

ANNEX G

CASE STUDY: M25

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1 INTRODUCTION

- 1:01 This Annex is a summary of the discussion relating to the M25 in Bannister and Berechman (2000): *Transport Investment and Economic Development*, Part IV, Section 9.1, pp 240-249. In contrast with the other Case Studies, we have in this case not attempted to go back to the original documents mentioned.

2 PURPOSE AND TIMING

- 2.01 The M25 runs mainly in greenbelt land at between 20 and 35 km from the centre of London. It was opened in stages between 1975 and 1985. Its total length is 188km. Since 1986 a quarter of the motorway has been widened from 3 to 4 lanes in both directions to accommodate the continuous increase in demand (Highways Agency 1996).
- 2.02 The M25 was designed to relieve congestion in central London and assist the development of commerce and industry. It was intended to promote the accessibility and investment possibilities of the Eastern section with future plans for transport investment to spread the M25 benefits in towards central London. It also helps to link the region's four main airports at Heathrow, Gatwick, Stansted and Luton.

3 TRANSPORT AND ACCESSIBILITY EFFECTS

- 3.01 Jones (1982) suggested that the M25 would have a large impact on accessibility. As Central London already had high accessibility, the effects of the M25 on the city centre were marginal. However, significant improvements occurred 20-30 km from central London, with a greater impact in the East than in the West (increases of 10-20 %). The greatest improvements were found in particular corridors around London where the M25 met other main arterial routes such as the M11 or the A3. There were quite large savings in travel time, on average 30 minutes in the morning peak and 20 minutes in the off-peak period.
- 3.02 Linneker and Spence (1992) used a wider range of accessibility measures to assess how the M25 affects Britain as a whole, especially the South-Eastern region. Market potential measures were calculated for 1981(pre-M25) and 1987 (post M25) and time, distance and cost functions were calculated for HGVs and cars, also for 1981 and 1987.
- 3.03 The results show that there have been definite increases in accessibility for HGVs in all zones except inner London, where journey times have apparently increased as a result of the M25¹. The greatest change in travel time savings was a reduction

¹ This rather curious results is not explained.

- of 9.6% percent in Kent. There were increases in distance and cost in all areas, especially in Surrey, Kent and Berkshire where distances travelled increased by 4.7% and the generalised travel cost increased by 2.5% as a result of the building of the M25.
- 3.04 The Linneker and Spence study's results for cars were even more pronounced: travel times were reduced by between 8.4% and 12.7% in all areas around central London. Travel distances increased but generalised travel costs were reduced in all areas except Inner and Outer London.
- 3.05 Bannister and Berechman comment (p244) that 'The implications of these results are not easy to interpret. The M25 is a major investment that would be expected to have an impact on the accessibility at the regional and national level. Given the assumptions on speeds, values of time and employment, the scale of the accessibility impacts is small and the increase in travel distance and generalized cost (for HGV) suggest that the effects of the M25 are negative. It is only travel time that has been reduced as the M25 provides a higher speed route, but given the levels of congestion and the capacity limitations, even this saving may be diminished.'

4 ECONOMIC EFFECT OF THE M25

- 4.01 In 1996 Linneker and Spence carried out follow-up research using a multiple regression analysis to examine the M25's impact on employment insofar as it relates to changes in accessibility and transport cost. Differential employment shift (1981-7) was used to measure local economic performance. A demand for labour index, ie the difference between actual and expected employment change over the period, was used to measure migration of residence, commuting by trip makers, productivity, levels of activity and levels of employment.
- 4.02 The results are counter-intuitive and differ from those produced by Dodgson (1974) in relation to the M62 and by Botham (1980) on the employment effects of the national road-building programmes. Areas with high accessibility are losing employment. The market potential accessibility measures are negatively related to the demand for labour index and the differential employment shift. The effect is modified if the effect of the M25 on accessibility is looked at in isolation. The areas which have shown the highest percentage increases in accessibility measured by time have shown higher employment growth or reduced employment loss.
- 4.03 Bannister and Berechman comment (p245) that 'Linneker and Spence (1996) were cautious in their explanation. Proximity to centres of high population densities (the large conurbations) produces the poorest employment performance. The regional dimension seems to emphasise this difference as the London region performs better than other locations (see also Frost and Spence 1991). Accessibility from new road construction facilitates the ability of local firms to expand market area and hence create more employment. But it may also allow expansion of firms outside the region into newly accessible locations. The

resultant competitive position is the combination of the two sets of factors. Physical accessibility, as measured in the Linneker and Spence (1996) study, is only one part of the competitive position and it affects different activities in a variety of ways.'

5 M25 RETAIL DEVELOPMENT

- 5.01 Before the completion of the M25 in 1986 opinions differed as to what would be its effect on retail development along its route. According to Damesick (1986) 'the role of the M25, by itself, in creating wholly new opportunities for economic growth in the South-East on an inter-regional basis is likely to be small, relative to the regions other existing attributes'. Simmons (1985) disagreed and was critical of the lack of planning that had gone into retail development along the M25.
- 5.02 In 1987 Gould carried out an empirical study investigating planning applications for retail development. The survey, completed in 1986, covered all seven county authorities through which the M25 passes. 40 districts were affected by the M25 and 30 of them responded to the survey. 22 districts which are part of the same regional economy but were not affected by the M25 were also surveyed.
- 5.03 The resultant figures for retail applications (4.8 per authority affected by the M25, 3.3 per authority in the control areas) were in line with national trends. In over three quarters of the cases the M25 was not seen as important, and most retailers were more concerned about their market share rather than the policies of local authorities.
- 5.04 Most smaller retailers' customers came from within a 10-minute offpeak drive time, and as access to the M25 is limited, it is unlikely that any of them would use the motorway. Very different findings were reported for major retailers. The 14 applicants who said that proximity to the M25 was very important constitute 10% of the applicants with 45% of the floor space.
- 5.05 The conclusion of Gould's analysis was that the M25 is an important factor in the enlargement of catchment areas of regional shopping centres and warehouses but not for smaller supermarkets which customers use on a more regular basis.

Studies mentioned by Banister and Berechman in relation to the M25

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