

---

# **Economic and Financial Project Appraisal of Social Infrastructure Projects**

**Comparison of World Bank  
&  
European Investment Bank**

By

**Ilkay Demirdag**

2004 - 2005

**University College of London  
The Bartlett School of Graduate Studies  
School of Construction and Project Management  
Faculty of Built Environment**

This thesis is submitted in partial fulfillment of the requirements for the Master of Science in  
Built Environment (Construction Economics and Management) degree from the University  
of London

---

UMI Number: U593564

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI U593564

Published by ProQuest LLC 2013. Copyright in the Dissertation held by the Author.  
Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against  
unauthorized copying under Title 17, United States Code.



ProQuest LLC  
789 East Eisenhower Parkway  
P.O. Box 1346  
Ann Arbor, MI 48106-1346

## **ABSTRACT**

Turkey is a dynamic emerging market economy and a middle-income country getting loans, technical assistance, analytical and policy advice from Multilateral Development Banks (MDB) and Multilateral Financial Institutions (MFI) in order to carry out its development programmes.

MDBs are institutions that provide financial support and professional advice for economic and social development activities in developing countries. MFIs differ from the MDBs in a narrower ownership/membership structure or in focusing on special sectors or activities.

The research aims to investigate the economic and financial project appraisal of MDBs and MFIs through comparing World Bank and European Investment Bank by focussing on social infrastructure projects funded in Turkey.

2 case studies have been used for in-depth investigation of the appraisal processes of WB and EIB and interviews with the key project staff from both Banks have been carried out in order to:

- Outline the methodology of economical and financial appraisals of WB and EIB
- Identify lessons learned from case studies that reveal the difficulties of:
  - Implementing in practice.
  - Reconciling or combining financial and economic appraisals.

Through these interviews, the pros. and cons. of the appraisal process of the both Banks have been identified.

WB and EIB are very important finance sources for the development projects in Turkey. The key thing is to appraise the right projects with right appraisal methods. This research looks into ways of improving the appraisal processes and integrating financial and economic appraisals to increase the efficiency of the appraisals and success of the projects, which are summarised in the recommendation section of the research.

**Key Words: Financial Appraisal, Economic Appraisal, Multilateral Development Banks, Multilateral Financial Institutions, Social Infrastructure Projects**

**Word Count: 10,953**

## **ACKNOWLEDGEMENTS**

First of all I would like to thank my fiancé, Cem Balcisoy and my family, for granting me strength and seeing me through to the end of the course. My most sincere appreciation also goes to Arup Project Management for providing the financial means to this end.

The foremost intellectual gratitude is for Mr. Graham Ive, my supervisor, for providing a deep well of knowledge and insight. You have been a source of inspiration throughout the course. Sincere thanks to both academic and non-academic staff at the Bartlett School of Graduate Studies.

Hakan Lucius, Frank Lee, Andrea Pataki, Nicholas Barclay, John Davis and Luisa de Almeida Ferreira from European Investment Bank deserve special mention for their immense help during the case study and interview sessions. Thanks for your support.

I would also like to thank Tunya Celasin and Ibrahim Sirer from World Bank and Ilker Cetin from International Finance Corporation for their help in the interview sessions.

Last, but not the least, my greatest appreciation to all my friends and classmates in both CEM course. It has been pleasure knowing you and working with some of you. I wish you all the best in your endeavours.

<b>CONTENTS</b>	<b>Page</b>
ABSTRACT .....	I
ACKNOWLEDGEMENTS .....	II
LIST OF FIGURES.....	V
LIST OF TABLES .....	VI
LIST OF ABBREVIATIONS .....	VII
 1. INTRODUCTION.....	 1
1.1 Statement of research problem .....	1
1.2 Aims and objectives.....	2
1.3 Value of the research .....	2
1.4 Methodology.....	3
1.5 Dissertation structure.....	4
 2. LITERATURE REVIEW .....	 5
2.1 Project appraisals .....	5
2.2 Financial project appraisals .....	6
2.2.1 Identifying Costs and Benefits .....	6
2.3 Economic project appraisals .....	7
2.3.1 Numeraire for Economic Appraisals.....	7
2.3.2 Cost Benefit Analysis – Various Methods .....	8
2.3.3 Identifying costs and benefits.....	10
2.3.4 Common errors in economic appraisals .....	12
2.4 Financial vs. economic project appraisals: Differences and interaction.....	14
2.5 FRR & ERR.....	16
2.6 Integration of Financial and Economic Appraisals.....	16
 3. WB & EIB INTRODUCTION.....	 19
3.1 World Bank.....	19
3.1.1 Project Cycle .....	19
3.1.2 WB lending in Turkey.....	20
3.2 European Investment Bank.....	21
3.2.1 Project Cycle .....	21
3.2.2 EIB lending in Turkey.....	22
 4. METHODOLOGY .....	 23
4.1 Choice of research methodology .....	23
4.2 Case Studies.....	23
4.2.1 Marmara Earthquake Emergency Reconstruction Project (MEER).....	25
4.2.2 Basic Education Project .....	26
4.3 Interviews .....	28
4.3.1 WB Interviews .....	28
4.3.2 EIB Interviews .....	28
 5. RESULTS.....	 29
5.1 World Bank project appraisal .....	29

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS**  
**COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

---

5.1.1	Financial Appraisal .....	29
5.1.2	Economical Appraisal .....	30
5.2	EIB project appraisal .....	31
5.2.1	The process.....	32
5.3	Comparison of World Bank and EIB.....	34
5.3.1	Comparison of project appraisal processes of WB and EIB .....	37
6.	ANALYSIS .....	39
6.1	Basic Education Project .....	40
6.2	Marmara Earthquake Emergency Reconstruction Project.....	41
7.	CONCLUSIONS AND RECOMMENDATIONS.....	42
7.1	Recommendations.....	44
7.2	Future Research .....	45
	BIBLIOGRAPHY .....	47

## **LIST OF FIGURES**

Figure 1.1: Dissertation structure

Figure 3.1: World Bank Project Cycle

Figure 3.2: World Bank Lending in Turkey

Figure 3.3: European Investment Bank Project Cycle

## **LIST OF TABLES**

Table 2.1: Comparison of Financial and Economic Appraisals

Table 4.1: The Case Study Projects

Table 4.2: The MEER Project Components

Table 4.3: The Basic Education Project Components

Table 5.1: Comparison of FRRs

Table 5.1: Comparison of ERRs

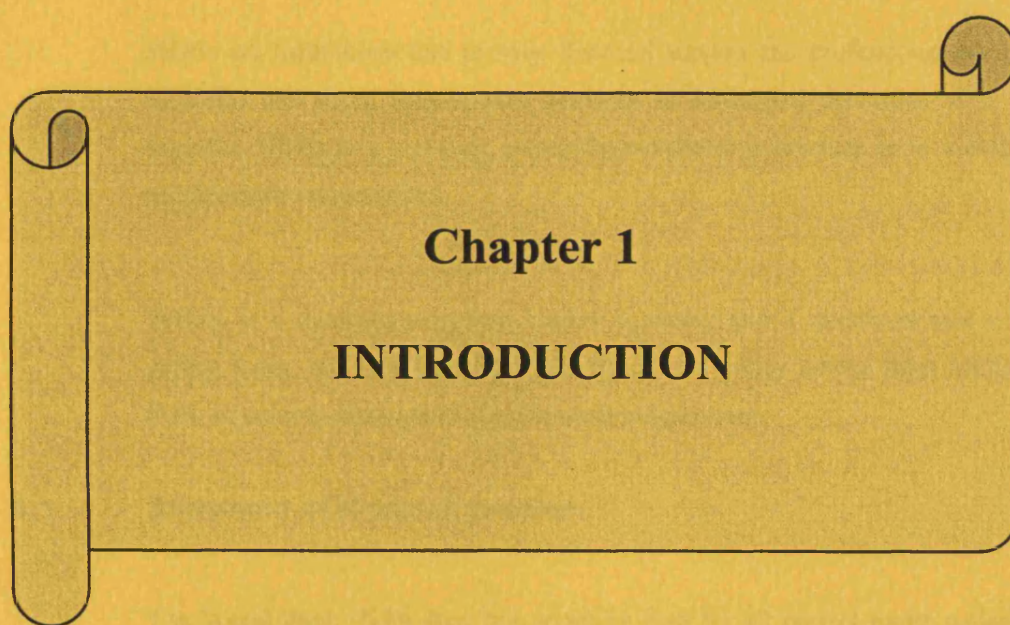
Table 5.1: Comparison of WB & EIB

Table 7.1: Differences between WB and EIB



## **LIST OF ABBREVIATIONS**

<b>EIB</b>	<b>European Investment Bank</b>
<b>EBRD</b>	<b>European Bank of Reconstruction and Development</b>
<b>ERR</b>	<b>Economic Rate of Return</b>
<b>EU</b>	<b>European Union</b>
<b>FRR</b>	<b>Financial Rate of Return</b>
<b>IFC</b>	<b>International Finance Corporation</b>
<b>MDB</b>	<b>Multilateral Development Bank</b>
<b>MEER</b>	<b>Marmara Earthquake Emergency Reconstruction Project</b>
<b>MFI</b>	<b>Multilateral Financial Institutions</b>
<b>PDA</b>	<b>Project Appraisal Document</b>
<b>RFAA</b>	<b>Regional Financial Accounting and Auditing Adviser</b>
<b>RERR</b>	<b>Re-estimated Economic Rate of Return</b>
<b>RFRR</b>	<b>Re-estimated Financial Rate of Return</b>
<b>SME</b>	<b>Small and Medium Sized Enterprises</b>
<b>TERRA</b>	<b>Turkish Earthquake Rehabilitation and Reconstruction Assistance</b>
<b>WB</b>	<b>World Bank</b>



## **Chapter 1**

# **INTRODUCTION**

## **1. INTRODUCTION**

The world's low-income countries generally cannot borrow money in international markets or can only do so at high interest rates. In addition to direct contributions and loans from developed countries, these countries receive grants, interest-free and low-interest loans, and technical assistance from the Multilateral Development Banks (MDB) and Multilateral Financial Institutions (MFI).

MDBs are institutions that provide financial support and professional advice for economic and social development activities in developing countries. MFIs differ from the MDBs in a narrower ownership/membership structure or in focusing on special sectors or activities.

Turkey is a dynamic emerging market economy and a middle-income country getting loans, technical assistance, analytical and policy advice from MDBs and MFIs in order to carry out its development programmes.

### **1.1 Statement of research problem**

The World Bank (WB) does not normally lend for all project costs; typically, it finances foreign exchange costs and expects the borrower or the government to meet some or all of the local costs. In addition, other co-financers, such as the European Development Fund, the several Arab funds, the regional development banks, bilateral aid agencies, and a growing number of commercial banks, are joining to an increasing extent in co-financing projects that, in many instances, are appraised and supervised by the World Bank.

The European Investment Bank (EIB) is participating in funding investment projects, in cooperation with WB as well as other financial institutions, in support of the Turkish Government's investment programmes. Therefore cooperation between the EIB and WB is necessary, taking the form of both exchanges of information on their respective priorities and action plans and joint project appraisal

missions. The problem is how successful are the appraisals carried in correlation within the country programmes?

Therefore the problem owners are, WB as the implementing agency, EIB as the co-financer and Turkish government as the borrower country. It's quite important to mention that there are other stakeholders affected by the problem like the society and they all need to be managed in this process but will not be covered under this research.

## **1.2 Aims and objectives**

The research aims to investigate the economic and financial project appraisal of MDBs and MFIs through comparing WB and EIB by focussing on social infrastructure projects funded in Turkey.

The objectives of the research are to:

- Understand the principles of economical and financial project appraisals of public sector investments.
- Outline the methodology of economical and financial appraisals of WB and EIB using case studies based on different elements of a country development programme funded by these banks.
- To identify lessons learned from case studies that reveal the difficulties of:
  - Implementing in practice.
  - Reconciling or combining financial and economic appraisals.

## **1.3 Value of the research**

Large amounts are spent in Turkey through WB and EIB loans. In order to get the best value for money, the efficiency of the project appraisals is very important.

Whilst there is a large theoretical literature on project appraisal, there are relatively few published studies on how MDB and MFI appraisals are done in practice. The scope of the research is the usage of economic and financial appraisal methods in

social infrastructure projects funded by WB and EIB under the same country programme. Because of the complex nature of the appraisal process and different sectoral settings of the projects, it is very difficult to tailor a solution model for the Banks.

Therefore the focus is on the following, specific objectives and desired outcomes:

1. To make full use of project information, especially embedded in the difference between economic and financial prices and in the difference between economic and financial flows and therefore to increase the efficiency of appraisals.
2. To look at the project from the perspective of the main stakeholders, i.e: implementing agency, co-financer and the government and assess whether all the main actors have the economic and financial incentives to implement the project designed.

The research is very important in terms of identifying the key problem areas for appraising social infrastructure projects in Turkey and recommending actions thereupon.

## **1.4 Methodology**

Literature review and case studies are the fundamental methods that will be used for this research.

Case studies will be used to achieve in-depth investigation of economic and financial project appraisal processes of WB and EIB in practice. The nature of the in-depth data collection will limit the number of studies, as the research is subject to resource and time constraints.

Case studies will employ interviews of key 'actors' from WB and EIB to explore the selected projects deeply and understand the process better; as well as collecting and analysing some quantitative data on the performance of the projects.

Case studies will be based on social infrastructure projects that are funded in Turkey by the banks and comprise construction projects within the programme.

## 1.5 Dissertation structure

The study will be presented in 6 chapters. Please refer to Fig. 1.1 for the structure of the report.

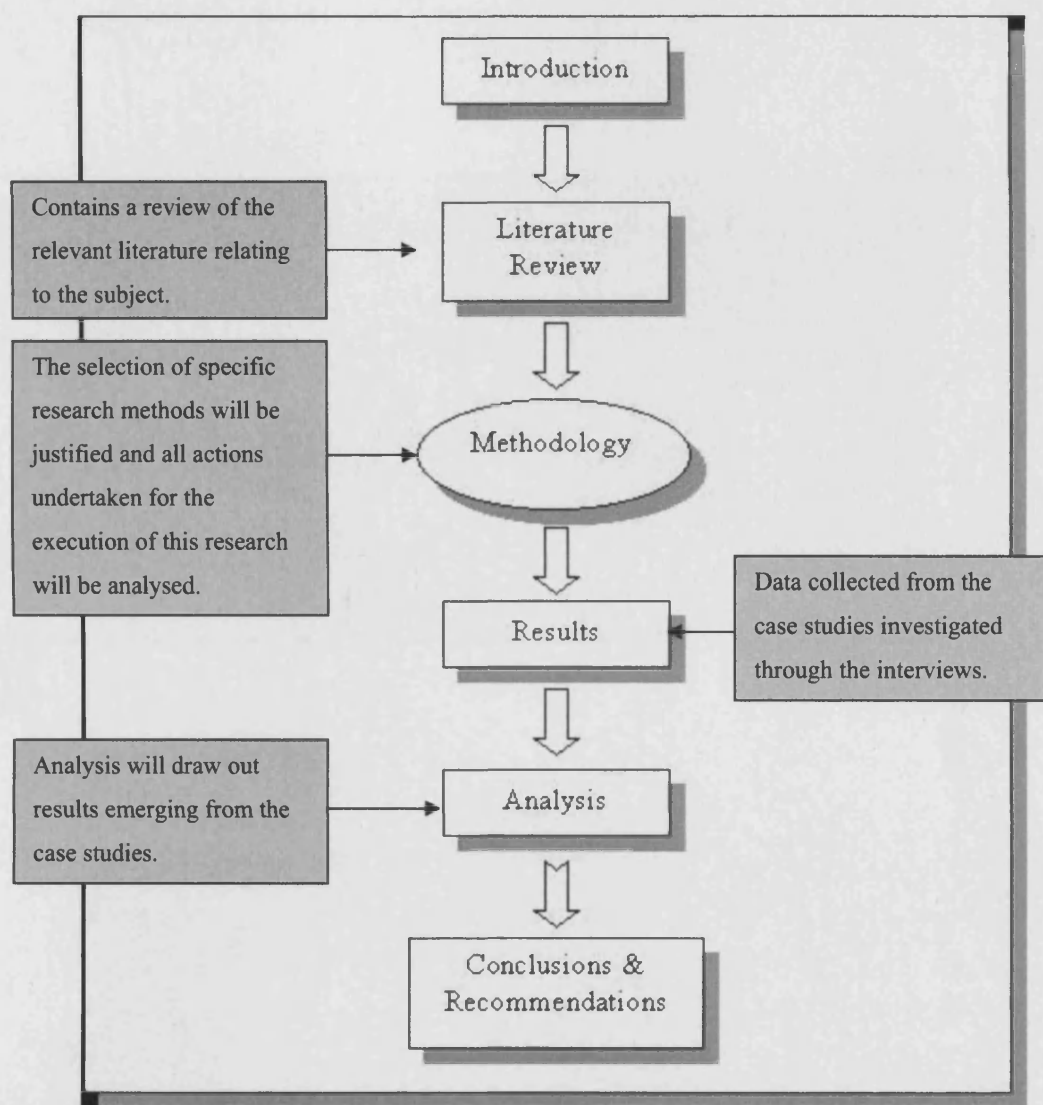


Fig. 1.1: Dissertation structure



## 1. LITERATURE REVIEW

### 2.1. Problem statement

The first problem is that the research is not clear. The second problem is that the research is not clear. The third problem is that the research is not clear.

The fourth problem is that the research is not clear.

The fifth problem is that the research is not clear.

## Chapter 2

# LITERATURE REVIEW

## **2. LITERATURE REVIEW**

### **2.1 Project appraisals**

“Project appraisal is part of the project planning cycle and it provides the basis on which the accept/reject decision is taken for the project” (Irvin, 1978, pg. 28).

The types of appraisal methods are listed below.

- Technical
- Social
- Institutional
- Economic
- Financial
- Environmental

Traditional approaches to the appraisal of investment projects have tended to undertake the economic analysis in isolation from the financial analysis, hence ignoring the interaction of the financial and economic outcomes.

Jenkins (1999) argues for the importance of economic over financial appraisals, especially where financial values are distorted by excluding externalities or by using non-economic (e.g. subsidised prices) prices; and that reliance solely on financial appraisals leads to poor investment decisions. On the other hand, financial stakeholders require financial appraisals. Therefore an integrated financial and economic investment appraisal can be used to define the cost and benefits to all stakeholders, the groups who benefit or lose as a consequence of the project.

This study will focus on the financial and economical project appraisal methods and ways of integrating these.



## **2.2 Financial project appraisals**

“Financial Appraisal has to do with the financial flows generated by the project itself and the direct costs of the project measured at market prices” (Thirwall, 1999, pg. 251).

Financial appraisals:

- Are used to ensure that there are sufficient funds to cover the costs of implementing the project. An important aspect of appraisal is to ensure that there is a financing plan that will make funds available to implement the project on schedule.
- For a revenue-producing enterprise are also concerned with financial viability.
- Are concerned with recovering investment and operating costs from project beneficiaries (World Bank Website, 2004).

