



# World Bank Program Budget Analysis 2015 - 2024

Ketergantungan yang berlebihan pada anggaran eksternal

### Data Understanding

World Bank Program merupakan dataset yang menyelidiki alokasi anggaran Bank Dunia antara Anggaran Internal Bank (BB) dan Semua Dana (All Funds), kemudian menganalisis distribusinya di berbagai kelompok program kerja. data ini membantu mengetahui ketergantungan pendanaan eksternal yang terjadi pada unit-unit di setiap kelompok program kerja.

- Anggaran Bank (BB): mengacu pada dana internal yang disediakan atau diberikan oleh Bank Dunia
- Pendanaan Eksternal berasal dari kontribusi donor, dana perwalian, dan pembiayaan bersama dari lembaga lain

# Data Pre-processing

Identify the NaN values in each column from dataset

Note	All Funds (US\$, Millions)	Bank Budget (BB) (US\$, Millions)	Fiscal Year	Unit	Work Program	Work Program Group	
Na	55.8	55.3	2020	Operational Policy & Country Services	Institutional Services	Institutional, Governance and Administrative S	0
Na	14.0	10.7	2020	Strategy, Performance, and Adminstration	Institutional Services	Institutional, Governance and Administrative S	1
FY19 restated to reflect the ne arrangements	87.2	34.7	2020	Treasury	Institutional Services	Institutional, Governance and Administrative S	2
Na	56.4	47.0	2020	WBG Finance & Accounting	Institutional Services	Institutional, Governance and Administrative S	3
Na	30.0	30.0	2020	Consultative Group for International Agricultu	Operational Grant Making Facilities	Operational Grant Making Facilities	4

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	Work Program Group	Work Program	Unit	Fiscal Year	Bank Budget (BB) (US\$, Millions)	All Funds (US\$, Millions)
22	Client Engagement	Country Engagement	Africa	2021	NaN	NaN
32	Program and Practice Management	Regions Program & Practice Management	Africa	2021	NaN	NaN
98	Client Engagement	Country Engagement	Africa	2022	NaN	NaN
148	Program and Practice Management	Regions Program & Practice Management	Africa	2022	NaN	NaN
171	Client Engagement	Country Engagement	Africa	2023	NaN	NaN
219	Program and Practice Management	Regions Program & Practice Management	Africa	2023	NaN	NaN
240	Client Engagement	Country Engagement	Africa	2024	NaN	NaN
294	Program and Practice Management	Regions Program & Practice Management	Africa	2024	NaN	NaN
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Work Program Group	0
Work Program	0
Unit	0
Fiscal Year	0
Bank Budget (BB) (US\$, Millions)	8
All Funds (US\$, Millions)	8

- NaN value == 8 from column Bank Budget (BB) (US\$, Millions) and All Funds (US\$, Millions).
- The NaN values identified from Unit Africa only, and remove the column "Notes" because not relevant for this analysis.

