

**Impact of the SEM upon
the Gloucestershire Economy**

**Executive Summary and
Sectoral Assessment**

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PREFACE

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The aim of the project was to assess the impact of the Single European Market upon the economy of Gloucestershire. In providing a macro-economic assessment of the SEM's impact on Gloucestershire we have drawn on the macro-economic modelling work of our own institute, particularly that of Professor Robert Lindley and Dr. Rob Wilson and we are grateful to them for making their results available to us.

This report has tried to give as full an account as possible of the economic consequences of the SEM and the process of economic convergence within the EC which is currently taking place. In this respect the report provides a context against which future policy shifts in the process of economic convergence may be addressed.

A limited amount of comment has been made on agriculture in this report - this reflects the uncertainty attached to the future of the Common Agricultural Policy and its place in the Uruguay Round of GATT negotiations. However, agriculture is now a relatively small part of the Gloucestershire economy.

This report does not reflect the opinions of either the Institute for Employment Research at the University of Warwick or Gloucestershire County Council. The authors accept sole responsibility for the opinions expressed in the report.

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ABBREVIATIONS

CEC	- Commission of the European Community
CSF	- Community support Framework
DGV	- Directorate General V of the CEC (Social Affairs)
EAGGF	- European Agricultural Guidance and Guarantee Fund
EC	- European Community
EC-4	- UK, France, Germany and Italy
EC-12	- Twelve European Community Member States
ECB	- European Central Bank
ECOFIN	- Council of Economic & Finance Ministers
EMI	- European Monetary Institute
EMU	- European Monetary Union
ERDF	- European Regional Development Fund
ERM	- Exchange Rate Mechanism
ESCB	- European System of Central Banks
ESF	- European Social Fund
GDP	- Gross Domestic Product
H&S	- Health and Safety
ICT	- Information and Communication Technology
IER	- Institute for Employment Research
IGC	- Inter-governmental Conference
NTB	- Non Tariff Barriers
PSBR	- Public Sector Borrowing Requirement
QMV	- Qualified Majority Voting
SAD	- Single Administrative Document
SAP	- Social Action Programme
SD	- Social Dimension
SEA	- Single European Act
SEM	- Single European Market
TTWA	- Travel To Work Area

Abbreviations used in Charts and Tables

B - Belgium	F - France	LUX - Luxembourg
D - Germany	G - Greece	NL - Netherlands
Den - Denmark	I - Italy	P - Portugal
E - Spain	IRL - Ireland	UK - United Kingdom

EXECUTIVE SUMMARY AND SECTORAL ASSESSMENT

The overall aim of the project was to map the impact of the SEM on the Gloucestershire economy, gauge the opinions of local employers of the SEM's impact on their business and to identify how local economic agencies (Gloucestershire County Council, the TEC and so on) might react to the SEM's operation. The first part of the research relied upon the Institute for Employment Research's macro-economic modelling work with respect to the SEM. For the second part of the study Round Table discussions were held with local employers, with Gloucestershire County Council acting as host. The first part of this summary provides a brief outline of the results from the entire research project. The second part provides an assessment of the SEM's impact upon output and employment by sector in Gloucestershire to the year 2000.

A. EXECUTIVE SUMMARY

European Integration and the Single European Market

- It is difficult to assign a precise definition to the Single European Market.
- The integration process involved in the creation of a sustainable and workable Single European Market has three main parts:
 - the removal of barriers to trade;
 - a social dimension; and
 - Economic and Monetary Union.
- Lack of competitiveness in relation to Japan and the USA was a key driving force behind the desire to create a single market.
- The focus of the '1992' programme has been the elimination of remaining *physical*, *technical* and *fiscal* barriers to trade.
- There are contrasting viewpoints on the likely outcomes of the Single European Market:
 - increased competition and co-operation will have a positive effect on economic growth,
 - there will be *losers* as well as *winners* - exacerbating existing differentials between regions, localities and social groups.
- The *Social Dimension* embodies a range of labour market and other measures designed to raise and level the floor of social protection across the Community. Progress in this sphere has been relatively slow.
- European Community *Structural Policy* is designed to promote economic and social cohesion by providing mechanisms to redress imbalances between poorer and richer areas and between disadvantaged and advantaged social groups.
- The path to *Economic and Monetary Union* is gradual, with convergence of member state economies an essential prerequisite.

