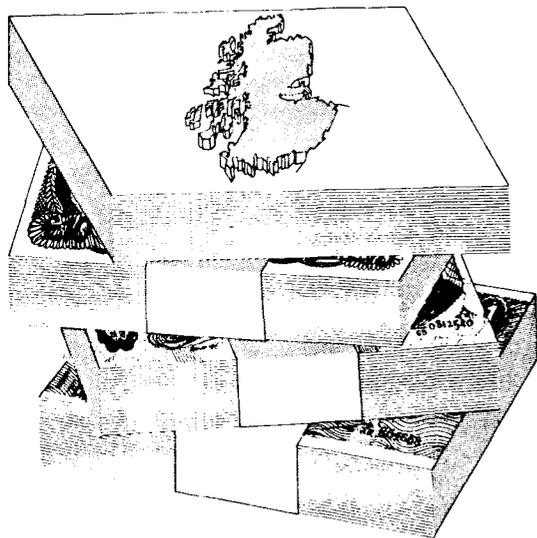


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# The Scottish Economy

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## Industrial Performance



### BUSINESS SURVEYS

The latest CBI Industrial Trends Survey and the Scottish Chambers' Business Survey (SCBS) were carried out between March and April and between April and May respectively. The results of both surveys refer to the first quarter of 1989, against a background of sliding sterling, high interest rates, and rising inflation. It is perhaps not surprising that the SCBS, which was more optimistic than the CBI survey in the last report, reserves a cautious view on the immediate outlook for the Scottish economy, particularly for the manufacturing industry. The CBI survey shows a continuing fall in business confidence for the second consecutive survey.

The SCBS records a significant fall in confidence among manufacturing respondents, from a +12% balance more optimistic in December to a -13% balance. This fall in confidence is underpinned by a static trend in output and evidence of declining orders. The worst affected, as might be expected in the light of present domestic economic conditions, are orders and sales from Scottish and rest of the UK sources. However,

orders from and sales to non-UK sources remain fairly buoyant, but less so than the previous survey. Two explanations for the continuing growth in export orders and sales might be applied here. First, the slide of sterling may have played a positive role. Second, the contraction of domestic demand in the face of high interest rates may have forced companies to switch their activities abroad.

There is still no evidence in the SCBS that Scottish manufacturers' investment intentions have been adversely affected by the steep rise in interest rates. This suggests that part of the external deficit may at least be attributable to imports of investment goods which should hopefully be eventually self-financing.

The CBI survey, which is confined to the Scottish manufacturing industry, continues to hold a less optimistic view on this sector. This is reflected in the reduced balance of firms reporting output and new orders increases over the past four months, as compared with the previous survey. Output growth is expected to slacken further over the next four months, contrary to the case in the SCBS where a marked increase is recorded.

The CBI survey also records a healthy growth of export orders over the past four months. However, this growth seems set to turn, with a net of 1% of firms expecting a reduction in export orders in the next four months. This result is also at odds with that recorded in the SCBS, where a net of 36% of firms expect a rise in the next three months. The loss in confidence indicated in the CBI survey seems to result from the Scottish manufacturers' increasing fear about their price competitiveness in the international market. This fear is indicated by the expectation of a drastic rise in the average costs per unit of output and the average prices at which export orders are booked. It also can be seen that respondents to the CBI survey are more concerned about political and economic conditions abroad than they were in the last survey. Additionally, new evidence from both surveys confirms our previous view that capacity constraints are beginning to bite for some

manufacturing activities. And there are some hints, clearer in the CBI survey than in the SCBS, that the Scottish manufacturers' investment intention is showing signs of a weakening, in spite of the evidence that respondents to both surveys do not consider the cost of financing investment expenditure as a constraint on their plans. The latest 1% further rise in the interest rates on 25 May render the issue of investment intention even more obscured.

As for the employment prospect for the Scottish manufacturing industry, again divergent results arise from the two surveys. The SCBS records a flat trend over the past three months, whilst the CBI survey shows a balance of 5% of firms cutting down employment over the past four months. It is hard to explain how these divergences occur, although it is noted that the CBI survey has a small Scottish sample. However, one unequivocal thing in both surveys is that employment in the Scottish manufacturing industry is expected to be reduced by a balance of respondents in the coming quarter.

The SCBS suggests some divergences in manufacturing fortunes across regions. Respondents from Aberdeen and Dundee are more optimistic about their general business situation than reported in the last survey, whereas respondents from the Glasgow and Edinburgh chambers suffer a marked loss in their business confidence. Although respondents from Glasgow are picking up confidence over the expected trend in sales and orders in the next three months, the immediate employment prospect is still depressing. The less optimistic view on every economic aspect among Edinburgh respondents is going to prevail for some time. To the extent that windfall gains arise from a 50% rise in oil price up to May this year, it is not surprising that Aberdeen respondents are in the most confident mood.

The CBI survey provides additional information on sub-manufacturing activities. The depressing view on the general business situation in the past four months is pervasive among respondents across these activities. Most notable are Chemical, Mechanical, Instrument, Electric and Vehicle Engineering respondents who reversed their business confidence to a substantial extent in the past four months, whilst Textiles respondents remain depressed. However, except these most depressed sub-activities, there are indications of a pick-up in output and especially export orders

for the other sub-activities over the next four months.

Retailing and Wholesaling remain surprisingly buoyant. This is clearly shown in the SCBS, with a substantial increase in the confidence about the general business situation and in the actual trend in total sales, employment and investment intentions. This optimism is going to hold up over all aspects for wholesaling, and over most aspects for retailing except that employment is expected to fall in the next three months.

It is a bit of a surprise to find no indication yet that retail activity in Scotland has been hit by the increase in interest rates. To the extent that house price appreciation and the associated accumulation of non-human wealth stimulate consumption, the impact of increased interest rates on expenditure may be further deferred.

In retailing; a casual inspection of the regional divergence reveals that only respondents from the Glasgow chamber, who carry a large weight in the total returns, claim to be significantly more optimistic about their business prospects. This optimism among Glasgow respondents is going to remain in the next quarter. There seems to be a strong pick-up in confidence among Aberdeen respondents. Dundee and Edinburgh respondents remain depressed in the coming quarter.

In wholesaling, there is also a divergence of fortunes across the regions. Aberdeen respondents are the most optimistic, and remain confident in the next quarter. Dundee respondents, while satisfied with their sales performance and prospects, reserve a cautious view about their employment prospect. Edinburgh respondents are gaining some confidence compared with the last survey, despite the fact that their business situation is still flat. A causal inspection of Glasgow respondents' sales and employment performance and prospects reveals that they are not doing so badly as might be indicated by their disappointment at the general business situation.

The SCBS shows a continuing significant positive optimism among the Construction respondents. The optimism is underpinned by a strong positive trend, both actual and expected, in the growth of orders, sales and employment. The orders come from both the government and the private sectors, with the private orders being the main source.

Capacity utilisation remain uniformly high in all areas. This evidence is consistent with the view that the recent buoyancy of the housing market in Scotland is continuing to feed strongly into the good fortunes of the Construction sector.

A positive balance of Scottish financial respondents report that they increased their advances to the personal sector and particularly to the corporate sector in the first quarter of 1989. The expected trend in advances to the corporate sector is expected to continue in the next quarter, whilst advances to the personal sector are expected to remain moderate. There are indications that the proportion of increased corporate credit used to finance investment, particularly on buildings, is weakening, and is expected to weaken further in the next quarter. And it is clear from the SCBS that credit demand is shifting away from manufacturing and distributive trades to other services. This increased demand for credit from other services is expected to remain strong in the next quarter.

To sum up, both the SCBS and the CBI survey reserve a cautious view about the recent trends in the Scottish economy, though the CBI survey is comparatively more pessimistic on some aspects than the SCBS. Both surveys expect employment in manufacturing to fall in the next quarter. And there are hints of a weakening in manufacturers' investment intentions.

## Primary

### AGRICULTURE AND FORESTRY

the previous issue of this Commentary (March 1989), reference was made to the fall in farm income that occurred in the UK in 1988 (average farm income falling by 25% during that year). Those farmers producing cereals have been most seriously affected, with the majority making losses or zero profit.

The background to this lies in the previous operations of the European Community Agricultural Policy. For many years, support prices have been set (after bargaining between agricultural ministers of EEC member states) at levels which encouraged significant levels of over production. Farm productivity and efficiency has risen dramatically since the beginning of the European Community (EC) but the intention of encouraging resources to move out of farming as productivity

increases has been largely unfulfilled.

Support costs reached levels which eventually became politically unsustainable, and the result has been a period of dramatic cuts in the cost of support; the speed and intensity of these cuts has resulted in hardship in many parts of the agricultural sector. As the general level of support decreases, the specific policy package is being altered, with an increasing emphasis on "social" goals. For example, cattle farmers' income support is undergoing change (from April 1989); the old system of premium payments whereby cattle farms received support that varied depending upon time, demand and quality is now replaced by a single payment per animal, and is limited to 90 animals per farm. This example illustrates one of the problems of support and other intervention measures; trade-offs can exist between economic efficiency and social objectives. The new policy seems to be aimed at directing support in favour of small farms; but by removing an incentive to produce high quality produce, a reduction in the quality of the produced commodity may result.

While debate is raging within Britain and the EEC on the appropriate level and pattern of support, pressure is mounting from outwith the EEC to move toward complete free trade in agriculture. This has been the proposal recently put to GATT (the General Agreement on Tariffs and Trade) by the "Cairns Group" of (mainly) Southern hemisphere countries. The USA, which supports the proposal, and would like it to be implemented by 2000, refers to this in the fashionable term of the "zero option".

Such a move would depart from the "traditional" belief that farm support and regulation is desirable. Almost certainly, prices would be more volatile and strong adjustment measures would be required. Economic theorists are likely to favour such an option as it would probably result in a move towards a more rational international agricultural pattern of specialisation. Some farmers believe that British climate and experience would put them in a strong comparative position, but whether Scottish climatic and soil quality characteristics would confer a competitive advantage to Scotland is a moot point.

The EC is not likely to pursue the zero option; but a well co-ordinated structure of policies and incentive is required in the absence of a free

market. Many farmers feel the present pattern leaves them in the worst of all worlds, neither allowing efficiency to be rewarded in a free market nor rewarded in a balanced intervention system.

Meanwhile, as EC farm price support reductions inevitably cause hardship in "peripheral" areas of the EC, attention is being directed to what action the EC will take to deal with the problems of rural hardship.

A new EC scheme has been developed for dealing with the transitional problems caused by changes in the Common Agricultural Policy. This scheme, known as the Farm Operational Programme (FOP), is still in its planning stage. As yet the volume of funding it will direct into rural development has not been decided. However, several regions within Scotland are applicants to participate in the scheme, and the Highlands and Islands will be the first beneficiary in Scotland. It is also likely that applications from Borders, southern Highlands and eastern Dumfries and Galloway will be accepted.

In May 1989, at a series of seminars on countryside programmes staged by the Royal Society for the Arts, Sir David Nickson, chairman of the Scottish Development Agency, argued for the need to restructure rural Scotland to "farm for beauty rather than for food". This change would be brought about, he argued, by extending existing provisions (such as the concept of "Environmentally Sensitive Areas") but more importantly by creating a new body - perhaps to be known as Scottish Environment - with wide powers and substantial funding to control landscape and nature conservation activities. Powers should be transferred to this body from those currently held by bodies such as the Countryside Commission for Scotland; and funding would come partly from rechanneling price support finance and partly from the private sector. This move would fit in with the EC's emphasis on using funding to support INCOME (where necessary), rather than farm goods' PRICES. Sir David argued that Scotland's land and landscape is naturally suited for activities other than food production, and that this should be recognised by rural policies for Scotland.

Let us now turn to consider forestry. As time has passed since the changes to the fiscal treatment of forestry, announced in the March 1988 budget,

the trends in forest activity are becoming more visible.

The dominant impact appears to be a significant reduction in new tree planting. This is being reflected in the tree nursery industry. One nursery company, the Forres nursery group, reports having 750,000 young trees left over from the previous year, with over 4 million 3 year old trees surplus to requirements. The managing director of this company claims that the Budget changes "have had a devastating impact on the nursery trade", and feels that the farm woodlands scheme has failed to make any major impact on tree planting to offset the reductions following that budget.

Meanwhile, the Forestry Commission (FC) is also rationalising its nursery sector, with the present seven nurseries being reduced to three by 1991, as the FC's role evolves from one of afforestation to another of harvesting and restocking. The employment losses in this programme will increase the difficulties that rural areas have in maintaining employment opportunities in the absence of other diversification measures.

The second impact of the budget changes appears to be a shift in the pattern of forestry activity; upland planting is now virtually dormant, but more planting is taking place in areas of marginal arable land, particularly in the Scottish Borders and Aberdeenshire. Farmers facing reduced EC support for farm prices are being given a package of incentives to switch land into woodlands (for example, the Woodland Grant Scheme, supplement for planting on higher quality land, and the Set Aside Scheme).

Diversification into woodlands can assist farmers in several ways. In addition to the cost value of timber, woodlands provide shelter and create amenity value. Another benefit, becoming more widely recognised is the role of farm woodlands in providing opportunities for sporting activities. Mr McCall of the Game Conservancy Trust, recently argued that on a bare farm with no woodland, a farmer would be lucky to gain a return of £1 per acre. However, with good woodland cover, shooting rents could increase this return to £3 to £4 per acre. Shooting demand is likely to rise quickly in the next decade, and this option may be one taken up by many farmers.

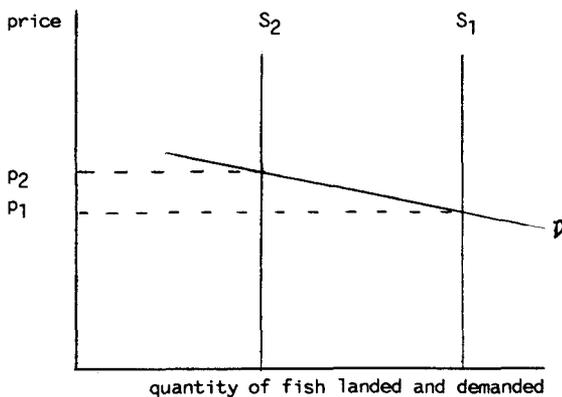
## FISHING

Table 1 presents data on fish landings in Scotland for the period January to March 1989, and also presents percentage comparisons with the same period one year earlier.

The total value of fish landed in Scotland for the first quarter of 1989 was £49 million, 19 per cent less than in the same period in 1988. Average prices were down slightly (by 4%).

Demersal (i.e. white fish) showed the largest decline, falling in weight of landings by 23%. Not surprisingly with such a large drop in supply, prices were higher than in 1988, but only marginally (4% up). All species of white fish shared in this decline in landings; haddock, by far the most important demersal species in terms of quantities landed in Scottish ports, fell in weight of landings by 23%, with no change in average price. What is perhaps remarkable about the information given there is the relative stability of prices, despite very large volume changes. One possibility that this suggests is that the demand for fish may well be strongly price elastic (i.e. price changes have a large proportionate impact on demand), which may be visualised diagrammatically as in Figure 1.

Figure 1



- $S_1$  represents 1988 fish landings
- $S_2$  represents 1989 fish landings
- $D$  represents the demand curve for fish

It should be stressed that this explanation is only one of several possible. But it is remarkable that for every fish species listed, price variations were small relative to quantity variations.

Pelagic species (mainly mackerel and herring) fell in value by £5.5 million, this being 9% less than last year. Average pelagic prices were unchanged compared with 1988. Notice, though, that within this category, mackerel landings fell substantially while herring lands rose by 34% in weight.

Among species of shellfish, Norway Lobster are the most important, accounting for about one half of all landings by weight and over two thirds by value. Landings of these lobsters fell by a large proportion, and this was exacerbated in its impact on the revenues of the fishing industry by a fall in price too.

Finally, notice that UK vessels did relatively worse in this period compared with last year (down 19% by value), whereas Scottish landings by foreign vessels did relatively better in value terms (up 26%).

The demand for shellfish appears to be growing rapidly within European markets, and good export prospects exist for high quality, well-priced products. Kishorn Shellfish Ltd is establishing a large scale mussel farm in Loch Kishorn, Wester Ross, which will treble the Scottish production of mussel production by 1992. Current production is 240 tonnes a year, from around 60 farms, the income being mainly a supplement to crofting. Kishorn Shellfish's planned production is 500 tonnes annually, using Spanish techniques of 12 metre depth ropes suspended from rafts. Scottish water purity is ideal for farmed shellfish production, and the company plans to increase supplies of scallops and oysters in the future, for both British and European markets.

In an attempt to market salmon more widely, the Scottish seafood industry participated in an international seafood exhibition in Boston, USA, in March. The demand for salmon is particularly fast growing, and this representation forms part of a programme to heighten the profile of the Scottish seafood industry - a profile intended to establish the reputation of the Scottish product as high quality and pure in an increasingly health conscious period.

