



UNECE



TRANSPORT INFRASTRUCTURE DEVELOPMENT FOR A WIDER EUROPE

SEMINAR

**PARIS
27-28 NOVEMBER 2003**

SESSION 2 – FINANCING OF THE INFRASTRUCTURE

CONTRIBUTION

***“PUBLIC-PRIVATE PARTNERSHIPS
FOR TRANSPORT INFRASTRUCTURE PROJECTS”***

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1 BACKGROUND

1.1 What is a PPP?

The concept of Public Private Partnership covers a wide range of situations and is subject to various interpretations (see annex 1 for a typology review). Many definitions exist in the literature. A now well-known definition is the one given by the UK Commission on PPP: “a PPP is a risk-sharing relationship between the public and private sectors based upon a shared aspiration to bring about a desired public policy outcome”.

For infrastructures, PPPs generally refer to concession or Build-Operate-Transfer (BOT) contracts, or any variant of them, i.e. contracts where risks and responsibilities transferred to the private sector are much wider than in traditional public works or service contracts. They usually entail a mix of construction, operation, commercial and financial issues, with a variable degree of risk sharing between public and private partners. A more restrictive definition of PPPs makes reference to the UK Private Finance Initiative (PFI), whereby the government becomes a purchaser of services instead of physical assets¹.

One of the main potential benefits of PPPs in infrastructure development is the optimisation of life cycle costs through innovation and adapted design². Other benefits are expected from reduction in construction delays (usually payments start when the asset is operational), improved commercial management (marketing, quality of service, tariff policy) and financial engineering.

Some people prefer not to use the concept of PPP for infrastructure concessions or BOT-type contracts because they do not see these contracts as being real partnerships, i.e., in their view, long-term flexible relationships between equal partners. In this note, which deals with transport infrastructures, the choice is made to stick to the PPP acronym for any contractual arrangement, which differs from the traditional contracts awarded under public procurement rules (design & build, outsourcing). This includes concessions as well as UK PFI contracts.

An important characteristic of PPPs in Europe is that practice varies a lot from one country to another for legal (common law Vs. civil law for example) and cultural/historical reasons. On procurement issues, there is no common legal framework at EU level (except for the particular case of works concessions – c.f. Directive 93/37/EEC). In 2004, the Commission will publish a Green Paper on PPP procurement to launch the discussions on this matter. Significant differences exist also from one sector to another with respect to PPP deals structures and practical implementation of projects.

A clear distinction should nevertheless be made between PPPs and privatisation, as many people confuse both concepts. Basically PPPs are an extension of public procurement rules, putting the emphasis on output more than on input specifications, whereas privatisation means a radical and irreversible change in the way a service is provided. Even if a regulatory framework has to be implemented to control monopolistic power or provide for public service obligations, the risk-sharing philosophy no longer holds true in the case of privatisation. However, in the transport infrastructure sector at least, similarities exist between PPP and privatised infrastructures³ regarding risks for International Financial

¹ In this sense, shadow toll road DBFO contracts are classified as PPPs but not real toll motorway concessions.

² True when the PPP contract combines design, construction and operation. This is not always the case for infrastructures (operating or service concessions for example with no or minimal capital expenditure – c.f. water services or urban transport), or Design, Build, Finance contracts, which to a certain extent can be classified as PPPs - c.f. some road projects in Germany).

³ In Europe, almost all private transport infrastructures (mainly ports and airports) are located in the UK.

Institutions (IFIs). When deemed necessary, this note will use the wider concept of Private Sector Participation (PSP) in infrastructure development.

1.2 Why PPPs?

Development of PPPs is part of the general trend towards increased private sector participation and market discipline, including privatisation and deregulation, which developed over the last two decades⁴ in the production of goods and services that have historically been the preserve of the public sector. Main sectors concerned are network industries (energy, telecommunications⁵, transport, and urban utility networks - public transport, water, solid waste) and to a lesser extent social services (health, education and other social urban infrastructure).

Rationale behind this trend is at least threefold:

- ❖ “Volume”: In a context of public finance constraints, PPPs increase the volume of investments that can be delivered during a given period of time.
- ❖ “Efficiency/quality”: World-wide experience shows that, under certain conditions, significant efficiency/quality gains can be obtained by giving more responsibilities to the private sector and, in some cases, by bundling these responsibilities into one main contract.
- ❖ “Competitiveness and fair competition”: mainly valid for network industries, as a consequence of liberalisation and deregulation policies.

The “volume” argument is widely used to justify PPPs, but a more careful examination shows that, in developed economies, it is mainly valid as a short-term argument, during periods of budgetary constraints. In many PPPs indeed (UK PFI contracts for example), annual payments are made by the conceding authority and not by the user of the service. Depending on the sharing of risks between public and private parties⁶, some of these PPPs are accounted outside general government books. However, these PPPs only have a short-term impact on public deficits, during the initial construction period (budgetary payments are just differed and spread over time). Their main financial impact is on public debt.

Another reason for using the “volume” argument with caution when promoting PPPs is that, *stricto sensu*, private sector participation is not always needed to externalise the financial impact of infrastructure development. According to the European System of Accounts (ESA), the creation of a public company has the same impact on public finance provided it is run on a “commercial” basis and receives more than 50% of its income from user payments (public toll motorway companies, for example, even if loans are guaranteed by the State). Ideally, in the long term, accounting conventions should make public finance available to fund economically justified investments when it provides the best deal for society⁷.

⁴ There is a long history of private sector participation in the development of public infrastructures (railways in the XIXth century, canals, road or water concessions in Europe in the second half of the XXth century are but a few examples). The last 20 years are characterised by a much more widespread utilisation of privatisation/PPP techniques throughout the world.

⁵ In Europe, the predominant type of private sector participation in the energy and telecom sectors is not PPP but privatisation. In developing countries, there is a higher proportion of Concession/BOT structures usually classified as PPPs.

⁶ Cf. UK national accounting guidelines. In the UK, only 43% PFI projects have been accounted off-balance. The fact that 57% of PFI projects are still on general government books does not mean that they are not value for money. It means that value for money was achieved with a limited transfer of risks to the private sector. The accounting treatment of “PFI-type” PPPs (i.e. where the services are remunerated in whole or in substantial part by the government unit) is still under discussion at EU level. Eurostat has created a PPP taskforce in order to set up general accounting principles, which will be integrated into the European System of Accounts – cf. annex 2.

⁷ See for example “Implications of the public sector financial control framework for PPPs” by John Hawksworth. See also the recurrent proposal to leave a portion of public investments outside the “Maastricht criteria” (TENs for example).

In Europe, the “competitiveness and fair competition” argument is mainly used to push for the privatisation of incumbent companies in the energy and telecom sectors, where PPP structures are not frequently used.

Therefore, the “efficiency/quality” argument appears to be the decisive one for PPPs⁸: ultimately a PPP is an alternative to procure/deliver a public service (or achieve a policy outcome). It should only be selected if it can deliver “value-for-money” and “quality”. The underlying principle is that the private sector is expected to bring its “rigour” and “expertise” in the design, implementation and operation of a project in a manner that will benefit the society as a whole. Unless this can be demonstrated/achieved – i.e. if the private sector can provide same (better) service/outcome at a lower (same) cost – there is no rationale to resort to a PPP.