The United Kingdom and the European Community

- Relative to the three largest economies in Europe - Germany, France and Italy - the performance of the UK economy on a series of macro-economic indicators is mixed.
- Since the mid 1980s unemployment in the UK has been lower than the European Community average.

- The German economy is the crucial motor in the European economy, and the recent weakening of the German economy has made convergence of Community economies easier.
- In the past two decades there has been a substantial restructuring of European industry, with key features including:
 - the shift towards the service sector and hi-tech manufacturing industries; and
 - the shift away from the primary sector and the traditional manufacturing sector.
- Relative to the European Community, the UK displays a marked specialisation in financial services.
- Some industries are more sensitive than others to the removal of non-tariff barriers. Organisational adaptiveness is essential if sensitive sectors are to avoid the threats and take advantage of the opportunities of the Single European Market.
- The UK has been the principal recipient of foreign direct investment in the European Community.
- The overall employment situation in the UK is favourable by comparison with other northern European Community member states.
- The UK employment structure is biased towards services and has a relatively small proportion of workers in agriculture.
- Skill shortages in the UK tend to be severe.
- In relation to other major European economies, more people are employed in large enterprises in the UK.
- By contrast with the *social partnership* emphasis of the Social Dimension, the main thrust of UK policy in recent years has been *labour market deregulation*.
- There is considerable uncertainty surrounding what the Single European Market or the Social Dimension will mean in practice. Whereas the Commission view their operation as inextricably intertwined, the UK Government sees them as separate entities.

The Gloucestershire Local Economy

- Gloucestershire emerges as a prosperous county within a prosperous region. Both local and regional economies performed well in the 1980s.
- The county boasts good communications and a favourable environmental image.
- In-migration has played an important role in population growth in Gloucestershire and the South West over the last two decades. There was a substantial growth in the labour force in the 1980s, reflecting natural change and participation rate increase.
- There is a lower than average incidence of unemployment within the county and the region, despite increases in unemployment during the current recession.
- Variations in socio-economic structure and change are evident within the county, with the Forest of Dean emerging as one of the most depressed areas.
- Output, income and earnings levels are relatively high, in both regional and national contexts.

- While the South West has an under-representation of manufacturing and an over-representation of services relative to the national average, the converse applies in Gloucestershire.
- Regional and local industrial structures were favourable to employment growth during the 1980s. The service sector has been the main engine of employment growth in recent years, with producer services displaying the greatest relative increase.
- Gloucestershire is located within the most defence-dependent region in the UK, and has a particular concentration of defence-related employment.
- The size profile of employment establishments in Gloucestershire is biased more towards larger establishments than the regional profile.
- The county occupational structure is oriented towards higher level non-manual occupations.
- Despite a number of positive advantages, structural changes and European developments present serious threats as well as opportunities to the local economy.