Meanwhile, the vulnerability of the profitability of the shellfish industry when markets are comparatively young and specialised has been illustrated by the problems confronting scallop producers. Exports to France, a major buyer of

Table 1 Fish Landings in Scotland: January to march 1989 - Compared with corresponding period in 1988

	Weight Tonnes	Value £'000	Price £/T	Weight %	Value %	Price %
Landings by UK Vessels						
Demersal	39,400	35,017	889	77	80	104
Pelagic	47,431	5,468	115	91	91	100
Shellfish	5,694	8,223	1,444	85	79	93
Cod	7,321	7,408	1,012	79	78	99
Haddock	15,459	13,318	862	76	77	100
Whiting	6,624	4,142	625	70	76	109
Dover Sole	7	27	4,154	68	84	125
Hake	331	565	1,707	108	111	103
Lemon Sole	246	494	2,008	70	87	125
Megrins	394	532	1,350	69	66	95
Monks	1,799	3,395	1,887	102	100	98
Plaice	956	662	692	77	63	81
Saithe	2,369	1,164	491	25	21	85
Skate	885	559	632	71	80	113
Norway Pout	-	-	-			
Sandeels	107	5	47			
Mackerel	42,762	4,956	116	88	89	100
Herring	4,646	509	110	134	125	93
Crabs	439	514	1,171	198	211	107
Lobsters	42	503	11,976	114	109	96
Pink Shrimps	24	32	1,333	800	1067	133
Scallops	681	1,280	1,880	66	79	120
Norway Lobsters	2,343	4,728	2,018	72	68	94
Queen Scallops	591	188	318	63	49	78
Total by UK vessels	92,524	48,707	526	84	81	96
Landings by foreign vessels	10,239	1,061	104	99	126	127
Total landings in Scotland	102,764	49,768	484	85	81	95

Source: Scottish Office, May 1989

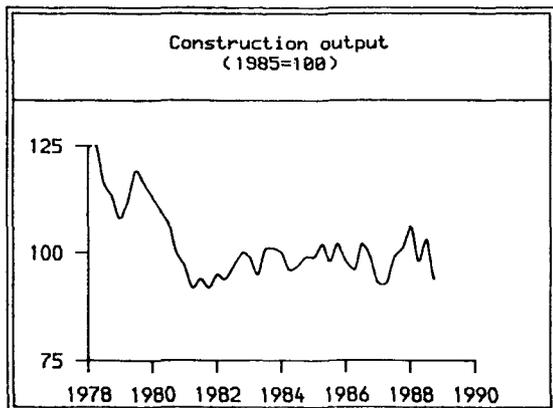
this product, have been severely hampered by changing French rules on imported stock. One firm in Kirkcudbright, West Coast Sea Products, is being hit rather badly by the rule changes; it is estimated that the Kirkcudbright fishing fleet is losing £40,000 per week as a consequence of these barriers. Until 1992 fish and fish product trade

is subject to national regulation. The establishment of European Community common quality rules should be one advantage of the 1992 single European market, preventing trade flows being subject to distortions where regulations differ between trading partners.

## Construction

The latest economic indicators for the construction industry suggest two basic points. First, 1988 was a better year for the industry in Scotland than the disappointing 1987. Second, there is evidence that the recent levelling off in construction activity evident in much of England is not yet apparent in Scotland.

The official index of construction for Scotland in 1988 stood at 100.0, identical to the base year of 1985. This represents an increase of 3.8% over 1987, which was a very poor year for the industry in Scotland. However, more than the usual degree of caution must be exercised in interpreting these figures. In addition to the difficulties associated with rebasing the index from 1980 to 1985 which were discussed in the last Commentary, the quarterly figures for the index show very large fluctuations throughout 1988 which are not readily explicable; indeed, the index apparently fell by almost 9% between the third and fourth quarters alone. Of course, the final quarter figure of 94.0 is provisional, and may be subject to considerable revision. Taking the figures at face value at the moment, it is clear that the Scottish construction industry continued to be outperformed by its UK counterpart during 1988. The industry in the UK grew at 7.2% last year, nearly twice as fast as in Scotland.



The Scottish Office/Department of the Environment data of new contracts obtained by contractors paint a similar picture. The total nominal value of new orders during 1988 was £1825m, 13.5% higher than in 1987. While this is an encouraging

performance, two caveats should be pointed out. The first is that the percentage annual growth in new orders in Scotland in 1988 is little more than half of that recorded during 1987. The second is that the long-term trend of Scotland accounting for a decreasing share of total GB new orders continues. Less than a decade ago Scotland's share of total GB new orders was around 10%; by 1988 this had fallen to 6.9%.

However, more recent evidence suggests that the gap between the performance of construction in Scotland and the UK as a whole may narrow in the near future. The first straw in the wind relates to NHBC figures for private house building starts and completions for the first quarter of 1989. In Great Britain these were 12% and 4% respectively down on the corresponding period last year. By comparison, NHBC "starts" in Scotland rose by 6% to 3500, and completions rose by 20% to 3600. This may in part merely reflect the fact that house prices and private housebuilding in Scotland have never experienced the extreme boom conditions evident in many parts of England over the last couple of years, so that the relatively high level of activity may persist longer in Scotland despite renewed fears about mortgage rate rises.

However, recent surveys tend to suggest that confidence in Scotland remains high among both housebuilders and commercial construction companies. The Building Employers' Confederation State of Trade survey released in May indicated that the proportion of construction firms expecting further increases in orders was much higher in Scotland than in England (8% versus 13% of respondents). This optimistic tone is also noticeable in the latest Scottish Chambers' Business Survey. Optimism appears to have grown since the February survey, with a net 35% of respondents feeling more optimistic about the general business climate than was previously the case. A net balance of responding firms experienced an upward trend in orders from both the private and public sectors. In fact, a balance of 48% of firms experienced increased private sector orders, with a balance of 51% anticipating further increases in the next quarter. In the last survey, a balance of 44% of firms said they expected an increase in employment during the three months to April; this proved to be an accurate assessment, because a net 40% actually did experience such a rise, with a balance of 43% expecting a rise in the next three months. Interestingly, the proportion of firms

mentioning a lack of skilled labour as the principal constraint on output has now fallen to 16%, much lower than the level of the last two surveys and much more in line with the level historically experienced.

The continuing optimism shown by the industry in Scotland is encouraging, and will hopefully not be short-lived. As with the economy generally, much depends on government economic strategy, especially regarding interest rates. The next Scottish Chambers' Business Survey should prove particularly interesting.

## Energy

### OIL AND GAS

In the early months of this year, a continuing series of mishaps in offshore production installations had significant adverse effects on North Sea oil and gas output. Most notably, the April explosion on Cormorant Alpha put no less than nine oilfields, representing 33% of current North Sea oil production, temporarily out of commission. The cumulative losses in output were reflected in the Royal Bank/Radio Scotland oil index which fell to a value of 103.9 (1980 = 100) in April. This is some 868,000 bpd less than was being produced in April 1988.

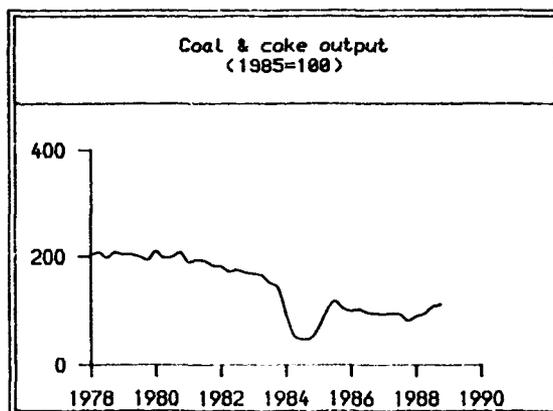
The fall in North Sea output coupled with evidence that OPEC producers were broadly keeping to agreed production targets, saw the price of Brent crude rise to over \$22 a barrel in mid-April. Subsequent market realisation that fears of crude shortages had been exaggerated led to prices slipping back to around \$18pb. The firmness of crude prices meant that the daily value of North Sea production (at £19.7 million) in April was only £600,000 less than March, although daily production was down by 175,000 barrels.

Latest figures released by the Training Agency indicate that last year's recovery in North Sea exploration and development activity is beginning to have positive effects on Scottish oil-related employment. The Agency estimate oil-related jobs increased by 2,300 between June and December 1988. Geographically, employment increases were noted in Grampian and Central Scotland, with slight declines in Highland, Islands and Tayside. On a sectoral basis, job gains were made in mechanical engineering, construction, oil operators and business services. Job losses were recorded in

transport services and marine engineering.

New actual and potential North Sea developments continue to be announced. For example, BP have placed £200 million worth of orders for the construction of the platform jacket and modules for the Miller field. The largest single order, at £70m, went to Highland Fabricators at Nigg Bay and will provide work for an estimated 1,900 people. Esso indicated that it plans to increase its North Sea exploration and development expenditures this year, and in total expects to spend £3-£3.5 billion in the province over the next five years.

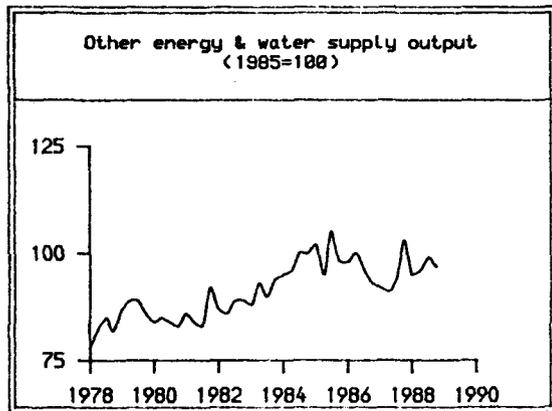
### COAL, ELECTRICITY AND OTHER ENERGY



The Scottish non-hydrocarbon energy industry continues to be dominated by events connected with the impending privatisation of the electricity sector. The major recent events have included the conclusion, under government p, of a supply agreement between British Coal (BC) and the South of Scotland Electricity Board (SSEB), further colliery closures and differential price rises from both Scottish electricity undertakings.

The long-running dispute between British Coal and the SSEB over the level of future Scottish coal supplies to power stations appears to have been concluded by a combination of a court ruling and government intervention. A these moves have generally been seen as a victory for coal, the provisional supply settlement is for 2 million tonnes a year, as opposed to the 5 million tonnes p.a. assumed by BC in their previous investment

plans. Partly as a result of the lower demand, BC have announced plans for the closure of both Bilston Glen and Monktonhall collieries. The cost yardstick that British Coal use is £1.50 per gigajoule, whereas Bilston Glen was producing at twice this cost. The unions have appealed against both closures, resulting in a reprieve until September at least. Meanwhile, the production index for the coal and coke industry has risen rapidly over the second half of 1988, reaching higher levels than any time since 1985. Increased productivity in an attempt to avert these closures might have been a cause, though the closure decision post-dates these figures. Employment in the Scottish energy sector has continued its decline, though part of this may be attributable to the hydrocarbons industry.



Both Scottish electricity boards increased their prices by an average of 8% from 1st April, whereas the CEGB, which serves England and Wales, increased prices by an average 5.8%. The Scottish Boards blamed coal prices for their increases, although these were admitted to account for only 10% of the SSEB's generating costs. However, coal has had an affect on Scottish electricity prices to the extent that the SSEB was clearly budgeting for a lower coal intake than in its settlement with British Coal. This will leave it with a higher proportion of excess capacity than otherwise and thus higher capital charges. Therefore, the high levels of interest rates will add to the SSEB's debt burden and thus to prices. Both the SSEB and

the North of Scotland Hydro-Electric Board (NSHEB) have been affected by the much increased nuclear reprocessing charges and also by increased nuclear plant decommissioning charges. Here again, interest rate charges will have an affect.

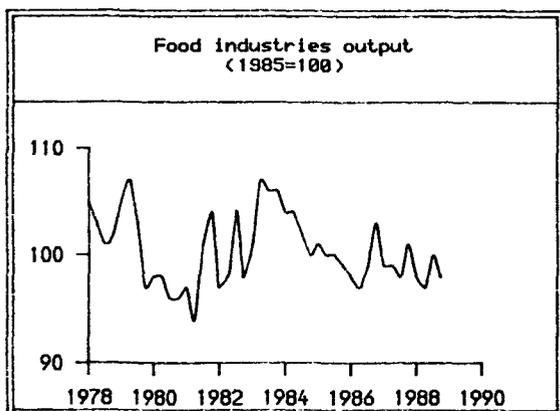
Despite these price increases, the Scottish electricity boards have had their joint financial target for return on capital, as expressed in current costs, reduced from 2.8% in 1988/89 to 2.7% in 1989/90. The government targets for the industry in England and Wales for 1989/90 is 4.75%. Given these clear financial difficulties, coupled with the open-ended commitment of the nuclear-owning post-privatisation companies to their reprocessing contracts with BNFL and thus to bearing the much higher costs already referred to, it might be thought that the Scottish boards would lose their place at the front of the privatisation queue. However, there appears to be no evidence that this is yet occurring, with privatisation still scheduled for 1990. If this were to happen as planned, successful privatisation would presumably then require a substantial writing-off of the Scottish boards' debt, possibly in addition to the income these boards would enjoy from the government's proposed 'nuclear levy' and the nuclear fund referred to in the last edition of the Commentary. It could be argued that these subsidies for privatisation are not anti-competitive at an EEC level, since there is no early prospect of exports of Scottish electricity outside the UK.

Should post-privatisation electricity prices be substantially higher, even with substantial government support during transition and the nuclear levy after, the impact will clearly not fall evenly over Scottish industries. Industries with high electricity utilisation include water, coal, iron and steel and paper production. The chemicals, engineering and metals sectors also have significant electricity costs. Clearly, continuing differential Scottish electricity price increases will affect most those industries with both high electricity use and competitive markets at UK or international level. In this category would fall the Scottish iron and steel industry, parts of the engineering and metals sector, chemicals and, ironically, coal.

## Manufacturing

### FOOD, DRINK AND TOBACCO

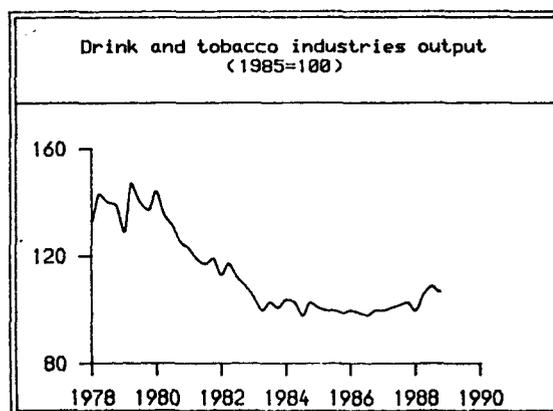
The index of production for the food industry in Scotland averaged 98 in 1988 (1985 = 100), virtually unchanged from the two previous years. The UK index grew by 2% between 1987 and 1988, and now stands at 105.



Bearing in mind the caveats in the last Commentary about the rebasing of the index to 1985 = 100, the index of production for drink and tobacco does give some grounds for optimism. The Scottish index rose by 4% during 1988, nearly twice as fast as the UK index, and now stands at 106. This means that the Scottish index has shown modest growth for two years in succession, following six years of steady decline; and indeed since 1984 the Scottish index has closely tracked that for the UK as a whole, which was not the case in the early 1980s. Much of the change in the drink and tobacco sector is, of course, accounted for by the improved fortunes of the Scotch whisky industry (see next section).

However, there may be storm clouds on the horizon. The mood of the latest Scottish Chambers' Business Survey could not be more at odds with the previous, optimistic, survey. In the latest survey a net 30% of responding firms were less optimistic about the general business situation, undoubtedly the result of a recent downward trend in sales and new orders. A balance of 41% of firms reported reduced new orders in the last three months, with a net 25% reporting reduced sales. This reduction has resulted from the

slowing down of the UK economy, because net positive balances were returned for export sales and new orders. The expected trend in sales and new orders over the next three months is for continuing slackness in UK activity, but fairly strong growth in export orders. The relatively poor last quarter has had little impact on employment so far, but is expected to do so in the next quarter. A balance of 1% of firms experienced a rise in employment over the three months to April, but a reduction in employment over the next three months is anticipated by a net 30% of respondents. Investment intentions for buildings have been revised downwards by a net 21% of firms.



While government policy is very much geared towards reducing domestic demand in the fight against inflation, there is always the danger of Scotland suffering the consequences of a boom in which it has scarcely shared. It would be a great pity if the modest recovery now being experienced by this sector were to be nipped in the bud, and it is for this reason that the SCBS results make rather worrying reading.