Comment: the rigidity and inadequacy of annual budgetary procedures to finance large infrastructures is often a real issue. However, the problem is not “volume” as such (lack of public funds) but “efficiency” (ability to deliver adequate financing). PPPs are a possible solution but alternatives exist⁹.

1.3 EIB lending for PPPs

The EIB did not develop an explicit policy in favour of PPPs per se (or more generally for private infrastructures, unlike other IFIs such as the World Bank group or EBRD). The general stance was to rely mainly on a “neutral” project-by-project approach and to support PPP operations provided they fulfilled ordinary Bank’s criteria in terms of contribution to EU policies and objectives (TENs, environment, human capital), project quality and credit risk acceptability. PPP lending has thus followed different patterns according to sectoral policies and, over the years, has become a significant part of EIB activity.

Since the late 1980’s, the Board approved loans to more than 100 PPP projects in EU Countries for a total amount of 28 billion euros, of which 21 billion have already been signed. 50 projects are in the pipeline for a total loan request of 10 billion euros¹⁰. The Bank is also involved in PPP projects outside EU, mainly in ALA countries and, to a lesser extent, Acceding and Accession Countries (for example motorway projects in Poland) and South Africa (2 road projects).

The vast majority of PPP lending in EU countries is concentrated in the transport sector (86%). Health/education (9%) and water & sewerage (4%), are the two other main PPP sectors. Outside the EU, the water sector accounts for a higher share of PPP operations.

With 29 % of total lending approvals, the UK ranks first, Spain, Portugal and Denmark are second, third and fourth with 16%, 13% and also 13% respectively.

⁸ See for example the Irish guidelines on Accounting Treatment of Public Private Partnerships: “The Contracting Authority should not allow the accounting treatment of a Public Private Partnership transaction to determine the terms of the contract. The contractual terms should be dictated by value for money considerations and the optimal allocation of risk between the Contracting Authority and the Contractor” and the Allied Irish Bank report on PPPs: “The United Kingdom Treasury does not seem unduly perturbed about the possibility of an “on balance sheet” ruling arguing that this debate is a deceptive one and fails to recognise the key elements of value for money and optimum risk transfer in PPP arrangements”. See also the DG ECFIN 2003 report on Public Finances in the EMU: “ It is important however to avoid recourse to PPPs where this is solely motivated by a desire to bypass budgetary by putting capital spending outside government budgets. This could lead to PPP projects, which entail higher overall costs, which would not be in line with the objective of sustainable public finances.”

⁹ For example ring-fenced road or motorway funds fed by road taxes revenue to finance road projects; often considered as an appropriate tool in developing countries to provide sufficient funding for road network maintenance and development, road funds are currently under review as regards their pros and cons vs. ordinary budgetary procedures.

¹⁰ See table in annex 3. These statistics are based on a fairly extensive definition of PPPs. However, they do not include specialised facilities operated by private companies in public ports/airports, such as container terminals or car parking areas.

PPP lending really took off in the mid 1990's (80% of approvals took place after 1996 and almost 50% after 2000), as a consequence of the diffusion of PPP practice in EU countries. It now accounts for 30% of total lending for transport projects, 20% for health & education projects and 10% for water projects. The vast majority of transport infrastructure PPP projects are structured as project finance deals¹¹. Direct EIB exposure to project risks represents 50% of the PPP portfolio.

1.4 Risks specific to PPP operations for a public policy driven Bank

It is likely that the volume and scope of PPP projects will keep increasing. The EIB will therefore continue to be heavily involved in this business where projects are characterised by a mix of socio-economic ("value for money") and financial ("credit risk") issues, which make them distinct from both public and private projects.

The Bank involvement in PPPs started on a pragmatic case-by-case basis. As most PPP operations are structured as project finance deals, on which experience was very limited 15 years ago, the Bank has devoted substantial efforts to address credit risk issues by developing adequate expertise, internal organisation, credit-risk guidelines and procedures. The "project quality" and "value for money"¹² aspects have also been tackled at the level of individual appraisals. This paper aims to give a broader perspective on these latter issues. The focus is on transport infrastructures, which have so far been the bulk of EIB PPP lending¹³. Transport infrastructures have clear specificities¹⁴ but some of the conclusions of the note are valid over a broader spectrum.

¹¹ There is a clear link between PPP and no or limited recourse project finance (PF) structures, but this is not systematic. Corporate finance (CF) may also be used in PPP projects. Likewise, although CF dominates in the context of private infrastructures, PF structures are often used for large and complex individual projects. In a few cases, both CF and PF techniques are used for the same project.

¹² In this paper, the concept of value for money is used in a wide economic sense. It refers to usual cost benefit analysis, i.e. entails a mix of financial and non-financial elements. In the UK, the assessment of value for money of PFI projects was, until recently, based on a pure financial comparison between the PFI contract and a Public Sector Comparator (PSC) in terms of budgetary payments. The recently published HM Treasury report on PFI (PFI: meeting the investment challenge, July 2003) entails interesting proposals to reform the VfM appraisal procedures.

¹³ All kinds of PPPs exist in the transport sector but the standard EIB PPP project is the design, construction, financing and operation of a specific link or node. Very often, complementary investments to be implemented by the public sector are needed to make the project operational.

¹⁴ Regarding financial aspects, transport infrastructures have clear specificities: on the demand side, a mono-product dimension with medium to high growth rates (except for conventional rail, waterways and bulk shipping) but often with limited responsiveness to marketing initiatives; on the supply side, a long economic life compared to industrial investments, frequent discontinuities in capacity expansion creating periods of overcapacity and a strong emphasis on maintenance during the operational phase. Transport infrastructures have also specific socio-economic impacts, which are often of great significance for a public policy driven Bank.

2 PPP DEVELOPMENT IN TRANSPORT INFRASTRUCTURES: A DIFFICULT PROCESS

2.1 Development of PPPs in transport infrastructures: a recent trend¹⁵

Until recently, a mix of social, economic and financial reasons were traditionally put forward to justify, beyond its planning and regulatory role, a direct involvement of the public sector in the construction, financing and operation of transport infrastructures:

- High capital expenditure and long technical/economic life.
- High social, environmental and sometimes technical risks during construction.
- Significant direct and indirect external effects during operation (on land use, spatial and regional development, social cohesion and environment).
- Difficulties of cost recovery from users/beneficiaries, making potential financial profitability often much lower than economic profitability, justifying significant public subsidies.
- Strong local monopolistic situation of infrastructure operators.
- Long financial payback periods even when projects are (or are made) financially viable.
- High uncertainties and limited control on traffic evolution.

Indeed, in most situations, there is an inherent contradiction between “public” socio-economic and “private” financial objectives (tariff policy is one of the main conflicting issues as the optimal social tariff is rarely the revenue maximising one). When they are asked to take more risks, private investors are expected to be too demanding in terms of public contribution, freedom to set tariffs, or risk premiums¹⁶. Therefore, it was generally believed that by giving too much weight to financial issues at the expense of socio-economic objectives, PPPs and, a fortiori, privatisation options were not suitable for transport infrastructures, i.e. could not produce value for money for society, except in cases of scarcity of public funding resources or for very specific infrastructures (road bridges or tunnel for example).

