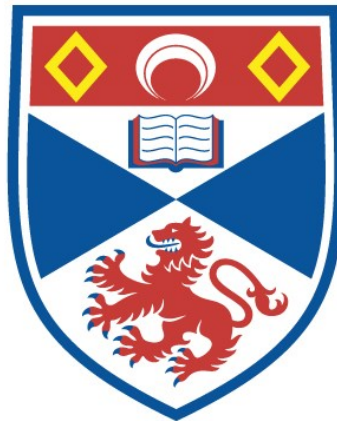


**THE WHISKY INDUSTRY AND THE REGIONAL
SCOTTISH ECONOMY : AN ECONOMIC ANALYSIS
OF THE IMPACT OF IMMINENT INNOVATIONS IN
PUBLIC POLICY**

Paul Haines

**A Thesis Submitted for the Degree of PhD
at the
University of St Andrews**



1998

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INNOVATIONS IN PUBLIC POLICY**

Paul Haines


Department of Economics

Ph.D
1998




UNIVERSITY OF ST ANDREWS


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Scotland, my auld, respected mither!
Tho' whiles ye moistify your leather,
Till, whare ye sit on craps o' heather,
Ye tine your dam;
Freedom an' whisky gang thegither!
Tak aff your dram.

Robert Burns *The Author's Earnest Cry &
Prayer*



Plate 1 **The Highland Whisky Still** by Sir Edward Landseer. United Distillers Plc.

Although the reality was probably less chimerical than in Landseer's portrayal, the prevalence of illicit distilling throughout 18th century Scotland prompted the government to intervene, in so doing facilitating the development of one of the United Kingdom's most efficacious industries. It is contended herein that a similarly proactive stance on behalf of the industry may be required of the current government, if the success of Scotch whisky is to continue.

ABSTRACT

This dissertation analyses imminent innovations in public policy that will impact upon the whisky industry, and, through linkage adjustments, the regional Scottish economy. An analysis of the interconnectedness between the whisky industry and the wider Scottish economy reveals that such linkages are substantial.

A holistic conspectus of the whisky industry in the first part of the dissertation reveals that the predominant form of structural change in the past has been merger & acquisition. Such consolidation has permitted economies in marketing & distribution, but it is contended that in this arena at least there is scope for further performance improvement in the industry. Nevertheless, with taxation forming such a significant proportion of the final price of the product, realising a sustained increase in demand is deemed to be largely outwith the capability of the industry.

It is advanced, therefore, that two tax-related developments in public policy in the next few years will impact not merely upon the whisky industry, but materially upon the regional Scottish economy as well. The first of these imminent innovations examined is the proposed abolition of the intra-EU duty free concession in 1999. Whilst it is concluded that such a move is inevitable (and economically logical), it is nonetheless determined that this will have a meaningful detrimental impact upon the whisky industry and Scottish economy.

Secondly, the current proposals of the European Commission for the harmonisation of alcohol excises across the European Union are critically appraised, and are shown to be grounded on no logical economic principles, but instead, enshrine protection for European vinicultures. The rationale for alcohol taxation is considered *de novo*, concluding that within the United Kingdom & across the European Union, at a minimum all alcoholic beverages should be taxed on an equal basis according to alcoholic content, at a level sufficient to cover an estimate of the negative externalities associated with alcohol consumption.

Mindful of the importance of the whisky industry to the Scottish economy, it is revealed that in times past, the public authorities have been proactive in intervening to secure the continuing prosperity of the whisky industry, and it is contended that such a stance may be required of the present government. The dissertation concludes by advocating a set of reforms to the structure of alcohol excises in the United Kingdom.

An approximate halving of the excise applied to spirits, such that all alcoholic beverages are taxed equally according to alcoholic content, would ensure that the whisky industry & government could lobby with credibility for comparable structures to be adopted overseas, particularly in any revised proposals for European excise harmonisation. In addition, it is suggested that the fillip such a reform would give to domestic sales of whisky would mitigate the negative effects upon the whisky industry & regional Scottish economy of losing the intra-EU duty free concession in 1999.

ACKNOWLEDGEMENTS

Many people have been of assistance in my compilation of this thesis, but in particular I would like to extend my appreciation to Peter Morgan for his extensive help with the graphics & illustrations, to Pieda Plc, The Scotch Whisky Association, Alan Gray (of Sutherlands Ltd), and William Grant & Sons for the information they kindly supplied, and to Jim Love & Peter McKiernan for their candid advice.

