
This version is available at https://strathprints.strath.ac.uk/51554/

Strathprints is designed to allow users to access the research output of the University of Strathclyde. Unless otherwise explicitly stated on the manuscript, Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Please check the manuscript for details of any other licences that may have been applied. You may not engage in further distribution of the material for any profitmaking activities or any commercial gain. You may freely distribute both the url (https://strathprints.strath.ac.uk/) and the content of this paper for research or private study, educational, or not-for-profit purposes without prior permission or charge.

Any correspondence concerning this service should be sent to the Strathprints administrator: strathprints@strath.ac.uk
SCOTTISH LOWLAND AIRPORTS POLICY: PROSPECT AND RETROSPECT

James Stevens, Department of Economics,
Stewart Dunlop, Strathclyde International Business Unit,
University of Strathclyde

1. INTRODUCTION

This paper examines Scottish lowland airports policy and reviews the changing forces which govern its feasibility and coherence. The current policy seeks to segment Scottish demand by developing lowland airports in complementary roles. Glasgow and Edinburgh cater for short haul international and domestic traffic whilst Prestwick caters for long haul, mainly transatlantic business. The major thrust of this paper is to seek to demonstrate that this policy does not and cannot work. In terms of the transatlantic market, other lowland airports offer indirect services through London and other centres and thus compete with Prestwick for this business. In addition, the forced partition of services in Scotland does not allow the emergence of the maximum possible level of service in the region and thus fails to attain a key goal of airports policy. In terms of airline economics, there is no good reason why North American services cannot use other lowland airports. This has been the situation since the late 1970's. We conclude that liberalisation of air services has served to undermine lowland policy objectives rather than further their successful attainment. In addition we review the arguments for change and document how these gained force and clarity in the troubled period of the early 1980's. Section 4 analyses the scope and methodology of the 1985 review of lowlands policy. We are extremely critical of the partial nature of this exercise which completely ignored likely overall benefits which would accompany change. We conclude that the review makes a strong case for change and can find no sound economic reason why Government maintained the status quo. In Section 5 we trace how wider economic development considerations have served to reinforce the attitudes of both the parties to the lowland policy debate. We take the view that the strong resistance to change in Ayrshire is ultimately grounded in a wider set of concerns about the Ayrshire economy. We conclude that Government must address these underlying anxieties. We present our observations on the forthcoming review in Section 6. The case for change is now unanswerable and we advocate an open skies policy in terms of transatlantic business. We urge Government to develop a range of activity at Prestwick and emphasise the need to support these measures with proper labour market policies and a major programme of infrastructure provision.

2. UK AIR TRANSPORT POLICY

Air transport is properly and universally regarded as a strategic issue deserving of clear objectives and effective policy measures. All UK governments have taken it as axiomatic that an appropriate air transport network is a necessary condition for the functioning and growth of an advanced economic system whose markets are open to
foreign competition and which seeks to serve as an optimal location for internationally mobile foreign direct investments.

The air transport industry consists of two distinct elements, airlines and airports. Successive governments have determined specific but inter-related policies for both sectors. Airline policy is concerned mainly with the promotion of opportunities for UK carriers to increase their share of the global air transport market. The arrangements for air travel between the UK and other countries are subject to a set of bilateral arrangements (Air Service Agreements or ASA's) which specify, inter alia, tariffs, points of entry, capacity and designated carriers. In addition, some ASA's call for revenue-pooling by the designated carriers. Thus, in terms of international air travel, UK government is constrained by the outlook and preferences of other sovereign states and policy must operate against this background.

Recent Civil Aviation policy has its origins in the Edwards Committee Report published in 1969. This Committee advocated the development of a competitive multi-airline framework to accommodate the projected rapid growth in demand for air travel. Subsequent policy has sought to engender this in different ways. In the 1980's, the Conservative government instructed the Civil Aviation Authority (CAA) to assess the scope for competition between UK airlines on domestic and international routes. In response to this report, the Government issued a White Paper (Cmnd 9366) which set out the objectives of Civil Aviation policy. In addition to ensuring high standards of safety within the industry, the Governments policy goals were stated as:

a) to encourage a sound and competitive multi-airline industry with a variety of airlines of different characteristics serving the whole range of travellers needs and strong enough to compete aggressively against foreign airlines;

b) to promote competition in all markets internationally by working to reduce restrictions on services and by making it easier for new airlines to enter the market; and domestically by cutting out controls on new services and on fares and capacity;

c) to ensure adequate safeguards against anti-competitive or predatory practices by airlines, so as to safeguard the long term interest of the public through the maintenance of a competitive industry;

d) to put the ownership of British Airways into the hands of private investors, including its employees, so as to remove it from both the restrictions and protection of state ownership.

In line with these objectives, the Conservative government has consistently pressed for greater competition on international routes through the re-negotiation of more liberal ASA's. Cmnd 9336 sets out the steps taken and comments favourably on the bilateral agreement between the UK and Holland which permits carriers to "mount new services between the two countries at whatever capacity it thinks appropriate and to charge any fares approved by the country in which the traffic originates" (para. 10). The White Paper further states that "the long term goal must be to liberalise services wherever possible where foreign competition is fair and Britain's interests are not prejudiced" (para. 8).

Whilst the Government determines objectives and policies for civil aviation, the success of these depends on the efficient provision of an adequate and optimally located airport capacity. The fundamental objective of UK airports policy is unchanging. Cmnd 9452 concludes that "the policies announced in this White Paper seek to protect the UK's position in world aviation". Thus air transport policy is essentially mercantilist and alterations in policy relate to differences in perception as to how national goals are best achieved. The last Labour administration reviewed airports policy in 1978. The review was preceded by a wide-ranging consultative exercise involving both direct and related interests. The subsequent White Paper sets out policy measures based on the following view of the industry. Civil aviation is viewed as a core activity supporting competitiveness in other sectors. The South-East airport system, particularly Heathrow, attracts an unparalleled network of international flights. The catchment area is designated as Northern Europe and the airport is viewed as being in competition with other European centres such as Amsterdam and Paris. The vast proportion of domestic demand for South-East air services originates in the South-East and serves as the core business for the
system. The distribution of activity between airports in the system has emphasised Heathrow as a centre for scheduled services thus building up the range and frequency required by the commercial, financial and industrial organisations located or headquartered in the region. Before privatisation, British Airways, the national carrier, maintained a massive international route network at Heathrow. In essence, BA provided the backbone of the system's hub and spoke network as a key element of national policy. BA plc now carry out this strand of national policy on the basis of commercial judgement on competitive routes and monopoly rents from unliberalised long-haul services. Airport policy concentrates heavily on maintaining sufficient capacity in the South-East in order to underwrite the international competitiveness of the system within its North European catchment. This has provoked long-standing controversy over the continued expansion of terminal capacity at Heathrow.

Policymakers explicitly reject that activity can be forcibly redirected to the regions. Thus, compulsory transfer of services, even if possible under existing ASA's, would only serve to weaken Heathrow as a hub and spoke centre and thus risk the system's predominance in its European role. This would be properly regarded as detrimental to the UK's long-run development interests and objectives. Outside London and the South-East, the market is viewed as being geographically segmented. Catchment areas are argued to exist, based on the regional conurbations. Cmd 7084 graded airports into 4 categories of which Category A, Gateway International Airports are of particular interest for present purposes. A Category A airport is defined as one which "would provide or be expected to support over time, a wide range and frequency of services, including inter-continental services and a full range of domestic services." (Cmd 7084, para 16). Two such airports were specified outside the London area, Manchester and Prestwick/Glasgow. Regional airports are defined in order to cater for the principal air traffic demands of individual regions, parts of regions or groups of regions" (ibid, para 15). These demands were identified as "the provision of a network of short-haul international services, a significant range of chartered services and domestic services including links to gateway airports".

The 1978 White Paper was concerned with planning and rationalisation in order to engender the successful development of airports in line with the specified categorisation. Since airports were largely in the public domain, the government was in a strong position to influence expenditure and implement its chosen strategy. Thus, Manchester was to develop the provision of long-haul services for the North and other airports in that region would provide links to it, the South-East system and further afield. The growth of Manchester in this role was envisaged as being limited by the demand for long-haul services within its North and Midlands catchment area. Its growth would be determined by its ability to attract Northern travellers currently interlining through the South-East system.

The Conservative government reviewed airports policy in the early 1980's and published a White Paper, Cmd 9452, in 1985. The requirement to restate policy resulted from a variety of sources, chief amongst which was the need to respond to the Inspectors Report for Expansion at Heathrow and Stansted in the light of the proposed denationalisation of BAA. Although operating as a profit-maximising company, a privatised BAA would operate within a wide set of constraints and strategic objectives determined by the government. Within a framework where "air transport facilities should not in general be subsidised by the taxpayer or ratepayer" the Government set down the following objectives of policy. (Cmd 9452, p5)

- a) "to foster a strong and competitive British airline industry by providing enough airport capacity where needed;
- b) to minimise the impact of airports on the environment generally;
- c) to make the best use of existing facilities and provide new capacity only when it is economically justified;
- d) to encourage the use and development of regional airports so that they can meet the maximum demands they can attract;
- e) to support the leading position of Heathrow and Gatwick among the leading international airports and interlining centres;
- f) to encourage enterprise and efficiency in the operation of major airports by
providing for the introduction of private capital;

g) to ensure that all UK airports continue to maintain the highest standards of safety in accordance with internationally accepted rules and standards".

These objectives are presented in "no special order of priority". (Cmnd 9542, p5)

The respective roles of the South-East and regional airports were re-affirmed and the Government's view and approach to the stimulation and evolution of demand were clearly set out. The Government rejected an immediate fifth terminal at Heathrow and opted, against the advice of the direct interests, to expand activity at Stansted. This decision was heavily criticised by the Institute for Fiscal Studies (IFS) on the basis that the expansion at Stansted would not achieve a satisfactory return on capital. However, the Government appears to have adopted this course on the basis of environmental factors at existing sites and the wish to evolve of capacity to facilitate the goal of developing a competitive UK airline industry. Thus, Heathrow was to be constrained and BA's entrenchment confirmed. However, pressure of demand was expected to focus opportunities for developing a rival network at Gatwick with BCal and other UK independents to the fore.

The issue of whether the actual measures taken were correct is both complex and not vital for the present exercise. The key factor to appreciate is government action on the basis that greater liberalisation of air services was a measure which could facilitate the national objectives of maintaining London's strong international position and of fostering a competitive multi-airline industry in the UK. However, it should be noted that in these twin policy reviews, the Government specified the investment plans of BAA and settled on the scale of BA. Both were privatised and value measured on that basis. In future, finding the capital for costly airport infrastructure falls upon the owners of BAA plc. If the government wishes the company to deviate from the preferred financial option to another, or if the government constrains investment at BAA sites to allow a competitor to establish facilities, this would affect the value of BAA's shares. It remains to be seen how Government will view these issues when they arise. This could be relevant in Scotland following a review of policy.

Like the previous administration, the Conservatives rejected notions of forced diversion of activity to the regions and held the view that the routes flown from regional airports are largely a matter for the commercial decisions of airlines where they consider that demand is sufficient" (Cmnd 9452, para 6.8). The White Paper emphasised the commitment to the development of Manchester as the sole English Category A airport outwith the South-East and outlined measures taken to expedite matters. In line with its more liberal civil aviation policy, these emphasised the promotion of Manchester and other regional locations in bilateral negotiations. Thus, the development of regional airports in England was expected to benefit from liberalisation and government actively raised regional airport activity during international discussions. The government is involved with other parties, including airlines, on the development of rolling 5-year plans for Manchester to explore ways of increasing its range of international services" (ibid, para 6.29). However, it should be noted that this is far from an open skies policy. As in the South-east, the Government sought to guide the evolution of capacity. Thus, Birmingham is denied Category A status and activity is steered towards Manchester to encourage the formation of a strong regional hub. At other regional centres, the commercial decisions of operators determine the scope of an airports short haul route network.