As promised in the last Commentary, some comment must be made on the decision by the Monopolies & Mergers Commission to block the bid by Elders IXL for Scottish & Newcastle Breweries. It is made clear in the MMC report that the bid was blocked because it was considered likely to have adverse consequences on competition in several areas, including a reduction in consumer choice and competition between brands because of the amalgamation of S&N and Courage, a reduction in competition for the supply of beer to the free

trade, and a restriction of competition specifically in Scotland by the strengthening of the virtual duopoly already enjoyed by S&N and Bass in this country. However, the fact that the bid was blocked on competition grounds should not be taken as indicating that the issue of the proposed merger's likely effect on the regional Scottish economy was pushed to one side. The MMC is expressly required to consider the regional issue in any bid referred to it as one element of "the public interest", and in the Elders/S&N case it did so at some length in the body of the report. Interestingly, in its conclusions the MMC gives a very broad hint as to its views of the likely effect on the Scottish economy. The Commission implicitly accepts the view that external takeovers can have long-run detrimental consequences for the regional economy, and while accepting that Elders genuinely did plan to situate its European brewing headquarters in Edinburgh, the MMC concludes,

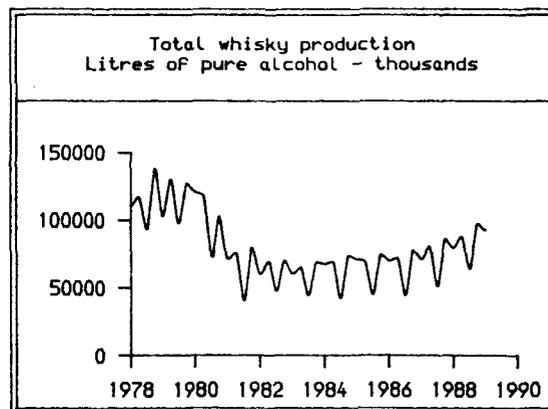
"...we are less confident about how meaningful an Edinburgh location would be for the headquarters of part of a world-wide group based in the Southern hemisphere. Although, therefore, it is possible that high-level posts will be brought to Edinburgh, we are not convinced that this will provide a satisfactory substitute for an independently-managed Scottish company" (Para 8.60).

It is interesting to speculate whether, had no anti-competitive problems been discovered, the MMC would have considered the above paragraph sufficient to recommend that the bid should be blocked on the grounds of detriment to the public interest. Regardless of the answer to this hypothetical question Elders has not only had its bid blocked, but has been ordered to reduce its shareholding in S&N from the 23.6% it held on 10 November to no more than 9.9%, on the grounds that the larger shareholding could give Elders the ability "...to control or materially to influence the policy of S&N". As yet there is no clear indication of who the purchaser(s) of this sizeable stake in S&N might be.

Meanwhile, S&N and all other UK brewers have another MMC report to occupy their minds. This is the report into the brewing industry, which like its 1969 predecessor, concludes that the highly vertically-integrated structure of the industry is

probably detrimental to competition and consumer choice. This led the MMC to recommend ways of loosening the links between brewers and the ownership of pubs, including permitting any brewer to own no more than 2000 tied houses, encouraging more "free houses", and permitting guest beers in tied houses. Lord Young, Secretary of State for Industry, has enjoyed some fun at the brewers' expense by indicating that he was "minded to accept" the report in its entirety, before heading to Japan on a trade mission. In his absence the brewers have done two things. The first is to mount a large advertising campaign putting forward the message that implementation of the MMC's proposals would pose a serious threat to the British pub as we know it. On occasions this campaign has had comical overtones, particularly in the case of one poster advertisement which tried to draw parallels between the MMC's proposals and the dissolution of the monasteries in terms of impact on the rural way of life. Second, and more important, considerable lobbying of the DTI has been undertaken which looks likely to succeed in achieving a compromise whereby Lord Young will not implement the more radical of the MMC's proposals in exchange for voluntary attempts to introduce more competition at the local level via pub swaps and so on.

#### WHISKY



The latest figures for the Scotch whisky industry indicate that production rose yet again during the first quarter of 1989, but exports remained static. Official figures for the first three months of the year indicate that production was 93.3m litres of pure alcohol (LPA), 17% higher

than the same period in 1988 and the highest first quarter production figures since 1980. By contrast, total exports for the first quarter were virtually unchanged from their 1988 level, at 55.4m LPA. This is unlikely to represent much of a hiccup in the improved recent fortunes of the industry; last year, for example, the entire improvement in export performance occurred in the last three quarters.

Asm fortunes of the industry continue to improve there has been a positive flurry of reopenings of distilleries which were mothballed during the recession, coupled with several changes in distillery ownership as distillers gear themselves up for the anticipated good times ahead. In March Nikka Whisky Distilling of Japan bought the Ben Nevis distillery from James Burrough Distillers (formerly Long John International), and plan to reopen the distillery which was closed in 1986. Campbell Distillers, owned by the French group Pernod-Ricard, have purchased the Glenallachie distillery from Invergordon Distillers, and will reopen the distillery for the first time in three years. This is the third distillery acquired by the French group, the others being Aberlour-Glenlivet and Edradour. For Glenallachie the sale represents the distillery's third change of ownership in just four years. Invergordon became the owners in 1985 when that company purchased Charles Mackinlay from Scottish & Newcastle Breweries; the distillery reverted briefly to Scottish control when Invergordon was bought by its management from Hawker Siddeley last year, and this latest move takes the distillery into French ownership for the first time.

These moves are, however, somewhat overshadowed by the decision of United Distillers to spend £100m over the next three years in an expansion of its distilling, blending and bottling operations in Scotland. Capacity at the Cameronbridge grain distillery will be doubled, allowing it to handle the production of all the neutral spirit for Gordon's Gin. The group's 30 malt whisky distilleries will also be improved, part of a plan to double the group's output of malt whisky by 1992, and seven bottling and blending plants will be upgraded. This is very welcome news, and a far cry from the dark days of 1983-85 when DCL was forced to shut down 21 of its 45 malt whisky distilleries as home and export sales slumped. Interestingly, two of the distilleries closed at that time, Imperial and Glentauchers, have just

been sold by United Distillers to Allied Distillers, the distilling arm of Allied-Lyons. Both distilleries will shortly be reopened, bringing to 12 the number of working distilleries owned by Allied. Another former DCL distillery, Knockdhu, has also recently begun production once again. Knockdhu was purchased by Inver House Distillers last year.

One notable by-product of this realignment in the industry has been several instances of production being moved to Scotland from plants in England - quite the reverse of the trend normally considered to be prevalent during takeovers and rationalisations. For example, the distilling of neutral spirit for Gordon's Gin at the Cameronbridge distillery will result in the closure of a plant in Wandsworth, although the spirit will then be transported back to England for rectification and bottling. In addition, the purchase last year by Whyte & Mackay of William Muir (Bond 9) led to the bottling contract for Four Bells rum being transferred from London to Muir's plant at Leith. Finally, the merger of James Burrough with long John International has resulted in the Westthorn plant in Glasgow becoming the centre of Whitbread's UK spirits operation. The bottling of Beefeater Gin will shortly move from London to Glasgow, where £8.3m will be spent on new investment to increase capacity.

In addition to rationalising its UK operations, James Burrough Distillers has also been busy establishing a deal which will secure access for the company's brands in the newly-liberalised Japanese market. Suntory, which recently established close trading links with Allied Distillers, will now distribute Burrough's whisky as well as gin brands in Japan, a further element in the Japanese firm's strategy of becoming more involved in the distribution of Scotch whisky in its home country.

While the liberalisation of the tax and duty regime has caught the imagination of the whisky industry, similar developments in Korea have attracted much less attention. To date Korea has been an extremely limited market for Scotch whisky - in 1988 only £12m worth of whisky was exported there. However, this does represent a five-fold increase since 1982 and the situation could change substantially in the next four years as import tariffs are reduced to a fraction of their present level of 100%.

The size of a newly-liberalised market is always difficult to assess, but some commentators believe the potential could be considerable. United Distillers, which recently signed a joint venture with a Korean company, has suggested that eventually Korea may rival Japan in importance as an export market, which may not be entirely wishful thinking. The Koreans do show signs of being keen consumers of Scotch given the opportunity, and that opportunity will now be forthcoming as Korea bows to EC pressure to be more liberal on manufactured goods being imported from Europe.

This rash of reorganisation and repositioning in the industry takes place against a background of greatly improved optimism and improved profitability among distillers and blenders, and it is particularly pleasing to see United Distillers taking a lead in the industry's revival. It may, therefore, seem a little churlish to introduce a note of caution, but there does seem to be some justification for doing so. Cyclical overstocking is a problem which is endemic to the industry, not least because of the need to anticipate demand several years in advance, and it has to be pointed out again that the growth in production has far outstripped the growth of consumption for several years. The reopening of "silent" distilleries, while unquestionably welcome, will introduce even more capacity into the industry, hopefully in nice time to take advantage of the opening up of "new" markets such as Japan and Korea. Nevertheless, even fairly optimistic forecasts indicate a growth in total demand for whisky of no more than 2-3% per annum in the foreseeable future. The lessons of 1981 to 1985 are surely too recent in the industry's memory to allow the hubris of the late 1970s to influence today's planning.

#### METAL MANUFACTURING

The boom in steel demand continues unabated. For the first 4 months of 1989, crude steel output totalled 47,977 million tonnes. This is an increase of 5.7% over the same period in 1988. As noted in last quarter's Commentary, world steel production is at record levels although the secular trend towards newly industrialising countries remains evident. Total OECD steel consumption reached a 9 year high in 1988 and a significant contributor to this was industrial and commercial investment which grew by over 11%. A weaker dollar has resulted in greater export

opportunities on the part of EEC producers in the US market. In the past 18 months a combination of strong demand both at home and abroad allowed Continental producers to increase prices across the whole range of products at a time when average costs are falling due to high capacity utilisation. Although raw material prices are rising, these beneficial trends are starting to show up in earnings and the financial position of EEC steelmakers is improving rapidly.

This development has surprised steel monitoring organisations. Indeed, in recent years, the major international forecasters have underestimated the resurgence in steel demand and capacity utilisation. In the European Community, preliminary work is underway on the General Objectives for Steel 1995. The official view remains one of long run excess capacity in the EC of 30-35 million tonnes per annum. As the EC prepares its forecasts for the early part of the next decade, it must inevitably appraise this position. The vital issue is one of how far the restructuring of EC capacity has to go and by what means rationalisation will take place. In 1986 and 1987 most commentators thought that poor financial performance would drive down EC and OECD capacity to nearer long run equilibrium levels. However the recent boom has confounded this up to a point. Indeed part of the unviable Bagnoli plant in Naples is temporarily reprieved due to exceptionally high levels of demand in Italy.

However, there is a steady trickle of exits from unprofitable elements of the product mix, a trend of vertical integration and much discussion of joint ventures and marketing tie-ups across businesses with complementary product ranges. However, in this quarter, a joint venture between Italian and Belgium steel interests has attracted considerable attention because it is viewed as a mechanism to thwart contractionary pressure and is seen as a barrier to long run recovery in the EC market. The improving financial position of steelmaking should generate cash for investment and facilitate divestment. However the danger remains that the buoyant activity will generate cash which will be reallocated to plants and lines which actually require to be phased out. Thus, on balance, the unexpected resurgence of demand, whilst it provides cash for restructuring, is frustrating the necessity to drive EC capacity down still further in the short term. Any further unwarranted protection of EC markets from imports would also serve to delay adjustment and the

abolition of export restraints for a number of third producers from the end of this year is a matter of some urgency.

Estimates of steel activity for the remainder of 1989 tend to point to a slowing down of demand in the final quarter leading to weaker market in the first half of 1990. This pessimism is most evident in the USA where demand for motor vehicles, white goods and commercial construction is argued to have peaked and production and capacity utilisation of steel plants is set to deteriorate in the second half of the year. The recent cut in US interest rates may offset some of the downward pressure. While the recent strong performance of the dollar will assist EC exports, any sharp decline in US consumption would prove problematic for European producers.

Major agencies are unanimous that the slowdown in EC markets will be less marked. The IISI project a fall in demand of 5.7% in the US this year whilst EC demand is projected to decline by 3.6%. Newly industrialised countries such as South Korea and Taiwan are projected to experience growth rates in steel consumption of 13-16%. The OECD similarly predicts a 6% decline in both production and consumption in the USA but more modest declines of 2% for the EC. However Community producers are casting doubt on this at this stage. Many report no sign of orders slackening and many predict that for most products demand will remain strong into next year. The Germans are more pessimistic about the outlook with commentators stressing the need to maintain the pressure to reduce capacity and employment in metal manufacturing.

Italian, French, Dutch and Belgian steelmakers are increasingly of the view that the market will only weaken slightly this year and that prices will remain firm and steel production profitable into the first quarter of 1990. Thus there appears little evidence of the steel boom abating very far or very fast over the foreseeable future. Thus contractionary pressures will remain muted and if EC projections of surplus capacity are correct there is little sign of the market mechanism engendering the required measures at present.

The UK industry, which has been expanding capacity by judicious investment in concast equipment, continues to operate at extremely high level of capacity utilisation and profitability. In May, British Steel Chairman, Sir Robert Scholey, argued

that the current market position was the most favourable for 15 years. However, he indicated that he viewed the current levels of activity to be above the sustainable market trend. This led Scholey to conclude that "some measure of adjustment is certain, although its timing cannot be accurately assessed". UK steel output totalled 19 million tonnes in 1988 and projections for 1989 and 1990 are of a similar magnitude indicating little, if any, further growth. The outlook is particularly unclear in the UK because of considerable uncertainty over interest and exchange rates and thus the course of the real economy. However, the order book is healthy across much of the product range, and although City analysts are drawing attention to potentially weak markets at the end of the year, the prognosis for production, employment and profitability in the 1989-90 financial year is extremely favourable.

BS are projected to make profits of between £575m and £600 million pounds in 1988-89. This is marginally higher than that predicted in the BS privatisation prospectus. Sales are projected to have grown by 25% over the period. BS's performance for 1987/88 was analysed in the September 1988 Commentary. At that time we drew attention to the fact that BS had expanded output by exporting significant volumes to markets where prices were relatively weak. This year it is estimated that high domestic demand has resulted in BS delivering a greater share of final output to the burgeoning home market. We project that average export margins have been increased through concentrating on EC markets where, as indicated above, demand and prices have been strong. We have consistently drawn attention to the role of exchange rates in determining the output and profitability of the BS. In 1988/89, the pound weakened against the dollar which led to lower input costs in sterling terms over the previous period. However, the pound strengthened against the German mark which, ceteris paribus, ought to have resulted in lower sterling margins in continental markets and a threat to domestic market share. However, as indicated above, following the exchange rate-induced market weakness which devastated the bottom lines of EC producers in 1986, they have responded to recent buoyant demand by firming up prices in order to restore profitability. This has allowed BS to operate competitively within EC markets and will have contributed significantly to the projected performance in the 1988/89 period.

BS's Ravenscraig plant at Motherwell consequently remains heavily loaded and weekly production levels in all departments continue to reach new records. This has promoted a widespread belief that the review of the Strip Product Group has been shelved indefinitely and that Ravenscraig is safe in to the 1990s. This has been confirmed by Scottish Industry Minister Mr Iain Lang. It is quite clear that BS have no incentive to close the hot strip mill at present. However, it is widely expected that the high level of real and nominal UK interest rates and consequent strength of sterling will inevitably provoke a slowdown, in the motor vehicles, capital equipment and construction sectors in the second half of this year. The puzzling strength of the dollar will eventually raise input costs. However, some weakening of the pound vis-a-vis the DM may reasonably be projected for the remainder of this year. Given the lag between ordering and production the effects of this will not be fully felt in 1989-90 and this is the basis for projections of level or slightly reduced profits in this period. However, if world steel demand slows down in tandem, as expected, then 1990 could be a grim year for UK and EC markets.

As we continually stress, BS is an extremely efficient producer with clear options to reduce capacity without significant reduction of sales volume. BS is very well placed to meet such eventualities, and some caution must be exercised in using the output figures for the Scottish metal manufacturing sector as evidence in a general debate over whether the Scottish economy is out performing that of the UK. In the 1980s, the production index for that sector has been more variable than for other areas of the economy. This reflects the inherently cyclical nature of the industry and the mechanics of the BS Strip Divisions plant loading policy. Thus when UK demand is growing, the marginal plant at Motherwell is loaded up and Scottish output growth increases faster than for the UK as a whole. Unfortunately if demand slackens, production tends to be concentrated at the larger and allegedly more efficient Welsh Mills causing Scottish output to fall more quickly than that of the UK. The decline in employment in BS has levelled out and if orders are removed from a plant, the structure of manning levels is such that they cannot be cut readily. Thus, this effect influences crude productivity measures which also must be interpreted with great care.

