PRIME MINISTER

cc. Mr. Walters
Mr. Wolfson
Mr. Duguid

I mentioned that Alan Walters had prepared some penetrating and highly critical comments on the British Rail Electrification Review. As you agreed at this morning's meeting with Robert Armstrong, I have sent these over to the Department of Transport and to the Treasury (though not his note on his meeting with British Rail and the Department) asking for their comments by Monday evening. We have arranged an internal briefing meeting with Alan, Robert Armstrong, Peter Le Cheminant and Robin Ibbs for Tuesday afternoon. (We have also arranged a meeting with the same group on the energy price options on Tuesday morning.)

3 April 1981

Transport

MR. LANKESTER

Here are my notes on the rebuttal of the arguments put forward by Humphrey Cole and by the Treasury.

I am sending copies to Robert Armstrong, Robin Ibbs, Peter Le Cheminant, John Hoskyns, David Wolfson, Andrew Duguid and Norman Strauss.

AAW

7 April 1981

NOTE ON POINTS BY HUMPHREY COLE AND THE TREASURY - ELECTRIFICATION OF BRITISH RAILWAYS

Mr. Cole's paper, I believe, does concede one of the main points I was trying to make. The BR Review effectively assumed that the size of the railway network and broadly the size of the railway services would remain the same whatever the financial outturn. This leads to a "Alice Through the Looking Glass" type of economics. For example the worse the performance of labour productivity the greater the profits from electrification. Thus if labour productivity fell catastrophically, say to half or 25% of its present value, then the profits from electrification would increase enormously.

But surely then the Government of the day would not continue to pour resources annually into BR's coffers. They would surely look at a considerable reduction in the railway network and services. This the Review never considers. There is more or less complete divorce between the financial outturn and the size of the railway. And surely one thing we have learned over the past few years is that it is wrong to allow nationalised industries to continue at their existing size and drain the Exchequer dry.

Humphrey Cole ignores this point completely. He says that "even if British Rail fail to achieve their commercial objectives analysis is correct in showing that it will be worth investing in order to operate a predominantly electric railway". But that is clearly absurd. It is always possible that commercial conditions will develop so that no electrification is worthwhile and indeed we may have to abandon some existing electrified lines.

Mr. Cole's memorandum treats the closure of railways as a political decision. It clearly is. But such decisions must depend, or perhaps they should depend, enormously on the commercial prospects of railways. And although I agree with him that political risks are impossible to quantify, I do not think commercial risks are so difficult to evaluate.

DETAILED NOTES ON MR. COLE'S COMMENTS

The Basic Approach

Since the whole point of getting an initial decision on electrification early was in order to profit from the prior decisions, it is difficult to see how the extensive programme of electrification would not inhibit further closure. And certainly it would tend to induce greater subsidies to keep open such "modern services".

The Importance of the Revenue Forecasts

This again shows that it would be an improvement in the case for electrification if railways made very substantial losses. In fact the larger the loss the better the case for electrification.

Trends in Demand Passenger Traffic

I understood that the 1% exogenous growth had been extracted from a regression equation covering the 70s. This was the residual element. But since the equation did not model motoring costs, and we know that they increased quite dramatically because of the increase in the price of petrol, one would expect that there would be a modest growth rate in rail traffic. Similarly, the period 1966/80 has seen substantial electrification and improvement. But the 1% growth is exogenous to these improvements. In an analysis that we did for the World Bank it was found that Great Britain was one of the four countries (the others were USA, Brazil and Yugoslavia) in which there had been an actual fall in railway passenger travel over the period 1966-76.* I am also not convinced that we can ignore the deregulation of airlines and the deregulation of coaches. The former has not yet been accomplished and the latter has only been with us for a few months. Coaches have become more frequent and much more comfortable as well as being cheaper, over time. However I do not deny the possibility that additional regulations and fare control might be introduced by a future government which would validate Cole's argument that the coach encroachment is a once and for all phenomenon.

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*Christopher R. Willoughby "The Railway Problem" draft The World Bank, February 1981.

Freight Forecasts

My main worry is that freight has fallen quite dramatically over the last 30 years and I cannot see why it should come not merely to a stop but even rise and remain constant for 30 years. Virtually all railway projects which I have been concerned with and those which I have examined ex post have over-estimated, and usually considerably over-estimated, the freight traffic to be expected. In the Review's case I believe they were compelled to adopt lower freight forecasts as standard because of the revelations of the 1979/80 depression. I should have thought it would have been just prudent to examine what would happen if there was a rate of decline of railway traffic considerably less than that which had been experienced over the past 30 years; that is why I suggested a terminal value of 100 million tonnes. Again I must recall the rosy future for freight traffic that was envisioned some 27 years ago with the railway modernisation programme. Those over-estimates were again consistent with those we have seen in many countries. Thus I am fairly certain that the estimate of 175 billion tonnes is far too large.