We conclude this section with a summary of the salient points. The previous Labour administration set the roles of all UK airports and sanctioned infrastructure developments on that basis. Post 1975, the Conservatives have sought to use the pursuit and attainment of liberalised air services to achieve broader national policy goals. These include the development of the planned national and regional airports systems. The tensions between national airports policy and the wishes of independent owners and operators have surfaced in both the South-East and the Regions. As we shall see, such tensions are manifest in the Scottish context.

3. SCOTTISH LOWLANDS AIRPORT POLICY: 1978-84

Scotland's lowland airports are regional airports, serving a well defined catchment area. Thus the 1978 White Paper sets out that "Scotland
forms a distinct unit in airport planning terms. The scope for diverting London traffic to Scotland, apart from traffic with Scottish origins or destinations at present interlining through London, is negligible, and, with the limited exception of the extent to which people in the Borders might look towards the North of England, there is no overlap with the catchment areas of airports in England and Wales" (Cmd 7084, para 136).

Airport capacity in Central Scotland had been provided on a lavish scale. The 1978 White Paper comments that "there is probably a greater excess of airports capacity in this region than anywhere else in Great Britain" (ibid, para 137). Prestwick is situated on the West Coast and the locational choice reflects an era when available aircraft technology determined that planes could travel relatively short distances. Thus, airports such as Prestwick, Shannon in Ireland and Gander in North America developed close to either end of the shortest transatlantic routes. Glasgow and Edinburgh were built nearer to their respective population centres to satisfy domestic and short-haul demand which implied smaller aircraft and shorter runway facilities. The principal runway at Prestwick is 2987 metres long whilst those at Glasgow and Edinburgh are 2658 metres and 2500 metres respectively.

The roles of each of these airports were first specified in a parliamentary answer in 1968, which set out that Scottish demand was to be segmented and airports allocated complementary roles. Prestwick was to continue in its capacity as sole transatlantic gateway as originally specified in the 1946 Bermuda I ASA covering US-UK services. Both Glasgow and Edinburgh would cater for short-haul and domestic services. The 1978 White Paper did not conclude on this arrangement but argued that "the roles of the three Lowland airports..... should be a matter for the proposed Scottish Assembly" (Cmd 7084, para 164). The review rejected notions of rationalisation to a single central airport but noted that there was pressure for the division of services to be abandoned. As Gillett (1983) outlines, BAA in consultation with the Scottish office and the Transport Ministry conducted a further review and consultation exercise. This exercise set out a wide range of basic data and evaluated 3 major options. Option A preserved the status quo, whilst Option B entertained the notion that charter flights could exercise freedom of choice, Option C set out an open skies policy in which all operators had a free choice of airports. The analysis demonstrated that the status quo remained the most financially attractive solution to BAA. In order to transfer flights from Prestwick to Glasgow or Edinburgh it was suggested that substantial investments in runway and terminal facilities would be needed. In addition, the BAA would be required to carry the fixed costs of Prestwick with a significantly reduced level of business. This exercise was supplemented by a major conference held in November 1978 at which interested parties were given the opportunity to comment on the analysis and the conclusions derived. Gillett's assessment is that "the analysis of each of these options was thorough and reads convincingly" (ibid, para 111). However, as Gillett notes, a persistent and vociferous objector to the conclusions was British Airways, who advocated transference to Glasgow. The airline questioned the scale of the alleged capital expenditure requirements, arguing that they were based on redundant technology. On the basis of a detailed study dating from 1978, the airline viewed the prospects for stimulating business at Prestwick to be poor. Given the increasing emphasis on commercial criteria in air transport decisions, these reservations have proved to be a major source of pressure for change.

The new Conservative Government accepted the conclusions of the BAA review exercise and in December 1979, the Transport Ministry issued a statement to that effect. However, in the early 1980's, the external environment altered in a number of ways which rendered the policy increasingly untenable. First, there was a downturn in world aviation markets from which the UK was not exempt. Activity at most UK airports declined sharply at the beginning of the decade and grew slowly until 1984. In Scotland, the recession impacted most strongly at Prestwick, where in the autumn of 1981, BA announced the closure of its base and a phased withdrawal of services by March 1982. In February 1982, Laker Airways collapsed in controversial circumstances occasioning a further loss of services. Thus between 1981/2 and 1982/3, terminal passengers and cargo and mail handled at Prestwick declined by 30%. The airport had been experiencing a sharp decline in Air Traffic Movements (ATM's) since the start of the decade and this had the effect both of intensifying the losses at Prestwick and deflating the prospects for Scottish Airports as a group. These poor results were
particularly unwelcome at a time when the UK government seemed intent on controlling subsidies to unprofitable activity and had set an early target for break-even by the Scottish group.

Such setbacks inevitably focused attention upon the feasibility of the air traffic distribution policy operating in Scotland. Tables 1 and 2 set out various measures of airport activity for the period in question. Table 1 indicates the trends in activity for Scotland, Manchester and the South-East. In terms of all three measures, Scotland was failing to perform in line with other centres. There was particular interest in Scottish circles that Manchester seemed to be performing better than the more fragmented Scottish system.

Table 2 sets out the Scottish share of transatlantic business in terms of terminal passengers and air transport movements. The data does not represent the UK market because it excludes activity at Manchester and other regional airports. This presentation is deliberate because it reflects the official view that UK airports do not compete for such aspects of business. These figures measure the extent to which direct transatlantic air services from Scotland are growing more slowly than those from the South-East. As indicated above, a key element in regional airports policy involves the development of two Category A airports outwith the London area to cater for inter-continental demand within their catchment areas. The data does not measure evolution of demand because an alternative conduit to Scottish transatlantic gateways exists in the South-East. The data indicates a failure to maintain activity shares. Allowing for the likelihood that Scottish demand for transatlantic services grew more slowly than in the South-East, the data poses the question of the extent to which part of this loss of share is accounted for by a failure of Scottish services based at Prestwick to prevent Scottish passengers from interlining at London. Indeed, evidence available during the period suggests that Prestwick’s demand was highly seasonal and concentrated in the leisure market. Prestwick commands a relatively low proportion of the high margin business market on its North American routes. The limited range and frequency of services appears to impose costs on the business user which more than offset those derived from interlining at London or elsewhere. The implications of the above for regional airport policy are stark. In Scotland, policy seeks to segment demand and engender a complementarity of roles. However, the effect of the policy is to promote competition between Lowland airports. Glasgow and Edinburgh are spokes in the South-East system and other hubs. This fact ensures that operators with transatlantic capacity at other centres will market these multi-stage transatlantic options aggressively. Indeed, the early 1980’s saw a complete liberalisation of the domestic market resulting in frequent and competitive services on Anglo-Scottish routes. It is in the direct interest of the operators to market their London-based transatlantic flights. Thus there is competition between infrequent and limited services available directly and a wide range of frequent services available indirectly from Glasgow and Edinburgh. In short, airport policy is fundamentally flawed in its Scottish application because the division of capacity between Prestwick and other Lowland sites militates against the emergence of the maximum possible level of direct international services. This in turn imposes resource costs upon passengers whose requirements dictate that they interline at non-Scottish hubs. Thus the traffic distribution rules chosen for Scotland neither work nor achieve the demand objectives outlined for either Category A airports or regional centres.

In the early eighties, such arguments were far from universally accepted in Scotland and a substantial body of opinion maintained that, with sufficient time and effort, the situation at Prestwick could be improved. A prime mover in this respect was the Select Committee on Scottish Affairs which examined the circumstances of Prestwick following the loss of BA and Laker services in 1982. In many respects, the Committee took an appropriate view of the situation. Unfortunately, it did not question the continuation of Prestwick’s transatlantic monopoly, pointing out that the situation had been resolved in 1979 and that frequent reviews would serve only to undermine the successful attainment of set objectives. The Committee approached the problem by regarding the site as a centre of economic activity and advocated a number of measures to bolster existing operations and promote diversification. With respect to air services, the Report concentrated on the poor quality of surface access to the airport and the relatively high level of landing charges compared with the South-east system. In the case of the former, the Committee advocated the construction of a rail halt and the upgrading of road connections to the Glasgow conurbation. In the
latter respect, the Committee called for the charges to be reduced to encourage the growth of services.

In light of strong representations from, inter alia, Kyle and Carrick District Council, the Committee recommended that a freeport be established at the airport in the hope that such a development would encourage the attraction of a wide range of industry and progressively stimulate both cargo and passenger activity. The Committee, with considerable encouragement from the SDA, also sought to build upon the existing British Aerospace and Caledonian Airmotive plants through the creation of an Aviation Industry Park.

Thus, the Select Committee sought to isolate a package of measures which would jointly stimulate business at the site. In order to coordinate the inputs of the various organisations concerned, the Committee called for a Prestwick Airport Development Company to be formed, comprising representatives from all interested parties. In the event, the Government rejected or vacillated over many of the measures and have invited the criticism that the means were never willing to make lowland airports policy work. However, this report presented a substantial set of arguments concerning the need to view Prestwick as a site of business opportunity for which development plans required to be agreed, resourced and implemented. This insight remains valid to this day.

Hence, the misfortunes of Prestwick in the early part of the decade generated contrary analyses. On one view, Prestwick was an air transport cul-de-sac with little development potential. On the other, the development of a Category A airport remained possible given sufficient time, effort and resources. Although we would seek to refute this latter argument, it should be acknowledged that it attracted many influential adherents and proved a significant barrier to change.

The second trend which acted to undermine the case for the retention of Prestwick’s transatlantic monopoly relates to aircraft technology. As suggested above, Prestwick’s basic source of advantage over other lowland airports derives from superior site characteristics. It possesses a longer runway offering take-offs over the Firth of Clyde and ground facilities able to handle an appropriate number of larger jets simultaneously. The 1978 review of Lowland policy ruled against change on the basis that it would imply either substantial capital investment on terminals and runways or significant revenue penalties owing to reduced passenger and cargo payloads at other lowland sites. However, in terms of situation, the Ayrshire airport lies farther from the bulk of Scottish population than the allegedly inferior sites at either Abbotsinch and Turnhouse. Hence, in 1978, Prestwick survived because its superior site characteristics were viewed as more than offsetting the disadvantages of its inferior situation.

This conclusion was never accepted by carriers who argued that the review overstated the capital costs associated with change and inflated the payload penalties evident at Glasgow and Edinburgh. The basis of this charge was that the 1978 review had ignored trends in Boeing 747 technology which had resulted in aircraft well suited to such smaller runways. According to British Airways, economic transatlantic services could have been operating from Glasgow and Edinburgh from the late seventies with the available 747-2 technology. In addition, Miller (1982) pointed to the advances in the reliability of twin-engine jets and the potential to improve the financial attractiveness of thin markets deriving from a reduction in operating costs in relation to seating capacity. The lighter aircraft also imply less exacting runway and terrain conditions making them tailor made for the Glasgow and Edinburgh sites. In consequence, the capital expenditure required to accommodate transatlantic services at these locations falls substantially and ties in with the existing development programmes based on terminal expansions to accommodate similar technology on short-haul routes. However, in the early eighties, this technology was constrained in its use over large stretches of water by a requirement that a twin-engine aircraft be less than 90 minutes flying time from a diversionary airport. This restriction placed significant cost penalties on transatlantic routes and implied seasonal travelling difficulties owing to the high probability that winter weather would frequently close the diversionary airports in Iceland and Greenland. It was not until the late 1980’s that these restrictions were relaxed. Thus, advances in aircraft technology conspired to erode the infrastructural arguments against altering Lowlands policy, and no such argument has existed since the late 1970’s. This is the case for both twin engine and four engine technology.
The third major trend to militate against the continuation of Prestwick’s transatlantic gateway status was the emergence of medium-term development strategies which sought to promote both Glasgow and Edinburgh as commercial and financial centres. In particular, the importance of a suitable supply of airline services to the coherence of such strategies began to be explicitly recognised. The McKinsey Report commissioned by the Glasgow City Centre Joint Economic Initiative, which served to define the strategy of Glasgow Action, commented that the poor image of the city resulted partly from a perception of remoteness, based largely on the inadequacies of the current air service provision. Thus, in the early 1980’s, the arguments concerning an air systems ability to induce employment through improved locational perception emerged with particular clarity. For example, in 1984, Labour-controlled Strathclyde Regional Council argued that “airports can act as key building blocks within the regional economy. The quality, range and frequency of air services can have a considerable bearing on the promotional aspects of a regional economy. Not only do improved air services benefit the indigenous population, but they can have an important impact on the areas image, particularly in terms of its general accessibility” (SRC (1984), p66). This appreciation is based on a number of academic and government studies. In general, accessibility to a suitable network of domestic or international air services emerges as a clear but relatively weak influence in the location decisions of indigenous or multinational enterprises. However, Department of Trade and Industry (1984), highlights the importance of an inter-continental airport in the location decisions of international corporate headquarters. SDD (1987) reviews evidence available in the early eighties and reports that “inward investors” place higher emphasis on financial inducements, proximity to an international airport and environmental quality than indigenous firms (para 5.33). This Scottish Office Report highlights that, ceteris paribus, high technology and modern industry cite air transport as a key influence on locational choice. This appears to affect the decision in two ways. The business, for its own purposes may require access to good air transport communications and may wish to attract key personnel whose locational preferences are influenced by these factors. Once a region is settled on, internal transport links become significant in the detailed site choice. Thus agencies charged with strategic responsibilities began to advance the argument that a change of policy was necessary, albeit not sufficient, to facilitate wider regional development. This view was to gather both force and adherents throughout the remainder of the decade.