During the last 20 years however, innovative regulatory/contractual frameworks and financial structures/products have been set up to overcome these difficulties in order to increase various forms of PSP in the development of transport infrastructures while ensuring value for money for society. Almost all transport sectors are concerned: roads, railways, airports, air traffic control, ports, and urban transport. At EU level, the Commission has been promoting PPPs since 1997 as a way to accelerate the implementation of the Trans-European Transport Network. This pro-active approach is once again endorsed in the final report of the Van Miert High Level Group and in the recent Commission’s and EIB proposals concerning Trans European Networks in the context of the Growth Initiative.

The EIB is taking a leading role on the financial aspects of PPPs through its involvement in almost all major European PPP transport projects as well as in investment programmes of private transport infrastructure operators.

One of the main lessons learnt from this widespread experience is that it is never a straightforward task to set up PPPs for transport infrastructure projects. Diffusion of PPP experience at national/regional or local levels, or from one sector to the other, takes time.

¹⁵ The aforementioned experience of private concessions during the XIXth century (see footnote 4) cannot be compared to the current practice of PPPs.

¹⁶ Some authors argue that “shadow” risk premiums should also be taken into account when projects are financed by public funds – see for example Michael Klein, 1996 “Risk, Taxpayers, and the Role of Government in Project Finance” – World Bank Policy Research Working Paper 1688.

Legal and historical backgrounds vary also a lot from one country to another. Having to cope with a vast diversity of situations is one of the most prominent challenges of dealing with PPP operations. Complementarities between country experience and sector expertise is particularly valuable for PPP projects. In this sense, the creation of PPP task forces is often an effective and efficient way to develop PPP practice.

What is definitively clear is that, by its very nature, a PPP approach makes explicit those socio-economic and financial risks, which are inherent to transport projects. This is often an improvement over the traditional public approach, where problems are less visible (see § 2.3 below) but this has major consequences for institutional lenders like the EIB, which are more and more exposed to both types of risks.

2.2 A few but spectacular and much publicised failures

When both socio-economic and financial risks are considered, transport infrastructure PPP projects look, at first sight, particularly risky when they are compared to traditional public projects or to PPPs in other sectors. Opponents of PPPs refer to well-known failures or difficult projects¹⁷ to warn public opinion against the pitfalls of PPPs and, eventually, demonstrate their inability to yield value for money. This conclusion is obviously fallacious¹⁸ but there is at least one point on which opponents of PPPs are undoubtedly right when focusing on big disasters: in PPPs, the private sector does take risks and partnerships may actually fail. Transferring risks is indeed one of the main features of PPPs. The relevant question is to know whether and how risk transfer can yield value for money.

2.3 Difficulties in organising a fair debate about PPPs

A fair assessment of PPPs' ability to deliver value for money should take into consideration successful projects as well (many transport infrastructure PPPs indeed, such as Cofiroute or Tunnel Prado-Carénage in France, Spanish toll motorways, the Second Severn Crossing bridge or shadow toll DBFO road projects in the UK, the road PPP programme in Portugal). Ideally, the assessment should be based on a life cycle comparison of costs and benefits between PPP and traditional public options¹⁹. However, it is difficult to have an even-handed debate on PPPs. The debate lacks practical evidence (a lot of projects are still in the construction or early operation phase) and is often strongly biased in one direction or another:

- ❖ PPPs are sometimes handicapped by their greater and more transparent accountability

PPPs and public projects are not equally treated as regards performance. When, for example, construction costs and delays (traffic flows) are well over (under) expectations, PPPs are immediately penalised whereas consequences for public projects are often much less “dramatic” and hardly visible. Eventually, public projects are financially backed by taxpayer contributions, the usual “sanction” being the ex-post evaluation of national public auditors (with little effect on those decision

¹⁷ Interurban toll motorway private concessions (in France in the early 1970's, CEECs or Mexico in the early 1990's for example), or, to limit the list to English or French experience: Eurotunnel, Orlyval, North Ring Road of Lyon or, more recently, Railtrack (in this case not a PPP but a privatisation).

¹⁸ Even if eventually a PPP fails for financial reasons, it does not necessarily fail from an efficiency and quality point of view.

¹⁹ The comparison should not be limited to nominal financial costs. It must include items such as the opportunity cost of public funds, the quality of service, the economic valuation of risk or the impact of implementation delays or tariff policy on project's benefits (the two latter issues can be decisive, when for example comparing a private toll motorway concession with a toll free public motorway: acceleration of works might be substantial with a positive effect on benefits - if the investment is urgently needed - but on the other hand tolling can significantly reduce traffic on the motorway and consequently benefits). The comparison should also look at various PPP options, in particular the different “bundling” possibilities between design, build, finance and operate.

makers responsible for project implementation). This may explain why underestimation of costs or delays and overestimation of traffic and sometimes quality of service are common practice in public projects²⁰. Fighting such inefficiencies and avoiding misallocation of resources is precisely one of the main arguments in favour of PPP or privatisations.

- ❖ Assessment of PPP performance should take into consideration learning curve effects

Most aforementioned failures were among the first PPP projects to be implemented. Diffusion of PPP policy takes time, with variable learning curves by sector. It is, therefore, unfair to draw overly negative conclusions on the basis of a couple of bad experiences that occurred during the early stages of PPP policy implementation. It is, nevertheless, essential to learn lessons. It is also important to initiate PPP experience by selecting a first set of pilot projects, which do not raise too many complex issues.

- ❖ PPP benefit from a fashion effect

One cannot ignore the ideological background initiated in the early 1980's, which has led to a widespread promotion of PSP in the development of public infrastructures and services. This does not mean that promotion of PSP is based on flawed arguments but suggests a prudent approach when looking at main official sources of information, not to mention, of course, information produced by PPP lobbyists.

- ❖ Political opportunism play in favour of PPPs

Politicians may use biased arguments in favour of PPPs, which in the context of public finance constraints are often the only way to implement projects...before the next election.

²⁰ See "Underestimating costs in public works projects: Error or Lie?", B. Flyvbjerg and alii, APA journal, Summer 2002, Vol 68 N° 3

"Inaccuracy of traffic forecasts and cost estimates on large transport projects", B. Flyvbjerg and M.K. Skamris, 1997, Transport Policy, 4(3), 141-146

3 SOCIO-ECONOMIC RISKS: PUBLIC ACCEPTANCE AND THE VALUE FOR MONEY DEBATE

3.1 The importance of fundamentals and the need for public involvement

A PPP approach will never cure a weak project. This obvious golden rule is sometimes forgotten. To a certain extent, basic economical parameters of weak projects can be hidden by the complexity of contracts. A reverse and not infrequent case (more difficult to flag) is a project with sound economics but implemented under a badly conceived PPP agreement. In this case, there is a high chance that the PPP fails to achieve its objectives: either it does not yield value for money for society because the private sector makes excessive profits out of it; or it is so unfair to private investors (even if a limited number of stakeholders may have made substantial benefits) that, although looking attractive to the public sector, it eventually generate significant costs, direct - default, renegotiation - and indirect - negative impact on future PPP business. One or two cases of this kind are usually enough to raise scepticism among citizens and investors about PPPs.