BS appear to have lost interest in acquiring Klockner, the German industrial conglomerate (see previous commentary). The overtures received a very mixed welcome and if BS believe that the emerging improvements in profitability amongst EC steel producers are not sustainable, then there may be better ways in the short run to invest BS's considerable retained profits. If markets weaken, Continental capacity will be written down in price and BS may find better purchasing in the early 1990s when its continental rivals are more vulnerable. In the mean time, Ravenscraig appears secure but is receiving only sufficient investment to keep the operation ticking over. It remains strategically vulnerable and in our view, no complacency should be admitted and pressure for investment in new processes should continue now. Markets in the early 1990s may not provide the same strong basis for such demands.

The picture in BS Tubes division continues to be mixed. BS Clydesdale works has been temporarily closed on two occasions during the previous quarter. The Clydesdale works is located at Bellshill and comprises of an electric arc steel making plant, a concast and an ingot casting facility, two seamless tube mills and a number of finishing and preparation operations. The output of the steel plant is either absorbed by the two mills on site or dispatched to a tube mill at Bromford. Clydesdale and Bromford produce an overlapping product range and the Bromford Mill is considerably more modern. Clydesdale's output tends to be allocated between two broad classes of product, line pipe, which is used to transport liquid and gaseous materials, and Oil Country Tubular Goods (OCTG). This latter category covers pipes and tubes used in oil exploration and production. Both these markets require material to be processed and finished to exacting specifications and tolerances.

Clydesdale is well located for supplying the North Sea Oil sectors. However, the 1980s have seen huge fluctuations in oil prices and hence demand for tube products. At present, demand for line pipe is strong as is oil construction activity. The problem at Clydesdale is a slump in orders for casings used in exploration and drilling activity. This has resulted form nervousness on behalf of major operators who are delaying and reducing drilling activity.

The outlook for the North Sea in the medium term is favourable and drilling activity will

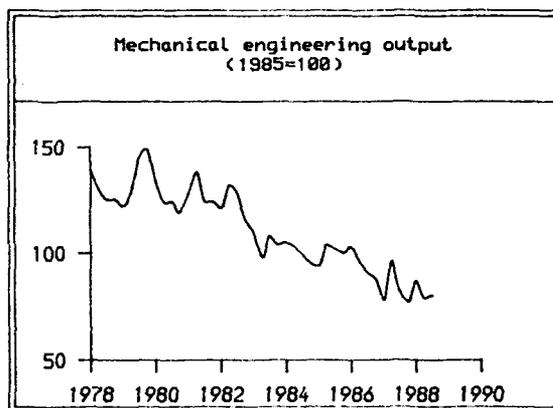
eventually pick up and fluctuating demand for all of Clydesdale's product range will always render the plant a "hunger and burst" operation.

More worrying are reports that stockists and operators are losing confidence in the ability of BS Tubes to attain the increasingly exacting specifications and tolerances demanded in the OCTG markets. The Arthur Young review of the Scottish Industry was optimistic about the long term position at Clydesdale but noted that "in terms of best world practice the tube mills at Clydesdale need updating". Unfortunately Clydesdale's markets are competitive to the point that many commentators view that there is currently considerable long run excess capacity. It is likely that such thinking is behind recent reports of a proposed tie up between BS and the French tubemaker, Vallourec. The French company has recently returned to profit and is confident about the outlook for the current year. A Spanish producer Tubacex has recently increased its stake in Vallourec to 20% and wishes to make further inroads. The Spanish appear to be after some co-operative relationship but the French remain cool about this overture. Vallourec is France's biggest tubemaker and is active in the supply of OCTG products and thus discussions with BS seems a logical development. Whether this bodes well for Clydesdale remains unclear. There is over capacity in this sector and, given the weaknesses in the rolling mills, only the finishing operations are totally secure. However, Scotland is a stronger base from which to produce and market OCTG products than France. Marketing to European customers would imply road and rail links better than those evident at present. The converse also holds true.

#### MECHANICAL ENGINEERING

The Scottish mechanical engineering industry appears to have reached a period of overall stability, though this is not necessarily true of its component sectors. The output index has remained fairly static over the final three quarters of 1988, considerably down from the higher figure briefly enjoyed in the first quarter of the year. While the overall figure for 1988 is little changed from that of 1987, the long decline of the Scottish industry is not necessarily over. Of greatest concern is the fact that the industry in the UK as a whole grew by some 9% during 1988, while Scotland has clearly not joined in. This trend is not fully

reflected in the employment figures for the whole of the engineering, metals and vehicles sector, which show an increase in Scottish employment of almost 4%, in the year to December, while the trend for the whole of Great Britain was static. While these figures are almost certainly subject to different influences from the other industries they cover, it may be that Scottish mechanical engineering is becoming more labour-intensive, perhaps as a result of lower regional wages and the existence of a pool of skilled labour.



This picture is borne out by the May 1989 Scottish Chambers' Business Survey, which is decidedly less optimistic than its February predecessor, though still guardedly positive. As a result of slower growth in sales and orders, the number of firms increasing employment or expecting to do so is much diminished. Similarly, investment intentions have declined considerably and replacement is becoming a more important reason for the capital expenditure that is occurring, rather than increased efficiency. However, the survey did not point to high interest rates as being a cause of the diminished investment intentions. However, this is seen by the Engineering Employers' Federation as a major reason, together with the general economic slowdown and international uncompetitiveness, for the cessation of engineering growth in the UK as a whole in the second half of 1989. With the Scottish industry having clearly underperformed that of the UK as a whole over the past few years, this could well pose some problems.

However, at least some sectors of the Scottish industry have seen recent welcome news.

Perhaps the most important recent industrial event has been the £350M contract won by FKI Babcock for the world's largest plant to combat acid rain. The same firm is also hopeful of obtaining the contract for an Irqi power station, worth £160M. This project would fill the orders gap induced by the uncertainty over privatisation. Also in the power engineering sector, the announcement has been made of the merger between Rolls Royce, the aeroengine and gas turbine firm, and NEI. The industrial logic behind this is to enable the latter's steam turbines to be offered with Rolls-Royce's products for co-generation (electricity and heat) projects. The effect of this deal will be to allow NEI access to contracts from which it would otherwise be excluded, on account of its small size in international terms. As a result, employment at NEI Peebles in Edinburgh and Broxburn and NEI Control Systems in Glasgow, should be secured.

Other positive news has included the information that John Brown Engineering are to be consulting engineers for the London Underground Central Line upgrade, which includes both resignalling and new rolling stock. The Weir Group announced profits up from £4.6M to £17.7M at the end of March and stated that their order book remained good and well balanced between sectors. The firm has disposed of its 9.1% stake in neighbouring Howden by breaking it into parcels, although it could have made more by selling it as a block. There is a degree of self-interest in this move, as enabling a third party to take over Howden might eventually lead the same group to make a bid for Weir.

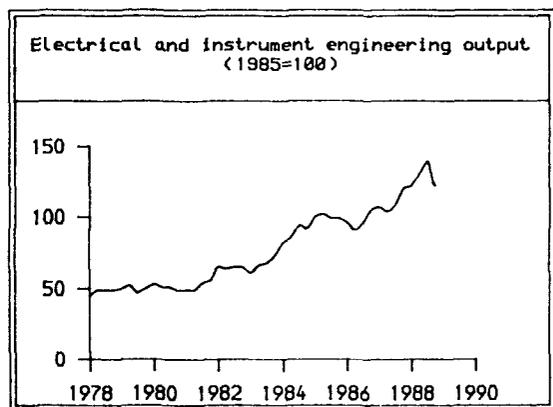
The American-owned Cummins diesel engine firm, which makes the engines used in British Rail's highly successful 'Sprinter' trains and the forthcoming 'Express' units, has supplied similar engines to JR Tokai, the central Japan railway. £1M of further orders is possible, while JR East requires £6.5M worth of engines. These are the first diesels to be imported into Japan for railway use. Cummins engines will also be exported as part of a Thai order for Sprinter trains.

Less positive news has come from Anderson Strathclyde, the mining equipment manufacturer. 160 redundancies have been announced, a quarter of the tunnelling equipment unit workforce. Pilkington have also lost jobs at

their Barr and Stroud Glasgow works.

Of longer term importance has been the continuing restructuring at the National Engineering Laboratory (NEL). This is now to become part of the government-owned National Technology Centre Ltd. (NTC). It is to be restructured and the underused site developed as a science park. These moves will require legislation, to be scheduled for the 1989-90 Parliamentary session, and are intended as a precursor to privatisation, which is now expected to take a number of years. This policy has not been accepted by the unions, who have developed an alternative plan for a business park to be created around an institution that would remain a part of the civil service. The poor morale at the NEL is indicated by the fact that 50 staff left in the period August-May.

#### ELECTRICAL AND INSTRUMENT ENGINEERING



Figures for the index of production for the fourth quarter of 1988 show a large (12%) fall from the preceding quarter, the index now standing at 122 (1985=100), the first fall of any significance since 1986. Taking 1988 as a whole, production has grown 28% since 1985.

The recent period has seen both good and bad news in the company sector, the net effect of which will be to further strengthen the overall influence of the foreign sector in Scotland. The decision by Compaq to expand its manufacturing facilities at Erskine is of course welcome. Compaq is a fast-growing company which has gone from

foundation in 1983 to sales of \$2.1bn last year, and is now one of the Top 50 (measured by sales revenue) global electronics companies and the second largest personal computer (PC) manufacturer after IBM. This is despite producing nothing but PCs, unlike other computer manufacturers, many of whom span the mainframe to microcomputer markets and who have interests in software, consultancy, etc. Compaq's phenomenal success can be traced mainly to three factors. Firstly, it is managed very professionally. The company was founded by three engineers from Texas Instruments and the company's founders are careful to distance themselves from the classic "garage " electronics start-up enterprises such as Apple or Sun Microsystems (the former of which have experienced many problems in PCs which can be traced to the lack of business experience of the founder, who has recently left the company). Secondly, Compaq is not a notably innovative company. It typically spends about 3-4% of revenue on R&D, about half the industry average, and in 1988 spent only \$75m on R&D which should be seen in comparison with the \$5bn spent by IBM (although IBM's spending covers a much wider range of products. IBM's world-wide revenues in 1988 were \$49.5bn). Compaq's approach has been to avoid meeting IBM head on, and it has not attempted to dominate the industry by evolving new industry standards for PCs, the approach which has caused problems for Apple. Compaq has instead tried to extend the performance of its IBM-compatible machinery. Compaq was in fact the first company to produce in IBM-compatible PC (in 1983) and recently became the first to develop a machine which incorporates 32-bit microprocessors, which significantly extend the raw data storage capability and processing power of PCs. Finally, Compaq has, as noted above, remained a dedicated PC producer, preferring to remain within the core area it knows best, systems engineering. So far, this strategy has been an enormous success, and it is a real testimony to the attractiveness of Scotland as a base for electronics production that it chose to locate its first overseas plant in this country, and the extra 450 jobs which will be created are a great boost to the Renfrew area.

However, questions must still be asked about the national and local impact of foreign-owned electronics plants. At the national level, there has been a large and growing deficit in the Electronic Data Processing sector (Activity Heading 3302) for at least a decade (Table 1).

Table 1 Net trade deficit (exports-imports) UK EDP 1978-87 (£m)

1978	-213
1979	-238
1980	-169
1981	-433
1982	-602
1983	-949
1984	-1050
1985	-3314
1986	-3094
1987	-3900

Source: Business Monitor MQ10.

Much of this is attributable to the activities of the foreign multinationals, largely American, which dominate this sector of UK industry and which use Scotland as a base for exporting into Europe. Despite the high exports which result, two factors seem to be most influential in causing a net deficit. First, of course, is the extremely high import propensity of foreign subsidiaries. Many high value components are purchased abroad such as circuit boards (USA, Far East) power supplies (Singapore, Japan) cooling fans (Taiwan), with Scottish suppliers being restricted to lower value products such as cabling and plastic hoods and chassis. Compaq is not of course alone in this of course. The largest European manufacturing facility is the IBM plant at Greenock which, like the Compaq plant, is restricted to a test and assembly facility and where the most important local purchases are again plastics and cabling. A similar type of situation is known to persist at the Apollo plant at Livingston where only 10% of total spending is in Scotland. Fundamentally, the above situation persists because of the restricted plant roles allotted to plants by parents where the assembly operations in Scotland have no product development functions in marketing or R&D. Most probably, this is due to economies of scale in R&D and the fact that established high technology clusters exist in the USA.

Secondly, there is the fact that the UK is itself one of the largest markets for PCs in Europe, accounting for 20% of the total European demand. Many of the imported components therefore never leave these shores.

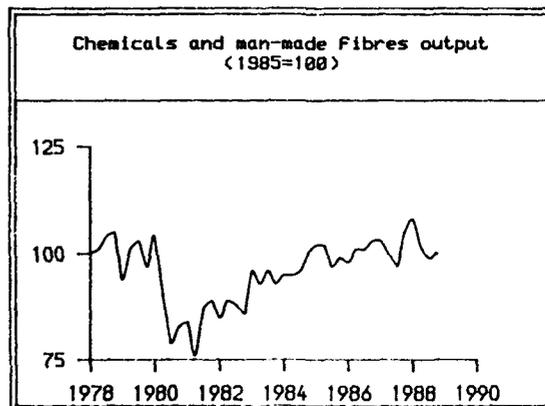
It is easy to blame US companies for the above situation, and one should not forget the significant employment and output benefits which result from their decisions to locate here (in addition, many PC manufacturers are relative newcomers and the import content may fall over time). One should bear in mind the example of the major indigenous UK producer, Amstrad, which has only recently switched from serving the UK market from the Far-East with the announcement that it is to produce PCs at the former GEC plant at Kirkcaldy. This decision was forced on Amstrad by concerns over local content in the run up to 1992, a force which will also influence other manufacturers. Indeed, both Apollo and Compaq are aiming for 100% European content by 1992, a situation which will create significant opportunities for Scottish companies.

The bad news for the indigenous sector is the continuing problems at the hard disk manufacturer Rodime. Along with Prestwick Circuits (of whom more below), the company has been considered as one of the major performers in Scottish electronics, but has been experiencing problems for a number of years as its products (3 inch disk drives) have become outdated and it was slow to establish overseas manufacturing facilities as disk drives became a commodity product. Following losses of \$24m last year and a fall in share values from £8.43 in 1986 to 43p at present, new management team has been appointed and the company is to concentrate on producing 100 and 200 megabyte disk drives for minicomputers rather than PCs.

Brighter news in the indigenous sector is the announcement that Prestwick circuits has won a large order (the exact size of which was not revealed) to supply printed-circuit boards for British Telecoms System X digital telephone exchanges. The news is a further boost for Prestwick which recently announced a return to profit, £1.1m in 1987.

#### CHEMICALS AND MAN-MADE FIBRES

The Scottish index of industrial production shows that for the fourth quarter of 1988 output in the chemical and man made fibres sector stood at 100 (1985 = 100). This represent a growth in output of 1% in this quarter which is half the growth experienced in the UK as a whole for the same quarter. Comparing 1988 with 1987 shows a Scottish growth of 1%. This, however, does not



compare favourably with the UK as a whole, which shows growth of 5%. A look at the preceding six years shows that growth in the output of this sector has consistently been poorer in Scotland than in the UK as a whole; 8% compared with 23%.

#### Scottish Chambers Business Survey - Chemicals and Man-Made Fibres

	% Balance	
	Mar 89	Dec 88
Balance of Optimism	5%	0%
Trend in Orders	46%	85%
Trend in Sales	46%	76%
Trend in Employment	41%	80%

The latest Scottish Chambers Business Survey (SCBS) shows (Table 1) that a balance of 5% of respondents are more optimistic about the general business situation than they were three months ago. For a net 46% of respondents the trend in new orders was up, 77% of these being export orders. However, there was a net 29% fall in orders from Scotland to the rest of the UK. Scottish new orders were up for a net 16% of respondents. The picture for sales was identical to that of new orders, except that of the 46% exhibiting an increase, 73% saw an increase in export sales (4% less than the level of new export orders). A balance of 41% of SCBS respondents showed an upwards trend in employment. Of these firms 9% saw an increase in male employment whilst

the bulk of the increase (37% of respondents) was in female employment. Comparing the latest SCBS with the previous survey shows that, whilst there has been a small increase in the balance of optimism (5%) the trends in orders, sales and employment; whilst still encouraging are down by almost one half.

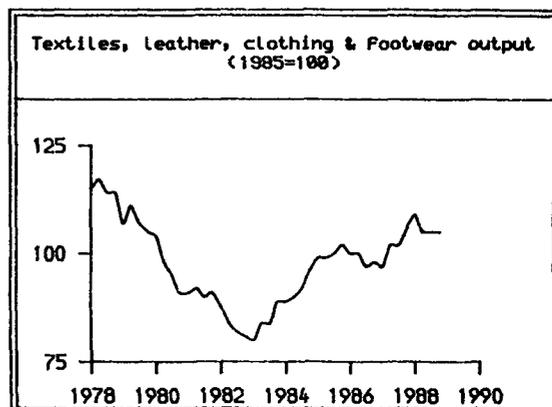
In the company sector Low & Bonar's £60 million capital investment of the last three years seems to be paying off. Having disposed of their troubled electronics division last summer they returned a healthy pre-tax profit figure of £22.2 million. Low & Bonar are concentrating on their existing specialist areas and indeed the electronics losses mask the increase of profits in these areas of 28%. Analysts James Capel expect profits for this year to grow to £26 million.