# Data Pre-processing

Imputation and Create a New Column for supporting the analysis

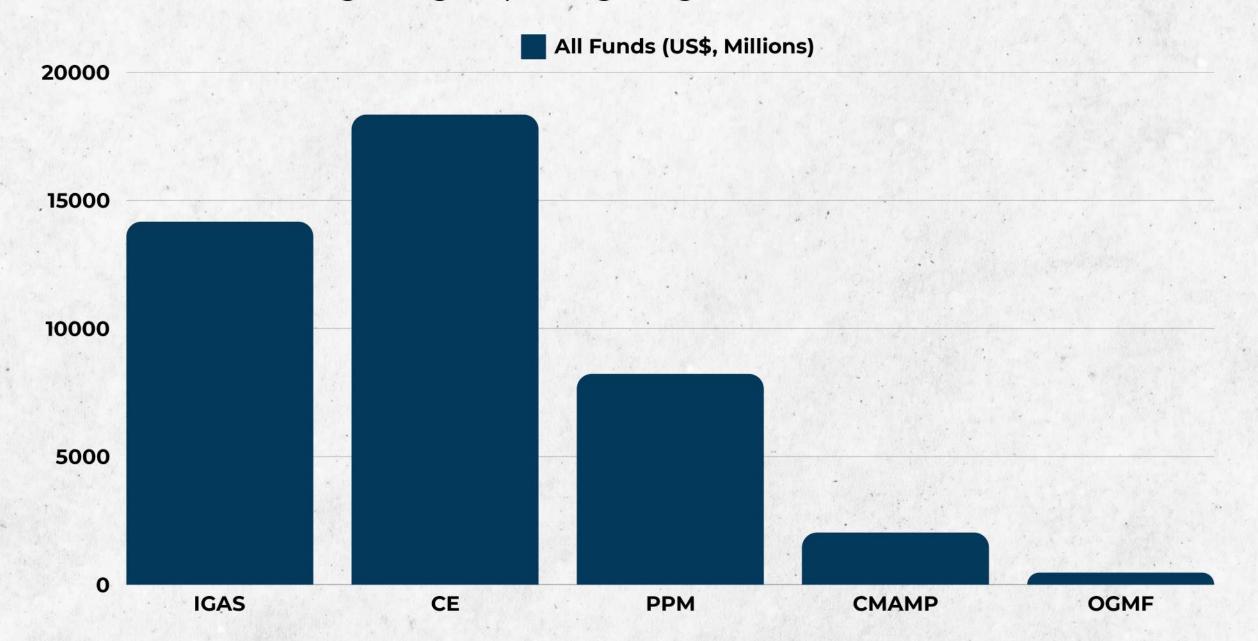
	Work Program Group	Work Program	Unit	Fiscal Year	Bank Budget (BB) (US\$, Millions)	All Funds (US\$, Millions)
16	Program and Practice Management	Regions Program & Practice Management	Africa	2020	128.60	135.8
22	Client Engagement	Country Engagement	Africa	2021	22.75	33.7
32	Program and Practice Management	Regions Program & Practice Management	Africa	2021	22.75	33.7
98	Client Engagement	Country Engagement	Africa	2022	22.75	33.7
148	Program and Practice Management	Regions Program & Practice Management	Africa	2022	22.75	33.7
171	Client Engagement	Country Engagement	Africa	2023	22.75	33.7
219	Program and Practice Management	Regions Program & Practice Management	Africa	2023	22.75	33.7
240	Client Engagement	Country Engagement	Africa	2024	22.75	33.7
294	Program and Practice Management	Regions Program & Practice Management	Africa	2024	22.75	33.7

Work Program Group	0
Work Program	0
Unit	0
Fiscal Year	0
Bank Budget (BB) (US\$, Millions)	8
All Funds (US\$, Millions)	8

Work Program Group	Work Program	Unit	Fiscal Year	Bank Budget (BB) (US\$, Millions)	All Funds (US\$, Millions)	External Budget	Percentage of External Budget	Funding Source Evaluation
Institutional, Governance and Administrative S	Institutional Services	Operational Policy & Country Services	2020	55.3	55.8	Bank Budget (bb) (US\$, Millions) - All Funds (US\$, Millions)	External Budget / Bank Budget (bb) (US\$, Millions) * 100	Percentage of External Budget > 50, 'Not Ideal', else == 'Ideal'
Institutional, Governance and Administrative S	Institutional Services	Strategy, Performance, and Adminstration	2020	10.7	14.0	3.3	30.841121	Ideal