More generally, one should never forget that PPPs deal with public services and that involvement of public stakeholders into the decision-making process is always essential. Whatever the real merits of a project are, opting for a PPP structure without extensive public debate increases the risk of reactions against the project (cf. the North Ring Road of Lyon case).

Therefore, when a PPP operation is envisaged, it is extremely important to provide a clear and transparent demonstration that, in spite of its higher direct financial and transaction costs, it will most likely perform better than traditional public solutions and that benefits will be equitably shared between all stakeholders, in particular when projects receive substantial public grants. If public authorities fail to provide such a demonstration while going ahead with the project, there is a high risk of public contestation, especially if certain criteria (i.e. tolling) are not applied homogeneously²¹.

- A first condition is to show that procurement procedures are efficient. This is a main issue for transport infrastructure PPP projects. The procedures are complex, not easy to standardise and negotiations are long and expensive. Competition is often limited to a small number of bidders, which in the case of repeated deals may facilitate collusion. One of the rationales of PPPs in transport infrastructure is to give private companies enough flexibility to elaborate innovative technical and financial solutions to achieve a specified output. However, in some cases, benefits expected from private initiatives are offset by differentiation strategies aiming to reduce head-on competition²² and increase margins or even induce favouritism by “capturing” decision-makers, which might be the case when too many heterogeneous criteria are used to compare the bids. Even when competition is strong enough and appropriate selection criteria are used, there is no guarantee that the winner is the best one from a value for money point of view (see §4.1). Transparency of procurement procedures is also essential to avoid public scepticism about the real benefits of PPPs.
- A second condition is to ensure that the concession contract or the regulatory framework gives enough incentives to the concessionaire or private operator to

²¹ This is at the origin of strong contestation to tolls on motorways in Catalonia, where tolls have been charged for many years, whilst in many Spanish regions the newly built motorways are toll-free.

²² For example, when the number of technical options equals the number of bidders (having less than four bidders is not unusual for big projects), there is a risk of collusion between bidders in order to avoid competing on the same technical option. This very much reduces the benchmarking role of the bidding process. This inconvenient has to be balanced with the benefits in terms of innovation due to the diversity of offers.

operate efficiently without abusing their monopolistic position and eventually capturing an excessive share of overall benefits (either by increasing margins on construction and operating costs or by increasing tariffs and direct operating profits).

- A third condition is to give evidence that PPPs will not negatively impinge on other important issues (such as the wider benefits that transport infrastructures may provide to society, their distributive effects or the internalisation of negative environmental externalities), which may be the case if regulatory frameworks or contractual agreements are not adequately conceived and/or implemented. Very often for example, the most profitable tariff for the private partner is not the most efficient for society at large²³.

3.2 The need for transparent tools to assess the value for money of PPPs

Checking whether or not PPPs (and more generally PSP) in transport infrastructure development produces overall net benefits for society is never easy. This value for money debate should involve all parties concerned and be as fair and transparent as possible.

For PPPs, the best way to avoid endless discussions about their pros and cons is to use widely agreed pre-defined cost-benefit tools comparing the PPP option with public and/or PPP alternatives. Transparent monitoring of PPP projects by public stakeholders is also essential.

However, a number of practical difficulties arise when implementing such tools, for both methodological and political reasons:

(a) Methodological issues

The following list gives examples of key assumptions, which can easily be biased in one direction or another:

- Choice of alternatives (how many and which ones – public/other PPP options/privatisation...).
- Evaluation of project preparation costs
- Evaluation of transaction and negotiation costs.
- Realistic cost and delay assumptions for public alternatives (knowing that there is often a systematic bias towards cost/delay underestimation in public projects) and for PPP ones.
- Impact of delays on project's benefits.
- Impact on the quality of service.
- Assessment of risk transfer.
- Period of comparison (the longer, the more uncertain).
- Residual value of the assets.
- Discount rate: same for all options or specific to each? (often decisive).
- Public financial costs (should they include a “shadow” risk premium? What is the real opportunity cost of public finance?).
- Private financial costs (how to take into account the learning curve effects on the financial markets; should assessment include potential refinancing savings).
- Socio-economic effects (efficiency in resource allocation – at project/transport sector/ macro level - including indirect effect on taxation, public finance, distributive effects – among individuals, social groups, regions...).

²³ Congestion tolling, for instance, can improve traffic management, but may reduce total income from tolls.

(b) Political issues

These methodological difficulties can turn into endless discussions about the pros and cons of PPPs in transport infrastructure development. The debate is never neutral from a political point of view. Promoters of PPPs will find all kinds of good reasons to justify their policies while opponents will use as many counterarguments as possible.

3.3 Experience in EU countries

Making systematic use of tools assessing the value for money of PPPs is a recent and still limited practice in Europe.

In the UK, all PFI projects have to be compared ex-ante to a public benchmark called “Public Sector Comparator” (PSC). The test is not based on a full cost-benefit analysis but on a comparison in Net Present Value of budgetary payments over the duration of the PFI contract. Still, the UK experience has clearly demonstrated the important role that benchmarking tools can play in terms of public debate about the potential merits of PPPs. A large political consensus now exists in the UK on this issue, which does not mean that all methodological issues about the PSC approach have been cleared out²⁴. The HM Treasury has recently made a number of proposals to improve the value for money assessment. The Netherlands has also developed a PSC methodology, slightly different from the UK one.

In other European countries, the choice between traditional public options and PPPs for the development of transport infrastructures is often based on more practical considerations with a variable degree of public consultation. Multi-criteria analysis is sometimes preferred to one-dimensional benchmarking tools, especially for concession-type PPP.

PSC or wider economic cost-benefit tools may also be used for ex-post evaluation of projects (see for example the numerous reports published by the National Audit Office in the UK) in order to complement the more “qualitative” assessments usually carried out at national level.

3.4 A specific case

If the lack of public finance is the only reason given by public authorities to justify a PPP or a privatisation, i.e. when public alternatives would clearly make the society better off should general government money be available, two cases can be envisaged:

- (1) Public finance constraints are real and severe, meaning that the only public alternative would be to postpone investments by a significant delay or even cancel them: in this case the PPP option should be clearly favoured provided that it has a real impact on public finance (substantial transfer of risks to the private sector) and that it yields a satisfactory economic rate of return.
- (2) Constraints are more formal than real (linked to accounting conventions for example, or based on political decisions) and/or apply for a limited period: in this case the situation is more ambiguous and has to be assessed on a case-by-case basis.

²⁴ See for example Paul Grout paper: “Is the PFI a good deal?” – Market and Public Organisation, Issue 6 (2001).