The Single European Market and Gloucestershire

- The Single European Market is an evolving process shaped by a variety of economic, social and political pressures and concerns facing policy makers.
- Three scenarios capture the variation exhibited by policy makers:
 - the *efficiency scenario*: anticipating a sharpening of product market competition in Europe,
 - the *cost-cutting scenario*: a 'worst case' decline in real economic prosperity, involving a downward spiral of wage costs, quality of jobs and even quality of products,
 - the *quality scenario*: a 'best case' situation with higher overall investment in physical and human capital leading to a virtuous circle of higher investment, wages and profits.
- Under the *efficiency scenario* output in the UK is projected to increase at 2 per cent per year to 2000, with employment growth confined to the service sector as one million jobs are lost in primary and manufacturing industry.
- The *cost-cutting scenario* sees a reduction in demand for UK exports and the highest job losses - involving services as well as manufacturing.
- UK output and employment increases are highest under the *quality scenario*, but there are doubts about the sustainability of this scenario given the existing infrastructure of training provision in the UK.
- Whether the Gloucestershire economy behaves as the UK economy or as the South West economy, quantitative assessments of the impact of the Single European Market reveal that the most important difference between the three scenarios is in the relative size of output and employment; there are only negligible differences in terms of industrial structure.
- The key question for Gloucestershire within a more economically integrated European Community is largely one of whether the current position of relative strength in relation to the UK and European economies can be maintained.

- Overall Gloucestershire is well-placed to take advantage of a more integrated European economy: services are somewhat insulated from the creation of a Single European Market, and other things being equal, Gloucestershire should be able to share in benefits of any growth in the hi-tech sector.
- A number of qualifications to this positive outlook may be identified:
 - the extent to which a single internal market can stimulate competitiveness of the European economy in the hi-tech sector;
 - the extent to which Gloucestershire can secure its share of any growth in the hi-tech sector as cuts in defence expenditure take place;
 - the extent to which a ready supply of professional and associate professional workers is available to sustain growth; and
 - the vulnerability of the local economy to corporate decision making.

The Response of Gloucestershire Employers

- The scenarios presented to employers in the series of Round Table discussions elicited the following responses:
 - defence cutbacks were occurring more quickly than had been expected and for this reason the scenarios appeared a little optimistic; and
 - with specific reference to the service sector, sources of growth in the medium term were difficult to identify.
- Training was recognised as being important to the future growth of the county, but:
 - during the current economic recession there had been cutbacks in training; however
 - there had been significant progress towards higher quality training, multi-skilling and such like.
- Participants from the manufacturing sector recognised that concepts such as *total quality systems* were longer established in the rest of Europe.
- Providers of training, primarily local college representatives, expressed concern about the declining resources available to them. The colleges were under pressure to become more responsive in outlook: in some instances this meant catering for students who wished to study the *liberal arts* rather than pushing technological and engineering courses.
- Attracting foreign direct investment, particularly into manufacturing, was considered to be important in improving industrial competitiveness and helping to alleviate unemployment. However:
 - this should be targeted to encourage investment in small and medium sized enterprises; and
 - large scale projects such as Nissan at Washington were inappropriate in the Gloucestershire context.
- The attractiveness of Gloucestershire to investors included:
 - the strong industrial base; and
 - skilled labour pool.
- Representatives from the larger manufacturing companies stated that Gloucestershire needed to play a positive role in a "Europe of Regions". The peripheral position of

Gloucestershire within the EC was cause for concern, however, others were more concerned about the peripheral position of the UK in the EC.

- In terms of Gloucestershires links with other areas:
 - representatives from the services and manufacturing stressed the importance of links to Bristol;
 - the tourist industry had strongest links with the Cotswolds, Stratford-upon-Avon and Oxford; and
 - there were perceived dangers in too strong a link with the West Midlands, because it was feared that Birmingham would dominate such a regional grouping and inner city areas portrayed a negative image.
- Gloucestershire was felt to be well served by its transport infrastructure. In particular the motorway network was felt to be good and the rail network was considered adequate notably in the south of the county.
- Representatives from industry identified the following roles for the public sector in promoting the county with respect to the SEM.
 - It was recognised that Gloucestershire County Council was more aware of the EC than other county councils. However, the County Council could usefully devote resources to climbing the "learning curve" in bidding for funds/grants at the UK and European levels.
 - There was a role to be played in re-educating business so that they were aware of the availability of European funds. In this respect Gloucestershire County Council European Business Centre was held in high regard and deemed worthy of more active promotion.
 - Information was not only required in relation to gaining funding but also in relation to establishing European partners, the opportunities provided by the SEM, identifying new markets and so on.
 - Small businesses needed practical help and so a step by step guide through a first European deal would be invaluable.
 - The possibility of Gloucestershire County Council assuming a more active brokerage role in Europe on the behalf of local business was suggested.
- At a more general level, participants from small firms felt that it would be useful for Gloucestershire County Council (or the TEC) to host *industry sector forums*, in order to provide an opportunity for interaction between companies in the same sector and to discuss market trends, new developments in the industry and other issues of mutual interest.
- It was reported that the single most important policy priority of local public sector organisations with regard to the SEM was to "gear up" firms to have a strategy, and to emphasise the relevance of *quality, marketing and training* to maintaining competitiveness.