Finally, I must convey especial thanks to my supervisor, Gavin Reid, and to Vincent Fusaro of Faval (Cupar) Ltd, whose extensive experience of the off licence trade in Scotland proved invaluable in writing this thesis.

The usual disclaimer applies.

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Plate 2 The Glenturret Distillery, Crieff. The Glenturret Distillery Ltd.

Although a rustic distillery is one of the images that most readily comes to mind when considering Scotch whisky, the industry supports many thousands of jobs right across rural and urban Scotland, the Highlands and Islands. In addition, exports of whisky earned almost £2.9 billion in 1997, whilst nearly £1 billion was contributed to HM Treasury in the form of excise duties and VAT.

CHAPTER 1: INTRODUCTION

1.1 The Scotch Whisky Industry & The Scottish Economy

Having regard to our difficulties about export it would be most improvident not to preserve this characteristic British element of our ascendancy.

Winston Churchill on the whisky industry April 1945

The manufacture of spiritous liquor is a major industry in the United Kingdom, deriving its success from both natural and acquired advantages. The natural advantages are epitomised by Scotch whisky, which can only be produced in one region, Scotland. Examined from whatever perspective - corporate, trade, employment, or revenue accruing to the exchequer - the salience of the whisky industry to the economy of the United Kingdom is made manifest.

The United Kingdom is the largest spirits producer in Europe and the third largest in the world. Two of the three largest multinational drinks companies in the world originate in the United Kingdom - Allied Domecq and Diageo (formerly Grand Metropolitan and Guinness) - and, for each of these, spirits are a core business. In total, spirits producers in the United Kingdom account for one-third of world sales of branded spirits products.¹

In a White Paper (Cm2867) concerned with competitiveness, the previous government stated that spirit distillation, of which Scotch whisky accounts for 60%, is the "League leader by a considerable margin", when all manufacturing industries in the United Kingdom are

ranked by a ratio of sales to domestic demand, and notes the importance to the United Kingdom of the comparative advantage enjoyed by the whisky industry, based on traditions and a highly developed network of suppliers.²

A comprehensive measure of an industry's contribution to the economy, as recorded in the Scottish Production Database, is the amount of Gross Domestic Product (GDP) which it generates. The industry-level equivalent of GDP is gross value added (GVA), the net output from an industry less the cost of non-industrial services received, rates and licensing of motor vehicles.

Net output is in turn calculated by taking the industry's gross output, (which for most manufacturing industries approximates to the industry's sales in any period), and deducting the value of material inputs, fuels and industrial services used up in production, with an adjustment made for changes in stocks in materials. Alternatively, GVA can be thought of as the income accruing to the factors of production - land, labour, capital and enterprise - employed in an industry. The total payment for these services must make up the difference between an industry's gross output and the value of material inputs.

For the whisky industry, the inputs into the industry in any one year will not match the gross output from the industry in that year, due to the lag between production and sales. However, an adjustment is made to account for changes in stocks of materials, stores and fuels, and changes in work-in-progress and goods on hand for sales. The Scottish Production Database, therefore, gives a reasonable

estimate of the value added by the whisky industry in any one year.³

As illustrated in Table 1.1, Scottish Production Database figures for 1994, the latest year available, indicate that GVA in the whisky industry amounted to £700 million. This represents 35% of the total gross output in the industry of £1,995 million, above the manufacturing average of 31%. Moreover, value-added per employee averaged approximately £50,000 in 1994, almost 60% above the average for Scottish manufacturing.

Table 1.1: Gross Value Added in Scottish Manufacturing Industries 1994

Industry	Gross Valued Added	
	£ million	£ per capita
Food, Drink & Tobacco	1975.6	30,731
Whisky (Subset of Above)	700.0	50,000
Textiles	379.5	17,495
Clothing	362.0	20,263
Leather	25.6	16,437
Wood	220.9	26,649
Pulp & Paper	500.4	38,751
Printing & Publishing	614.4	31,389
Chemicals & Man-made Fibres	623.0	41,131
Rubber & Plastics	413.4	30,101
Basic Metals	232.6	41,984
Metal Products	605.7	24,409
Mechanical Engineering	769.3	29,131
Office Machinery	872.0	58,106
Electrical Equipment	236.3	21,832
Radio & TV Equipment	994.7	56,489
Medical, Precision, Optical etc	341.2	31,478
Motor Vehicles	107.2	29,100
Other Transport Equipment	513.1	26,799
Other Manufacturing & Recycling	229.7	21,780
Total Scottish Manufacturing	10449.7	Average 31,571