4.1 The question of risk transfers

Implementing advanced risk sharing structures between public and private partners is exactly what PPPs aim to. However, sharing risks is not a goal in itself but a way to achieve efficiency and quality. The well-known rule is that risks should be borne by the party, which is best able to control them. Unfortunately, this rule is not always easy to implement:

- The easiest case is when each specific risk can be allocated to a well-identified player. Unfortunately, in many cases, more complex risk sharing matrices need to be elaborated.
- Optimisation of risk sharing requires flexibility in procurement procedures and contractual arrangements, which may contravene public procurement rules.
- Legal constraints might impinge negatively on the optimisation of risk allocation (in France, for example, contracts with differed budgetary payments are for the time being forbidden²⁵)
- In the absence of a EU harmonised legal framework for PPPs²⁶, the type and degree of risks that can actually be transferred to the private sector is defined by national legislations, which, on this issue, differ quite significantly (this implies that for cross-border PPP projects, ad-hoc international agreements must be elaborated, which often take time to be finalised).
- When a PPP deals with an essential facility, public authorities may eventually decide, for political reasons, to bail out the project in case of failure even if this is not contractually binding.

A distinction should however be made between “high-risk” greenfield-type projects and “low-risk” utility-type projects, and between projects where a fee is charged to the customer and projects where payments are made by the conceding authority.

What would really happen if a project fails (in particular recovery rates, position of senior lenders versus other lenders) and who eventually takes the risk? These are the issues, which need to be thoroughly analysed during appraisal of projects on the basis of judicial rules and other practical considerations.

For transport projects, sector-specific risks are relatively easy to identify (traffic, toll acceptability, construction costs and delays, maintenance costs, environment). Achieving a good assessment of who really controls what is less straightforward. This may lead to an inefficient transfer of risk and eventually to a biased selection of bidders. A well-known and rather frequent phenomenon in transport infrastructure concessions is, for example, the selection of bidders, which have overoptimistic traffic/revenue forecasts²⁷. This happens when traffic risks are fully borne by concessionaires although they have very little control on them, which is often the case for stand alone project concessions with user payments (real toll motorway sections for example). Due to large uncertainties on traffic forecasts, the selection process tends to mechanically select bidders with optimistic forecasts because they can offer a better deal in terms of tariff level or initial grant request. As concessionaires have a limited control on traffic and revenue levels (in particular when they operate a small

²⁵ Following a case law decision by the Conseil d'Etat concerning the METP procedure (Marché d'Entreprise de Travaux Publics), similar to the UK-PFI framework; this decision excludes a priori the possibility to use shadow tolls or availability payments in PPP contracts for transport projects, although this is an effective way to limit or even eliminate traffic risks borne by the private partner. The adaptation of the French law on this particular aspect is under discussion.

²⁶ A green paper on PPPs and procurement is to be issued in 2004.

²⁷ This is known as the winner's curse phenomenon.

part of a network), there is a significant chance that the concession fails or is renegotiated²⁸, at a high cost for society. Even when payments come from the public budget, like in the UK PFI framework, payment mechanisms have to be carefully devised. UK authorities are still looking for the best payment mechanism for their road PPP projects (a mix of shadow tolls, availability or other performance related payments).

4.2 PPPs: a multi-player game

4.2.1 General considerations

Difficulties in setting up an optimal risk-sharing partnership are much greater when PPPs involve many players, which is often the case for transport infrastructures where PPPs do involve many different actors with different objectives, time frames and levels of knowledge about projects. Classical principal-agent problems (i.e. contractual inefficiencies linked to asymmetries of information or moral hazard) become much more complex to analyse, and can be worsened by “herd behaviour” phenomena. A market consensus is sometimes created without real independent counter-expertise (Orlyval was a good example of this attitude).

These difficulties are more likely to materialise when the relationship between players is unbalanced: public vs. private parties (main issue in emerging economies, where, because of low public wages, administrations may fail to attract competent staff), those who eventually bear the risks vs. those who advise and arrange the deal (even when they belong to the same entity), those with short-term objectives vs. those with longer-term commitments (i.e. construction companies looking primarily at short-term profits during construction²⁹ vs. lenders and “operating companies”, which have medium to long term interests).

4.2.2 The issue of contractual completeness

Ideally, PPP contracts should be complete, i.e. foresee all possible events and specify what each party has to do in any contingent event. In practice this is not feasible. However, the “optimal” level of incompleteness of contracts is particularly difficult to find³⁰. The trade-off is between the costs linked to frequent renegotiations when contracts are very incomplete and the risk of being lost in highly sophisticated contractual arrangements, when contracts try to foresee as many events as possible. In the latter case, the legal hypertrophy may create excessive and costly complexity, making it much more difficult to get an overall picture. The trade-off is also between the advantages of flexibility in case of incomplete contracts and the advantages of incorporating future events into the competitive tendering process for “complete” contracts, knowing that “complete” contracts can generate perverse effects and lead to inextricable conflicts between public and private partners in case of unforeseen events. The question of arbitration is in this case essential and needs to be tackled at an early stage, before problems arise.

4.2.3 From Orlyval to Railtrack via Eurotunnel: Lessons learned from “big disasters”

One could argue that spectacular failures that occurred in transport infrastructure PPP projects are the best proof that private investors did take risks. However, there is a common feeling that many problems could have been avoided if a more thorough and transparent

²⁸ See for example “Auctions for infrastructure concessions with demand uncertainty and unknown costs, Gustavo Nombela and Ginés de Rus, Universidad de Las Palmas de Gran Canaria, May 2001”.

²⁹ As shareholders, they are also interested in long term profits, but more as a “bonus”. It is however interesting to note that many construction companies try to develop their concession business by creating specialised units, sometimes subsidiaries. However, conflicts of interest may also arise between “concession units” and “construction departments”.

³⁰ Legal systems have also an influence on contractual structures. Civil law systems tends to favour the incomplete contract approach whereas common law systems push for completeness.

risk assessment process had been used to analyse technical, market and social issues, and if mechanisms to solve conflicts had been more precisely defined from the very beginning.

Each case would require a specific analysis but it appears that main sources of error have been:

- (a) underestimating construction and equipment costs and construction delays (Eurotunnel);
- (b) overestimating traffic and revenue (almost all cases);
- (c) neglecting issues related to social acceptance (Tagus Bridge in Lisbon, Lyon Ring Road);
- (d) understating problems likely to appear in the medium-long run when regulating newly privatised monopolies (Railtrack).

Environmental impacts tend to become a major issue as well. In France, for example, the construction of a motorway section by a private concessionaire had to be stopped three years ago on environmental grounds and works are just about to resume. In this particular case, the impact on the concessionaire's financial viability has been small because of the legal and contractual framework (clauses on unforeseen events and financial equilibrium of the concession) and because the section under construction was part of a much larger network. It could have been much more important in a limited-recourse project finance deal where the private sector would have had to share some environmental risks.

