RECOMMENDATIONS ON FINANCIAL MODEL DEVELOPMENT

1. Requirements to functionability of a financial model

A financial model should be made in Microsoft Excel (97 or later version) format unless otherwise agreed with the Bank. Financial model filename must clearly indicate the financial model version and creation date.

No part of the financial model may be hidden, protected, blocked or otherwise made inaccessible for viewing or altering.

Financial model should have a comprehensible and logical structure. It should comprise, in consecutive order, input data (assumptions), financial forecasts and interim calculations, as well financial forecast results. The aforementioned elements should be visually separated from one another but interconnected through design formulae.

All elements used for calculation within formulae should be the active links to cells containing assumptions (input data) or to cells containing formulae. Links to external files (not represented within the Project Proposal) and circular references are not allowed. In exceptional cases, the fact of and the reason for deviation from these rules should be stated and detailed in explanatory notes to the financial model.

The financial model should allow for alteration of originally used assumptions with subsequent automatic adjustment of financial forecasts following such alterations. The structure of the financial model should make it possible to analyse sensitivity of the financial forecast results to alteration of all assumptions (input data) in the model.

If financial indicators provided by the financial model are based on one or several basic models, there must be dynamic links between such basic models and the financial model to secure update of the financial model each time the basic model is altered.

The financial model should be reasonably detailed, i.e. it must contain breakdowns by major product types, regions, production units, periods, income and expense items, etc. (if applicable). At the same time, the financial model is to provide information in an integrated form and, namely, it should include pro-forma income statement, pro-forms balance sheet and pro-forma statement of cash flows, all interrelated.

Forms of pro-forma financial statements and interim financial statements must not contradict each other.

Underpinning the financial model should be the principles of uniform and consistent calculations and formatting. Formulae for calculating financial indicators (ratios) that appear in the financial model must be invariable for all parts and periods of the financial model.

It is required that the number of external files be minimized (the maximum permissible number is 5 (five)). All external files related through formulae with the financial model, as well as external files that contain graphs, tables and diagrams appearing in the business plan must be presented within the Project Proposal as a supplement to the financial model. Relations between the external files and the financial model, as well as designation of external files should be explained in the financial model description (see section 3.4 of this List).

2. Requirements to Input Data (Assumptions) of the Financial Model

Input data (assumptions) underlying the financial forecasts should be set forth in the financial model description or business plan.

The list of recommended sources of input data (assumptions) is set out in section 4 of this List.

Input data (assumptions) of the financial model should include (if applicable to the Project):

- major methodological assumptions underpinning the financial forecasts, including:
  - project life cycle;
  - duration of the forecast period (not less than the project discounted payback period and loan repayment period);
  - duration of the post-forecast period (if applicable);
  - starting date of the forecast period (not earlier than three calendar months prior to the submission of the Project Proposal);
  - forecast step (no less than one quarter for the investment stage, one month in case of monthly seasonality; and one year for the operational stage);
  - type of cash flows (nominal, real) and total currency of cash flows;
  - type of discount rate and method of its calculation;
  - method for calculating terminal value (specifying expected growth rate in the post-forecast period);
  - other relevant methodological assumptions.
- Macroeconomic data (outlook for inflation, exchange rates, real earnings growth, etc.);
- Capital investment outlook;
- Outlook for sales and production volume (other quantity factors responsible for earnings);
- Outlook for prices/rates for finished products/services;
- Standard resource consumption per output unit;
- Forecasted prices for major raw materials and other costs that account for a substantial part of the net cost; outlook for other variable costs;

- Outlook for staff costs (staff list or budgeted staff costs allowing for projected indexation of wages and staff number increase);
- Outlook for conditionally fixed costs;
- Terms of settlements with partners (deferred and upfront payments under settlements with suppliers and contractors, buyers, budget, staff) and/or norms of turnover;
- Tax assumptions: information on taxes and other mandatory payments (duties, mandatory insurance contributions, etc.) payable in accordance with the law effective in the jurisdiction of the project delivery (tax, basis, rate, method of payment) with consideration for projected changes in tax legislation;
- Accounting policy assumptions (policy on depreciation, capitalization of costs, reserves and recognition of earnings);
- Forecasted financing structure, debt financing conditions (interest rates, schedule of debt disbursement and repayment);
- Stock market data for calculation of a discount rate;
- Other input data and assumptions relevant to a particular industry and project type.

3. Requirements to Financial Forecast Results

Types of Pro-Forma Financial Statements

Pro-forma financial statements are to be produced with regard to the Recipient of Funds and may be drawn in the form of a management report. In particular:
- some items that are relatively small on the project scale, may be consolidated;
- depreciation must be stated in a separate item and may not be deducted from earnings for calculation of gross profit.

The following types of pro-froma financial statements are mandatory: a pro-froma statement of cash flows, pro-forma statement of income, pro-forma balance sheet.
- A pro-forma statement of income shall be prepared on accrual basis and comprise, in particular, the following financial indicators: earnings, gross profit, gross profitability, EBITDA (earnings before interest, taxes, depreciation and amortization), EBIT (earnings before interest and taxes), net profit and net profitability. If due to industrial and other specifics these indicators are not available, this fact should be mentioned and explained in the financial model description;
- A pro-forma statement of cash flows should include cash flows from operational, investment and financial activities. Cash flows related to payment of interest and dividends are to be presented in separate items;

- For debt financing, it is necessary to indicate CFADS (cash flows available for debt service).