Source: Scottish Economic Bulletin No 54 March 1997

According to the Scottish Input-Output Tables for 1994, 8% of final

demand for whisky was accounted for by consumers in Scotland. This is roughly equivalent to the manufacturing average of 9%. Exports to the rest of the United Kingdom and overseas accounted for 92% of final demand. This shows a higher reliance by the industry upon exports compared to Scottish manufacturing as a whole, which sells 84% outwith Scotland.

In 1992, whisky exports accounted for 21% of manufacturing exports. Since 1992, total manufacturing exports have grown more strongly than exports from the whisky industry with the result that, by 1995, the industry accounted for only 13% of total Scottish manufacturing exports. The decline in the whisky share of manufacturing exports is partly due to the rapid increase in electronics exports which grew by around 90% over the same period.⁴ Scotch whisky is still nevertheless Scotland's third largest manufacturing export, and ranks fifth in the United Kingdom as a whole. The relative contribution of the whisky industry to Scotland's export performance is detailed in Table 1.2:

Table 1.2: Scottish Manufactured Exports in 1995

Industry (Standard Industrial Classification 1992)	£ million	Rank
15 Whisky	2,277	3
Other food products and beverages	499	6
17 Textiles	342	9
18 Wearing apparel; dressing and dyeing of fur	134	16
19 Tanning and dressing of leather; luggage, handbags, saddlery, harness and footwear	52	20
20 Wood and wood products	22	22
21 Pulp, paper and board products	395	8
22 Publishing, printing and reproduction of recorded media	30	21
23 Coke, refined petroleum products, nuclear fuel	196	13
24 Chemicals and chemical products	1,563	4
25 Rubber and plastic products	333	10
26 Other non-metallic mineral products	111	17
27 Basic Metals	179	14
28 Fabricated metal products (except machinery and equipment)	299	11
29 Machinery and equipment	677	5
30 Office machinery	5,973	1
31 Electrical machinery and apparatus	260	12
32 Radio, television, and communication equipment and apparatus	3,241	2
33 Medical, precision and optical instruments, watches and clocks	77	18
34 Motor vehicles, trailers and semi-trailers	161	15
35 Other transport equipment	421	7
36 Furniture; Other manufacturing	69	19
37 Recycling	5	23
All manufacturing industries	17,315	

Source: Scottish Council Development & Industry

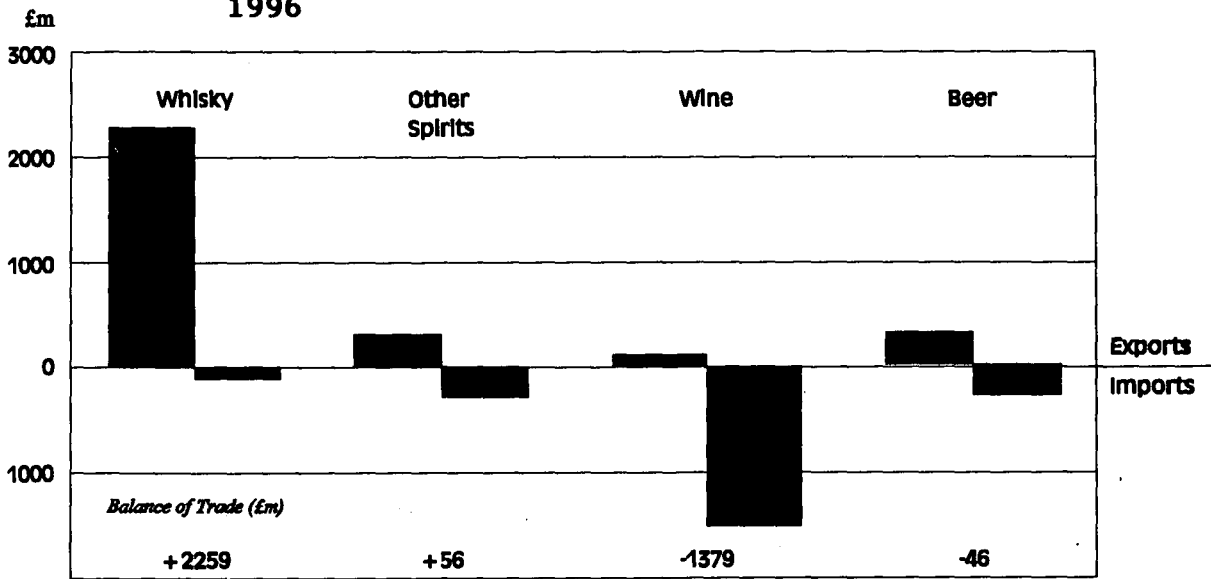
In net terms, Scotch whisky is actually the largest Scottish exporting industry because its inputs are predominantly sourced domestically, whereas the inputs of the electronics industry are in the main acquired from overseas.⁵ The 1994 Input-Output Tables reveal that 82% of materials, fuels and service inputs purchased by the spirits & wines industries were garnered within Scotland. A further 12% were procured from elsewhere in the United Kingdom and 6% were sourced from the rest of the world. But for the Scottish economy as a whole, only 57% of inputs are obtained within Scotland, with 27%