4.2.4 Performance of risk assessment tools is often reduced by various factors

For transport infrastructure PPP projects, increasingly sophisticated assessment tools are being developed, in particular for assessing technical and commercial risks. However, their performance is often reduced by a number of factors:

- (a) Methodological difficulties;
- (b) Variety of legal frameworks, ownership structures and social environments;
- (c) Possible interference of public authorities on projects' viability assessment;
- (d) Complexity of procurement procedures, which may lead to inefficient selection process in terms of financial viability of projects (cf. § 4.1) and open the door to opportunistic behaviour or collusion between actors;
- (e) Asymmetries of information and conflicting interests between private partners, with possibility of intentional manipulation of key information about project viability;
- (f) A tendency to put the emphasis on financial and legal due diligence (fields closer to decision-makers knowledge) rather than on key technical/commercial issues.
- (g) A still rapidly evolving situation and a limited number of individual cases (compared to industrial corporate structures) sharing similar characteristics; as a consequence, a lack of long and consistent track records, which limits the possibility to draw general conclusions and build up common knowledge.

4.2.5 A particular concern for lenders: the manipulation of information

However difficult it may be, the assessment of risks can always be dealt with by using quantitative risk simulation techniques. Unfortunately, information on risk is not always fully disclosed and is sometimes manipulated. This is particularly the case for technical and commercial risks. Indeed, the nature of PPP deals opens the door to all kinds of inefficiencies, either inherent to their complexity, or due to tactical behaviour of various stakeholders.

It is well known that manipulation may start at the planning stage at both political and administrative levels. As already mentioned, there is often a systematic bias in favour of public projects' economic viability (cost underestimation and/or traffic overestimation) as a result of competition between public project promoters for getting scarce financial public

resources. This biased information on project viability is usually made public before procurement procedures start and is then incorporated into the tender documents. When they carry out their own studies, bidders may prefer to disclose cost/traffic estimates that will not jeopardise the judgment on the economic viability of a project. It can never be excluded that a compromise takes place between the conceding authorities and private bidders with respect to bidding assumptions.

Private bidders may also decide to present overoptimistic bids in order to increase the chance of being chosen³¹. Of course, they will do so only if the expected cost of being voluntarily too optimistic is lower than the expected benefit gained from winning. This depends on various factors, such as the shareholding structure (a key indicator is, for example, the relative weight of construction-driven companies vs. infrastructure “operating” companies and the debt/equity ratio), their ability to generate extra-profit during construction and/or operation, their notional discount rate (short-term vs. long-term profits), the real probability of default (taking into account the political sensitiveness of major infrastructures), the recovery rate in case of default and the risk-sharing structure among private partners.

The latter is particularly important for lenders. Project’s private sponsors may try to use their better information on key data in order to overburden less informed partners (in particular lenders) with excessive financial risks. Another problem is that very often a “consensus” about the project’s viability is formed among key stakeholders at a rather early stage of project implementation. For newcomers stepping in at a later stage, it is almost impossible to go against this consensus.

Traffic and revenue forecasts for new road concessions offer a good example of asymmetry of information. At bid stage, project sponsors hire a transport consultant to carry out traffic studies. During negotiations with lenders, another traffic consultant is hired to carry out an audit of initial traffic studies. Very often, however, due to timing constraints, auditors are hired by sponsors. This often reduces the degree of independence of auditors. Even when auditors are hired and supervised by lenders, they do not always get enough time to carry out their audit properly. There is also a risk of professional indulgence between auditors and audited people due to the limited number of major consultant firms specialised in traffic forecasts. Only in rare cases are traffic consultants made liable for their recommendations.

These considerations apply primarily to new infrastructure development. In the case of privatisation or concession of existing public transport infrastructures, the situation is somehow similar when open tender procedures are used. One of the main differences is the stronger weight put by private investors on long-term operational benefits compared to short-term construction profits, which reduces a priori the risks for lenders of being misled by project’s sponsors looking for short-term profits. Another difference is the shift of risks from traffic/revenue to long-term maintenance costs, as it is often easier to have adequate information on commercial than on technical issues (this is particularly the case for railways -cf. Railtrack).

In the case of privatisation of existing public infrastructure operators, incumbent companies may use their better knowledge on market and technical issues to increase profits at the expense of end users or taxpayers. To prevent such behaviour, and avoid risks of political and social protest, public authorities are inclined to implement a tough regulatory framework. The risk is that regulation fails to get the right balance between incentive mechanisms aiming at increasing efficiency and control of monopolistic behaviour.

³¹ This is different from the winner’s curse phenomenon - see supra - which does not need intentional manipulation of information to appear, but just uncertainties on market forecasts.

5 CONCLUSIONS

The EIB has been financing transport infrastructure PPP projects for more than 15 years. Experience shows that IFIs involvement can bring substantial value added to both public and private partners provided (a) they are involved at an early stage in the project assessment phase, during which judgement on key project aspects is being formed, and (b) they keep their independence vis-à-vis the interests of both public and private partners.

The difficult PPP cases the Bank has had to deal with so far all belong to the transport infrastructure sector. This may just be a consequence of the Bank's PPP portfolio structure (87% in the transport sector). However, one should recognise that transport infrastructure PPPs are usually characterised by significant socio-economic and financial risks:

- **Socio-economic risks:** for transport infrastructures, it is important to remember that, even if PPP projects are financially viable, they do not necessarily produce value for money³². The value for money debate must involve all public stakeholders and make an extensive use of pre-defined cost-benefit analysis tools comparing the PPP option with public alternatives (or at least a financial comparator such as the UK "Public Sector Comparator" used for PFI projects). Particular attention should also be paid to distributive, safety and environmental issues. They often play an essential role in terms of acceptability of PPP projects and therefore need to be carefully addressed by the relevant authorities during public inquiries. Failing to do this increases the risk of extensive protest against private sector participation.
- **Financial risks:** forgetting to look at projects' fundamentals (construction and operating costs/traffic and tariffs) is rather frequent in transport infrastructure projects, in particular in sectors or countries with limited experience of PPP operations. This breach of discipline is a paradox in view of the risks involved but does exist in the real world. It might be explained by various factors, some purely psychological ("irrational mimetic behaviour"), others more rational (opportunistic behaviour due to asymmetry of information and badly conceived risk-sharing structure). Key information on projects can be manipulated at every stage of the preparation phase (planning, procurement, negotiations before financial close). This is a major risk for long-term lenders like the EIB. Very often too much emphasis is put on legal and financial due diligence at the expense of technical and commercial audits, which may also lack independence. There is also a certain degree of irreversibility in the assessment process of projects. Once a consensus is achieved on key project technical/commercial data among core players, it is extremely difficult for a third party player involved at a later stage to criticise what has been done before.

Yet, PPPs in the transport sector can bring value added. One of the main conditions for success is to properly address aforementioned risk issues. Of course, extensive socio-economic and financial due diligence make risks associated to PPP projects more visible than under traditional public procurement. This may give the false impression that PPPs are not value for money. This is why it is so important to make extensive use of quantitative benchmarking tools to compare PPPs with public alternatives on a fair basis. Another important point to consider is that, once a PPP framework is in place, it may take a few years before getting the full benefits out of it. Starting with not too complex pilot projects and implementing effective procedures/structures for sharing experience and monitoring projects' performance are also key prerequisites for success.