Fares Elasticity

Mr. Cole has not sought to answer my criticism here. Put simply if the fares elasticity is minus .65 or minus .8 or minus .5 (all of which are tried in the "sensitivity tests") then there is no reason why the railways should not be earning fat profits on their Inter City. Even with non-Inter-City their elasticity would give the same results, so again there is no reason why the railways should not be earning very substantial profits. On the Inter City services it cannot be claimed that the fares cannot be put up because of the injury that would be done to the poor, etc. There are virtually always coach services which are substitutes for Inter City, so those who did not wish to pay the higher rail fares need not. Nowadays they'll find a comfortable coach. It is interesting Mr. Cole now admits there is a higher figure of minus .8 fares elasticity.

I should also say I find it quite inconsistent with work that has been done on consumer budgets where the fares elasticity for transport generally tends to be considerably greater than one.

For example in Patterns in Household and Demand and Saving by Lluch Powell and Williams, the price elasticity is reckoned to be minus 1.33 for the United Kingdom for transport as a whole. Thus one would expect that an individual mode of transport and in particular Inter City where there are many close substitutes, would have an elasticity which in absolute terms would exceed 1.3. I therefore remain unconvinced that the fares elasticity is, as the Review suggests, substantially below an absolute value of unity.

Productivity

While I am perfectly certain that the calculations do show that a worse trend in productivity will make electrification so much more profitable, it is, as I remarked above, rather worrying. There is a lot more which needs to be taken into account rather than a simple calculation of reductions in cost. It is also worth noting that the assumptions about productivity which were incorporated in the Review are optimistic by historical standards, but are also optimistic by any comparison with European railways as Willoughby remarks on page 96. European railways working costs per traffic unit have tended at best to remain stable in real terms since productivity increases were offset or more than offset by real wage increases. It seems to me rather optimistic to assume that we have high productivity and increases and a considerable discipline on the wage increments for our labour force. I doubt if the unions would let us get away with that.

Fuel Costs

I remain rather bemused by all these figures. The history of forecasts of fuel prices has been a record of continuous failure. Even over a short horizon like a year or two the mistakes, as we have seen, have been very large indeed. And I do not find it difficult to imagine that the price of electricity might rise very considerably above the price of fuel oil, if those prices reflect the marginal cost of production. It is not at all difficult to imagine that some government of the day persists in keeping open highly uneconomic mines and requiring the Electricity Generating Board to buy that coal. And there is no reason why the development of technology in the oil industry should not bring that price down. There are many scenarios which cannot see a few years ahead let alone 30 years.

Concluding Remarks

Finally I cannot see why the commitment to extensive electrification is required at this point. It seems to me that all the Government needs to do is to commit itself to the proposition that if electrification were shown to be profitable on particular routes and lines, then it will be allowed to go ahead. This will be done at the appropriate stage of development of the railways. Provided that the railways can justify electrification adequately then the government of the day would let it proceed. What objection can there be to that sort of programme?

7 April 1981

ELECTRIFICATION OF BRITISH RAILWAYS
COMMENTS ON THE TREASURY PAPER

Optimistic Assumptions

I am pleased to see that the Treasury does agree that the standard assumptions in the Review are "somewhat optimistic". However the Treasury claims that the sensitivity analysis, allowing less optimistic assumptions was sufficient to show a case for main line electrification. I still continue to argue that the assumptions about traffic levels and freight traffic are still optimistic even though they are below the standard assumptions of the Review. But the Treasury agrees that the prospects of achieving these will need to be reviewed in light of "the Board's previous and current record". I agree.

The Energy Prices

I think the Treasury's view about the Railway Board's record might reasonably be applied to the forecasts of energy prices. So far as I am aware over the last 10 years forecasts of energy prices have been hopelessly wrong. Ministers should take this into account, as the Treasury suggested in the case of the British Rail Board.

Financial Viability of British Rail

The Treasury note clearly does not accept the forecast that British Rail can deliver what they promise in the way of very large improvements in productivity. And it is at least dubious about the profit on freight traffic by 1986. I think I am a little more doubtful than even the Treasury, but I am glad that they share some of my concern.

The Rate of Discount, Capital Rationing and Priorities

I argued that the 7% rate of discount was inappropriate under capital rationing conditions, especially where the stringency of capital rationing was such that the marginal project would earn a rate in excess of 7%. The Treasury recognise that this is a complex technical problem, but a very important one with wide manifestations. I would be happy to become engaged in a discussion of my propositions.

Treasury Chambers, Parliament Street, SW1P 3AG

T P Lankester Esq
10 Downing Street
London SW1

6 April 1981

Dear Tim,

BRITISH RAIL ELECTRIFICATION

In your letter of 3 April you said that the Prime Minister had asked for comments from Treasury and Department of Transport on the paper produced by Professor Walters on the British Rail (BR) Electrification Review. I enclose a note by Treasury Officials commenting on his paper.

The Treasury was, of course, represented on the Review Steering Committee and we have agreed with the Department of Transport that their reply will cover the detailed points raised by Professor Walters. The Treasury Officials' comments are therefore confined to the wider issues touched on in his paper, in particular the integrity of the investment appraisal exercise underlying the Review and the question of the basic profitability of the commercial services which it assumes. Their comments also cover the question of the appropriate rate of discount raised in the annex to the paper.