The final noteworthy feature relates to the emerging trend in competition between UK airlines. Prior to the privatisation of BA, the position entered a state of flux. Independent operators both argued for a share of BA’s routes and sought to establish new services. This was encouraged by the regulatory body, the CAA, who were concerned about the effects of a large and privately-owned BA on the evolution of a competitive airline industry. In 1983, British Midland sought and obtained permission to operate scheduled flights directly from Glasgow to North America. BA’s appeal to the Transport Secretary was upheld, but a review was commissioned into Lowlands policy. Thus, the effects of liberalisation and the consequent need for UK carriers to develop profitable opportunities focused attention on the beleaguered Scottish policy. In Scotland, liberalisation did not further policy objectives but served as a lever to undermine them.

By the mid-eighties, the situation had changed dramatically from that prevailing in 1978. Activity at Prestwick had declined dramatically and the consistency and coherence of Lowlands policy was subject to continuing question. The advance of airline technology had demonstrably eroded Prestwick’s locational advantage. In an environment where public policy sought to engender regional development of services based on commercial criteria, the key players, the airlines were emphatic that the scope for development at Prestwick was limited and refused to operate licences already granted. The decline in traditional manufacturing activity and the development of offsetting strategies based on attracting and stimulating industrial and commercial investment in Scotland had explicitly placed airport policy at the centre of wider development issues. It was against this background that the 1984 review was conducted and few observers expected Prestwick to survive in its role as Scotland’s transatlantic gateway.

4. THE 1985 REVIEW AND ITS AFTERMATH.

The Review of policy which was conducted in 1985 (the Ridley Review) was undertaken by officials
from the Scottish Office, Department of Transport and the Treasury with the assistance of the CAA and BAA. The terms of reference were to "review Scottish Lowlands airport policy, and in particular whether it continues to offer the best means of meeting Scotland's civil aviation requirements; and to assess the financial environmental and social consequences of any change" (Department of Transport (1984), para 2). The consultation document set out a series of issues to be explored in an attempt to define the areas where costs and benefits of change emerge and require quantification and analysis.

The announcement of the review engendered the coalescence of active and vociferous groups both for and against change, mirroring the pattern set in 1978 and providing a good deal of heated discussion around the issue. The report of the working party was published in May 1985. The concluding statement of the (1985) report argues that, "the balance of financial and economic considerations would point towards a change in policy which concentrated operations at Glasgow and Edinburgh." (Ridley Review, para 169)

However the report also focused upon environmental and social factors which, given a broader objective function, offset the perceived benefits of change. These are:

"a smaller reduction in noise near Glasgow and Edinburgh airports than would otherwise be expected"

"an addition to unemployment in an Assisted Area."

"adverse but unquantifiable effects on the Prestwick freeport project, aviation related business at the airport, and military operations at Prestwick." (Ridley Review: para 169)

The Report also noted that:

"the considerations summarised above cannot be measured on any objective common scale; they must be judged essentially against political priorities. The group submit their analyses and conclusions in the hope that they will provide a factual background against which a political judgement can be made". (Ridley Review, para 159)

The Government responded to this report in its 1985 White paper on Airports Policy and rejected any change in Scottish Lowlands policy. In justifying this decision, the Government made direct reference to the Ridley Review and set out that "the report identified economic benefits to airlines and their customers which could result from a change in policy to allow long-haul air services to use Glasgow and Edinburgh. But it also identified social and environmental disadvantages which such a change would entail, and so did not make any firm recommendations for a change of policy" (Cmd 9542: para 6.34)

However the White Paper issued the following caveat.

"The Government is very concerned about the decline in traffic at Prestwick in recent years and the level of operating losses which have been experienced there. Every effort must therefore be made by those who want to preserve Prestwick to improve its economic performance, and the Government looks for a steady improvement in Prestwick's financial results. If this has not come by 1989 the policy will be reviewed." (Cmd 9542: para 6.35)

The White Paper concludes by praising the facilities at Prestwick and suggesting that "its attractions should be increased by its designation as a freeport. An enquiry was promised "to examine the case for developing a station at the airport on the existing Glasgow-Ayr line" (ibid , para 6.36)

Thus, Prestwick was allowed to retain its transatlantic monopoly. It is clear that the thinking underlying the 1982 Select Committee report had triumphed at least in part. The Government were prepared to give Prestwick time to see if the financial position could be turned around. Unfortunately, the Select Committee's other recommendations were either rejected or not addressed and its coherent package eschewed.

In the remainder of this section we will examine the methodology of the review and seek to establish whether it did indeed pose serious environmental and social objections. The Ridley Review employed DCF techniques to compare a number of policy options following liberalisation of Scottish Lowlands policy. It was assumed that the vast majority of Prestwick's air transport movements would move either to Glasgow or...
would impose some limitations on the payload which makes it very clear that "the runways at Glasgow and Edinburgh are shorter than Prestwick's and would impose some limitations on the payload which could be carried on larger aircraft. Most wide bodied aircraft types could take off for the American eastern seaboard with little or no penalty" (op cit: summary point (ix)). This analysis is based on use of large 4-engined aircraft such as the Boeing 747. The more efficient wide bodied twin engine aircraft such as the Airbus A300 and A310 and the Boeing 757 or 767 were, as noted above, prevented from crossing the Atlantic. The report concludes that these would not impose the same penalties on carriers and would enhance the scope and attractiveness of Glasgow and Edinburgh as locations for transatlantic services. The fact that these aircraft are quieter and more fuel efficient than the older, heavier designs, was similarly acknowledged.

A number of options were evaluated at 3 different levels of demand, (low, intermediate and high), for the period 1994–2010. However, only 2 cases were fully examined.

(a) the status quo: all 3 Lowland Airports retain their present roles.

(b) complete closure of Prestwick and the transference of business to Edinburgh and Glasgow.

The review group assessed and dismissed various intermediate options which distributed charter and cargo flights to Prestwick. It was demonstrated that these would in all cases result in lower profitability to BAA than complete closure. Retaining the runway and a minimum level of service presented results which were "not in aggregate greatly worse than for the closure of Prestwick" (Ridley Review: para 29). However, such options were rejected on the grounds that such conclusions "disguise the very poor financial performance of Prestwick itself. The losses would be unacceptably high compared to a very low turnover". Thus although retaining the runway in some capacity presented near identical financial implications for the Lowland Airports as a group it was rejected on the basis of supplementary criteria. This arbitrary procedure is extremely significant in that it allowed the review to caution against change on the basis of "adverse but unquantifiable effects" on aviation related business and military movements at Prestwick.

The Review Group generated its own traffic forecasts for both scenarios on the basis of different assumptions about traffic levels. In the case of Prestwick closure, a detailed evaluation of changing patterns of demand was undertaken. The major flaw in this procedure is that static nature of the analysis. Thus the report suggests that "the majority of traffic stimulation was expected to come from the diversion of traffic, which would have otherwise interlined over London to Glasgow and Edinburgh". (Ridley Review, Appendix 3; para 5). The change was not assumed to affect the growth path of the Scottish economy and thus many of the beneficial impacts argued to accompany change were not evaluated or incorporated in traffic forecast assumptions. The view that the change could induce faster economic growth in Scotland and thus feed back into higher demand for air travel was not incorporated into the analysis at any meaningful point. This accounts for the continued scepticism about the Review on the part of Scottish business and economic development interests. It should be noted that the Review was emphatic that none of Scotland's Lowland airports could develop as a major North European hub. The Report based this conclusion on the official view that, as Regional airports with a distinct local market, the Scottish system would never engender sufficient demand to justify the required network and frequency of services. On the basis of these traffic forecasts projections of revenues and costs were prepared for each of the two cases for the period 1987–2010. In both scenarios, charges at Glasgow were reduced to "produce reasonable rates of return on the assets involved" (ibid, para 99). As a result, the increased demand at Glasgow following redistribution resulted in additional reductions in user charges thus reducing the attractiveness of the entertained change to BAA. The incremental investment required to accommodate Prestwick's business at other Lowland sites was established for each projected traffic demand. The additional capital expenditure for the period 1985–2010 was valued at £10m, £14m and £18m (in 1984 prices) for the respective traffic forecasts. The calculations allow for the total elimination of planned investment at Prestwick over the period. It should be noted that the report concludes that if twin engined jets were to come into service on
these routes that the "capital investment need at Glasgow would be reduced". (ibid, para 66).

The end point of this part of the analysis is a comparison of the NPV (net present value) to BAA of the closure option and the status quo for each level of demand. A negative NPV means that the capitalised income flows arising from the status quo are greater than those arising from the change. The report concludes that "the overall effect on BAA's financial results depends very much on the rate of traffic growth. If this is low, loss of revenue is more than offset by reduced costs so that the closure gives a positive NPV; with intermediate and high growth, the loss of income is greater and the costs saving lower, producing a negative NPV". (Ridley Review, para 107). The deficit in the intermediate case was small (£3.9m). We take the view that the assumptions on revenues and expenditures seem to result in a certain bias in favour of the status quo. If these were allowed to vary marginally in the necessary direction then this would be eliminated. Only in the case of high demand are there clear benefits for BAA in retaining a fully functioning international airport at Prestwick. The review at no stage attempts to justify such an outcome and at times appears dismissive of it.

The next stage was to establish the net effect on the airlines of the reduced charges implied in the above assumptions concerning revenue. When these are added we obtain a measure of the financial impact on the civil aviation industry. The transfers to airlines increase with the level of assumed traffic growth. The size of these transfers is governed by the adoption of an unspecified rate of return by BAA and consequent income reduction measures, and ranges between £28-£35 million according to the assumed level of demand. This analysis signals quite clearly to airlines that there are financial benefits to the change in terms of reduced charges. This is before any consideration of the higher load factors which would accrue at the better central locations and which would increase expected revenue. Thus, the Review clarified the benefits of change for airlines. As the report notes, these are likely to be small in relation to the scale of costs evident in the airline business but may be significant for operators attempting to cater for the relatively thin Scottish market. The evaluation concludes by presenting the results of an appraisal of whether the resource costs of handling air traffic to and from Scotland would rise or fall following the closure for Prestwick. This is wide-ranging and includes an estimation of savings in passenger time and journey costs. Again the change is universally beneficial.

The investment appraisal discussed above fails to settle the argument between the Glasgow and Prestwick supporters. It does not admit a key element in the case for change and yet concludes, given adverse assumptions, that change is universally beneficial to the Civil Aviation sector in Scotland, if not BAA, in the case of high growth in traffic. However, the Review whilst concluding that the benefits of change were "material" (ibid, pp 138) continued by arguing that "the case for changing Scottish Lowlands airport policy cannot be judged solely on the basis of financial and economic analysis". Other factors - social and political - may be judged important. As indicated earlier the Review, as remitted, next consider environmental, employment effects and site related activity.