³² For example, introducing a toll on an existing motorway to raise private finance for carrying out upgrading works is usually financially profitable but not always economically viable if benefits linked to the upgrading of the infrastructure are too small or if tolling causes significant traffic diversion to parallel roads, where transport costs are higher (in particular external costs – congestion, accidents, noise, air pollution).

REFERENCES

Allied Irish Bank report on PPPs.

Barrett, Tom & Turró, Mateu "Financements du type partenariat public-privé en faveur des infrastructures européennes. Le rôle de la Banque Européenne d'Investissement" in "Financement des infrastructures et des services collectifs. Le recours au partenariat public-privé", Presses de l'École Nationale des Ponts et Chaussées, Paris, 2000.

Broadbent, Jane; Haslam, Colin & Laughlin, Richard "The Origins and Operation of the Private Finance Initiative", IPPR, 2000.

Debande, Olivier "Private financing of infrastructure. An assessment of the UK experience", Journal of Transport Economics and Policy, Vol 36, Part 3, September 2002.

Department of the Environment and Local Government "Irish Guidelines on Accounting Treatment of Public Private Partnerships", April 2000.

Flyvbjerg, B & Skamris, M.K., "Inaccuracy of traffic forecasts and cost estimates on large transport projects", Transport Policy, 4(3), 141-146, 1997.

Flyvbjerg, B. & al. "Underestimating costs in public works projects: Error or Lie?", APA Journal, Summer 2002, Vol 68 N° 3.

Hawksworth, John "Implications of the public sector financial control framework for PPPs", IPPR 2000.

Institut de la Gestion Déléguée "La Private Finance Initiative", 2001.

Klein, Michael, "Risk, Taxpayers, and the Role of Government in Project Finance", World Bank Policy Research Working Paper 1688, 1996.

Nombela, Gustavo and de Rus, Ginés "Auctions for infrastructure concessions with demand uncertainty and unknown costs", Universidad de Las Palmas de Gran Canaria, May 2001.

Trujillo, Lourdes; Quinet, Émile & Estache, Antonio "Dealing with demand forecasting games in transport privatization", Transport Policy 9 (2002), 325-334, October 2002.

Turró, Mateu "Going trans-European. Planning and financing transport networks for Europe", Elsevier Science, Oxford, 1999. (<http://goingtens.turro.lu/>)

Turró, Mateu "El finançament privat d'infrastructures. Una visió europea", Revista Econòmica de Catalunya, núm 38, January 2000.

UK HM Treasury "PFI: meeting the investment challenge", July 2003

UK National Audit Office "PFI: construction performance", February 2003

Vasallo, José Manuel "Mecanismos para reducir el riesgo de la financiación en concesiones de infraestructuras", Revista de Obras Públicas n° 3.425, Octubre 2002.

PSP, PPP, Concession, BOT, Project finance Some clarification about concepts

Different labels are often used to name structures aiming at extending private involvement into infrastructure related activities (including provision of services) that have historically been the preserve of the public sector: Private Sector Participation (PSP), Public-Private Partnership (PPP), Concessions, Build-Operate-Transfer (BOT), Project Finance.

1. **PSP:** the acronym speaks for itself. This covers a priori all kinds of private sector participation from outsourcing school catering to privatising railways. This broad concept is frequently used by IFIs and international organisations dealing with developing countries.

For example, the *World Bank PPI database* (Private Sector Participation in Infrastructure), which covers electricity, natural gas, telecommunications, transport and water sectors in low and middle-income developing countries, uses the following criteria and terminology:

- ❖ **Definition of private participation.** The private company must assume operating risk during the operating period or assume development and operating risk during the contract period. A foreign state-owned company is considered a private entity.
- ❖ **Project types**
 - Operations and management contract. A private entity takes over the management of a state-owned enterprise for a given period. This category includes management contracts and leases.
 - Operations and management contract with major capital expenditure. A private entity takes over the management of a state-owned enterprise for a given period during which it also assumes significant investment risk. This category includes concession-type contracts such as build-transfer-operate, build-lease-operate, and build-rehabilitate-operate-transfer contracts as applied to existing facilities.
 - Greenfield project. A private entity or a public-private joint venture builds and operates a new facility. This category includes build-own-transfer and build-own-operate contracts as well as merchant power plants.
 - Divestiture. A private consortium buys an equity stake in a state-owned enterprise. The private stake may or may not imply private management of the company.

Web site: <http://www.worldbank.org/html/fpd/privatesector/>

2. **PPP:** contrary to PSP, the acronym PPP does not speak for itself! A lot of controversy exists about the concept of partnership. The only consensus is that there is no one-size-fits-all definition of public-private partnership. In most definitions, the focus is on the balanced sharing of responsibilities, risks and rewards for the production of a public service. In that sense, full privatisation is not a PPP, neither is for example the subcontracting of road maintenance. Whatever the definition is, there is always a large grey area between what is clearly public and what is clearly private. Works concessions granted to private entities or BOT projects are usually classified as PPPs. Some people use the name PPP in reference to the UK PFI framework, which is a more restrictive use (excluding, in particular, concessions – see below)
3. **Concession:** literally means that a public authority grants (“concedes”) the right to provide a public service to a financially accountable entity, public or private or both (joint-ventures), partly or fully responsible for carrying out investments needed to

achieve objectives specified by the concession contract. However, national legislations differ quite significantly with regard to the legal definition of concessions. Common law jurisdictions, in contrast with civil law jurisdictions, do not treat concessions as a species of contract distinct from ordinary commercial contracts and specifically refer to the various types of contracts (BOT, DBFO and so on – see below). In France, the legal principles governing concessions is drawn simultaneously from public law regulations and from the civil/commercial code. In other countries, the concept of concession is given statutory definition.

A distinctive feature often used to distinguish concession contracts from traditional works or service contracts and from UK PFI contracts is that the “concessionaire” revenue is partly or fully linked to operational performance. For example, the French legal system is based on the concept of “Délégation de Service Public - DSP”, which covers various situations (concessions as well as other cases - affermage, régie intéressée) with as a common denominator the fact that income must be linked to user payments (“commercial risks”). The latest Eurostat proposals (see annex 2) illustrate this situation.

4. **B.O.T (Build, Operate and Transfer) projects:** usually used to designate contracts between a public and a private entity to design, build, finance an infrastructure and operate it for a fixed period of time, most often without commercial risks (payments are made by public entities on the basis of technical performance). This basic concept has been used in many different ways³³. The name BOT is often abusively used to stand for all these variants.
5. **Project finance** (definition given by the International Project Finance Association): *“Project finance refers to the financing of long-term infrastructure, industrial projects and public services based upon a non-recourse or limited recourse financial structure where project debt and equity used to finance the project are paid back from the cash flow generated by the project”*. In other words, this is a financial structure whereby lenders look to the project’s assets and revenue stream for repayment rather than to other sources of security such as government guarantees or the assets of the project sponsors. PF is widely used in concession/BOT projects.

³³ Main variants include BOT (build, own and transfer), BOO (build, own and operate), BOOT (build, own, operate and transfer), BLT or BRT (build, lease or rent, and transfer), BT (build and transfer), BTO (build, transfer and operate). More recently the acronym DBFO (design, build, finance, operate) was introduced in the UK.