### **2.2.1 Identifying Costs and Benefits**

Typical cash inflows, which should be considered in a Financial Appraisal include:

- Operating revenues
- Subsidies from outside parties
- Operational savings occurring in other areas as a result of the proposed project
- Sale of surplus assets
- Residual values of assets at the end of the appraisal term

Typical cash outflows, which should be considered in a Financial Appraisal include:

- All capital and operating costs (including working capital requirements)
- Taxes (with due allowance for the market value of franking credits)
- Operating lease payments

- Worker redundancy payments
- Existing contract termination payments
- Revenue losses to existing operations affected by the proposed project
- The opportunity cost of resources (including land), which would otherwise have been available for sale or lease.

## 2.3 Economic project appraisals

“Economic appraisal has to do with adjusting costs and benefits to take account of costs and benefits to the economy at large, including the indirect effects of projects that are not captured by the price mechanism” (Thirwall, 1999, pg. 251).<sup>1</sup>

Economic project appraisals help to:

- Decide whether the project should be undertaken and if so whether by the private or public sector.
- Estimate the project’s fiscal impact.
- Determine whether the arrangements for cost recovery are efficient and equitable.
- Assess the project’s potential environmental impact and contribution to poverty reduction (World Bank, 1996).

### 2.3.1 Numeraire for Economic Appraisals

Economic analysis can be conducted in the following ways:

1. Domestic currency at the domestic price level: The prices of traded goods and services are taken at the “border price” and converted into domestic currency at a “shadow exchange rate”. The prices of nontraded goods and services are taken at their market prices.
2. Domestic currency at the border price level: The prices of all imports and exports are taken at the border price and converted into domestic currency

---

<sup>1</sup> UK Treasury Green Book defines economic appraisal as a systematic process for examining alternative uses of resources, focusing on assessment of needs, objectives, options, costs, benefits, risks, funding, affordability and other factors relevant to decisions ([www.hm\\_treasury.gov.uk/economic\\_data\\_and\\_tods/greenbook](http://www.hm_treasury.gov.uk/economic_data_and_tods/greenbook), 2004).

at the official exchange rate. However, the prices of services are converted to their border price equivalent by means of a “conversion factor”.

3. Foreign currency at the border price level: The prices of all imports and exports remain in foreign currency, but prices of services are first converted to their border price equivalent by means of a conversion factor and then to their foreign currency equivalent by means of official exchange rate (World Bank, 1996).

### 2.3.2 Cost Benefit Analysis – Various Methods

“Cost-benefit analysis is a social assessment of the cost and benefits of public investment decisions” (Brent, 1998, pg. 45). It involves the enumeration, comparison, and evaluation of benefits and costs.

Several groups of economists (Little and Mirrless 1969, 1974; Dasgupta, Marglin and Sen 1972; Harberger 1973; Squire and van der Tal 1975) advocated specific methods for the use of “social cost-benefit analysis” to weight a public project’s costs and benefits in terms of its contribution to national welfare (Devarajan, Squire, and Narueput, 1997),

In developing economies, the allocation of factors on the basis of market prices is imperfect because fundamental disequilibria exist in the economy. The main sources of distortions in the economy are:

- **Domestic market prices;**
  - Erratic inflationary pressures.
  - Price controls: markets do not operate freely.<sup>2</sup>
- **Foreign exchange;** Official exchange rates do not accurately reflect value of national currency.
- **International trade prices;** Distorted by traded taxes, import controls and high tariffs.<sup>3</sup>

---

<sup>2</sup> Imperfections in the market will raise prices above the marginal cost of production. Prices set by private monopolists and public utilities may be particularly distorted.

<sup>3</sup> Government-imposed taxes, subsidies, tariff and controls of various kinds distort free market prices. Opportunity cost must be measured net of taxes and subsidies.

- **Factor input markets;**
  - Labour; large numbers of unemployed and underemployed
  - Segmented markets (dual labour markets)
  - Labour mobility is limited by systems of land tenure
- **Income distribution:**
  - Inter distributional distortions; savings very low & affects availability of private capital
  - Intra distributional distortions; Large inequalities in wealth

To overcome these distortions, economic costs and benefits are measured by “shadow prices”, which may well differ from the market prices appropriate for financial costs and benefits.<sup>4</sup> Such divergences are thought to be particularly severe in the markets for:

- Labour
- Capital
- Foreign Exchange

In Unido Method (1972), benefits and costs may be measured at domestic market prices using consumption as the numeraire, with adjustments made for divergences between market prices and social values and making domestic and foreign resources comparable using a shadow exchange rate.

In Little and Mirrless approach (1974), benefits and costs may be measured at world prices to reflect the true opportunity cost of outputs and inputs, using public saving measured in foreign exchange as the numeraire (that is converting everything into its foreign exchange equivalent). The unit of account can remain the domestic currency, but the values recorded are the foreign exchange equivalent, that is, how much net foreign exchange is earned (Thirwall, 1999, pg. 253).

---

<sup>4</sup> Shadow prices are determined by the interaction of the fundamental policy objectives and the basic resource availabilities.

Little and Mirrlees (1974) states the advantages of this as follows:

- Foreign aid and loans account for a large part of new fixed public investments in many low developed countries; the use of the numeraire makes the accounting rate of interest directly comparable with interest on loans payable in foreign currency or with lending abroad.
- Border prices expressible in convertible foreign currency.

### **2.3.3 Identifying costs and benefits**

“The projected financial statement of the project entity will often be a good starting place for identifying economic costs and benefits. In general two types of adjustment must be made to the financial calculation so that it can reflect economic concepts” (Squire and Van Der Tak, 1975, pg. 76):

1. To include/exclude some costs and benefits which have been excluded/included in the financial analysis

- Transfer Payments:
  - Loans: The financial cost of the loan occurs when the loan is repaid, but the economic cost of the loan occurs when the loan is spent. The economic analysis does not, in general, need to concern itself with the financing of the project. This is relevant for foreign loans unless the loan is tied to the project (that is would not be available for any other project), in which case its economic cost is the stream of the associated repayments. WB loans are not considered tied.
  - Depreciation: Depreciation allowances may not correspond to actual use of resources, and therefore should be excluded from the cost stream.
  - Taxes and subsidies: These are transfer payments and don't constitute a resource cost. Only if the government wishes to use the project selection as a means of improving income distribution or increasing savings, then this should be taken into account.

- **Contingencies:** To the extent that the physical contingency allowance is a part of the expected value of the project's costs; it should be included in the economical analysis. Any allowance beyond this should be excluded from the basic data but should be examined in the sensitivity or risk analysis. To the extent that the price contingency covers expected increases in relative prices of project items, it should be included in the economic analysis. Any price contingency for domestic and foreign inflation of the general price level should be excluded – provided that differential rates of inflation in supplier countries are offset by currency realignments.
  - **Sunk Costs:** Sunk costs are defined as those costs which have been incurred on the project before appraisal and which therefore can not be avoided even if they are considered utterly wasteful.
  - **Externalities and linkages:** Certain effects of the project do not impose a cost or confer a benefit within the confines of the project itself but may affect the achievement of the country's objectives. These externalities should be included in the economic analysis. Whether or not externalities can be quantified, they should at least be discussed in qualitative terms.
  - **Multiplier effects:** Different patterns of second-round expenditure out of incomes generated by the project will have different economic consequences: expenditure patterns can be expected to be different for different income classes and for different regions within a country.
  - **International effects:** Some external effects of a project may extend beyond the borders of the country concerned. The crucial issue is whether account should be taken of costs and benefits to other countries. The traditional policy of the WB and most other lending agencies is to take account of physical externalities. The costs borne by foreign countries or foreign participants in the project, as well as benefits accruing to them, are excluded from the economic analysis.
2. Some inputs and outputs may have to be revalued if their shadow and market prices differ.
- Shadow rate of interest
  - Shadow wage rate
  - Foreign and domestic values: traded and non-traded goods

#### 2.3.4 Common errors in economic appraisals

Some common errors in Economic Appraisals include:

- **Statement of objectives in vague qualitative terms** such that their achievement can not be measured.
- **Failure to cost assets already in public ownership:** These have an opportunity cost and should be costed at their current market value.
- **Inclusion of capital financing charges such as loan charges:** These may be relevant to a Commercial Appraisal or Affordability Assessment but do not represent an economic cost. In an Economic Appraisal, capital should be costed according to its purchase cost at current market values.
- **Double counting of capital expenditure with interest and depreciation charges:** In Economic Appraisal the cost of capital is adequately covered by including expenditure on capital costs in the years in which it occurs. In Financial Appraisal the conventional approach is to include depreciation and interest charges. To combine these approaches is to count capital costs twice.
- **Inclusion of transfer payments such as social security or redundancy payments:** These do not represent economic costs.
- **Applying the test discount rate to cash or nominal values:** This is wrong because the discount rate is defined in real terms and must be applied to values expressed also in real terms.
- **Failure to consider costs and benefits to other bodies or budget holders:** Economic Appraisal is about all the costs and benefits to the country and needs to go beyond the horizons of an individual stakeholder.
- **Ignoring Displacement:** The impact upon the business of other service providers or market competitors should be taken into account.
- **Lack of a clear explanation of the basis of all weights and scores,** leading to misunderstanding and delays until clarification is obtained (UK Treasury Website, 2004).

All this would apply to economic appraisal in the UK. Extra problems in a developing country include identifying the correct best discount rate to use.

- **Improperly accounting for the impact of inflation :** Inflation (though a financial rather than an economic issue) should be treated explicitly for the following reasons: <sup>5</sup>
  - The amount borrowed to help finance a project depends on the rate of inflation
  - The rate of inflation affects the project's financial rate of return through the explicit and implicit taxes collected by the government from the project and also the implicit subsidy received by the project entity when the nominal interest rate on loans is lower than the rate of inflation
  - High rates of inflation may undermine the financial sustainability of projects through their deleterious effects on cash flows (World Bank, 1996).<sup>6</sup>

---

<sup>5</sup> This is a problem for financial appraisals as well.

<sup>6</sup> These effects of inflation affect the financial and not the economic analysis of the project.



## 2.4 Financial vs. economic project appraisals: Differences and interaction

	<b>Financial Appraisal</b>	<b>Economical Appraisal</b>
	<ul style="list-style-type: none"> <li>Consists in comparing revenue and expenses (investment, maintenance and operation costs) recorded by the concerned economic agents in each project alternative (if relevant) and in working out the corresponding financial return ratios (World Bank Website, 2004).</li> </ul>	<ul style="list-style-type: none"> <li>Aims at identifying and comparing economic and social benefits accruing to the economy as a whole, setting aside for example monetary transfers between economic agents (World Bank Website, 2004).</li> </ul>
	<ul style="list-style-type: none"> <li>Deals with the costs and benefits from the point of view of the individual enterprise or project owner (Jenkins, 1999).</li> </ul>	<ul style="list-style-type: none"> <li>Deals with the costs and benefits from the point of view of the economy as a whole (Jenkins, 1999).</li> </ul>
<b>Discount Rate</b>	<ul style="list-style-type: none"> <li>Uses financial rate of return.</li> </ul>	<ul style="list-style-type: none"> <li>Uses economic rate of return.</li> </ul>
	<ul style="list-style-type: none"> <li>The discount rate used represents the weighted average cost of debt and equity capital (New South Wales Treasury, 1997).<sup>7</sup></li> </ul>	<ul style="list-style-type: none"> <li>The discount rate represents estimated social opportunity cost of capital (New South Wales Treasury, 1997).</li> </ul>
<b>NPV</b>	<ul style="list-style-type: none"> <li>A positive net present value indicates a positive expected change in the wealth of the stakeholders (Jenkins, 1999).</li> </ul>	<ul style="list-style-type: none"> <li>A positive net present value implies a positive change in the wealth of the country (Jenkins, 1999).</li> </ul>
<b>Prices</b>	<ul style="list-style-type: none"> <li>Market prices are used for measurement of values (Brent, 1998).</li> </ul>	<ul style="list-style-type: none"> <li>Shadow prices are used for measurement of values (Brent, 1998).<sup>8</sup></li> </ul>
	<ul style="list-style-type: none"> <li>Done in domestic prices at domestic price level (World Bank, 1996).</li> </ul>	<ul style="list-style-type: none"> <li>Can be done in: domestic prices at domestic price level, domestic currency at the border price level and foreign currency at the border price level (World Bank, 1996).</li> </ul>

<sup>7</sup> Alternatively, and perhaps in practice: "for private companies or even public corporations carrying out financial analysis, the discount rate used is normally the interest rate at which bank loans are available, or where the enterprise's own funds are being used, the rate which banks would pay on the deposit of such funds. The important point is that own funds are not free". (Irvin, 1978)

<sup>8</sup> Thirwall (1999) states that "market prices adjusted for divergences and distortions are called shadow, social, economic or accounting prices. Adjusted market prices for goods can be called **economic prices** and adjusted market prices for factors of production can be called **shadow prices**."

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS**  
**COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

<b>Tax &amp; subsidies</b>	<ul style="list-style-type: none"> <li>• Tax and subsidy element in cost /revenue components are included in calculation (Irvin, G. 1978).</li> </ul>	<ul style="list-style-type: none"> <li>• Tax and subsidy elements are transfer payments and not included in calculation (Squire, L. and Van Der Tak, H. G. 1975).</li> </ul>
<b>Finance Costs</b>	<ul style="list-style-type: none"> <li>• 2 style process: In 1<sup>st</sup> stage, to answer the question “Does the project increase the wealth of the owner?” you should disregard financial flows such as loan charges (these are dealt with in the discount rate). In the 2<sup>nd</sup> stage, risk management style, look at the financing cash flows and consider how to reduce financial risk.</li> </ul>	<ul style="list-style-type: none"> <li>• Capital financing charges such as loan charges are not included in the calculations.</li> </ul>
<b>Residual value<sup>9</sup></b>	<ul style="list-style-type: none"> <li>• Capital asset may be assumed to have zero value at the end of the period used for appraisal or it may have a residual market value.</li> </ul>	<ul style="list-style-type: none"> <li>• Depreciation, economic multiplier effects and sunk costs are not included (New South Wales Treasury, 1997).</li> </ul>
<b>Externalities</b>	<ul style="list-style-type: none"> <li>• Externalities are not included in the analysis.</li> </ul>	<ul style="list-style-type: none"> <li>• Externalities included in the analysis.</li> </ul>
<b>Inflation</b>	<ul style="list-style-type: none"> <li>• Conducted in nominal prices with a nominal discount rate (World Bank, 1996).<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Should be conducted in real (constant) prices with a real discount rate (World Bank, 1996).</li> </ul>
<b>Time Horizon<sup>11</sup></b>	<ul style="list-style-type: none"> <li>• Done over the intended ownership period.</li> </ul>	<ul style="list-style-type: none"> <li>• Done over the whole economic life of the asset.</li> </ul>

Table 2.1: Comparison of financial and economic appraisal

Please see Appendix C for the checklist of costs and benefits in financial and economic appraisals.

<sup>9</sup> Residual value should be understood as the market value for the fixed assets (or liquidation value of assets in the case they are sold out at end year) and includes the appraisal of the net revenues the project can generate beyond time horizon, before any substantial revamping or replacement of the old investment. Even if the project would not be really liquidated at end year, project analysis considers as the end of the project cycle coincides with the liquidation of residual investments.

<sup>10</sup> Setting up the cash flow of a project in nominal prices requires an inflation forecast. Therefore, it is preferable to use real prices for both financial and economic appraisals and then to conduct sensitivity analysis to estimate the impact of different inflation rates on the project's cash flows.

<sup>11</sup> “Time horizon is the maximum number of years for which forecasts are provided. The number of year usually reflects the lifetime of the investment and project cycle. The choice of time horizon can seriously affect the results of the appraisal process” (Florio and Vignetti 2003 pg..12).

## 2.5 FRR & ERR

The difference between FRR and ERR is that the former is an internal rate of return based on observed prices and tariffs, without any attempt to consider the opportunity costs of inputs and outputs and to include positive or negative externalities arising from the project. In contrast, ERR should be calculated during, whenever this is relevant, a shadow price reflecting opportunity costs of resources used by the project or created by it as a result of purchases and sales. Moreover the economic analysis of project should include any increases or decreases of quantities of goods in the economy for third parties if generated by the project and not accounted for by market transactions or any other form of monetary compensation.

Thus, any difference between FRR and ERR must be always seen as the result of using a different set of prices when considering the variations in quantities of projects inputs and outputs. Typical examples of corrections of observed prices are shadow prices for labour under a régime of unemployment, corrections for custom duties and other indirect taxes, correction for public tariffs or monopoly prices, etc. Corrections for externalities can be considered as way to give an accounting price to goods otherwise priced zero in financial analysis.

We can say that price distortions (including taxes on goods and factors of production) and externalities create a wedge between observed and economic values (price times quantities) and that this wedge is measured by the difference between FRR and ERR (Massimo, 1999).

## 2.6 Integration of Financial and Economic Appraisals

“To undertake an integrated financial and economic appraisal two steps need to be taken” (Brent, 1998, pg. 92):

First, the projects financial profile should be compared on a period-by-period basis and not just summarised in a single statistic as the NPV or the IRR.<sup>12</sup> Such summary criteria examined in isolation do not assess accurately the sustainability of

---

<sup>12</sup> This relates to “affordability” of the project.

a project or its riskiness. It's the examination of the cash-flows year-by-year over the project's lifetime that will give the analyst an indication of the sustainability and financial riskiness of the project.

Secondly, financial and economic analysis must be expressed in the same unit of account or numeraire (Ward and Daren, 1991). If the units of account are different for the financial analysis and the economic analysis, the differences between the economic and financial values will have no significance or meaning.

Financial variables are usually expressed in "domestic prices at domestic price level". Analysts who want to take an integrated approach to examining the risk, sustainability and distributional impacts of the project, will usually find it much easier to work with domestic prices at the domestic price level so that the economic and financial analyses of a project can be readily compared (Jenkins, 1997).

When the economic values and corresponding financial variables are expressed in terms of the same numeraire, the economic value of any input or output can be expressed as the sum of its financial value and the externalities (Brent, 1998).

**When there are no distortions in the market,** the gross value of a non-traded good or service from a project, which causes a significant change in the price of the good or service, can be decomposed into:

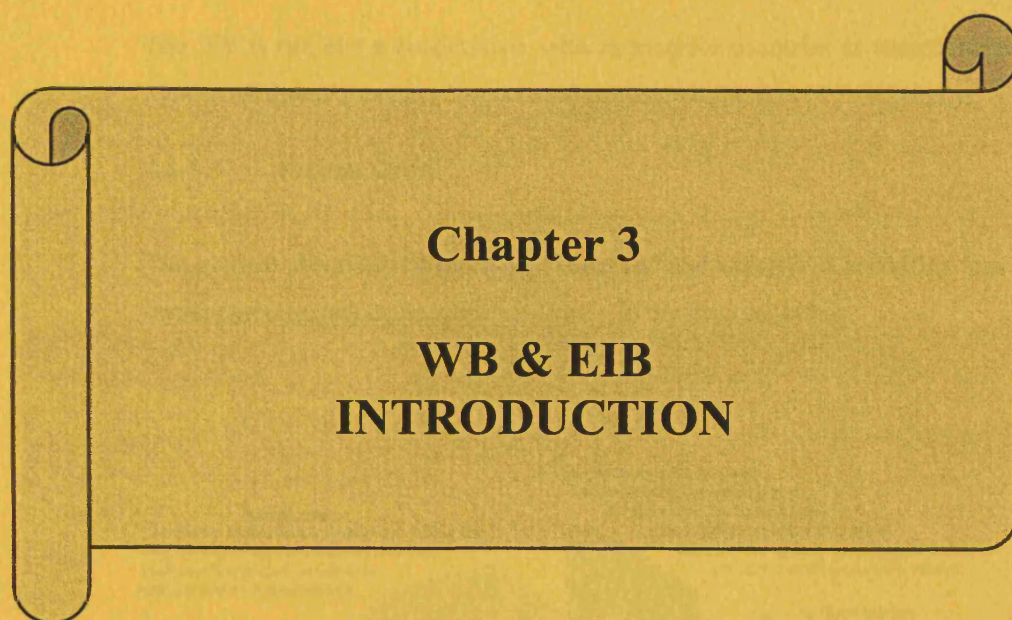
**Economic value=** Financial value of the output + gain in consumer surplus –  
loss in producer surplus

**When the market is distorted by a unit tax,** the gross value of the output of a project can be expressed as:

**Economic value=** Financial value of the output + change in government tax  
revenues + gain in consumer surplus – loss in producer  
surplus

**For the case of an importable good subject to a tariff,** the economic cost of the input can be expressed as:

**Economic value=** Financial value of the output – gain to government from  
tariff revenues paid on the purchase of item + loss in  
government revenues because of foreign exchange  
premium on foreign exchange used to purchase this input.