1) Employment Costs. The report provides estimates of the direct and indirect job losses of following the change of policy. Adjusting for personnel relocations and retirements, the increase in unemployment at or near the Ayrshire site is estimated at 450-550. The review group were charged to consider "what would be the effect on employment of more services at Glasgow and Edinburgh, and of fewer at Prestwick" (Department of Transport (1984), para 14). It would be fair to conclude the report failed to make any formal allowance for offsetting employment benefits at the other Lowland sites. In its submission to the review process, Glasgow District Council attempted to quantify the direct and indirect employment effects of transference of activity to Glasgow. The Council estimated an immediate on-site impact of 1000 jobs which would support a further 1600 jobs in airport related and other sectors, concluding that "a net employment gain of 2600 jobs would be directly attributable to the transfer of services from Prestwick" (GDC (1984), para 3.10). A quantification of the impact in the tourist sector concludes that "an additional 1500 jobs might be generated in Glasgow, given the minimum attraction of a further 1-2 million air tourists to Scotland" (ibid, para 3.13). The submission also discussed the proposition that rationalised airport capacity was necessary, but not sufficient,
to improve the competitiveness of Glasgow in
the market for mobile industrial, commercial
and financial projects, although no attempt
was made to quantify this aspect. In
addition, by entertaining the closure of
Prestwick as the sole alternative to change,
the report avoided the requirement of
assessing whether stimulation of other
activity at Prestwick might prove possible.

The Working Party therefore chose narrow criteria
on which to base their conclusions on employment
effects. The review indicates modest job losses
in Ayrshire and having completely ignored
offsetting spin-offs and induced effects qualifies
its findings by suggesting that "total UK
employment might well be lower in the short run,
but over a longer period the various processes of
adjustment should complete the reallocation of
resources. These adjustments would impose costs in
the short term. But in the longer term the real-
reallocation of resources would bring worthwhile
gains to the economy as a whole" (Ridley
Review, para 138). This is the only reference to
the detailed case made by business and local
authorities.

In our view it is difficult to detect a sound
argument against change on the basis of
employment. Certainly, the Ridley Review failed
to undertake the exercise properly. It is evident
that a proper evaluation of the likely benefits
would lead to a net gain in employment and a
reduction in business costs following a change.

ii) Site Related Activity: Since the runway is
assumed to be closed, this builds up problems
for existing users. However, given that retaining
the runway would appear to engender very similar
financial implications to complete closure, it is
not clear that the alleged threat to jobs in
adjacent plants and depots ought to be admitted as
an argument against change.

iii) Environmental: The report concludes that

"the overall noise climate of Glasgow and
Edinburgh should improve from 1986 mainly
because of the withdrawal of the noisier
types of aircraft from the UK register. But
transfer of traffic from Prestwick would
result in small increases in noise
 disturbance in comparison with maintenance of
current policy." Thus, it is difficult to
detect a sound environmental objection, even
on the basis of the heavier and noisier jets
which operated on transatlantic routes in
1984.

The most vociferous groups airing the
environmental issue were residents from the
prosperous Glasgow suburbs of Bearsden and
Mingavie which lie beneath the flight path of
Abbotsinch. If one accepts the wider development
argument, then these people are amongst the most
evident beneficiaries of change. If Glasgow
develops as a financial and commercial centre,
such middle class residents are likely to find
increased opportunities and upward pressure on the
price of quality housing. For the residents of
less prosperous areas such as Knightswood, Yoker
and Drumchapel, the offsetting benefits are less
clear. We believe that this has conditioned
responses to possible changes in Lowlands policy
on the part of political and community groups in
Glasgow. These bodies appear unenthusiastic or
anxious about the planned development of the
City and view the issues as remote and irrelevant
to the bulk of the Glasgow labour force. This
issue graphically illustrates that Glasgow’s urban
regeneration strategies have yet to convince the
City’s residents. This requires to be addressed.

The Ridley Review can be viewed as a flawed
document which failed to comprehensively determine
the exact costs and benefits of change through a
process of ignoring the relevant issues. For this
reason, Scovens (1985) argued that the decision
based upon the Review "changed little and solved
nothing" (p64). The review demonstrates that
change is attainable without major capital
expenditure and clearly signals the benefits to
airlines and consumers. The Review concludes that
reform of Lowlands policy is feasible and
emphasises that the situation has changed since
1978. On the basis of likely states of the world,
the change is neutral or beneficial to all the
main players in the civil aviation sector. The
ancillary issues of noise, employment and site-
related activity do not weaken the clarity of the
case for change and if properly analysed would
not militate against the removal of Prestwick’s
transatlantic monopoly.

Early criticisms of the Review prompted a
spirited defence of the policy by Government
Ministers. Mr Nicholas Ridley suggested that "our
proposals give Prestwick a new opportunity to
thrive". Mr George Younger, then Scottish
Secretary, argued that "there is no reason why
Prestwick cannot have a rosy future", and concluded that

"we now have a blueprint for development and for airport policy for a long time ahead. Now that a lengthy period of uncertainty is over, let us get on with the job of talking up Prestwick for the good of everyone."

Stevens (ibid, p66) rejected such thinking as "fundamentally wrong", arguing that "it is our view that "uncertainty" is not at the root of Prestwick's trouble and that "talking Prestwick up" has not succeeded and is unlikely to have a material impact on the fortunes of Scotland's transatlantic gateway." This analysis stresses the unworkability of a policy seeking to segment demand and concludes that Prestwick faces and will continue to face competition from Glasgow and Edinburgh for transatlantic services. The paper further notes that the policy of seeking liberalisation will tend to favour centres whose interlining opportunities present the prospect of higher load factors. Stevens argues that it is not possible to develop this activity at Prestwick because facilities already exist at the other, more conveniently located airports in Central Scotland and are unlikely to be profitably duplicated on a third site.

On this view, the traffic distribution arrangements imply that Prestwick will remain an air transport cul-de-sac with few feeder services and limited growth potential. The favoured configuration does not allow the government to attain its airports objectives in Scotland and essentially thwarts the maximisation of direct transatlantic flights. It is not possible in liberalised air transport markets to insist on complementary roles and thus Stevens (1985) concludes that

"Prestwick is a casualty of the very market forces which the government is committed to encouraging. The Government is committed to creating a world where Prestwick airport has little future" (ibid, p65).

5. CHANGING PERSPECTIVES 1986-1989

The dissatisfaction with the scope and methodology of the 1985 Review and the resultant Government decision did not abate. In Glasgow, the Evening Times newspaper began a sustained campaign designed to illustrate the costs and fallacies of lowlands policy and press for "gateway" status for Glasgow airport. In October 1986, Glasgow Lord Provost, Robert Gray and Council Leader, Mr Pat Lally, convened a Glasgow Airport Working Party. The purpose of this group was to lobby for an "open skies" policy in Central Scotland.

Following an unpromising correspondence with the Scottish Secretary, Mr Malcolm Rifkind, the Working Party agreed to commission an independent review. A study brief was prepared and tenders invited from a large list of prestigious academic and private sector consultants. The issues to be explored were fourfold. First, to examine the exact circumstances of the lowlands system, establish its performance and future prospects, and assess whether it was justified or feasible to widen the roles of Glasgow and Edinburgh. Second, to quantify the full range of short and long term costs and benefits which would accrue following redesignation of Glasgow to "gateway" status. Third, to establish the implications of Prestwick should 'gateway' status be transferred, developing alternative scenarios for the airport and indicating any adjustment processes which may have to be undergone" (GDC (1986) para 3). It should be stressed that the clear motivation was to establish a viable development strategy for the Prestwick Airport site and to identify the resources required to support perceived opportunities. Fourth, to assess the likely development of the lowlands system given the advent of an open skies policy in Central Scotland.

This study sought to remedy the widely held view that the 1985 Review had failed to address the issue in a coherent and systematic fashion. In the event, this study was not undertaken. As indicated above, the Scottish Office refused to entertain any discussion of change, and in correspondence with the Working Party reiterated the view that "it was in the best interests for Scotland as a whole that the existing traffic distribution system, within which the Scottish airports hold complementary roles, should continue and that Prestwick should be given a reasonable period - until 1989 - to improve its financial performance." Scottish Office (1986). In further correspondence, the Scottish Secretary argued that "Scotland's interests are best served by allowing Prestwick an opportunity, free from uncertainty, to improve its financial position." Scottish Office (1987). Thus, the Scottish Office continued to hold what a growing body of opinion regarded as a seriously flawed and discredited
view of the world. Given this and the imminent privatisation of BAA, the Working Party regrettably concluded that there was little point in committing funds to a project which could not hope to engender any substantive change in policy. A short time later, this group fragmented.

The objectives of this group were not to further blindly the interests of Glasgow Airport. The motivation was to obtain programmes and policies based upon a realistic analysis of the position and prospects for Scottish civil aviation. The overwhelming concern of participants was that the government's position was hampering agreed regeneration strategies across the whole Central Belt. The collapse in oil prices in the mid-1980s provoked contractionary pressures in Scotland which were more evident than in other UK regions. This contributed to an intensification of effort to attract mobile projects of every type and to stimulate small and medium businesses through a programme of advice, financial incentive and property provision. As time passed, concern emerged that Scotland has not been performing well. Anxiety in Scotland was heightened by a series of developments. The Delors proposals and the imminent liberalisation of product markets across the EC, in conjunction with the construction of the Channel Tunnel, focused attention upon the peripheral location of Scotland within this block. A series of changes to Regional Policy instruments and widely reported skirmishes over the role and effectiveness of the SEA contributed to a perception that policy was failing to measure up to the threats and opportunities facing Scotland. In recent years, issues relating to the long-run competitiveness of Scotland as a location for organising and conducting economic activity have become a pervasive influence upon Scottish public affairs.

Criticisms of the direction, cohesiveness and control of the economic development function provoked the Hughes Plan and subsequent Scottish Enterprise measures. There continues to be considerable debate as to whether what will emerge will be appropriate for the task. However, there is also a keen focus upon other public programmes and agencies involved in the provision of infrastructure to support broad development objectives. In particular, great emphasis has been placed upon transport issues and the need to develop suitable connections to Scotland's major UK and international markets. This has manifested itself in sustained calls to substantially upgrade road and rail links to the South and the Channel Tunnel, and to contemplate measures to engender a wider set of direct air connections to Scotland. Thus, the wish to reappraise lowland airport policy is now firmly grounded in a wider set of economic development issues.

The strategic importance of airports underlies the widespread preoccupation concerning the growth and development of Manchester International Airport. Manchester Airport has an estimated catchment area of 18-20 million people and continues to expand in terms of range of services and airport activity measures as it increases its penetration of North and Midlands markets. It is also seeking to develop as a major North European hub and has medium term expenditure plans to provide terminal capacity of 23 million passengers per annum by the end of the century. These proposals are explicitly part of a coherent set of measures designed to further development in the North West. A document published by the City of Manchester Planning Department (CMPD (1986)), sets out the perceived role and economic impact of the airport in both a regional and national context. The view of development interests in the North West is that "air services may not be sufficient in themselves to promote economic revival, but they nonetheless form an important component in any strategy to rejuvenate the northern economies." (ibid pp 2). The airport is viewed as being capable of inducing employment through an enhancement of the area's perceived locational advantages and its ongoing expansion is resourced on that basis. Thus, the 1987/88 Annual Report explains that "new initiatives were taken to broaden the company's base, these recognised that Manchester Airport plc is involved in more than the air transport business. In co-operation with industrial and commercial organisations, both public and private, vigorous promotion of the airport was undertaken over a wide area. The presence of a large, efficient airport with links throughout the world is a potent lure for industrialists and entrepreneurs seeking new sites for development and expansion." (ibid pp 19). In the view of the Chairman, the "airport "plays a major role in the economy and its capacity for improving the region's economic performance increases all the time." (ibid pp 3). Scotland and other UK regions compete for the existing flow of mobile investment projects. The issue with respect to airports is whether the policy regime encourages the maximisation of
services in each respective area. As set out in part 3, location decisions depend on a range of factors. The concern that the supply of air services was a weak element in the Scottish "package" gained ground over the decade. Manchester appears to be making the most of the opportunities which designation as a Category A airport provides. The convoluted traffic distribution rules in Scotland are argued to prevent Scotland from doing likewise. There is no widespread belief that air transport in Scotland can develop on the same scale as Manchester. However, there is a belief that lowland airports policy prevents Scotland from using its resources in this area to maximum effect. In our view, the progress evident in the North West served both to define the issues and compound the existing frustrations. Hence, during the 1980's, airports policy was progressively undermined by the perceived exigencies of economic regeneration policies. Over the decade, attitudes have hardened as the issues became more widely understood and accepted, and as a possible 1989 review of policy beckoned, Prestwick Airport had few friends in industrial and economic development circles. However, attitudes and resolve in Ayrshire have also been stiffened by events. In the past decade, Ayrshire has experienced considerable job losses in chemicals, iron and steel, coal, textiles and engineering. As in all other areas, public agencies and local authorities, in partnership with the private sector are attempting to attract or foster business and industry to offset these adverse trends. It is our view that the resistance on the part of Ayrshire interests to changes in lowland airports policy is ultimately grounded upon a wider set of fears about the Ayrshire economy and its prospects.