Examples of transport infrastructures with private sector participation in the EU

INFRASTRUCTURE PROJECTS IN THE EU

	Private sector -owned	Mixed Public/Private	Public Sector
Fixed Price	User Fee	<ul style="list-style-type: none"> - Dublin Ring Road (IR) - Skye Bridge (UK) - Second Severn Bridge (UK) - ECT Port Terminal in Rotterdam. (NL) - Tagus Bridge (PT) - IPP (Italy, UK, PT) 	<ul style="list-style-type: none"> - Great Belt Link (DK) - Oresund (DK/SW)
	User Fee plus govt Fee/Subsidy	<ul style="list-style-type: none"> - West Coast Main Line - Thames 2000 (UK) - TOC Rail Franchises (UK) - Manchester Metrolink 	<ul style="list-style-type: none"> - The Greek ESSl Motorway
	No User Fee	<ul style="list-style-type: none"> - DBFO Roads (UK) - Wijkertunnel (NL) 	
Cost Plus	User Fee	<ul style="list-style-type: none"> - Autopista Castedalenis (SP) - Eurotunnel (F/UK) 	<ul style="list-style-type: none"> - Belgian Ports - Spanish Ports - Greek Port Terminal - Irish Port Terminal - The Delta 2000 (NL)
	User Fee plus govt Fee/Subsidy	<ul style="list-style-type: none"> - Tunnel Valvidrera (E) - Most French Motorways - Most Italian Motorways - French Ports - Some Italian Ports - Some Portuguese Ports 	<ul style="list-style-type: none"> - French Railways - German Railways - Danish Ports - The Greek PATHE Motorway
	No User Fee	<ul style="list-style-type: none"> - TVA (IT) 	<ul style="list-style-type: none"> - Most EU Motorways & national Route networks

Main types of private sector participation in infrastructure development

Design and Construction	Financing	Operation and Maintenance	Customer Relationship	Ownership of assets	Usual name	Duration (years)	Type of payment
Private	Public	Public	Public	Public	D&B contracts	-	Fixed price
Public	Public	Private	Public	Public	O&M contracts	5-10	Lump sum or cost plus
Public	Public	Private	Private	Public	Leasing contracts	10-20	User charges
Private	Public	Private	Public	Public	DB&O contracts	15-20	Technical performance related payments
Private	Private	Public	Public	Public	DB&F contracts	15 (for payments)	Annuities
Private	Private	Private	Public	Public	BOT or DBFO contracts (Without commercial risks) <i>Cf. UK PFI contracts</i>	20-30	Technical performance related payments
Private	Private	Private	Private	Public	Concession contracts (with commercial risks) <i>Cf. French concessions</i>	30-50 (up to 80)	User charges Shadow tolls (roads)
Private	Private	Private	Public	Private (temporary) Private	BOOT BOO	20-30 Perpetuity	Technical performance related payments
Public/private	Public/private	Private	Private	Public/private	Concession of specialised facilities (Ex. container terminal)	15-25	User charges
Public/private	Public/private	Public/private	Public/private	Public/private	Joint-venture	Perpetuity	User charges
Private	Private	Private	Private	Private (temporary) Private	BOOT with commercial risks Privatisation	20-30 Perpetuity	User charges User charges

ANNEX 2

The statistical treatment of public-private partnerships in ESA95 (European Systems of Accounts)

Source: Commission's Final Report on Growth Initiative 11 November 2003

The European System of Accounts (ESA 95) - basis for the Maastricht criteria - sets out statistical rules governing how to classify different types of expenditure within the 19 National Accounts and how government commitments should be considered in terms of impact on government deficit and debt.

The ESA95 fundamental statement set out that economic ownership of an asset depends on which party bears the risks and rewards associated with the asset. Implementing this principle is rather complex and further guidance is needed. In particular, to solve one **important technical question**: namely how to establish the **economic ownership of the underlying asset in the PPP**, either as government's asset or as partner's asset, regardless of the legal.

The European Initiative for Growth, aimed to remain fully within the framework of the Stability and Growth Pact, adds to the need for clarification on this technical issue, given its potential for more intense utilisation of PPPs in investment in physical infrastructure.

In February 2003, the Commission set up a **Task Force**, in co-operation with experts from the National Statistical Institutes (NSIs) of Member States, Acceding Countries, the ECB, and the EIB, to clarify such statistical treatment and to develop the necessary technical guidance regardless of legal provisions relating to PPP ownership. The Task Force has recently concluded its works and consensus appears to rally on several key principles:

- to distinguish two types of PPP: those where the contractor raises revenue direct from users of the asset (e.g. tolled road); and PPPs where the contractor charges the government. For the former, any asset is assumed to be fully owned by the contractor. For the latter, full ownership is attributed to the party most exposed to risks and rewards of asset ownership during the period.
- PPP assets should not be classified as a government asset whenever the non-public partner will bear, in any case, construction risks and one of the two following risks: (i) availability risk (depending on the performance of the partner); and/or (ii) demand risk (relating to the behaviour of final users of the assets). Other aspects to take into account are: the effect of the call of some guarantees granted by government; the classification of the unit in charge of the project as regards its autonomy of decision in respect of government; and the final allocation of the assets in some specific cases.
- if the PPP asset is considered as government asset, capital expenditure (for new asset or for significant refurbishment) will be recorded as government expenditure, with a negative impact on government deficit/surplus. As a counterpart, government will incur as new debt recorded at the same time of the expenditure.
- If the PPP asset is not considered as government asset, capital expenditure has no impact neither on government deficit/surplus nor on government debt. Regular purchase by the public partners of services from the private one will qualify as government expenditure all along the life of the contract.

The Task Force will submit its final report, for consultative opinion, to the next Committee for Monetary, Financial and Balance of payments statistics (CMFB) in January 2004. Later, a final decision will be taken in time before the official deficit and debt notification on 1st of March 2004.

ANNEX 3

BREAKDOWN OF EIB-FINANCED PPPs BY COUNTRY AND SECTOR

(Approvals end October 2003)

	TOTAL		TRANSPORT		WATER & WASTE WATER		HEALTH & EDUCATION	
	MEUR		MEUR		MEUR		MEUR	
ALLEMAGNE	170	1%	170	1%	0	0%	0	0%
AUTRICHE	1048	4%	1048	4%	0	0%	0	0%
BELGIQUE	805	3%	0	0%	805	70%	0	0%
DANEMARK	3592	13%	3592	15%	0	0%	0	0%
ESPAGNE	4430	16%	4370	18%	60	5%	0	0%
FRANCE	1838	6%	1838	8%	0	0%	0	0%
GRECE	2503	9%	2503	10%	0	0%	0	0%
IRLANDE	482	2%	377	2%	0	0%	105	4%
ITALIE	0	0%	0	0%	0	0%	0	0%
PAYS-BAS	818	3%	693	3%	125	11%	0	0%
PORTUGAL	3615	13%	3531	14%	84	7%	0	0%
ROYAUME-UNI	8304	29%	5487	23%	73	6%	2335	96%
SUEDE	749	3%	749	3%	0	0%	0	0%