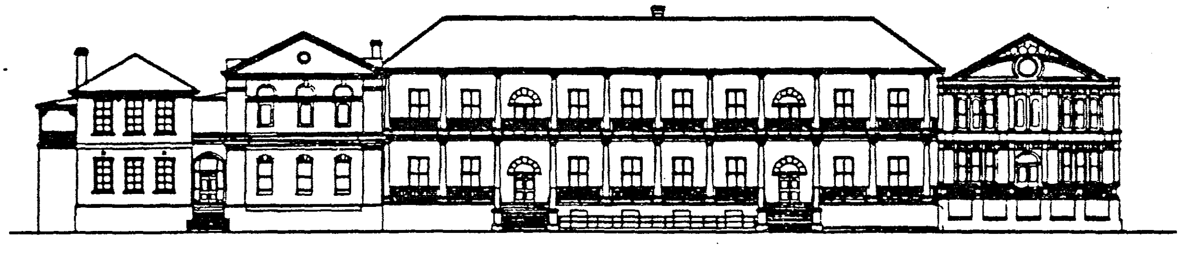
PUBLIC ACCOUNTS COMMITTEE

PARLIAMENT OF NEW SOUTH WALES

Inquiry into Financing of Urban Infrastructure — Report on European Inspection Tour
30 October – 12 November 1992



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EXECUTIVE SUMMARY

This report provides an account of the briefings and inspections conducted by the Public Accounts Committee on its inspection tour of several capitals of Europe between 30 October and 12 November 1992. It is intended primarily as a reference document. The Committee has deliberately refrained from reaching even tentative conclusions regarding the financing of urban infrastructure, since any such conclusions must be the result of careful consideration of *all* forms of evidence obtained during this inquiry.

The first brief section outlines the background to the inspection tour, explaining why the trip was undertaken, and pointing out the key infrastructure financing issues which are relevant in each of the cities visited. In the middle section, the content of each meeting and inspection is outlined for reference purposes. The final section represents a summation of how the Committee's experience during this tour of inspection clarifies the role of private finance in European infrastructure projects.

It has become clear, from this tour of inspection, that private debt investment in public sector infrastructure projects is well established, at least in France and the United Kingdom, and that there are many examples of where this arrangement has proven successful both for the public and private sectors. It has become equally clear that private equity investment in infrastructure is still very much experimental in the United Kingdom, virtually nonexistent in Germany or Denmark, and, while it is well established in France, the particular circumstances there may make it very difficult to transfer that experience to New South Wales.

BACKGROUND - why the trip was undertaken

In March 1992, the then Premier, Mr Nick Greiner, MP, asked the Committee to conduct an inquiry into the financing of urban infrastructure. The Terms of Reference, reproduced in Appendix 1, embraced a broad view of the financing problem, which included consideration of pricing issues, both public and private investment, distributional consequences, bureaucratic coordination, and a number of other matters. The experience base within New South Wales for privately financed and managed infrastructure projects has expanded dramatically with the opening of the Sydney Harbour Tunnel, and the M4 and M5 tollways. Nevertheless, it was recognised by the Committee and a number of commentators that the long-term experience with private involvement in infrastructure overseas could offer many valuable lessons.

Thus, as part of the Committee's investigative activities, which so far have included five days of public hearings (two days prior to the inspection tour) and a wide range of informal briefings within Sydney, the Committee resolved to travel to London, Paris, Bonn, Frankfurt, and Copenhagen to investigate first hand a number of important projects and institutional arrangements relating to the financing of infrastructure.

In general terms, the Committee's inquiry involves issues which have been the subject of active debate, theoretical work, and practical experience in many European countries over a great many years. Potentially, New South Wales can act upon this experience and thereby avoid costly mistakes and progress quickly along a learning curve on this vital issue. The primary caveat is that many aspects of finance, law, community expectations, and acceptable standards of public accountability are specific to the national cultures where they operate. Therefore any approaches adopted would have to suit the New South Wales context in terms of financial markets, public institutions, and community expectations.

Two overarching dynamic themes in contemporary Europe may have profound implications for infrastructure provision and finance: the impetus for a single European market for goods and services which may go so far as to embrace European monetary union, and a tendency for some sovereign nations to fragment into autonomous regional and ethnically-based states. The recent reunification of Germany is having a clearly discernible effect on world capital markets as its government grapples with internal needs for infrastructure, amongst other things.

The dynamic nature of international arrangements in Europe is creating strong new pressures on sources of finance, powerful incentives to experiment with organisational structures, and serious moral dilemmas. We are fortunate that we are able to observe some of these experiments, such as the wholescale privatisation of public sector organisations in the United Kingdom, without being under acute pressure to experiment ourselves.

A further general point is that European economies present a rich variety of intermingled public and private sector arrangements. Close range study of these arrangements may help to overcome some of the stark ideological debate on public versus private ownership which tends to present each alternative as its most extreme caricature.

LONDON

KEY ISSUES: Privatisation, Competition Policy, Regulation

Since 1979 the British Government has embarked on a sweeping program of privatisation of government businesses, including British Aerospace, British Airways, British Gas, British Petroleum, British Telecom, British Rail, Rover, Jaguar, and Rolls Royce. Many of these privatisations have been of utility industries which are subject to natural monopoly operating conditions. These privatisations in particular have given rise to vigorous debate on competition policy and the efficacy of regulation. The privatisation of public utilities is clearly a financing option for infrastructure in New South Wales, therefore the particulars of the debates on competition and regulatory policies are of great relevance to our situation. Even when public utilities are not privatised, there may be great scope for competition and regulatory policies to improve their performance and allocative efficiency within the economy generally.

A number of innovative regulatory/competition policies developed in England may be useful for New South Wales. The concepts of "Yardstick Competition" for parallel local monopolies (such as electricity Area Boards), and "Right to Supply" conditions (under these conditions the grid operator is forced to purchase electricity generated by third party electric generating firms at a specified price) may have beneficial application in New South Wales whether the organisations in question are privatised or not.

BONN

KEY ISSUES: German Reunification, Capital Shortages

West German governments of the recent past have been in a very favourable fiscal position and have not been obliged to resort to private-sector involvement in infrastructure financing. However with the reunification of Germany the abrupt requirement to upgrade the infrastructure and industrial base of Eastern Germany has necessitated new financial arrangements. In part the high interest rate policy of the German central bank in recent weeks could be interpreted as a reflection of these financial dynamics.

The stated motivation for the high interest rate policy is the need to counter inflationary pressures, which at least in part must stem from the inability of the East German economy to meet buoyant demand from a population newly introduced to capitalism. To satisfy this demand substantial capital investment in the East will be required, and this investment must be underpinned by foreign savings. High interest rates are indeed generating strong inflows of savings, but at the expense of the British and French economies, and to a lesser extent our own economy.

Apart from the forces of consumer demand, the need for capital investment in infrastructure in Eastern Germany is also driven by the need to bring East German infrastructure items, such as nuclear power plants, up to acceptable Western European safety standards.

A further consideration which is particular to the German culture is a strong resistance to the user-pays principle, particularly as it might be applied to toll roads. The government appears willing to go to great lengths to avoid the imposition of tolls.

The focal question for German parliamentarians, bureaucrats, bankers and industrialists is how the urgent need to upgrade infrastructure on a grand scale can be met without making the taxation regime excessively onerous. In this question, the position of German policy makers is not so different from our own, albeit their situation is more extreme than ours and the scope for user-pays financing appears to be very limited in Germany.

COPENHAGEN

KEY ISSUES: Joint Danish-Swedish Infrastructure Organisation

The visit to Copenhagen was desired to examine a joint private-government company which has been established by the Danish and Swedish Governments to finance and construct the Oressund Bridge, which will link Denmark to Sweden. Although this company is government-based it is expected to raise funds primarily from private sources. Thus it provides an interesting alternative model to British privatisation or French public-private joint ventures.

PARIS

KEY ISSUES: Private Water Supply, Société d'Economie Mixte Organisations

The main parameters of the French infrastructure experience are: a long history of private provision of water and sewerage services, the prevalence of Société d'Economie Mixte[1] (SEM) organisational structures for toll-based road infrastructure suppliers, and a cultural attitude towards public-private sector relations which is characterised by far less confrontation and mistrust than is found in Anglo-Saxon cultures.

During this visit the Committee had the opportunity to ask specific questions regarding information flows and incentive structures which arise from the competitive and regulatory environment in which private water companies operate.

The meetings in Paris provided the opportunity more fully to explore the SEM type organisational structure which embodies a mixture of public and private interests. It should be borne in mind that the "private" participants in SEM organisations in the French tollroad sector are not generally profit-making privately owned firms, as the name implies. Rather they tend to be local or regional government entities, or not-for-profit organisations. The novelty of SEM type organisations in the Australian context should

1 companies owned by public and private interests

not prevent the Committee from duly considering the benefits and disadvantages which such structures offer.

In a sense, the "bottom line" for any innovative organisation is to what extent it helps to put in place incentive structures and to generate information flows which are conducive to serving public needs in an economically efficient and accountable way. For example, the elimination of a monopolist's monopoly on information facilitates effective regulation. Greater accountability also improves public acceptance of new institutional arrangements.

BRIEFINGS AND INSPECTIONS

LONDON: *30 OCTOBER - 3 NOVEMBER*

Friday, 30 October

Upon arrival in London, the Committee met with Mr John Carr, Director of Project Finance and Privatisation Services for Price Waterhouse. Mr Carr is involved in a number of power station projects, the Eurotunnel project, and has been involved in the Dartford River Crossing project. Power generation has been privatised in the United Kingdom. The Eurotunnel (or English Channel Tunnel, depending on your perspective) is a completely private project which lacks any guarantees from the British Government, although the guarantee issue is less clear on the French side. The Dartford River Crossing is the pathbreaking Build Own Operate Transfer project (BOOT) in the United Kingdom.

Mr Carr briefed the Committee on a number of capital market issues which related to the willingness of investors to support either debt or equity fundraising for infrastructure projects. Mr Carr emphasised the importance of risk sharing, particularly as it is dictated by law and by public sentiment. Toll roads, *per se*, are practically nonexistent in Britain. A toll road project in progress, the Birmingham Northern Relief Road (BNRR), faces an uncertain financial future due to several factors: the consortium conducting the project, Trafalgar House, has accepted the bulk of the environmental approval risk, the demand risk (which is considerable due to the existence of a free alternative route), as well as the construction risk, and most financial risks. Britons' acceptance of a toll road is difficult to predict since this will be the first toll road of its kind in Britain.

Until the BNRR, the only tolled roadways in Britain were estuarial crossings such as the Dartford River Crossing and the Second Severn (River) Crossing. While the Isle of Skye Bridge (under construction) is not strictly an estuarial crossing, it does fulfill the basic criterion of being a monopoly bridge or tunnel crossing where a historically strong frustrated demand is evident. Under such conditions, Britons have been accustomed to paying toll, and financiers feel confident enough about traffic projections to undertake the investment without revenue guarantees.