In the 1970's, Ayrshire seemed set to benefit from major developments at the Hunterston Peninsula and from the ongoing expansion of Irvine New Town. However, in the late 1970's and early 1980's, the former county experienced a number of large and high-profile closures and retrenchments. By 1981, Ayrshire accounted for 13.6% of employment within Strathclyde Region. Table 3 presents data on employment and notified redundancies for the period 1981 to 1984. In our view, Ayrshire and Lanarkshire present the most relevant contrast. In 1981, both exhibited equivalent proportions of manufacturing and service activity. In addition, they are similarly positioned relative to the declining urban centre and both possess large rural hinterlands. Over the period, Ayrshire experienced notified redundancies in line with its share of employment. Both Lanarkshire and Inverclyde exhibited a greater proportion of redundancies than might be expected on this basis. Whilst it should be noted that notified redundancies are an imprecise guide to job losses, these figures suggest that Ayrshire is performing well relative to Lanarkshire and certain other areas. In the event, employment in Ayrshire declined by 6.8%. This trend conceals a smaller decline in manufacturing activity than in Strathclyde Region as a whole. Indeed, Ayrshire held onto a greater proportion of its manufacturing jobs than all the TTHA's under discussion. However, its performance in services was conspicuously poor. Employment in services declined by 5.6%. This contrasts with growth of 2.2% in Lanarkshire and 5.1% in the outer rim of the Glasgow conurbation, and a fall of 1.8% when the City is included. Ayrshire also recorded less than average falls in male employment with only Glasgow's outer rim performing better. However, Ayrshire lost a higher proportion of female jobs than any other TTHA. In contrast, female employment in Lanarkshire increased by 4.2% in this period.

This data is consistent with the view that Lanarkshire and parts of the Glasgow concentration out-performed Ayrshire in terms of retaining or engendering employment in the period 1981-84. In particular, it is probable that Lanarkshire lost jobs at a faster rate than Ayrshire, but was more adept at diversifying into other activity. Although Ayrshire experienced a smaller net loss of manufacturing employment, it failed to foster service sector growth and hence performed poorly. Within Ayrshire, Cunninghame and Kyle and Carrick performed better than the Region as a whole, and Kilmarnock and Cumnock significantly worse.

In 1984, the Irvine TTHA exhibited the highest unemployment rate of any TTHA in the UK. The Cumnock TTHA ranked second in Scotland and sixth in the UK. Use of disaggregated data published by Strathclyde Regional Council permits the setting aside the city of Glasgow and allows one to concentrate on the towns and cities surrounding the conurbation. On this basis we find that, in 1984, Ayrshire communities account for 4 of the 5 worst areas in terms of male unemployment and 3 of the 5 worst in terms of female unemployment. It is not surprising, given its poor performance in
sustaining female employment, that Ayrshire towns account for 5 of the worst 10 communities in terms of female unemployment with a rural dimension emerging in the Maybole and Girvan areas. Despite new town status, Irvine remained the 4th worst town in terms of male and total unemployment and was conspicuously failing to match the performance of East Kilbride and Cumbernauld in terms of retaining and expanding employment.

The view that Ayrshire was doing relatively worse than other parts of non-urban Strathclyde began to emerge in the mid 1980's and focused attention on surface transport. Internally, Ayrshire possesses an excellent set of roads. However, these were and remain poorly connected to the rest of the Strathclyde road system and national motorway network. Thus, as concern grew over Scotland's attractiveness as a location, a preoccupation with the relative attractiveness of Ayrshire as a location within Scotland emerged. In particular, delays in upgrading the A77 and A737 over the entire decade have reinforced the view that Ayrshire remains a less attractive place to locate or expand than Lanarkshire, and Irvine less well positioned than East Kilbride or Cumbernauld.

The period 1984-86 saw Ayrshire performing better than the Regional average in terms of unemployment reduction. Numbers unemployed fell slightly in both Ayrshire and Lanarkshire and rose in other TTWA's. Unemployment data has been subject to continuing revision and changes in numbers unemployed are a sketchy indication of how an area is performing. An area could engender a net creation of jobs and face rising or stagnant unemployment rates because of a faster growing labour supply. In addition, the notion of a TTWA which implies minimum flows of workers across the boundary seems to have lost some force within Strathclyde during the latter part of the decade. Thus, the line from changes in numbers unemployed to the employment performance of an area is not a clear one. In the period 1986-88, notified redundancies in Ayrshire occurred in the same proportion as its share in the Region's employment. Again, Lanarkshire fared worse than expected as did Glasgow's outer rim. Between 1986 and 1988, Ayrshire accounted for 26.5% of regional assistance within Strathclyde, implying a better rate of manufacturing job creation than in other areas. Thus, there is tenuous evidence that Ayrshire's relative performance has improved since the middle of the decade. In the period 1986-1988, Ayrshire experienced percentage falls in numbers unemployed above the regional average for both male and female categories. However, on this measure, Lanarkshire is still out-performing Ayrshire which is doing only marginally better than the non-city rim of the Glasgow TTWA. At the end of 1988, Ayrshire still accounted for 3 of 5 worst affected communities outside Glasgow in terms of male unemployment, and 4 of the top 5 in terms of female unemployment. In this latter respect, Ayrshire accounted for 7 of the 10 worst areas. "Improvement" has been most evident in North Ayrshire. Irvine New Town has improved its relative position but remains one of the worst 10 communities in terms of both total and male unemployment. It remains marginally worse than the major old industrial centres in Renfrew and Lanarkshire and significantly worse than either East Kilbride or Cumbernauld.

Thus, on some criteria, there is limited evidence that parts of Ayrshire are doing relatively better than in 1980-84. However, the coastal towns of Ardrossan, Saltcoats and Stevenston and the former mining area based around Cumnock remain major non-urban employment black spots. Analysis of Regional and District seat data reveals significant concentrations of unemployed in parts of the 3 large Ayrshire towns of Irvine, Kilmarnock and Ayr. It would appear that the job creation effort in the area and the likely increased incidence of commuting to the Glasgow TTWA is having an effect on unemployment rates. However, the scale and pattern of labour demand has tended to benefit Ayrshire communities differentially. Thus, although Ayrshire may be doing better at reducing its unemployment queues than previously, the benefit remains to be felt in certain localities characterised by a largely unskilled workforce and a heavy concentration of long-term unemployed. These remain prominent and visible black spots exhibiting a range of worrying social trends and detracting from whatever else has been achieved in terms of building up business and employment.

Concerns about the future of Prestwick Airport and consequent job losses gel with these wider concerns. The notion that Ayrshire has yet to get to grips with the adverse implications of previous industrial contraction is widespread. This is allied to the view that Government and Strathclyde Regional Council have failed to invest in the basic infrastructure required to accommodate job creation and engender locational advantage. In addition, Glasgow and Lanarkshire appear to have
better resourced and co-ordinated development strategies whilst the effort in Ayrshire is seen as fragmented and non-cohesive. The loss of the transatlantic gateway role is viewed as further evidence of the uncompetitiveness of Ayrshire as a location for organising economic activity. This would create adverse impacts that cannot be easily accommodated. For these reasons, attempts to amend the air traffic distribution rules continue to be met with clear and well organised resistance.

Thus, since the last review, attitudes on both sides of the issue have hardened. In both cases, the fundamental concern is one of economic regeneration. There is a clear stand of opinion which argues that it is necessary but not sufficient for Scottish development to restructure the supply of air services.

The end point of this exercise is to improve the perception of Scotland as an industrial and commercial location and thus facilitate faster economic growth. However, the greater awareness of Scotland's need to provide a competitive locational package has been accompanied by concern about the competitiveness of locations within Scotland. In this respect, there is a view, substantiated by available evidence, that Ayrshire has coped less well with the upheavals of the late 1970s and 1980s than other locations. Thus, Ayrshire is not seen as well placed to absorb the alleged employment consequences of changing lowlands policy. The airports issue can be construed as the focal point for wider anxieties about where Ayrshire is going in the 1990's and what is required to engender improvements in the competitiveness of the area. Lanarkshire is viewed to have out-performed Ayrshire partly because of its location at the head of the main trunk road to the South. Emphasis in Ayrshire is on enhancing the areas prospects through strategic investments in roads, thus eliminating the perception that the area is a remote location in Scottish terms. These requests have fallen on deaf ears. Thus, if a change in airports policy is necessary to enhance national, regional and urban strategies and facilitate faster development, it is not surprising that there is hostility in Ayrshire given that the former county perceives itself and is perceived to be relatively poorly located and unlikely to derive the same degree of positive benefit from the change.

6. THE 1989 REVIEW

In January 1989, the Chairman of BAA, Sir Nonnan Payne, wrote to the Transport Secretary requesting that a review of lowlands policy be undertaken. In this statement BAA argued that

"although Prestwick Airport's financial position is not good, this is not the main reason for calling for the review. In spite of all the magnificent effort by BAA staff and others to make it a success, Prestwick would appear not to have established itself with the air transport industry or with the Scottish community as a future gateway for Scotland."

The statement concluded that

"a review is necessary to determine whether current policy is best for Scotland, and should be carried out as soon as possible to end the uncertainty inherent in the present situation." (BAA (1989))

This statement provoked a considerable reaction in Scottish circles and led to the reconstitution of various pressure groups intent on lobbying Government on one or other aspect of the airports issue. A prolonged and heated public debate ensued during which many of the salient issues were ventilated. In May 1989 the Transport Secretary announced that no review was called for. In a supplementary statement the Scottish Secretary reiterated the view that Prestwick could succeed in its transatlantic gateway role and announced urgent discussions with interested parties to consider the upgrading of road and rail facilities at the airport. It should be noted that this urgency emerged a full 8 years after these measures had been recommended by the Select Committee on Scottish Affairs and 4 years after the Government had endorsed such provision in the 1985 White Paper.

The decision to sustain Prestwick's transatlantic monopoly provoked a furious reaction within the airline industry and Scottish business community. During the parliamentary recess, a concerted attempt took place to change this decision. One airline, Air 2000, pressed on with a court action concerning the traffic distribution rules whilst another, United Airlines, made application to the US authorities for a licence to operate between Glasgow and two US destinations. Other carriers
made it known that, whilst they regarded Prestwick as unsuitable, operations from Glasgow would merit serious consideration. The Scottish business community made representations at the highest level with the case for a review being aired with considerable force. In September 1989 the Government bowed to this pressure and announced that a 'short sharp review' was to be commissioned and the Department of Transport has subsequently issued a consultative document, (DT (1989)). The document was issued on the 28th of September and calls for submissions to be addressed to the Department of Transport by 29th November 1989. Copies of submissions should also be sent to the Scottish Office although their role in the decision making process is not specified. The document sets out that

"the aim of the review is to determine whether the Government should maintain a special policy in relation to Scottish Airports or adopt the less restrictive approach which applies more generally in the UK." (op cit, para 1)

The document next embarks on what we view to be a mildly worrying course. The "long-standing Scottish Lowland Airports policy" is briefly set out and the nature of the "special permission" under which certain charter services currently use Glasgow and Edinburgh is outlined. The document next complains that "what had been envisaged as a concession, permitting Prestwick flights to serve the other two Lowland Airports if needed, was now represented as a bureaucratic additional requirement."(ibid,para4) The document then proceeds by demonstrating the importance to the Department of Transport of being empowered to effect traffic distribution rules for Scotland and outlines two broad policy options.

