Session 1.2
Financial Sustainability, Financial Due Diligence, and Institutional Sustainability

Introductory Course on Economic Analysis of Investment Projects
5 May 2008
Financial Due Diligence

Elements include:

- Cost estimates and financial plan
- Financial projections
- Financial evaluation
- Financial management assessment
Due Diligence

- Exercising an appropriate degree of care in preparing and appraising projects

Financial Due Diligence

- Broad descriptor covering financial management assessment and financial analysis activities

Project Analysis: includes economic analysis
ADB’s Charter

- Due regard to the prospects that the borrower will be in a position to meet their obligations under the loan agreement

- Necessary measure to ensure that the proceeds of any loan are used for their intended purposes

- Due attention to considerations of economy and efficiency

- Guided by sound banking principles
Financial Viability and Sustainability

- **Financial Analysis:**
  Comparison of financial benefits (FIRR) to financial costs (WACC) [financial viability]

- **Financial Management Assessment:**
  Capacity of executing agency to effectively manage its financial resources [financial sustainability]

- **Public Financial Management:**
  Capacity of Government to effectively manage its financial resources [financial sustainability]
Cost Estimate - Elements

- Base Costs
- Taxes and Duties
- Physical Contingency
- Price Contingency
- Interest and other charges during construction (IDC)
Quality Review

- Confirm adequacy of cost structure
- Reasonableness of targeted units, outputs and unit cost assumptions
- Estimation of taxes and duties, physical and price contingencies and IDC
Financing Plan

- Prepared in the same currency units as the cost estimates
- Drawdown schedule should be consistent with cost estimates
- Sufficient to cover base costs, taxes and duties, contingencies and IDC
- RRP presentation should be in USD, with percentage of funds provided by each source presented.
Quality Review

- Assess existing capital structure of EA
- Assess availability of government counterpart financing
- Ensure that counterpart financing requirements are clearly identified in either the government budget and/or Medium Term Expenditure Framework
- Assess the availability of commercial and official co-financing
- Assess reasonability of EA self-financing
Asset – any item of economic value owned by an entity

Liability – a financial obligation, debt, claim or potential loss

Revenue – the monetary value of goods and/or services sold by an entity

Expense – cost incurred in the conduct of doing business or to generate revenue
Accounting Terms (cont’d)

- Profit – excess of revenues less expenses
- Accounting – systematic recording, reporting and analysis of financial transactions of an entity
- Accounting Principles – conventions, rules and procedures necessary to define accepted accounting practice at a particular point in time
Financial Reporting Building Blocks

Debit

- Assets
- Expenses
- Capital

Credit

- Liabilities
- Revenues

Balance Sheet

Income Statement

ADB
**Accounting Equations**

- **Assets** = **Liabilities** + **Owners Equity**
- **Owners Equity** = capital + retained profit
- **Retained Profit** = **Revenues** - **Expenses** - Distribution to Owners
- **Working Capital** = **Current Assets** - **Current Liabilities**
Income Statement

- Income Statement: presents information with respect to revenues, expenses and profits over a specified time period
  - Revenue – Operating Expenses – Non Operating Expenses – Financing Charges – Taxes = Net Profit

- Change in Retained Profits
  - Retained profit beginning of year + net profit – distributions to owners = retained profit end of year

- Tells us whether or not the entity is profitable
Balance Sheet

- Balance Sheet: presents the financial position at a given date
- Assets = Liabilities + Owners Equity
- Statement of the entity’s financial “health”
- Profitability does not always translate into financial health
Working Capital Circulates

- Capital Injection
- Buy Raw Materials
- Production Expenses
- Salaries and Wages
- Overhead and Admin expenses
- Sell Production
- Collect Receivables
- Pay Creditors
- Distribute Profits
Cash Flow Statement

- Cash flow Statement: presents cash flow from operations, investments and financing over a specified time period
- Shows how the company is managing its cash flow
- Cash is King!
## Example of Integrated Financial Statements

### Income Stmt

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>900</td>
</tr>
<tr>
<td>Less Expenses</td>
<td>500</td>
</tr>
<tr>
<td>Net Profit</td>
<td>400</td>
</tr>
<tr>
<td>Equity, beg</td>
<td>200</td>
</tr>
<tr>
<td>Dividends</td>
<td>100</td>
</tr>
<tr>
<td>Equity, end</td>
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### Cash Flow

<table>
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<tr>
<td>Operating</td>
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<tr>
<td>Cash Flow</td>
<td>200</td>
</tr>
<tr>
<td>Loan Proceeds</td>
<td>200</td>
</tr>
<tr>
<td>Net Cash flow</td>
<td>300</td>
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<tr>
<td>Cash beginning</td>
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### Balance Sheet

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<td>400</td>
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<tr>
<td>Accts Receivable</td>
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<td>Fixed Assets</td>
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<td>Total Assets</td>
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<td>Accts Payable</td>
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ADB
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Understanding Financial Statements

- Comparative year figures are important!
- Look for logical corresponding movements across key accounts
  - Increased revenues should equal increased cash and/or accounts receivable
  - Increased fixed assets should equal decreased cash and/or increased debt and/or equity
Financial Analysis