Other types of statements may also be presented.

Financial Indicators (Ratios)

Financial model description and/or business plan must contain formulae for calculating all financial indicators (ratios) being computed in the financial model. Any deviation from this requirement must be mentioned and explained in the financial model description.

a. Investment attractiveness indicators

The financial model shall necessarily contain the below-mentioned financial indicators (ratios).

- Indicators of investment attractiveness with regard to the project as a whole: net present value of the project ($NPV_{project}$), discounted payback period of the project ($DPBP_{project}$);

- Indicators of the project investment attractiveness for the certain Project Participants: for the owners (*to be specified if the Bank is expected to provide equity financing for the project*) – internal rate of return (IRR_{equity}); for other Project Participants (to be specified at the discretion of the Project Initiator);

- Other indicators may also be included at the discretion of the authors of the financial model if it is justified by industrial or other specifics of the project.

b. Indicators of financial stability

The below-mentioned financial indicators (ratios) are to be calculated with regard to the Recipient of Funds (based on pro-forma financial statements) and presented if the Bank is expected to provide debt financing for the project.

- Debt service (coverage) indicators: Interest Coverage Ratio, EBIT/Interest, Debt Service Coverage Ratio (DSCR), Loan Life Coverage Ratio (LLCR);

- Debt burden indicators: Debt/Equity, Debt/EBITDA, Debt/CFADS;

- Other indicators may also be given at the discretion of the authors of the financial model if it is justified by industrial or other specifics of the project. In particular, debt coverage indicators may also include Project Life Coverage Ratio (PLCR) and Reserve Life Coverage Ratio (RLCR).

c. Liquidity (paying capacity) indicators

The below-mentioned indicators (ratios) are mandatory (to be calculated with regard to the Recipient of Funds based on pro-forma financial statements).

- Current ratio and quick ratio;

- Other indicators may also be given at the discretion of the authors of the financial model if it is justified by industrial or other specifics of the project;

d. Other financial indicators (ratios).

The below-mentioned indicators (ratios) are to be given at the discretion of the authors of the financial model (to be calculated with regard to the Recipient of Funds based on pro-forma financial statements).

- Return indicators: Return on Assets (ROA), Return on Sales (ROS), Return on Equity (ROE), Return on Capital Employed (ROCE);
- Turnover indicators: turnover of accounts receivable, turnover of accounts payable, inventory turnover ratio;
- Other indicators may also be given at the discretion of the authors of the financial model if it is justified by industrial or other specifics of the project.

4. Methodological Guidance on Preparing Financial Forecasts

General requirements:
- Only the cash flows that would be extended to (spent by) the Recipient of Funds should be forecasted;
- The project expenses incurred prior to a starting date of a forecast period need not be stated in forecasted financial flows but can be included into the assets of the Recipient of Funds;
- Financing Schedule needs to be related to the Investment Schedule; cash flows from financial activities should be forecasted based on the cash flows from operational and investment activities;
- Upon each forecast step, the balance of funds on settlement and reserve accounts may not be a negative value (if in any given period, there arises a deficit of funds, additional financing should be forecasted);
- For debt financing, there should be a forecast made for debt service payments (taking into consideration possible deferral of interest payment);
- It is recommended that cash flows be forecasted in the currency they are realized in (in the currency of receipts and payments) with subsequent conversion into the total currency. Recommended total currency is that of the majority of incoming cash flows;
- Information about cash flows from receipt and payment of interest and dividends should be stated in separate lines;
- If in the end of the project life it is planned to liquidate the Recipient of Funds or investment facility, or to transfer to a third person the right to derive income and pay costs in relation with the facility operation, then it is required that the expenses arising out of such liquidation or transfer be recognized in the Recipient of Funds' cash flows (in

particular, in accordance with the laws on environmental protection and use of mineral resources, as well as labour legislation);

- The project life is to be determined at the discretion of the Project Initiator. It is recommended that the project life be an economically viable (maximizing $NPV_{project}$), technically feasible and legally admissible period. Such period would be intended for the project construction, subsequent operation and (if required by the legislation effective in the jurisdiction of the project delivery and by contracts between the Project Participants) liquidation of the investment facility or transfer of the rights to derive income and pay costs related to the facility operation to a third person. When determining the project life, take into account the following:

  - projected time when the Recipient of Funds' access to major resources is stopped (e.g. exhaustion of raw stock, expiration of the land lease, etc.);

  - projected time when the Recipient of Funds loses its control over the investment facility (e.g. expiration of a licence or of a term stipulated in a concession agreement, etc.);

  - projected time when the investment facility is put out of operation due to impossibility or inexpediency caused by its physical and moral depreciation, as well as new technical and environmental requirements to products, production techniques or labour conditions and more efficient means of production;

  - projected time when the market demand for the product declines due to its obsolescence or loss of competitive power (product life cycle).