Policy Recommendations

Policy recommendations necessarily have to reflect the limited scope for action of local economic agencies with respect to the SEM. Therefore, the policy recommendations outlined here focus upon those marketing and information activities where the county has a degree of freedom with respect to developing a strategic response to the SEM. Issues related to training are also touched upon, although it is recognised that local economic actors in the public sector are constrained by national policy in this domain.

- A proactive strategy should be adopted to safeguard the present economic position of Gloucestershire. The focus of such a strategy should be placed upon stimulating the manufacturing sector. Though the main threat to Gloucestershire's manufacturing base does not stem from the SEM but from defence expenditure cuts, the SEM may well provide the county with the opportunities to invigorate its manufacturing base.
- Central to a manufacturing oriented strategy is the stimulation of the training base with respect to engineering oriented skills. This may be most effectively achieved through a *marketing exercise* to attract trainees given the policy constraints on local providers of training.
- Attention also needs to be paid to the provision of training in the financial services sector. There were some indications that financial services organisations look to London for training courses, the extent to which this demand can be satisfied locally needs addressing.
- Employers must be made aware of the threats and opportunities of the SEM, especially small businesses. This may be addressed through convening industry sector forums where business and other economic actors can communicate with one another relating to the SEM and other issues.
- Promotion of Gloucestershire throughout Europe as a part of the 'core' of Europe by emphasising links with the South East and to a lesser extent the West Midlands. In a Europe where industrial restructuring is taking place on an international scale there is an urgent need to communicate to the international business community the particular strengths of the Gloucestershire area.
- European trade fairs, and other pan-EC forums, to be used to promote Gloucestershire employers and institutions. The County Council and other local economic actors have an opportunity to provide an important service in this area. External sponsorship from business and elsewhere for funding such a service should be investigated.
- Promotion of the Gloucestershire skills base throughout Europe and beyond. Given that the quality of the local skills base is one of Gloucestershire's strengths the most should be made of it. This will be important in attracting inward investment which might otherwise be targeted at *development regions*.
- Central to the above point is the question of transport infrastructure. Employers found this adequate at present, however, any deterioration in this network, especially rail services to London from Gloucester and Cheltenham, may add to the perceived peripheral position of the county.
- Co-ordination of employers and institutions in the area to optimise CEC funding for the county - this is especially important to protect the hi-tech sector from defence cuts.
- Existing information databases - especially those of the EC - to be promoted with emphasis on small businesses gaining access.
- In offering a series of services to local businesses relating to the SEM and related issues, the optimal spatial area of representation must be decided upon. In some instances Gloucestershire may be in competition with other counties/regions, at other times a collaborative approach will be more efficient.
- The County Council may wish to explore with local business how increased general promotional activities in Europe may be funded.

B: SECTORAL ASSESSMENT

Introduction

The creation of the SEM is a process rather than a once only shift in trade policy. As such it is an evolving concept shaped by the variety of pressures and concerns facing policy makers at an economic, political and social level. In turn, this has resulted in a large measure of uncertainty being attached to the operation of the SEM in practice. However, it is somewhat misleading to view the SEM, as outlined in *Section I*, in 'end' terms. Rather, in looking at the creation of the SEM as a process it is possible to evaluate those policy measures already in the pipeline and which are likely to impact upon the UK economy in the medium term. This can be adequately addressed through the development of scenarios to capture the variation presently exhibited by policy makers as to the most appropriate direction of EC economic and social policy.