and 17% acquired from elsewhere in the United Kingdom and overseas respectively.⁶

Whisky is the United Kingdom's leading export to Japan, earning over 5% of the total value of exports to that country. In 1991, Scotch export earnings per employee averaged £120,000. By 1994, the figure for Scotch had reached £160,000, and in 1996, £170,000. This figure is almost twice the level of the next best performer (electrical/computer and communication products), and is seven times the average for all manufacturing industries in the United Kingdom.⁷

In sum, at the close of 1997 the total value of Scotch exports for that year approached nearly £2.9 billion, shipped to no less than 216 countries around the world. No other industry in the United Kingdom achieves such geographical penetration. By way of contrast, as depicted in Figure 1.1, £1379 million was spent importing wine alone in 1996, and there is an incremental trade deficit in beer.⁸

Figure 1.1: United Kingdom Imports & Exports of Alcoholic Drink 1996



Source: Pidea Plc The Abolition of Intra-EU Duty Free Shopping

Direct Employment in Scotch Whisky production accounted for some 13,345 jobs in 1996. The industry sources approximately £620 million worth of inputs from suppliers based in Scotland, so employment ranging from barley production to warehousing, bottling & packing, office employment, advertising & marketing, engineering, road transport, shipping and distribution is indirectly generated by the whisky industry. In Chapter 3 an estimate is presented of the number of such jobs indirectly dependent upon the whisky industry (19,617). Expenditure by those both directly and indirectly employed in the supply chain results in increased consumption expenditure and additional induced employment, estimated at 8,408 in Chapter 3.

In contrast with electronics and other 'sunrise' industries, which provide employment largely in central belt new town areas, whisky provides longer-term high value-added employment in a much wider range of Scottish communities.⁹ Moreover, many of the jobs dependent upon Scotch whisky production are in areas with few alternative

upon Scotch whisky production are in areas with few alternative employment opportunities - in distilling in the Highlands & Islands of Scotland, or in bottling plants in urban areas with high unemployment.¹⁰ Over 90% of Scotch whisky production occurs in areas which have been designated for Regional Fund Assistance by the European Union.¹¹

Finally, Sutherlands Ltd have estimated that excise duty levied upon Scotch whisky accounted for £653 million in the year to 31st March 1996. Value Added Tax (VAT) is payable on the total selling price of a bottle of whisky (including duty), which adds a further £180 million of revenue, making a total Scotch whisky contribution to Her Majesty's Customs & Excise in excess of £830 million.¹² In addition, an estimated £182 million is paid in taxes by those dependent upon the whisky industry for employment, as well as approximately £480 million in corporation tax from the principal companies in the industry (1996 estimate).

1.2 Survey of the Literature

Let schoolmasters puzzle their brain,
With grammar, and nonsense, and learning,
Good liquor, I stoutly maintain,
Gives genius a better discerning.

Oliver Goldsmith *She Stoops to Conquer*

Considering the importance of the whisky industry to the Scottish economy, it is somewhat surprising that to date few academic studies have been published specifically on this genre. There have been some theses written in the natural sciences on the chemical processes associated with whisky distillation, but within the social sciences such dissertations that are known about have as their topic the dynamics of change in the whisky industry in the pre-1939 era. There are, however, two exceptions; a PhD thesis from the University of Connecticut in 1994, and an Economics PhD from Strathclyde University in 1988.

