PUBLIC-PRIVATE PARTNERSHIP (PPP) PROJECT FINANCIAL MODEL GUIDE

THE PRESIDENCY

Federal Government of Nigeria | Infrastructure Concession Regulatory Commission

This Guideline sets out the minimum requirements for building a financial model for a PPP project. Each step should be adapted to the specific needs and objectives of the project, ensuring that all financial variables and stakeholder interests are fully considered. The developed financial model will be reviewed by the Infrastructure Concession Regulatory Commission (ICRC) to ascertain the project's financial viability and bankability.

1. Define the Project Scope and Structure

1.1 **Project Overview:** State the purpose, scope, and objectives of the PPP project.
1.2 **Stakeholder Roles:** Identify the key stakeholders (Government, private investors, contractors, operators), outlining their respective roles and responsibilities.
1.3 **PPP Model:** Specify the PPP contractual model to be adopted (e.g., Design-Build-Finance-Operate-Transfer (DBFOT), Build-Operate-Transfer (BOT), Rehabilitate-Operate-Transfer (ROT), etc), ensuring it aligns with the project's objectives and risk allocation strategy.
1.4 **Timeframe:** Define the project duration, covering both construction and operation phases.

2. Revenue Assumptions and Projections

2.1 **Revenue Sources:** Identify and forecast all potential sources of project revenue (e.g., user-pays, Government-pays such as annuities, availability payments, performance incentives, etc., or hybrid models).
2.2 **Revenue Streams and Timing:** Estimate the value and timing of each revenue stream, specifying the frequency of receipts (e.g., monthly, quarterly, annually).
2.3 **Growth Assumptions:** Establish assumptions for future growth rates, inflation, and pricing adjustments. Where applicable, use relevant economic indicators such as Gross Domestic Product (GDP) to model revenue projections.
2.4 **Sensitivity/Scenario Analyses:** Conduct scenario testing on key revenue assumptions, including base case, best case, and worst-case scenarios, to assess the project's resilience under different market and operational conditions.

3. Cost Assumptions and Projections

3.1 **Capital Expenditure (CapEx):** Estimate both the initial and total capital costs, covering design, construction, land acquisition, insurance, permits, and other costs incurred during construction.
3.2 **Operating Expenditure (OpEx):** Estimate ongoing operational costs such as maintenance, staff salaries, insurance, utilities, and other recurring expenditures. Index OpEx projections against Consumer Price Index (CPI) or other relevant inflationary indices, to reflect future cost variations.
3.3 **Fixed vs. Variable Costs:** Distinguish between fixed and variable costs.
3.4 **Contingency Costs:** Build in contingency provisions (usually a percentage of CapEx) to cover unforeseen events, delays, or cost overruns.

4. Financing Structure

4.1 **Equity vs. Debt:** Define the project's capital structure by determining the proportion of equity (provided by private investors) to debt (raised through loans, bonds, or other instruments). Any project should be funded with an appropriate mix of equity and debt capital. The financial model should include a detailed debt amortization schedule, showing principal and interest repayments within the contract term.

4.2 **Debt Financing Terms:** Specify the debt terms, including interest rate, loan tenure, repayment schedule, and any mezzanine financing arrangements.

4.3 **Project Financing or Corporate Financing:** Determine whether the financing will be arranged on a non-recourse or limited recourse basis to the project's Special Purpose Vehicle (SPV) (project financing) or the sponsors' balance sheet (corporate financing).

4.4 **Government Contributions:** Incorporate any anticipated form of public sector support, such as guarantees, subsidies, grants, in-kind contributions, or other Viability Gap Funding (VGF) mechanisms, designed to improve the project's bankability and mitigate identified risks.

5. Taxation and Accounting Assumptions

5.1 **Tax Structure:** Apply all relevant tax rates (corporate taxes, VAT, etc.) to the financial model, reflecting obligations of both the private and public sector parties.

5.2 **Depreciation:** Account for depreciation of assets over time (straight-line or declining balance), ensuring it aligns with the asset's expected useful life.

5.3 **Tax Incentives:** Factor in any applicable tax incentives or exemptions (e.g., tax holidays, capital allowances).

6. Project Cash Flows

6.1 **Construction Phase Cash Flows:** Record all cash inflows during construction (e.g., Government funding, equity, and debt contributions) alongside outflows (e.g., CapEx, construction-related payments).

6.2 **Operation Phase Cash Flows:** Capture all revenues and expenses during the project's operational phase, including operating costs, maintenance expenses, debt service obligations, and distributions to equity investors.

6.3 **Cash Flow Timing:** Ensure the model reflects the timing of cash inflows and outflows accurately.

7. Risk and Sensitivity Analysis

7.1 **Identify Risks:** Identify, quantify, and allocate key project risks such as construction delays, revenue shortfalls, operational challenges, regulatory changes, inflation, and interest rate fluctuations.

7.2 **Sensitivity Testing:** Conduct sensitivity analyses to assess the impact of changes in key assumptions (e.g., CapEx, revenue growth, operating cost, financing terms, etc) on the project's financial viability/ outcome.