## **Chapter 3**

### **WB & EIB INTRODUCTION**



### 3. WB & EIB INTRODUCTION

#### 3.1 World Bank

WB is a development Bank which provides loans, policy advice, technical assistance and knowledge sharing services to low and middle income countries to reduce poverty. The Bank promotes growth to create jobs and to empower poor people to take advantage of these opportunities.

The WB is run like a cooperative, with its member countries as shareholders. The number of shares a country has is based roughly on the size of its economy.

##### 3.1.1 Project Cycle

The projects the Bank finances are conceived and supervised according to a well-documented project cycle, which is shown in the diagram below.

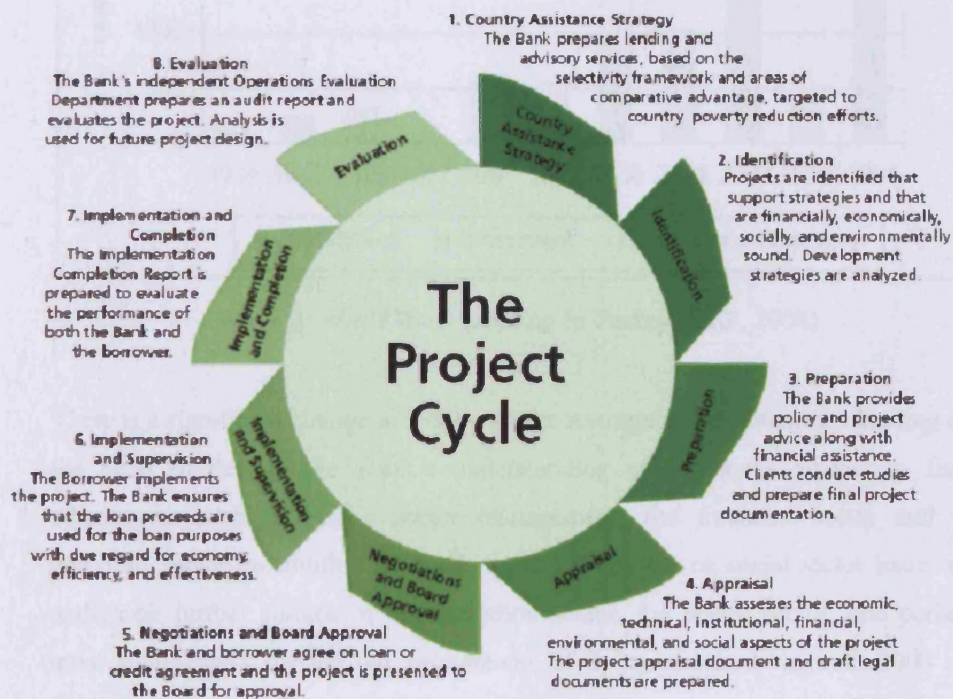


Fig. 3.1: World Bank Project Cycle (World Bank Website, 2004)

WB project appraisal covers five major aspects of the project:

- Technical
- Institutional
- Economic
- Financial
- Environmental

### 3.1.2 WB lending in Turkey

WB lending in Turkey is shown below:

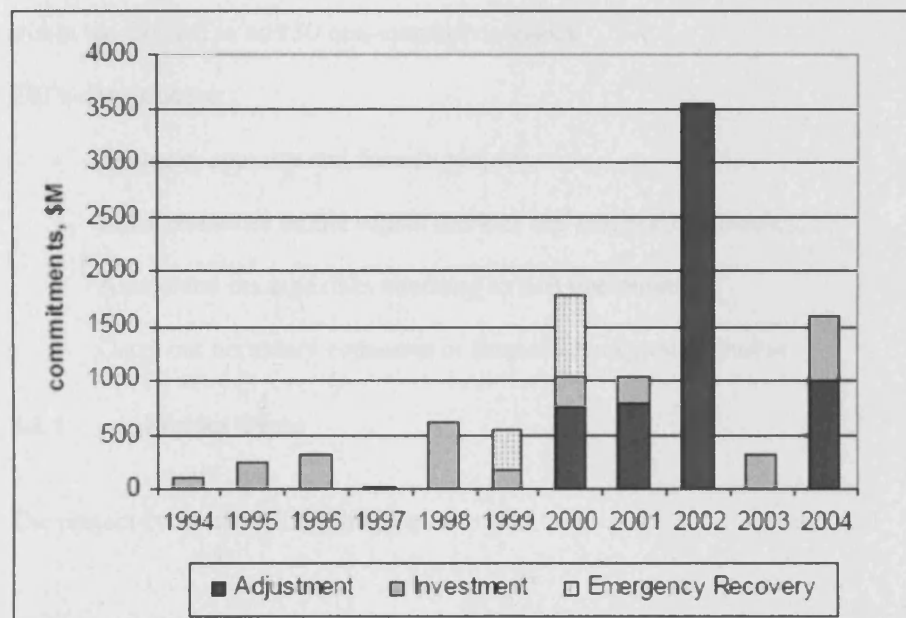


Fig. 3.2: World Bank Lending in Turkey (OEP, 2004)

There is a significant change in 1999 with the resumption of adjustment lending and the need to deepen the Bank's understanding of the areas critical to fiscal adjustment, such as public sector management, the financial sector and the corporate sector. In addition the Bank expanded its work on social sector issues and undertook further studies of the education sector, the health sector, and perhaps most significantly carried out assessments of living standards in both 2000 and 2003.



## **3.2 European Investment Bank**

“EIB is the European Union's financing institution and its task is to contribute towards the integration, balanced development and economic and social cohesion of the Member Countries” (EIB Web site, 2004).

The members of the EIB are the Member States of the European Union, who have all subscribed to the Bank's capital.

The EIB is guided by the EU's policies and active in all economic sectors, both within the EU and in its 150 non-member countries

EIB's departments:

- Evaluate, appraise and finance projects,
- Raise resources on the capital markets and manage the treasury,
- Assess and manage risks attaching to EIB operations,
- Carry out necessary economic or financial background studies

### **3.2.1 Project Cycle**

The project cycle of EIB is shown below.

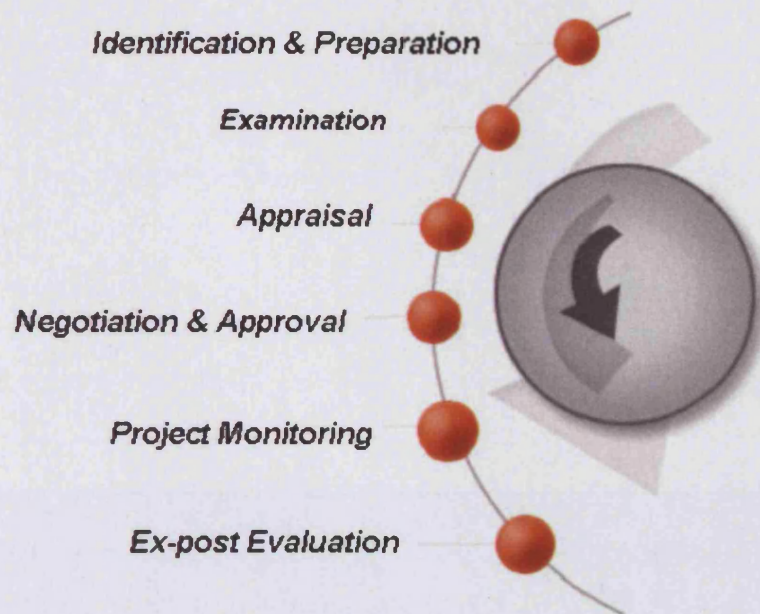


Fig. 3.3: EIB Project Cycle

EIB assesses the viability of projects from four points of view (EIB Web site, 2004):

- Technical
- Environmental
- Economic
- Financial

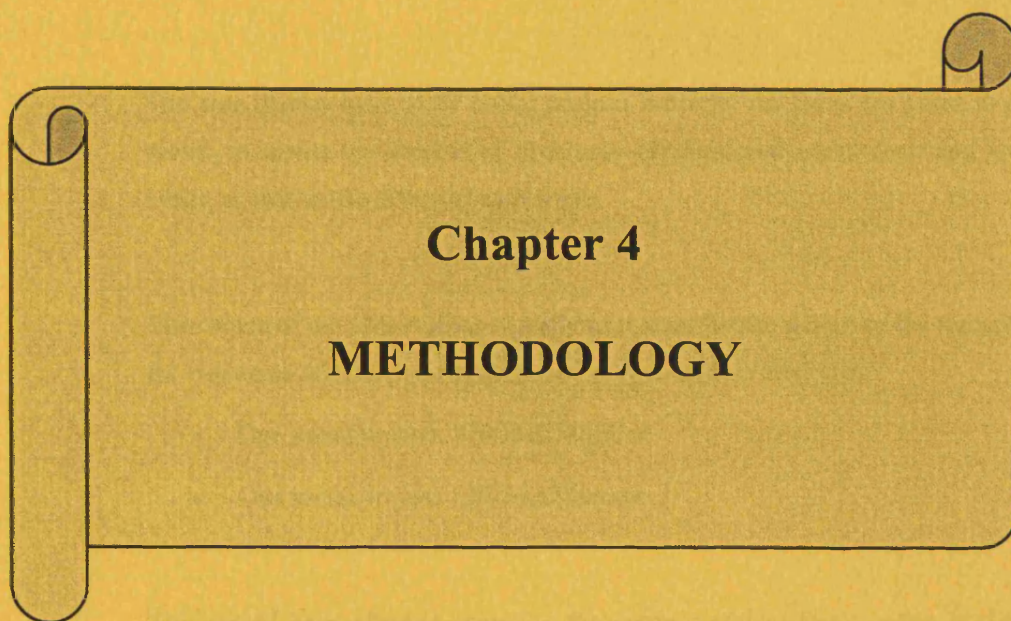
### 3.2.2 EIB lending in Turkey

The EIB's long record of lending activity in Turkey began in 1965 when Turkey signed a cooperation agreement with the European Union. From 1965, the EIB has channelled some EUR 2.5 billion in Turkey.

EIB lending in Turkey currently takes place under the following facilities:

- Facility for Euro-Mediterranean Investment and Partnership (FEMIP);
- Special Action Programme (EUR 450 million for EIB lending over the period 2000-2004).





## **Chapter 4**

# **METHODOLOGY**

## **4. METHODOLOGY**

### **4.1 Choice of research methodology**

The preferred method to carry out this report will be case study based.

Case studies will be used to encourage in-depth investigation of project appraisal processes of WB and EIB. In order to explore the selected projects deeply and understand the process better, interviews with the key bank staff will be carried out.

The case studies have to be social projects whereby the loans are given to public sector, to assess the success of economic appraisal and social costs and benefits better, as well as the financial cash flows.

The choice of the case studies is really important for the design of the research and the outcomes. Ideally, case studies would be chosen on this basis:

- One social project, WB lead financier
- One social project. EIB lead financier

This would have allowed assessing the success of two Banks when leading the project. But unfortunately there are no two social projects that both WB and EIB financed under the same country programmes and comprising construction elements on the above basis.

### **4.2 Case Studies**

For the purpose of this study, “Marmara Earthquake Emergency Reconstruction Project” and “Basic Education Project” have been identified as case studies according to the following criteria:

- Both projects are part of a country programme.
- WB and EIB are co-financers in both projects, financing different parts of a same country programme.

- Both projects are social infrastructure projects, comprising construction projects.
- Both projects do not create revenue through their life cycle.
- Therefore, both projects face the challenge of valuing and estimating flows of non-financial benefits.<sup>13</sup>
- Also, both projects are in danger of their appraisals replacing benefit/cost ratio by cost comparison or least cost.

	<b>MARMARA EARTHQUAKE EMERGENCY RECONSTRUCTION PROJECT</b>		<b>BASIC EDUCATION PROJECT</b>	
	<b>WB</b>	<b>EIB</b>	<b>WB</b>	<b>EIB</b>
<b>Country Programme</b>	Earthquake reconstruction framework programme		Basic education programme	
<b>Region</b>	Europe & Central Asia	Mediterranean Countries	Europe & Central Asia	Mediterranean Countries
<b>Sector</b>	Urban Development	Urban Development	Primary Education	School Infrastructure
<b>Project financing</b>				
Loan amount	505m \$	600m Euro	300m \$	50m Euro
Grace period	3 years	3 years (1999- 2002)	3 years	
Years to maturity	15 years		15 years	
Project implementation period	1999-2004		1998-2001	

Table 4.1: The case study projects

---

<sup>13</sup> In the end, it becomes an accounting exercise but can not show an <sup>financial</sup> economic benefit gained.

#### **4.2.1 Marmara Earthquake Emergency Reconstruction Project (MEER)**

At the request of and in cooperation with the Government of Turkey (GOT) and other international partners, WB has prepared a Framework Program as a comprehensive response to the August 17 Marmara earthquake. Implementation of the Framework Program is supported by the Bank and other co-financiers as follows:

The main objective of the Framework Program is to help restore the living conditions in the region of Turkey that was affected by the August 17, 1999 Marmara earthquake, support economic recovery and resumption of growth, and develop an institutional framework for disaster risk management and mitigation. To achieve this objective, the Framework Program helped the Government:

- Upgrade the disaster response systems
- Rehabilitate the damaged business sector and reduce the social effects of the earthquake,
- Reconstruct and repair affected housing and municipal infrastructure (World Bank, 1999)

The EIB is participating in funding the investment project, in cooperation with other multilateral financing institutions, including World Bank and Council of Europe Development Bank.

EIB finances the TERRA (Turkish Earthquake Rehabilitation and Reconstruction Assistance) framework which provides for a total of EUR 600 million in the form of loans to be engaged over a three-year period. It is used mainly for restoring housing and all essential economic and social infrastructure, including environment, transport, energy, health and education. It has also a particular focus on rehabilitating small businesses. Of this 600m, EUR 200 million was in the form of global loans and was channelled to SMEs in the areas of industry, services and tourism.

The details of the framework programme are shown below.

<b>Framework Program</b>		<b>Indicative Costs (US\$M)</b>	<b>Main Source of Finance</b>
<b>Component A:</b>	<b>Disaster Response System and Risk Mitigation</b>	419.16	World Bank
Sub-component A1:	National Emergency Management System	110.17	World Bank
Sub-component A2:	Disaster Insurance Scheme	273.00	World Bank
Sub-component A3:	Land Use Planning and Enforcement of Construction Codes	11.78	World Bank
Sub-component A4:	Cadastre Renovation and Land Management	24.21	World Bank
<b>Component B:</b>	<b>Trauma Program for Adults</b>	6.89	World Bank
<b>Component C:</b>	<b>Construction of Permanent Housing in Bolu, Kocaeli and Yalova</b>	293.32	World Bank
<b>Component D:</b>	<b>Project Management</b>	12.69	World Bank
<b>Component E:</b>	<b>Business Rehabilitation</b>	109.72	Other co-financiers
<b>Component F:</b>	<b>Construction of Permanent Housing in Bolu, Sakarya, Yalova, Istanbul, Bursa and Eskisehir</b>	177.07	Other co-financiers
<b>Component G:</b>	<b>Repair of Existing Housing Stock and Healthcare Facilities</b>	632.12	Other co-financiers
<b>Component H:</b>	<b>Rebuilding and Repair of Roads, Water supply Systems, Wastewater Systems, Power Distribution Networks</b>	139.73	Other co-financiers
<b>Front-end Fee</b>		5.05	
<b>Total Program Costs</b>		1795.75	of which, US\$505 World Bank Financing

Table 4.2: The MEER project components

#### 4.2.2 Basic Education Project

The Basic Education Program is the Government's action program to apply its new basic education strategy. The objectives of the strategy (and of the Program) are:

- To achieve universal coverage in an expanded, eight-year basic education cycle (formerly, five years),
- To improve the quality and relevance of basic education

- To make basic education schools a learning resource for the community.

The Program aims to achieve these objectives by:

- Expanding the capacity of basic education schools throughout the country
- Facilitating school attendance of children who are least likely to attend school
- Reducing classroom overcrowding and double shifting
- Improving training and incentives for teachers,
- Improving the supply of educational materials to basic education schools
- Introducing computer-aided learning
- Increasing parental and community involvement in schools.

	<b>Framework Program</b>	<b>The Government (US\$M)</b>	<b>Provisional Administration (US\$M)</b>	<b>World Bank (US\$M)</b>	<b>Total (US\$M)</b>
<b>Component A:</b>	<b>Expanded basic education coverage</b>				
	Construction and upgrading of basic education school	1,247.4	24.6	46.4	1,472.2
	Teacher training and recruitment	650	-	-	650
<b>Component B:</b>	<b>Improve basic education quality</b>				
	In-service training program	5.8	-	31.2	37.0
	Educational materials	44.1	2.0	47.6	93.7
	Information technology	28.8	14.8	154	197.6
	Assessment of learning outcomes	0.1	-	0.7	0.9
<b>Component C:</b>	<b>Program Implementation</b>				
	Program management team	42.4	-	1.8	44.2
	EMIS School Mapping	0.6	0.3	3.0	3.9
<b>Component D:</b>	<b>Monitoring and evaluation</b>				
	Social assessment, monitoring and studies	0.5	-	3.0	3.5
	Monitoring response facility	1.6	-	8.4	10.1
	Basic education promotion	0.3	-	0.9	2.2
<b>Total Program Costs</b>		<b>2,021.7</b>	<b>41.7</b>	<b>300</b>	<b>2,515.2</b>

Table 4.3: The Basic Education project components



The EIB loan, amounting to EUR 50 million is made available to the Republic of Turkey for the Turkish Ministry of National Education as part of the Basic Education Programme.

## **4.3 Interviews**

### **4.3.1 WB Interviews**

Visits to WB office in Ankara and International Finance Corporation office in Istanbul have been made on the 27<sup>th</sup> and 28<sup>th</sup> of January 2004. A series of interviews have been carried out with the following Bank staff:

- Tunya Celasin – WB External Affairs Officer
- Ibrahim Sirer – WB Senior Procurement Specialist
- Ilker Cetin – IFC Investment Officer

Please find the details of the *questionnaire* and *responses* in Appendix B.