Scott & Robertson showed health pre-tax profits of £2.6 million, ahead of forecast expectations. Scott & Robertson, this year, are planning to increase their capacity for reprocessing waste from 20,000 tonnes a year to 30,000 tonnes, partly by the addition of a £1 million washing plant to the company's Ardeer factory. The company has set its sights on acquisitions in Europe this year, which should leave them well set for 1992.

Exxon have announced plans for a £200 million expansion at Mossmoran. This expansion will lead to an increase in annual ethylene production from 650,000 to 900,000 tonnes; an associated polymer grade propylene manufacturing plant will produce up to 180,000 tonnes a year. The immediate impact of this decision (subject to a successful planning application in the autumn) will be about 1200 construction jobs for 18 months. However, Exxon's workforce will expand by only 10%, about 35 jobs.

Exxon's plans will mean that they will be taking propane and butane as well as ethane from the adjacent Shell petro-chemical plant. It was only in March this year the Scottish Secretary, Malcolm Rifkind, gave the go-ahead for a £100 million expansion at the Shell site. This involves the erection of a third process plant to boost annual liquid petroleum gas (LPG) production by one third to 4.9 million tonnes. Shell states that this will create 900 jobs over a two year period and is essential to ensure the long term future of both the Shell plant and Exxon's complex.

## TEXTILES, FOOTWEAR, LEATHER & CLOTHING



The latest figures from the Index of Production and Construction for Scotland indicate that there has been no change in the level of production during the previous three quarters. The Index is still standing at 105 (1985=100). The figure for 1987 was 102 whereas in 1988 it was 106. In the UK as a whole, the Index is 103 compared to a figure of 102 for the third quarter of 1988.

The latest Scottish Chambers' Business Survey is still showing distinct signs of pessimism in this sector, with a balance of 32% of respondents being less optimistic than was the case during the three months to December 1988.

### Scottish Chambers' Business Survey Survey - Textiles, Footwear, Leather and Clothing

	% Balance	
	Dec 88	March 88
Balance of Optimism	-20	-32
Trend in Orders	+ 9	-20
Trend in Sales	+ 2	-18
Trend in Employment	+ 9	-17

The actual trends in employment, sales and orders have fallen, and more disturbing is that the trend in employment is expected to continue to fall. Female employment was the only category in the employment sector to have a positive trend with 2%

of respondents experiencing a rise. However, in the three months following March a balance of 40% of firms expect female employment to fall. The actual trend in male employment showed a balance of -37% and an expected balance of -31% over the following three months. During the next three months (April to June), both orders and sales are expected to rise for a balance of 30% and 31% firms respectively.

15 000 jobs were lost in the UK textile and clothing industries during 1988 due to competition from imports and pressures on profitability; these job losses have been continuing during the first months of 1989. Demand in the domestic market is faltering with a 7% rise in imports to £6.9bn, compared to an increase in exports of 2% to £3.6bn, according to the BTC. Textiles and clothing represent almost one quarter of the UK current-account trade deficit. UK companies are still less competitive than their international competitors and this is being aggravated by the relative strength of the pound and the weakness of the dollar and other south-east Asian currencies.

Grampian Holding's profits for 1988 jumped by 70% to £10.43 million; this exceeded most City expectations. However, as a cost saving exercise, they are likely to dispose of the Pitlochry shops on High Street sights.

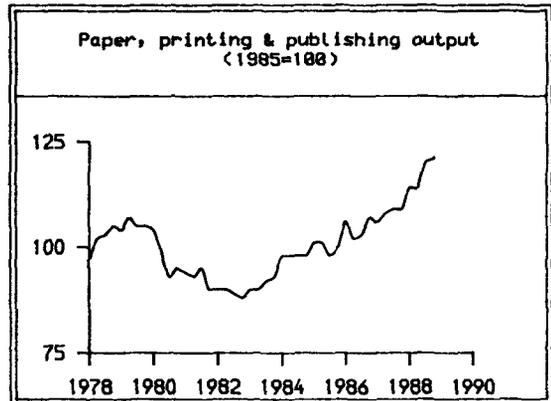
William Baird, a clothing and engineering group with 2000 employees in the Glasgow area, announced pre-tax profits of £31.9 million. Textiles profits advanced 35% to £21.1 million. Baird put their success down to the fact that they are mainly clothes manufacturers, whereas much of the industry's problems lie in the areas of weaving and spinning.

A receiver has been appointed to the Borders textile firm Andrew Stewart Woolens Ltd putting 150 jobs at risk. Urgent measures are being taken to find a buyer for the firm.

There have been recent warnings that up to 45,000 textile jobs in Scotland could be lost if the Multi-Fibre Agreement is scrapped by Lord Young, the trade and industry secretary, in 1991. These warnings were outlined in a report prepared for Borders Councillors and claimed that this would leave the Scottish textile industry open to the unprotected free market. The report estimated

that up to one fifth of the Borders workforce is employed in the textile industry, and claimed that the Borders is finding it difficult to compete with West Central Scotland, Tayside and the New Towns since the removal of Assisted Area Status in 1982.

#### PAPER, PRINTING AND PUBLISHING



The latest provisional index of production statistics for this sector suggest that Scottish output jumped by 5.3% between the second and third quarters of last year and increased by a further small amount (0.8%) in the fourth quarter to reach an index value of 121 (1985 = 100). At the end of 1988, Scottish output of paper, printing and publishing was 11.0% higher than it had been at the end of 1987. This is almost identical to the equivalent increase in output for the sector in the UK as a whole, at 11.1%.

Results from the May Scottish Chambers Business Survey suggest that modest growth in paper, printing and publishing continued in the early months of this year, with a net 29% and a net 30% of respondents reporting increases in new orders and sales respectively. Interestingly, all the growth in orders and sales was in the domestic (i.e. UK) market, while foreign markets actually declined on balance. Scottish employment in this sector fell slightly according to the SCBS and this trend was expected to continue in the second quarter.

SCBS firms were clearly uncertain in May about short-term growth prospects. no less than 46% of participants felt that a lack of orders or sales could limit output in the second quarter.

However, while a small majority (6%) felt that new orders would actually fall, a net balance (+20%) felt that sales would continue to increase.

## Services

### FINANCIAL SECTOR

Recent experience, including the publication by the Securities and Investments Board of its latest proposals for disclosure by the life assurance and unit trust industry, suggests that the UK should review again its regulatory regime. The main thrust of recent financial services legislation has been to dismantle the structural regulation that determines the competitive environment in which firms operate and to bolster the prudential regulation that acts to control the solvency and liquidity of institutions. The removal of structural barriers has allowed firms to compete on 'a level playing field' so long as they maintain adequate ratios for prudence. Of course, this idealised picture has not been completely true. The building societies are governed by a different set of rules from the banks and this has, at times, caused problems whilst the regulatory structure set up to oversee financial services appears at times to be uncertain of its role. By and large, however, UK regulation now concentrates on prudential aspects of control and does not attempt structural segregation of institutions.

And yet, it is not clear that the financial services sector, or more particularly the retail investment side, is performing as expected. It is true that competition between banks and building societies has greatly improved, and that we have greater choice of unit trusts than ever before, but it is certainly not all to the consumers benefit. The logic of present policies is to promote competition in order to increase choice and force prices down. For the UK domestic consumer there is a wider choice than ever but can we really argue that prices have been forced down?

Far from it. It is no secret that commission charges on life policies have been rising fast. Increased competition has not resulted in reduced prices but in increased commission to salesmen as marketing efforts have intensified. Nor are insurance companies alone. Unit trust charges have more than doubled since they were deregulated and there is talk of further increases whilst stock market costs to smaller investors have also

increased. Clearly, not all investors have suffered. Institutions have benefitted but most small investors, whether investing through intermediaries or direct, face higher costs. Costs are rising because increased competition has resulted in higher expenses rather than reduced costs.

It could be argued that these higher expenses are in themselves an investment in superior management but, leaving aside the logical impossibility of all managers doing better, there is little evidence to support such a view. League tables of portfolio performance, beloved by every marketing man in the financial services sector, reveal little beyond the instability of rankings. League tables are rarely on a (risk) adjusted basis and, even with the crude comparisons frequently used, it is rare for portfolios to consistently outperform others with similar objectives. The reason is not hard to seek. There is a competitive market in information so that prices reflect what is known and investors are unable in the long run to earn above average returns for the risk they take on. In short, good portfolio performance is determined by chance. This is not quite correct. The investment manager cannot consistently make above average decisions but they can, by the expenses charged, consistently reduce investment performance. On average over time, the higher the expenses charged, the lower the performance that will be achieved.

As with any general statement there are always exceptions. High charges in some instances will reflect the greater costs of worthwhile information acquisition, venture capital being a case in point, but overall higher charges simply reduce performance. The effect of these charges is not immediately apparent. Both the long run effects of compounding and the fluctuations in security returns mask the impact of higher expenses in the short run. How many investors are aware that return on UK equity over a long period has rarely been more than 14% and generally very much less? Given the large fluctuations in annual returns and the absence of detailed and unbiased information it is hardly surprising that some investors should believe that increasing charges will make little difference and may even be beneficial.

This really is the heart of the matter. The variability of stock market prices, investor gullibility and greed fuelled by adverts that

encourage wishful thinking together with an absence of well informed information means that the ordinary consumer is unable to see where his best interests lie. Once we accept this view (and how else is one to make sense of the behaviour of small investors) then it is apparent that the current regulatory framework is inadequate. The current view that full information disclosure is all (at most) that is required for sensible and economically rational investment decision making must be altered. The full information view to which many commentators subscribe (including this one in the past!) failed to perceive the intense lobbying and wasteful use of resources that recommendations for disclosure would provoke (and it is interesting to know how the mutual offices can justify not making such disclosure information known to their policyholders) and, more important, did not realise that full disclosure of information is not sufficient to lead to wise investment decisions. There is no evidence, for example, to suggest that higher unit trust charges have reduced sales. The small investor simply shrugs them off as relatively insignificant and ignores their impact on benefits years away in the future.

What then are we proposing? Our concern is to safeguard investors. Our belief is that the current regulatory framework is inadequate and that statutory controls over charges to the public should be reintroduced. We are not suggesting an elaborate framework of legislation. The financial markets should be as free as possible of controls but we do believe that the investor needs protection over and above that available from information disclosure.

Changes in the regulatory framework do not have a Scottish dimension. However, our concerns are of considerable relevance in so far as they relate to the life assurance industry and unit and investment trusts. A safe prediction to make is that unless regulatory changes are introduced, investment trust charges will increase substantially in the near future and returns on life assurance policies will decline. The dramatic increases in promotion, particularly relating to investment through savings schemes, will lead inevitably to higher costs and charges. This will benefit Scottish fund managers; it will not benefit consumers. Increased protection is required for consumers to redress the inadequacies of the present framework. Fiddling with disclosure requirements for life assurance is not sufficient.

The failure of competition to hold down expenses suggests that legislation is required to control commission payments and other investment charges.

There is, of course, an element of inconsistency in our argument. We have for a number of years argued that Scottish financial institutions should market themselves more aggressively, and when they do, we complain. We note however, in the spirit of a well known investment book, that investment advertising and promotion is 'a game worth winning, although it may not be a game worth playing.' Once everyone advertises the benefits to the few are lost and the result is merely higher costs to consumers. We need to stop the merry-go-round of increased expenses and charges. Regulation appears to be the only way.

## DISTRIBUTIVE TRADES

### Wholesaling

Contrary to expectation expressed in December, the wholesaling sector appears to have enjoyed a buoyant first quarter according to the latest Scottish Chambers Business Survey, with a net 69% of respondents reporting trend increases in sales volume. Perhaps reflecting this favourable outcome, general business optimism has also increased in this sector.

Wholesaling employment continued to grow in the first quarter, according to a net +27% of SCBS respondents. Equal net gains were recorded in both full-time and part-time employment.

In terms of short-term prospects, a substantial majority (+56%) of wholesalers expected continuing sales growth in the second quarter, while a much smaller majority (+6%) expected further rises in employment. The most important possible constraints to short term sales growth were insufficient floor space and stock shortages, both noted by 16% of SCBS wholesale participants.

Figure 1 below shows the geographical pattern of May SCBS wholesaler responses. The North Eastern Chamber areas had a particularly good first quarter in sales terms, and respondents there were notably more optimistic about general economic conditions than wholesalers in the Central Belt. Positive expectations about further sales growth in the second quarter were fairly uniformly spread throughout all four Chamber areas. In contrast, only in Glasgow and Aberdeen was there any

evidence of actual or expected employment increases.

Table 1 Geographical Response to May SCBS - Wholesaling

		Balance of Respondents in:			
		G	E	D	A
		%	%	%	%
Overall Confidence	UP	-19	0	+32	+68
Actual Sales	UP	+52	+46	+92	+74
Expected Sales	UP	+49	+64	+62	+59
Actual Employment	UP	+28	-32	0	+48
Expected Employment	UP	+3	0	0	+16
Investment Intentions	UP	+26	+18	+59	+14

Key : G=Glasgow, E=Edinburgh, D=Dundee, A=Aberdeen

#### Retailing

According to the May SCBS retail sales growth continued in the first three months of this year with a net 54% of respondents reporting increases. As in wholesaling, the good first quarter results prompted a small rise in overall retailer optimism.

In contrast to sales, first quarter SCBS retail employment was essentially static, with a recorded net rise (+13%) in part-time employment being effectively offset by a net decline (-11%) in full-time employment.

A significant net majority (+44%) of retailers expected sales to rise still further in the second quarter. However, on balance a small decline in total employment was also forecast. As in wholesaling, the only possible constraints to short-term sales growth noted by any number of retailers were stock shortages and insufficient floorspace. In response to the latter, 25% of May SCBS retail respondents indicated that they had revised their investment intentions upwards.

The geographical breakdown of responses to the May retail SCBS is shown in Table 2. At this level of disaggregation, sample sizes are relatively small and this probably accounts for some of the marked

Table 2 Geographical Response to May SCBS: Retailing

		Balance of Respondents in:			
		G	E	D	A
		%	%	%	%
Overall Confidence	UP	+66	-21	-40	0
Actual Sales	UP	+38	-23	+58	+39
Expected Sales	UP	+75	-29	-15	+92
Actual Employment	UP	-6	-24	-17	+5
Expected Employment	UP	+15	-68	-26	+10
Investment Intentions	UP	+21	+28	-1	+38

variations in the real pattern of responses. However, it seems clear that short-term performance and prospects were poorer for Edinburgh retailers than for those in the other Chambers areas.

#### TRANSPORT AND TRANSPORT EQUIPMENT

##### Air

As most readers will be aware, the government has decided that there will not be a review of Prestwick's role as Scotland's sole transatlantic gateway, an issue which has been discussed extensively in previous issues of this Commentary, where our views on the situation have been made plain many times. Consumers, however, appear to be stuck with the situation although there is a possibility that the matter will be taken to the European Court on the grounds that it contradicts an open skies policy. The government has instead decided to consider an improved road/rail access package for Prestwick, possibly involving up to £100m, although no firm details are available on this as yet. As pointed out in the last issue of this Commentary, this would still leave Prestwick with much poorer access facilities than Abbotsinch, and even if links are improved there will be little to encourage passengers from the East Coast. In the present supposedly competitive climate, the decision seems very odd indeed.

##### Road

The government's announcement of a major new

initiative for the country's roads, to cost a total of £6bn at the national level, will allow significant improvements to be made to a number of major roads. Announcements have already been made that the A85 Perth-Dundee route (£16m), the A96 Aberdeen-Inverness route (£70m) are to be improved, that work is to begin on a new motorway from the M8 at Newbridge to the Edinburgh by-pass (£35m) and, most significantly, two further stretches of the A74 are to be upgraded to motorway status, leaving only 56 miles remaining as a trunk road. The influence of the CBI can be detected in this latter decision, since they have lobbied furiously for full motorway status for the A74 for a long time. Furthermore, their argument that it should be a three-lane motorway has also been met. It is not yet known whether the remaining stretches will be upgraded, but in light of the increased expenditure noted above, it seems likely before the end of the decade.

In the bus sector, the soon to be privatised Scottish Transport Group has reported increased profits for 1988 of £13.5m, up from £4.7m in 1987. The Privatisation Bill is presently passing through the Commons, and is expected to receive the Royal Assent in July, when the company will be split into 11 separate units. Interestingly, the government has conceded that it is examining ways to prevent asset-stripping, a tacit admission that this did happen after the sell-off of the National Bus Company in England.