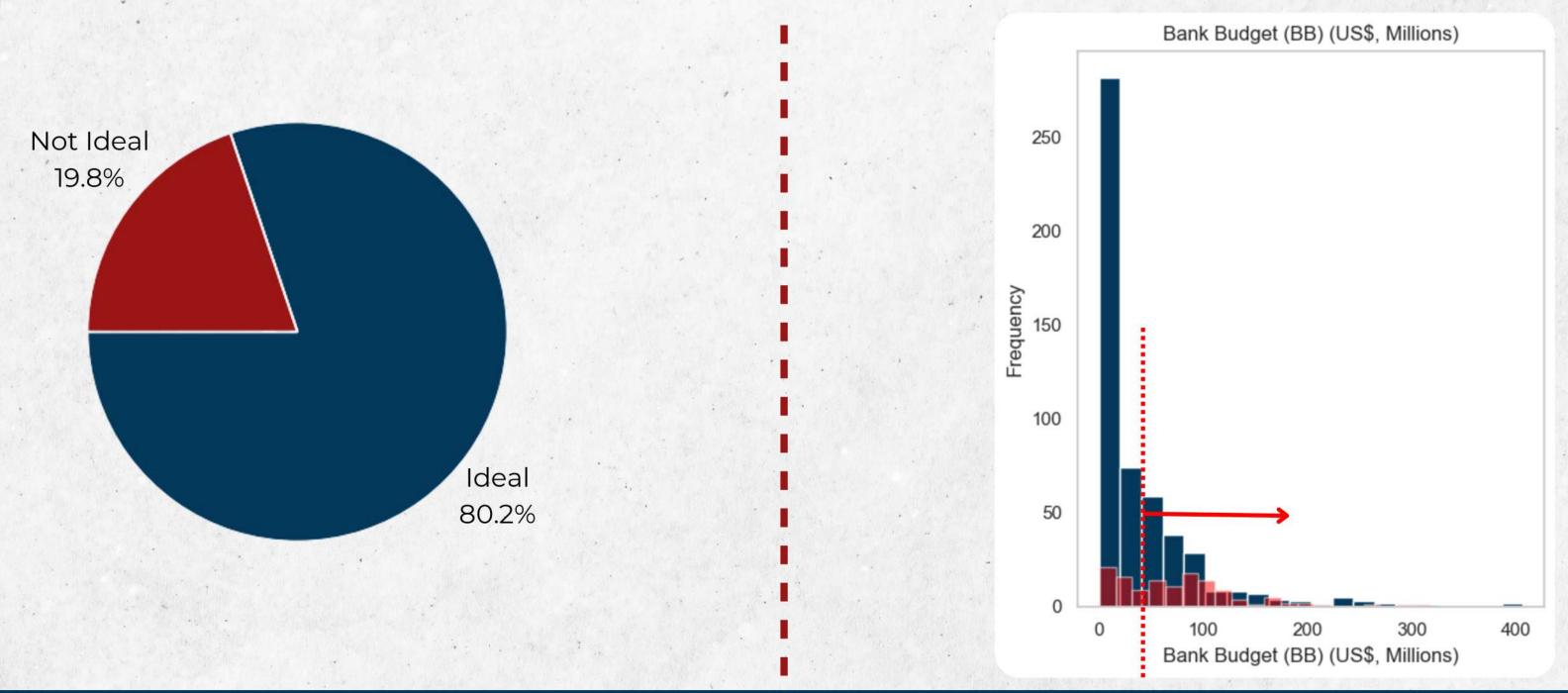
- Input teh NaN values in Unit == "Africa" with median for column Bank Budget (BB) (US\$, Millions) and All Funds (US\$, Millions).
- Added new column in the External Budget, Percentage of External Budget, and Funding Source Evaluation with decision assumptions if external budget > 50, 'Not Ideal' if < 50, 'ideal' from Bank Budget (BB) (US\$, Millions) or internal budget.

Work Program group budgeting from bank and external



The Client Engagement program receives the highest combined budget from bank and external sources at US\$18,341.8. it is followed by Institutional, Governance, and Administrative Services with US\$14,162.7, and Program and Practice Management with US\$8,223.4. Centrally Manage Accounts & Miscellaneous Programs has US\$2,032.4, while the smallest budget goes to Operational Grant Making Facilities with US\$467.1.