### **4.3.2 EIB Interviews**

A visit to European Investment Bank's Premises in Luxembourg has been done on the 23<sup>rd</sup> and 24<sup>th</sup> of November 2004. A series of interviews have been carried out with the following Bank staff.

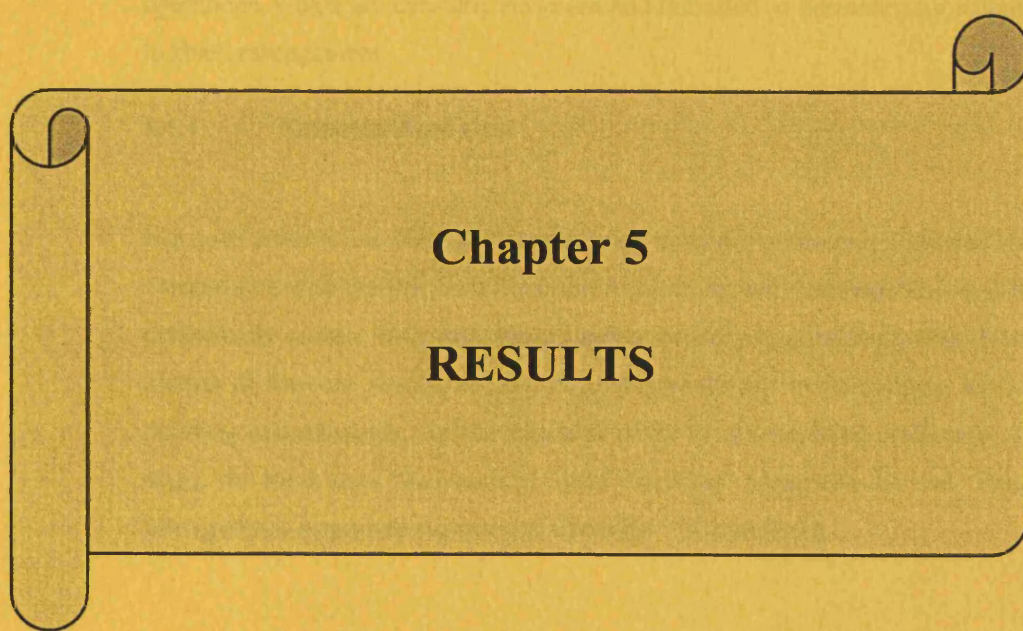
#### **Operations Evaluation**

- Hakan Lucius – Country Officer for Turkey
- Frank Lee – Directorate for Lending Operations
- Andrea Pataki – SEE Department, Loan Officer
- Nicholas Barclay – SEE Department, Loan Officer

#### **Project Directorate**

- John Davis – Projects Directorate
- Luisa de Almeida Ferreira – Senior Education Economist

Please find the details of the *questionnaire* and *responses* in Appendix A.



## **Chapter 5**

## **RESULTS**

## **5. RESULTS**

### **5.1 World Bank project appraisal**

The Bank is solely responsible for project appraisal, which is usually conducted by Bank staff, sometimes in cooperation with consultants, who spend three to four weeks in the client country. The appraisal team reviews all the work conducted during identification and preparation. The team prepares a Project Appraisal Document (PAD) for investment projects, and a Program Document for structural operations, which are carefully reviewed and redrafted as necessary for submission to Bank management.

#### **5.1.1 Financial Appraisal**

For each country, as the Bank Region may consider necessary, Regional staff in consultation with the Regional Financial Accounting and Auditing Adviser (RFAA) periodically review, inter alia, the country's statutory requirements with respect to matters of financial accountability; the government's role in determining accounting practices and standards; and the standards of the local accounting profession. At this stage, the Bank uses "Accounting Cycle Checklist" (Appendix D) and "Financial Management Appraisal/Assessment Checklist" (Appendix E).

The Financial Management team finalizes the assessment of the Financial Management arrangements through using the Financial Management Questionnaire (Appendix F) and the Financial Management Report.

Regional staff ensures that the borrower's Project Implementation Plan describes, as appropriate;

- The financial management systems of the borrower and the project implementing entities, particularly their accounting and auditing policies, standards, and internal controls;
- The role of these financial management systems in project management and implementation;
- Their role in the longer-term development of the project implementing entities;

- The accounting arrangements required for project management, the format for and content of project financial reporting, and the auditing arrangements that will be used during project implementation.

In the Project Appraisal Document (PAD), Regional staff:

- Record their assessment of the adequacy of the financial management system and of the financial performance of any revenue-earning entities, and describe and give a timetable for any measures proposed to improve capabilities.
- Describe the status of the borrower's and the project implementing entities' compliance with audit covenants in existing Bank-financed projects, and explain any actions being taken to address non-compliance.
- c) Record agreements with the borrower on standards and formats for audited financial statements and the timetable for their submission.

Please see Appendix G for further details of financial appraisal process in World Bank.

### **5.1.2 Economical Appraisal**

Once the financial analysis is complete, the flows and prices need to be adjusted to reflect net benefits to society. All subsidies and taxes must be removed from the adjusted financial flows, taking into account the project externalities.

After correctly identifying the streams of costs and benefits, the analyst needs to price them right.

Please see Appendix G for further details of economic appraisal process in World Bank.

## 5.2 EIB project appraisal

EIB examination focuses on the eligibility of the project during project appraisal. Within the European Union, projects considered for EIB financing must contribute to one or more of the following objectives:

- Strengthening economic and social cohesion: promoting business activity to foster the economic advancement of the less favoured regions;
- Improving infrastructure and services in the health and education sectors, key contributors to human capital formation;
- Developing transport, telecommunications and energy transfer infrastructure networks with a Community dimension;
- Preserving the natural and urban environment, notably by drawing on renewable energy;
- Securing the energy supply base by more rational use, harnessing of indigenous resources and import diversification;
- Assisting the development of SMEs by enhancing the financial environment in which they operate:
  - Through medium and long-term loans;
  - Through venture capital support.

**Outside the Union,** the Bank participates in implementing the Union's development aid and cooperation policies through long-term loans from own resources or subordinated loans and risk capital from EU or Member States' budgetary funds.

The following criteria form the basis of a standard EIB appraisal but are tailored to each individual project. Please refer to Appendix H for details.

- Rationale for Bank financing: eligibility, value added of the operation.
- Market and sector: It looks at the sector in question, establishes worst and best-case scenarios based on reasonable projections and assesses the promoter's qualities in relation to the project and the project's ability to meet existing demand.

- Technical description, capacity
- Investment cost
- Implementation
- Operation
- Environmental impact
- Prices, tariffs and financial return from the project
- Economic benefits
- Financial and credit risk analysis

#### **5.2.1 The process**

EIB Project Directorate carries out a “**Techno Economic Appraisal**”, where an engineer and economist work in teams to carry out one appraisal for the project. This appraisal covers; financial, economic and technical aspects. Broadly the following issues are dealt with:

- Costs
- Environment
- Market
- Procurement
- Implementation of the investment
- Operation of the investment
- Employment impact

Simultaneously, Operations Department carries out a financial appraisal to assess the credit riskiness of the borrower, which depends on the borrower type, security of the borrower etc. In addition to this, occasionally Credit Risk department might give a second opinion on the risks of the borrower.

EIB has a very conservative approach in terms of borrower's risk. They are reluctant to take any credit risk of the borrower. In private sector, EIB only gives finance to companies that are guaranteed by parent foreign direct investment.<sup>14</sup>

The public projects financed in Turkey are guaranteed by Treasury and European Commission as part of "Mandate" loan agreement.<sup>15 16</sup>

As part of the techno economical and financial appraisals, both Operations and Projects Directorate carry out "**Value Added**" analysis. Value Added has the following Pillars:

- Consistency with the priority objectives of the EU (Pillar 1)
- Quality and soundness of the investment (Pillar 2), for individual loans
- Quality of the intermediary (Pillar 2), for framework, programme and global loans
- Financial value added (Pillar 3), for individual, framework and programme loans
- Financial benefits to the final beneficiary (Pillar 3) – for global loans

From the interviews with EIB staff, the key steps in the appraisal stage have been identified as follows:

- 1) **Fact Sheet A:** This is prepared before appraisal, at site visit stage, to get opinion from the European Commission and the local authorities.
- 2) **Mission/Site Visit:** Site visits are carried out by 1 staff from Operations Department and 1 engineer and 1 economist from the Project Directorate. When EIB lends to governments, Project Directorate is not involved in the site visits.

---

<sup>14</sup> World Bank differs from EIB in this respect. They're willing to take risk which makes their rates more expensive.

<sup>15</sup> In 2001, Turkey was included in the list of countries eligible for finance under the Bank's Pre-Accession Facility. However, loans signed during the financial year (370 million) were made under the Euro-Mediterranean partnership and the TERRA facility.

<sup>16</sup> World Bank takes a different country risk for Turkey.

- 3) **Appraisal Report:** Comprises the “Techno Economical” appraisal report from the Project Directorate, the financial report from the Operations Department and Credit Risk Directorate’s opinion if they are involved.
- 4) **Fact Sheet B:** This is represented to the Management Committee who meets once a week. It forms the basis of the approval. Management Board has a right to approve the project, if it’s less than 200m Euro.
- 5) **Board Report:** Board members are the representative of countries and they meet once a month. If the project is more than 200m. Euro, then the Board needs to approve it. Please view the blank copy of the “board report” in Appendix I

### 5.3 Comparison of World Bank and EIB

Before comparing the two banks on the basis of the questionnaire, a further study done by Massimo Florio will be investigated to identify the main differences in the FRRs and ERRs used by the two banks as well as EBRD.

Massimo Florio (1999) has analysed data on the rates of return of investment projects sponsored by European Union (EU), the European Bank for Reconstruction and Development (EBRD) and the WB. The focus of his paper is on the variability of ex-ante economic rate of return (ERR), financial rate of return (FRR) and ex-post or re-estimated ERRs (RERR).

His comparison was based on the following criteria:

- The projects considered were approved in late 80s.
- Geographical coverage is:
  - EU: Objective 1 Regions of the EU
  - EBRD: Centre-Eastern Europe and former Soviet Union Republics
  - WB: A large array of less developed countries, particularly in Asia, Latin America and Africa.
- 9 sectors have been compared.



- Total investment costs for most projects maybe in the region of USD 15-50 million; however some mega and small projects exist as well.

The following table compares FRRs average values:

<b>SECTORS</b>	<b>FRR AVERAGE</b>		
	<b>EBRD</b>	<b>WB</b>	<b>EU (EIB)</b>
Energy transport and distribution	21.61	n/a	5.1
Energy production	25.71	n/a	10.8
Roads and highways	17.68	n/a	3.9
Railways and underground	18.36	n/a	6.6
Ports, airports	26.05	n/a	9.7
Water supply, transport and distribution	15.07	n/a	-1.0
Telecommunication infrastructures	27.41	n/a	
Industries and other productive investments	23.16	n/a	19.6
<b>Total Sample</b>	<b>23.04</b>		<b>12.2</b>

Table 5.1: Comparison of FRRs

In the total sample average, EBRD's FRR is almost two times UE. There might be three reasons for that:

- EBRD uses a 10% cut-off rate, while EU does not have any fixed threshold.
- EBRD portfolio is influenced by a high number of telecommunications and energy projects, with a high rate of return.
- There may exist structural differences in the tariff policies in Centre-Eastern Europe and Western Europe: EBRD may expect a substantial rise in tariffs for services such as transport and water, while this is not the case for EU member states.

The following table compares ERRs average values: <sup>17</sup>

SECTORS	ERR AVERAGE		
	EBRD	WB	EU (EIB)
Energy transport and distribution	35.73	22.94	14.19
Energy production	44.48	14.69	11.70
Roads and highways	23.51	33.34	18.63
Railways and underground	21.43	25.97	16.68
Ports, airports	...	23.15	17.43
Water supply, transport and distribution	25.90	10.68	18.92
Telecommunication infrastructures	38.56	24.11	...
Industries and other productive investments	28.28	26.71	...
<b>Total Sample</b>	<b>31.82</b>	<b>25.03</b>	<b>17.19</b>

Table 5.2: Comparison of ERRs

The average values of ERRs across the three sources differ strikingly. This might be because of the inconsistent cost benefit analysis.<sup>18</sup> Also, it can be observed that there is a wedge between the FRRs and the ERRs, which might be occurring from price distortions (including taxes on goods and factors of production) and externalities.

Massimo's findings are as follows:

- Using industry FRRs as benchmark, EBRD has in all sectors much higher expectations than EU.
- The intersectoral wedge between financial and economic rates of return may be a useful indicator of the width of the correction that cost-benefit analysis introduces on observed prices. For example, average correction for the EU roads and railways is a multiple of EBRD corresponding data.
- The average gap between ex-ante and ex-post rates of return points to forecasting errors: above average error across sectors may suggest a

---

<sup>17</sup> Projects for fiscal year 88.

<sup>18</sup> In practice, cost benefit analysis is more heterogeneous amongst institutions.

revision of appraisal methods. The ex-post rates were only available for WB and it has been discovered that the average difference in more recent years is diminishing. However, in some sectors, there is a constant forecasting optimism around 30% or more of the ex-ante ERR.

Unfortunately the specific FRRs and ERRs for the case studies were not available; therefore a comparison on this basis is not possible for the purpose of this study. But Massimo's points give an indication of the two Banks approach in terms of selecting rates for discounting cash flows.

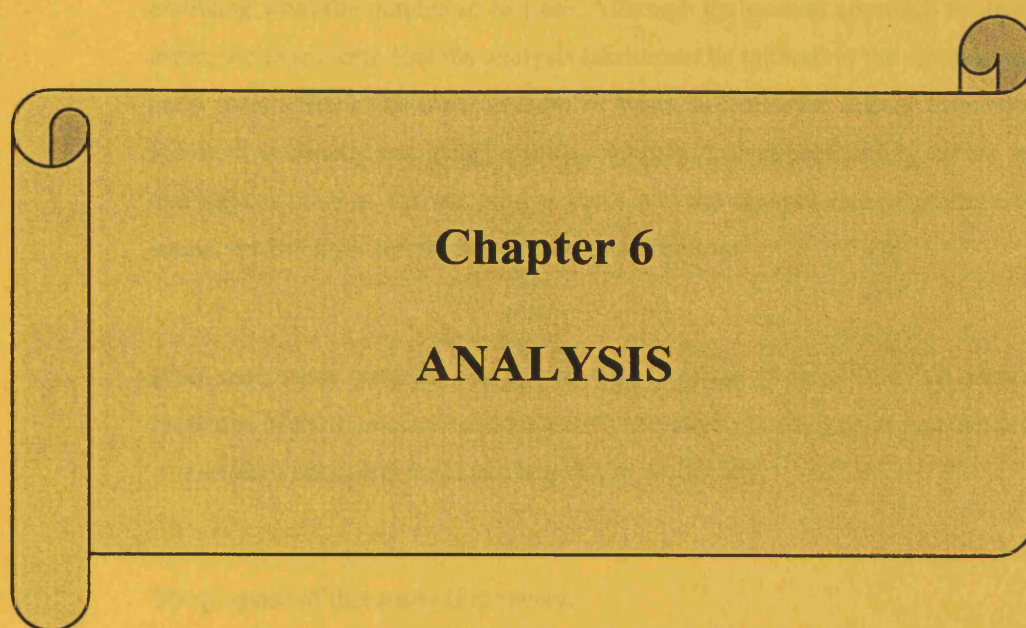
#### **5.3.1 Comparison of project appraisal processes of WB and EIB**

Based on the interviews with the Banks' staff, the major differences between the two banks have been identified as follows (Please see questionnaires in Appendix A & B for the details):

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS**  
**COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

<b>WORLD BANK</b>	<b>EUROPEAN INVESTMENT BANK</b>
Financial appraisal is completed then economic appraisal is carried out by adjusting flows and prices.	Techno Economic appraisal is carried out. Financial and economic appraisal is done at same time. More integrated approach in appraisal process.
Accepts a rate of return threshold for project appraisals.	Does not have a fixed rate of return threshold.
Does not consider project whose ex-ante rate of return is less than the threshold.	Does not have a fixed rate of return threshold.
WB differs from EIB in terms of lending policy and takes more risk. Therefore, WB interest rates are higher.	EIB is very conservative; it is reluctant to take any credit risk of the borrower.  EIB only gives finance to companies that are guaranteed by foreign direct investment.
Long process, many bank staff from different specialities is involved.	Shorter process, less no of staff involves.
Uses both NPV and IRR methods for appraisals.	Rarely uses NPV, prefers using IRR as it uses today's money, it's more robust, clearer and simpler compared with NPV method.
	Has a special method used for financial appraisals, called "value added" method.
Uses domestic prices at domestic price level.	Within EU, as there are no tariffs, the numeraire is same. Outside EU, EIB assesses projects within the country or the specific markets.
Opportunity cost of capital (OCC) is used for discounting public and private sector projects.	Opportunity cost of capital is used for discounting public sector projects, whereas weighted average cost of capital (WACC) is used for private sector.
When co-financing with EIB, World Bank carries out the appraisal independent of EIB.	When co-financing with WB, EIB builds up on WB technical specifications, procurement route and implementation strategy.

Table 5.3: Comparison of WB and EIB



## Chapter 6

# ANALYSIS

## **6. ANALYSIS**

As Baum and Tolbert (1985), state in their reading of WB experience in project analysis:

"The difficulties of measuring benefits vary a great deal among projects in different sectors, as one would expect; they range from problems in determining what the additional outputs produced by the project are worth to the economy to problems in assessing what the outputs in fact are. Although the general approach is always the same, the exact form that the analysis takes must be tailored to the circumstances of each sector. Since the measurement of costs and benefits differs from sector to sector, it is usually not meaningful to compare project profitability across sectors, and indices such as the net present value and the internal rate of return are not a sound yardstick for intersectoral resource allocation."

Both case study projects are not revenue creating projects and "no meaningful measures of the monetary benefits exist", therefore the analysis in practice focus on cost-effectiveness and costs and benefits to the society.

The purpose of this study is to reveal:

- The success of the appraisal processes and
- The difficulties of;
  - Implementing in practice.
  - Reconciling or combining financial and economic appraisals.

through investigating the case studies.

## 6.1 Basic Education Project

WB implementation completion report (June 2004) for the Basic Education Project states the principal performance ratings as:

Outcome	: Unsatisfactory
Sustainability	: Likely
Institutional Development Impact	: Negligible
Bank performance	: Unsatisfactory
Borrower performance	: Unsatisfactory
Quality at entry	: Satisfactory
Project at risk at any time	: Yes

The WB project appraisal document *did not define clearly the development objectives* and there were *no measurable outcomes*. This obviously caused problems in the monitoring. It also did not allow meaningful supervision by the implementation agency and the Bank.

Despite this, a Quality at Entry Assessment was conducted and the project was rated as “satisfactory” in terms of project’s concept, objectives, approach, environmental aspects, poverty and social aspects.

There were significant *delays* in the procurement due to the lack of capacity in the PCC, the political instability and frequent changes of government’s internal rules and regulations.

The problems on implementation were predicted by the WB at preparation, but were not fully addressed. The *Bank’s overall supervision performance was unsatisfactory* as well.

*WB did not consistently evaluate its value-added role nor continuously assess its options to make a larger impact on the program.*

## 6.2 Marmara Earthquake Emergency Reconstruction Project

Unfortunately, the post evaluation report for this project was not available for the purpose of this study, as some components of the project were still going on.