"(a) adopt a market driven policy whereby, subject to the licences they hold, international air service agreements, and to the physical capabilities of the airports, airlines can fly directly to and from whichever Scottish Lowland Airport best suits their and their customers needs;

or

(b) re-establish Prestwick as the sole Lowland Airport open to long haul intercontinental services, banning such flights to or from Edinburgh and Glasgow, irrespective of them stopping at Prestwick en route." (ibid, para 8)

Few people in Scotland would deny that an elected UK government has the right to determine policy and construct whatever distribution rules they see fit. The issue is how these rules stand in relation to other policy objectives. Thus, it is valid to ask whether the "long-standing" lowland policy facilitates the attainment of the goals of Gateway International Airports which are "to provide a wide range and frequency of international services including inter-continental services." (Cmd 9542, para 6.25) In addition, we argue above that Scotland's airports are essentially regional airports. As was set out in Section 2, regional airports are obliged by Government to "meet the maximum demand they can attract" and to play a role in relieving pressure on capacity in the South-East." (ibid, paras 3.1,6.1) In this light, it is legitimate to enquire whether splitting a Gateway airport over two sites allows these objectives to be attained and whether this actually does result in complementary roles for Lowlands airports. Our analysis suggests that there are clear grounds for doubt. Thus, we are disappointed that the Department of Transport have not asked, directly and explicitly, for observations on whether the "long-standing Scottish Lowlands Airports policy" actually works.

Complaints of opportunism concerning the exploitation of the concessions to other Lowland sites indicate a strange understanding of the more liberal air transport environment which Government has been intent in promoting. In particular, this does not sit well with the pressures such a regime imposes on carriers. In Section 2, we set out the central role that Government accords to the commercial decisions of airlines whilst in Section 3 we indicated the prominent role that carriers have played in challenging the view that Glasgow and Edinburgh could not house transatlantic flights because of alleged infrastructure costs and revenue penalties. In Section 4 we outlined how the 1985 review finally accepted that these arguments were discredited and clarified the benefits to the airline industry of changing the status quo. In liberalised air transport markets, private risk-takers commit capital to the purchase of aircraft in order to sell air services to consumers. These agents will naturally wish to operate in the circumstances in which they can maximise profits. Indeed, the Government endorses
such commercial decisions as the determining factor in the growth of regional airports. In the more liberal world that Government seeks to engender, restrictions and traffic distribution rules become both unpopular and untenable in the eyes of entrepreneurs and airline executives when they imply that carriers must operate less profitably than might otherwise be the case. The 1985 review sent clear signals to agents that there were economic and financial benefits accompanying change and it should surprise no one that profit maximising risk takers seek every means of securing a more advantageous set of circumstances. We regard such outcomes as an inevitable reaction to measures which run contrary to the grain of the market situation.

A further indication that Government may be failing to appreciate the implications of their general liberal stance for Scotland is contained in "the conditions identified as the trigger for a review". (DT (1989), para 6) In this passage, Government refers to the 1985 White Paper and the caveat that Prestwick's performance required to improve by 1989. It concludes that the performance of Prestwick had improved sufficiently to persuade Government to continue with the existing policy. We suggest that the financial performance of Prestwick is wholly irrelevant to the considerable number of airlines who hold licences to operate at that airport and have insisted that they have no intention of operating on that basis. The key issue is not of whether Prestwick's performance has improved. Given present trends it may well be possible to nudge the airport into the black. The main emphasis should be on whether free enterprise carriers would provide a greater level of service and so satisfy the broader goals of airports policy. If the airport, as part of the Scottish system, cannot attract to Scotland the maximum feasible range of transatlantic services because carriers do not foresee sufficient returns then we would argue the system is failing to serve Scotland's needs and interests in a much wider sense. In effect, Government do not have two options. The choice lies between a "market driven" approach which is in line with the philosophy of current air transport policy and the re-imposition of controls and limitations which is contrary to the stance taken in this and other areas. The scope of the consultative exercise is sufficient to allow this conclusion to be demonstrated.

The consultation document set out that "given the breadth of opinion in Scotland on the existing policy, the Secretary of State thinks it important first to establish by a more general consultation whether there are strong arguments for a less directive policy". (op cit, para 7)

The document outlines five broad areas on which the Secretary of State "would find comment particularly valuable." (ibid, para 9) These are the effect on the Scottish economy, the effect on the consumer, environmental implications, the effect on airports and the effect on airlines. It is up to Scottish interests and institutions to set out clearly the benefits of change and the costs of maintaining the status quo. We conclude this section by highlighting the issues which appear important in this respect. This will serve both as a summation of the argument set out in earlier sections and provide a guide to how certain factors have changed since the last review.

(i) The effect on airlines The consultative document sets out that "the Secretary of State is keen to see how airlines envisage future services at the three airports under the two broad options mentioned, what advantages or disadvantages they perceive in operating from each of the airports, (eg interlining) and how they see the options fitting in with their existing/potential operations elsewhere in the UK." (ibid, para 14)

In general terms, it can be confidently expected that airlines will be favourably disposed towards a reform of lowland policy. The major implication of our analysis is that some proportion of current Anglo-Scottish business will be diverted to direct transatlantic flights which fulfils the objectives set for both Gateway and regional airports. However, both the current operators on that route seem intent on operating transatlantic services from Glasgow. The numbers of Scottish transatlantic passengers interlining at other hubs is small and should not penalise the short haul European services significantly. The logic of liberalisation would suggest that these factors should not be relevant. If a new competitive situation opens up, substitution effects will be based on consumers rational preferences. Thus, if consumers change behaviour it will be because
it is perceived to increase utility. A liberal approach is grounded upon notions of consumer sovereignty. However, Mr Parkinson is obliged to consider the broader UK interest.

The passage makes oblique reference to a range of issues which are the proper concern of the Transport Ministry. The use of the phrase "existing/potential operations" may relate to the current re-negotiation of the Bermuda 2 ASA. The existing agreement precludes US airlines serving Manchester and other regional centres. The improvements in aircraft technology set out above transform the prospects for other regional airports such as Birmingham which has long cherished Gateway Status. The UK is seeking 'onward carrier rights' which would allow UK airlines greater access to the US market. The Secretary of State will be concerned with what notified developments might imply for the these negotiations and for UK civil aviation interests. Civil Aviation is traditionally a sector which exhibits a positive trade balance. In recent years, the net earnings made by overseas carriers in the UK market have been growing more rapidly than the net flow to the UK sector derived from overseas activity. In consequence, the overall balance in the civil aviation sector has moved into the red by £414m in 1986 and £494m in 1987. The Transport Minister is duty bound to reflect upon how the fluid situation in the North American market is likely to be resolved and establish the implications for UK interests.

US carriers are permitted to serve Scotland. Thus, we do not detect any substantial concession to US interests following a change in Lowland policy. However, the opening up of Manchester and Birmingham would reduce demand in the congested South-East through affording passengers in this catchment less resource intensive journeys. The difficulty for the Ministry of Transport relates to the competitive advantage conferred on US carriers in this event. These airports would act as spokes in the hub systems at major US airports. Long haul carriers at these hubs are well entrenched and typically provide a strong short haul network on which to base the marketing of inter-continental services. This implies the existence of a strong core business which would govern the level and frequency of profitable service. The Transport Ministry correctly questions whether this affords too strong a position to US carriers in terms of these relatively thin markets. UK airlines do not have the same scale of domestic market potential. Although Manchester affects to be a North European hub, the European market is characterised by a multitude of North American entry points, a procession of national carriers operating from domestic hubs and the requisite number of separate ASA's. UK operators seeking to build up interlining business at Manchester face a fundamentally more difficult task than US carriers who operate in a single domestic market. Thus, the Transport Ministry has correctly and properly refused to open up English regional centres without some redress of the demonstrable competitive imbalance in the form of greater access to the US market by UK carriers.

If these issues are resolved, Manchester will tend to become relatively more attractive within it's catchment as the range and frequency of US services increases. UAL Vice President, Mr David Coltman, in launching a bid for incenices from Glasgow to two major US hubs, stressed the benefits to the Midlands market of interlining at Glasgow as compared with the the journey via the congested South-East system or the drive to Manchester. This is based upon UAL's ability to offer a multi stage trip to any major US destination and implies considerable marketing effort in Midlands markets. The further liberalisation of the English regions would circumscribe the ability of the Scottish system to compete in this catchment. However, the view expressed in this paper is not based on grandiose assumptions about interlining activity. The argument remains that, given the demand in the Scottish market, the broader Scottish economic interest dictates a requirement to maximise the level of direct services in order to accommodate existing urban and regional programmes and industrial strategies. Interlining effects would constitute a bonus to the Scottish system.

It would serve Scotland's interests particularly well to be part of UAL's emerging global network and it is fortunate that the existing Bermuda 2 agreement affords this possibility without wider implications. At
present, North American carriers dominate the Scottish transatlantic market. A policy of fewer restrictions would engender a strong British presence where none exists currently. BA have made it evident that they intend to operate from Glasgow and independents have shown interest. The exact situation vis-a-vis BA and UAL depends on whether BA succeeds in gaining a 15% stake in the control of the company. In this situation it is reasonable to conclude that there would be competitive implications in these two related carriers operating in this relatively thin market. It can be suggested that BA might wish to operate the long haul spokes into UAL’s extensive hub networks.

We view that there are no major implications for wider UK civil aviation interests in altering Lowland policy. However the conclusions of the Bermuda 2 negotiations and the proposed BA-UAL tie-up present modest implications for the nature of the services which may emerge. The argument over whether significant hub effects may or may not result is not central to the wider case for reform. The proposed change is certain to engender a UK presence in a market dominated by North American carriers. A careful examination the change in passenger flows may indicate a slight but favourable effect on the balance of trade in the civil aviation sector. Carriers wish the opportunity of cultivating the Scottish market from Edinburgh and Glasgow. It would be inconsistent with the other objectives and underlying philosophy of UK air transport policy to deny such overtures.

(ii) The effect on airports. The consultative document sets out that “the practical capability of the airports to handle long haul intercontinental traffic will be a factor in the speed with which any change in policy might take effect. There would also be investment and employment consequences for BAA and others, both at the airport and in its immediate vicinity. The Secretary of State will also wish to have advice on these matters including a summary of the present and possible future situation on terminals, runway capacity and air traffic control, together with estimates of demand capacity and financial implications.”(op cit, para 13)

This passage may be seen by some as an opportunity to admit into evidence the discredited view of inflated infrastructural requirements at other sites and runway enforced penalties on revenue in the event of change. In section 4, we conclude that there have been no such major implications for over ten years. Although it is for BAA to comment fully, the current expenditure implications in terms of Glasgow appear minimal. BA currently plan a major expansion in Glasgow’s terminal capacity on the basis of its present short haul role. The marginal cost of incorporating a largely twin engine transatlantic service is likely to prove small given the popularity of this technology on short haul routes. A strong case exists for providing a rail link to Glasgow Airport which is justified without reference to changes in Lowland policy. We expect that it will prove impossible to argue against change on the basis of additional infrastructural requirements. In addition, unemployed land and labour is manifest around Abbotsinch and there are no evident constraints in accommodating possible spin-offs. We will refer further to such matters in the discussion of the effect on the Scottish economy.