I am copying this letter to Anthony Mayer (Department of Transport), David Wright (Cabinet Office) and Robin Ibbs (CPRS).

Yours ever

Terry Mathews

T F MATHEWS

CONFIDENTIAL

BRITISH RAIL ELECTRIFICATION

The basic point underlying Professor Walters analysis is the uncertainty which exists about whether or not British Rail's (commercial) businesses have a commercial future. The Electrficiation Review was not intended to address this issue. This is made clear in paragraph 34. It is therefore wholly concerned to demonstrate the financial benefits of re-equipping parts of the existing businesses with electric as opposed to diesel traction. However, paragraph 8 (i) of the Chairmen's submission draws attention to the major underlying assumption that the commercial businesses will develop in a way which will justify further substantial investment.

2. In its own terms the Review appears to us to provide a sound analysis. The Department of Transport will be commenting on the individual points raised by Professor Walters about particular assumptions. It is probably the case that the "standard" assumptions in the Review are somewhat optimistic, reflecting in part its status as a joint study with British Rail and in part the time at which it was started. All the main assumptions in the Study were subject to sensitivity analysis, allowing less optimistic assumptions about traffic levels and costs to be tested. Stringent combinations of these continue to show a case for mainline electrification, although the importance of securing cost reductions made possible by electrification becomes critical with lower traffic levels. In taking a decision as to whether to go ahead with electrification, Ministers will need to take a view about the prospects for achieving these: a view which is bound to be coloured by the Board's previous and current record.

4. The assumptions in the study about energy costs were based on the best advice available within Government at the time. The results of taking more recent forecasts are set out in the appendix to the Secretary of State's paper for E (E(81)44) and imply a larger financial benefit from electrification than that associated with the standard forecasts used in the Review.

5. The Review does not however provide a <u>sufficient</u> economic justification for investment in electrification, although it shows a good economic return in the sense that losses will be lower than they would be without the investment. Treasury officials have

therefore pressed for the papers on British Rail policy, which are to be discussed in E Committee this week, to contain an assessment of whether the Freight and Inter-City rail services will cover the costs of the rail system which can be attributed to them, including the costs of investment in electrification.

6. Some evidence on this is included in the Department's appraisal of the Railway's 1980 Corporate Plan, circulated as E(81)43. Paragraphs 32 and 33 of that appraisal suggested that by 1985 Inter-City will not be making the contribution of 25 per cent to joint costs which has been taken as a "commercial" remit and that the Board have yet to identify the necessary measures, including a reduction in the scale of activity, to achieve this. The Minister's paper (E(81)41) envisages subsidies to the Inter-City businesses lasting for the rest of the decade. The position on Freight is better, although there too a commercial return will not be earned in 1986. The forecasts in both cases assume that the Board can deliver very large improvements in productivity, as well as make significant reductions in service levels.

7. Finally, in the annex to his note, Professor Walters raises the general question of whether the 7 per cent discount rate used, with Treasury agreement in the Electrification Review, is the appropriate discount rate for public sector projects in conditions of capital rationing.

8. So far as the Electrification Reivew itself is concerned the use of a 7 per cent discount rate was in line with existing policy. The 1978 White Paper on the Nationalised Industries (Cmnd 7131) specified that a 5 per cent real rate of return should be achieved on the new investment of the industries as a whole. This was to ensure broadly the same return as achieved by firms in the private sector. Within this constraint the Government left the choice of project appraisal rates to individual industries, after consultation with their sponsor Departments. For British Rail, it was agreed that a 7 per cent rate would be appropriate, in part to secure consistency as between investment in the railways and other non-trading public sector transport investment, eg, in roads, where the Government laid down in April 1978 that a rate of 7 per cent should be used.

9. The question of the appropriate approach to investment appraisal under conditions of capital rationing is a matter of extensive debate. We would welcome an opportunity to discuss this further with Professor Walters. The question is a general one, going beyond this particular investment appraisal. If there were to be a change it would have to be applied to all public sector investment, that in other nationalised industries eg, telecommunications. Professor Walters' suggestion implies very considerable and lasting capital rationing. If decisions were taken on this basis, it would restrict profitable infrastructure investment in the public sector with consequential higher costs for private sector users.

Transport

MR. WHITMORE

Robert Armstrong and I had a brief word on Alan Walters' paper on the Electrification Review with the Prime Minister this morning. We decided that, rather than circulate the papers to E, it would be better to send them just to Transport and the Treasury and get their comments - so that Alan can then, if necessary, produce a counter-blast for the Prime Minister. We are to discuss the papers at an internal briefing meeting - without Ministers - on Tuesday afternoon.

3 April 1981

10 DOWNING STREET

Tim

You mentioned Alan Walters' note on Britain's bank for £.

This came up briefly at Dep Secs this morning. Robert Armstrong was inclined to think that the note might best take the form of a minute from AW to the Prime Minister which is circulated to E under cover of a note by the Secretaries. I agree.

Can you pursue this with Robert please, once the Prime Minister has agreed that colleagues should have the paper. [illegible] 2/xi