MEER project had to be implemented very quickly to cope with the affects of the big earthquake. The idea was to replace the damaged infrastructure and houses in the region. Therefore, *no cost-benefit analysis* had been carried out and no other alternatives for the development of the region had been considered due to the time constrains.

It's difficult to point out criticisms to the WB appraisal process in this case, even though one would argue, this would be a good chance to re-develop a region, considering the infrastructure, supply-demand balances, requirements of the region, and possible improvements. Unfortunately as the government was not economically capable enough to develop temporary solutions for the affected people meanwhile working in correlation with the Bank staff to design new development strategies for the region, the loan was used for the replacement of the existing services and infrastructure only.

In terms of replying to an urgent demand, the loan could be regarded as satisfactory. But unfortunately, the *quality of construction output delivered was unsatisfactory* and the project component for creating an "*Emergency Management and Response System*" is still not fully operational.

Earthquakes are unavoidable in Turkey and there should be plans in place and preparations should be completed for possible future earthquakes. Both the government and the Banks should think in advance to do better next time, have good plans in place and decide *what to or not to replace* the next time.

For both of the case studies, EIB was dependent on the WB appraisal for the overall soundness of the programme. Unfortunately separate data for evaluating the success of the EIB financed components is not available.



The first part of the report, the introduction, sets the context for the study. It describes the problem being investigated and the objectives of the study. It also provides a brief overview of the methodology used and the structure of the report.

The second part of the report, the literature review, provides a comprehensive overview of the existing research on the topic. It identifies the key findings of previous studies and highlights the gaps in the literature that the current study aims to address.

The third part of the report, the methodology, describes the research design and the methods used to collect and analyze data. It includes a detailed description of the sample, the data collection instruments, and the statistical analysis techniques.

The fourth part of the report, the results, presents the findings of the study. It includes a detailed description of the data and the statistical analysis results. It also includes a discussion of the implications of the findings for practice and policy.

## Chapter 7

# CONCLUSIONS & RECOMMENDATIONS

## 7. CONCLUSIONS AND RECOMMENDATIONS

“WB and EIB are both international bodies backed by governments. They are involved in and committed to development policies” (Massimo, 1999, page 8).

Based on the interviews done with WB and EIB, the differences between the two banks have been identified and listed in Table 7.1.

<b>World Bank</b>	<b>European Investment Bank</b>
Development Bank	Public institution owned by the European Union (EU) member states, which provide its 'subscribed' and 'paid in' capital.
Mandate, terms and conditions of finance, the role of rate of return differ.	
It lends to low and middle income countries.	It lends in all of its member countries, not only in its poorer members. <sup>19</sup> It does lend through-out the world but mostly in EU.
World Bank has a very transparent policy and pays a lot of attention to environmental and social issues.	EIB lags far behind the World Bank in terms of transparency, accountability and the ways in which it addresses environmental and social issues (EIB Campaign coalition, 2003).
The World Bank has about ten times the number of employees of EIB and more than 300 environmental experts.	The number of EIB staff totals about 1000 employees, with very few full time environmental experts to review its entire lending portfolio and to ensure compliance with relevant policies.
	The EIB leaves the responsibility for compliance with environmental standards to the project promoters receiving financing.
Appraisal process, long and bureaucratic.	Shorter appraisal process, not as detailed as WB but timewise more efficient.
	Larger project lending capacity than WB.
Well established standards for various sectors and environmental procedures.	Lack of standards; EU standards are not always adequate for developing countries.

Table 7.1: Differences between WB and EIB.

---

<sup>19</sup> This differs from most other international financial institutions.

The problems in the WB and EIB appraisal processes observed through the case studies are as follows:

- **Inadequate contribution from the local WB office in Turkey to Washington:** The appraisal is carried out by the Washington office and the local office only provides procurement advice. The local office does not know the details that the financial and economic appraisals are based on. Unfortunately this prevents challenging the correctness and validity of the data used for appraisals with the local knowledge of the market.
- **EIB dependency on the WB appraisal when co-financing with WB:** EIB builds up on the WB technical specifications, procurement route and implementation when co-financing with WB.

WB carries out a very detailed appraisal, including the environmental aspects as well as all the financial and economic issues. EIB finds WB appraisal strategy adequate to build up on, as they have years of lending experience and many specialists to consider all aspects of the projects. Unfortunately, this leads the both Banks to fall in to the same pitfalls and miss the same opportunities as well as mitigate the risks.

- **Lack of supervision in both Banks;** to assure that the implementation goes smoothly and outcomes are achieved.
- **EIB lacks well established environmental policies for developing countries:** EU standards are not always adequate for outside EU. But as Turkey is in the process of adapting all its procedures to EU, this will be of less importance in the future.
- **Unsupervised EIB global loans:** The EIB provides Global Loans through national or local banks, also known as intermediaries, e.g: global loan to SMEs as part of the Earthquake loan. Such intermediaries are often unwilling to share information about environmental standards, and it has been impossible to learn if EIB or EU policies are being followed by them.

Even though there are implementation problems in the WB and EIB financed projects, they provide very good opportunities to fund projects that would contribute to the country development strategies. It is beneficial to the Borrower to get technical, environmental and political assistance as well as the long-term debts.

Bear in mind that, WB was the lead financier in both case studies. Some of the weaknesses of EIB are acceptable when co-financing with WB. But in the case that EIB is the sole funder, this would be more worrying.

With the current discussions going on for the membership of Turkey to EU, EIB becomes even more important for Turkey. There will be more funds available for Turkey from EIB in the near future and both EIB and Turkish Government (on behalf of the implementation agencies) should focus on improving the success and efficiency of the appraisal process of projects.

## **7.1 Recommendations**

- It's been observed that there are big gaps in the supervision of the projects:
  - Both banks need to improve their monitoring and course correcting during implementation, and this starts with a clear and unambiguous statement of project objectives.
  - WB needs to empower the local office in Turkey in the appraisal process and get them more involved in the assessment of the local conditions and capabilities of the implementing agencies.
  - On the other hand, EIB should not be dependent on the WB appraisal only to go ahead with the loan, but maybe carry out an individual assessment for the points that need improving or rather on the risky side.
- Focus on institutional capacity building in monitoring and evaluation of projects is critical for both Banks.
- Both Banks need to review and assess all components which contribute to development objectives, including the ones that are not financed by the Bank.
- The Banks should agree with the borrower on the outcomes and the monitorable performance measures.
- Establishment of a project management structure is a pre-requisite for implementation. It's important to assess the institutional capacity of the implementation agency during the preparation of the project and make

arrangements to ensure the management structure would meet the demand of the project implementation.

- Realistic risk assessment in project design and measures to mitigate them are essential.
- Integration of financial and economic appraisals is a must. Especially when the projects are not revenue creating (like emergency and education projects), the economic appraisals become even more important to assess the costs and benefits to the society. The integrated financial and economic analysis has number of advantages:
  - It assures that the financial and economic analyses are done in a consistent manner. If they are done correctly, the differences will be equal to a series of distributional impacts that can be identified and measured.
  - Clear identification of stakeholders and how they will fare as a consequence of a project is a key ingredient in determining the likelihood of its successful implementation, as well as in causing the authorities to consider redesigning the project so that the impact on the stakeholders is more favourable.
  - This analysis can also be used to identify the likely impact of the project on the incidence of poverty in particular groups (Jenkins, 1997).
- Cooperation between the EIB and WB is necessary, taking the form of both exchanges of information on their respective priorities and action plans and joint project appraisal missions.
- Good communication links need to be established between the Banks and the Borrower.

## **7.2 Future Research**

“It has recently been recognised that building sound domestic financial and banking markets is also a key factor in the development process” (Hurts and Peree, 1998, pg.21).

The key question is “Are MDBs and MFIs indeed efficient in reaching their objectives? Or are their privileges and advantages simply supporting inefficient and wasteful bureaucracies?”

Both WB and EIB give loans to relatively large projects as the task of originating smaller loans is prohibitively expensive. If the Banks has no impact on the quality of investment and hence the economic growth the effect of their lending could be pernicious.

Through WB and EIB loans, large amounts are spent in Turkey to contribute to the development of the country. Unfortunately, weaknesses in the project appraisal processes have been identified through the interviews with the Banks. The key problem is to appraise the right projects with right appraisal methods. Otherwise both the Banks and the borrower Country, Turkey, gets less for what's spent, which leads to the misuse of resources and not fully utilised benefits.

This research is important as it's pointing out these weaknesses in the appraisal processes of WB and EIB for social infrastructure projects funded in Turkey. As stated before, there were problem in finding the right type of projects for the case studies, as there was not one social project where EIB was the sole funder.

Further study has to be done for:

- Different types of projects funded by the Banks
- Projects where EIB is the sole financier
- A different country – what difference does it make suppose it was not Turkey?
- Further suggestions to improve the efficiency of Banks

## BIBLIOGRAPHY

### B

- Baum W.C. and Tolbert S.M. (1985), *Investing in Development. Lessons of World Bank Experience*, Oxford University Press.
- Brent, R. (1998), *Cost Benefit Analysis for Developing Countries*, Edward Elgar, Cheltenham.

### D

- Devarajan, S., Squire, L. and Narueput, S. (1997), "Beyond the Rate of Return: Reorienting Project Appraisal", *The World Bank Research Observer*, Vol. 12, No 1, pp. 35-46.

### E

- European Investment Bank Website, (2004), <http://www.eib.org>.
- The EIB Campaign Coalition, (2003), "EIB Fact Sheet 1: Invisible power in EU".

### F

- Florio, M. and Vignetti, S. (2003), "Cost-benefit Analysis of Infrastructure Projects in an Enlarged European Union: An Incentive-Oriented Approach", *Universita degli Studi di Milano DEPA Working Paper*, No. 13.2003.

### H

- Hurts, C. and Peree, E. (1998), "Only a Mid-life Crisis? The Future for IFIs in an Integrated World", *EIB Papers*, Vol.3, No.2, pp. 11- 29.

### I

- Irvin, G. (1978), *Modern Cost Benefit Analysis: An Introduction to Financial, Economic and Social Appraisals of Development Projects*, The Macmillan Press Ltd, London.

### L

- Little, I.M.D and Mirless, J.A. (1974), *Project Appraisal and Planning for Developing Countries*, Heinemann, London.

### J

- Jenkins, G. (1997), "Project Appraisal and the World Bank", *American Economic Review*, May.
- Jenkins, G. (1999), "Evaluation of Stakeholder Impacts in Cost-Benefit Analysis", *Impact Assessment and Project Appraisal*, Vol:17, Number 2, pages: 87-96.

### M

- Massimo F. (1999), "An International Comparison of the Financial and Economic Rate of Return of Development Projects", Department of Economics, University of Milan, Working Paper No: 99.06- December.

N

- New South Wales Treasury, Office of Financial Management, (1997), "Policy and Guidelines Paper", Treasury Policy and Guidelines Paper.

S

- Squire, L. and Van Der Tak, H. G. (1975), *Economic Analysis of Projects*, MD: John Hopkins University Press, Baltimore.

T

- Thirwall, A.P. (1999), *Growth and Development 6<sup>th</sup> Ed.*, The Macmillan Press Ltd, London.

U

- UK Treasury Website (2004), "Economic Appraisal Guidance", *NI practical Guidance to the Green Book*,  
[www.hm\\_treasury.gov.uk/economic\\_data\\_and\\_tods/greenbook](http://www.hm_treasury.gov.uk/economic_data_and_tods/greenbook).

W

- Ward, W. and Deren, B.J. (1991), "Choosing Numeraries and Decision Criteria: Practicallity and Sensivity", *The Economics of Project Analysis*, World Bank, Washington DC, pages: 129-138.
- World Bank, (1998), *Project Appraisal Document for the Basic Education Programmet*, Washington.
- World Bank, (1996), *Handbook on Economic Analysis of Investment Operations*, Operations and Policy Department, Washington.
- World Bank, (1999), *Project Appraisal Document for Marmara Earthquake Reconstruction Project*, Washington.
- World Bank Website, (2004), <http://web.worldbank.org>.
- World Bank (2004), *Turkey Country Assistance Evaluation Approach Paper*, Operations Evaluation Department, Washington.
- World Bank (June, 2004), *Implementation Completion Report for Basic Education Project*, Human Development Sector Unit, Washington, Report No:27696-TU



**ECONOMIC & FINANCIAL  
PROJECT APPRAISAL OF SOCIAL  
INFRASTRUCTURE PROJECTS**

**Appendix A**

---

**EIB Questionnaire**

## **EIB QUESTIONNAIRE**

### **A) CO-FINANCING**

**1) What roles do you take in a co-financing scenario?**

- ☒ Holding senior debt
- ☐ Holding subordinated debt
- ☐ Other, please specify

**2) What difference does it make in your behaviour to be a senior debt holder or subordinated debt holder?**

- a) **In terms of your risk awareness:** EIB is a very conservative bank and does take minimum risk in their operations.
- b) **In terms of appraisal process:**

**3) If you are co-financing with World Bank, how do you carry out the appraisals?**

- ☒ Joint appraisal
- ☐ Nominate one appraiser
- ☒ Parallel appraisal

EIB carries out either/or joint appraisal or parallel appraisal but they are always co-ordinated.

### **B) FINANCIAL AND ECONOMIC APPRAISALS**

**4) Which of the following methods are being used in financial and economic appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Net Present Value		x (very rare)		x (very rare)
Internal Rate of Return	x			
Economic Rate of Return			x	
Payback Method	x (occasionally)			
Any others please specify	Value Added			

\* Sometimes the IRR is related to payback method. EIB prefers using IRR method, as it uses today's money, it's more robust, clearer and simpler compared to NPV method.

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS**  
**COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

---

\* Value Added has the following Pillars:

- Consistency with the priority objectives of the EU (Pillar 1)
- Quality and soundness of the investment (Pillar 2), for individual loans
- Quality of the intermediary (Pillar 2), for framework, programme and global loans
- Financial value added (Pillar 3), for individual, framework and programme loans
- Financial benefits to the final beneficiary (Pillar 3) – for global loans

**5) What's the numeraire used for financial and economic appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Domestic prices at domestic price level				
Domestic prices at the border price level				
Foreign prices at the border price level				
Any others please specify				

\* In European Union the numeraire is same for all the above options because there are no tariffs. Outside EU, this becomes relevant. EIB takes a price that will give a meaningful comparison and therefore usually assesses projects within the country or specific markets.

**6) For NPV, how do you calculate the discount rate for financial and economic appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Weighted average cost of capital (WACC)	x (private sector)		x (private sector)	
Opportunity cost of capital (OCC)	x (public sector)		x (public sector)	
Standard conventional cut-off rate				
Any others please specify				

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS**  
**COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

---

\* WACC is used for financial appraisals as a benchmark. This is usually provided by the borrower. EIB uses WACC where it's relevant for economic appraisals, i.e: when environmental aspects need to be considered.

EIB does not finance the project if  $WACC < IRR$ . Economic arguments are a plus on during the decision stage.

- 7) **For IRR/ERR, how do you arrive at the threshold/min. acceptable rates for financial and economic appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Weighted average cost of capital (WACC)	x (private sector)		x (private sector)	
Opportunity cost of capital (OCC)				
Standard conventional cut-off rate	x (for sectors)			
Any others please specify				

\* EIB is reluctant to use standard conventional cut-off rate to arrive at the threshold/min. acceptable rates but prefers to assess each project on its own merits.

- 8) **What's the time horizon for financial and economic appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Economic lifetime of the project (expected useful life of the assets)	x		x	
Intended ownership period (with a positive residual value at its end)				
Standard time horizons for different project types				

\* EIB tends not to put a residual value at the end of the economic lifetime of the project.

Residual value tends to balance the decommissioning costs.

For PFI projects the time horizon is the congestion period for the project.

**9) How do you conduct appraisals in terms of inflation?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Nominal prices at nominal discount rate				
Real (constant) prices at real discount rate	x		x	

\* EIB tends to keep the appraisals simple and ignores the affect of inflation. This is not a big problem within EU anyway.

But if the whole structure of the project takes inflation into account (i.e: Glasgow Schools' annual payments had inflation), then impact of inflation is reflected in the EIB appraisals as well.

\* For Turkey both prices are used in appraisals.

**10) How do you treat residual value in appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Market value for the fixed assets (or liquidation value of assets in case they're sold out at the end year)	x (see note below)		x (see note below)	
The residual value for any other current assets or liability	x (see note below)		x (see note below)	
Any others please specify				

\* These are rarely included in the appraisal, where there is an increase in the working capital, i.e: increase in capacity.

**11) How do you measure capital investment costs?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
At book value	x		x	
At opportunity cost				

\* Actual capital expenditure is measured.

**12) How do you measure externalities in economic appraisals?**

Only quantifiable externalities are measured.

**13) For which variables and which countries do you use shadow prices in economic appraisals?**

Labour rates for countries outside EU.

Exchange rates on its merits.

**14) Which categories are accepted as traded and non-traded costs and benefits in economic appraisals?**

TRADED		NON-TRADED	
Costs	Benefits	Costs	Benefits
			Skill transfer & knowledge

\* EIB usually has promoters who want to do the project and they want to create an awareness of the benefits of the project if it's done. This is different from World Bank.

**15) In which sequence do you carry out appraisals?**

- ☐ Financial appraisal after economic appraisal
- ☐ Economic appraisal after financial appraisal
- ☒ Simultaneously

\* EIB Project Directorate carries out a "Techno Economic Appraisal", where an engineer and economist work in teams to carry out one appraisal for the project. This appraisal covers; financial, economic and technical aspects.

\* Simultaneously, Operations Department carries out a financial appraisal to assess the credit riskiness of the borrower.

**16) What is your financial and economic discount rate and target rate of return for financial and economic appraisals?**

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS  
COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

	FINANCIAL		ECONOMIC	
Please specify for Turkey	Financial discount rate	IRR	Economic discount rate	ERR
Country specific				
Type of borrower a) public sector b) private sector	See note below			
Sector specific a) education projects b) emergency/relief projects	No target rates		No target rates	
	If the project is needed, it's done without calculations.			

\* **Very general comment:** EIB takes sector hurdle rates for private sector. Inside EU in projects in private sector with less than 10% IRR are generally not accepted and queried. Outside EU, if foreign direct investment is involved, 20-25% IRR is requested for private sector projects. For public sector projects within EU, 8-10% ERR is the base case, outside EU the rates are a bit lower.

\* EIB prefers not publishing any target rates for any sector and assesses its projects on its merits.

**17) Would the above rates be different if you were holding the senior or subordinated debt?**

No, EIB does not hold subordinated debt.

**18) How much weight given to financial appraisal against economic appraisal?**

Financial appraisals are usually determinant. Economic arguments are used when financial figures are marginal. But this is already accepting that the credit riskiness of the borrower is satisfactory.

On the other hand, the decision can be political in the end, as all the projects should be approved by the European Commission and the Member States. Therefore the first weight is given to the approval from the Commission and the Member States and the second weight is given to the financial and economic appraisals.

EIB "Statue" document lists the factors for the eligibility of the projects. Until these are met by the European Commission and member states, EIB is not in a state to start evaluating the project.

**19) What's the decision rule/route to go ahead or not with the project if?**

- a) **Financial appraisal is satisfactory, economic appraisal is unsatisfactory:** If the environmental issues are not satisfactory, not go ahead with the project. If it's the other variables of the economic appraisal

that are unsatisfactory, then the variables need to be reconsidered. But there has to be some sense of economic benefits to go ahead with the project.

