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ASSESSING PROJECTS AND PROGRAMMES FOR COHESION POLICY AT THE EIB. CHALLENGES FOR QUALITY ASSESSMENT AND CONTROL

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Assessing Projects and Programmes for Cohesion policy at the EIB.

Challenges for Quality Assessment and Control

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Abstract

The assessment of the technical, economic and financial quality of programmes and projects is one of the day-to-day activities at the European Investment Bank (EIB). The paper explains how this task is approached within the EIB, how some of the tools of cost-benefit analysis are employed, and how this approach may evolve during the forthcoming programming period of the Structural Instruments. Some of the recent initiatives of the EIB – in particular RAILPAG, the guidelines for project appraisal in the rail sector and JASPERS, Joint Assistance to Support Projects in European Regions - take a particular relevance in this context and are briefly explained.

Key words: Cost-Benefit Analysis, Project evaluation, International Organizations

JEL numbers: D61, H43, O19

[1] The views and statements contained in the present contribution are the result of my own personal considerations and do not necessarily reflect the views or the official positions of the European Investment Bank. Many thanks to Massimo Florio for several useful suggestions, responsibility for any remaining flaws is mine.

1. Introduction

My aim in this paper is to provide a bird's eye of themes and practices in investment assessment at the European Investment Bank (EIB). There will be a significant and inevitable degree of personal and institutional bias in this presentation. As Little and Mirrlees explain, "good project appraisal is done by people with their own incentives, within organizations that wittingly or not set these incentives. Both environments of project appraisal, the intellectual and political-organizational, are keys to the quality of selection overall." (Little and Mirrlees, 1994, p.225). Therefore, in addition to reflect my personal views after several years of experience in practical project analysis, my observations will be influenced by how investment assessment practices at the EIB have been affected by the development of the Bank's operational environment. In my contribution, I will briefly discuss how the assessment of programmes and projects is approached within the Bank, how some of the tools of cost-benefit analysis are employed in its day-to-day operation, and how this approach may further evolve during the forthcoming programming period of the Structural Instruments.

It may be useful to remind readers that the EIB is often referred to as the "house bank" of the European Union (EU). Its shareholders are the member countries of the EU, the Bank has been in operation since 1958 as a non-profit financial institution and its lending volume in 2005 has exceeded EUR 45bn. The EIB operates not only in the member countries, but also in a number of countries linked to the EU by co-operation or development agreements. Given its dual nature of European institution and financial organisation, the Bank's operations must be financially viable and conform to the policy priorities of the EU – support to the less developed regions has been traditionally its leading objective, but recently the Lisbon competitiveness and employment agenda has taken an increasing role among the policy objectives directing the Bank's operations. Table 1 gives a summary of the loan amounts

provided to support the development of assisted regions in the EU, and the types of projects to which the Bank has given its assistance in recent years.

Table 1 EIB Loans provided within the European Union from 2000 to 2004 Breakdown by country and sector. EUR million.

Country	Infrastructure							
	Total	Individual loans	Energy	Communications	Water management and sundry infrastructure	Industry Services Agriculture	Health Education	Global loans
Belgium	2 624	*1 659*	70	592	850	147	–	*965*
Czech Republic	3 451	*3 016*	–	1 523	710	688	95	*435*
Denmark	5 005	*4 577*	831	2 507	124	766	349	*429*
Germany	31 638	*16 899*	568	3 937	3 053	5 697	3 644	*14 739*
Estonia	237	*97*	80	5	12	–	–	*140*
Greece	7 055	*6 845*	587	3 837	1 750	247	424	*210*
Spain	27 202	*19 220*	2 133	12 750	2 100	1 365	872	*7 982*
France	19 341	*8 780*	–	5 371	275	2 114	1 020	*10 561*
Ireland	2 482	*1 637*	717	753	100	–	68	*845*
Italy	28 952	*18 419*	4 545	6 959	4 426	2 361	128	*10 533*
Cyprus	740	*740*	200	55	100	70	315	–
Latvia	218	*128*	80	48	–	–	–	*90*
Lithuania	165	*125*	–	65	60	–	–	*40*
Luxembourg	529	*529*	80	135	184	130	–	–
Hungary	2 784	*2 079*	247	1 076	273	319	164	*705*
Malta	25	–	–	–	–	–	–	*25*
Netherlands	2 662	*1 724*	–	875	770	79	–	*938*
Austria	4 383	*2 484*	82	556	516	669	661	*1 899*
Poland	6 196	*5 193*	30	3 003	1 256	430	475	*1 003*
Portugal	8 653	*6 703*	727	5 061	500	415	–	*1 950*
Slovenia	804	*614*	1	568	45	–	–	*190*
Slovakia	805	*585*	–	254	42	274	14	*220*
Finland	3 647	*3 021*	18	318	684	1 050	950	*625*
Sweden	3 937	*3 587*	343	1962	215	633	434	*350*
United Kingdom	15505	*12 810*	2 355	4 012	3 653	1469	1 322	*2 695*
Other	1 240	*1 140*	567	241	33	300	–	*100*
Total	**180 280**	*122 610*	**14 262**	**56 458**	**21 731**	**19 224**	**10 935**	*57 670**