Mr Carr made some international comparisons (primarily to the United States and France) in discussing the sometimes problematic question of which party should bear the demand risk. He used the example of the privately financed light rail link between the Paris Metro and Orly Airport, on which the project proponents assumed the demand risk. Unfortunately for them, current demand levels are well below projections, threatening serious financial problems. Mr Carr expressed the concern that this case study could become a negative object lesson for other private investors in future projects.

Saturday, 31 October

Morning
The Committee travelled to the Dartford River Crossing to inspect the privately financed bridge and two publicly financed tunnels (which together form the Dartford River Crossing), and to be briefed on the project by Mr Bob West, Company Secretary of the Dartford River Crossing Pty Ltd (DRC). In the control room, Mr West explained the corporate structure of the DRC consortium, and the contractual and financial details which underpinned the agreement with the British Government.

Essentially, the project is financed almost entirely from private debt. The high gearing ratio was possible because of the monopolistic character of the crossing, well accepted traffic flow projections, and a contractual structure which greatly minimised the consortium's downside exposure to demand and environmental approval risks which it accepted. Another interesting feature of the contract was the provision that no profit was to be made by the consortium on the operation of the crossing. This requirement was seen to be a reflection of the "sure thing" nature of this contract. The contract specifies that once a certain total revenue has been collected in toll by the consortium or after 20 years have elapsed (whichever comes first), ownership of the crossing will revert to the Government.

The subject of environmental approval problems during the project's history was canvassed in some detail. To summarise, although the bulk of this environmental approval risk was apportioned to the DRC consortium, in the event environmental objections have been relatively minor. The subject of competitive threats to traffic volumes was also canvassed. Here, the contract provided that if the Government constructed any other crossing of the River Thames (apart from the East London River Crossing) within 10 miles of the DRC during the life of the contract then financial arrangements would have to be renegotiated. Fortuitously for the DRC consortium, work on the competing East London River Crossing has been seriously delayed due to severe problems with its own environmental approval process.

Following this briefing, the Committee was taken through one of the tunnels to Essex and back to Kent via the bridge. A notable feature of this journey was the use of the DART TAG, which is an electronic windshield-mounted device which permits a driver to pass through the toll gate without stopping, the accounting system automatically drawing down the driver's credit account. This Automatic Vehicle Identification system (AVI) is the first used in Europe, and appears thus far to be very successful. By offering motorists a 7% discount on the sale of credit for the DART TAG accounts, the consortium has gained good market acceptance of the equipment.

Afternoon
Mr Mark Call, Director of QDM Ltd, briefed the Committee on current issues in private finance in the United Kingdom. Mr Call worked previously for McKinsey and Co., and more recently as a political advisor to Mr Major. Presently he is an international business development consultant.

Mr Call explained the concept of "additionality", which formed one of the four rules laid down by the former Head of Her Majesty's Treasury, Sir William Rirey, regarding private finance for public works. In general, the so-called "Rirey Rules", were designed to prevent private financing of public works unless it could be demonstrated that private finance was cost-effective, from the public's point of view. Additionality is the name applied to the rule which specified that the budgetary allocation for roadworks, for example, would be decreased by the amount of any private finance which was obtained for road construction. In principle, the concept of additionality has been abandoned, although in later discussions with financiers it was claimed that a de-facto type of additionality was still in force.

Mr Call expressed his view that Her Majesty's Treasury and the Department of Transport were posing significant obstacles to a successful program of infrastructure provision based on private finance. He supplemented this claim with some anecdotal evidence. In broad brush terms, Mr Call went on to consider some legislative, planning, public approval, and project management expertise problems which also continue to hamper timely provision of infrastructure in Britain.

Monday, 2 November

Early morning
The Committee met with Mr John Mobsby, Head of Project Finance for WS Atkins International Ltd. Mr Mobsby was formerly involved with the structured finance section of the Bank of America when they were financiers to Trafalgar House in the Dartford Bridge project. He has also been involved in privately financed power stations in Pakistan.

Having evaluated the Eurotunnel for the Bank of America when finance was initially being sought for the project, Mr Mobsby was in a position to describe what features of that project were unattractive to financiers at the outset. With the benefit of hindsight, now that some of the potential adverse outcomes have ocurred, these concerns have been proven legitimate. One of the chief problems with the structure of the Eurotunnel arrangements, in Mr Mobsby's view, was that they were designed with the profitability of the construction contractors uppermost in mind, thus ingraining incentives which were at odds with the needs of financiers and of governments.

Mr Mobsby recounted some of the history of privately financed tolled crossings in Britain, and commented on issues which the BNRR raises. He noted that the Dutch employ a system of "shadow tolls" in place of the user-pays system for road tunnels. Under a shadow toll regime, the private operator of the tunnel receives from the government, rather than the motorists, payments which depend upon the traffic count. Thus the private operator can be made to bear the demand risk, but since the user does not pay directly, the toll price has no direct influence on traffic volumes. This approach has some advantages, particularly if the imposition of direct tolls might result in hardship for some motorists. However, because the user is insulated from the cost of using the facility there is no financial discipline on usage.

In Mr Mobsby's view, the shadow toll approach fails to encourage the optimum degree of innovation. Entrepreneurship is best encouraged by the collaboration of contractors and bankers to create a synthesis of financial and structural engineering. Mr Mobsby made a point of the importance of this synergy between innovative finance and innovative engineering.

The expected privatisation of British Rail, and issues with rail infrastructure generally were discussed in some detail, along with issues raised by the relatively recent restructuring and privatisation of the electricity industry.

Mid morning
National Westminster Bank - Natwest Finance
Natwest is a prominent financier in many of the high profile infrastructure projects in Britain. It is the lead financier for the Eurotunnel. It is involved in the BNRR in an advisory capacity. It is the financier for a number of independent power stations. Mr Peter Phillips is the head of a thirty-person project finance team based in London. In his view the essential issue in structuring and negotiating contracts is to determine who will accept which risks. Another important consideration in Britain is the determination of whether a project's borrowings are deemed to fall within the Public Sector Borrowing Requirement (PSBR). Effectively, the PSBR operates in a similar fashion to Australia's Global Borrowing Limits. The target PSBR is set by the Government, and projects which might cause the target to be exceeded may be prevented from proceeding.

Mr Robert Brown is the leader of the infrastructure team within the project finance area. Privatisation of electric power generation in Britain has provided growing opportunities for project finance in power. Mr Brown described several features of power station contracts which are of particular importance to financiers. He espoused the general principle that risks should be isolated from the bank onto the body best able to take them. Several issues of public concern over the restructuring of British power--particularly the growing importance of combined-cycle gas turbine technology and the diminishing role of large-scale coal fired plants--were discussed. Mr Brown pointed out that, from the banker's perspective, the only real "asset" in a power station is the network of contracts for fuel purchase and electricity sale. The physical station itself has little value without these contracts. This situation is normal for project finance, and distinguishes it from asset finance (for which the archetypal model may be the home mortgage).

Regarding Australian infrastructure, in which Natwest Finance is involved, Mr Brown commented that his bank had been approached to finance the F4 tollway project in Sydney. Natwest had declined to become involved because the project documentation lacked any comprehensive feasibility study on traffic flows and some subcontractors were unknown to Natwest. Mr Brown stated that frankly there were so many investment opportunities around the world that his bank could not be expected to become involved in projects for which background information is insufficient or not properly structured.

Early afternoon
Mr John Everett, Partner, Ms Tricia Bey, Managing Consultant, and Mr Daniel Masson of Touche Ross Management Consultants briefed the Committee on British infrastructure finance issues from a management consulting perspective. Touche Ross is involved in all current privatisation and outsourcing initiatives of the Government, particularly in the privatisation of British Rail and British Coal.

Mr Masson explained that the aim of privatising government enterprises is to transfer risk from the government, improve quantity and quality of outputs, reduce costs, improve efficiency, and introduce innovation. He provided the Committee with the first complete list of the Rirey rules:

1) A private sector proposal must be proven to be cost-effective for the public.
2) The public sector gives no guarantees at all to private proponents.
3) No exclusivity can be given to any promoter.
4) Additionality (explained above).

When Mr Major was Chancellor of the Exchequer he claimed that he was dismantling the Rirey rules. Mr Masson questioned the extent to which this had in fact ocurred. Additionality, which has been specifically rescinded, is said to remain in a de-facto form: contractors prefering to bid for 100% publicly funded projects.

Mr Masson went on to describe how the privatisation of British Rail was expected to operate: the stations would be sold, rolling stock would be franchised, but signalling and scheduling would remain in the hands of the Government. In the connection of how private train stations would earn revenue, Mr Masson made the interesting observation that Heathrow airport is becoming more a shopping centre than an airport.

Ms Bey provided the Committee with an interesting analysis of problematic interconnections between risk and return on infrastructure projects. According to her analysis, projects which are publicly funded but privately owned (of which the only examples given were so-called enterprise zone developments) have the lowest risk of failure, whereas projects which are privately funded but publicly owned have the highest risk of failure. Primary generic sources of risk are: bidding risk (a particularly significant risk category in the United Kingdom), construction risk, financing risk, performance risk, and demand risk. Among the main sources of return are: tolls, franchises, grants, and development gain (which could be equated to value capture or betterment).

Taking a more detailed view of bidding risk, it includes: the chance of losing tendering costs, the chance of adverse outcomes from a public inquiry process (which could include bad publicity, failure to secure approval, subsequent inquiries, delays, and high costs in meeting public inquiry requirements), the chance of losing finance commitment fees (due to the requirement that finance be pre-arranged before a bid is accepted), and the chance of interest rate forecasting errors in the bid.

Ms Bey went on to explain that projects which fall below an acceptable line on the return versus risk chart can be made palatable to private financiers either by increasing the return or by reducing the risk. Risk can be reduced by simplifying the bidding process, reducing bidding costs, better project management, better information during the bidding process, and better forecasts. Returns can be increased by altering pricing policies or by altering concession timescales.

During the meeting, some mention was made of the Jubilee Line extension to the London Underground. During the mid 1980s when the British economy was booming, the gigantic Canary Wharf office tower was partially constructed in the London Docklands area. At that time, it was anticipated that the area's strong commercial office development potential would soon be realised. With these expectations, the Government decided to use private funds to extend the Jubilee Line into the Docklands area. Approximately 300 million pounds were required from the developers. Unfortunately, when the stock markets crashed in October 1987, the principal financiers for this project were wiped out. Thus to the present day, Canary Wharf and the Jubilee Line extension remain unfinished. Many analysts, particularly outside Britain, believe that this experience is an object lesson in what can go wrong with project finance and private involvement in infrastructure provision.