## HEALTH

Scottish Office allocations to Health Boards for 1989-90 have been announced: £1875 million for recurrent expenditure and £148.8 million for capital expenditure. The recurrent figure now, sadly, includes £12.63 million specifically earmarked for AIDS programmes. Total gross expenditure for the NHS in Scotland is forecast at £2797 million for 1989-90. £6.5 million is to be made available for institutions to reduce waiting lists - the targets set are to see or treat an additional 27,000 out-patients, 173,000 in-patients and 1,800 day cases.

The Registrar General for Scotland's Preliminary Return and Population Estimates for 1988 show Scotland's estimated population at June 30th 1988 to be 5,094,001, down 18,128 on mid-1987, mostly through net migration. The infant death rate at 8.2 per 1000 live births was the lowest on record and perinatal mortality rate (stillbirths plus

deaths in the first week of life) was 8.9 per 1000 live births, equal to the 1987 all-time low. Cancer (23.8% of all deaths) and heart disease (29%) continue to be the major killer diseases. Although the number of cancer deaths in males fell for the first time since 1980, cancer deaths in females rose - including 1,372 lung cancer deaths, 4.3% of all deaths. Deaths from cerebrovascular disease (strokes) continued to fall in 1988, but still accounted for 9.9% of all deaths in men and 16.2% in women. These figures would appear to reinforce the view that prevention and promotion in health are critical for significant improvements in the health of Scotland's people.

In mid-April Scottish Health Minister Michael Forsyth announced the terms of a new contract for doctors designed to meet the perceived distinctive characteristics of the Scottish health system. GPs will qualify for basic practice allowance (BPA) if they have lists containing at least 400 patients and BPA will be payable in respect of the first 1,200 patients. For child immunisation and cervical cancer screening items of service payments are to be replaced by target payments, which will be made for achieving 90% cover in child immunisation and 80% cover for cervical cytology. There will be scope for the "staging" of these payments for lower coverage levels. Other contractual measure include: the Scottish Rural Practices Fund will be retained, with entitlement to BPA being based on average list sizes; single-handed GPs in very isolated areas will be entitled to a new allowance to employ a shared associate GP, thus allowing time off; GPs in deprived areas will receive a BPA supplement in respect of all patients on their lists living in such deprived areas. The contract has been agreed UK-wide by the doctors' representatives but not yet by the doctors themselves.

Meanwhile the government's proposed changes to the NHS continue to produce a lot of noise on all sides. British Medical Association leaflets and advertisements suggesting that patients might suffer in various ways through what is perceived as the financial/cost accounting/competitive market approach to health provision, and statements by doctors, nurses and other health workers, are countered by refutations from the Scottish Office. Often these are in published form, but in one case took the shape of Health Minister Forsyth giving up part of his Sunday leisure time to visit a family whose doctor

suggested would not receive appropriate drug treatment under the proposed indicative drug budgets. It appears that health personnel simply do not believe the regularly-repeated assertion of government health ministers that the NHS will be strengthened by the proposals, the fear being that the changes are the first steps towards a much more privately-oriented health sector, both financially and in health care provision.

To suggestions from such diverse commentators as The Economist magazine, the Guardian newspaper, and various health economists (including, notably, Alain Enthoven, the American widely regarded as producing many of the ideas behind the current proposals) that the government should stretch the timetable for implementation of the proposals and in particular build upon the lessons from the current Resource Management Initiatives by further pilot experimentation, health minister Kenneth Clarke responds by suggesting that Hospital Trusts

and GP budget-holders will initially only be small in number, so their experiences could be regarded as experimental. At the same time he is scathing about "academic" studies and gives every impression of wishing to stick to the tight timetable proposed, with many of the elements of the reform in place by 1991. It is unlikely the government will be deterred in its determination to introduce "provider" markets (perhaps misleadingly called "internal" markets, since the private sector will be involved contractually with the NHS) into the health service. In addition, not all doctors are against such procedures as medical audit, indicative drug budgets, and other ways of attempting to improve the delivery of health services. If compromises are to be made, the most likely would be in the timespan for the implementation of the proposals. Thus far, though, the health professions have been rather fierce in their opposition to the whole thrust of the proposals.

# The Labour Market

## THE LABOUR MARKET

### Employment: Stocks and Flows

Since July 1984 the Labour Force Surveys (LFS) have been employed to assist in the estimation of the numbers of employees in employment. In particular, they have been used to correct for apparent persistent under-recording of employees in employment by the regular sample surveys. Additionally the LFS provides estimates of annual changes in the numbers of self-employed which are used to update the benchmark figure provided by the census of population.

The revisions to the estimates of the numbers of employees in employment in Scotland generated by the Spring 1988 LFS are reported in tables 1 and 2. On the original estimates total employees in employment grew by only 5 thousand or roughly 0.3 per cent over the year to September 1988. The revised estimates show an increase of 36 thousand or 1.2% (on a base estimate which is itself higher by 0.9% than originally). In September 1988, for example, the number of employees in employment has been revised upward due to the LFS by a total of 47 thousand, which is equivalent to an increase in estimated employment levels of 2.5% of the employment stock.

Table 1 Employees in employment in Scotland: industry aggregates (000's)  
(Figures in parentheses reflect revisions due to 1988 LFS)

SIC 1980	Male	Female		Total	Production & construc. industries	Production industries	Manufacturing industries	Services industries
		All	Part-time					
					1-5	1-4	2-4	6-9
Scotland								
1979 June	1,205	897	332	2,102	831	676	604	1,224
1983 June	1,060	839	337	1,899	646	512	444	1,216
1986 Sept	1,020	866	367	1,886	595	460	409	1,261
Dec	1,006	868	375	1,874	586	451	404	1,259
1987 Mar	997	865	375	1,862	578	442	396	1,254
June	1,006	880	379	1,886	579	441	395	1,277
	(1,010)	(882)		(1,892)				
Sept	1,001	878	383	1,879	577	437	392	1,273
	(1,011)	(884)	(381)	(1,895)	(584)	(442)	(397)	(1,283)
Dec	996	881	389	1,877	572	432	388	1,278
	(1,012)	(891)	(385)	(1,903)	(582)	(440)	(395)	(1,294)
1988 Mar	989	879	387	1,868	570	429	386	1,271
	(1,010)	(893)	(381)	(1,903)	(584)	(439)	(396)	(1,292)
June	996	892	389	1,888	568	427	385	1,292
	(1,021)	(908)	(383)	(1,929)	(584)	(439)	(396)	(1,316)
Sept	992	892	389	1,884	569	427	387	1,287
	(1,021)	(911)	(382)	(1,931)	(588)	(443)	(400)	(1,315)
Dec	(1,021)	(923)	(396)	(1,943)	(589)	(443)	(402)	(1,327)

Source: Department of Employment Gazette, May 1989 and earlier issues.

Table 2 Employment: Scotland Employees in employment ('000s)\*

SIC	1980	Agric./ forestry/ fishing	Energy and water supply	Metal Manuf. & chemicals	Met.goods, Eng. & vehicles	Other Manuf.	Constr- uction	W'sale Dist. hotels & catering 61-63	Retail distrib. 64/65	T'sport & communi- cation	Banking, Insurance & finance	Public admin.& defence	Educ.health & other services
		0	1	2	3	4	5	66-67	64/65	7	8	91-92	93-99
Scotland													
1979		48	72	82	258	265	155	197	194	135	123	170	403
1983		37	68	55	195	194	134	188	183	119	140	171	416
1984	Mar	36	66	52	189	191	136	180	183	118	138	170	421
	June	35	65	53	189	192	136	193	186	115	141	170	425
	Sept	37	65	53	187	193	139	193	186	115	146	170	419
	Dec	33	65	53	188	192	138	187	196	114	146	169	422
1985	Mar	32	63	53	187	190	137	188	184	115	147	169	427
	June	34	60	52	188	191	136	195	185	115	146	170	432
	Sept	36	59	51	189	189	136	198	188	115	151	172	428
	Dec	31	58	50	186	187	135	191	193	113	150	171	433
1986	Mar	31	56	49	184	183	133	190	187	111	151	172	428
	June	31	53	48	182	181	134	199	186	110	155	175	435
	Sept	30	51	48	180	181	135	199	187	111	158	176	431
	Dec	29	47	47	178	179	135	190	191	108	159	176	436
1987	Mar	30	46	47	176	173	136	189	183	106	161	176	439
	June	30	45	46	177	172	135	198	185	108	165	177	444
	Sept	28 (28)	45 (45)	46 (46)	175 (177)	171 (173)	140 (142)	202 (203)	182 (183)	108 (109)	164 (166)	179 (180)	439 (442)
	Dec	27 (27)	44 (44)	46 (47)	173 (176)	169 (172)	140 (142)	194 (197)	191 (193)	106 (108)	166 (169)	179 (181)	442 (446)
1988	Mar	27 (27)	42 (43)	46 (47)	172 (177)	168 (172)	141 (144)	199 (202)	184 (186)	105 (107)	165 (169)	180 (183)	439 (445)
	June	28 (28)	42 (43)	45 (46)	173 (178)	167 (172)	141 (145)	208 (212)	185 (187)	105 (108)	169 (173)	181 (185)	444 (452)
	Sept	28 (28)	41 (42)	45 (47)	175 (181)	166 (172)	142 (145)	203 (207)	185 (188)	103 (106)	174 (179)	178 (184)	443 (451)
	Dec	(27)	(41)	(48)	(183)	(171)	(146)	205)	(188)	(106)	(179)	(175)	(469)

Source: Department of Employment Gazette, August 1988.

\* Figures in parenthesis reflect revisions due to 1988 LFS

These changes may appear somewhat minor in relation to total employment stocks, but they do in fact imply a rather different picture of labour market flows than was previously available. Thus a number of commentaries had commented on the "puzzle" of decreasing levels of unemployment juxtaposed against fairly stable employment. For example, over the year to September 1988 unemployment fell by some 37,000 yet the number of employees in employment was previously estimated to have risen by only 5,000 over the same period. The new estimate of an increase in employees in employment of 36 thousand appears, at first sight, to be capable of resolving the "puzzle" in a straight-forward fashion. It would appear that as unemployment was falling employment was in fact increasing by a comparable amount, although recorded employment failed to pick this up at the time.

Some further evidence which could be considered supportive of this view is apparent in table 3, from which it is apparent that the numbers of self-employed increased by around 21,000 (10.8%) over the year to June 1988, and those employed in work-related government training also increased by some 7,000 (17%). Thus the other components of the total civilian workforce in employment have exhibited a much greater proportionate rate of growth than "employees in employment". The growth in self-employment, in particular, might be emphasised by the Government as indicative of growing "enterprise" (although the year to June 1987 saw a fall of 9,000 in the numbers of self-employed).

If the employment-unemployment "puzzle" is to be genuinely resolved, clearly the explanation must also be compatible with the sex and industrial composition of changes in employment and unemployment. Of the 37,000 contraction in numbers unemployed over the year to September 1988, 25,000 were male. Initial estimates actually implied that the number of male employees in employment fell by 9,000 over the same period, whereas female numbers increased by about 14,000. The revised employment data do indeed imply that male employees in employment increased by 10,000 over the year to September 1988 and that the comparable female numbers went up by 27,000. When combined with the fact that 16,000 additional males (and 4,000 females) were in self-employment over the year to June 1987 (and 7,000 more males were employed in work-related government training) these observations do suggest that revisions to

employment data provide a coherent explanation of the apparent employment/unemployment puzzle.

In particular, the expansion in male employment, especially marked in self-employment, has been of an order of magnitude which appears to be compatible with the view that falls in male unemployment largely reflect this stimulus to employment.

The composition of the upward revision to the numbers of employees in employment was, for September 1988, as follows. Of the total increase of 47,000 in estimated employees in employment 29,000 or 61.7% are male. Despite the general upward revision of employment estimates due to the 1988 LFS, those for part-time female employment are a notable exception. For September 1988, for example, part-time female employment was over-estimated by some 7,000. Over the year to September 1988 total female employment increased by around 27,000 of which only 1,000 were part-time. (Previously it had been thought that total female employment had increased by 14,000 of which 6,000 were part-time). Of the upward revision to employment of 47,000, 19,000 are in production and construction industries (an increase of 3.3%) and 18,000 (1.4%) are in the service industries.

The most recent employment data (available only on the basis of LFS induced revisions) are for December 1988, and these are also reported in tables 1 and 2. Overall, total employees in employment increased by 40 thousand (2.1%) in the year to December 1988. Male employees in employment also rose, by 9 thousand (0.9%), and total female employment increased by 32 thousand (3.6%), of which 11 thousand (34% of the increase in total female employment) was part-time.

As far as the Scottish labour market as a whole is concerned, recent employment estimates are certainly rather more compatible with an optimistic perspective. Total employment has been growing noticeably (rather than being rather flat) and full-time equivalent employment has been growing proportionately more noticeably (instead of declining). There are few grounds for unbridled optimism, however. First, to the extent that employment has been under-recorded, productivity gains have, of course, been over-recorded. Secondly, total employees in employment still remains 7.6% below its 1979 level despite an increase of 64,000 (19.3%) in part-time female employment. Full-time male employment is some 184

Table 3 Employment in Scotland ('000 Not seasonally Adjusted)

	June 1983			June 1985			June 1986			June 1987			June 1988		
	Male	Female	All												
<u>Scotland</u>															
Employees in employment	1060	839	1899	1039	864	1904	1021	866	1887	1010	882	1892	1020	908	1929
Self-employed	137	42	179	151	49	200	165	40	205	152	42	194	168	46	215
Work-related government training*	0	0	1	11	9	21	14	11	24	19	15	34	25	17	41
Civilian work-force in employment <sup>+</sup>	1198	881	2079	1202	923	2125	1200	917	2117	1181	939	2120	1213	972	2185
<u>Great Britain</u>															
Employees in Employment	11670	8901	20572	11697	9309	21006	11629	9460	21088	11669	9728	21398	11977	10096	22072
Self-employed	1652	508	2160	1923	628	2550	1937	630	2567	2099	701	2801	2205	721	2926
Work-related government training*	3	5	8	94	74	168	122	96	218	171	132	303	199	135	335
Civilian work-force in employment <sup>+</sup>	13325	9414	22739	13714	10010	23724	13687	10185	23872	13940	10561	24501	14381	10952	25333

\* Participants in work-related government training schemes include most YTS trainees, who do not have contracts of employment (those who have contracts of employment are counted as employees in employment), and participants in the New Job Training Scheme

<sup>+</sup> The sum of employees in employment, the self-employed, and participants in work-related government training programmes.

Source: Department of Employment Gazette, April 1989

thousand (-15.3%) below its 1979 level and full-time female employment is around 38,000 below its 1979 level (-6.7%). Nonetheless whilst long-term comparisons are unaffected by data revisions (as we would expect since only estimates from the second quarter of 1987 were revised), shorter-term comparisons also suggest welcome improvements in the performance of the Scottish labour market, at least in terms of job provision.

Table 4 Unfilled Vacancies at Jobcentres - Scotland Vacancies at Jobcentres as at 6 Jan 1989, Thousands

		SEASONALLY ADJUSTED			VACANCIES AT CAREER OFFICES	
		Number	Change since prev. month	Average change over 3 months ending	Unadjusted Total	Unadjusted
1988	Jan	19.6	-1.0	-0.3	16.8	0.5
	Feb	19.5	-0.1	-0.5	17.0	0.5
	Mar	19.8	0.3	-0.3	18.5	0.5
	Apr	20.6	0.9	0.3	20.6	0.4
	May	20.1	-0.5	0.2	21.3	0.7
	Jun	19.6	-0.4	0.0	21.0	0.7
	Jul	19.8	0.2	-0.3	21.2	0.6
	Aug	20.0	0.2	0.0	20.7	0.6
	Sep	20.0	0.0	0.1	21.8	0.6
	Oct	20.6	0.6	0.3	22.0	0.4
	Nov	20.0	-0.6	0.0	20.5	0.5
	Dec	20.5	0.5	0.2	18.8	0.4
1989	Jan	19.9	-0.6	-0.2	17.0	0.5
	Feb	19.7	-0.2	-0.1	17.2	0.5
	Mar	19.7	0.0	-0.3	18.5	0.5
	Apr	20.3	0.6	0.1	20.2	0.6

\* Vacancies at jobcentres are only about one third of all vacancies in the economy

Source: Employment Department Press Notice

#### Vacancies: stocks and flows

Over the year since April 1988 unfilled vacancies at job centres in Scotland fluctuated between 19.6 (17.0) and 20.6 (22.0) thousands on a seasonally adjusted (unadjusted) basis (Table 4). However, vacancies have been higher as compared to 1987. Indeed a trend increase has been discernible since the "trough" (at around 10.8 thousand) of 1981. However, the stability in the stock of unfilled vacancies conceals considerable activity in terms of gross inflows and outflows (Table 5). These were of a similar order of magnitude to the outstanding stock of vacancies in each month. Accordingly, during 1988 there were a total of over 240,000 vacancies at job centres, well over 80% of which resulted in placings. The short average duration of vacancies is a sign that employers on average do not find it difficult to fill posts because of a continuing slackness in the labour market (although, of course, employers may still find it difficult to recruit specific skills in particular locations.)