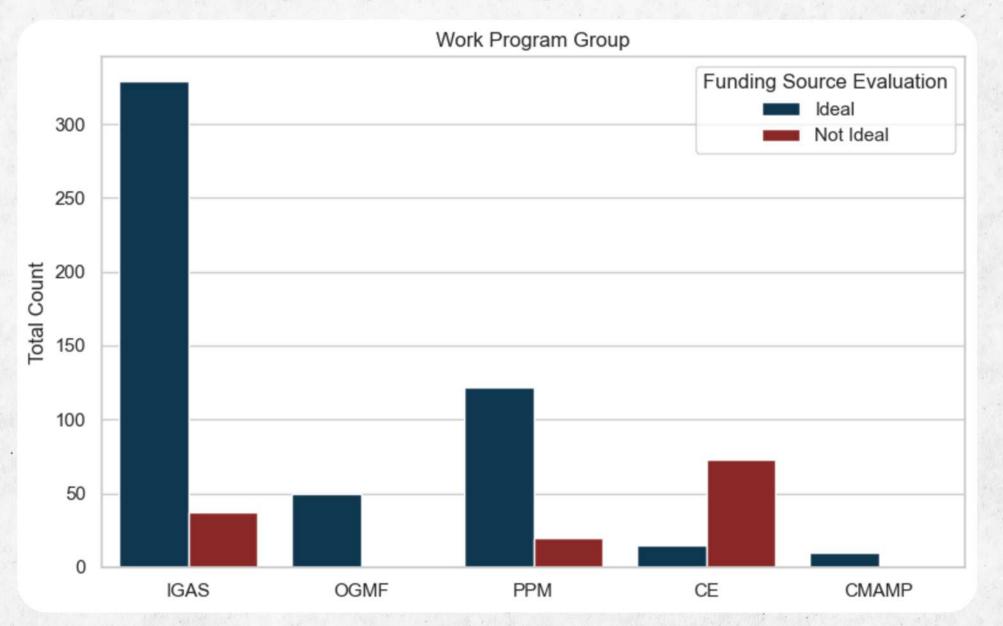
external funding > 50% from Bank Budget (BB) (US\$, Millions) = Not Ideal



80.2% of the projects have "Ideal" funding, meaning they rely mostly on internal budgeting. Meanwhile, 19.8% are "Not Ideal", where more than half of the funding comes from external sources.

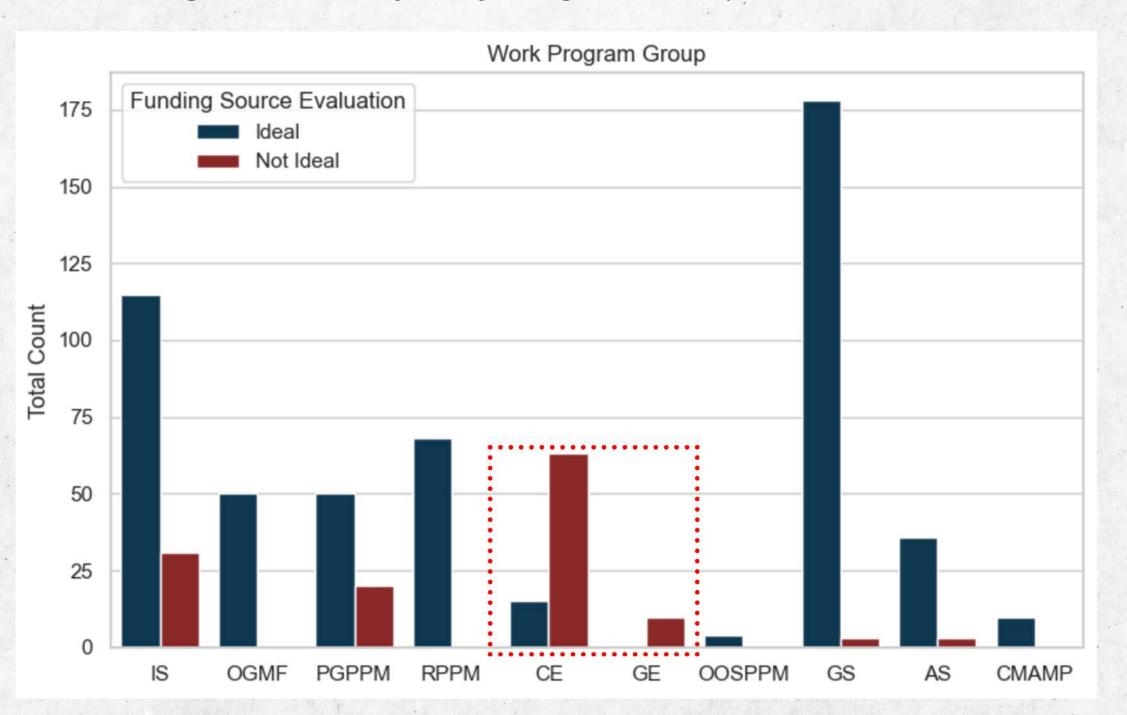
Programs with a smaller Bank Budget (below 50 millions USD) are more often rated as "Ideal". in contrast, programs with a larger Bank Budget tend to calssified as "Not Ideal". This indicates that as the Bank Budget increases, the is a higher likelihood of relying more on external budgeting.