Mid afternoon
The Committee met with Ms Dilys Thorpe, Regional Manager for the Office of Electricity Regulation (OFFER), London Region. Ms. Thorpe described the current status of the privatisation and restructuring of the British electric power industry, and live regulatory issues. The Director General of OFFER, Professor Stephen Littlechild, is independent of Cabinet Ministers and answerable only to Parliament. OFFER's regulatory aims are to promote competition and to protect consumers.

In relation to price regulation, Ms Thorpe explained that a retail price index element is present in the price-setting formula, but it is retrospective. Therefore, paradoxically, electricity prices are rising at present despite the recessed state of the British economy.

A number of regulatory mechanisms, such as yardstick competition, are on the agenda to be debated, but as yet the regulatory guidelines and methods are only partially established. It is interesting to note that privatisation of electric power generation and many aspects of distribution and supply have taken place prior to a definitive determination on such important questions as how regulation is to be effected.

A major review of economic purchasing (of fuel from different sources, especially coal versus gas) has been expedited and is expected to be published by the end of 1992. It is believed that this report was called for in the wake of extensive public debate on the wisdom of large-scale conversion from coal-fired stations to combined cycle gas turbine stations. The fate of Britain's coal industry as it presently exists hinges on future fuel type choices of the electricity industry.

Ms Thorpe noted that nuclear power stations remain under government ownership.

Late afternoon
Mr Denis Collins, Senior Fund Manager, Prudential Portfolio Managers Ltd, spoke to the Committee about his firm's investment in the Dartford Bridge and other infrastructure projects. Mr Collins' fund deals in fixed interest, unquoted debt. Since the fund finances annuity payments to clients, it is highly risk averse. Projects such as the DRC, the Second Severn Crossing, and the Skye Bridge have attracted Prudential's investments, but projects such as the BNRR are seen as too risky for an annuity-paying fund.

Mr Collins clarified one point regarding the operating agreement for the DRC: although the DRC consortium must hand back the crossing once the toll revenue has repaid the loan, there is a strong incentive for the consortium to collect enough revenue to hand the bridge back early since the loan is similar to a non-reducible mortgage. Interest on the principal over the entire original period of the loan is payable even if the loan is repaid early.

From Mr Collins' point of view, the Dartford Bridge was the ideal project. He noted in passing that by paying for the approach roads to the Bridge, the Government made the whole project viable.

In response to a suggestion from the Committee, Mr Collins expressed the view that a firm which operated many tollroads or estuarial crossings, and which raised equity on the sharemarket might be successful in bringing equity investors into the highway infrastructure area. Conversely such an entity would require assurances of ongoing involvement in highway projects in order to be viable, and it could be problematic for the New South Wales government to provide such assurances to any private firm.

N1

Mr Collins made the novel point that road user groups may be the ideal sponsors for BOT highway projects since their motives would be well aligned with road users. Normally there is a potential for conflict between construction firms and financiers when one or the other of them is the project sponsor.

Electric power investments have been considered by Mr Collins, however he foresees that the vital power offtake agreements will be harder to obtain now that power supply has been privatised.

Tuesday, 3 November

Early morning
Mr R.W. Linnard, Head of Tolled Roads and Crossings Division of the Department of Transport, explained that there is no strategy for private finance in roads. In fact, the British motorway network is virtually complete with the exception of the BNRR and the Birmingham Western Orbital (the two missing parts of a ring road around Birmingham). Once these two links are built, the construction priority will be to widen existing motorways.

Mr Linnard went into the legislative underpinning for the engagement of private finance in roads. Prior to the New Roads and Streetworks Act of 1991 a hybrid bill was required for each new project (such as the DRC and Second Severn Crossing). At that time, the procedure was to call for tenders, select a preferred bidder, then put the bill before Parliament.

Something akin to this procedure has now forced the selected bidder for the BNRR to justify its proposal before a public inquiry. The bidder, Trafalgar House, expected to have to do this, but they appear to have underestimated the length and complexity of the public inquiry process. When asked if he thought Trafalgar House would go through it again knowing what they know now, Mr Linnard pointed out that the concession period on the BNRR project was 53 years and that the construction industry is recessed and that under these conditions the project was probably still highly desirable to the firm.

Unlike the DRC contract, the BNRR contract does not have an early handback clause. This means that even if toll revenue on the BNRR is well above expectations, Trafalgar

House can keep collecting toll for the 53 year period. This "blue-sky" potential reflects the inherently more risky nature of this investment.

Mid morning
Mr Martin Jones, Finance for Rail Transport Industries within the Department of Transport, gave the Committee copies of a consultancy document on franchising British Rail passenger services. He provided his own interpretation of the Rirey rules, drawing an analogy between a parent-teenage son relationship and the Government-British Rail relationship. The son wants to borrow money, but the parent wants to control family indebtedness, and offers to allow the son to borrow with the benefit of the parental credit rating. Mr Jones asserted that the Rirey rules live on in all but name thanks to "Treasury working up the fine print."

One of the motivating factors behind privatisation of British Rail is the need to replace a large fraction of the rolling stock. British Rail would find it very difficult to finance this stock replacement program without privatisation. Leasing seems like an obvious alternative approach, but the liability would have to appear in the balance sheet, and would thus be included in the Public Sector Borrowing Requirement. Under present privatisation plans, a new government entity named "Railtrack" would own track and signalling equipment and compile a national timetable of private (and public) services. Private firms would bid for particular services on the timetable on the basis of lowest required subsidy.

It seems likely that bidding will be most intense on the profitable east coast line, and that by opening network access up to private firms the government might find it can privatise only the few money-making services. Mr Jones used the term "cherry picking" to describe this private sector selectivity. Of course by privatising the plum services, the government would leave itself even less able to fund unprofitable services by cross subsidy.

Interestingly, the Eurotunnel is regarded by the Department of Transport to be a success since private participation has started the project without the commitment of any government funds and without any government guarantee. The Rirey rules were not applied to this project because the Government would never have undertaken it. If the Rirey rules were applied to areas in which the Government did not intend to operate, in Mr Jones' simile, it would be like a shopkeeper offering to undercut the competition on any item not in stock.

Mr Jones also discussed some proposals to construct a high speed rail link between the Eurotunnel and London. Present sentiment appears unfavourable to the project's chances of achieving private finance since the two billion pound capital outlay is unlikely to be recouped from user charges.

A private sector designed tramlink in Croydon was also described by Mr Jones. Once the design is complete, the manufacturing and operation will be put to tender. If the designing consortium does not win the tender, they will be reimbursed for their design costs, which are being closely monitored.

Late morning
Mr Peter Snape, Member of Parliament for West Bromwich East, met the Committee at Old Scotland Yard. Mr Snape is an opposition spokesman on rail transport. He detailed a proposal which his party had conceived prior to the last general election to create a rail loop circling London. In describing the cost-benefit analysis which he and his colleagues had applied, he made the point that road versus rail debates are often biased toward the use of private cars by the failure to include such factors as the cost of accidents, police and ambulance standby costs. Mr Snape also compared the M25 London orbital motorway to a carpark, in reference to its perpetual state of congestion.

The Opposition was successful in garnering support for their round London rail loop from such large retailers as Sainsbury's and Tesco, who were prepared to substantially finance stations which were located in shopping centres. However, the principal resistance to the proposal came from the Department of Transport. Also, political support for the necessary subsidies was lacking.

Taking up the issue of "cherry picking" when British Rail is privatised, Mr Snape explained that a large private investor has offered to buy the Kings-Cross Station to Edinburgh service and run it at a profit. This service is along the busiest route in Britain. To separate such profitable routes from the rest of the network would place comprehensive train service under threat. Once the cross subsidy between different rail services was disrupted by privatising the "cherries", fiscal pressures will inevitably cause the rest of the system to run down, in Mr Snape's opinion.

Mr Snape, who has a longtime personal involvement in railways and many interesting anecdotes, gave the Committee a lengthy analysis of historical trends in rail in Britain. Among the conclusions drawn from this analysis was his view that developments should follow infrastructure and not vice versa. He cited the Jubilee Line extension "fiasco" as a case of infrastructure following development.

Despite a number of concerns and misgivings about private involvement in infrastructure, Mr Snape expressed the view that the public sector cannot do it all, so there is a legitimate role for the private sector. However, in his opinion the private sector does not plan ahead very well. He stated that, ideologically, his party did not object to the BOT concept. Tolls on roads are viewed without favour.

Luncheon meeting
The Committee met for lunch with three Members of the British Parliament: Mr Robert Banks, MP, Mrs Teresa Gorman, MP, and Dr Norman Godman, MP. The discussion was lively and of a general nature, primarily focusing on recent political developments in the United Kingdom and Europe.

Early afternoon
Having heard so much about Her Majesty's Treasury, the Committee was very interested to meet with Mr Steve Robson, Head of the Public Enterprises Group, Her Majesty's Treasury, and Mr Alan Benson, a professional advisor to Her Majesty's Treasury on contracts, bidding, and project management. The discussion began with Rirey's rules. The value for money test is still in place, but the "pound for pound reduction" rule (additionality) was said to have gone. If a private sector idea is really just a financing

idea, it is unlikely to be better value for money. Her Majesty's Treasury has an advantage in finance costs (being able to borrow with Sovereign guarantee, hence lower interest rates), so to be cost-competitive a private firm must have an offsetting advantage in other costs before Treasury will grant approval to the firm's involvement.

The argument that private finance can bring a project's completion date forward in time was not seen by Mr Robson to be a compelling reason for engaging private finance. The timing of projects within the normal budgetary process reflected the priority ranking of those projects at the political level. Mr Robson commented that formerly he worked in the Defence Expenditure area of Treasury. In that capacity he was exposed to nearly every conceivable argument by the private sector as to why they should be given special treatment.

Mr Robson acknowledged that contracting out could pose some problems when the private sector was putting proposals to the very parties who are likely to be "done out of a job." Objective assessments of bids are a recognised problem. In such circumstances, the use of outside consultants to evaluate bids can be beneficial.

Regarding the question of intellectual property, Mr Robson conceded that it is a legitimate problem, but that no good solution has yet been found which protects both the interests of the state and entrepreneur.

Mr Robson also expressed the view that the private sector should be made to bear the demand risk in infrastructure projects.

Finally, Mr Robson gave the Committee a Treasury perspective on the privatisation program in Britain. His explanation started by noting that the Exchange Rate Mechanism (ERM) totally determined UK monetary policy and partly determined fiscal policy. Originally, privatisation was only applied to peripheral enterprises, but it became so popular that the Government went on to sell the State-owned "heartland." Mr Robson believed that privatisation has been of net benefit to the economy, having provided better service at lower cost and greater efficiency.