It is possible to distil these scenarios into a series of endogenous assumptions and exogenous adjustments to a model of the UK economy to gain an indication of the SEM's impact at the national level.* The analysis presented here builds upon existing econometric modelling work completed within IER to capture the effect of the SEM upon the UK. However, such quantitative analysis provides only an indication of where the variety of policy options encapsulated within the scenarios will eventually lead. Moreover, no attempt has been made here to formally model the impact of the SEM upon the Gloucestershire economy.

The Three Scenarios

IV.4 The three scenarios which have been developed within IER to capture the likely outcomes of SEM on the UK economy, are outlined below.

The Efficiency Scenario. This accords with the IER medium-term assessment (IER, 1991). It is a relatively modest adjustment to trends already visible in the European economy. Broadly speaking, this scenario anticipates a sharpening of product market competition in Europe and expects the completion of the SEM to accelerate this process.

The Cost-Cutting Scenario. In this scenario it is anticipated that lower cost EC and non-EC producers will attract investment away from the UK which will lower unit wage costs here in the short-term, but the lack of investment this gives rise to will constrain productivity growth in the longer term. The risk here is that fiercer international product market competition will at first drive down wages, then the quality of jobs and perhaps even the quality of the product, effectively trapping the UK in a vicious downward spiral.

The Quality Scenario. Here it is anticipated that higher overall investment in human and physical capital along with organisational change will stimulate earnings and productivity growth. In contrast to the cost-cutting scenario, the quality scenario envisages a virtuous circle of higher investment, wages and profits.

The modelling of these scenarios has been dealt with in detail elsewhere (Lindley & Wilson, 1992; IER, 1991). Provided in summary form below is a brief outline of each scenario for the UK economy with respect to key macro-economic indicators.

* The Cambridge Econometrics' Multi-sectoral Dynamic Model of the UK economy has been adapted and extended by IER for its annual assessment of labour market trends. This model was used by Lindley and Wilson (1991) in the simulation exercise which estimated the SEM's impact upon the UK economy and as such forms the basis for the analysis provided here.

Comparison of Macroeconomic Results for the Scenarios

	Efficiency Scenario ^a		Cost Cutting Scenario		Quality Scenario ^a	
	1989-1995		1995		1995	
	%	p.a.	%	%	%	%
Gross domestic product at factor cost	2.3	2.1	-2.3	-4.4	2.1	6.0
Consumers' expenditure	1.8	2.0	-1.9	-5.1	1.0	4.9
Government consumption	1.4	1.9	0.0	0.0	0.0	0.0
Gross fixed investment	1.8	2.6	-2.4	-5.1	4.1	9.4
Exports of goods and services	5.4	3.7	-2.2	-4.9	4.3	10.1
Imports of goods and services	3.2	3.6	-4.9	-8.8	6.4	12.8
Average earnings		6.0	-0.68	-0.95	-0.03	1.06
Price of consumer's expenditure		4.1	-0.19	-0.34	-0.34	0.13
Home unit costs		4.3	-0.29	-0.46	-0.29	0.26
Exchange rate (UK effective rate, 1985 = 100) ^b	79.0	77.6	0.17	0.56	0.58	-0.83
Balance of payments (% of GDP) ^b	-2.1	-0.6	0.90	1.56	-0.66	-0.98
Public sector borrowing requirement (% of GDP) ^b	-1.3	-1.4	0.85	1.74	-0.44	-1.43
Unemployment (millions) ^b	1.9	1.6	0.313	0.631	-0.140	-0.518

Source: Lindley and Wilson (1991)

Notes: (a) For the efficiency scenario, the figures are % p.a. growth rates. For cost-cutting and quality scenarios, figures are percentage differences in levels from the efficiency scenario.

b) For the efficiency scenario, the figures are average levels in units indicated. For the cost-cutting and equality scenarios, figures are different in levels from efficiency scenario.