The American thesis, by Peter de Haven Caldwell of the University of Connecticut, proffered an unorthodox, if somewhat monocausal explanation of Scotland's economic transformation in the 18th century. This is ascribed to the by-products of distillation, used as animal feed, freeing farmers from the problems of victualing livestock during the winter, thus enabling the soil to be manured year-round and producing greater yields. This agricultural surplus was then distilled into whisky as a non-perishable store of wealth.¹³

The one Economics thesis was submitted in 1988 by James Love, a member of Strathclyde University's Fraser of Allander Institute. This perspicuous tract focused upon three external acquisitions of indigenous Scotch whisky companies in the 1970s, and attempted to quantify, utilising input-output analysis, the effects on the Scottish economy of linkage adjustments in the aftermath of the takeover.¹⁴

Naturally there is a body of literature on the history of Scotch whisky distillation & production, and tasting notes on the subtleties & nuances of the multitudinous whiskies on the market. Not surprisingly, considering the significance of the whisky industry in Scotland, the Scottish business press features articles on individual firms fairly frequently, as do various periodicals such as *Accountancy*, *Admap*, *Marketing Today*, *The Scottish Business Insider*, *The Economist* and *International Business Week*.

A number of publications have examined the linkages between sectors within the Scottish economy, and attempted to model the effects of exogenous shocks upon the region. Several publications of those attached to Strathclyde University's Fraser of Allander Institute, such as Ashcroft & Love's *Takeovers, Mergers & The Regional Scottish Economy*,¹⁵ may be ascribed to this group, and of especial utility in the context of this thesis, James Love's work on the impact on the regional economy of altered linkages associated with external takeover of Scotch whisky companies.¹⁶ An underlying theme in many of these sources is a scepticism as to the overall benefits of acquisition of indigenous Scottish firms by concerns from outwith

Scotland, identifying as one outcome significant negative linkage adjustments within the Scottish economy.

Much of the Fraser of Allander Institute's work takes the form of applying data from the Scottish Input-Output Tables,¹⁷ a project upon which the Institute and The Scottish Office work closely together. Developments in the Input-Output project are chronicled intermittently in the Scottish Office's *Scottish Economic Bulletin*.

The Input-Output Tables also contain within estimates of income, output and employment multipliers for Scotland, which are clearly of relevance in any study of the effects upon the regional economy of a change in final demand in such an important sector as the whisky industry. In the late 1970s and early 1980s, when the controversial issue of bulk exports of whisky generated much acrimonious discussion, several publications utilised multipliers to lend credence to arguments in favour of restricting the export of Scotch whisky in bulk. The work of J K Thomson was prominent in this category.¹⁸

Another pertinent category of literature is that contained in the learned Economics journals, which periodically feature therein analyses of own-price, cross-price and income elasticities of demand. In particular, Tony McGuinness's has written quite extensively on estimates for the Irish Republic, and the Institute For Fiscal Studies (IFS) is occasionally commissioned to quantify variables for Her Majesty's Customs & Excise. These estimates have been utilised by, *inter alia*, National Economic Research Associates

and Piedad Plc, who have written on the effects of the abolition of intra-EU duty free sales in 1999.¹⁹

The IFS have also used demand elasticities, as well as information gleaned from the Family Expenditure Surveys, to create their own econometric model of a demand function for alcoholic drinks, and the effects upon consumption, distribution and exchequer receipts from altering alcohol excises. Several studies have been published by both the IFS and the Adam Smith Institute in this area. The IFS studies generally advocate a fairly restrictive policy of alcohol taxation, ascribing high values to the negative social costs of alcohol consumption in the United Kingdom. Quantifying the latter is problematic, however, given that all excepting a very few works in this field have been in the United States & Canada.

The planning, economic and development consultants Piedad Plc are retained as consultants to the Scotch Whisky Association and *à propos* this role have produced several publications emphasising the importance of the whisky industry to the United Kingdom economy, most of which are in the form of pre-budget submissions for the Chancellor of the Exchequer and Treasury officials. Despite being overtly lobbying documents, in respect of the data contained within, they proved invaluable in writing this thesis.