- b) **Economic appraisal is satisfactory, financial appraisal is unsatisfactory:** If financial is marginal, economic appraisal is used to push the benefits of the project to go ahead.
- c) **Both appraisals are satisfactory:** Go ahead with the project.

**20) How do you integrate financial and economic appraisals?**

“Techno Economic Appraisal” is carried out. Financial cash flow is done and then economic variables are added to the cash flow.

**21) Which of the following costs are included in economic and financial appraisals?**



**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS**  
**COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

---

	<b>FINANCIAL</b>	<b>ECONOMIC</b>	<b>COMMENTS</b>
<b>COSTS</b>			
<b>a. Capital Costs</b>			
Land purchases	yes	yes	
Land already owned, if no why? If yes how?	no	no	
Fixed Capital purchases	yes	yes	
Fixed Capital already owned, if no why? If yes how?	no	no	Money already has been spent on this.
Depreciation on Fixed capital purchases	no	no	
Depreciation on Fixed capital already owned	no	no	
Interest payments, capital charges	yes	no	
Change in Working capital requirement	yes	yes	
<b>b. Current Costs</b>			
Cost of inputs & outputs (excluding capital)	yes	yes	
Insurance costs	yes	yes	
Corporation Tax	no	no	To simplify the appraisal.
VAT	no	no	To simplify the appraisal.
Import Duties	no	no	If the impact is not big.
Redundancy payments	no	no	Not eligible for bank finance
<b>c. Wider Quantifiable Costs</b>			
On individuals and firms (except transfer payments)	no	no	
On other public sector bodies	no	no	
Increase in transfer payments to individuals and firms	no	no	

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS**  
**COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

---

<b>BENEFITS</b>	<b>FINANCIAL</b>	<b>ECONOMIC</b>	<b>COMMENTS</b>
<b>a. Capital Benefits</b>			
Residual value (RV) of land	no	no	
RV of fixed capital	no	no	
RV of working capital	yes	yes	
Capital subsidies/grants from abroad	no	no	
Capital subsidies/grants from other	no	no	
<b>b. Direct Benefits</b>			
Sales revenue	yes	yes	
VAT	no	no	
Cost savings	yes	yes	
Revenue grants from abroad	no	no	
Revenue grants from other	no	no	
<b>c. Wider quantifiable benefits</b>			
On individuals and firms (except transfer payments)	no	yes (nice to have things)	
On other public sector bodies	no	yes	
Decrease in transfer Payments	no	yes	
<b>d. Unquantifiable</b>			
Distributional impact	no	yes	
Image	no	yes	
Working environment	no	yes	
Other benefits such as reduced pollution, improved health, etc	no	yes	
Other (not listed)			
Cost savings created by the project	no	yes	

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS  
COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

---

**22) Which of the following risk assessment techniques do you use?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Most likely case (Base case)	x		x	
Best case / Worst case or other scenario analysis				
Sensitivity analysis	x		x	
Decision tree				
Monte Carlo Simulation				
Other				

**C) CASE STUDIES**

**23) What was the process in the time frame between the start of the project and commitment of funds?**

SCHOOL INFRASTRUCTURE	EARTHQUAKE RECONSTRUCTION
<p>WB was already financing the 1<sup>st</sup> Basic Education Project. EIB finance provided 6,800 IT classrooms as part of WB loan.</p> <p>EIB took WB appraisal as basis, sent questioners to the promoters and visited sites completed by WB loan.</p>	

**24) What were the key problems that needed to be resolved before agreeing on the loan?**

SCHOOL INFRASTRUCTURE	EARTHQUAKE RECONSTRUCTION
<p>There were no problems externally.</p>	

**25) What aspects of the project caused the most concern?**

SCHOOL INFRASTRUCTURE	EARTHQUAKE RECONSTRUCTION
There were no concerns about the project, as WB appraised the project and implemented it.	

**26) What were the key decision stages during the appraisal process? Can you compare your role with World Bank in these stages?**

SCHOOL INFRASTRUCTURE	EARTHQUAKE RECONSTRUCTION
WB appraisal has been used to build up on. EIB used WB technical specifications, procurement route and implementation strategy. The ERR was around 20-30% in this project, usually EIB accepts 5-7%ERR satisfactory for education projects.	

**27) What were the other stakeholders' roles on the projects?**

a) Turkish Government

b) World Bank

**28) Has post-evaluation reports done? Are there any outstanding outcomes from the report contrary to the initial assumption in the appraisal?**

Post –evaluation reports have been done, but not available because of confidentiality agreements.

**Both case study projects are not revenue generating type of projects. Can you please answer the following questions bearing this in mind?**

**29) What's the security to go ahead with the projects?**

It was securitised by Turkish Government.

**30) How do you mitigate the risk?**

EIB accepts there is financial risk of repayment of loan as it was guaranteed by the government.

**31) How do you judge the benefits?**

In both cases, project externalities are considered. The project benefits to the country economy are considered.

**32) How do you monitor the projects?**

The following issues should be considered for the monitoring of the project:

- Credit riskiness of the borrower
- Wrong usage of the loan: For this the tendering process is monitored well.
- Project risk: If the borrower is not capable of monitoring the project, a project implementation unit with external consultant support for monitoring of the projects.

**ECONOMIC & FINANCIAL  
PROJECT APPRAISAL OF SOCIAL  
INFRASTRUCTURE PROJECTS**

**Appendix B**

---

World Bank Questionnaire

## **WB QUESTIONNAIRE**

### **A) CO-FINANCING**

**1) What roles do you take in a co-financing scenario?**

- ☒ Holding senior debt
- ☒ Holding subordinated debt
- ☒ Other, please specify : Equity

**2) What difference does it make in your behaviour to be a senior debt holder or subordinated debt holder?**

**a) In terms of your risk awareness:**

- Subloans are issued to less risky clients.
- Prices are adjusted.

**b) In terms of appraisal process:** There are no separate guidelines for subloan investors.

**3) If you are co-financing with EIB, how do you carry out the appraisals?**

- ☒ Joint appraisal
- ☐ Nominate one appraiser
- ☐ Parallel appraisal

### **B) FINANCIAL AND ECONOMIC APPRAISALS**

**4) Which of the following methods are being used in financial and economic appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Net Present Value	x		x	
Internal Rate of Return	x		x	
Economic Rate of Return	x		x	
Payback Method				
Any others please specify				

**5) What's the numeraire used for financial and economic appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Domestic prices at domestic price level	x			
Domestic prices at the border price level				
Foreign prices at the border price level				
Any others please specify				

**6) For NPV, how do you calculate the discount rate for financial and economic appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Weighted average cost of capital (WACC)				
Opportunity cost of capital (OCC)	x		x	
Standard conventional cut-off rate				
Any others please specify				

**7) For IRR/ERR, how do you arrive at the threshold/min. acceptable rates for financial and economic appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Weighted average cost of capital (WACC)				
Opportunity cost of capital (OCC)				
Standard conventional cut-off rate				
Any others please specify				



**8) What's the time horizon for financial and economic appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Economic lifetime of the project (expected useful life of the assets)	x			
Intended ownership period (with a positive residual value at its end)	x			
Standard time horizons for different project types				

**9) How do you conduct appraisals in terms of inflation?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Nominal prices at nominal discount rate				
Real (constant) prices at real discount rate	x		x	

**10) How do you treat residual value in appraisals?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Market value for the fixed assets (or liquidation value of assets in case they're sold out at the end year)	x		x	
The residual value for any other current assets or liability				
Any others please specify				

**11) How do you measure capital investment costs?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
At book value				
At opportunity cost				

**12) How do you measure externalities in economic appraisals?**

**13) For which variables and which countries do you use shadow prices in economic appraisals?**

**14) Which categories are accepted as traded and non-traded costs and benefits in economic appraisals?**

TRADED		NON-TRADED	
Costs	Benefits	Costs	Benefits

**15) In which sequence do you carry out appraisals?**

- ☐ Financial appraisal after economic appraisal
- ☐ Economic appraisal after financial appraisal
- ☒ Simultaneously

**16) What is your financial and economic discount rate and target rate of return for financial and economic appraisals?**

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS  
COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

---

	FINANCIAL		ECONOMIC	
Please specify for Turkey	Financial discount rate	IRR	Economic discount rate	ERR
<b>Country specific</b>				
<b>Type of borrower</b> a) public sector b) private sector				
<b>Sector specific</b> a) education projects b) emergency/relief projects				

**17) Would the above rates be different if you were holding the senior or subordinated debt?**

Yes.

**18) How much weight given to financial appraisal against economic appraisal?**

**19) What's the decision rule/route to go ahead or not with the project if?**

a) Financial appraisal is satisfactory, economic appraisal is unsatisfactory:

b) Economic appraisal is satisfactory, financial appraisal is unsatisfactory:

c) Both appraisals are satisfactory:

**20) How do you integrate financial and economic appraisals?**

**21) Which of the following costs are included in economic and financial appraisals?**

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS**  
**COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

---

	FINANCIAL	ECONOMIC	COMMENTS
<b>COSTS</b>			
<b>a. Capital Costs</b>			
Land purchases			
Land already owned, if no why? If yes how?			
Fixed Capital purchases			
Fixed Capital already owned, if no why? If yes how?			
Depreciation on Fixed capital purchases			
Depreciation on Fixed capital already owned			
Interest payments, capital charges			
Change in Working capital requirement			
<b>b. Current Costs</b>			
Cost of inputs & outputs (excluding capital)			
Insurance costs			
Corporation Tax			
VAT			
Import Duties			
Redundancy payments			
<b>c. Wider Quantifiable Costs</b>			
On individuals and firms (except transfer payments)			
On other public sector bodies			
Increase in transfer payments to individuals and firms			

**ECONOMIC & FINANCIAL PROJECT APPRAISAL OF SOCIAL INFRASTRUCTURE PROJECTS**  
**COMPARISON OF WORLD BANK & EUROPEAN INVESTMENT BANK**

---

<b>BENEFITS</b>	<b>FINANCIAL</b>	<b>ECONOMIC</b>	<b>COMMENTS</b>
<b>a. Capital Benefits</b>			
Residual value (RV) of land			
RV of fixed capital			
RV of working capital			
Capital subsidies/grants from abroad			
Capital subsidies/grants from other			
<b>b. Direct Benefits</b>			
Sales revenue			
VAT			
Cost savings			
Revenue grants from abroad			
Revenue grants from other			
<b>c. Wider quantifiable benefits</b>			
On individuals and firms (except transfer payments)			
On other public sector bodies			
Decrease in transfer Payments			
<b>d. Unquantifiable</b>			
Distributional impact			
Image			
Working environment			
Other benefits such as reduced pollution, improved health, etc			
Other (not listed)			
Cost savings created by the project			

**22) Which of the following risk assessment techniques do you use?**

	FINANCIAL		ECONOMIC	
	Yes	No	Yes	No
Most likely case (Base case)				
Best case / Worst case or other scenario analysis	x			
Sensitivity analysis	x			
Decision tree				
Monte Carlo Simulation				
Other				

**C) CASE STUDIES**

**23) What was the process in the time frame between the start of the project and commitment of funds?**

SCHOOL INFRASTRUCTURE	EARTHQUAKE RECONSTRUCTION

**24) What were the key problems that needed to be resolved before agreeing on the loan?**

SCHOOL INFRASTRUCTURE	EARTHQUAKE RECONSTRUCTION

**25) What aspects of the project caused the most concern?**

SCHOOL INFRASTRUCTURE	EARTHQUAKE RECONSTRUCTION

**26) What were the key decision stages during the appraisal process? Can you compare your role with EIB in these stages?**

SCHOOL INFRASTRUCTURE	EARTHQUAKE RECONSTRUCTION

**27) What were the other stakeholders' roles on the projects?**

a) Turkish Government

b) EIB

**28) Has post-evaluation reports done? Are there any outstanding outcomes from the report contrary to the initial assumption in the appraisal?**

**Both case study projects are not revenue generating type of projects. Can you please answer the following questions bearing this in mind?**

**29) What's the security to go ahead with the projects?**

**30) How do you mitigate the risk?**

**31) How do you judge the benefits?**

**32) How do you monitor the projects?**

**ECONOMIC & FINANCIAL  
PROJECT APPRAISAL OF SOCIAL  
INFRASTRUCTURE PROJECTS**

**Appendix C**

---

**Checklist of Costs and Benefits**



	Economical	Financial
<b>Costs</b>		
<b>a. Capital Costs</b>		
Land purchases	✓	✓
Land already owned	✓	✓
Fixed Capital purchases	✓	✗
Fixed Capital already owned	✓	✗
Depreciation on Fixed capital purchases	✗	✓
Depreciation on Fixed capital already owned	✗	✓
Interest payments, capital charges	✗	✓
Change in Working capital requirement	✓	✓
<b>b. Current Costs</b>		
Cost of inputs & outputs (excluding capital)	✓	✓
Insurance costs <sup>4</sup>	✓	✓
Corporation Tax	✗	✓
VAT	✗	✓
Import Duties	✗	✓
Redundancy payments	✗	✓
<b>c. Wider Quantifiable Costs</b>		
On individuals and firms (except transfer payments)	✓	✗
On other public sector bodies	✓	✗
Increase in transfer payments to individuals and firms	✗	✗
<b>d. Unquantifiable</b>		
Distributional Impact	✓	✗
Image & social conscience of firm/organisation	✓	✓
Working environment	✓	✓
Other effects such as pollution, health, etc	✓	✗

	Economical	Financial
<b>Benefits</b>		
<b>a. Capital Benefits</b>		
Residual value (RV) of land	✓	✓
RV of fixed capital	✓	✓
RV of working capital	✓	✓
Capital subsidies/grants from abroad	✓	✓
<b>b. Direct Benefits</b>		
Sales revenue	✓	✓
VAT	✗	✓
Cost savings	✓	✓
Redundancy Payments From abroad	✓	✓
Revenue grants from abroad	✓	✓
<b>c. Wider quantifiable benefits</b>		
On individuals and firms (except transfer payments)	✓	✗
On other public sector bodies	✓	✗
Decrease in transfer Payments	✗	✗
<b>d. Unquantifiable</b>		
Distributional impact	✓	✗
Image	✓	✓
Working environment	✓	✓
Other benefits such as reduced pollution, improved health, etc	✓	✗

(UK Treasury Website, 2004)

**ECONOMIC & FINANCIAL  
PROJECT APPRAISAL OF SOCIAL  
INFRASTRUCTURE PROJECTS**

**Appendix D**

---

**The World Bank Accounting  
Cycle Checklist**

Name of Project: \_\_\_\_\_  
World Bank Loan: \_\_\_\_\_  
Audit Period: \_\_\_\_\_

**Internal Control Checklist  
Accounting Cycle**

Topic	Yes	No	N/A
<b>General:</b>	—	—	—
1. Does the entity have adequate written statements and explanations of its accounting policies and procedures? (Written accounting policies and procedures may include such matters as: Chart of accounts accompanied by explanations of the items to be included in the various accounts. Identification and description of the principal accounting records, recurring standard entries, and requirements for supporting documentation. For example, this may include information about the general ledger, source journals, subsidiary ledgers, and detail records for each significant class of transactions. Expression of the assignment of responsibilities and delegation of authority, including identification of the individual positions that have authority to approve various types of recurring and non-recurring entries. Explanations of documentation and approval requirements for various types of recurring and non-recurring transactions and journal entries. Documentation requirements, for example, would include the basis and supporting computations required for adjustments and write-offs. Instructions for determining an adequate cutoff and closing of accounts for each reporting period.)	—	—	—
2. Are accounting policy and procedure manuals updated as necessary?	—	—	—
3. Are manuals distributed to appropriate personnel?	—	—	—
4. Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy, or procedure to be used by the entity?	—	—	—
5. Does the principal accounting officer of the entity have adequate authority over accounting employees and principal accounting records at all locations?	—	—	—
6. Are the principal accounting, treasury, and custody functions segregated?	—	—	—
7. Are the responsibilities for maintaining the general ledger segregated from those for maintaining subsidiary ledgers?	—	—	—
8. Are the responsibilities for maintaining the general ledger and custody of assets segregated?	—	—	—
9. Is access to the general ledger and related records restricted to those who are assigned general ledger responsibilities?	—	—	—

<p>10. Are there adequate facilities for custody of the general ledger and related records?</p> <p>(Examples of such facilities include fire resistant locked cabinets, vaults, physical barriers, separate rooms, limited access to work areas, alarms, and other detection devices.)</p>	—	—	—
<p>11. Is appropriate insurance coverage maintained in amounts required by statutes or entity policy?</p> <p>(Such insurance may include loss of records coverage and fidelity bonding of employees in positions of trust.)</p>	—	—	—
<p>12. Are the preparation and approval functions for journal entries segregated?</p>	—	—	—
<p>13. Are all journal entries reviewed and approved by designated individuals at appropriate levels in the entity?</p> <p>(The levels at which journal entries are reviewed and approved will usually vary depending on whether the entries are recurring, or non-recurring, routine or unusual, accumulation of routine transactions, or adjustments of balances requiring estimates and judgments.)</p>	—	—	—
<p>14. Are all journal entries adequately explained and supported?</p> <p>(Explanation and support for an entry should be sufficient to enable the person responsible for its review and approval to reasonably perform this function.)</p>	—	—	—
<p>15. Do all journal entries include approval in accordance with management's general or specific authorization?</p>	—	—	—
<p>16. Are all journal entries subject to controls over completeness of processing?</p> <p>(Examples of controls over completeness of processing include pre-numbering of journal vouchers and accounting for all numbers used, accumulation of control totals of dollar amounts debited and credited, and standard identification numbers for recurring entries.)</p>	—	—	—
<p>17. Do all journal entries include adequate identification of the accounts in which they are to be recorded?</p>	—	—	—

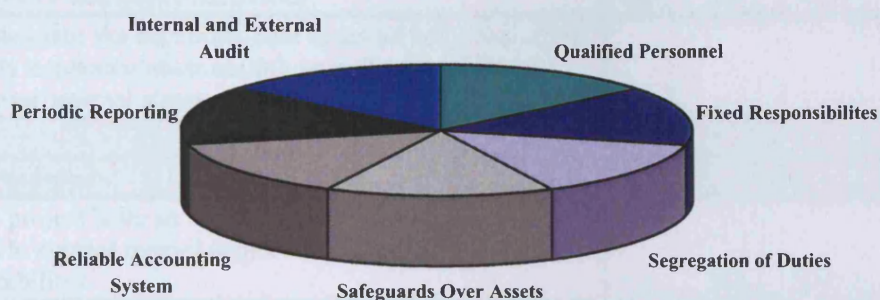
Source: Central Operational Services Unit East Asia and Pacific Region

