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Prime Minister

FIXED LINK ACROSS THE CHANNEL

1. I expect to receive shortly the report of the Anglo-French banking group which has been studying the financeability of a fixed link. The group will simultaneously deliver its report to the French and to the European Commission and is now expected to publish it on 22 May. Publication will stimulate new interest in the subject. We need to decide how to handle publication and next steps.

Background

2. E last considered this in May 1982. A note on the various schemes is at Annex B. E was opposed to a 'railway only' link but thought that drive-through schemes might merit further study. You then told M. Mauroy of our preference but agreed with him that studies should continue with all options open. The banking group developed from that; but we did not commission its study or pay for it.

3. E firmly agreed that no scheme should involve taxpayer finance or public sector guarantees. The most we should be willing to consider would be guarantees against a political cancellation. I have repeatedly emphasised this point to Parliament.

The Banking Group Report

4. The report's main conclusions are:

- a) None of the schemes could be financed privately without some Government or EC commercial guarantees;
- b) the best scheme for financing is a twin rail tunnel large enough to provide a shuttle service for cars and lorries carried on special trains. But even this would need public guarantees covering the estimated £20m development costs in the first two years, major cost overruns if they occurred, and possible revenue shortfalls;
- c) the private sector could not finance Ian MacGregor's Euroroute or bridge schemes because of their technical and commercial risks and higher costs.

The banks think several schemes show good financial returns. But they think guarantees are needed because the cost is high (£2 to £6 billion before allowing for major overruns), the payback period is long and because no promoter has appeared with a sufficient asset base to carry all risks.



5. The group's conclusions will certainly be challenged. The construction industry, the European lobby, exporters and the promoters of drive-through schemes will probably all argue it takes too pessimistic a view and ignores the wider economic benefits. But none of these have begun to demonstrate adequately that their own proposals would do without any Government guarantees. Others, eg the shipping industry and the Dover Harbour Board, will no doubt renew their opposition.

6. On publication of the report, I propose to say only that I am studying it, and will in due course discuss it with M. Fiterman. I will reaffirm our essential condition that any link must be wholly financed by the private sector. A draft arranged answer is at Annex A.

7. Our final decision should depend on the reactions of the market to the report. But I think it worth beginning considering now the main questions which arise.

Do we need a fixed link?

8. A fixed link would certainly bring savings in time, convenience and reliability; and these benefits would probably exceed the costs of tying-up capital for so long. In that sense, the country would probably be better off with a fixed link than without one. But there would be a price, in the form of reduced competition and vulnerability to disruption. Without a fixed link, existing sea and air services will doubtless be able to develop the capacity to meet foreseeable demand. The wider economic benefits of a fixed link, eg from net long-term job creation, are too uncertain to take into account.

9. I therefore think we should stick firmly to our line of refusing to influence the judgements of the market by offering taxpayer finance or public sector guarantees. This fits well with our policy of reducing state intervention in international transport by disposing of Sealink and British Airways and reducing regulation of air and road transport services.

Would we back a privately-financed scheme?

10. Our policy of letting the market decide implies that we would be ready to facilitate a scheme which meets our conditions. Facilitating would include: detailed agreements with promoters and the French (including a treaty); legislation to give effect to them; and authorising public expenditure investment in road and rail infrastructure link. (See Annex C for an indication of these public expenditure costs). For Euroroute or other drive-through schemes it also means we should have to conduct international negotiations about the effects on Channel navigation (see Annex D). All this would imply an increasing political commitment on our part, if a serious backer came forward.



11. If we firmly ruled out the possibility now of our sanctioning any link we should be criticised for retreating from our belief in the market and accused of bad faith by the French and the promoters. I propose therefore that we should continue to re-emphasise our position that the Government would be prepared to let the link go ahead subject to our firm conditions about no Government financial involvement, in the expectation that in practice - as the banks' report now provides new evidence - it is most unlikely that any promoter will appear who can meet our conditions.

Community participation

12. Community (EC) assistance offers no way out. The banks' report includes, at the Commission's request and at EC expense, a section on EC aspects. There has been public speculation that private finance and EC funds will provide a link without cost to the British taxpayer. M. Fiterman attaches importance to EC funding for major transport projects of this kind.

13. But EC funding does not meet our condition of no taxpayer involvement, since we should, of course, have to contribute to any EC funding. (Until we know the final outcome of the EC budget negotiations, we cannot say what our share might be). Any direct expenditure by the EC on a link, to be significant, would need to be on a scale very much larger than existing agreed EC infrastructure funding. And I am strongly opposed to any substantial EC transport spending programme. Even if only guarantees were involved, there seems no obvious reason why other member states (apart from the French) should agree. So while there is no point in going out of our way to reject the possibility of EC assistance, we must recognise that it is unlikely to help.

