian Administrators: Lessons from Indonesia

1. Capital Budgeting Challenges – Common Pain Points

 **Procurement Delays** – Similar delays in India's CPWD, defense procurement, state PWDs.

 **Lack of Multi-Year Contracts** – Annual budgeting limits continuity in infrastructure/defense projects.

 **Slow Disbursement Cycles** – Frontloading of capex rare; bulk spending in Q3/Q4 (like Indonesia).

  **Land Acquisition Bottlenecks** – Ongoing issue in Indian rail, roads, defense corridor projects.

2. What Indonesia Did That India Could Learn From

 Consolidation of small spending units

 Focus on early procurement

 Push for multi-year contracting

 Use of project-level performance data in budget execution

Applying the Lessons in Indian Contexts

Indonesia Reform	Indian Application
Early procurement via ministerial decree	MoD/CPWD/DoT could adopt early tendering circulars
Consolidation of small budget units	Applicable to DRDO labs, state PWD divisions
Supervision of top 4 ministries	Focus on MoRTH, Railways, MoD, MoHUA in India
Rule-based budget carry-forward	Revive/strengthen Flexi-Fund, Reappropriation windows
Linking PFM systems to e-procurement & e-invoicing	Leverage PFMS–GeM–TReDS integration



Thank You!

Questions & Discussion Welcome!

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