**ECONOMIC & FINANCIAL  
PROJECT APPRAISAL OF SOCIAL  
INFRASTRUCTURE PROJECTS**

**Appendix E**

---

The World Bank  
LCR Financial Management  
Appraisal/Assessment Checklist



1. ORGANIZATION & STAFF	
<b>Qualified Personnel -</b>	
1.1 Do you have any specific financial management personnel assigned to this project?	Yes ___ No ___ N/A ___
1.2 What are their responsibilities? Please list	
Position                      Name                      Responsibilities	
1.3 Please indicate key positions not contracted yet, and the estimated date of appointment	
1.4 Do all of your financial management staff have adequate education and experience to handle their duties and responsibilities?	Yes ___ No ___ N/A ___
Please list	
Name                      Education                      Years of Experience (*)	
(*) If experience includes previous work with projects financed by the World Bank, please specify	
1.5 Have your staff received training commensurate with the responsibilities of their jobs?	Yes ___ No ___ N/A ___
1.6 Have the salary levels for financial management and procurement staff been established at levels to provide for retention of qualified personnel?	Yes ___ No ___ N/A ___
1.7 Are all of your staff regularly evaluated and receive feedback on their performance?	Yes ___ No ___ N/A ___
1.8 When was the last time?	
1.9 When is the next scheduled evaluation?	
<b>Fixed Responsibilities -</b>	
1.10 Does the project have written position description for all of the officers, managers and staff that clearly define duties, responsibilities, lines of supervision, and limits of authority?	Yes ___ No ___ N/A ___
1.11 Please attach position descriptions for key staff	
1.12 Are approval levels and thresholds for exercising authority formally defined and established for individuals?	Yes ___ No ___ N/A ___

1.13 Are position descriptions, the organization chart, and policies and procedures in conformity with each other?	Yes ___ No ___ N/A ___
1.14 Is the organizational structure adequate, enabling the project to monitor and control activities?	Yes ___ No ___ N/A ___
1.15 Please describe the organizational structure and chart of the project and its implementation unit(s), as well as its position within the governmental structure.	
<b>2. PROCEDURAL CONTROLS</b>	
<b>Written procedures -</b>	
2.1 Does the project have an adequate policies and procedures manual used to control overall project activities and to ensure staff accountability?	Yes ___ No ___ N/A ___
2.2 Please describe areas covered by the project's operational manual.	
2.3 Please indicate the preparation stage of the operational manual. If any areas have not been finished, please indicate the expected date of conclusion.	
2.4 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes ___ No ___ N/A ___
2.5 Do you have written procurement policies and procedures?	Yes ___ No ___ N/A ___
2.6 Do policies and procedures clearly define <i>conflict of interest</i> and <i>related party transactions</i> (real and apparent) and provide safeguards to protect the organization from them?	Yes ___ No ___ N/A ___
2.7 Are all your written policies and procedures up to date?	Yes ___ No ___ N/A ___
2.8 Do you follow your written policies and procedures?	Yes ___ No ___ N/A ___
2.9 Are manuals distributed to appropriate personnel?	Yes ___ No ___ N/A ___
2.10 Are there specific written procedures which specify how bank accounts will be established and used?	Yes ___ No ___ N/A ___
2.11 Do procedures exist for disbursement approval and for the signing of payment orders/checks?	Yes ___ No ___ N/A ___
2.12 Do procedures exist for effective management such as:	
<input type="checkbox"/> Comparison of payment orders/checks with disbursement records?	Yes ___ No ___ N/A ___
<input type="checkbox"/> Examination of actual signatures and endorsements with those authorized?	Yes ___ No ___ N/A ___
<input type="checkbox"/> Numerical sequence of payment orders/checks?	Yes ___ No ___ N/A ___
<input type="checkbox"/> Reconciliation of general ledger and other accounts?	Yes ___ No ___ N/A ___
<input type="checkbox"/> Comparison between bank statements and accounting records regarding amounts and dates of sums received?	Yes ___ No ___ N/A ___
<input type="checkbox"/> Checking the calculations of the columns and rows of cash books, and reconciling the balances on the cash book and bank statements at regular intervals?	Yes ___ No ___ N/A ___



2.13 Are there procedures to ensure that goods are recorded as they are delivered to the project or to its beneficiaries?	Yes ___ No ___ N/A ___
<b>Segregation of Duties -</b>	
2.14 Are the following functioning responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes ___ No ___ N/A ___
2.15 Are the functions of ordering, receiving, accounting for and paying for goods and services appropriately segregated, i.e., no employee controls the critical <i>checks and balances</i> aspect of any transaction procedure?	Yes ___ No ___ N/A ___
2.16 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes ___ No ___ N/A ___
2.17 Are all unusual reconciling items reviewed and approved by a responsible official?	Yes ___ No ___ N/A ___
<b>Safeguards Over Assets -</b>	
2.18 Do you have a system of adequate safeguards to protect assets from fraud, waste, and abuse?	Yes ___ No ___ N/A ___
2.19 Are all of your financial transactions free from either real or apparent conflicts of interest or related party concerns?	Yes ___ No ___ N/A ___
2.20 Has the project advised employees, beneficiaries and other recipients whom to report to if they suspect fraud, waste or misuse of project resources or property?	Yes ___ No ___ N/A ___
2.21 Are controls and limitations to the access of cash and other assets in place to protect, preserve or prevent misuse of assets?	Yes ___ No ___ N/A ___
2.22 Are there any bank accounts opened yet?	Yes ___ No ___ N/A ___
2.23 Are project bank accounts open in the project name?	Yes ___ No ___ N/A ___
2.24 Please indicate names and positions of authorized signatories in the bank accounts.	
2.25 Does the project maintain an adequate, up to date cash book, recording receipts and payments?	Yes ___ No ___ N/A ___
2.26 Do you have restrictions against using World Bank funds for non-authorized purposes or activities?	Yes ___ No ___ N/A ___
2.27 Are in-country cash balances kept to a reasonable amount?	Yes ___ No ___ N/A ___
2.28 Are subsidiary records of fixed assets and stocks kept up to date?	Yes ___ No ___ N/A ___
2.29 Do you perform periodic physical inventories of fixed assets and stocks?	Yes ___ No ___ N/A ___
2.30 Are assets sufficiently covered by insurance policies?	Yes ___ No ___ N/A ___
<b>Procurement process -</b>	
2.31 Are all of your procurement actions processed at arm's length?	Yes ___ No ___ N/A ___
2.32 Are awards made to responsible bidders whose proposals are most advantageous to projects, price and other factors considered?	Yes ___ No ___ N/A ___
2.33 Are all of your procurement actions based on clearly defined performance or technical specifications?	Yes ___ No ___ N/A ___

2.34 Are adequate procedures in place to ensure that procurement follows Bank requirements and the Loan Agreement?	Yes___ No___ N/A___
2.35 Are all of your procurement actions adequately documented?	Yes___ No___ N/A___
2.36 Do you require authorizing officials to review support documents for accuracy and completeness and to verify that all approvals have been obtained at point and time of transaction approval?	Yes___ No___ N/A___
2.37 Are purchases of goods and services initiated by properly authorized requisitions bearing the approval of designated officials?	Yes___ No___ N/A___
2.38 Are requisitions pre-numbered and are those numbers controlled?	Yes___ No___ N/A___
2.39 Are purchase orders specific in terms of quality, quantity and description?	Yes___ No___ N/A___
2.40 Do invoice processing procedures provide for: <input type="checkbox"/> Copies of purchase orders and receiving reports to be obtained directly from issuing departments? <input type="checkbox"/> Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? <input type="checkbox"/> Comparison of invoice quantities with those indicated on the receiving reports? <input type="checkbox"/> Checking the accuracy of calculations?	Yes___ No___ N/A___  Yes___ No___ N/A___  Yes___ No___ N/A___ Yes___ No___ N/A___
2.41 Are all invoices stamped <i>PAID</i> , dated, reviewed and approved, and clearly marked for account code assignment?	Yes___ No___ N/A___
2.42 Are amounts payable according to the accounting records compared regularly with the sums appearing in statements from suppliers?	Yes___ No___ N/A___
2.43 Do you limit advances to third parties to reasonable need?	Yes___ No___ N/A___
2.44 Are checks paid/posted/delivered promptly?	Yes___ No___ N/A___
2.45 Are checks which are outstanding for a considerable time, periodically reviewed?	Yes___ No___ N/A___
<b>Other safeguards -</b>	
2.46 Are all receipts deposited on a timely basis?	Yes___ No___ N/A___
2.47 Do controls exist for the collection, timely deposit, and recording of receipts at each collection location?	Yes___ No___ N/A___
2.48 Are professional service costs reasonable in relation to services rendered?	Yes___ No___ N/A___
2.49 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes___ No___ N/A___
2.50 Are payroll rosters reviewed and approved by management before disbursements are made?	Yes___ No___ N/A___
2.51 Are gross pay and deductions from pay reviewed independently for reasonableness?	Yes___ No___ N/A___

2.52 Are adequate procedures in place to ensure that when deductions are made they are paid to the appropriate entity in a timely and accurate manner?	Yes___ No___ N/A___
2.53 Are payroll advances to officials and employees prohibited or subject to appropriate review?	Yes___ No___ N/A___
<b>3. FLOW OF FUNDS</b>	
3.1 Please prepare the chart and explanation of the flow of funds from the World Bank, Government and other financiers.	
3.2 Has the project experience in the management of disbursements from the World Bank?	Yes___ No___ N/A___
3.3 Have mechanisms been established to monitor project expenditures and request their reimbursement, as well as controls over use and reconciliation of the Special Account?	Yes___ No___ N/A___
<b>4. PLANNING, BUDGETING AND PERIODIC REPORTING</b>	
4.1 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes___ No___ N/A___
4.2 Are budgets based upon reasonable, justifiable and documented assumptions?	Yes___ No___ N/A___
4.3 Are budgets derived from the Project Appraisal Document (PAD), Project Implementation Plan (PIP), and related cost tables?	Yes___ No___ N/A___
4.4 Does management have sufficient reliable and relevant information produced on a timely basis to effectively monitor its activities?	Yes___ No___ N/A___
4.5 Does the Project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain and how they are to be used?	Yes___ No___ N/A___
4.6 Does management receive timely, accurate and transparent financial reports that fully disclose the flow of funds through the organization and the results of operations?	Yes___ No___ N/A___
4.7 Are financial management reports useful to management?	Yes___ No___ N/A___
4.8 Do financial management reports relate inputs to results?	Yes___ No___ N/A___
4.9 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes___ No___ N/A___
4.10 Do the periodic reports allow for the evaluation of linkages between financial figures and physical monitoring indicators?	
4.11 Are financial reports prepared directly by the automated accounting system or are they prepared by manipulating data via spreadsheets or some other means?	Yes___ No___ N/A___
4.12 Are Financial Management Reports (FMRs) prepared on a periodically basis?	Yes___ No___ N/A___
4.13 Are FMRs used as a management reporting tool?	Yes___ No___ N/A___

4.14 Does the project have a review/approval process prior to submitting FMRs to the World Bank?	Yes___ No___ N/A___
4.15 Please name the officials with responsibility over: (i) preparation of the FMRs; and (ii) their analysis, including quarterly variances between plans and actuals.	
4.16 Are annual project financial statements timely prepared on the formats required by the World Bank?	Yes___ No___ N/A___
4.17 Are annual <i>entity</i> financial statements timely prepared in accordance with Generally Accepted Accounting Principles?	Yes___ No___ N/A___
<b>5. RELIABLE ACCOUNTING SYSTEM</b>	
5.1 Are accounting policy and procedure manuals updated as necessary?	Yes___ No___ N/A___
5.2 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy, or procedure to be used by the entity?	Yes___ No___ N/A___
5.3 Does the project have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components/subcomponents, disbursement categories and sources of funds?	Yes___ No___ N/A___
5.4 Are controls in place concerning the preparation and approval of journal entries, ensuring that journal entries are correctly made and adequately explained?	Yes___ No___ N/A___
5.5 Are your accounting events recorded and classified accurately, in a consistent and timely manner, using an approved chart of accounts?	Yes___ No___ N/A___
5.6 Does your chart of accounts conform with the Project Appraisal Document and related cost tables?	Yes___ No___ N/A___
5.7 Are cost allocations to the various funding sources made accurately and in accordance with established agreements	Yes___ No___ N/A___
5.8 Do all journal entries adequately identify the accounts in which accounting entries are to be made?	Yes___ No___ N/A___
5.9 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes___ No___ N/A___
5.10 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes___ No___ N/A___
5.11 Are safeguards in place to protect accounting documents from destruction or unauthorized access?	Yes___ No___ N/A___
<b>6. INTERNAL AND EXTERNAL AUDITS</b>	
6.1 Has the implementing organization or the project implementation unit been subject to any audit in the last three years?	Yes___ No___ N/A___
6.2 Are there any recommendations made by the auditors in prior audit reports or management letters which have not yet been implemented?	Yes___ No___ N/A___
6.3 Is the project subject to any type of internal audit?	Yes___ No___ N/A___
6.4 Is the project subject to any kind of audit from an independent governmental entity (e.g., the Supreme Audit Institution).	Yes___ No___ N/A___

6.5 Does the project have an effective independent auditor familiar with World Bank requirements and with a good track record in working with the Bank?	Yes    No    N/A
6.6 Has the project prepared Terms of Reference for an annual Project audit in accordance with the World Bank's Guidelines?	Yes    No    N/A
6.7 Have the Terms of Reference been approved by the Bank?	Yes    No    N/A
6.8 Has the project established procedures and time frames for contracting the auditor prior to the beginning of the year to be audited?	Yes    No    N/A
6.9 Does the project require the auditor to perform interim audit work throughout the period audited?	Yes    No    N/A
6.10 Has the project already engaged an auditor acceptable to the Bank to audit the project?	Yes    No    N/A
<b>7. OTHER OFFICES AND IMPLEMENTING AGENCIES</b>	
7.1 Are there any other regional offices or executing agencies with participation on the project's implementation? Please describe them.	Yes___ No___ N/A___
7.2 Has the project established controls and procedures for flow of funds, financial information, accountability and audits in relation to: (i) other offices/implementing agencies; and (ii) the governmental entities representing the Borrower?	Yes    No    N/A
7.3 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Yes    No    N/A
7.4 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes    No    N/A

**ECONOMIC & FINANCIAL  
PROJECT APPRAISAL OF SOCIAL  
INFRASTRUCTURE PROJECTS**

**Appendix F**

---

**World Bank Financial  
Management Questionnaire**

### *Summary Risk Assessment*

Project:

Date:

	<i><b>Risk Assessment</b></i>	
	<i><b>H</b></i>	<i><b>SMNComments</b></i>
<b>Inherent Risk</b>		
[list specific country, entity, and project inherent risks]		
<i><b>Overall Inherent Risk</b></i>		
<b>Control Risk</b>		
1. Implementing Entity		
2. Funds Flow		
3. Staffing		
4. Accounting Policies and Procedures		
5. Internal Audit		
6. External Audit		
7. Reporting and Monitoring		
8. Information Systems		
<i><b>Overall Control Risk</b></i>		

H – High S – Substantial M – Moderate N – Negligible or Low



## ***Financial Management Questionnaire***

Project:

Self-Assessment completed by: Date:

Bank Review/Assessment completed by: Date:

*Note: If there is more than one implementing entity, a Questionnaire should be completed for each entity*

<b>Topic</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Review*</b>	<b>Remarks/Comments</b>
<b><i>1.Implementing Entity</i></b>					
1.1 What is the legal status/registration of the entity?					
1.2 Has the entity implemented a Bank-financed project in the past?					
1.3 What are the statutory reporting requirements for the entity?					
1.4 Is the governing body for the project independent?					
1.5 Is the organizational structure appropriate for the needs of the project ?					
<i>Risk Assessment (Implementing Entity)</i>	<b><i>H</i></b>	<b><i>S</i></b>	<b><i>M</i></b>	<b><i>N</i></b>	
<b><i>2. Funds Flow</i></b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Review*</b>	
2.1 Describe the funds flow arrangements, including a chart and explanation of the flow of funds from the World Bank, government, and other financiers.					
2.2. Are the arrangements to transfer the proceeds of the loan (from the government / ministry of finance) to the entity satisfactory?					
2.3 Have there been major problems in the past in receipt of funds by the entity?					
2.4 In which bank will the Special Account be opened?					



2.5 Does the PIU have experience in the management of disbursements from the World Bank?					
2.7 Does the entity have/need a capacity to manage foreign exchange risks?					
2.8 How are the counterpart funds accessed?					
2.9 How are payments made from the counterpart funds?					
2.10 If part of the project is implemented by communities or NGOs, does PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?					
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?					
<i>Risk Assessment (Funds Flow)</i>	<b>H</b>	<b>S</b>	<b>M</b>	<b>N</b>	
<b>3. Staffing</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Review*</b>	
3.1 What is the organizational structure of the accounting department? Attach an organization chart.					
3.2 Identify the accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.					
3.3 Is the project finance and accounts function staffed adequately?					
3.4 Is the finance and accounts staff adequately qualified and experienced?					
3.5 Is the project accounts					

and finance staff trained in Bank procedures?					
3.6 What is the duration of the contract with the finance and accounts staff?					
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.					
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff ?					
3.11 At what frequency is the staff transferred?					
3.12 What is training policy for the finance and accounting staff?					
<i>Risk Assessment (Staffing)</i>	<b>H</b>	<b>S</b>	<b>M</b>	<b>N</b>	
<b>4. Accounting Policies and Procedures</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Review*</b>	
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?					
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?					
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?					
4.4 Are cost allocations to the various funding sources made accurately and in					

accordance with established agreements?					
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?					
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?					
<b><i>Segregation of Duties</i></b>					
4.7 Are the following functional responsibilities performed by different units or persons: (a) authorization to execute a transaction; (b) recording of the transaction; and (c) custody of assets involved in the transaction?					
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?					
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?					
<b><i>Budgeting System</i></b>					
4.10 Do the budgets lay down physical and financial targets?					
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?					
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?					
4.13 Are approvals for variations from the budget required in advance or after the fact?					

4.14 Who is responsible for preparation and approval of budgets?					
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?					
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals ?					
<b>Payments</b>					
4.17 Do invoice processing procedures provide for: <ul style="list-style-type: none"> <li>• Copies of purchase orders and receiving reports to be obtained directly from issuing departments?</li> <li>• Comparison of invoice quantities, prices, and terms, with those indicated on the purchase order and with records of goods actually received?</li> <li>• Comparison of invoice quantities with those indicated on the receiving reports?</li> <li>• Checking the accuracy of calculations?</li> </ul>					
4.18 Are all invoices stamped <i>PAID</i> , dated, reviewed and approved, and clearly marked for account code assignment?					
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?					
<b>Policies And Procedures</b>					
4.20 What is the basis of accounting (e.g., cash, accrual)?					
4.21 What accounting standards are followed?					

4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?					
4.23 Is the accounting policy and procedure manual updated for the project activities?					
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy, or procedure to be used by the entity?					
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?					
4.26 Do policies and procedures clearly define <i>conflict of interest</i> and <i>related party transactions</i> (real and apparent) and provide safeguards to protect the organization from them?					
4.27 Are manuals distributed to appropriate personnel?					
<b>Cash and Bank</b>					
4.28 Are there any project bank accounts opened yet?					
4.29 Indicate names and positions of authorized signatories in the bank accounts.					
4.30 Does the project maintain an adequate, up-to-date cash book, recording receipts and payments?					
4.31 Do controls exist for the collection, timely deposit, and recording of receipts at each collection location?					
4.32 Are bank and cash reconciled on a monthly basis?					
4.33 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?					