Handling with the French

14. The French are likely to remain in favour of a link, particularly the twin rail tunnel/vehicle shuttle. I have told M. Fiterman we are unlikely to reach an early financial decision. He himself does not want to have substantive discussions with me before next month's European elections. I propose to confine initial contacts with the French to exchanges about the timing of the Government's reactions to the report, (and I propose to inform the French in advance of our proposed initial reaction to the publication of the report); but I should not object should Fiterman want to discuss a timetable for substantive discussion. I would not propose any joint announcement; but if he insisted on some short formal joint statement after publication, I would not object in principle. I would continue to seek a definitive French view on drive-through schemes.

15. The exact timing and presentation of any decisions will obviously have to take into account Anglo-French relations. We shall in any case need to ensure that the French are fully aware of the conditions we should impose. We could then face them with the dilemma of either agreeing to our conditions as the only way



forward or of rejecting them. No public guarantees on the British side would of course mean no compensation by us to French interests in the event of default by British promoters. If the French could not accept that, they would at least share the blame for a decision not to proceed.

Conclusions

16. My conclusions are:

- i. our immediate response to the publication of the report should be a holding statement only, and we should tell the French beforehand. We should maintain a completely non-committal position until after the European elections and the end of the French Presidency;
- ✓ ii. we should maintain our firm position that we should not provide taxpayers' money or public guarantees against commercial risks;
- iii. we should leave the judgement about providing a link to the market. I think it unlikely a promoter will appear who will fully satisfy our conditions. But on balance I would not deny the market a final opportunity. If our conditions were met, we should be prepared to facilitate the project, with the political commitment and public expenditure consequences this would entail;
- iv. bridges and combined bridge/tunnel schemes present much greater financial and technical difficulties. It is very doubtful if a satisfactory privately-financed scheme could be produced: ^{??}
- v. relations with the French will need very careful handling, to avoid in particular accusations of bad faith.

17. Copies of this minute go to other members of E(A), to Geoffrey Howe and Sir Robert Armstrong. I should be grateful for any comments from colleagues by 15 May.

N R

May 1984



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ANNEX A

DRAFT WRITTEN QUESTION AND ANSWER ON CHANNEL FIXED LINK

Question

To ask the Secretary of State for Transport, if he has now received the report of the Anglo-French Banking Group on the financing of a cross-Channel fixed link; and if he will make a statement.

Answer

The Anglo-French Banking Group's report on finance for a fixed cross Channel link has now been submitted to the French Minister of Transport and myself. Copies are being made available in English by the two British banks concerned, Midland and National Westminster. I have arranged for copies to be placed in the Library of the House of Commons.

The Banking Group was established in June 1982, and the report was prepared at their own initiative. Its purpose was to examine the scope for private sector finance for the Channel link.

The report is a substantial and detailed document, and the Government will need time to study it and assess wider reactions to it before reaching conclusions and having substantive discussions with the French Government. In studying the report I shall of course be in close touch with the French Minister.

Briefly, Part I of the report concludes that of the various types of scheme proposed (bridges, tunnels and combined schemes) only a twin-bored rail tunnel with a vehicle shuttle service would be likely to attract adequate private financing. Part II analyses two possible financing methods for this option, but

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does not make a precise proposal on the best way to proceed. This would require consultation between potential investors and other interested parties. However both the financing methods suggested by the report would require some government commercial guarantees.

It has been and remains the Government's firm position that any project would have to be financed entirely without the assistance of public funds and without commercial guarantees by the Government. So far we have seen no proposal which demonstrates that it can meet this condition. Nevertheless the Government remains willing to consider facilitating a fixed link, in collaboration with the French Government, provided that the necessary financial, technical and other aspects are satisfactorily dealt with. As well as meeting the condition already mentioned, before there could be any question of a firm commitment by the Government to facilitate the project, and fixed link scheme would need to be supported by evidence that sufficient funds would be available to ensure completion; that proper account had been taken of maritime and structural safety requirements; and that attention had been given to the implications of the scheme for inland road and rail infrastructure capacity.

We shall now allow time for prospective promoters to consider this report and assess whether they can secure the financial backing necessary for a scheme to proceed without financial support from the Government.

TYPES OF FIXED LINK CONSIDERED BY THE BANKERS' REPORT

1 The types of fixed link considered by the bankers were essentially the same as those considered earlier by the Anglo/French Study Group (AFSG) report of June 1982. These were:-

- (a) bridges, suitable only for road traffic;
- (b) composite schemes, of the type being proposed by Euroroute under Mr MacGregor, using both viaducts and immersed tubes and suitable for both road and rail traffic;
- (c) bored rail tunnels, on most versions of which trains would carry road vehicles as well as ordinary passengers.