Late afternoon
Mr Chris Elliott, Director and Head of Project Advisory Unit, and Ms Sue Butcher, Senior Manager, Barclays de Zoete Wedd Ltd, discussed with the Committee their firm's infrastructure involvement. Mr Elliott, like a number of other British financiers the Committee met, worked formerly with the Bank of America on the Dartford Bridge project.

Barclays handles the junior debt on the BNRR project. Mr Elliott expressed some profound dissatisfaction with the public inquiry risk which his bank and the proponent, Trafalgar House, are being required to bear on the project. The Roads and Streetworks Act went though Parliament after the Trafalgar House bid was accepted, so in a sense the consortium was "ambushed". Another troublesome requirement is that planning approval for an existing road requires a new public inquiry if a toll is to be added.

Mr Elliott contrasted this procedure to the one which prevails in Scotland, where public approval risks are perceived to be much smaller. As an example, he cited the relative ease with which the Skye Bridge was approved.

Many passive investors, such as clearing banks or insurance companies, don't like the bad publicity which a public inquiry often generates. For this and the many other previously mentioned reasons, planning risk is better handled by the public sector, but it should leave design flexibility. When asked how he could resolve the apparent chicken and egg dilemma of which comes first, the design or the approval, Mr Elliott proposed the following approach: planning approval should be given to the concept design (as it was in the Dartford Bridge). If a problem ocurrs in the detailed design stage which necessitates a return to the public inquiry process due to a significant change to the concept design, then the project proponent should pay the cost.

In concluding notes, Mr Elliott stated that Barclays is also working on the Birmingham Western Orbital road project. When asked how he viewed the concept of shadow tolls, he espoused a mild preference since they did not deter motorists as much as real tolls. Mr Elliott stated that he did not believe that development gain would be capable of financing major infrastructure, and cited the Jubilee Line extension case to illustrate the pitfalls.

BONN: *4 - 5 NOVEMBER*

Wednesday, 4 November

Morning
After travelling by train from Frankfurt to Bonn, the Committee toured the new German Bundestag approximately one hour before the first ever sitting of the German Parliament in that building. The Bundestag is constructed of simple materials and the extensive use of curtain glass walls makes it possible to see the chamber from the outside. These aspects of the construction were deliberate symbolic choices.

Luncheon meeting
The Committee met at lunch with Herr Rudi Walther, MP, the Chairman of the Bundestag Budget Committee, and Herr Karl Deres, MP, the Chairman of the Bundestag Public Accounts Committee. In a wide-ranging general discussion comparisons were drawn between public finance issues in Germany and in Australia.

Early afternoon
Herr Siegfried Vogt, of the Ministry of Transport, spoke to the Committee about financing issues in the German transport field. The first contemporary reality to be faced is the fiscal deficit caused by a combination of the unification of Germany and a general downswing in the German economy. A second significant source of problems is the uncertain legal land tenure in parts of Eastern Germany. The Committee understands that individuals who were dispossessed of their land by the former Communist Government of East Germany may have their land returned to them by the current German Government.

The uncertainty over ownership of such large parcels of land has effectively inhibited many infrastructure projects from proceeding in Eastern Germany.

Regarding transport infrastructure, significant responsibility for funding and for approval is held by local governments. Some larger public transport projects require Federal Government approval and funding support. In the case of motorway construction and operation, the BOT model with user charges (also referred to as the operator model) which is the prevalent form of motorway provision in Italy, Spain, and France, is very much disliked in Germany. The powerful motorists' lobby espouses the view that tolled roads represent a form of double taxation since Germans already pay a high fuel levy and vehicle tax.

Taking into account the fiscal deficit and the desire to bring Eastern Germany's highway network up to the high standard of Western Germany, the so-called concession model is preferred to the operator model for engaging private finance and operating expertise. (NOTE: The French refer to their tollway finance model as a concession model also, however theirs is an operator model according to the German terminology. The essential difference is that in the French system user charges repay the borrowings, whereas in the German system general taxation revenue is used to repay the borrowings.)

The German concession model involves private-sector prefinance for a road project. Private firms tender for the construction work. The Federal Government repays the loan over time from general taxation receipts at a predetermined rate which does not depend upon traffic flows. The loans carry a government guarantee. The roadway is owned at all times by the German State.

It should be stressed that this model is thus far entirely hypothetical. There are two small projects in which it is proposed to use this financing model, however the Finance Minister has not yet approved either one, and he has indicated that he does not like them. Herr Vogt indicated that there is a degree of friction between the Minister of Transport's desire to provide transport facilities in a timely fashion and the Minister of Finance's reluctance to allow the novel funding mechanisms to be used.

Within Germany there is no legal underpinning for private infrastructure, so the operator model (BOT) has no basis in German Law. Herr Vogt offered the generalisation that every infrastructure project infringes someone's rights and therefore gives rise to some legal challenges. German courts take a very narrow view of the legal justifications for expropriating land. In order to expropriate land, an infrastructure project must be demonstrated to be in the public interest. It is even more difficult to demonstrate such an outcome in the case of private infrastructure.

The Committee then canvassed with Herr Vogt the future possibilities raised by European unity. Herr Vogt felt that tolled roads may come to Germany because of the prevalence of tolls elsewhere in Europe. The present situation disadvantages German hauliers and German taxpayers, since Scandinavian, French, and Italian truck drivers use Germany as a toll-free path through Europe in a North-South direction, thus causing additional pavement damage to the autobahns, but contributing little to the German road maintenance funds. One proposal is to have the European Community levy uniform road user charges all over Europe and redistribute the proceeds according to national traffic demand satisfaction. Such a scheme would be very beneficial to Germany. In any case, there are strong political incentives to reduce vehicle taxes and increase user charges and fuel levies.

Herr Vogt also foreshadowed the use of an emission tax to replace a vehicle tax. Such a tax would capture both pollution and fuel consumption effects.

Late afternoon
The Committee met with Herr Heinrich Weitz and Herr Axel Wunschel of the Hauptverband der Bauindustrie. This organisation is similar in form and function to the Australian Federation of Construction Contractors in that it is a peak industry body representing construction firms. Ironically, the member firms of this organisation are engaged in a great many BOT-style projects throughout Europe and the world generally, but none in Germany. For example, the Skye Bridge in Scotland is being constructed by a German firm. The Lufthansa complex in Beijing is also a BOT project being constructed by German firms.

Herr Weitz and Herr Wunschel gave the Committee an interesting insight into German history and cultural attitudes toward their motor vehicles and travel. Recent legal precedents such as an attempt to use the Swiss vignette (annual usage sticker for motorways) concept in Germany, and an attempt to toll foreign vehicles at the border were explained in some detail to the Committee. Both attempts were ruled illegal by the court at Brussels.

It was also explained how the German legal system made it very difficult to introduce private finance into the highway area. Direct tolling was said to be illegal. Also, the German Constitution contains a "non-affection" principle, which essentially forbids the hypothecation of taxes.

The hope was expressed that Eastern Germany, because of the critically deficient state of its infrastructure, would become a "guinea pig" for private finance, then a showpiece. If it worked in Eastern Germany, acceptance in Western Germany would be more easily won.

Herr Wunschel and Herr Weitz did express a certain frustration at the slow pace of developments in Germany. They quoted a typical time span of twelve to twenty years between when an infrastructure project was first planned and when it was completed. Environmental inquiries, and objections through the court system are very time consuming. German bureaucrats also came in for criticism for being extremely traditional and non-risk takers. Herr Weitz summed up the feeling of frustration by quoting a German proverb: "He who works hard makes many mistakes. He who makes few mistakes gets promoted."

Thursday, 5 November

Morning
Herr Dr Klaus Rohl, MP, Deputy Chairman of the Bundestag Transport Committee, hosted a breakfast at which the Committee met a number of other German Members of Parliament and administrators. As most of the German Members had visited Australia,

the conversation focused on Australian issues. After this meeting the Committee returned to Frankfurt by train.

FRANKFURT: *5 NOVEMBER*

Luncheon meeting
The Committee met over lunch with representatives of the Dresdner Bank: Herr Wilhelm Seibert, Assistant General Manager, Ms Marion Relles, Corporate Finance, Herr Klaus Muller, Correspondent Banking, Herr Kurt Wolter, Corporate Banking, and Herr Uwe Eberlein, Correspondent Banking.

Ms Relles explained that in Germany, electric power has always been privately financed. Regarding roads, the problems raised by previous speakers were reiterated. It was emphasised that, from a banker's perspective, road projects normally carry a very low return, and that this effect would be exaggerated for roads in Eastern Germany since the citizens there cannot afford user charges.

Having set the scene by explaining the need for government support for road projects, Ms Relles listed some types of government support which would be helpful to financiers. A sliding government guarantee on loans, such as is used in Spanish tollway projects, could assist financiers in the relatively risky construction phase. In that phase the government might offer guarantees on 75% of the borrowings, then in later phases the guarantee would be diminished to zero. Also proposed was an interest rate subsidy during the early stage of the project to ease the financiers over the period in which there is no cash flow to meet interest payments.

The Dresdner Bank is involved in the Second Severn Crossing project (on the M4 motorway linking England to Wales). There the traffic risk is shared between the private and public sectors. The existing bridge was sold to the project consortium by the British Government, however a disagreement emerged over the sale price, since the bridge was nearly obselete. An innovative financial solution overcame the deadlock: fifty per cent of the price of the bridge was paid up-front, and the remaining half of the price was treated as a subordinated loan in the project, hence servicing of that loan was dependent upon the volume of traffic on the crossing.

Although the traffic projections on the Second Severn Crossing (SSC) were more uncertain than those on the Dartford River Crossing, the contractual formula for Dartford was adopted for the SSC: ownership reverts to the Government once the loan is repaid or the term of the agreement expires (whichever ocurrs first). In order to satisfy themselves that the traffic risks were reasonable, the Dresdner bank engaged consultants to do regional economic modelling for Wales.

Returning to issues within Germany, Ms Relles indicated that a shadow toll option had been put forward by the bank, but that it was seen as politically desirable to have either a real toll or no toll at all.

Afternoon
(Count) Franz Graf zu Ortenburg, Vice President, Dr Norbert Schraad, Dr Ulrich Paehler, and Mr Rodney Bleathman of the Deutsche Bank briefed the Committee on their firm's involvement in infrastructure finance in Germany and overseas.

Dr Schraad, who has worked in the United States in electric power finance, discussed some of the problems posed by German reunification. He explained that the unresolved constitutional ownership problem is inhibiting necessary investment. The power purchase agreement is the key sticking point in East Germany. Dr Schraad made some brief comments on the restructuring of the British electric power industry.