4.34 Are all receipts deposited on a timely basis?					
<b><i>Safeguard over Assets</i></b>					
4.35 Is there a system of adequate safeguards to protect assets from fraud, waste, and abuse?					
4.36 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?					
4.38 Are there periodic physical inventories of fixed assets and stocks?					
4.39 Are assets sufficiently covered by insurance policies?					
<b><i>Other Offices and Implementing Entities</i></b>					
4.40 Are there any other regional offices or executing entities participating in implementation?					
4.41 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?					
4.42 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?					
4.43 Are periodic reconciliations performed among the different offices/implementing agencies?					
<b><i>Other</i></b>					
4.44 Has the project advised employees, beneficiaries, and other recipients to whom to report if they suspect fraud, waste, or misuse of					

project resources or property?					
<i>Risk Assessment (Accounting Policies and Procedures)</i>	<i>H</i>	<i>S</i>	<i>M</i>	<i>N</i>	
<b>5. Internal Audit</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Review*</b>	
5.1 Is there a internal audit department in the entity?					
5.2 What are the qualifications and experience of audit department staff?					
5.3 To whom does the internal auditor report?					
5.4 Will the internal audit department include the project in its work program?					
5.5 Are actions taken on the internal audit findings?					
<i>Risk Assessment (Internal Audit)</i>	<i>H</i>	<i>S</i>	<i>M</i>	<i>N</i>	
<b>6. External Audit</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Review*</b>	
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?					
6.2 Are there any delays in audit of the entity? When are the audit reports issued?					
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?					
6.4 Were there any major accountability issues brought out in the audit report of the past three years?					
6.5 Will the entity auditor audit the project accounts or will a separate auditor will be appointed to audit the project financial statements?					
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?					

6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?					
6.8 Has the project prepared acceptable terms of reference for an annual project audit?					
<i>Risk Assessment (External Audit)</i>	<i>H</i>	<i>S</i>	<i>M</i>	<i>N</i>	
<b>7. Reporting and Monitoring</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Review*</b>	
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?					
7.2 Are financial statements prepared for the implementing unit?					
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?					
7.4 Does the reporting system need to be adapted to report on the project components?					
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?					
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to					



be used?					
7.7 Are financial management reports used by management?					
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?					
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?					
<i>Risk Assessment (Monitoring and Reporting)</i>	<b>H</b>	<b>S</b>	<b>M</b>	<b>N</b>	
<b>8.Information Systems</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Review*</b>	
8.1 Is the financial management system computerized?					
8.2 Can the system produce the necessary project financial reports?					
8.3 Is the staff adequately trained to maintain the system?					
8.4 Does the management organization and processing system safeguard the confidentiality, integrity, and availability of the data?					
<i>Risk Assessment (Monitoring and Reporting)</i>	<b>H</b>	<b>S</b>	<b>M</b>	<b>N</b>	

**ECONOMIC & FINANCIAL  
PROJECT APPRAISAL OF SOCIAL  
INFRASTRUCTURE PROJECTS**

**Appendix G**

---

World Bank Project Appraisal –  
Economic & Financial Appraisal

## **Economic Appraisal**

Through cost-benefit analysis of alternative project designs, the one that contributes most to the development objectives of the country may be selected. This analysis is normally done in successive stages during project preparation, but appraisal is the point at which the final review and assessment are made.

During economic appraisal, the project is studied in its sectoral setting. The investment program for the sector, the strengths and weaknesses of public and private sectoral institutions, and key government policies are all examined.

In transportation, each appraisal considers the transportation system as a whole and its contribution to the country's economic development. A highway appraisal examines the relationship with competing modes of transport such as railways. Transport policies throughout the sector are reviewed and changes recommended, for example, in any regulatory practices that distort the allocation of traffic. In education, power, and telecommunications, the "project" as defined by the Bank may embrace the investment program of the whole sector. In agriculture, which is more diversified and accounts for a much larger share of a developing country's economic activity, it is more difficult to formulate a comprehensive strategy for the sector; attention is given to sectoral issues such as land tenure, the adequacy of incentives for farmers, marketing arrangements, availability of public services, and governmental tax, pricing, and subsidy policies.

Whenever the current state of the art permits, projects are subjected to a detailed analysis of their costs and benefits to the country, the result of which is usually expressed as an economic rate of return. This analysis often requires the solution of difficult problems, such as how to determine the physical consequences of the project and how to value them in terms of the development objectives of the country.

Over the years, the Bank has kept in close touch with progress in the methodology of economic appraisal. "Shadow" prices are used routinely when true economic values of costs are not reflected in market prices as a result of various distortions, such as trade restrictions, taxes, or subsidies. These shadow price adjustments are made most frequently in the exchange rate and labour costs used in the calculations. The distribution of the benefits of a project and its fiscal impact are considered carefully, and the use of "social" prices to give proper weight in the cost-benefit analysis to the government's objectives of improved income distribution and increased public savings is passing through an experimental phase. Since the estimates of future costs and benefits are subject to substantial margins of error, an analysis is always made of the sensitivity of the return on the project to variations in some of the key assumptions.

Less frequently, in cases of major uncertainty, a risk/probability analysis is also carried out. The optimal timing of the investment is tested in relation to the first year's benefits. When the Bank provides funds to intermediate agencies (development finance companies, agricultural credit institutions) for relending to smaller operations, or in the case of sector lending, those agencies' own appraisal methods must be acceptable.

Some of the elements of project costs and benefits, such as pollution control, better health or education, or manpower training, may defy quantification; in other projects, for example electric power or telecommunications, it may be necessary to use proxies, such as revenues, that do not fully measure the value of the service to the economy. In some cases, it is possible to assess alternative solutions that have the same benefits and to select the least-cost solution. In other cases, for example education, alternatives are likely to involve different benefits as well as different costs, and a qualitative assessment must suffice.

Whether qualitative or quantitative, the economic analysis always aims at assessing the contribution of the project to the development objectives of the country; this remains the basic criterion for project selection and appraisal. And while greater concern with the distributional effects of projects reflects broader objectives of development, it does not mean that the Bank has lowered its standards of appraisal. Whether "old" style or "new," every project must have a satisfactory economic return, a standard that the Bank believes serves the best interests of both the country and the Bank itself (World Bank Website, 2004)

### **Financial Appraisal**

Financial appraisal has several purposes. One is to ensure that there are sufficient funds to cover the costs of implementing the project. The Bank does not normally lend for all project costs; typically, it finances foreign exchange costs and expects the borrower or the government to meet some or all of the local costs. In addition, other cofinancers, such as the European Development Fund, the several Arab funds, the regional development banks, bilateral aid agencies, and a growing number of commercial banks, are joining to an increasing extent in cofinancing projects that, in many instances, are appraised and supervised by the Bank. Therefore, an important aspect of appraisal is to ensure that there is a financing plan that will make funds available to implement the project on schedule. When funds are to be provided by a government known to have difficulty in raising local revenues, special arrangements may be proposed, such as advance appropriations to a revolving fund or the earmarking of tax proceeds.

For a revenue-producing enterprise, financial appraisal is also concerned with financial viability. Will it be able to meet all its financial obligations, including debt service to the Bank? Will it be able to generate enough funds from internal resources to earn a reasonable rate of return on its assets and make a satisfactory contribution to its future capital requirements? The finances of the enterprise are closely reviewed through projections of the balance sheet, income statement, and cash flow. Where financial accounts are inadequate, a new accounting system may be established with technical assistance financed out of the loan. Additional safeguards of financial integrity may include establishing suitable debt-to-equity ratios or limitations on additional long-term borrowing.

The financial review often highlights the need to adjust the level and structure of prices charged by the enterprise. Whether or not they are publicly owned, enterprises assisted by the Bank generally provide basic services and come under close public scrutiny. Because the government may wish to subsidize such services to the consuming public as a matter of policy, or perhaps simply as the line of least resistance, it may be

reluctant to approve the price increases necessary to ensure efficient use of the output of the enterprise and to meet its financial objectives. But adequate prices are a sine qua non of Bank lending to revenue-earning enterprises, and the question of rate adjustments may be critical to the appraisal and subsequent implementation of a project.

Financial appraisal is also concerned with recovering investment and operating costs from project beneficiaries. The Bank normally expects farmers to pay, over time and out of their increased production, all of the operating costs and at least a substantial part of the capital costs of, say, an irrigation project. Actual recovery in each case takes account of the income position of the beneficiaries and of practical problems such as the difficulties of administering a particular system of charges or of levying higher charges on Bank-assisted projects than are collected elsewhere. The Bank's policy thus tries to strike a balance between considerations of equity, the need to use scarce resources efficiently, and the need to generate additional funds to replicate the project and reach larger numbers of potential beneficiaries.

Costs can be recovered in a variety of ways—by charges for irrigation water, through general taxation, or by requiring farmers to sell their crops to a government marketing agency at controlled prices. Some countries apply lower standards of cost recovery than those recommended by the Bank; thus, arriving at a common judgment on what is desirable and practicable can be one of the more difficult aspects of the appraisal and subsequent negotiation.

To ensure the efficient use of scarce capital, the Bank believes that interest charges to the ultimate beneficiaries should generally reflect the opportunity cost of money in the economy (indicating the cost of foregone alternatives). But interest rates are often subsidized, and the rate of inflation may even exceed the interest rate. In countries with high rates of inflation, a system of indexed rates is sometimes followed. As in the case of cost recovery, the appropriate level of interest rates may be a contentious issue. The Bank may have to set its sights on a long-term goal, recognizing that it will take time to bring about what may be far-reaching changes in financial policy. This may be particularly so when the government is seeking to control interest rates and other prices as part of an anti-inflation program.

The appraisal mission prepares a report that sets forth its findings and recommends terms and conditions of the loan. This report is drafted and redrafted and carefully reviewed before the loan is approved by the management of the Bank for negotiations with the borrower. Because of the Bank's close involvement in identification and preparation, appraisal rarely results in rejection of a project; but it may be extensively modified or redesigned during this process to correct flaws that otherwise might have led to its rejection.

**ECONOMIC & FINANCIAL  
PROJECT APPRAISAL OF SOCIAL  
INFRASTRUCTURE PROJECTS**

**Appendix H**

---

European Investment Bank  
Project Appraisal

The following criteria form the basis of a standard EIB appraisal but are tailored to each individual project. These points are all covered by the report submitted to the Board of Directors for a financing decision:

- **Rationale for Bank financing: eligibility, value added of the operation**

The project's contribution to European Union objectives supported by the EIB2 is ascertained. The analysis also reveals how the Bank's input brings "value added" to the project: this may be apparent in the financial terms offered, in the EIB's active and "catalytic" role in structuring the finance plan, or in the improvement of the project's technical specifications.

- **Market and sector**

This analysis is based on the information gathered during project appraisal and on the sectoral studies regularly carried out by the Projects Directorate. It looks at the sector in question, establishes worst and best-case scenarios based on reasonable projections and assesses the promoter's qualities in relation to the project and the project's ability to meet existing demand.

- **Technical description, capacity**

The Bank's analysis looks at the project's technical soundness and the promoter's ability to implement the technical solutions adopted. It also examines the technical risks and measures taken to attenuate these.

- **Investment cost**

The EIB examines the total investment cost, the main project costs compared with those of similar schemes financed by the Bank, the margins for contingencies and price inflation adopted and the impact of taxes on the project and promoter.

- **Implementation**

The Bank's analyses cover the following points:

- **Technical:** establishment of a "technical description" of the project, to be appended to the contract and serve as a basis for future monitoring.

- **Procurement:** compliance with current procedures; percentage of project cost subject to international competitive bidding; acceptability to the Bank of procedures envisaged.

▪ **Operation:**

Management; measures taken to meet particular risks; evaluation of operating costs; employment.

▪ **Environmental impact**

Environmental situation with and without the project; where appropriate, review of studies of alternative solutions; project's impact on the natural and human environments; definition of the measures adopted to prevent, reduce or mitigate any adverse effects; compatibility with current or proposed environmental legislation; existence of an environmental management plan and promoter's ability to implement and manage it; examination of environmental aspects over the life of the project; project's compatibility with sustainable development objectives - including prevention of climate change - to which the European Union is committed. In performing the environmental part of its appraisal, the Bank makes use of the variety of studies carried out by the promoter or by independent consultants on its behalf (EIAs, SEAs, SISs, etc.). The Bank examines the mitigating measures proposed, reserving the right to ask for further studies to be undertaken by competent external consultants. In any event, the EIB ensures compliance with adequate project related conditionality.

▪ **Prices, tariffs and financial return from the project**

- Calculation of the expected cash flow in real terms.
- Where appropriate, the forecasts and analyses of certain financial ratios may serve as a basis for formulating appropriate tariff policies.
- Sensitivity and/or risk analysis.

▪ **Economic benefits**

Economic justification of the project; economic appraisal of value added of the project and the Bank's input; calculation of the project's economic rate of return; estimation of external costs/benefits, such as environmental protection, regional development, etc; sensitivity analysis.



- **Financial and credit risk analysis:**

The Directorate General for Lending Operations performs a detailed financial analysis of the borrower - as well as of the guarantor if the operation is backed by a commercial guarantee. This can of course be simplified for the EIB's repeat borrowers. Where public borrowers promoting infrastructure projects are concerned (e.g. regions or municipalities), a different type of financial analysis is performed, based on documents of a budgetary nature. The Credit Risk Department casts an objective eye on the financial viability of the borrower and guarantor, with whom it has no business relationship.

**ECONOMIC & FINANCIAL  
PROJECT APPRAISAL OF SOCIAL  
INFRASTRUCTURE PROJECTS**

**Appendix I**

---

**EIB Board Report**

EUROPEAN INVESTMENT BANK

CA/.../..  
(date)

Document

Group A/B

For operations outside the EU, indicate whether proposed operation falls under **MANDATE, PRE-ACCESSION FACILITY, COTONOU AGREEMENT**, or other.

For loans under mandate, indicate **RISK-SHARING** if proposed operation falls under risk-sharing arrangements.

Indicate **STRUCTURED FINANCE FACILITY** or **SPECIAL FEMIP ENVELOPE** if proposed operation falls under one of these Facilities,

*(list of standard wording in next page)*

BOARD OF DIRECTORS

Indicate type of resources, for example: (subsidised when applicable) loan from own resources, conditional loan from risk capital resources, etc.

**Project Title (COUNTRY)**

One-line description of the project

**ORIG.: F/ E**

CONFIDENTIAL

Compiled by:  
(date)

**Cover page of Board Reports: use the following  
STANDARD WORDING**

**EXTERNAL MANDATES - EN**

CEEC

CEEC MANDATE  
(2000-2007)

PRE-ACCESSION FACILITY

MANDATE FOR ENVIRONMENTAL  
LENDING IN NORTH-WESTERN  
RUSSIA

MED

FEMIP / EUROMED II MANDATE  
(2000-2007)

TURKEY SPECIAL ACTION  
PROGRAMME (2001-2004)

MEDA II REGULATION

ACP-OCT

COTONOU AGREEMENT

(for own resource operations)

COTONOU AGREEMENT  
INVESTMENT FACILITY

(for operations on EDF  
resources)

RSA

RSA MANDATE  
(2000-2007)

ALA

ALA MANDATE  
(2000-2007)

ARTICLE 18

OPERATIONS IN EFTA COUNTRIES  
(article 18)

RISK SHARING

STRUCTURED FINANCE  
FACILITY

SPECIAL FEMIP ENVELOPE

## PROPOSAL FROM THE MANAGEMENT COMMITTEE TO THE BOARD OF DIRECTORS

*(Two pages maximum. Insofar as possible, the following structure should be followed)*

### **EXECUTIVE SUMMARY:**

#### **1. The project**

#### **2. Financing Proposal**

Borrower/Promoter/Final beneficiary (to split in different lines, if required): please specify its/their external rating, if any.

Amount: up to EUR

Term: (proposed grace period and/or equivalent bullet maturity should **not** be included)

Terms and conditions:

- own resources (subsidised in non-Member Mediterranean/ACP countries only, if appropriate)
- risk capital resources / Investment Facility

Interest rate(s):

Interest rate subsidy (if applicable):

Security:

Member State opinion (for operations inside EU only): No objection or Awaited, as appropriate

Commission opinion (for own resources operations only): Favourable or Awaited, as appropriate

Article 14/28 Member States' Committee opinion (for Risk Capital & Subsidised Loan operations in non-Member Mediterranean/ACP countries only):

Financing plan (including the Bank's relative share in the external financing of the project):

#### **3. Value-added identification**

- Consistency with the priority objectives of the EU (Pillar 1)
- Quality and soundness of the investment (Pillar 2) – for individual loans
- Quality of the intermediary (Pillar 2) – for framework, programme and global loans  
(delete text in italics + non-relevant heading)
- Financial value-added (Pillar 3) – for individual, framework and programme loans
- Financial benefits to the final beneficiary (Pillar 3) – for global loans  
(delete text in italics + non-relevant heading)

4. **Main Risks & Mitigants** *(please include credit risks, environmental and other risks, if any)*

5. **Previous relations with the borrower/promoter**

*(Please include Total current EIB exposure in nominal and risk weighted terms at reference date, i.e. actual exposure without the proposed operation)*

Annexes:

1. Supporting information
2. Financial Statements
3. Map *(if relevant)*

<p><b>Questions concerning this paper should be referred to [name of the Director of Department]</b>  <b>Tel:</b></p>
---

Note: exchange rates used in this paper are: 1 EUR = *(if currency is different to EUR)*

**Annex 1****SUPPORTING INFORMATION**

*(Insofar as possible, the following structure should be followed)*

**1. BORROWER/PROMOTER/FINAL BENEFICIARY**

- Previous relations with the Bank
- Legal status, capital and shareholders
- Organisation, management and employees
- Activities and position in the sector
- Financial situation and key financial figures
- Comments on financial performance

**2. GUARANTOR and/or SECURITY**

*(For Guarantor use same bullets as for Borrower/Promoter/Final beneficiary, if applicable)*

**3. THE PROJECT**

- Purpose and location
- Background
- Description
- Implementation
  - Management
  - Timetable
  - Employment
- Procurement
- Operation
- Environmental impact
- Social impact (outside EU as appropriate)
- Market/Sector
- Investment cost and financing plan
- Project related conditions to be fulfilled (when applicable)
- Economic/Financial justification

**4. ECONOMIC AND FINANCIAL SITUATION OF THE COUNTRY** *(outside EU as appropriate)*



Ref.

Operation name

### Pillar 3. Financial Value Added (FVA) Sheet

#### 1. Qualitative elements of FVA

- |    |                                 |                      |
|----|---------------------------------|----------------------|
| a. | Longer maturity : grace periods | <input type="text"/> |
| b. | Diversification of funding      | <input type="text"/> |
| c. | Exotic currency financing       | <input type="text"/> |
| d. | Co-financing with COM, IFIs     | <input type="text"/> |
| e. | Innovative structuring          | <input type="text"/> |
| f. | Signalling / Catalytic effects  | <input type="text"/> |

Overall opinion

Comments

#### 2. Quantifiable elements of FVA, as of .....

Loan Amount (EUR m)  
Equivalent Bullet Maturity

Versus Grid

Financing advantage offered by EIB (in bp)\*  
NPV\*\* of the lower refinancing cost  
In percent of loan amount

Versus current Pool Rate

Financing advantage offered by EIB (in bp)\*  
NPV\*\* of the lower refinancing cost  
In percent of loan amount

Overall opinion

Comments

#### 3. Global evaluation of FVA

Overall opinion

Comments

\* corrected for credit enhancement or credit risk pricing

\*\* if not mentioned otherwise, NPV calculated on the basis of respective grid rate