2 These schemes are described further below.

(a) Bridges

3 These would be suspension bridges, with possibly 15 bridge piers in the sea, including 3 or 4 in each of the main shipping lanes. The piers would all need to be protected by artificial islands. Bridge spans of about 2km in length would be needed to allow the largest ships to pass between the islands. The largest span constructed so far is 1.4km, but it is believed that the technology could be extrapolated successfully. The artificial islands could have significant effects on Channel currents, which would need to be studied further. Maintenance of a bridge would be difficult and costly, amounting possibly to some £20m per year. The bridge would also be vulnerable to the harsh Channel weather conditions. Construction cost estimates vary from some £2b to £4b, with a significant risk of cost over-run because of the technical risks. Provisions for ensuring the safety and freedom of shipping would have to be drawn up and approved by the relevant international organisations.

(b) Composite schemes

4 Under these proposals road traffic is carried on viaducts (or bridges) from the coast to two artificial islands, where the road descends to an immersed tube placed under the main shipping lanes. A rail track is carried in an immersed tube from coast to coast. Compared with a bridge, these schemes reduce the obstacles created by bridges to shipping in the main shipping lanes. But the islands create a potential hazard and there could be ventilation problems from road traffic using the immersed tube (which might in itself require further artificial islands). The gradients required on the road at the artificial island could create a further difficulty for traffic. Both the islands and immersed tube could create problems for Channel currents. As with the bridge, provisions for safety and freedom of shipping would need to be agreed internationally. Construction costs have been estimated at some £5-6b, but again there must be a significant risk of cost over-runs.

(c) Bored tunnels

5 A number of variant types of scheme were considered. The main options are to build a single bored tunnel or two separate tunnels. If dual tunnels were built, it would also be possible to phase construction so that the first opened before the second. Under either option, unless the tunnel were narrow, vehicles could be carried in quite large numbers on train wagons. A dual tunnel would have about four times the capacity of a single tunnel, because the latter would require trains to be operated in "flights" (ie groups of trains in the same direction alternating with

groups in the opposite direction). The construction cost of these schemes has been estimated at between about £1b and £2b. Clearly there is still scope for cost over-runs (eg due to unexpected geological hazards); but the technology is relatively proven and the technical risks are expected to be significantly less than with the other schemes. There are unresolved technical questions associated with ventilation; but it is believed that further studies could produce effective solutions at an acceptable cost. Bored tunnels also avoid the problems with shipping and the marine environment associated with the other possibilities.

Banking Group's evaluation

6 The bankers' clear view was that from the financial point of view bored tunnels (with a vehicle shuttle) was the best option. They also considered that of the possible variants for bored tunnels, the best option was that involving dual tunnels, with the construction of both starting at about the same time. Their main reasons for these conclusions were:-

- (i) The considerably greater technical risks associated with bridges and composite schemes, with the risk covering not only the construction period but also beyond that (because of the risk of subsequent damage).
- (ii) The higher capital costs of road bridges and composite schemes compared with bored tunnels; they felt this would make it very difficult to obtain the necessary level of private sector finance.
- (iii) On central assumptions (ie before allowing for major over-runs) the dual tunnel, with both tunnels being constructed at about the same time, produced the best rate of return, except for the road bridge. But the difference with the road bridge was not sufficient to cancel out the other disadvantages of the bridge at (i) and (ii). The dual tunnel had a further advantage over the road bridge in relying on two sources of traffic (road- and rail-generated); this made traffic projections more robust.

7 A summary of the main financial features of each variant, as assumed by the bankers, is shown below.

	<u>Capital cost*</u> <u>fb at 1983</u> <u>prices</u>	<u>Maximum</u> <u>indebtedness</u> <u>fb at 1983</u> <u>prices</u>	<u>Year all</u> <u>debt repaid</u>	<u>Real rate</u> <u>of return</u> <u>%</u>
Road bridge	3.1	3.6	2010	8.5
Composite scheme (viaducts and immersed tubes)	6.1	7.2	2022	5.1
Bored tunnel				
(i) single				
(a) without shuttle or road vehicles	1.1	1.3	2020	5.4
(b) with shuttle for road vehicles	1.6	1.9	2023	4.8
(ii) dual - with shuttle				
(a) phased	2.1	2.2	2012	7.9
(b) unphased (bankers' preferred option)	2.0	2.4	2008	8.3

PUBLIC EXPENDITURE IMPLICATIONS

1. The Government has made it clear that the cost of the fixed link itself should be met without any calls on public expenditure. But it has been assumed that the associated infrastructure costs in the UK would involve public expenditure. These costs are primarily for rail terminal, track and rolling stock investment and in the case of drive-through schemes, for some road improvements.

2. This note summaries the transport infrastructure costs that are likely to be incurred by the public sector in the event of a fixed link. For simplicity the examples are confined to the dual metre rail/vehicle shuttle tunnel favoured by the Banks and the composite scheme of the type favoured by Euroroute. Attention is limited to the direct impact on BR investment and on road construction. No account has been taken of possible wider public expenditure implications, such as on tax revenue or from the effects of changes in employment.