Source: *The EIB Group Statistical Report 2004. Table B*

2. Applying CBA to programmes and projects

The Bank is active mostly in the developed countries of the European Union and likes to think of itself as the European Union's "policy-driven" financial institution rather than a development bank like other multi-lateral lenders. Assessment work and applied economics at the EIB have focused traditionally on project appraisal rather than policy analysis or programme evaluation. In addition, a particular attention is paid to the engineering and technical aspects, such as the soundness of technical choice, the appropriate handling of procurement and environmental constraints and the reliability of project management procedures. It is worth also remembering that the Bank and the European Union's structural

instruments have evolved somewhat independently. The Bank was created in 1958 by the Rome Treaty, with the primary remit of supporting the poorest regions in the Community, in practice the Italian Mezzogiorno at the time of the 6 funding member states, and this regional objective – today labelled the "social and economic cohesion" - remains one of the central spheres of activity of the Bank. The Structural Funds were established in 1974 to provide a grant instrument to support the Community's structural policies, specifically regional development. Until relatively recently, in practice until the 2000-2006 programming cycle, joint operations between the Bank's loans and the Commission's grants did occur, but on an occasional rather than systematic basis, i.e. the two main Community institutions would wield their financial instruments most of the time independently. In a sense, and at the risk of unduly simplifying the reality, the risks associated to this approach were symmetric - on the one hand the Commission took the risk of supporting broad-based regional development strategies without adequately verifying project design and monitoring execution, while the EIB's focus on projects would sometimes mean that not enough attention was paid to the strategic dimension, namely to how the projects would fit into an overall territorial development strategy. The EIB has therefore been traditionally attentive to project appraisal, implementation and monitoring project outcomes, but less resources have been employed to align Bank lending to regional development strategies. The underlying assumption of the Bank's project specialists and loan officers has been – not at all unreasonably – that to the extent that the Bank funded high quality projects, with good ex-ante returns and competitive unit costs, followed by an acceptable physical implementation, the Bank's contribution to regional development would be assured.

In fact, over the years a certain convergence between the Bank and the Commission has been noticeable. On the one hand, instruments like the Cohesion Fund in 1994 and ISPA (Instrument for Structural Policies for Pre-accession) in 2000 were designed as project-based funding tools. On the other hand, form the mid-90's the Bank has developed products to

assist multi-scheme investment programmes, in addition to large-scale projects traditionally supported by the Bank. While consolidated procedures exist on project assessment and monitoring in the various infrastructure and sector departments, how to approach the design, appraisal and evaluation of programmes lies on a less certain ground, in particular where programmes cut across sectors.

This also related to the fact that the traditional cost-benefit analysis and engineering approach works better when dealing with well-identified projects and alternatives. The multi-sector feature of many regional programmes is in many ways a mixed blessing – while it is not unreasonable to assume that a collection of projects across different sectors, implemented in geographical proximity and with a certain time continuity will have a more pronounced economic impact than if they were implemented in isolation, the traditional CBA approach may be difficult to apply in practice to programme assessment, in cases where assumptions on counterfactual scenarios can be ambiguous or arbitrary. Also the issue of the appropriate spatial level to achieve development objectives has a weight on the assessment of costs and benefits of a programme – for instance, employment programmes should be designed to operate at the level of the local labour market area while urban environmental improvement often operated more successfully at a smaller scale like the urban district or neighbourhood. Combining instruments is another essential component of design, namely leveraging subsidies and combining effectively loans – typically for revenue-generating projects – and concentrating grants for projects whose benefits cannot be easily captured through user charges or other cost recovery mechanisms. Tackling the counterfactual in the appraisal and evaluation of complex programmes, analysing the relationship between spatial scale and policy effectiveness and arranging financial instruments to maximise leverage of subsidies are important issues in configuring the Bank's involvement in operational programmes and its cooperation with the European Commission.

Given the way Community programmes are structured, conflicts or tradeoffs between the speed of absorption of programme funds and the quality of projects may easily arise. In many cases the de-commitment rule – the very reasonable condition that European grants committed by the programme authority in year t must be spent by year t+2 - gives a tremendous incentive to implement suboptimal projects rather than looking for better projects less likely to be implemented in time to absorb Community funding within the required deadlines. A high co-financing rate from higher governmental levels – typically the national and the Community budget – can further reinforce these perverse, but very rational incentives for programme authorities. I will give a simple illustration later on of how inferior "ready to go" projects can easily dominate better options from the point of view of a local authority. The challenge therefore is to find a practical way to link quality and rewards. Typically international financial institutions and donors try to achieve this through some form of conditionality, but conditionality operates in a different way in projects and programmes. As can be easily seen in the 2000-2006 programming cycle and in the current one, programme conditionality tends to be related to the quality of the decision process, fund allocation procedures and institutional capacity requirements, and to be less specific than project conditions, with the balance between grantor control and delegation tipping towards delegation to the beneficiary.

The problem of combining in the best way financial market instruments and grants has been with the Community institutions for many years. The broad principle of striving for maximum leverage of grants is explicitly incorporated already in the 2000-2006 Structural and Cohesion Funds regulations. But the devil lies in the details and determining the appropriate configuration of grants, subsidies and cost recovery mechanisms often requires early involvement and joint work between the Commission and the Bank as well as lengthy negotiations with the beneficiaries. Cooperation over the 2000-2006 cycle was stepped up through an agreement between the EIB and the Commission (DG-Regio) aimed at

intensifying participation in the project preparation phase, consultation on co-financed projects, and, upon request from the Commission, the provision of advisory services by the Bank's project economists and engineers for large-scale projects, including those where no EIB involvement was foreseen. At the same time well-established forms of cooperation on a project-by-project basis has continued, with specific focus on certain sectors such as transport or water cycle management, and project-based instruments like the Cohesion Fund, ISPA or PHARE.