On the day the Committee met with the Deutsche Bank, a major political decision was expected on whether a private water treatment facility would be allowed to proceed in Rostock, in Eastern Germany. If it proceeds, this project will contain a number of interesting features. The private supplier will bear the major part of the risk that water quality standards will be tightened (and given European Community developments, higher uniform standards are likely to be adopted). The Town of Rostock has the freedom to terminate the licence at any time provided that they pay the facility's book value plus a return on the investment in compensation to the private operator.

The Committee understands that in Germany water supply is generally provided by companies which are wholly owned by local municipalities, although there are six small towns with privately supplied water. Local municipalities are generally against privatisation, but it was asserted that a tendency for subcontracts to be let to friends of the municipal managers have led to general 30% cost increases.

Dr Schraad expressed some views on political events which seemed paradoxical to the Committee. For example, he expressed relief that Germany does not have a political figure who is the equivalent of former British Prime Minister Mrs Thatcher. He also conjectured that former Communists in Eastern Germany would enthusiastically embrace privatisation.

The discussion returned to events in Australia. The Deutsche Bank has been involved in the Collie Power Station project and in the Yan Yean water treatment plant. A degree of frustration was expressed at the fact that both these projects were on hold due to legal disagreements between the respective governments and the prime contractor. The Count asked the Committee to assess the current mood in Australia towards foreign borrowings.

At the conclusion of this meeting, the Committee travelled directly from the Deutsche Bank building to the Frankfurt airport by underground commuter train. There is a train station in the airport at basement level.

COPENHAGEN: *6 NOVEMBER*

In Copenhagen the Committee had the opportunity to learn about a novel program to construct bridges and tunnels between the main islands of Denmark and the Jutland Peninsula, Sweden, and Germany. Construction is well underway on the first of these construction projects, referred to as the Great Belt (or Storebaelt, in Danish). A consortium has been formed and finance is being sought for the second of these projects, the Oressund Bridge.

Mr Niels Remmer, a Divisional Head within the Danish Ministry of Transport, briefed the Committee on the organisational structures employed for these projects.

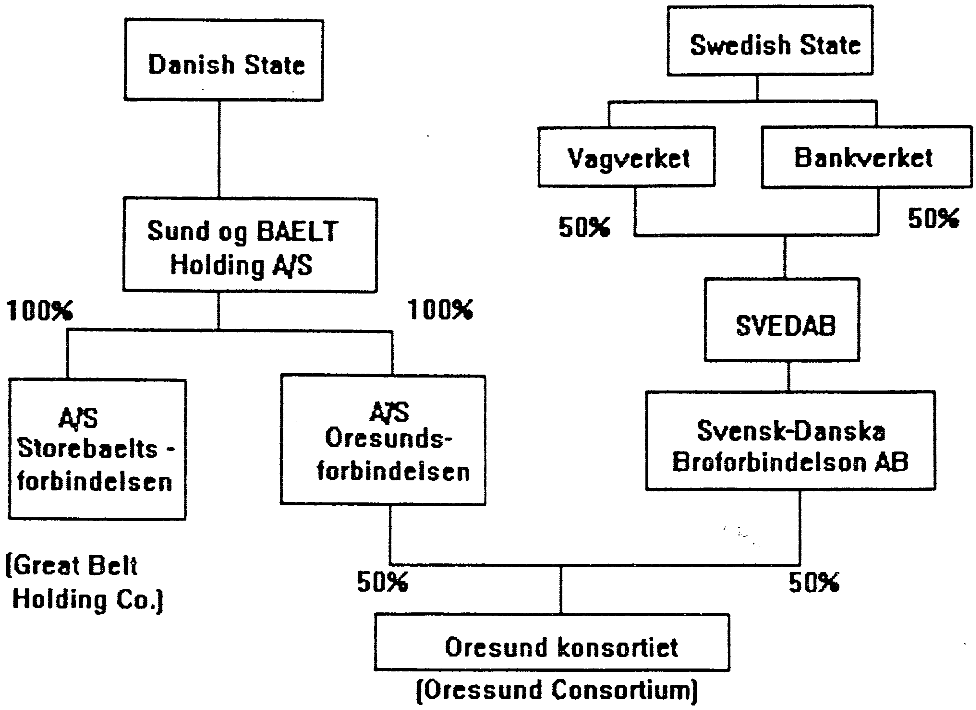
The original impetus for the bridge-building program was a desire to create work in the manner of the New Deal in the United States in the 1930s. The Great Belt Holding Company was formed and its board appointed by the Danish State. The six board members were drawn from labour unions, banking, employer organisations, and the main political parties. Although the Minister of Transport has the power to instruct the board, that power has not had to be used so far. Within the Ministry there is a "Follow-up Group" to monitor the Great Belt Holding Company. This group has a political role, but no legal status.

The Great Belt Holding Company was the organisational model for the joint Danish-Swedish consortium which has been formed to construct the Oressund Bridge. (see organisation chart below) Transnational consortia of this type are well established within Scandinavia. The airline SAS is a well known example in which the national carriers of Denmark, Sweden, and Norway have formed a consortium. Mr Remmer expressed the hope that this organisational model could be extended to take in German Government bodies when the third bridge project is undertaken.

Mr Remmer summarised the financial particulars of the Great Belt project. Funding is off-budget, but based on loans guaranteed by the Danish State. User charges for use of the Great Belt (bridge and tunnel, road and rail) will repay the loans. Tolls for the Great Belt will be set so as to mirror prevailing ferry prices. The Great Belt will be state owned, but not state run. It is expected that a substantial amount of knowledge transfer from this project to the Oressund Bridge will facilitate the second project in financial and engineering terms. Mr Remmer also expected that funds will be transferred free of tax from the Great Belt (once it is operational) to the Oressund Bridge (which will be under construction at that time).

In response to questions about private sharemarket issues to raise capital, Mr Remmer indicated that presently no shares are being offered, however it is possible that shares may be offered in 5 to 15 years' time. A conscious decision was taken not to allow private equity during the construction phase because of the political divisiveness of this option. The present structure enjoys broad political support. It is expected that this structure would survive a change in government.

ORGANISATION CHART FOR THE ORESSUND BRIDGE CONSORTIUM



The Committee then spoke to Ms Kirsten Fjord, Finance Director for the Great Belt Holding Company and a consultant to the Oressund consortium. She explained that the Great Belt Holding Company was a limited liability firm, 100% owned by the Danish State with share capital of 355 million Danish Kroners (which represents less than one per cent of the capital needed for construction). Borrowings of the Holding Company carry a guarantee from the Kingdom of Denmark, hence the Company can borrow on the same terms as Denmark.

Ms Fjord emphasised the importance of the Government Guarantee. Because of this feature, borrowings can be sought as needed, with relatively little supporting documentation from the Holding Company in the way of traffic projections, etc. The Holding Company's finance department consists of Ms Fjord and two academics. She contrasted this situation with the Eurotunnel where a team of 70 people are needed to feed the banks the information they require on an ongoing basis.

The cost of the project is expected to be 21.5 billion Danish Kroners spent between 1987 and 1997 (before interest and inflation). So far, interest rates have been in the vicinity of 8%. The project's internal rate of return is calculated to be 12.3%. Based on current traffic and toll price expectations, debt retirement should be complete within 17.5 years. Financially, the Holding Company expects to benefit from the scenario that income inflation (through the inflationary effect on toll prices) is likely to be higher than expenditure inflation (through the inflationary effect on construction costs).

Regarding traffic volume projections, the Holding Company conducted 60,000 interviews with freight companies to estimate likely freight volumes. Prior to this survey, the existing data were 20 years out of date. At present, 7,000 vehicles per day use the ferry. It is expected that 14,000 vehicles per day will use the Great Belt roadway when it opens and that demand will grow by 2% per year thereafter. When faster ferries were used on this route, decreasing the trip length by one half hour, traffic volumes on the ferry surged by 25%. When the Great Belt is completed (in 1997) it will reduce travel time from 75 minutes (current ferry trip length) to 15 minutes.

As mentioned before, tolls will be set so as to mirror ferry prices. The current expectation is that tolls will be the equivalent of $US 35 when the Bridge opens. Price elasticity studies have indicated that demand is likely to be fairly insensitive to the toll. Once the loans are repaid the toll will be maintained. Dropping the toll would have disastrous consequences for the ferry services, many of which can sustain small Danish cities.

A strong flavour of cooperation and consensus in all the dealings of the Holding Company was evident to the Committee. Relations with banks were said to be friendly, with the Banks often offering constructive advice. The Board itself showed a strong sense of common purpose despite its very diverse composition. Similarly, a sympathetic treatment of the Great Belt's competitors (the ferries) forms part of the overall plan.

Some of the ferry services are operated by the Danish State Railway. As a concession to them, the rail connection (employing a tunnel for the Eastern segment) is due to be completed two years before the road bridge is opened.

Ms Fjord went into some detail on the financial strategy, explaining how foreign currency loans were used to diversify risk, a mixture of fixed and floating rates of interest were employed, and a range of loan maturities were used to diversify the interest rate fluctuation risk. So far 14 billion Danish Kroners have been borrowed for the project. The all-in cost on floating rate debt has been 0.35% below the London Interbank Borrowing Rate. Ms Fjord commented that (hypothetically), with such favourable interest rates, the Holding Company could on-loan their funds and make a profit.

A revealing comparison was made between the Holding Company's average all-in borrowing rate during the period 1988-91 and that of the Eurotunnel. The Eurotunnel interest rate was 3.8% higher than the Great Belt's.

On the construction side, the overall project is managed by the Department of Transport with a large number of subcontracts being let to competitive tender. Construction costs so far have come in about 20% over budget. Some unforeseen problems with the subsea geology have caused problems with construction of the rail tunnel for the Eastern section. There have been some highly publicised deaths of construction workers in the tunnel. Some environmental objections have arisen due to the presence of rare frog and mushroom species on the Island of Spr Og, which is the midpoint of the Great Belt.

In summation, Mr Remmer said that this organisational and financial model is really only appropriate for exceptional projects. Its use in this case is justified because the Great Belt has for years been the Achilles heel of the Danish land transport network.

In response to a question about whether representatives of the British Government had come to examine the Danish model, Mr Remmer commented: "When there is fog in the Channel, (the English say) the Continent is isolated."

PARIS: *7 - 10 NOVEMBER*

Saturday, 7 November

The Committee met on Saturday with Mr Jack Moss, Director of the International Commercial Division of Lyonnaise des Eaux Dumez, and two of his associates.

Initially, the conversation centred on implications of ICAC investigations into the Water Board's Sludge Tendering. Mr Moss expressed his feeling that the "ICAC environment" was frustrating, difficult, negative, and damaging to good business relationships. He said that there were no apparent rules regarding what contacts are appropriate between his firm and public sector organisations in New South Wales. He did not know to whom he could talk and to whom he could not.