#### Unemployment: stocks and flows

Recent data on the seasonally adjusted unemployment stock are presented in table 5. The most recent data, of course, reflect the current rules governing eligibility to claim benefit which have been in place since September 1988. These reflect the extension of a guaranteed offer of a YTS place to all those under 18 who have not found a job, under the Employment training Scheme. Under 18s are consequently not now entitled to claim benefit and so are excluded from the unemployment count. Table 6 presents a short time series of unemployment in the old as well as the new basis to facilitate comparison.

April 1989 saw a fall of some 7.1 thousand (0.3 percentage points) in total unemployment (of which 5.1 thousand was attributable to males and 2.0 to females), which fell to below 10% of the workforce for the first time since 1981 (although changes in definitions complicate such comparisons). In the last quarter of 1988 unemployment also fell by around eight thousand. Over the year to April 1989 total unemployment fell by about 32 thousand, from 288 thousand or 1.6 percentage points. This represents a reduction in the level of unemployment of 11 per cent which, of course, constitutes rather good news for the Scottish labour market. Furthermore, 30,500 of the reduction occurred among males and around 15,000

Table 5: Vacancy flows at Jobcentres, standardised, seasonally adjusted Scotland

Date	In-flow		Out-flow		Thousands of which: Placings	
	Level	Average change 3 months ended	Level	Average change 3 months ended	Level	Average change 3 months ended
1987 Oct	20.9	0.2	20.1	0.1	17.2	0.0
Nov	21.7	0.6	21.1	0.6	18.0	0.4
Dec	22.1	0.6	22.2	1.0	18.8	0.8
1988 Jan	20.5	-0.1	21.6	0.5	18.1	0.3
Feb	20.2	-0.5	20.6	-0.2	17.3	-0.2
Mar	20.6	-0.5	20.4	-0.6	17.1	-0.6
Apr	20.7	0.1	20.4	-0.4	17.3	-0.3
May	20.8	0.2	20.5	0.0	17.4	0.0
June	20.9	0.1	21.5	0.4	18.2	0.4
Jul	20.1	-0.2	19.8	-0.2	16.6	-0.2
Aug	20.9	0.0	20.7	0.1	17.5	0.0
Sep	21.2	0.1	20.7	-0.3	17.4	-0.3
Oct	21.0	0.3	21.0	0.4	17.6	0.3
Nov	20.9	0.0	21.5	0.3	18.5	0.3
Dec	21.9	0.3	21.1	0.1	18.0	0.2
1989 Jan	20.0	-0.3	20.7	-0.1	17.6	0.0
Feb	22.3	0.5	22.7	0.4	19.3	0.3
Mar	21.1	-0.3	21.3	0.1	18.0	0.0
Apr	19.8	-0.1	19.3	-0.5	16.4	-0.4

Source: Department of Employment

among females.

As already noted, this pattern of changes in unemployment, specifically the significant fall in male unemployment had seemed a little curious against the background of apparent recent changes in employment. However, the changes in employment implied by the 1988 LFS seem largely to explain the apparent puzzle in such a way as to offer

rather more support for the optimistic perspective on the Scottish labour market.

Table 7 presents recent flows into and out of the unemployment stock. In April 1989 inflows were, at 30.5 thousand, nearly 8 thousand less than in the same months of 1988, although outflows were, at 38.9 thousand, 5.7 thousand less than in January 1988. Although gross outflows in April

Table 6 Scotland - Unemployment - seasonally adjusted (excluding school leavers (000s) (Figures in parentheses reflect estimates on September 1988 basis - see text for details)

Date	Male	Female	Total	Change since previous month	Average change over 6 months ending	Unemployment rate percentage of working population
1984	235.2	106.4	341.6			14.0
1985	243.6	109.3	353.0			14.2
1986	248.1	111.8	359.8			14.5
1986 Dec	242.6	104.8	347.4	1.2	1.1	14.0
1987 Jul	232.9	97.8	330.7	-3.2	-3.0	13.3
Aug	229.4	96.8	326.2	-4.5	-3.3	13.1
Sept	226.4	93.9	320.3	-5.9	-3.8	12.9
Oct	223.2	92.3	315.5	-4.8	-5.1	12.7
	(219.8)	(89.6)	(309.4)	(-4.2)	(-4.7)	(12.5)
Nov	220.2	91.1	311.3	-4.2	-4.3	12.5
	(216.7)	(88.4)	(305.1)	(-4.3)	(4.0)	(12.3)
Dec	218.2	90.5	308.7	-2.6	-4.2	12.4
	(214.5)	(87.8)	(302.3)	(2.8)	(-4.1)	(12.2)
1988 Jan	216.0	90.2	306.2	-2.5	-4.1	12.3
	(212.4)	(87.3)	(299.7)	(-2.6)	(-3.9)	(12.1)
Feb	213.5	89.9	303.4	-2.8	-2.8	12.2
	(209.7)	(86.9)	(296.6)	(-3.1)	(-3.7)	(11.9)
Mar	211.6	88.5	300.1	-3.3	-3.4	12.1
	(207.7)	(85.6)	(293.3)	(-3.3)	(-3.4)	(11.8)
Apr	208.8	86.5	294.9	-5.2	-3.4	11.9
	(204.6)	(83.8)	(288.4)	(-4.9)	(-3.5)	(11.6)
May	206.0	85.1	291.1	-3.8	-3.4	11.7
	(202.5)	(82.3)	(284.8)	(-3.6)	(-3.4)	(11.5)
Jun	202.5	83.4	285.9	-5.2	-3.8	11.5
	(199.0)	(80.7)	(279.7)	(-5.1)	(-3.8)	(11.3)
Jul	199.3	82.7	282.0	-3.9	-4.0	11.4
	(196.0)	(79.9)	(275.9)	(-3.8)	(-4.0)	(11.1)
Aug	197.5	82.1	279.6	-2.4	-4.0	11.3
	(194.3)	(79.1)	(273.4)	(-2.5)	(-3.9)	(11.0)
Sept	201.0	82.1	283.1	3.5	-2.8	11.4
	(194.2)	(78.1)	(272.3)	(-1.1)	(-3.5)	(11.0)
Oct	(193.4)	(76.7)	(270.1)	(-2.2)	(-3.1)	(10.9)
Nov	(191.0)	(75.5)	(266.5)	(-3.6)	(-3.1)	(10.7)
Dec	(186.7)	(73.5)	(260.2)	(-6.3)	(-3.3)	(10.5)
1989 Jan	(184.0)	(72.6)	(256.6)	(-3.6)	(-3.2)	(10.3)
Feb	(181.7)	(71.7)	(253.4)	(-3.2)	(-3.3)	(10.1)
Mar(r)	(180.2)	(70.3)	(250.5)	(-2.9)	(-3.6)	(10.0)
Apr(p)	(175.1)	(68.3)	(243.4)	(-7.1)	(-4.5)	(9.7)

Source: Employment Department Press Notices (p) Provisional and subject to revision.  
(r) Revised.

Table 7: Unemployment flows - standardised, unadjusted: Scotland (000s)

Month ending	In-flow	Out-flow
1987 Oct	46.7	54.5
Nov	44.0	47.5
Dec	38.2	35.3
1988 Jan	43.0	34.6
Feb	39.8	48.2
Mar	35.6	46.1
Apr	38.3	44.6
May	32.5	45.8
Jun	35.5	44.2
Jul	43.0	41.5
Aug	34.2	40.1
Sep*	43.4	43.3
Oct	37.9	55.2
Nov	36.6	38.4
Dec	33.5	34.3
1989 Jan	32.2	26.9
Feb	33.1	40.7
Mar	31.7	39.0
Apr	30.5	38.9

\* The September figures are biased by the postal strike.

were rather low by recent standards, if they were maintained the unemployment stock of 243.4 thousand would turnover is less than 7 months. However, at Table 8 illustrates, "average" unemployment durations belie the widely varying experience of individuals of different ages (and sexes).

#### Industrial Relations in Scotland

The industrial relations agenda in Scotland continues to be dominated by events in England especially in respect of disputes in the Civil Service, rail, docks, communications and the Health Service.

Thus the concerns within the Health Service in Scotland are similar to those south of the border as to government proposals for reform. The spread of managerialism within the Health Service has led to opposition and unrest; for example, trade

unions have applied for an interdict with respect to GGHB proposals for the Mental Health Unit, there are continued claims for regrading and allegations of a "hard" management line over employment issues.

Whilst the action by BBC staff reflects a national campaign there is a Scottish dimension. Underlying the pay claim is a fear of a progressive decline of the Corporation in Scotland with increasing use being made of casual and contract staff and a reduction in programme generation.

Concern continues to be voiced as to the impact on local government employment of CCT. A number of authorities have undertaken surveys of affected staff to assess the likely demand for voluntary redundancies. For labour authorities CCT has posed exceptional difficulties. Lothian Regional Council's attempt to calculate displacement costs in awarding tender in house will be a significant test case.

Within the public sector education has been the key industrial relations area. The dispute within universities, whilst leading to local settlements, has been overtaken by plans for rationalisation and merger. Educational collaboration involving universities and colleges appears to be an issue of increasing importance. The employment implications are profound and would involve considerable displacement of staff given demographic projections and duplication of courses.

The primary and secondary sector will increasingly face employment issues given plans for devolution of financial responsibilities. Developments in England, with respect to financial accountability, performance appraisal and increased responsibilities for head teachers, have preceded developments in Scotland, but suggest the implications will be considerable. Head teachers will have to undergo training in finance, management training and to develop ideas of performance indicators and quality assurance. Much will depend upon the quality of training provided and the basic financial principles. In England the salary budget has been based on an average rather than an actual salary cost, this has posed immense problems for schools where the average age of teachers is above the national average. Moreover, schools have had to consider insurance policies to provide cover for staff

absent through illness. It is to be hoped that such schemes, with the obvious inefficiencies in allocation of resources and inflexibility in the use of labour are to be avoided in Scotland. Equally it is to be hoped that some awareness of the problems of appraisal and establishing adequate performance indicators in schools governs the introduction of such schemes over the next year.

In the bus industry the sacking of four stewards from Central Scottish bus depots led to prolonged industrial action. The unions claimed the dismissal stemmed from a meeting the stewards had attended to discuss a possible buy out of two bus companies (Central and Kelvin Scottish). A buy-out which might not involve the current management team. Management strenuously denied this claim and argued the dismissals were for proper disciplinary reasons. ACAS proposals suggested the reinstatement of three of the stewards, but not the convenor who was said to be involved in plans for a buy-out.

In mining, the contraction of deep mining

continued with the announcement of the closure of Bilston Glen and Monktonhall. The opposition to the pit closure weakened as the Scottish NUM recognised the effective ending of deep mining in Scotland.

The STUC continues to experience a decline in membership with a drop in membership of 25,000 over the past year. The STUC has sought to address the rules relating to expulsion of member unions. This stems from the Legal action by EEPTU against suspension. Issues of demarcation continue to feature in relations between STUC and TUC. The STUC has sought to be consulted in an inter union dispute which involve Scottish workers. However the TUC has expressed reservations about such a procedure. For its part the TUC is seeking a written accord with the STUC that it will handle inter-union disputes in Scotland if at least one of the unions involved wants. It is unclear as to whether such an arrangement would have improved the difficulties at Dundee, moreover, such an agreement would question the importance of the STUC. Hence the STUC is seeking a formal mechanism for the TUC to consider its views on Scottish disputes.

# Regional Review

## REGIONAL REVIEW

In the past twelve months, the Scottish unemployment rate has averaged 3.4% higher than that for the UK as a whole, and it is generally accepted that movements in the Scottish labour market do not mirror those witnessed elsewhere in the UK. Changes in Scottish employment patterns were addressed in the previous section. However, these labour market movements have not been uniformly experienced throughout Scotland and it is the purpose of this section to highlight the variations which occur at the sub-Scottish level.

In the Labour Market section the data used, was typically adjusted for seasonal factors. Data availability necessitates that unadjusted figures be utilised in this section and this should be recognised when considering the tables which not only give the most recent statistics but also those of the previous quarter. The tables which compare the current unemployment situation with that which prevailed last year should also be interpreted cautiously. This is because the new regulations (introduced in September 1988), which affect the eligibility of young people aged under 18 to claim unemployment-related benefits, mean that this grouping is included in the April 1988 count but excluded from that for April 1989. The two sets of statistics are, in consequence, not directly comparable.

Regional unemployment rates are calculated by expressing the number of unemployed as a percentage of the estimated total workforce (the sum of unemployed claimants, employees in employment, self-employed, HM Forces and those on work-related government training programmes). Estimates for the self-employed are not made below the regional level and hence for intra-regional calculations the total workforce is more narrowly defined including only employees and the unemployed. Consequently, sub-Scottish unemployment rates are greater than the Scottish rate and are not consistent with it.

Table 1 shows for each local authority region and Scotland as a whole, the unemployment rate, the numbers of unemployed in April 1988 and 1989, and the change which has taken place in those twelve

Table 1: Unemployment by region

	% rate Apr 89	Total Apr 89	Total Apr 88	Total Change	% Change in total
Borders	6.1	2,308	3,024	-716	-23.6
Central	11.5	12,089	14,859	-2,770	-18.6
Dumfries & Galloway	9.4	5,332	6,765	-1,433	-21.2
Fife	11.6	15,530	19,784	-4,254	-21.5
Grampian	5.9	13,672	18,895	-5,223	-27.6
Highland	10.5	9,300	13,031	-3,731	-28.6
Lothian	8.6	31,393	40,314	-8,921	-22.1
Strathclyde	13.4	136,134	167,551	-31,417	-18.8
Tayside	10.1	17,041	21,336	-4,295	-20.1
Orkney Is.	9.6	645	806	-161	-20.0
Shetland Is.	5.6	553	669	-116	-17.3
Western Is.	16.7	1,639	2,050	-411	-20.0
Scotland	9.8	245,636	309,084	-63,448	-20.5

Source: Department of Employment

months. A fall of 63,448 in the unadjusted total of the numbers unemployed in Scotland, has resulted in an unemployment rate below 10%. Whilst this compares favourably with the corresponding figure of 12.4% which prevailed in April last year, direct comparison cannot be made for the reasons previously outlined. Scottish unadjusted unemployment stood at 245,636 which represents 9.8% of the workforce.

All Scottish regions witnessed a decline in the numbers out of work in the year from April 1988 but there are variations in the unemployment situation experienced in these areas. Highland Region experienced the largest annual decline in unemployment with 28.6% fewer people unemployed in April 1989. The corresponding figure for Grampian Region was 27.6% and declines of 23.6% and 22.1% were experienced in the Borders and Lothian respectively. The mainland regions witnessing declines in unemployment below the 20.5% Scottish average were Tayside (20.1%), Strathclyde (18.8%) and Central (18.6%). All

three Island regions saw below-average declines in their unemployment totals. Shetland witnessed the smallest annual percentage change with total unemployment in April 1989, 17.3% lower than it was in April 1988. Although, both the Orkney Islands and the Western Isles had 20% declines in their unemployment totals, this is a marked improvement for the latter area which in the last quarter actually saw a year-on-year rise in unemployment. Despite its comparatively moderate reduction in unemployment, Shetland, with an unemployment rate of 5.6%, is still the local authority area with the lowest proportion of its working population unable to find work. Grampian and the Borders, with respective rates of 5.9% and 6.1%, are not far behind. Other regions with rates below the 9.8% Scottish average were Lothian (8.6%), Dumfries and Galloway (9.4%) and the Orkney Islands (9.6%). In spite of a reduction of 31,417 in the total numbers of unemployed, which represents just under half (49.5%) of the total Scottish decline, Strathclyde is still the mainland region with the highest unemployment rate which in April 1989 stood at 13.4%. This was only surpassed in the Western Isles where, despite a 20% reduction in total unemployment, the rate was 16.7%. However, although seasonal factors will be exerting some influence, this is considerably better than the January figure of 22.2% reported in the last Commentary.