3. The estimates are based on the work of the Anglo French Study Group in 1981. Costs are updated to January 1984 price levels, using the Retail Price Index for compatibility with work of the Banking Group. Because of uncertainties, these estimates provide only an indication of the likely order of magnitude of public expenditure effects.

4. For a Dual 7 metre Tunnel, the initial expenditure by BR on conventional rail facilities and rolling stock over the ten years or so up to the opening of the link is put in total at £365 million. This includes expenditure on improvements to terminals and rolling stock, much of which would be needed anyway. It could be contained within BR's current annual investment of roughly £300 million per year. Subsequent investment of £182 million would be required up to 2030 AD (in 1984 prices, undiscounted).

5. For the composite scheme, BR costs would be almost identical. In addition, however, additional road construction costs of some £100 million would be required, taking total initial costs to £465 million with subsequent costs of £182 million.



6. The breakdown of these cost estimates is shown in the attached Table, both (a) undiscounted and (b) discounted back to the year in which construction is started, at 7 per cent per annum. All costs are in January 1984 prices.

7. There is a degree of uncertainty in the estimate of BR costs. The precise allocation of costs to BR would depend upon the detailed agreements reached between BR and SNCF, and between the Railways and the link promoters. The estimates of the additional cost of road infrastructure are very tentative, but exclude the cost of connections to the existing network at the portal (to be borne by the promoters), and also the cost of improvements to the M20 and A20 which are planned regardless of the fixed link.

UK PUBLIC SECTOR INFRASTRUCTURE COSTS

January 1984 Prices. £ millions.

<u>A. DUAL 7 METRE TUNNEL</u> <u>Initial Investment.</u>	<u>(a) Undiscounted</u>	<u>(b) Discounted.</u>
1. BR Portal Infrastructure	95	68
2. BR Inland Rail Works		
a. London terminal	75	
b. London network	48	
c. Track to Saltwood	31	
d. Saltwood facilities	32	
e. Equipment	4	
	<u>190</u>	<u>141</u>
3. BR Rolling Stock	80	54
<u>Total Initial Investment</u>	<u>365</u>	<u>262</u>
<u>Subsequent Investment</u>		
1. Portal Infrastructure	68	14
2. Inland Rail	70	12
3. Rolling Stock	<u>43</u>	<u>8</u>
<u>TOTAL</u>	<u>182</u>	<u>34</u>
<u>TOTAL INVESTMENT TO 2030</u>	<u>547</u>	<u>296</u>
<u>B. COMPOSITE SCHEME</u>		
Total Initial BR Investment	365	262
Road Infrastructure	<u>100</u>	<u>71</u>
Total Initial Investment	465	333
Subsequent Investment	<u>182</u>	<u>34</u>
<u>Total Investment</u>	<u>647</u>	<u>367</u>

Drive-through schemes

1. Though drive-through schemes have attractions, they also present some particular difficulties.
2. The schemes proposed which would allow cars, lorries and coaches to drive the whole distance are bridges and the Euroroute project. This is a composite scheme combining bridges and immersed tubes. Both types of scheme would cost more and be subject to greater technical risks than bored tunnels (see Annex B). They would be more difficult to finance.
3. All drive-through schemes would involve some interference with navigation in the Channel in the form of artificial islands to support bridges or for ventilation shafts for immersed tubes. Obstructions to navigation in an international seaway would require international agreement by the Intergovernmental Maritime Organisation (IMO), and possibly with individual states whose shipping might be affected. This would be for the governments to pursue.
4. Drive-through schemes would involve expensive preparatory work on design; hydrological studies of the effect on sandbanks in the Channel; and environmental and ecological studies
5. It seems unlikely that any promoter would be willing to put up the substantial front end money required without a commitment from the governments that they would back his scheme politically and financially.
6. The current French government attitude to bridges and composite schemes is not known. They have in the past favoured bored rail tunnels, which would provide a shuttle service for the carriage of cars, coaches and lorries on railway tracks between loading points near the tunnel entrances.



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cc: Bob Young.



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10 DOWNING STREET

From the Private Secretary

14 May, 1984

Dear Dinah,

Fixed Link across the Channel

The Prime Minister has seen your Secretary of State's minute. She endorses his conclusions and is content with the draft of the PQ responding to the Report of the Anglo-French Banking Group. She has commented that, if "political" guarantees are to be given, they will need to be very carefully defined.

I am copying this letter to Private Secretaries to members of E(A), to Len Appleyard (Foreign and Commonwealth Office) and Richard Hatfield (Cabinet Office).

Yours sincerely
Andrew Turnbull

ANDREW TURNBULL

Miss D. A. Nichols,
Department of Transport

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