3. Assessing "Value added" at the EIB

From 2004, following a period of internal consultation, each lending operation within the EIB must be assessed on the basis of "three pillars" of Value Added (VA), which are assessed ex-ante for each transaction submitted for approval to the Bank's Board of Directors. Pillar 1 concerns the loan's coherence with the EU's policy framework, as incorporated into the Bank's eligibility criteria. Pillar 2 concerns the intrinsic quality of investment supported through the loan. Technical considerations and economic reasoning, including CBA and more generally project and programme appraisal, are the central elements in judging the contribution of each operation to this "second pillar". Pillar 3 concerns the value of the Bank's involvement to the client, which means essentially to what extent the loan's terms and conditions made available by the Bank are likely to make a difference to the borrower or the final beneficiary of the funds. Note that the overall value added should be seen as multiplicative rather than additive function of the three pillars – if the quality VA is nil (i.e. an intrinsically poor project), coherence with European policy and even excellent conditions to the borrower will not contribute to realising European priorities, and similarly an excellent project where the Bank does not add banking value will not make any difference for the achievement of objectives (other funding sources could have achieved just as well).

Before discussing the use of CBA tools at the EIB, it is also useful to remember that the practical application of CBA methods can take place in different *decision contexts,* and that these contexts have an important bearing on the type of analysis applied and in some cases the relevance of specific parameters and modelling approaches. Without the ambition of being exhaustive in this broad categorisation, I would like to mention four sets of circumstances. First CBA can be used at *policy assessment* level to submit the design and debate of legislative measures to quantitative economic analysis, for instance in regulatory impact analysis which has been used extensively in the Anglo-Saxon tradition, and increasingly in several continental EU countries. The CBA weaponry can also be used in a *strategic* decision context. This can happen in a wide range of cases, for instance when a planning agency decides about investment priorities subject to a budget constraint. This can happen at a national or at lower territorial or administrative level, for instance a city or region, and more often than not for a specific sector, for instance in the case of road planning. A further, typical use of CBA is as an *optimising* tool in project design – this is the case of engineering CBA, when selecting among various road alignment alternatives or determining road capacity (two vs. three lanes) or possibly project phasing. Finally CBA or similar tools can be used as an *auditing* tool, generally at a late phase in the project cycle, to verify the economic merit of a project, often when a third party or funding agency needs to decide if it deserves support. Of the policy, strategy, optimisation and audit functions the fourth – and in very selected cases the third - are the most relevant ones for in-house assessment work at the EIB. This Bank delivers over 80% of its funding to relatively rich countries with highly developed infrastructure planning systems, an ample supply of technical, financial and economic consultants and easy access to financial resources, and the assistance of the Bank is not normally required in the early phases of project preparation.

The EIB tradition for CBA calculations is that no rules are set in stone, and there is no binding house manual. For good or for worse, the sector specialist, normally an economist or engineer with many years of experience in a specific sector or industry, enjoys a large degree of autonomy in selecting which methods are more appropriate to achieve a judgement on the economic merit of a candidate project. This also reflects another key tradition, namely that the EIB has been a transaction-focused organisation. To the analysts, CBA is just part of the tools employed to obtain an overall picture of the proposed operation and on that basis be in a position to defend a robust "yes, we're in" or "no thanks" professional judgement.

Thus the Bank project appraisal specialists do strive for consistency in judgement, but there are no rigid prescriptions. Several practices, or practical rules, have however consolidated over time. There is an indicative 5% real minimum target rate for the Economic Rate of Return (ERR) in the EU and 10% in partner countries outside the EU, with flexibility in new member states. No corrections for employment benefits, for instance through shadow wages or employment multipliers, or "regional" benefits, for instance regional or value-added multipliers, are applied. Shadow prices are not applied systematically, for instance the cost of labour is not corrected in high-unemployment regions. The only corrections normally applied to market prices are those related to recoverable taxes (VAT) and possibly highly distorted prices, for instance because of uncompetitive markets or unsustainable administered prices. No second-order effects (general equilibrium impacts) are incorporated into ERR calculations. When it comes to CBA calculations, there has been a tendency to "keep it simple", instead of overloading the calculations with corrections which may be very difficult to follow and ambiguous to interpret. If employment impacts, externalities, second order effects etc. are likely to be relevant, qualitative remarks are added in the presentation of the project to qualify the calculated ERR – i.e. if it is likely to be an underestimate or overestimate of the underlying economic merit of the project.

To have a feel of the results, the following table presents estimated rates of return for projects appraised and submitted to the Board of Directors in 2005. Note that CBA calculations are not carried out for all the projects, since some of the operations are multi-scheme and some multi-sector and therefore calculating an ERR would be either inappropriate or impossible, given the time and information constraints on the Bank services. In other cases minimum cost solutions or cost-effectiveness criteria are applied. Nevertheless for the part of the Bank's portfolio for which ERR calculations are sensible and feasible, the results in 2005 indicate that the average estimated real return was close to 9%.