- Forecast period is to be determined at the discretion of the Project Initiator but it cannot be shorter than a discounted payback period of the project or debt repayment period (the Bank's loan repayment date or the Bank's withdrawal from the project in case of equity financing);

- If on expiration of the forecast period, it is still economically expedient, technically feasible and legally admissible for the Recipient of Funds to proceed with deriving profit from operation of the investment facility within a limited or (in exceptional cases) unlimited period of time (e.g. a renewable resource), with stabilisation of cash flows to the Recipient of Funds being expected (cash flows are projected to change at a constant or zero growth rate), it is also possible to examine post-forecast period and calculate the terminal value (terminal cash flow). When defining a post-forecast period, it is required to prove that it would be economically expedient, technically feasible and legally admissible for the Recipient of Funds to proceed with deriving profit from operation of the investment facility;

- A discount rate and discounted cash flows must belong to the same type (calculated for the project as a whole or for the owners only) and category (with or without consideration for inflation). A discount rate must reflect the required profitability of investments nominated in the same currency as the currency of the cash flows;
- When calculating $NPV_{project}$, it is required that all cash flows including the terminal value (terminal cash flow) be recognized as at the beginning of the forecast period through discounting.

Financial forecasting specifics for an operating company

- a financial model for an operating company is to include forecasted cash flows the Recipient of Funds would receive in case the project is implemented ('project delivery' forecast) and in case it is not ('project non-delivery' forecast);
- cash flows from the business activities of the Recipient of Funds that are not related to implementation of the investment project (in case such activities are planned for the project implementation period) should be recognized in the 'project delivery' forecast and, to the extent possible, stated separately;
- for the 'project delivery' forecast, it is necessary to take into account possible mutual influence of cash flows under the project and under the business activities of the Recipient of Funds that are not related to the investment project implementation;
- discounted payback period of the project ($DPBP_{project}$) is to be calculated on the basis of cash flows according to the 'project delivery' forecast minus cash flows according to the 'project non-delivery' forecast;
- net present value of the project ($NPV_{project}$) is to be calculated as the difference between discounted free cash flows according to the 'project delivery' forecast and discounted free cash flows according to the 'project non-delivery' forecast;
- a discount rate should be calculated on the basis of the forecasted capital structure of the Recipient of Funds (in particular, taking into account debt financing previously obtained);
- other financial indicators (ratios) and pro-forma financial statements of an operating company are to be based on the 'project delivery' forecast.

5. Financial Indicators (Ratios) Stability Assessment

To assess stability of financial indicators (ratios), the sensibility analysis method is to be employed. This method indicates how changes in key sensibility factors impact the results of financial forecasts. If the sensibility analysis does not make it possible to assess/illustrate certain

risks, other methods should be used, in particular, calculation of break even point, Monte Carlo method, scenario analysis, factor analysis, etc.

Key factors of sensibility include assumptions (input data) of a financial model, whose real values in the course of the project delivery may (due to impossibility of their precise assessment or volatility inherent in them) substantially diverge from those preset in the financial model. In particular, typical factors of sensitivity comprise:

- prices for finished products and cost of services;
- volume of sales (operational intensity, number of buyers/customers);
- capital costs;
- delays in putting the investment facility in operation and reaching designed productive capacity;
- prices for basic materials, fuel, labour resources;
- amount of fixed operational expenses;
- discount rate;
- forecasted rate of inflation;
- exchange rates, etc.

It is mandatory to perform analysis of sensibility to changes in discount rate, selling prices, prices for key resources and sales volume.

Typical results of the financial forecast whose volatility may be measured through sensibility analysis include:

- indicators of investment attractiveness;
- indicators of financial stability;
- term of loan repayment;
- assessment of the market value of a company or a share in the Recipient of Funds' charter capital;
- other indicators at the discretion of the Project Initiator.

6. Requirements to the Financial Model Description

Financial Model should be supplemented by its description. The description is to detail:

- structure of the financial model;
- operating principles of macros used in the financial model (if applicable);
- major assumptions and input data for financial forecasts, with information sources specified unless they are given in the business plan;
- formulae for calculating financial indicators (ratios) unless they are specified in the business plan;

- contact details of the persons in charge for explanations as to the financial model;
- other relevant information necessary for understanding the structure, principles, operating mechanisms and specifics of the financial model.

Recommended Information Sources

Recommended information sources to be used for producing a business plan and input data (assumptions) for a business model include:
- documents issued or signed by third parties not affiliated with the Recipient of Funds (permits and consents, contracts, budgets, calculations, specifications, price-lists, etc.);
- historical information on financial and business activities of the Recipient of Funds (on the basis of administrative and financial statements);
- effective legal and regulatory acts;
- official industry and macroeconomic statistics;
- results of analytical research, in particular, specific research on the project, conducted by independent experts, appropriately qualified and experienced;
- information from industrial, marketing, financial and other analytical publications on the Internet;
- analytical and statistical information of recognized news agencies, analytical institutions, banks, currency and commodity exchanges;
- information from other open sources that may be deemed reliable and objective.