Some general observations were made about the Sydney Water Board's tendering procedure for the water treatment plant projects which have recently been awarded. A feeling was expressed that the tender competition was somewhat larger than was necessary to achieve the Water Board's goals. Although a total of 17 bids were said to have been received, Mr Moss felt it was clear that there are not 17 real players in the water treatment business worldwide.

Nevertheless, Mr Moss cautioned the Committee against taking an overly critical view of the Water Board. Although it is tempting to make comparisons between the Water Board and other agencies which deal in infrastructure, it should be remembered that water is a field in which the consequences of failure (such as mass poisoning, for instance) can be extremely serious. Mr Moss referred to the cultural changes which are taking place at the Water Board (from an engineering-based organisation to a service-oriented organisation).

The transition is taking a long time, partly because the Water Board is overloaded with work. Planning for water cycle management is far more complex than planning for roads.

In response to questioning about pricing reform, and how this may affect Lyonnaise des Eaux Dumez' calculations on the Prospect Water Treatment Plant, Mr Moss made an interesting observation. Since his firm has accepted most of the demand risk in its bid for the project, any pricing reform which might influence demand (and ultimately one of the intentions of pricing reform is to manage demand) could create serious commercial problems for them.

Mr Moss observed that a water treatment plant is in many ways ideally suited for BOT finance, since it is a simple entity with a well-defined output and market. Conversely, a sewage treatment plant is very poorly suited to BOT finance because it lacks all those features. He also observed that the absence of Affermage (farming contract) from Australian law makes it difficult for concessionaires to secure a revenue stream in law unless they own the underlying asset. This reasoning was suggested as an explanation for the prevalence of BOT contracts in Australia.

Monday, 9 November

Early morning
M. Michel Berkowicz, Vice President Sales for Asia and Far East, and M. Jean-Maurice Dupont, Business Development, MATRA Transport, briefed the Committee on the MATRA light rail systems. A MATRA system is under consideration for a new light rail line proposed to run from North Sydney to Dee-Why. The Committee was shown a video of a Beyond 2000 television show which featured the MATRA light rail system in operation in Lille. M. Berkowicz made a presentation of the technical features of the system, and the Committee proceeded to a discussion of the financing issues involved in various current and proposed VAL (MATRA light rail) installations in France.

The Lille example appears to be successful financially, although even there the economics of the project are only successful because there is a municipal government subsidy to MATRA to operate the system. The chief financial benefit derived from the automation features is a dramatic reduction in labour costs. Other technical features permit the train to climb steeper grades, turn within smaller radii, and operate with less noise than conventional trams.

In contrast, the VAL system operating from Orly airport to the South of Paris appears to be financially and economically unsuccessful. Although MATRA was less forthcoming than others about the problems with this project, even MATRA conceded that the project was in difficulty. As the Committee understands it, the chief problem is one of poor interconnectivity between the airport VAL train and the Paris Metro. Coupled with the air traveller's perennial problem with bulky luggage, and the high cost of tickets relative to standard taxi fares, the project is suffering from much lower patronage than predicted. The financial backers are facing potentially large losses. At this stage it remains unclear whether the Government will be obliged to provide financial assistance.

Mid morning
The Committee travelled to the National Assembly offices, where it met with M. Gilbert Gantier and M. Claude Germon, both Federal Deputies, and M. Xavier Pinon, Administrator to the National Assembly Finance Committee (of which both M. Gantier and M. Germon are members.)

The Finance Committee is the most prestigious of the six permanent Committees in the National Assembly. 77 Members of Parliament sit on the Finance Committee, which examines economic and budgetary affairs. Of these Members, 40 have specific areas of responsibility, such as rail transport (M. Germon).

France is subdivided for administrative purposes into 20 regions, 95 departments, and a great many communes. The regions correspond roughly to States. The communes correspond to local government areas. The concept of the department was the precursor to the region. All departments are of similar geographical size, representing an area just large enough to travel from the centre to the periphery and back on horseback in one day. Approximately 20 years ago it was realised that the departments were too small for effective administration of some types of problems, so the regions were created.

The Committee discussed the impact of environmental impact study requirements on transportation developments in France. Some examples raised were the successful resistance to a tunnel under the Pyrenees created by the Bear Protection Society, and the anti-nuclear lobby's resistance to an attempt to link power grids of France and Spain. In southeastern France, environmental approvals for a TGV line are being delayed because the route must cross vineyards, industrial and nuclear power station sites. In M. Germon's opinion, these objections are unfortunate since the project has a high benefit to cost ratio, and 30% of the capital investment is expected to come from private sources.

M. Germon asserted that normal procedure in France is not to abandon projects because of environmental objections, but rather to modify the proposals. However, M. Gantier raised the case of a proposed nuclear power station in Brittany which was abandoned despite good economic justification.

Some discussion followed on the Orly VAL project, and tended to be very critical of the project's original cost-benefit studies. Some uncertainty was expressed as to who (the Government or the private operators) would bear the cost. Technically, the private firm is liable for the costs, but the view was expressed that the Government may be forced to bail the firm out. M. Germon, whose party is presently in Government, emphasised that the Orly VAL project was proposed and advanced by the previous government. M. Gantier, whose party is in opposition at present, was quick to point out that the English Channel tunnel (or Eurotunnel, as the French prefer to call it) is the responsibility of the present Government.

Luncheon meeting
M. Claude Germon, Mayor of Massy-Palaiseau, and Federal Deputy met with the Committee over lunch at the Mairie of Massy-Palaiseau. M. Germon explained the recent history of his municipality, dwelling extensively on the role played by transport infrastructure in the area's commercial development. One notable feature of Massy-

Palaiseau is that it contains an interconnection between two TGV lines, allowing passengers to change lines without entering the Paris metropolitan area.

Afternoon
Credit Lyonnais representatives M. Gerard Schuijers, Charge de Missions for the Asia Pacific Division, M. Xavier Roux, Head of the Infrastructure Department, and Ms Fabienne Bruchig of the Infrastructure Department briefed the Committee on infrastructure financing issues from their firm's perspective. M. Schuijers, an Australian, is responsible for Australia and New Zealand.

M. Roux began by explaining the background to tollroad development in France. Legally, these developments were based on the concession-type contract, which has been entrenched in French law for more than one hundred years. The one private sector tollway firm, Cofiroutes, is now confident enough about its financial flows to raise investment funds on the market without any government guarantees. In this connection, the difference between a concession contract and a BOT contract was emphasised. Under a concession contract, the concessionaire does not own the underlying asset, but his right to the income stream is protected under law. In Anglo-Saxon law, so the Committee was led to understand, the income stream cannot be protected unless the operating firm owns the asset.

Presently the cutting edge of tollroad finance is in urban highways such as ring roads. In the 1970s it was inter-city tollways. Urban highways pose different problems since there are often many alternative routes, a great many interchanges and turnoffs (thus complicating the logistics of charging tolls), and very little experience with the acceptability of tolls to drivers in this situation. As M. Roux put it, "we are completely in the fog" when it comes to evaluating the risks.

M. Roux made some comments regarding the saleability of bonds for infrastructure projects (particularly toll roads). For low profile projects, bonds cannot be sold without some form of guarantee. Cofiroutes, being a high-profile firm, can sell bonds without guarantees. Bonds for risky projects tend to be bought only by institutional investors, since individual investors are unlikely to read the 300 pages of documentation which often support these projects. In France, such bonds receive no special tax advantages. Financiers would like to sell zero coupon bonds, but there is a tax penalty for these under French taxation law: the tax office considers that a coupon is accrued even on zero coupon bonds, and the accrued interest is taxable.

M. Schuijers and Ms Bruchig commented on the dynamics of certain infrastructure projects within their experience. Generally speaking, both an appropriate legal framework and political will are necessary to make projects work. Failures which do occur were said to stem from divergent expectations between private-sector participants and municipal politicians. As a result of several decades of experience, the French Government does not give guarantees for highway projects. It is typical for a consortium which wins a tender to ask some members of the losing consortia to become involved in the project, although the lead members of losing consortia do not usually join.

Some discussion followed on the need for infrastructure agencies to seek their own financial advice. The Credit Lyonnais representatives offered their views on the experience of the Commonwealth Bank's attempts to syndicate the finance for the M4 tollway project.

Evening
The Committee met informally with a number of professional people working in the infrastructure field at a reception at the Australian Embassy in Paris. The Chairman had the opportunity to discuss Australian-French comparative law issues with a leading French commerical lawyer.

Tuesday, 10 November

Early morning
The Committee travelled to Le Mans and back to Paris on the TGV high-speed train. TGV stands for Tres Grand Vitesse (or very great speed). The journey took 45 minutes in each direction, travelling at 300 km/h for most of the trip. Accompanying the Committee were M. Jean-Michel Gayon, International Affairs Department, SNCF, and Mme Marie-Paule Devacquet, Chargee de Mission, Ministry of Equipment, Housing, Transport, and Space. During the journey, the Committee discussed a number of rail transport issues with M. Gayon and Mme Devacquet, including the history of the Very Fast Train proposal in Australia.

Significant environmental problems have delayed or prevented the construction of planned TGV lines in the South East of France despite very strong economic cost-benefit indications that the project would be worthwhile. Both political and technical problems have prevented the interconnection of French and German high speed train systems.

Regarding taxation support for public transport projects in France, Mme Devacquet explained the "Versament Transport" tax to the Committee. This tax is levied on employers in a fashion similar to payroll tax. The tax rate is dependent on the number of employees (small businesses do not pay it) and on the level of public transport service available to the area in which the employer is located. The tax receipts are hypothecated to public transport. A complementary measure is the requirement that employers fund half the cost of periodic public transport tickets for their employees.

Mid morning
M. Bruno Teman (roads), and M. Thierry Lange (public transport) of the Ministry of Finance spoke to the Committee about transport finance from a Treasury perspective. M. Teman, in outlining France's experience with tollroads, offered the opinion that the failure in the 1980s of three of the four private tollroad companies was the result of those firms' intention to "cream" the construction contract and allow the operation of the tollroads to fail. In contrast, the survivor--Cofiroutes--was successful because it had the most profitable routes, and because its shareholders took a moderate profit on construction and took a long-term view of operating contracts.

Presently a new private firm, Ville Express, is negotiating to construct and operate a tolled ring road around Paris. These negotiations are proving difficult because Ville Express wants predictable toll prices, but the Minister of Finance won't commit to any particular pricing formula. He wants to retain discretion. Ville Express does not want to assume the demand risk unless it is able to raise tolls to make up for revenue shortfalls.

The Minister of Finance is reluctant to link toll prices to the consumer price index since the widespread use of inflation-indexed prices would limit the Government's ability to fight inflation.