Table 2. Approved loans (2005) by calculated rate of return and sector

	Over 10%	5%-10%	Under 5%	Qualitative/ other	Total
Human Capital	200 (1)	208 (2)	165 (1)	2 427 (11)	3 000 (15)
Water and sewerage	0	1 764 (7)	62 (2)	446 (4)	2 272 (13)
Energy	240 (2)	1 679 (8)	222 (1)	420 (2)	2 561 (13)
Industry and Services	1 501 (15)	1 189 (4)	0	2 935 (10)	5 625 (29)
Urban, mixed Infrastructure and multi-sector programmes including social housing	290 (1)	0	0	359 (5)	649 (6)
Telecommunications	1 450 (3)	0	0	0	1 450 (3)
Road, Rail and other Transport	3 231 (13)	4 959 (17)	2 139 (9)	1 714 (13)	12 042 (52)
Total	6 912 (35)	9 800 (38)	2 587 (13)	8 300 (45)	27 599 (131)

Figures in millions of Euro. Figures in brackets denote the number of projects involved

Source: Author

Depending on the nature of the operation, certain parameters and performance indicators may take on a particular relevance. For instance, three parameters are of central importance in assessing the merit of Public Private Partnerships. These are the appropriate shadow cost of public funds, the assessment of or assumptions on real efficiency gains of the PPP arrangement versus conventional funding alternatives and the trade-off between financial performance – typically captured by indicators of financial return to the concession company and to its backers – and economic return, as conventionally calculated through CBA. All of the above are somewhat contentious issues as competing schools of thought exist, and the empirical evidence not conclusive. Risk analysis although not routinely employed in CBA

can become a key concern where the Bank takes credit risk, and is employed for instance in the analysis of revenue risk in concession financing. Where user charges are applied, *affordability* is another theme which needs to be embedded in the assessment of project viability, and for obvious reasons may become politically sensitive, and impinge on the trade-off between financial performance and economic return. The use of *notional values* (the French the term *valeurs tutelaires*), which is perfectly sensible in certain cases, may become inappropriate in specific circumstances. Use by a national planning agency of a notional value of time to compute the benefits or road improvement projects is perfectly reasonable, and has been often applied in French road planning. However, using a notional value for economic and financial profitability calculations for specific tolled roads can bring about unexpected consequences, unpleasant in cases where the traffic is well below the forecast. Traffic flows and revenue projections in a road concession depend on users' reaction to the tolls, with implications also on the calculated economic cost-benefit ratio. Such mistakes were often made in the early days of the revival in road concessions, and it is now clear that in the case of toll roads the appropriate value-of-time parameter should be based on behavioural willingness-to-pay estimates or a stated preference approach. Comparing cost-effectiveness in proposed projects to known benchmarks or least cost solutions is also commonly done, as a way to reduce the well-known risk that an opportunistic definition of the without-project option may lead to accept projects which may be hard to defend on unit cost or value for money arguments. In this respect the availability of sectoral benchmarks and unit cost databases – for instance in the water management and the road construction sector - is therefore also part of the tools on which project specialists rely in their work at the EIB. The tradition of creating, maintaining and informally sharing between specialists a diffused awareness of the key issues to bear in mind in different circumstances and sectors, and the availability in-house of a very considerable wealth of

project data accumulated over the years assist the specialists in achieving a robust judgement even without detailed appraisal procedure manuals.

4. Examples: an in-house procedures and an external projection.

It may be useful to give a more concrete example of the internal use of CBA, taking an example from the urban transport sector. This example, which is inspired to a real project in an Objective 1 region, will help to illustrate the practical use of CBA within the EIB and, interestingly, certain incentives faced by project promoters in Structural Funds programmes, which do not always go in the desired direction. Table 3 is an example of a spreadsheet template which is used by the Bank urban transport specialists to perform a highly simplified CBA audit on projects that are proposed for funding. The aim of this is to enable the Bank services to give rapidly a judgement on the project's economics in those cases where the EIB gets involved at a late stage in the project cycle, which is the case for the majority of projects in EU member countries. Table 3 calculations are self-explanatory – they contain the key drivers to construct basic economic cost and benefit streams necessary to calculate economic performance indicators, assuming a "minimum do" project alternative, i.e. keeping the bus system as opposed to build a new metro line. Naturally this simplified template is no substitute for a full project analysis, but it does allow verifying rapidly the consistency of the key project parameters provided by the promoter – such as costs, traffic, time gains – with an acceptable economic rate of return. In this case the promoter had presented a project with a very robust rate of return, well in excess of 10%. After these initial parameters – possibly following a visit to the project site by an appraisal team - are revised in line with more plausible values compatible with the Bank's long experience in assessing mass transit systems, the ERR (as presented in Table 3) drops to 2% and the project is not considered suitable for Bank funding. However, it is quite interesting to note that – if we assume that this is a project in an Objective 1 region, like the real one that inspired it – the project would

be funded 50% on ERDF funds and 35% on member state funds. Therefore the regional authority would fund from its own resources – possibly borrowing from the EIB – just 15% of the investment cost. And re-calculating the ERR using 15% of the investment cost gives an ERR close to 18%. Add to this the fact that under the Structural Funds rule looking for another project could mean that Community resources may well not be absorbed within the required timetable and one can see how very powerful and entirely rational economic incentives conjure in favour of the low return ready-to-go project and against the time consuming effort of identifying and preparing a new project. Note also that this is not, or not just a financial vs. economic return issue, but rather a regional economy vs. country or possibly European economy issue. Higher level governmental authorities are aware of this conflict of interest in European regional policy, and this is one of the reasons why a standardised cost-benefit analysis is required by the European authorities for major projects, while in some cases a national central government office is in control of the regional management authority. In any event, the example also shows how probably CBA was not properly used by the city in the strategic and optimising phase. A strategic CBA would have examined the general options, e.g. bus system expansion, tram system and heavy metro, and perhaps would have found that for a city of this size and traffic levels a metro system would not have achieved an acceptable economic return.