The annual change in male and female unemployment in the local authority regions is shown in Tables 2 and 3. As the tables indicate, female unemployment has continued to decline more rapidly than that for males. Between April 1989 and April 1988, male unemployment declined by 40,136 to stand at 178,022. The net result of this 18.3% decline, is a Scottish male unemployment rate of 12.3%. Highland region saw the largest annual percentage change in male unemployment with 31.4% fewer out of work in April 1989 than the same time last year. The only regions experiencing declines below the Scottish average 18.3% reduction in male totals, were Central (16.6%), Strathclyde (16.1%) and the Shetland Islands (15.6%). Of the mainland regions, Grampian and the Borders have least male unemployment relative to the male workforce with impressive male unemployment rates of 7.0% and 7.5% respectively. Strathclyde with a rate of 17.7%, has the highest proportion of its male workforce unable to find work. Central and Fife, with respective rates of 14.5% and 14.0% do not compare well with the Scottish average. Shetland

had the lowest overall male rate at 6.2% which represents 352 unemployed males. The Western Isles with 22% of its male workforce unemployed, is the Scottish region with the highest rate.

In the twelve months to April 1989, female unemployment fell by 25.6%, a fall of 23,312, to stand at 6.4% of the female workforce (included in the unemployment count). In total, 67,614 females were unemployed in Scotland. Grampian Region with an annual percentage change of -29.7% in female unemployment, witnessed the most substantial decline. Lothian also fared well with 29.3% fewer females out of work in April this year. Although both total and male unemployment declined by the largest proportion in Highland Region, it was the mainland area witnessing the smallest proportional reduction with an annual change of -21.8%. The Island areas all experienced reductions below this with the Western Isles having the smallest decline in female unemployment with 15.8% fewer of the female workforce registered as unemployed in April this year compared with this time last year. Not surprisingly, the Western Isles has the highest female unemployment rate but it is interesting to note that at 9.6% this is still below the overall

Table 2: Male Unemployment by region

	% rate	Total	Total	Total	% Change
	Apr 89	Apr 89	Apr 88	Change	in total
Borders	7.5	1,579	2,026	-447	-22.1
Central	14.5	8,353	10,018	-1,665	-16.6
Dumfries & Galloway	11.0	3,446	4,304	-858	-19.9
Fife	14.0	10,782	13,619	-2,837	-20.8
Grampian	7.0	9,151	12,466	-3,315	-26.6
Highland	12.8	6,395	9,316	-2,921	-31.4
Lothian	11.6	22,971	28,401	-5,430	-19.1
Strathclyde	17.7	101,547	121,094	-19,547	-16.1
Tayside	12.8	11,781	14,395	-2,614	-18.2
Orkney Is.	11.5	432	534	-102	-19.1
Shetland Is.	6.2	352	417	-65	-15.6
Western Is.	22.0	1,233	1,568	-335	-21.4
Scotland	12.3	178,022	218,158	-40,136	-18.3

Source: Department of Employment

Table 3 : Female Unemployment by region

	% rate Apr 89	Total Apr 89	Total Apr 88	Total Change	% Change in total
Borders	4.3	729	998	-269	-27.0
Central	7.9	3,736	4,841	-1,105	-22.8
Dumfries & Galloway	7.4	1,886	2,461	-575	-23.4
Fife	8.3	4,748	6,165	-1,417	-23.0
Grampian	4.5	4,521	6,429	-1,908	-29.7
Highland	7.5	2,905	3,715	-810	-21.8
Lothian	5.1	8,422	11,913	-3,491	-29.3
Strathclyde	7.8	34,587	46,457	-11,870	-25.6
Tayside	6.9	5,260	6,941	-1,681	-24.2
Orkney Is.	7.1	213	272	-59	-21.7
Shetland Is.	4.8	201	252	-51	-20.2
Western Is.	9.6	406	482	-76	-15.8
Scotland	6.4	67,614	90,926	-23,312	-25.6

Source: Department of Employment

Scottish unemployment rate of 9.8% for the total workforce, hence emphasising that registered female unemployment, relative to that for males, is quite small. Fife Region has also had a noticeably high female unemployment rate of 8.3%. The Borders, Grampian and the Shetland Islands all had below 5% of their female workforce out of employment, with rates of 4.3%, 4.5% and 4.8% respectively.

Comparing Tables 2 and 3, male unemployment is higher than that experienced by females in all Scottish local authority areas. Of the mainland regions, Strathclyde displays the largest differential between the rates, with the male unemployment rate 9.9% higher than that for females. The smallest difference is to be found in Grampian where 2.5% separates the male rate from the female rate. This was surpassed on the Shetland Islands where 1.4% separates the rates. In the Western Isles, the rate of male unemployment is 12.4% higher than the rate for females. With the exception of Highland and the Western Isles, there was a more substantial proportional decline in female unemployment than in that for males.

It is useful to compare unemployment levels with the number of vacancies available. Table 4 addresses the issue of the inter-relationship

between unemployment and vacancies as best as limited data allows. For each Scottish local authority region, vacancy levels are indicated which, when considered in conjunction with the unemployment levels contained in Table 1, are then used to calculate an unemployment/vacancy ratio. These figures should be interpreted carefully for a number of reasons.

Firstly, the vacancy figures presented represent only those unfilled vacancies notified at Job Centres and Careers Offices on the reporting date. Typically, such vacancies are for lower paid and lower skilled jobs and latest estimates suggest that nationally about one third of all vacancies are notified to Job Centres. Consequently, it is not possible to formulate a complete picture of the current demand for labour from published vacancy data.

Occasionally measurement error occurs in vacancy data. Notified vacancies are usually recorded to either Job Centres (who mainly deal with openings for adults over 18) or Careers Offices (who mainly

Table 4: Registered Vacancies\* and Unemployment/Vacancy (U/V) Ratios by Region, April 1989

	Total Vacancies <sup>+</sup>	U/V Ratio <sup>+</sup>
Borders	522 (447)	4.4 (6.3)
Central	1,117 (908)	10.8 (14.5)
Dumfries & Galloway	659 (410)	8.1 (15.4)
Fife	949 (784)	16.3 (21.3)
Grampian	2,658 (2,955)	5.1 (5.3)
Highland	1,259 (604)	7.4 (18.9)
Lothian	3,084 (2,269)	10.2 (15.0)
Strathclyde	9,318 (8,223)	14.6 (17.8)
Tayside	947 (786)	18.0 (23.7)
Orkney Is.	105 (46)	6.1 (15.6)
Shetland Is.	97 (59)	5.7 (11.1)
Western Is.	97 (49)	16.9 (44.5)
Scotland	20,812 (17,540)	11.8 (15.3)

\* Unfilled Vacancies at Job Centres and Careers Offices

+ Figures in brackets refer to the previous three months (January 1989)

Source: Department of Employment

handle opportunities for young persons under 18 years of age). But sometimes a vacancy will be notified to both services or indeed to more than one Job Centre and thus could be included in more than one vacancy count.

Caution should be exercised when interpreting the unemployment/vacancy ratio which is intended to give a broad indication of the numbers of registered unemployed people competing for each vacancy because the true U/V ratio is likely to be lower than that indicated. As already mentioned registered vacancies represent only a proportion (approximately one-third) of the total number of vacancies in the economy and hence the denominator of the calculation should be larger making the outcome smaller. This effect is partly offset by the fact that not only registered unemployed people will compete for vacancies.

Despite these shortcomings, data relating to vacancies and U/V ratios are a useful guide to regional variations and in order that developments may be observed, data relating to the situation three months previous are also given in Table 4.

In April 1989, the total number of unfilled vacancies notified to Job Centres and Careers Offices was 20,812 which is 3,272 (18.7%) more than had been notified in January of this year. In conjunction with a fall in the number of unemployed, the increase in vacancies has led to a fall in the U/V ratio for Scotland from 15.3 in January to 11.8 in April. With the exception of Grampian, the number of registered vacancies has increased in all regions with the Orkney Islands witnessing the largest relative increase (there was 2.3 times the number of vacancies in April compared with January). There were 297 fewer vacancies in Grampian but the area's significant fall in unemployment meant that there was still a slight improvement in the U/V ratio (for the area which at 5.1 is the second lowest. This was bettered by the Borders which with a ratio as low as 4.4 suggests that firms in this area may experience recruitment difficulties in the near future. All regions saw a reduction in the U/V ratio but none so much as the Western Isles which saw a reduction from an excessive 44.5 at the start of the year to 16.9 in April, a reflection on the near doubling of registered vacancies and a considerable fall in unemployment. Tayside, despite a 5.7 reduction, still has the highest U/V ratio of 18.0 which compares poorly with the 11.8 Scottish average.

As Tables 1 to 4 demonstrate, the fortunes of the labour market vary considerably between local authority areas as well as between males and females. However, considerable variations also occur within regions. The smallest area for which unemployment rates are calculated is a Travel-to-Work-Area (TTWA). This is an approximation to a self-contained labour market where most commuting to and from work occurs within the TTWA boundary. There are 57 TTWAs in mainland Scotland and by comparing unemployment rates of the various TTWAs contained within a region, it is possible to glean a picture of intra-regional variations in unemployment.

Table 5 indicates the number of TTWAs contained in each region which have unemployment rates above the Scottish and regional average. If the vast majority of a region's TTWAs have rates in excess of the Scottish average then this broadly indicates a high unemployment region. The converse also holds. Strathclyde is a typical example of the former with 11 out of the 12 TTWAs contained in the region exhibiting unemployment rates above the Scottish 9.8% average. Conversely, the Borders confirm their position as an area with relatively low unemployment since only 1 of the 5 TTWAs contained in the region has a rate greater than 9.8%. Tayside is the only region with more TTWAs this quarter (compared to last quarter) with rates above the average for

Table 5: TTWAs with unemployment rates above the Scottish and Regional average, April 1989

	No of TTWAs	No above Scottish Average <sup>+</sup>	No above Regional Average <sup>+</sup>
Borders	5	1 (1)	2 (2)
Central	3	2 (2)	1 (1)
Dumfries & Galloway	7	3 (5)	4 (4)
Fife	3	2 (2)	1 (1)
Grampian	9	4 (4)	8 (8)
Highland	8	6 (7)	5 (6)
Lothian	3	1 (1)	1 (1)
Strathclyde	12	11 (12)	7 (7)
Tayside	7	3 (2)	2 (2)
Scotland	57	33 (36)	31 (32)

<sup>+</sup> Figures in brackets refer to the previous three months (January 1989)

Source: Department of Employment

Scotland. Comparing the TTWAs' unemployment rates with the regional averages is useful in identifying the presence of areas with significantly above-or-below average unemployment. If the majority of a region's TTWAs have rates in excess of the regional average then this indicates the presence of a few areas, possibly even one, with below-average unemployment. Such a case can be illustrated by Grampian where all but one of the nine TTWAs located in the region have unemployment rates above the regional average. It is the low-rate TTWA of Aberdeen where only 4.7% of the working population is unable to find employment, which is drawing down the regional average. Tayside can be used to illustrate the

reverse case. Only two of Tayside's seven TTWAs exceed the 10.1% regional norm which is being pulled up by Arbroath and Dundee with respective unemployment rates of 14.3% and 11.3%.

Unemployment statistics relating to TTWAs can also be manipulated to indicate the distribution of unemployment within regions. For each mainland region, the TTWA with the highest and lowest unemployment rate is shown in Table 6. It is thus possible to calculate the range of unemployment rates experienced in each region and also the ratio of the highest to the lowest rate. Figures are also presented for the situation which prevailed three months ago in January. As the

Table 6: TTWAs with highest and lowest unemployment rates

		% rate		High - Low <sup>+</sup>	High/Low <sup>+</sup>
		Apr 89	Jan 89		
Borders	H Berwickshire	10.2	12.8	5.7 (7.2)	2.3 (2.3)
	L Galashiels	4.5	5.6		
Central	H Alloa	15.6	16.6	6.3 (6.0)	1.7 (1.6)
	L Stirling	9.3	10.6		
Dumfries & Galloway	H Cumnock and Sanquhar	22.0	23.9	14.7 (16.1)	3.0 (3.1)
	L Dumfries	7.3	7.8		
Fife	H Kirkcaldy	12.8	13.7	5.0 (4.7)	1.6 (1.5)
	L North East Fife	7.8	9.0		
Grampian	H Forres	17.7	20.3	13.0 (14.9)	3.8 (3.8)
	L Aberdeen	4.7	5.4		
Highland	H Skye and Wester Ross	15.5	18.8	7.2 (8.9)	1.9 (1.9)
	L Inverness	8.3	9.9		
Lothian	H Bathgate	11.5	13.2	4.2 (5.1)	1.6 (1.6)
	L Haddington	7.3	8.1		
Strathclyde	H Girvan	19.3	20.6	11.5 (9.0)	2.5 (1.8)
	L Oban	7.8	11.6		
Tayside	H Arbroath	14.3	15.0	6.8 (6.6)	1.9 (1.7)
	L Perth	7.5	8.6		

<sup>+</sup> Figures in brackets refer to the previous three months (January 1989)

Source: Department of Employment

table indicates, Dumfries and Galloway still has the biggest range of unemployment rates in its TTWAs as well as the TTWA with the highest unemployment rate in Scotland. Cumnock and Sanquhar's 22.0% compares poorly with Dumfries's 7.3%, although the range of 14.7% is an improvement on January's 16.1%. A notable range is also exhibited in Grampian Region where 13% separates Forres' high unemployment rate from Aberdeen's 4.7%. Lothian region displays the lowest range with only 4.2% separating Bathgate (11.5%) and Haddington (7.3%). Fife, which at the time of the last Commentary had the lowest range, actually witnessed an increase in its range of values principally due to a disproportionate reduction in North East Fife's unemployment rate (the low TTWA) from 9.0% to 7.8%. Central and Tayside also experienced slight increases in the range of high to low unemployment rates and although Strathclyde looks to have increased its range from 9.0% in January to 11.5% in April, in

January Oban was not the TTWA in Strathclyde with the lowest unemployment rate but rather Ayr was. In April, Ayr's unemployment rate was 10.4% and thus this rise in Strathclyde's range is partly attributable to the reduction in unemployment in Oban.

Some information on intra-regional disparities in the unemployment situation can also be obtained by examination of the ratio of highest to lowest TTWA unemployment rate for each region. As Table 6 indicates, except in Strathclyde, these ratios are little changed since January. Grampian still has the highest ratio with unemployment in Forres 3.8 times higher than unemployment in Aberdeen. Ratios in excess of 2 were also noted in Dumfries and Galloway (3.0), Strathclyde (2.5) and Borders (2.3). Fife and Lothian both have ratios of 1.6 and Central with 1.7 is not far behind suggesting that there are not significant disparities in unemployment within these areas.

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# Briefing Paper

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SMART TECHNOLOGY AND SMART PEOPLE: HUMAN RESOURCE DEVELOPMENT IN THE ELECTRONICS INDUSTRY

by

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## Introduction

There are a number of indicators in the electronics industry in Scotland which currently suggest that developing the management and workforce base will provide solutions to industry challenges being predicted for the 1990s. These challenges refer to increasing globalisation of the industry, the growing importance of Europe as the major growth market for electronics firms, and the need for flexibility in organisations to be able to respond rapidly to change.

There is little doubt that the make-up of the industry in Scotland is changing, if somewhat slowly. The Scottish Development Agency in its 1988 Scottish Electronics Industry Database noted the increasing level of qualified personnel employed by the industry across a range of functions. There are currently 3,400 research workers employed in the electronics industry and the level of qualified personnel across a range of functions such as Research and Development, manufacturing, sales and marketing has increased by 25 per cent since 1986 (SDA, 1988).

Young, Hood and Dunlop (1988) have noted the growing tendency of multinationals in Scotland to exhibit significant Research and Development operations, to undertake product and/or process development for European and/or world markets, and for the Scottish managers of these firms to attain considerable levels of autonomy over product and marketing decisions. The main issue here is that the "branch plant syndrome" is being diminished over time and with this subsidiary operations are offering higher quality jobs, higher local linkages, limited technology transfer and significant R&D and marketing responsibilities.

One would be tempted to argue that with the growth of such responsibility comes a number of opportunities. Chief amongst these are issues related to developing key personnel in foreign-owned manufacturers, ensuring that the skills base in these companies continues to increase and spread to indigenous firms, and encouraging the management of qualified personnel to take their smart people with smart ideas out into the enterprise world.

However, as one might expect, the possibility of direct comparison between the Palo Alto model of critical mass spin off and that of the central belt is somewhat limited. There are a number of features which account for this. One of the more important of these is the degree of human resource development invested in the management of electronics companies in Scotland. The National Economic Development Council's (NEDC) Electronics Industry Sector Group reported in 1988 that in order to strengthen competitiveness in UK Electronics, 'UK companies will have to invest heavily to create and develop technical and managerial skills, counteracting any disadvantages inherent in the UK education system and culture.' The main argument here is not one of a nation lacking in technical competence, but rather, 'in the overall emphasis placed by UK companies on human resources development...' (NEDC, 1988, p.67).

This paper examines the implications of human resource management for the Scottish electronics industry over the next few years. It deals with three areas. How are human resource development issues in American subsidiary electronics companies being addressed? Are there lessons to be learned from the foreign-owned sector in terms