Since requesting a review, BAA have stressed consistently that the runway at Prestwick will remain operational to support the burgeoning non passenger activity. The critical issue relates to whether the terminal can be utilised. The outlook for air transport has improved considerably since the 1985 review. Table 4 compares the latest BAA forecasts of Scottish demand with those which underpinned the analysis of the Ridley Review. This data indicates that the 1984 forecasts have turned out to be pessimistic. This is not uncommon with industrial forecasts which are constructed at the bottom of a cycle and similar criticisms can be levelled at projections of steel, coal and manufacturing output undertaken in this period. The improvement in demand evident in the latter part of the decade has improved the financial position of all airports in the Scottish system. Indeed, after allowing for changes in accounting convention, there has been an improvement in Prestwick’s results. Despite the setback occasioned by the failure of Highland Express in 1987, the airport has succeeded in expanding demand and reducing losses. As set out above, we view the
financial position of Prestwick as a side issue. It may well be possible to nudge the airport into the black on the basis of projected trends. However, the airport operates in circumstances in which it cannot deliver the feasible maximum range of long haul services. In short, it cannot serve Scottish needs and interests.

These forecasts give rise to the possibility that Prestwick could flourish in another role. However, before embarking upon such discussions, a key factor must be clearly stated. BAA is now a public limited company whose objective is to maximise profits subject to constraints imposed by Government. It requires to raise capital for investments either in the markets or from retained earnings and must satisfy its owners as to the commercial viability of development plans. The advent of a limited open skies policy for Scotland implies that airports compete for certain aspects of business. In 1985, demand was such that the abandonment of Prestwick could be plausibly entertained. However, it should be noted that no detailed analysis of the problems of accommodating Prestwick's passenger services on other sites was undertaken by the working party. Demand at all Scottish airports peaks during the summer months. Thus examining annual throughput and comparing this with annual terminal capacity is likely to be misleading because demand is not evenly distributed throughout the year. This implies that annual capacity within the Scottish system must inevitably be higher than annual demand. In addition, short haul scheduled services tend to use early morning and early evening slots as do certain scheduled transatlantic flights. This again implies the need for a level of terminal capacity above that implied by average figures. These observations can be employed to suggest that BAA will need its Prestwick terminal and that charter flights could be diverted to that site. There are 2 possible problems with this approach. First, BAA have embarked upon an expansion of terminal facilities at Glasgow. Due to the probability that lowlands policy may change, the exact nature, timing and extent of this development has not been clearly specified. Second, it remains to be seen whether inclusive tour and charter operators could be persuaded to base operations in Ayrshire. It is our view that BAA could eliminate the need for Prestwick's terminal through a suitably scaled and phased expansion at other sites. The question remains as to whether this course would be in the best interests of BAA's shareholders. The forthcoming review must establish whether Prestwick could develop in a charter capacity.

Although an open skies policy implies competition between airports for available business, the reality is that Prestwick cannot compete in the scheduled service arena. If BAA are to continue to operate the Prestwick terminal it will be on the basis of a commercially viable strategy based upon specialisation. Ayrshire interests are preparing to bid for Prestwick airport and wish to use the terminal in a charter role. BAA have indicated that Prestwick is not for sale. This development places pressure on BAA to examine this option fully, demonstrate whether a charter centre is possible and establish whether it is a financially attractive solution. The possibility exists that a charter centre may be possible at Prestwick but that BAA's preferred financial option would be to rationalise at two terminals. How Government react in this situation will prove most instructive. Thus, although developing a charter centre at Prestwick would go some way towards amicably resolving the lowlands airports issue, it is unclear, ex ante, that this option will emerge favourably from Scottish Airports calculations. In terms of cargo, one must account for the certainty that the runway at Prestwick will be retained. In this event, the effects upon cargo operators at Prestwick will be restricted to the cost penalties deriving from the cargo payloads on passenger flights being diverted to other sites. The exact implications remain to be fully quantified. However, an increase in cargo tonnage carried by dedicated cargo flights in conjunction with recent developments by TNT and Federal Express have fostered a view that Prestwick could evolve as a specialised cargo centre. The review procedure serves as an ideal opportunity for examining this proposition,
identifying opportunities and constraints and clarifying the resource inputs required to facilitate such an eventuality. Likely increases at other sites must likewise be established and the infrastructural implications analysed.

The consultation document sets out that the Transport Secretary does not envisage that a persuasive case exists for the "construction of yet another airport in a new location" (op cit, para 8). In the short run this is certainly correct. If one examines the BAA forecasts to the year 2005 and sets these against current and projected capacity, it becomes apparent that consideration of further terminal capacity will prove necessary towards the middle part of the next decade. By that point, both Glasgow and Edinburgh are likely to have expanded to an annual terminal capacity of 8-9 million passengers. Further expansion at these sites is likely to prove relatively costly. It is at this point that notions of a single central airport will re-emerge with greater force. The case for such development may be undermined if aviation markets react to mounting congestion in European airspace by decanting activity to peripheral hubs. In our view, such matters merit serious consideration but are not vital to the present exercise.

Since the Conservatives came to power, liberalisation has been employed to further broad air transport goals. Whilst this has led to tensions in all regions, it has completely undermined lowland policy objectives. In the Scottish context, Government must take stock of whether artificial restrictions either work or serve broader objectives. The forthcoming review is unlikely to discover any good reason why an open skies policy cannot and should not be instituted in respect of North American services. The additional investment and net employment consequences appear minimal. Clearly, the exact computation depends upon whether Prestwick can develop in a charter capacity. As implied above, the peaked nature of Scottish demand may well imply a short term role for Prestwick until the completion of the terminal capacity at Abbotsinch. This may give Ayrshire interests the opportunity to forge a future in the European charter market.

(iii) Environmental implications The consultative document sets out that "changes in the use of airports occur constantly, some with benefit to the environment around them, some making new demands which have to be evaluated carefully against the benefits obtained from the change. In this case, the Secretary of State will wish to know what effects on noise levels, and on road and rail infrastructure, and eg on housing developments may be expected over the next few years under each of the two broad options." (op cit, para 12)

In section 4, we indicated that the environmental effects of transferring transatlantic flights to other centres would impose less of a reduction in noise levels than might otherwise be the case. The expansion of terminal capacity at Glasgow implies increased ATM's and greater environmental disturbance. This is a fait accompli which will result on the basis of present policies. The relevant issue, in this respect, is the additional noise generated by the transference of Prestwick business to other Lowland airports and any stimulation to activity following change. It is not clear how this would be distributed between Glasgow and Edinburgh. In addition, any decanting of charters to the Ayrshire location would generate an offsetting reduction in disturbance at Abbotsinch and Turnhouse.

Safety was not an issue which featured in previous reviews and is not referred to in the present document. In recent times there has been a marked loss of public confidence in the reliability of mechanical systems. This general concern has focused largely upon nuclear power generation and transport networks. In these contexts, a series of accidents and incidents have illustrated graphically the vulnerability of both consumers and the wider public to random mechanical and structural failure, human error and craven malice. Thus air transport safety is not an issue which the review procedure can totally ignore. In terms of the Scottish question, the pro-Prestwick lobby seem set to indulge in an concerted attempt to heighten public anxiety. In recent months 3 related points have surfaced. First, attention has been drawn to the enhanced security measures imposed upon US carriers following the Lockerbie disaster. These are argued to pose
serious problems for either Glasgow or Edinburgh because they imply increased congestion and delay at these already over-stretched facilities. This is a weak argument which ignores proposed capital expenditure plans which could be suitably amended at low marginal cost. Second, there has been a sustained attempt to counter the loss of locational advantage at Prestwick by calling into question the safety of the new extended range of twin engined jets on transatlantic routes. The changes to the operational procedures governing such flights were instituted 3 years ago. This decision was made by agencies charged, inter alia, with the safety of air travellers. Consequently, such services are more tightly regulated and supervised than those employing four engine craft. However, operators at Prestwick either currently use or plan to introduce this technology on North American routes. It is difficult to see how such arguments can assist the Prestwick case. The third strand questions the suitability of Glasgow as a site and seeks to re-admit the discredited view that other Scottish runways are too short to support viable transatlantic operations. Proposed new safety measures are argued to effectively reduce runway lengths by allowing more time to abort take-off once the appropriate velocity has been attained. A shorter effective runway is suggested to dictate payload reductions which render transatlantic services uneconomic. This is disputed by carriers who have examined the most restrictive scenarios and conclude that the likely effect of these measures on revenue would be small. Again this argument appears to have little to commend it.

The Government must act to avoid an unseemly and potentially damaging controversy which can only serve to undermine what is almost universally regarded as a safe and acceptable airport.

The artificial partition of Scotland's Category A airport across two sites causes a competitive situation which results in fewer direct transatlantic services than might otherwise occur. Rectifying this anomaly would present a stronger basis for the pursuit of a wider set of regeneration strategies. The emphasis of these programmes favours a pattern of labour demand biased in favour of professional and skilled occupations. As indicated in Section 4 these middle class enclaves underneath the Glasgow flightpath stand to gain most from such developments. These potential long run benefits should be employed to offset the marginal increases in disturbance which reform of Lowland airports policy may occasion.

(iv) The effect on consumers The consultative document sets out the issues thus. "The Government's general concern in its aviation policy is to create and maintain a structure which will produce the greatest long term benefit for users of air services, both passengers and senders/recipients of cargo. The Secretary of State will therefore be interested to see respondents include an assessment in these terms of whatever preference for Scottish airports policy they are putting forward."(op cit, para 11)

Evidence on the size and likely trend in transatlantic markets is limited although the review procedure will serve to establish such matters fully. Economic theory would suggest that the removal of airport restrictions in central Scotland would engender a higher level of direct service based at the location at which demand exists. The indirect competition between Prestwick and other lowland sites for North American business prevents this from happening at the moment. Following reform, the market will be subject to a greater level of competition than at present. In the short run, an over-provision could emerge as carriers attempt to consolidate a market position. In the medium term the level of service will converge upon that which is commercially justified. The market will be subject to entry
and to competition from other hubs and this will prevent the emergence of excess profits. Thus there is every indication that removal of the Lowland distribution rules will result in a greater number of competitively priced seats than at present.

There is a broad consensus in Scotland concerning the importance of creating the proper basis for wealth creation. Scottish interests would argue that the needs of those engaged in trade and commerce, including foreign tourists, should be afforded a heavy weight in the decision-making process. It is the value added generated in Scotland which underpins the burgeoning demand for foreign holidays by the wider public. Thus, any additional resource costs implied by the possible diversion of large numbers of holidaymakers to Prestwick should not be afforded the same weight as the resource savings which accrue to Scottish industry and commerce. In our view, "the greatest long run benefit for the users of air services " is facilitated by the emergence of the flight provision most in line with the needs of wealth creators.

It should be noted that there is a distinct possibility that the Secretary of State may place emphasis upon the volume of responses received for each option. Given this, it is of paramount importance that Scottish interests make their views known. The Transport Secretary should discount the survey of relevant opinion undertaken by the Scottish Office because this appears to have bypassed a large number of key players who cannot recall any approach. Recent surveys of opinion indicate that an overwhelming proportion of those using Glasgow and Edinburgh airports favour the removal of restrictions. We are confident that this will be pressed upon Mr. Parkinson during the review process.