Table 3. Illustrative Appraisal Template for Mass Transit System

TRAFFIC FORECASTS AND TIME GAIN CALCULATIONS

Base Traffic Forecast		**Million Passenger Journeys / Year**									
		2003	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2030**	**2035**
Steady-State Rides (2010)		**15.00**									
Build-up rate		0%	0%	**0%**	**25%**	**60%**	**80%**	**90%**	**100%**	100%	100%
Long term growth factor (from 2008)	**1.000**	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Effective metro rides (PJ)		0.00	0.00	0.00	3.75	9.00	12.00	13.50	15.00	15.00	15.00
Traffic scenario: select PJ or PROM	**PJ**										
Effective passenger-journeys: input to model		0.00	0.00	0.00	3.75	9.00	12.00	13.50	15.00	15.00	15.00
By Previous mode	**Share**	**Million Journeys / Year**									
Bus	**80%**	0.00	0.00	0.00	3.00	7.20	9.60	10.80	12.00	12.00	12.00
Taxi	**0%**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Car	**10%**	0.00	0.00	0.00	0.38	0.90	1.20	1.35	1.50	1.50	1.50
Newly Generated	**10%**	0.00	0.00	0.00	0.38	0.90	1.20	1.35	1.50	1.50	1.50
Time Gains	**Minutes/ Journey**	**Million Hours/year**									
Bus	**10**	0.00	0.00	0.00	0.50	1.20	1.60	1.80	2.00	2.00	2.00
Taxi	**0**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Car	**4**	0.00	0.00	0.00	0.03	0.06	0.08	0.09	0.10	0.10	0.10
Newly Generated	**4**	0.00	0.00	0.00	0.03	0.06	0.08	0.09	0.10	0.10	0.10
Total		0.00	0.00	0.00	0.55	1.32	1.76	1.98	2.20	2.20	2.20
Road Network Effects as % of Direct Time Gains	**20%**	0.00	0.00	0.00	0.11	0.26	0.35	0.40	0.44	0.44	0.44
Total Time Gains with Road Network Effects		**0.00**	**0.00**	**0.00**	**0.66**	**1.58**	**2.11**	**2.38**	**2.64**	**2.64**	**2.64**
Value of Time Gains	**VOT pax.-hour in EUR**	**MEUR / Year**									
Conversion to EUR	**1**										
Bus	**4.000**	0.00	0.00	0.00	2.12	5.20	7.07	8.11	9.19	11.78	12.38
Taxi	**0.000**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Car	**8.000**	0.00	0.00	0.00	0.21	0.52	0.71	0.81	0.92	1.18	1.24
Newly Generated	**6.000**	0.00	0.00	0.00	0.16	0.39	0.53	0.61	0.69	0.88	0.93
Road Network	**8.000**	0.00	0.00	0.00	0.93	2.29	3.11	3.57	4.04	5.18	5.45
Total		0.00	0.00	0.00	3.43	8.39	11.41	13.10	14.84	19.02	19.99
High/Low Value of Time Factor	**1**										
Value of time growth factor (to 2010)	**1.02**	1.00	1.02	1.04	1.06	1.08	1.10	1.13	1.15	1.47	1.55
Value of time growth (> 2010)	**1.01**										
Car cost savings	**Parameters**	**MEUR / Year**									
Pass.Km Transfered if journey length is:	**5**	0.00	0.00	0.00	1.88	4.50	6.00	6.75	7.50	7.50	7.50
Car Km Transfered if pass./car are:	**1.5**	0.00	0.00	0.00	1.25	3.00	4.00	4.50	5.00	5.00	5.00
Cost per car km	**0.15**	0.15	0.15	0.16	0.16	0.17	0.17	0.17	0.18	0.29	0.33
Cost growth Factor	**1.025**										
Total Car Cost Savings		0.00	0.00	0.00	0.20	0.50	0.68	0.78	0.89	1.46	1.65
Bus Cost Savings	**Parameters**	**MEUR / Year**									
Pass.Km Transfered	**5**	0.00	0.00	0.00	15.00	36.00	48.00	54.00	60.00	60.00	60.00
Bus Km Transfered if Pass./Bus:	**25**	0.00	0.00	0.00	0.60	1.44	1.92	2.16	2.40	2.40	2.40
Cost per bus Km	**2.000**	2.00	2.05	2.10	2.15	2.21	2.26	2.32	2.38	3.90	4.41
Cost Growth Factor	**1.025**										
Total, assuming effective reduction is:	**50%**	0.00	0.00	0.00	0.65	1.59	2.17	2.50	2.85	4.67	5.29
COST-BENEFIT CALCULATIONS		**MEUR / Year**									
	NPV (8%)	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2030**	**2035**
COSTS	**336.25**	**20.00**	**100.00**	**100.00**	**101.50**	**82.60**	**6.00**	**6.00**	**6.00**	**6.00**	**194.00**
Capital (including rolling stock)	205.72	20.00	100.00	100.00	100.00	80.00	0.00	0.00			-200.00
Maintenance and Operation	73.31	0.00	0.00	0.00	1.50	2.60	6.00	6.00	6.00	6.00	6.00
Rolling Stock Renewals	11.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BENEFITS	**259.20**	**0.00**	**0.00**	**0.00**	**4.28**	**10.48**	**14.26**	**16.38**	**18.59**	**25.16**	**26.94**
Total value of time gains	201.85	0.00	0.00	0.00	3.43	8.39	11.41	13.10	14.84	19.02	19.99
Car Cost Savings	13.42	0.00	0.00	0.00	0.20	0.50	0.68	0.78	0.89	1.46	1.65
Bus Cost Savings	42.93	0.00	0.00	0.00	0.65	1.59	2.17	2.50	2.85	4.67	5.29
ECONOMIC CASH FLOW		**20.00**	**-100.0**	**-100.0**	**-97.22**	**-72.12**	**8.26**	**10.38**	**12.59**	**19.16**	**220.94**