Under the *efficiency scenario*, average growth in GDP is projected at two per cent a year to 2000, with an average rate of consumer price expenditure of around five per cent a year. Earnings are expected to be in advance of this reflecting a growth in productivity, which results in an increase in real incomes which feeds through into growth in consumer expenditure. In addition, the growth in fixed capital investment further stimulates domestic demand. Despite a run-down in North Sea oil production, the balance of payments deficit falls over the 1989 - 2000 period, reflecting strong export performance in both the visible and invisible sectors.

Employment growth in the 1989 - 2000 period is expected to take place wholly in the service sector, with primary and manufacturing industry employment projected to fall by approximately one million with around one third of the projected loss accruing in the engineering sector. In terms of occupations, the changing industrial structure will result in a greater demand for professional and managerial workers with the demand for *high fliers* witnessed during the 1980s continuing to grow throughout the 1990s. Clerical and secretarial jobs are expected to decline slightly with computerisation substituting for jobs in this area. Compensating for this decline will be a growth in personal service work. Given the decline of the primary and manufacturing sectors there is likely to be a decline in manual craft jobs, although the greater part of this decline will be confined to unskilled jobs.

The dominant feature of the *cost-cutting scenario* is the effect upon UK exports. In those sectors of the UK economy which are vulnerable to competition from low-cost European competitors there will be a fall off in demand for UK exports which will be reinforced to some extent by a loss of foreign direct investment or a rise in UK investments overseas. Moreover, the loss of export orders will dampen domestic demand thus further inhibiting investment. Exports under the cost-cutting scenario are five per cent lower than under the efficiency scenario, resulting in a corresponding drop in investment and consumers' expenditure and a lowering of imports by ten per cent relative to the efficiency scenario. At the same time, earnings, the price of consumer expenditure and home unit costs all fall and there is a decrease in real earnings. As monetary policy is tightened in response to the domestic situation there will be a boost to the exchange rate. The PSBR as a percentage of GDP will increase by almost two per cent primarily as a result of lower tax revenues resulting from the lower level of economic activity and the rise in social security payments resulting from the rise in unemployment.

Under the cost-cutting scenario it is envisaged that job losses will be highest of all the scenarios, with substantial jobs losses occurring in the service sector notably in banking and distribution. Moreover, there is no guarantee that the economy will be able to stave off skill shortages under the cost-cutting scenario. Evidence from the 1980s demonstrated that certain industries, even those in long-run decline, had vacancies co-existing with redundancies either because the supply of skills falls faster than demand or because demand changes in nature.

The *quality scenario* is based on investment led growth. In comparison to the efficiency scenario, investment is ten per cent higher under the quality scenario. It is assumed that the investment in human and physical capital will feed through into productivity gains reinforced through innovatory activity in both design and marketing. Existing economic theory indicates that increased consumer affluence will generate imports - as consumers seek greater variety - whilst the production of high quality products will stimulate export demand. The boost to imports is expected to be of the order of thirteen per cent whilst the boost to exports is only around ten per cent.

With reference to employment, the quality scenario raises some interesting questions. First, the stimulus to labour productivity is such that the stimulus to output may be insufficient to offset jobs losses. Second, it is explicitly stated in the quality scenario that there is high investment in human capital. The extent to which labour demand will be satisfied in the business services sector (banking, insurance, etc...), where much of the growth in employment is envisaged under the quality scenario, may be questioned. The experience of the 1980s demonstrated how an acceleration in output growth quickly fed into skill shortages. A question is then raised as to the sustainability of the quality scenario given the existing infrastructure of training provision in the UK.