(v) The effect on the Scottish economy

The consultative document sets out that "it has been alleged by some Scottish business and tourism interests that the existing Lowland Airports policy has held back growth in the Scottish economy, and that the freedom of airliners to mount long haul inter-continental services from the Scottish Lowland Airport of their choice would produce substantial improvement. The Secretary of State would be interested to see the detailed arguments underlying this view, and the associated facts, figures and projections substantiating it. Others might wish to include an assessment of the employment implications, both local to the airports concerned and more widely." (op cit, para 10)

The argument developed in previous sections relates to the role of air services in enhancing the attractiveness of the Scottish locational package and the ability of improved provision to expedite a wider set of urban, regional and sectoral strategies. As indicated in Sections 3 and 4, such representations were ignored in the 1985 review. Thus, reference to these issues is both welcome and proper. Location decisions are complex and we do not view it as appropriate to attempt to quantify the growth penalty implied by one element in the overall package. We suggest that this would be an unreasonable request. The 1985 White Paper set great store in highlighting the capital and other provisions designed to promote the development of Manchester International Airport. As indicated in Section 5, North West interests take a strategic view of the role of this facility in regional development. This approach receives specific endorsement in Cmd 9542, in which it is suggested that "thriving regional airports also provide direct and indirect employment in the region and benefit local industry by providing convenient air services for businessmen "and that "an airport also creates employment which will give rise to a demand for additional housing and other facilities and services. The beneficial consequences of such a development are likely to be widespread." (Cmd 9542, paras 6.1 and 2.5) CMPD (1986) sets out how such induced effects are inherently "unquantifiable." It is our clear impression that the evolution of airport in the North West and South East is based, inter alia, on strategic considerations relating to the service and stimulation of the indigenous industrial and commercial base. The construction of a fifth terminal at Heathrow and the continued expansion of Manchester would both assume an enhancement or consolidation of the locational features of the respective catchment areas. One may validly enquire why Scotland requires to be any different. The role of air services is in expansion and inward investment decisions was set out in Section 3. In our view, if the removal of restrictions in Lowland Scotland results in a greater and more acceptable provision of service then Scotland's...
locaional competitiveness is enhanced and wider strategies accommodated. The future is unknowable and it would be unwise to attempt to quantify these effects precisely. What will be made evident to Mr Parkinson is the overwhelming judgement that reform of lowlands policy will enhance growth potential.

The review exercise will present evidence that the current policy regime results in business travellers eschewing Prestwick in favour of South East and other hubs. This is solely because Prestwick does not afford the scope and frequency required by the majority of such users. From such data, the opportunity costs of this practice can be derived and this would serve as one measure of the penalty implied by a Scottish location. This will vary by area and type of activity and the relative importance to different sectors and localities can be deduced. The requirement of those sectors specified in urban and industrial programmes will clearly be of great interest to the Transport Secretary. Our earlier summary points out that it is in these spheres that the need for access to international air services is at a premium.

Tourism is a key national industry in both Scottish and UK terms. Hence, Cmd 9542 sets out that "civil aviation is vital to our national prosperity.... Nearly two thirds of foreign tourists to the UK travel by air and tourism is one of our most successful growth industries." The bulk of Prestwick's business is tourist related and there is not one shred of evidence to suggest that throughputs would reduce following a change in Lowland policy. There are clear grounds for suggesting that Prestwick does not attract the marketing resources which other Lowland destinations would command. The aforementioned UAL proposal suggests that many US travellers are subject to a level of product inertia and tend to stick with a given marketing system, usually associated with an airline. Thus a significant proportion of US travellers choose from a set of destinations dictated by the route network of US airlines. In the case of UAL, Scotland is not one of them. In addition, significant volumes of US tourist visitors to Scotland interline at the South-East system or elsewhere. For some, this reflects a two stage holiday, for others, it reflects the marketing system chosen directly or indirectly to organise the trip. Estimates of foregone Scottish tourist revenue through such effects can be obtained. The beneficial effects of change depend on the particular outcome in terms of US carriers and must be evaluated with reference to the potential which various US carriers present. It would be our hypothesis that opening up other Lowland airports would hook direct Scottish destinations into a greater number of US marketing systems than at present and would reduce unwanted interlining at non Scottish hubs and present increased injections of tourist revenues into the economy.

In Section 5, the net impact of change in Lowland policy in terms of direct, airport related and indirect employment was demonstrated to have been positive in 1985. This is based upon the relatively small negative effect in Ayrshire detected by the working party and the estimates submitted in evidence by Glasgow District Council but subsequently ignored. Given improved levels of transatlantic activity, the net effect is likely to be greater. However, as indicated above, the improved air transport market affords the possibility that Prestwick's terminal may survive. This new scenario could result in positive employment effects at all Lowland sites. Thus, the review must examine what can emerge at Prestwick in the short and medium term. An assessment must be made of how the site can be expanded to provide employment in the area. Policymakers could do worse than consider the approach enunciated by the Scottish Select Committee in 1982. A package of feasible business opportunities should be identified and measures taken to co-ordinate the inputs of the parties concerned.

In the previous section we set out the view that resistance to change at Prestwick is grounded upon a wider set of fears and anxieties about the performance and prospects for the Ayrshire economy. One possible interpretation of the trend evident in the 1980's is that Ayrshire has the potential to develop further as a manufacturing centre. It is our view that aerospace developments at Prestwick Airport would be vital to this process. Such expansion implies a net supply of highly skilled engineers and technicians who do not exist at the moment. It is evident that many young people joined Ayrshire's labour market in the late 1970's and 1980's and were faced with few opportunities to obtain skills on which to base careers and plan futures. This cohort present the potential from which a prosperous and high value added local economy can be derived in the 1990's. At present it is far from obvious that the impending Ayrshire Enterprise body can unlock this
potential on the basis of national programmes targeting limited training opportunities on the long term unemployed. Schemes which allocate training opportunities to where the greatest returns are evident are clearly needed. This implies some form of adult apprenticeship offered to this cohort irrespective of their present employed status. This would create vacancies, stimulate local labour markets and eventually remove people from the dole queues.

Another formidable constraint on development is the poor state of the road connections to and from Ayrshire. If Prestwick develops as a significant charter, cargo and industrial centre, this will place intolerable pressure on the A737, A77 and A76 roads. In strategic terms the case for upgrading these roads is unanswerable. In particular, improvements to the A76 would open up Ayrshire to development pressure from the South and provide better scope for attracting activity to the depressed Cumnock and Doon Valley area.

The certain loss of transatlantic business will cause understandable upset and anger in Ayrshire. In our view such activity presents low growth potential in the Prestwick context. These services can be used to better effect at other sites and the whole central belt will ultimately benefit. With feasible and fully resourced strategies Ayrshire can share in these opportunities. Changing Lowlands policy will provide a better basis for all Scottish interest to work to improve, develop and attract wealth creating activity. There are no easy paths to prosperity. Success requires to be earned every day through the continued application of hard work and ingenuity. This applies in Edinburgh, in Glasgow and in Ayrshire. The reform of Scottish Lowland Airports policy will complement these efforts. In our view, given appropriate support from Government and the talents of the Scottish people, history may well record that the long overdue reform of Lowlands policy was good for Scotland and good for Ayrshire.
Table 1 Analysis of shares of UK airport activity

<table>
<thead>
<tr>
<th>Year</th>
<th>Total ATM (thousand)</th>
<th>SE</th>
<th>Man</th>
<th>Lowland Scotland</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>759</td>
<td>46.4</td>
<td>6.2</td>
<td>8.7</td>
</tr>
<tr>
<td>1979</td>
<td>903</td>
<td>46.5</td>
<td>5.5</td>
<td>9.5</td>
</tr>
<tr>
<td>1981</td>
<td>927</td>
<td>44.0</td>
<td>6.6</td>
<td>9.4</td>
</tr>
<tr>
<td>1983</td>
<td>1019</td>
<td>43.2</td>
<td>6.3</td>
<td>8.5</td>
</tr>
<tr>
<td>1985</td>
<td>1087</td>
<td>43.8</td>
<td>6.6</td>
<td>8.4</td>
</tr>
<tr>
<td>1987</td>
<td>1193</td>
<td>44.9</td>
<td>8.0</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Shares

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Passenger (million)</th>
<th>SE</th>
<th>Man</th>
<th>Lowland Scotland</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>45.9</td>
<td>70.0</td>
<td>6.1</td>
<td>7.0</td>
</tr>
<tr>
<td>1979</td>
<td>56.6</td>
<td>69.3</td>
<td>6.2</td>
<td>6.2</td>
</tr>
<tr>
<td>1981</td>
<td>57.8</td>
<td>68.2</td>
<td>8.2</td>
<td>6.4</td>
</tr>
<tr>
<td>1983</td>
<td>61.1</td>
<td>67.8</td>
<td>8.3</td>
<td>6.4</td>
</tr>
<tr>
<td>1985</td>
<td>70.4</td>
<td>68.6</td>
<td>8.7</td>
<td>6.4</td>
</tr>
<tr>
<td>1987</td>
<td>86.0</td>
<td>66.6</td>
<td>10.0</td>
<td>6.4</td>
</tr>
</tbody>
</table>

Shares

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Cargo (m tonnes)</th>
<th>SE</th>
<th>Man</th>
<th>Lowland Scotland</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>705</td>
<td>80.4</td>
<td>4.9</td>
<td>5.0</td>
</tr>
<tr>
<td>1979</td>
<td>795</td>
<td>79.5</td>
<td>2.9</td>
<td>4.8</td>
</tr>
<tr>
<td>1981</td>
<td>726</td>
<td>81.7</td>
<td>3.9</td>
<td>4.2</td>
</tr>
<tr>
<td>1983</td>
<td>726</td>
<td>83.2</td>
<td>3.4</td>
<td>3.1</td>
</tr>
<tr>
<td>1985</td>
<td>850</td>
<td>83.0</td>
<td>3.8</td>
<td>2.9</td>
</tr>
<tr>
<td>1987</td>
<td>975</td>
<td>80.8</td>
<td>6.7</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Source: CAA, Annual Statistics, BAA Annual Report and Accounts

Table 2 Origin and destination of passengers - analysis of shares of BAA transatlantic market

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BAA</td>
<td>5465.8</td>
<td>6741.8</td>
<td>7058.7</td>
<td>6630.6</td>
<td>8311.9</td>
<td>9228.1</td>
</tr>
<tr>
<td>Scotland</td>
<td>322.5</td>
<td>378.1</td>
<td>325.4</td>
<td>240.8</td>
<td>224.9</td>
<td>287.8</td>
</tr>
<tr>
<td>Scottish share %</td>
<td>5.9</td>
<td>5.6</td>
<td>4.6</td>
<td>3.5</td>
<td>2.7</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Source: BAA Annual Accounts
Table 3 Strathclyde Region

<table>
<thead>
<tr>
<th></th>
<th>Share of employment 1981</th>
<th>Share of redundancies 1982-83</th>
<th>% change in employment 1981-84</th>
<th>Share of employment 1984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ayrshire</td>
<td>13.6</td>
<td>13.4</td>
<td>-6.8</td>
<td>13.4</td>
</tr>
<tr>
<td>Lanarkshire</td>
<td>14.7</td>
<td>21.8</td>
<td>-2.3</td>
<td>15.3</td>
</tr>
<tr>
<td>Glasgow TTHA</td>
<td>62.3</td>
<td>56.1</td>
<td>-6.3</td>
<td>61.9</td>
</tr>
<tr>
<td>City</td>
<td>42.5</td>
<td>40.1</td>
<td>-7.7</td>
<td>41.6</td>
</tr>
<tr>
<td>Outer rim</td>
<td>19.5</td>
<td>16.0</td>
<td>-3.4</td>
<td>20.3</td>
</tr>
<tr>
<td>Inverclyde</td>
<td>4.1</td>
<td>5.7</td>
<td>-7.7</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Source: Census of Employment, Strathclyde Economic Trends

Table 4a

<table>
<thead>
<tr>
<th></th>
<th>Glasgow</th>
<th>Edinburgh</th>
<th>Prestwick</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985 review</td>
<td></td>
<td></td>
<td></td>
<td>4,685-4,810</td>
</tr>
<tr>
<td>forecast for 1987</td>
<td>2,920</td>
<td>1,530</td>
<td>235-280</td>
<td>5,501</td>
</tr>
<tr>
<td>Actual 1987</td>
<td>3,400</td>
<td>1,800</td>
<td>304</td>
<td>5,501</td>
</tr>
</tbody>
</table>

Table 4b

|                  | 1985 review | BAA forecasts | FAI estimates |
|                  | forecast for 2000 | for Scottish system | of Lowlands activity |
|                  | 6,715-7,075 | 11,000-13,000 | 8,500-10,500 |

Source: BAA, Department of Transport, 1985
REFERENCES

City of Manchester Planning Department (1986) The economic impact of Manchester International Airport.


Department of Transport (1984) Airport competition policy, Cmnd 9366, October 1984, HMSO.


Gillett, E (1983) Investment in the environment, AUP.


Strathclyde Regional Council Strathclyde Economic Trends, various editions.