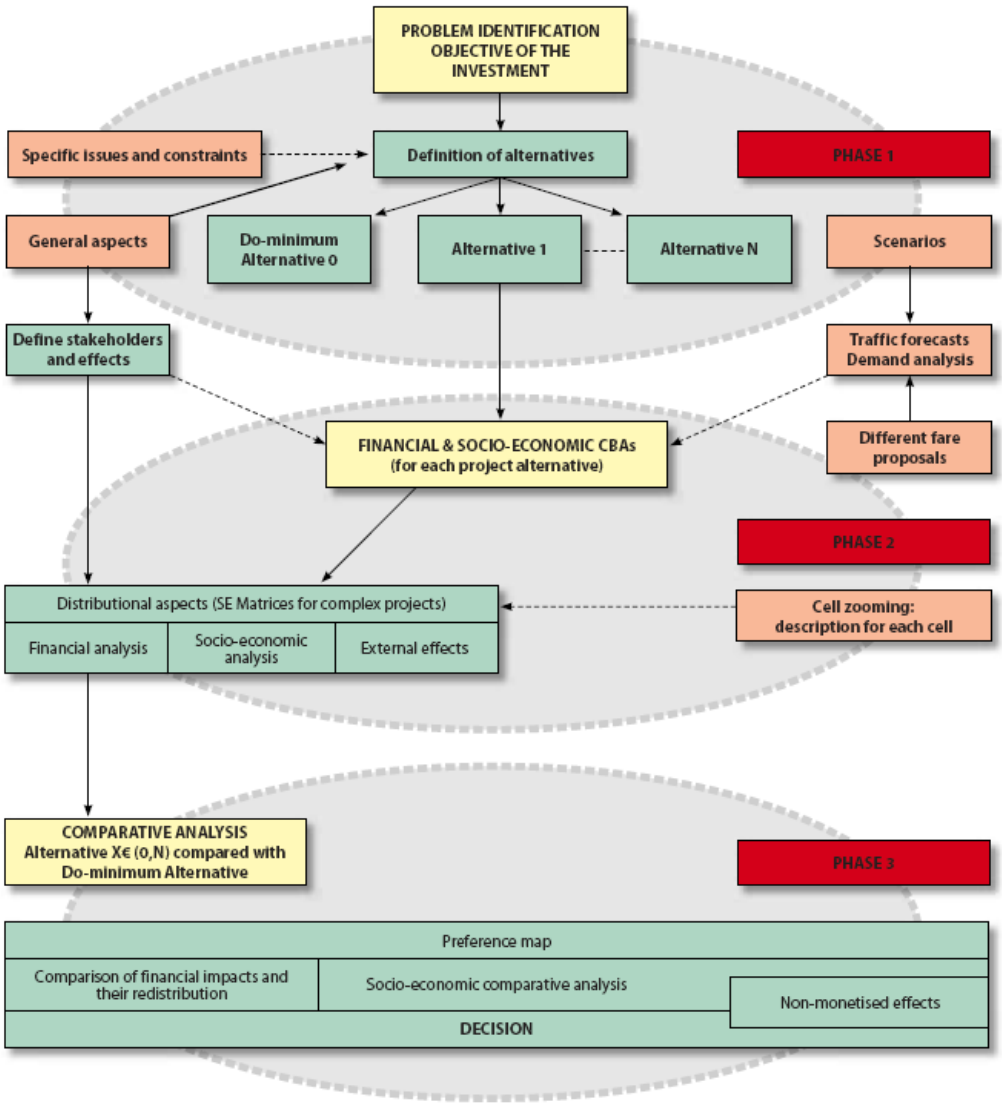
ECONOMIC PROFITABILITY INDICATORS	**IRR**	**2.31**
	B/C (5%)	**0.67**
	NPV(5%)	**-134.5**

Source: Author

4.2 The Railpag Guidelines

Despite the limited efforts in producing in-house manuals or other instruments to crystallise the experience of the Bank staff, there are occasions where the Bank has been more active in producing such instruments. One worthwhile example is the recent publication of Railpag (Rail Project Assessment Guidelines), an EIB initiative supported by the European Commission (DG-Tren) which has brought together, as technical support, experts from the Commission, International Financial Institutions and the rail industry. Railpag aims at providing a common framework for the appraisal of railway projects across the EU. The Guidelines were published in 2005, assembling into a systematic framework the expertise of several parties, and should be seen as an evolving expert system. Railpag is meant to assist the decision-making process for rail investments, including financial and economic analysis, and proposes a systematic approach incorporating project impacts on different parties. This is done through a Stakeholders/Effects Matrix (the "SE Matrix") to analyse each relevant relationship between a specific stakeholder and a particular effect. The SE Matrix provides an integrated picture of the consequences of the project in a way that relates effects (in rows) and stakeholders (in columns). The information summarised in the SE Matrix is available from the Cost-Benefit Analysis of the project. Each cell of the SE Matrix reflects the net present value of a specific effect with respect to a specific stakeholder for the life span of the project, as an incremental value with respect to the do-minimum alternative. It may also incorporate markers for other, e.g. non-quantified effects and indicators. Railpag provides indications on how to fill the various SE cells considered to be of general interest for rail project appraisals. Figures 1 and 2 give the general picture of the planning process and the general structure of the SE matrix.