It was mentioned that local authorities are only allowed to make their own concession arrangements for tolling bridges and tunnels in France. On other roadways the Central Government sets tolls. This rule has led to some absurd outcomes, particularly in Lyons, where tunnels have been constructed instead of surface roads for the same route simply in order to permit local authorities to control tolling.

The Department of Transport has proposed that surplus funds collected from the tollroad program be spent on public transport. The Minister of Finance was said to "want none of that hogwash", feeling that this type of cross subsidy would introduce distorted pricing signals. M. Teman asserted that the tollroad system as a whole is not profitable, although later discussions with the Department of Transport put that statement is some doubt.

The Committee attempted to gain some insight into how funds are allocated between competing transport projects within the road and rail areas. As far as the Committee could determine, no quantitative assessment of relative need is performed. Road and rail each have large supporting bureaucracies, and separate strategic plans. Unfortunately little coordination appears to exists between the two sets of plans, and Treasury appears not to believe that the responsibility lies with them to coordinate.

The FDES, a social and economic development fund created in 1955, is used to avoid duplication of investment in transport modes. It also fixes total borrowing and total investment in transport.

M. Lange went into some detail on the background to the Orly VAL project. In a general discussion of the issues raised by private finance, M. Lange pointed out that the Ministry of Finance did not want bad projects to go ahead simply because private finance was available for them. The Orly VAL and the Canary Wharf-Jubilee Line extension projects were raised as two pertinent example of how an indiscriminate use of private finance can lead to socially undesirable outcomes.

Mid afternoon
The Committee met with Mme Chantal Lecomte, Chef de Service, Autoroutes and Conceded Roads, Ministry of Equipment, Housing, Transport, and Space. Mme Lecomte recounted the history of tollroad experience in France from the Ministry of Transport's perspective. She emphasised that the tollroad program employed the surplus generated from tolls on some routes to achieve regional development goals. This redistribution goal requires "rebalancing" of the system's finances from time to time. In this respect the tollroad system departs from a pure "concession model".

Regarding the demise in the early 1980s of some of the private tollroad companies, Mme Lecomte ascribed a greater role to the oil crisis in the failures than did the Ministry of Finance. The Ministry of Finance tended to blame the firms themselves for their difficulties.

Toll revenue for the system as a whole is approximately 20 billion French Francs each year. Of this, 11 billion is invested in road building or maintenance, 7 billion is paid in finance costs, and 2 billion is used to repay principal on outstanding loans. A special-purpose borrowing authority, CNA, raises the investment funds needed by the SEM autoroute companies without any explicit government guarantees. Cofiroutes, the only truly private sector tollroad company, raises its own finance. Although there is no explicit guarantee for CNA's borrowings, the market perception may well be that the Central Government would not allow CNA or the autoroute operators to fail. Thus the borrowings may take place with an implicit government guarantee.

Although Mme Lecomte also denied that the autoroute system as a whole was profitable, it is clear to the Committee that the average tolling rate of 0.32 Francs per kilometre raises sufficient funds to sustain an expanding construction program at the same time as road maintenance is fully funded, interest costs are fully covered, and principal is being steadily repaid. Although there may not be a cash profit, it seems clear that the assets of the autoroute system are steadily increasing while the liabilities remain fairly static. In the future, the situation should become even more clearly profitable as there is a government intention to retain tolls once the roads are fully paid for.

Mme Lecomte made some comments about inter-modal rivalries within the transport portfolio. In the case of the Lyon-Marseilles route both road and rail corridors are completely saturated at present. The excess demand problem is so great that no competition is possible between modes. Road and rail must collaborate to meet the immense traffic needs.

Finally, Mme Lecomte made some interesting observations regarding an experiment which was conducted with time-of-day modulation of tolls. These experiments were surprisingly successful in managing demand, especially in smoothing the peaks during commuter hours. Unfortunately, the rigid control over tolling which is exercised by the Ministry of Finance makes it very difficult to try such an experiment on a larger scale. Even for these limited trials, explicit approval from the Minister of Finance was required.

Late afternoon
M. Rince, Public Transport, Ministry of Equipment, Housing, Transport, and Space spoke briefly with the Committee on the subject of public transport systems in France from the Department of Transport's perspective. Ironically, a train strike in Paris made it necessary for the Committee to depart early for the airport, leaving very little time to discuss the issues with M. Rince.

The political responsibility for urban public transport is at the local government level. Execution of public transport works can either be done directly by the local government using their own employees or (more usually) subcontracted to private firms. With private execution, the concession arrangement represents the most extreme form. This type of arrangement is fairly rare. In fact, the Orly VAL is the only operational example of concession for construction and operation of a public transport facility.

The VAL in Lille is operated by GTI, a private firm, but the construction and financing was done by the local authority. Thus in the Lille VAL case, it is not a true concession. Concession contracts are in place for future projects in Toulouse and in Rouen. VAL systems in Bordeaux and Rennes are not as far advanced in the execution of the construction contracts.

Commenting that there is no standard model for the contracts, M. Rince provided the Committee with some sketch details of the contracts for Toulouse and Rouen. The Toulouse VAL project is conceded to a consortium capitalised at 30 million Francs and consisting of 51% shareholding by the nationalised banks, 25% by the operating company, 19% MATRA (the equipment supplying firm), and 5% others. The 30 million Franc capitalisation of the consortium is low compared to the estimated 1.446 billion Franc total project cost, which includes 1.3 billion Francs for capital works. Half of this total project cost is to be provided by the local authority, 500 million Francs are to be paid by the Central Government as a subsidy, with the remainder of the finance to be provided as debt raised by the concession firms using guarantees from the local authority.

In the case of the Rouen tramline, the total cost is expected to be 1.75 billion Francs, with the government funding somewhat more than half, and the concessionaire raising somewhat less than half in loans. Equity provided by the concessionaire amounts to 50 million Francs, of which 63% is provided by the construction firm, 20% by the operating firm, and the remainder by banks.

The advantages of this type of funding arrangement are firstly that it allows the local authority to "debudgetise" the investment, and secondly that it avoids the "non-attribution of resources" (a principle of French accounting).

M. Rince closed by commenting that apart from concession arrangements, a common contractual form is for the local authority to borrow funds directly and subcontract the work to private firms.

RELEVANT ISSUES AND IDEAS FOR NEW SOUTH WALES

The main differences between alternative methods of financing and executing infrastructure projects lie in the patterns of incentives which are created by different contractual structures, and also in the different costs of different approaches.

It is usually seductive to opt for the lowest cost approach, but care must be taken because critical differences in risk sharing make it difficult to compare proposals strictly on a cost basis. For that matter, initial costings can often be very wide of the mark. One has to look no further than the Eurotunnel project to see doubling of initial cost estimates on the grandest scale.

The balance between risk and return for investment must be appropriate for all participants, public and private, in an infrastructure work. From the perspective of private firms which may participate, the return must usually be a financial one, but from the government's perspective a broader view of returns on investment *must* be taken. This broader view must include non-financial returns such as the supply of free public goods to the state. It would run counter to the government's general function in society to rely purely on a financial rate of return which was comparable to the stock market or prevailing interest rates.

In some fortunate cases, a particular infrastructure work has the prospect of yielding financial returns which are comparable to the returns from other private investments. In such cases, it is feasible for the government to engage private finance on commercial terms without "costing the state anything". It seems likely that the Dartford River Crossing project falls into this category. Of course, whenever this is the case, it is also feasible for the state to engage its own finance and execute the project to yield a positive return. There are several reasons why the state may prefer to engage private finance, and these will be discussed below.

In a great many other cases, a particular infrastructure work may have no prospect of yielding financial returns which are even positive, let alone comparable to capital market returns. Urban mass transit systems, such as the Lille VAL light rail, are typically examples of this type of project. Usually there are "hard-money people" who are ready to question whether such projects should be undertaken at all. However, in evaluating such questions from "hard-money people", it is essential to distinguish between financial returns and economic returns. Economic returns include financial returns, but also include the value to society of consequences of the investment which may be difficult to recoup in dollar terms. The value of free public open space, of clean air and water, of national security, of a high standard of literacy, are all difficult, if not impossible to quantify, but to assign to them zero value for investment decision-making purposes would be to distort the investment decisions in a most undesirable way. Would modern metropolitan centres be better off without urban mass public transport systems?

The "hard-money people" would be quite correct in doubting the worthwhileness of an investment which yielded a negative, zero, or insufficient *economic* return, but many infrastructure works can potentially yield a very high economic return, little of which can be captured in dollar terms by the investor. In this circumstance, it would be socially desirable to make the investment.

However, such an investment presents continuing problems. If private finance is sought, a commercial return must be paid to the private investor. For this type of project, the cash flow will not be sufficient to pay the investor this return, so the shortfall must be made up from general taxation revenue. In principle, there may be nothing wrong with such a proposition, but it does force the government to explicitly trade off a cash flow against a flow of (sometimes unquantifiable) public benefits. At times such a tradeoff can be aided by cost-benefit analysis, but even these analyses can be highly contentious and unreliable. If the tradeoff overestimates the value of the public benefit then the private investor is overpaid from society's point of view, with all the negative political connotations which go along with privatising profits. If the tradeoff is set so as to underestimate the value of the public benefit then there will be insufficient investment in provision of public benefits. The Parisian Orly VAL light rail system provides an awkward illustration of where such a tradeoff can become problematic when cost-benefit analyses are discovered, with hindsight, to have been unrealistic.

Why privatise profitable investments?

The most commonly cited reason for encouraging private investment in public works which are likely to be profitable is that the government has a cash-flow problem or it does not wish to undertake additional borrowing in its own name. By privatising the finance it may be possible to bring the project's completion date forward in time. This effect has clearly been achieved with the Dartford River Crossing, the Second Severn Crossing, and, closer to home, the M4 and M5 tollways in Sydney. Early completion in itself may have a high value to the economy or to society. By privatising the investment it is possible to quarantine the project from the politicisation of the budget process. For particular projects of strategic importance to the State, this quarantining may be desirable, but if private finance were used systematically to remove public works from the budget process there might be an alarming separation between (what is essentially) public spending (but off-budget) and the democratic political process.

The other commonly cited reason for encouraging private investment in public works which are potentially profitable is that the market forces which would be brought to bear (both capital markets and product markets) are thought to yield more cost effective outcomes than a public sector finance, design, build, and operate approach. This assertion is an important and complex one to which the Committee will return below after discussing risk and incentives.

Reasons not to privatise profitable investments

Private finance for profitable investments can be obtained either in the form of debt or equity. Private debt finance will be more expensive than public debt finance generally since the government can usually obtain the most favourable interest rates and terms. The government can enhance the credit rating of the private borrower by backing the loan with a government guarantee. Once this is done, the loan should attract the same interest rates and terms as the government could have obtained by borrowing directly, and savings would most likely be possible on consultancies and project revenue projections. However, a government guaranteed loan is virtually the same thing as a government borrowing since the residual liability rests with the government. In this circumstance (government guarantee on loan), seeking private finance is really just a method of disguising government borrowing. Certainly that is how the financial markets and credit rating agencies would percieve it. One could argue that the novel institutional arrangements for the Danish Great Belt project have achieved precisely this effect, and in that case the advantages of such an approach in New South Wales seem rather limited.