Sectoral Impact to 2000

In looking at the impact of the three scenarios with respect to Gloucestershire it can be assumed first of all that the impact on Gloucestershire is the same as that for the UK as a whole. This assumes that the projected rate of growth for each industry is the same as for the UK. Given the industrial structure of the Gloucestershire economy this approach potentially under-estimates the impact on the service sector whilst over-estimating the impact on the production sector. However, without formally modelling the Gloucestershire economy this provides an accurate assessment of the medium term future of the Gloucestershire economy given the available data.

Growth in the GDP of Gloucestershire 1989-2000

	Annual Average Growth 1989-2000		
	Efficiency	Cost-cutting	Quality
Primary & Utilities	0.99	0.75	1.35
Agriculture	1.38	1.05	1.79
Mining	0.42	0.28	0.73
Utilities	1.51	1.23	1.92
Manufacturing	2.89	2.41	3.48
Metals, minerals etc.	2.70	2.22	3.29
Chemicals	4.14	4.18	5.34
Engineering	3.27	2.64	3.64
Food, drink & tobacco	1.25	0.82	1.70
Textiles & clothing	1.15	0.73	1.38
Other manufacturing	3.25	2.62	3.84
Construction	1.89	1.47	2.52
Distribution	2.84	2.31	3.43
Distribution	2.38	1.86	2.97
Transport & communication	3.69	3.11	4.59
Business & Misc. Services	3.79	3.21	4.69
Banking & insurance	3.99	3.31	4.98
Misc. services	2.95	2.47	3.40
ALL INDUSTRIES ABOVE	2.80	2.27	3.43

Source: IER.

In output terms growth is projected in all industrial sectors under all three scenarios. Growth is strongest in business and miscellaneous services and to a lesser extent distribution services. In the manufacturing sector growth is strongest in chemicals - reflecting a relative strength of the UK economy in chemicals and pharmaceuticals - and in the engineering and other manufacturing sectors. A key question remains as to the extent to which these gains in output are sufficient to maintain job levels given changes in organisation and technology which will yield productivity gains. Under the efficiency scenario job losses are recorded in the primary, manufacturing and construction sectors with job gains limited to the service sectors. Overall, a small gain - 0.21 per cent - in the annual average rate of growth in employment is projected to the year 2000. Under the efficiency scenario there are employment losses in key areas of the Gloucestershire economy. In 1989, approximately one quarter of Gloucestershire's employment was in manufacturing, particularly in the engineering and other manufacturing sectors. Overall manufacturing employment is projected to contract at an annual average rate of 1.30 per cent to

the year 2000, with a slightly higher rate of contraction projected for the engineering sector. Though these job losses are compensated for by the service sector employment gains, the structural adjustment necessary in the transference of jobs from the manufacturing sector to the service sector is of a considerable magnitude.

Growth in Employment in Gloucestershire 1989-2000

	1989 Level	Annual Average Growth 1989-2000		
		Efficiency	Cost-cutting	Quality
Primary & Utilities	10117	-2.05	-2.40	-1.64
Agriculture	5060	-1.56	-1.94	-1.15
Mining	352	-2.58	-2.79	-2.24
Utilities	4705	-2.58	-2.90	-2.16
Manufacturing	59236	-1.27	-1.74	-1.10
Metals, minerals etc.	3160	-1.32	-1.82	-0.80
Chemicals	3254	-0.22	-0.19	1.07
Engineering	35305	-1.45	-1.94	-1.53
Food, drink & tobacco	4553	-1.96	-2.38	-1.70
Textiles & clothing	1418	-1.94	-2.35	-2.02
Other manufacturing	11546	-0.69	-1.27	-0.31
Construction	8733	-0.18	-0.64	0.45
Distribution	55091	0.38	-0.15	0.82
Distribution	45489	0.42	-0.10	0.88
Transport & communication	9602	0.15	-0.39	0.54
Business & Misc. Services	42239	1.70	1.16	2.25
Banking & insurance	26156	0.56	-0.06	1.30
Misc. services	16083	3.32	2.87	3.60
Non-marketed Services	44890	0.82	0.82	0.82
Health & education	28063	0.92	0.92	0.92
Public administration	16827	0.65	0.65	0.65
WHOLE ECONOMY	220306	0.21	-0.18	0.52

Source: IER.