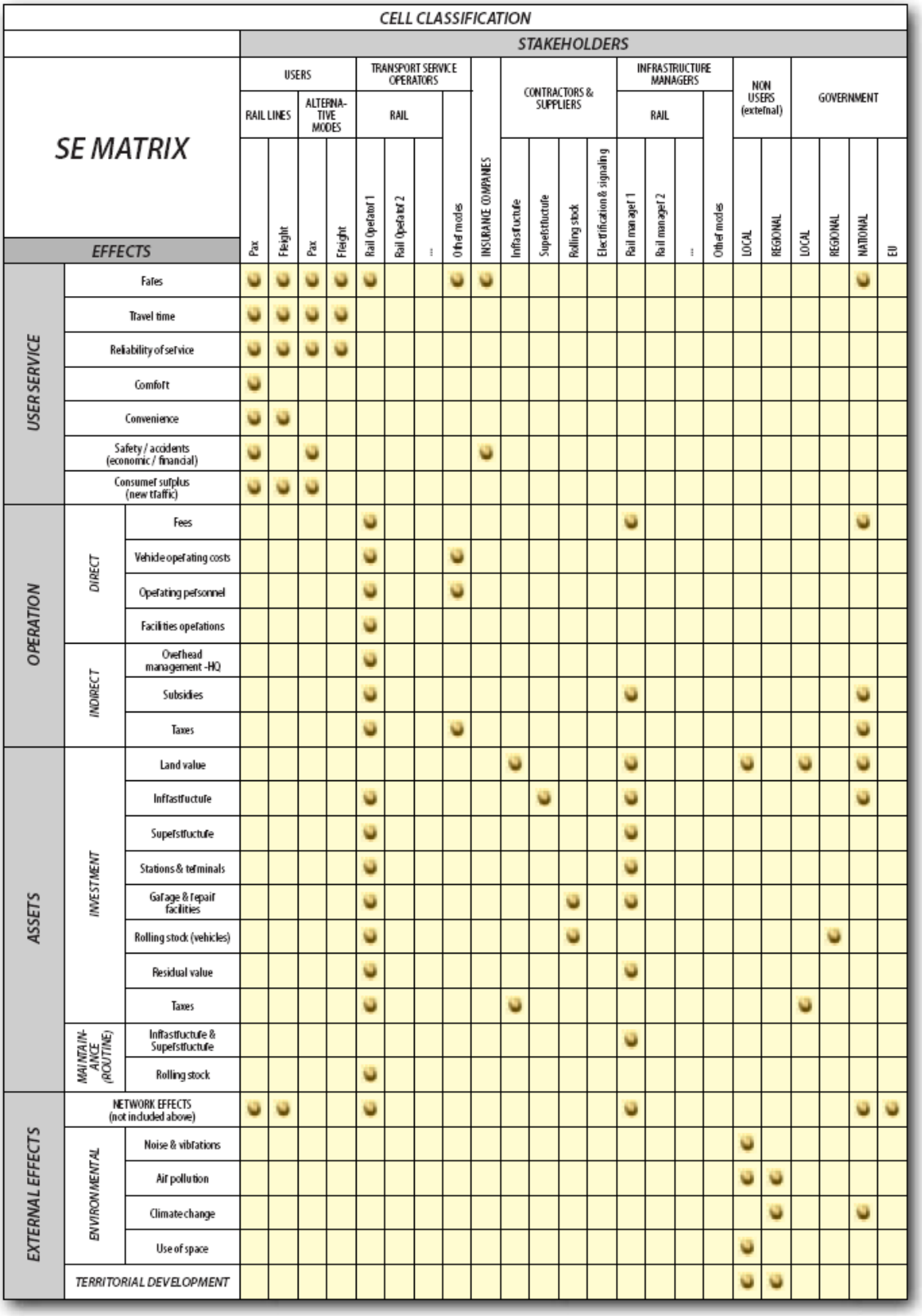
Figure 1 Railpag Appraisal process



Source: RAILPAG. Rail Project Appraisal Guidelines. Luxembourg, European Investment Bank.

It is hoped that the Guidelines will contribute to harmonise project design and appraisal in the rail sector and the Railpag site (http://www.railpag.com/) provides a continuously updated version of the Guidelines, case studies and a variety of links to obtain relevant information.

Figure 2 Stakeholders-Effects Matrix



Source: RAILPAG. Rail Project Appraisal Guidelines. Luxembourg, European Investment Bank.