Funding Source Analysis by Work Program Group 'Ideal and Not Ideal'



Institutional, Governance, and Administrative Service (IGAS) has many "Ideal" programs, reflecting its reliance on internal budgeting, which is not always negative as it can provide stability in program implementation. Operational Grant making Facilities (OGMF) relies entirely on internal sorces without receiving external budgeting, indicating full control over its activities. Program and Practice Management (PPM) has a balanced distribution between "Ideal" and "Not Ideal" programs, reflecting flexibility in budgeting. Client Engagement (CE) shows a significant reliance on external budgeting, with more "Not Ideal" programs than "ideal", indicating higher risks due to dependence on outside parties. On the other hand, Centrally Managed Accounts & Miscellaneous Programs (CMAMP) receives external budgeting but is still considered "Ideal" because the proportion of external budgeting is less than 50%, showing that limited external budgeting does not reduce program quality

Funding Source Analysis by Program Group 'Ideal' or 'Not Ideal'



Breaking down the work program group reveals that within the Client Engagement (CE) group. both "Country Engagement" (CE) and "Global Engagement" (GE) have a high number of "Not Ideal" budgets. The is primarly due to externel funding exceeding 50% of the Bank Budget (internal budgeting). As a results, the Client engagement group faces higher risks from its reliance on outside sources.

#### Recommendation

reduction needed to reach the ideal state (External Budget <= 50% of Bank Budget)

		External Budget	Bank Budget (BB) (US\$, Millions)	Reduction Needed
Work Program Group	Unit			
Client Engagement	Africa	1295.1	1432.0	579.10
	Africa East	603.4	743.4	231.70
	East Asia & Pacific	1285.9	1085.9	742.95
	Europe & Central Asia	1012.7	915.3	555.05
	Global Engagement	1993.3	937.6	1524.50
	Latin America & Caribbean	553.9	905.2	101.30
	Middle East & North Africa	974.5	649.3	649.85
	Other Operational Units' Allocations	348.5	58.6	319.20
	South Asia	993.4	1275.7	355.55

Within the Client Engagement work program group, Global Engagement has the highest required reduction in external budgeting to reach the ideal state, with a necessary reduction of US\$1,524.50 million. On the other hand, Latin America & Carribean has the lowest reduction needed, requiring just US\$101.30 million to reach the ideal state. This suggests tha Global Engagement faces a significant risk due to excessive reliance on external funding, while Latin America & Caribbean is closer to maintaining a more balanced and sustainable funding model. Reducing external budgets across these units will help reduce dependency on outside sources and stabilize the programs.

#### Recommendation

reduction needed to reach the ideal state (External Budget <= 50% of Bank Budget)

		External Budget	Bank Budget (BB) (US\$, Millions)	Reduction Needed
Work Program Group	Unit			
Institutional, Governance and Administrative Services	Development Economics	505.1	565.0	222.60
	Development Finance	174.2	109.6	119.40
	Global Environment Fund	317.2	0.0	317.20
	Internal Justice Services	2.6	4.3	0.45
	Office of the Managing Director, Development Policy And Partnerships	4.8	7.8	0.90
	People and Culture	96.0	179.3	6.35
	Treasury	397.1	238.5	277.85

Within the Institutional, Governance, and Administrative Services work program group, the Global Environment Fund requires the most significant reduction in external budgeting to reach ideal state, with a necessary reduction US\$317,20 million needed. On other hand, Internal Justice Service requires the smallest adjustment, with a reduction of just US\$0.45 million to reach the ideal state. The reliance on external funding for the Global Environment Fund suggest a potential risk, whereas the Internal Justice unit remains well-aligned with its current budget structure. Reducing external budgets across these units will help reduce dependency on outside sources and stabilize the programs.