- Financial Statements:
  - historical
  - static
  - financial performance
  - financial position

- Ratio Analysis:
  - Diagnostic
  - Dynamic
  - Analytical
  - Future Predictability
Financial Ratios

- Test the mathematical relationship between revenues, expenses, assets, liabilities and equity
- Profitability ratios: help interpret the income statement
- Debt, Asset and Liquidity ratios: help interpret the balance sheet
- Cash Management and Liquidity ratios: help interpret the cash flow statement
- Should compare to benchmarks
Financial Ratios - Examples

- Debt to Equity ratio – depending on the industry 50 - 80 percent of capital should be in debt
- Current Ratio – current assets should be at least equal to, or slightly more, than current liabilities.
- Debt Service Coverage Ratio – cash flow generated from operations should be 1.2 – 1.4 times the cash required to meet debt service obligations in the next year
- Self Financing ratio – indicates the amount of internal cash flow available to meet forward capital investment plans
Summary

- The mechanics of accounting really just mathematical relationships
- Five key building blocks to financial reports (assets, liabilities, revenues, expenditures and equity)
- Accounting equations represent relationship between the building blocks
- The financial statements are integrated
- CASH IS KING!!!
- Ratio analysis is a valuable tool to interpret financial information
What are Financial Projections?

- Estimated income statement, balance sheet and cash flow statements for a period of time in the future
- Essentially forecasts of financial performance and financial position
ADB Project Financial Projections

- Financial projections include income statement, balance sheet and cash flow statement
- Presentation format should follow the enterprise’s chart of accounts
- Projections should be prepared in domestic current terms and should take into account the potential impact of inflation and foreign exchange rate fluctuations
ADB Project Financial Projections

- Model the risks
- Income statement, balance sheet and cash flow assumptions
- Projections should be completed for a minimum of 5 years, but not usually longer than 10 years.
- 2-3 years of historical financial information should be presented
Revenue vs Non-Revenue

- Project the incremental recurrent costs
- The Expenditure Projections should follow the chart of account classifications
- Model the risks
- Assess EA capacity to absorb the recurrent costs
Financial Internal Rate of Return

- Net present value – present value of future cash flow stream
- FIRR: The discount rate at which the present value of a stream of cash flows is equal to zero (in financial terms)
- Needs a hurdle
Weighted Average Cost of Capital

- Need a project specific hurdle rate (ADB’s analysis is from the perspective of the project)
- WACC represents the costs associated with financing the investment
- FIRR > WACC = Financial Viability
How to Compute the FIRR

- Cash basis
- Incremental – with versus without the project
- Real versus nominal – remove impacts of inflation and foreign exchange fluctuation
- After tax – remove tax impact
Issues

- **Time frame**
  - Estimated economic life of the assets
  - Not the loan term!
  - Same as EIRR
  - If shorter than economic life, include a residual value

- **Depreciation Excluded**

- **Interest, Debt Service Payments, and Dividends excluded**
WACC

- Real terms on an after tax basis
- Each component of the financing plan is costed individually
- Weighting based on proportionate contribution by each source to the total financing plan
Financial Evaluation

- Comparison of FIRR to WACC
- Key Ratios, FIRR and WACC should be subjected to sensitivity analysis
- Assess whether the financial evaluation is robust (i.e. can withstand variations in key assumptions)
Financial Risks

- Risk Identification
  - What events or occurrences could adversely impact project viability and/or sustainability
- Mitigation Measures
**Assurances**

- An assurance is a declaration of intent to perform certain activities or agree to certain conditions.
- Not legally binding.
- Appropriate for RRP, as the RRP precedes signing of the loan agreement.
Covenant

- A written and signed “pledge”
- Two parties sign and are legally bound to certain actions, conditions, etc.
- Covenants documented in the Loan agreement
- Assurances are not actionable, but covenants are.
Examples of Common Financial Covenants

- Audit requirements
- Financial ratios (e.g. Debt:equity ratio; self-financing ratio; current ratio)
- Operating ratios (e.g. reduced transmission losses, unaccounted for water, improved accounts receivable performance)
- Provision of counterpart funds and agreement to meet incremental recurrent costs
Hints

- Covenants should:
  - be realistic and achievable;
  - address risks;
  - clearly stated; and
  - measurable
Financial Management and Development Effectiveness

- “ring fencing” versus reliance on country systems
- PIUs/PMOs
- Sustainability
- Development Impact versus Fiduciary control
Financial Management Assessment (FMA)

- Objective – to assess whether or not financial management arrangements are sufficient for purposes of recording transactions, preparing reliable financial statements and for safeguarding assets

- Issues or weaknesses identified need to be taken into consideration either through project design or implementation arrangements
FMA - How?

- Review of country and/or previous EA/IA financial management diagnostics
- Complete FMAQ and/or update FMA previously completed for the EA/IA
- Identify risks and/or issues associated with EA/IA financial management arrangements
- Develop appropriate mitigation measures
FMA - When and Who?

- The FMA should be undertaken as early as possible, preferably during early stages of the PPTA
  - Provides sufficient time to develop mitigating measures
- FMAQ is self assessment instrument
  - Domestic consultants can assist EA
Thank you