Under the cost-cutting scenario there is an overall contraction in employment. The contraction of the primary and manufacturing sectors is more marked than under the efficiency scenario with gains in the service sector more modest. Indeed, a very small contraction in the banking and insurance sector, which is perhaps more sensibly interpreted as a case of no change, is projected in the period to 2000. This demonstrates the severe impact of the cost-cutting scenario on the Gloucestershire economy, curtailing as it does employment growth in one of the fastest growing sectors of the local economy during the 1980s.

The quality scenario, like that of the efficiency scenario, forecasts a decline in employment in all the primary and manufacturing sectors with the exception of the chemicals industry, and employment growth in the service sector. Compared to the efficiency scenario, the quality scenario projects a less severe contraction in employment in declining sectors and forecasts greater employment gains in expanding sectors. Although under the quality scenario the annual average decline in the engineering sector is greater than under the efficiency scenario.

Looked at in terms of the industrial structure of employment, all three scenarios forecast a greater dependency on service sector employment. Overall, in terms of industrial structure the difference between the scenarios is almost negligible however. Where the difference between the scenarios is most significant is in the relative size of the Gloucestershire economy in terms of output and employment.

The Industrial Structure of Employment in Gloucestershire in 2000

	1989	Efficiency	Cost-cutting	Quality
Primary & Utilities	4.6	3.6	3.6	3.6
Manufacturing	26.9	22.8	22.6	22.5
Construction	4.0	3.8	3.8	3.9
Distribution	25.0	25.5	25.1	25.8
Banking & Misc. services	19.2	22.6	22.2	23.1
Non-marketed Services	20.4	21.8	22.7	21.1
WHOLE ECONOMY	100.0	100.0	100.0	100.0

Source: IER.

Conclusion

The scenarios attempted to capture the range of outcomes resulting from the further integration of the EC. Summarily, the cost-cutting scenario is something of a worst case scenario with the UK experiencing a real decline in economic prosperity. In contrast, the quality scenario may be seen as a best case scenario where real gains in productivity and earnings accrue as the UK expands its output into the high-quality and high-value added market sectors. The efficiency scenario plots a more neutral path with a projected continuation of trends already witnessed in the UK over the past ten years or so.

To a large extent, the impact on the Gloucestershire economy of a more economically and socially integrated EC - which results as a consequence of the SEM, the convergence towards EMU and the implementation of the SD - depends upon the position of the UK within the EC. On a range of indicators the UK compares favourably to the EUR-12 average, although it has consistently lagged behind Germany on a range of key macro-economic variables. Moreover, much of the evidence which suggests that the UK is converging towards German economic performance as a result of ERM membership has arisen from a worsening German economic performance rather than strengthened UK performance. However, the position of the UK within the World and the EC economy has been controlled for in the macro-economic modelling which projected the impact of the three scenarios on the UK economy (*see Lindley and Wilson, 1991*). Overall, whilst the UK economy displays key structural weaknesses in relation to the EUR-12 and especially EUR-4, the economy remains one of the strongest in the EC.

Within the UK, the Gloucestershire economy is one of the strongest local economies on a range of key economic indicators. The Gloucestershire economy has been able to capitalise upon the manufacturing to services shift in the UK economy whilst maintaining a substantial hi-tech manufacturing base. In looking at the impact of a more economically and integrated EC upon the Gloucestershire economy the question becomes largely one of predicting whether or not Gloucestershire's position of relative strength in terms of the UK and the EC economy can be maintained. The projections outlined above indicate that under the efficiency scenario growth in output and employment may be slowed down somewhat but real growth is still evident as the service sector continues to expand. Even under the cost-cutting scenario - under the

Gloucestershire behaves as the UK projection - although growth in production is insufficient to offset job losses, these job losses in terms of annual percentage growth, are small.

References

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