#### Recommendation

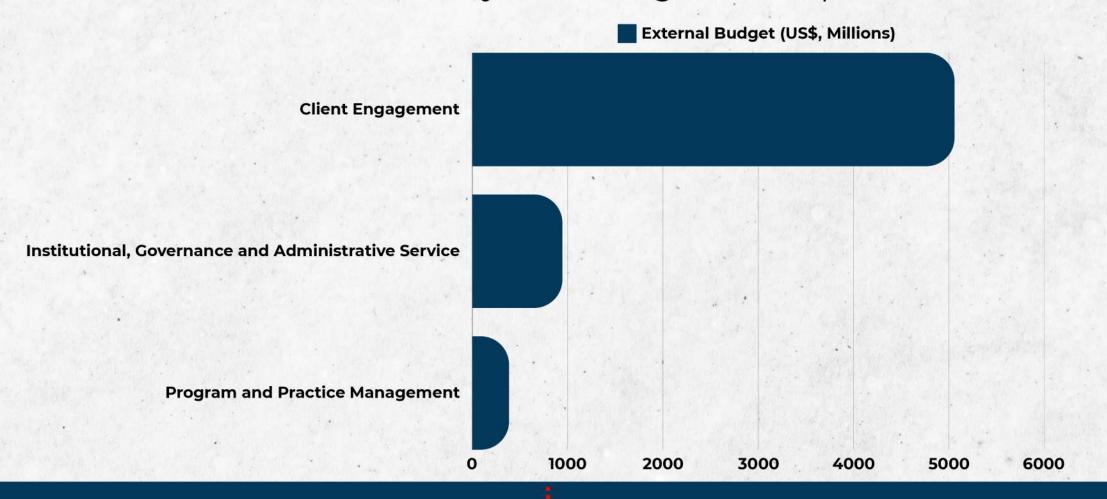
reduction needed to reach the ideal state (External Budget <= 50% of Bank Budget)

		External Budget	Bank Budget (BB) (US\$, Millions)	Reduction Needed
Work Program Group	Unit			
Program and Practice Management	Equitable Growth, Finance and Institutions	17.9	34.6	0.60
	Global Themes	90.5	23.1	78.95
	Human Development	109.0	107.7	55.15
	Infrastructure	62.4	75.0	24.90
	Sustainable Development	426.9	402.7	225.55
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Within the Program and Practice Management work program group, the Sustainable Development unit requires the largest reduction in external funding to reach the ideal state, with necessary reduction of US\$225.55 million needed. On the other hand, the Equitable Growth, Finance and Institutions unit needs the smallest reduction of only US\$17.9 million to reach the ideal balance between internal and external funding. The reliance on external funds in the Sustainable Development unit suggest potential risk, while other units like Infrastructure and Global Themes also need significant reductions in external funding to balance their budgets with internal sources. Reducing external budgets across these units will help reduce dependency on outside sources and stabilize programs.

# Recommendation & Insight

Total Reduction Needed by Work Program Group "Not Ideal"



#### recommendation

dependency on external funding. In contrast, the Institutional, budgets in Client Engagement is very important to reduce financial Governance and Administrative Services, and Program and Practice i risks and keep the programs stable. Management groups require far smaller reductions, suggesting they are less reliant on external resources. Reducing external budgets in Client Engagement is critical to minimizing financial risks and ensuring program stability.

#### Insight

The Client Engagement work program group has the highest need for Interestingly, even though the total budget for Client Engagement, external budget reduction, significantly surpassing other groups with including bank budget and external funding, is quite high, each unit necessary reduction of US\$5,059 million required. This indicates a high within this work program is not performing well. So, cutting external

# THANK YOU FOR YOU INTEREST IN MY PROJECT!

Feel free to reach me any time!



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Github https://github.com/bagasprl