Private equity finance may seem an attractive option for projects which may take a long time to come to fruition and which yield minimal cash flow in the early years. (These factors make debt finance extremely expensive.) However it must be borne in mind that equity investors must be attracted to the project. They cannot be compelled to invest. The factors which will make such an equity investment attractive are: a higher expected rate of return than a debt investment would have earned, a degree of liquidity in the investment (e.g. the ability of equity investors to trade their equity interest from time to time), and a degree of control over the management of the project. The last two conditions are unlikely to be satisfied for the majority of infrastructure projects because of the need for absolute government control over essential public services, and because physical infrastructure cannot usually be used for alternative purposes, or split up and sold.

The Committee noted with interest that even in the European countries where private sector involvement is so well accepted generally, there are very few examples of private sector *equity* investment. In the Dartford River Crossing, the Second Severn Crossing, and the Skye Bridge cases the private investments were all essentially in the form of debt instruments. While the BNRR does have a genuine flavour of entrepreneurial risk and reward which one normally associates with equity investments, it became clear to the Committee that there were many serious questions about the future of that project. Clearly, no one considered it to be a model for future privately funded infrastructure works.

In France there were a number of examples of private sector equity investments. The Committee noted with interest an apparently beneficial combination of public and private sector efforts in many parts of the French economy. However, the line between public and private sector institutions in France is quite blurred. For this reason it is not clear to the Committee how much of what we would consider private sector equity investment exists in French infrastructure. The French private water companies do fit the fully private model, but these firms do not own the infrastructure assets. They operate them on a concession basis. Their equity appears to consist of research facilities and other capital equipment which is employed to provide a service to governments.

In conclusion, it appears to the Committee that substantial private sector equity investment in infrastructure projects and assets occurs only in situations such as full privatisation of British monopoly utilities or French mixed economy institutions. Both of these situations are far removed from presently contemplated models for New South Wales.

Examination of risk and incentives

Some general rules of thumb for risk sharing help to avoid disastrous project structures:

- Each risk should be borne by the party with the highest degree of control over the uncertain outcome. (e.g. construction risk should be borne by the construction contractor, operating risk should be borne by the operator) Otherwise the undesirable situation arises in which one party is liable for the action or inaction of another party beyond its control.

- No party should bear a risk which is too great for it to sustain. (e.g. a thinly capitalised insurance company may find itself unable to pay an insurance claim.)

In this connection, it is interesting to examine private water companies in France. It is usual for these firms to accept some or most of the demand risk for water services. Once a contract is in place which links the firm's revenue to quantity and quality of water supplied, the firm will have powerful incentives to attempt to increase the demand for water and the demand for higher water quality. They might pursue this aim through advertising or publicity campaigns, or through other means. It is clear that demand management strategies through pricing or water restrictions executed by the public authority which owns the water facilities (and to which the private water company provides the service) are in conflict with the private firm's attempts to increase demand. If demand is increased to the extent that major amplification of works, or major capacity additions to dams, reservoirs, or water treatment plants are required, there are no negative consequences for the private water company, although there certainly are for the public authority, which must seek more revenue from consumers to support the additional investment, and for the consumers, who must pay this additional charge.

Cost effectiveness of private involvement

- technical innovation
- financial innovation
- synergies between different types of innovation
- management focused on cost-effectiveness
- superior bargaining power with labour
- capital market discipline
- experience with structuring subcontracts
- designing in operating efficiency

(Note: cost effectiveness means lower costs and/or greater benefits for the same costs. Both costs and benefits must be considered in risk-adjusted terms.)

Why not all these cost savings or value enhancements are realised in practice

- cost savings are often captured entirely by the private participants and not passed on to the public sector

- so-called intellectual property may just be an excuse to enter into exclusive dealing

- agency costs in engaging private help may outweigh the benefits, especially tendering-related and regulatory costs

- tendering-related or regulatory costs incurred by the private participants will probably be passed on to the government

APPENDIX 1: TERMS OF REFERENCE

1. To examine alternative methods of financing the provision of urban infrastructure and their potential application to New South Wales. In this regard the Committee is specifically requested to:

   - report on options to change pricing and charging policies to improve efficient utilisation of existing infrastructure.

   - report on and give particular consideration to the options for revision of pricing and charging policies to recover the capital and recurrent cost of new and replacement infrastructure including the following factors and their inter-relationships:

     (a) costs of providing physical infrastructure;

     (b) costs of providing social services infrastructure;

     (c) costs which fall on third parties (eg. increased pollution, congestion, and private transport costs);

     (d) extent to which capital costs are recoverable by recurrent charges.

2. To analyse the extent of public and private investment in infrastructure provision and return on that investment.

3. To review distribution of costs and benefits in both the short and long term, arising from provision of infrastructure for urban development including environmental and social impacts.

4. To review the effectiveness of co-ordinating departments or agencies in achieving overall economic efficiency.

5. To inquire into accounting processes and financial management practices of major infrastructure-providing departments and authorities on expenditure for urban infrastructure.

6. To review the impact of the financial and other requirements imposed by other levels of government on the New South Wales urban development budget.

7. To consider any other matters relating to the public and private financing of urban infrastructure.

APPENDIX 2: SUMMARY OF MEETINGS AND INSPECTIONS

LONDON: 30 OCTOBER - 3 NOVEMBER

Friday, 30 October

Morning

Arrive Heathrow from Sydney

Afternoon

Mr John Carr, Director of Project Finance and Privatisation Services, Price Waterhouse

Saturday, 31 October

Morning

The Committee travelled to the Dartford River Crossing.

Mr Bob West, Company Secretary of the Dartford River Crossing Pty. Ltd.

Afternoon

Mr Mark Call, Director of Q.D.M. Ltd.

Monday, 2 November

Early morning

Mr John Mobsby, Head of Project Finance, WS Atkins International Ltd.

Mid morning

National Westminster Bank - Natwest Finance:

Mr Peter Phillips, head of project finance,

Mr Robert Brown, leader of the infrastructure team, project finance

Early afternoon

Touche Ross Management Consultants:

Mr John Everett, Partner,

Ms Tricia Bey, Managing Consultant,

Mr Daniel Masson

Mid afternoon

Ms Dilys Thorpe, Regional Manager for the Office of Electricity Regulation (OFFER), London Region

Late afternoon

Mr Denis Collins, Senior Fund Manager, Prudential Portfolio Managers Ltd.

Tuesday, 3 November

Early morning

Mr R.W. Linnard, Head of Tolled Roads and Crossings Division, Department of Transport

Mid morning

Mr Martin Jones, Finance for Rail Transport Industries, Department of Transport

Late morning

Mr Peter Snape, Member of Parliament for West Bromwich East

Luncheon meeting

Mr Robert Banks, MP,

Mrs Teresa Gorman, MP,

Dr Norman Godman, MP

Early afternoon

Her Majesty's Treasury:

Mr Steve Robson, Head of the Public Enterprises Group,

Mr Alan Benson, a professional advisor to H.M. Treasury

Late afternoon

Barclays de Zoete Wedd Ltd.:

Mr Chris Elliott, Director and Head of Project Advisory Unit,
Ms Sue Butcher, Senior Manager

BONN: 4 - 5 NOVEMBER

Wednesday, 4 November

Morning

After travelling by train from Frankfurt to Bonn, the Committee toured the new German Bundestag approximately one hour before the first ever sitting of the German Parliament in that building.

Luncheon meeting

Herr Rudi Walther, MP, Chairman of the Bundestag Budget Committee,
Herr Karl Deres, MP, Chairman of the Bundestag Public Accounts Committee

Early afternoon

Herr Siegfried Vogt, Ministry of Transport

Late afternoon

Hauptverband der Bauindustrie:
Herr Heinrich Weitz,
Herr Axel Wunschel

Thursday, 5 November

Morning

Herr Dr Klaus Rohl, MP, Deputy Chairman of the Bundestag Transport Committee, and a number of other German Members of Parliament and Administrators.

FRANKFURT: 5 NOVEMBER

Luncheon meeting

Dresdner Bank:

Herr Wilhelm Seibert, Assistant General Manager,

Ms Marion Relles, Corporate Finance,

Herr Klaus Muller, Correspondent Banking,

Herr Kurt Wolter, Corporate Banking,

Herr Uwe Eberlein, Correspondent Banking.

Afternoon

Deutsche Bank:

(Count) Franz Graf zu Ortenburg, Vice President,

Dr Norbert Schraad,

Dr Ulrich Paehler,

Rodney Bleathman,

COPENHAGEN: 6 NOVEMBER

Mr Niels Remmer, a Divisional Head within the Danish Ministry of Transport,

Ms Kirsten Fjord, Finance Director for the Great Belt Holding Company

PARIS: 7 - 10 NOVEMBER

Saturday, 7 November

Mr Jack Moss, Director of the International Commercial Division of Lyonnaise des Eaux Dumez, and two of his associates

Monday, 9 November

Early morning

MATRA Transport:

M. Michel Berkowicz, Vice President Sales for Asia and Far East,

M. Jean-Maurice Dupont, Business Development

Mid morning

M. Gilbert Gantier, Federal Deputy,

M. Claude Germon, Federal Deputy,

M. Xavier Pinon, Administrator to the National Assembly Finance Committee

Luncheon meeting

M. Claude Germon, Mayor of Massy-Palaiseau, and Federal Deputy

Afternoon

Credit Lyonnais:

M. Gerard Schuijers, Charge de Missions for the Asia Pacific Division,

M. Xavier Roux, Head of the Infrastructure Department,

Ms Fabienne Bruchig, of the Infrastructure Department

Evening

The Committee met informally with a number of professional people working in the infrastructure field at a reception at the Australian Embassy in Paris.

Tuesday, 10 November

Early morning

The Committee travelled to Le Mans and back to Paris on the TGV high-speed train.

M. Jean-Michel Gayon, International Affairs Department, SNCF,

Mme Marie-Paule Devacquet, Chargee de Mission, Ministry of Equipment, Housing, Transport, and Space

Mid morning

Ministry of Finance:

M. Bruno Teman (roads),

M. Thierry Lange (public transport)

Mid afternoon

Mme Chantal Lecomte, Chef de Service, Autoroutes and Conceded Roads, Ministry of Equipment, Housing, Transport, and Space

Late afternoon

M. Rince, Public Transport, Ministry of Equipment, Housing, Transport, and Space

Evening

Departed Charles de Gaulle Airport for Sydney