The Scotch Whisky Association publishes an annual tripartite publication, which includes 1) a Review of the year's developments in the whisky industry, 2) a Statistical Report, and 3) a supplement detailing the many Barriers to Trade Scotch whisky faces around the world.²⁰ Finally, Alan S Gray of the Edinburgh stockbrokers

Sutherlands Ltd compiles an Annual Review of the Whisky Industry,²¹ which although primarily intended for the use of investment analysts (reflected in the asking price of £325 a copy), is undoubtedly the single most comprehensive and exhaustive compendium of statistics available on the whisky industry.

1.3 The Importance of the Present Research

Breathes there the man, with soul so dead,
Who never to himself hath said,
This is my own, my native land!
Land of brown heath and shaggy wood,
Land of the mountain and the flood,
Land of my sires! What mortal hand
Can e'er untie the filial band
That knits me to thy rugged strand!

Sir Walter Scott (1805) *The Lay of the Last Minstrel VI*

In Section 1.1 an attempt was made to propound an *aperçu* of the import of the Scotch whisky industry to the economy of the United Kingdom. It will be noted from the foregoing review of the literature that few academic studies published hitherto have had as their *raison d'être* an attempted quantification of this significance, the PIEDA briefs notwithstanding.

The publications of those attached to the Fraser of Allander Institute & The Scottish Office have determined an appropriate methodological structure for utilising input-output tables, and in particular, the work of James Love on the effects of external takeover involved applying this analysis to the whisky industry. Journal articles and occasional papers by the likes of the IFS have sought to determine the effects of varying indirect taxes, such as alcohol excises, upon consumption, distributional considerations, and exchequer revenues.

But hitherto, these disparate sources have not been systematically conjoined in order to model the effects of shifts in public policy, not only upon final demand for whisky, but the implications of this for other sectors of the Scottish economy. This neglect is somewhat surprising, as two innovations in the near future could well have a greater impact upon the whisky industry than any other development since the restoration of trade after World War II.

The proposed abolition of intra-EU duty free sales in 1999 is one such development. The European Travel Research Foundation have attempted to determine the effects of this upon a whole host of manufacturing, retail, transport and distributional sectors, and recently commissioned Pleda Plc to produce a report concerned specifically with the impact of abolition upon the Scotch whisky industry. But considering that the European Union duty free market is estimated to be worth approximately £185 million (1995 prices) to the Scotch whisky industry, its loss is likely to result in significant negative linkage adjustments with suppliers right across the Scottish economy. Even if abolition does not result entirely in a 100% loss, with some compensating increase in duty paid sales, this is undoubtedly an issue of great concern to the industry.

Secondly, and arguably of even greater concern, are the recurring attempts to harmonise indirect taxation across the European Union. The European Union, including the United Kingdom, accounted for almost half of all whisky sales in 1996, equivalent to £827.94m in value, and with tax representing over 40% of the final price even in low tax regimes such as Spain and Italy, any harmonisation will have

repercussions upon the demand for whisky, which again, will impact upon the whole Scottish economy.

The bulk of the existing studies that have examined the European duty free market, advocated stances to be adopted by ministers when discussing harmonisation of indirect taxation in Europe, or argued for reform of the duty structure in the United Kingdom, have been concerned almost exclusively with the consequences upon alcohol consumption, distributional considerations, or public sector revenues. Few have undertaken a rigorous *ab initio* reappraisal of the functioning of the Single Market or the rationale for the special taxation of alcohol, much less taken into account the impact of their proposed innovations upon the Scotch whisky industry, and the effects on the wider Scottish economy from linkage adjustments.

This thesis aims to redress these omissions, attempting to quantify the impact not only upon the whisky industry, but the whole Scottish economy, of ending the intra-EU duty free concession in 1999, the harmonisation of alcohol duties across the European Union, and possible reforms of the structure of excise duties in the United Kingdom. The innovations proposed in existing studies are examined critically with regard to standard economic theory, and in the light of their likely impact upon the whisky industry & the Scottish economy. Alternative, arguably more appropriate policies are advocated.

This is felt to be important, as implicit in debate on such public policy issues as the abolition of intra-EU duty free and the harmonisation of excises are assumptions about the operating of the

Single Market, the most appropriate rôle of government in the market place and the rationale for the special taxation of alcohol. Reform in these areas should not be reduced to seeking a compromise that satisfies nobody but does not displease anybody, or political horse-trading in Europe's Council of Ministers. Any innovations will have real and significant effects not only upon a nebulous 'whisky industry', but on people's jobs, prosperity and lives right across Scotland. No government should be impervious to this when deliberating upon these issues and advocating policies.