7.3 **Mitigation Strategies:** Model the financial impact of risk mitigation measures (e.g., insurance, Government guarantees, financial derivatives, or other revenue protection mechanisms).

8. Financial Metrics and Key Performance Indicators (KPIs)

8.1 **Debt Service Coverage Ratio (DSCR):** Calculate the DSCR to assess the project's ability to meet debt-repayment obligations. A DSCR greater than 1 is advisable. However, higher values indicating stronger repayment capacity provide an added advantage in securing financing.

8.2 **Weighted Average Cost of Capital (WACC):** Compute the WACC using the after-tax cost of debt and the cost of equity, weighted by their respective proportions in the capital structure. WACC will be the discount factor for determining the Net Present Value (NPV) and the discounted payback period (if the project is funded by more than one source of capital), which is crucial for assessing the project's viability.

8.3 **Internal Rate of Return (IRR):** Estimate the IRR for the equity investors and debt financiers, to determine expected returns and attractiveness of the investment.

8.4 **Net Present Value (NPV):** Calculate the NPV of the project by discounting projected cash flows to their present value. The estimation of the cost of equity capital should be scientifically derived using the Capital Asset Pricing Model (CAPM).

8.5 **Profitability Index (PI):** Evaluate the project's profitability, using the ratio of the present value of future cash inflows to the initial investment outlay.

8.6 **Value for Money (VfM):** Assess whether the PPP option delivers better value compared to traditional public procurement by applying the Public Sector Comparator (PSC). The PSC serves as a benchmark for estimating the cost and performance of a project under traditional public delivery.

To determine whether a PPP delivers value for money, the following key steps should be undertaken:

8.6.1.1 **Quantitative Analysis:** compare the costs, risks, and benefits of the PPP option against those of alternative methods of procurement. This might include a comparison of the total life-cycle costs between the PPP structure and a publicly funded and managed alternative.

8.6.1.2 **Qualitative Assessment:** Evaluate non-financial factors such as accelerated delivery, service quality, public satisfaction, environmental impact, and innovation potential.

8.6.1.3 **Risk Assessment:** Assess how risks are allocated between public and private sectors and evaluate the private sector's capacity to manage these risks effectively to enhance the project's VfM credentials.

8.6.1.4 **Scenario Testing:** Conduct sensitivity analysis to test the robustness of VfM under varying assumptions (e.g., cost overruns, revenue shortfalls, inflation).

8.7 **Return on Equity (ROE):** Estimate the ROE to determine whether the project generates a satisfactory return to private investors.

8.8 **Payback Period (discounted and undiscounted):** Calculate the duration required to recover the equity and debt capital invested in the project.

9. Revenue to Government:

For user fees or hybrid[1] PPP arrangements, the Government shall receive an agreed share of the revenue generated from the project, which may be derived from tolls, fees, or other income streams. However, in Government-pays PPPs, the Government will not be entitled to any revenue share. These considerations should be reflected in the projected financial statements.

[1]Hybrid PPPs – This is a combination of User-pay and Government-pay mechanisms.

10. The ICRC Fees:

ICRC charges regulatory fees on PPP projects, which must be incorporated into the financial model. This fee may include a one-off charge of up to 5% of entry fees and a mandatory annual fee of 1% of the project's gross revenues. The timing of payment shall be stated in the Concession Agreement.

11. Financial Statements

11.1 **Income Statement:** Prepare a projected income statement for the project, detailing revenues, operating costs, depreciation, taxes, and net income over the project's lifecycle.

11.2 **Balance Sheet:** Create a balance sheet reflecting assets, liabilities, debt, and equity over time.

11.3 **Cash Flow Statement:** Model the cash flow statements to ensure that cash inflows and outflows are accurately captured. These statements should align with the project's construction and operational timelines to ensure accurate liquidity planning.

12. Reporting and Documentation

12.1 **Sensitivity Results:** Present the results of sensitivity and scenario analyses, illustrating how variations in key assumptions impact the project's financial performance and viability.

12.2 **Executive Summary:** Provide a high-level summary of the key findings, highlighting the project's financial viability, key risks, projected returns, and any critical assumptions.

12.3 **Model Transparency:** Ensure that the model is transparent, with clear assumptions, formulas, and explanations.

12.4 **Audit and Review:** Conduct a review of the model to verify accuracy, logical consistency, and completeness before submission to the ICRC.

13. Final Output and Decision Making

13.1 **Financial Viability:** Evaluate the project's financial viability using key metrics (NPV, IRR, PI, DSCR, Discounted/ Undiscounted Payback Period, etc.).

13.2 **Risk and Sensitivity Review:** Present a risk-adjusted analysis of the project's financial position, incorporating the potential impact of key risks and the result of sensitivity testing.

13.3 **Investor and Stakeholder Decision-Making:** Provide clear, comprehensive information to stakeholders (e.g., the ICRC, creditors, grantors, etc.) to support informed decisions on project approvals, financing arrangements, and partnership commitments.