5. EIB in the new cycle 2007-2013

The new general Regulation on the structural instruments sets up a reinforced legal and financial framework for the Bank to take up a stronger role in the preparation of projects. As indicated in the preambles of the new Regulation, “There is a need to ensure that sufficient resources are devoted to assist Member States in project preparation and appraisal. The EIB has a role to play in providing such assistance and could be awarded a grant by the Commission to this end. … For the same reasons … the EIB and the European Investment Fund (EIF) could be awarded a grant by the Commission to undertake technical assistance (TA) actions in the area of sustainable urban development or to support restructuring measures for sustainable economic activity in regions significantly affected by economic crisis”. TA and financial engineering activities can take place in view of “assistance for project preparation and appraisal, including with the EIB through a grant or other forms of cooperation, as appropriate;” and “evaluations, expert reports, statistics and studies, including those of a general nature concerning the operation of the Funds, which may be carried out where appropriate by the EIB or the EIF through a grant or other forms of cooperation”. Like in the 2000-2006 cycle, EIB involvement in Major Projects financed through the Funds is still foreseen: “the Commission may, if it considers it appropriate for the appraisal of Major projects, request the EIB to examine those projects’ technical quality and economic and financial viability, in particular as regards the financial engineering instruments to be implemented or developed”. The analysis of the Commission also would entail: “(the project’s) consistency with the priorities of the operational programme, its contribution to achieving the goals of those priorities and its consistency with other Community policies” (Art. 41) and “the Commission, in implementing the provisions of this Article, may award a grant to the EIB or the EIF.”

Against the background of the new programming period, it makes sense to mention some initiatives which could enhance the role of the EIB in promoting a more systematic approach to improve the quality of investment in Structural Funds programmes. While this is not an exhaustive list of new initiatives being developed at the EIB, Jaspers, Jeremie and Jessica (the "three J's" as they are known to insiders), the PPP expertise centre and the recent launch of a programme of cooperation with universities are all indications of a more pro-active role of the EIB in the appraisal of investment project and programmes, and a bolder external projection.

The first initiative is known under the acronym of Jaspers, or Joint Assistance to Support Projects in European Regions. Enlargement has greatly added to the requirement to prepare projects, with 15 Cohesion Fund beneficiaries from 1st January 2007 and with greatly increased resources for new Member States. By early 2006, DG-Regio country desks had identified over 500 major projects requiring preparation in the coming years. Problems with the maturity and quality of projects remain and with them the trade-off between speed of absorption and economic impact on economic convergence. A way to address the problem has been to create a technical assistance partnership to prepare major projects between DG-REGIO, the EIB and the EBRD (European Bank for Reconstruction and Development). Jaspers is an additional technical assistance resource for the Member States and for DG-Regio to capitalise on the experience and expertise of EIB and EBRD in a more structured and coordinated way than in the past. Assistance can extend from the early stages of a project through to the final application for Grant Support to cover the technical, economic and financial aspects and any other preparatory work required to deliver a mature project. The objective is to ensure a flow of high quality project applications for rapid approval of Grant Support by the Commission. Assistance provided free of charge to the beneficiary, and there is no obligation by Member States to use Jaspers, no obligation to borrow from the EIB / EBRD and no obligation on EIB / EBRD to lend to projects prepared using Jaspers.

Two other initiatives, Jeremie (Joint European Resources for Micro to Medium Enterprises) and Jessica (Joint European Support for Sustainable Investment in City Areas) are financial engineering instruments operating through investment funds to support, respectively, micro-finance and small-medium enterprises and integrated urban development. The project design-to-operation cycle through Investment Funds is different from grant giving / lending, but issues of quality assessment remain central. The assessment will have to examine the institutional and long-term management capability of the intermediaries, and their ability to judge and direct micro-enterprise and SME business plans on the one hand and strategies for sustainable urban development on the other.

As a result of a recently completed consultation on the proposal to establish EPEC ("European PPP Expertise Centre") the consultation has involved PPP units in Member States, the European Commission and the EBRD. The questions asked concerned the need for EPEC, its mandate and services, technical and human resources to make it viable. The general objective is to capitalise on EIB and other partners' skills to support high-quality PPP proposals of European interest.

The EIB Universities Research Action plan has been launched in 2006, concentrating on co-operation with universities on research topics and themes of major interest to the Bank. Three strands are included in the Action plan - grants to University Research Centres (Eiburs - University Research Sponsorship), of which the first wave has been granted; Starebei (Stages de Recherche BEI) to support young researchers through research stages at the EIB; EIB University Networks, designed to support university networks. While co-operation can span a variety of themes, a central area of interest is in initiatives capable of bridging the gap between academic research and the practical requirements of the assessment and evaluation of projects and programmes.

6. Conclusions

Classical CBA should still be regarded as a central conceptual landmark for coherent economic reasoning, which is important for all organisations, like the EIB, interested in analysing the convenience of alternative courses of action in the public interest. In the operating environment of co-operation between the Bank and the Commission's structural instruments for the 2007-2013 cycle, CBA tools should be applied within a framework where the incentives for the various parties are aligned in order to achieve the right balance between delegation and control.

The challenge for the EIB is twofold. First, it is to exploit more fully what the Bank already has, namely its cumulated intellectual capital, which is substantial, but still too fragmented inside and not projected enough on the outside. For the future, the challenge is to increase and capitalise on this resource, by capturing the potential synergies from the new initiatives and the opportunities associated to the new 2007-2013 programming cycle. To mention just a few, the opportunity to use the project design and assessment capabilities of its staff in the strategic and design phase rather than in the auditing function, to generate a pipeline of high-quality projects rather than simply prevent the Bank from being associated with undesirable ones; to go towards using and adapting CBA tools to reinforce assessment and advisory skills in areas like PPP's, where even in the richer countries and regions the Bank's experience could prove useful; and finally to do the same in the area of financial engineering, where adapting and sharpening appraisal and evaluation capabilities will be of paramount importance.

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