1.4 The Structure of The Dissertation

Including the introductory Chapter, this thesis is divided into eight principal Chapters. Chapter 2 looks at the Scotch Whisky industry *per se*, examining areas which are within the competence of the industry to affect. In the first Section, a brief account of the history of distillation in Scotland demonstrates that at certain times in the past, the public authorities made the decision to concern themselves with some aspect of the whisky industry. This is of significance in the context of this thesis, a principle contention of which is that the potential problems facing the whisky industry in the present era are such that a more proactive stance may again be required of the government. A Section on the production of whisky is included in order to make the point that in such a traditional industry, changes in capital ratios are limited, and significant increments in productivity are rare.

A chronological description of the process of industrial consolidation is also pertinent as this has been the predominant form of structural change in the whisky industry in the past, and seems likely to continue to be. The Section on trends in consumption depicts the long-term problems facing the industry in mature markets, a factor which has been exacerbated by discriminatory taxation, referred to in later Chapters. Current marketing practices, the continuing controversy over bulk exports, and the system of exporting and distribution are examined, with the conclusion that in these areas at least the whisky industry has been somewhat deficient in the past.

Prima facie, such issues may appear somewhat incongruous in a dissertation primarily concerned with the impact of public policy, but Chapter 2 is intended to demonstrate that the petitioning of the whisky industry for a fairer hearing from public authorities is not just another case of special pleading for grace & favour by one of the United Kingdom's many hard pressed industries. Whilst it is argued in Chapter 2 that there is some scope for improvements *intra vires* the whisky industry, particularly in the fields of marketing and distribution, the general thrust of this Chapter is that with tax accounting for such a significant element of the final price, achieving substantial increments in sales is outwith the control of the industry.

Utilising the Scottish Office Input-Output Tables, an estimate is made in Chapter 3 of the employment associated with the whisky industry across Scotland. Direct employment by whisky companies is detailed, followed by the application of input-output analysis to determine indirect and multiplier induced employment. Applying this methodology in Chapter 4 facilitates an attempted quantification of the impact upon the whisky industry and Scottish economy of the proposed abolition of the intra-European duty free concession in 1999.

Chapter 5 examines the history of taxes upon alcohol in the United Kingdom, and the present duty structure. The rationale for the special taxation of alcohol is considered in respect of the extant theoretical arguments for commodity taxation. This is important as much of the published literature on reforming the structure of alcohol duties has eschewed a rigorous analysis of the proper rôle of

excise duties.

After an examination of the current structure of alcohol excises in the major European countries, Chapter 6 devotes a large Section to considering the degree of competition between different categories of alcoholic beverages, and in particular whether there is price-induced substitution between various forms of alcohol. Naturally this involves a consideration of variables for cross-price elasticities. A critical analysis is then undertaken of the current proposals for excise harmonisation proposed by the European Commission. Chapter 6 concludes by considering the various alternatives to European excise convergence advocated by some economists.

Chapter 7 considers the many problems with the present duty structure in the United Kingdom and critically appraises proposed reforms in the light of their potential effects upon the whisky industry and Scottish economy. Most are found to be wanting, and an alternative set of proposals is advocated. The anticipated impact of these proposals upon the whisky industry, wider Scottish economy and public finances is then quantified. Chapter 7 also includes a Section on estimates of own-price elasticities. Chapter 8 concludes.

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CHAPTER 2: THE SCOTCH WHISKY INDUSTRY

2.1 Introduction

What is it gives me the necessary sagacity to outwit the Inspector? Whisky. What is it that helps me to know just where to put down the net in Loch Sleepport for Waggett's sea-trout? Whisky. What makes me a good shot at grouse or snipe? Whisky. What is it makes Maclaren such a hell of a good doctor? Whisky. Love makes the world go round? Not at all. Whisky makes it go round twice as fast.

Norman Macleod in Sir Compton Mackenzie (1947) *Whisky Galore*

This Chapter adopts a holistic conspectus towards the Scotch whisky industry *per se*, incorporating the history of whisky distilling in Scotland and the seemingly inexorable process of consolidation in the industry, as well as the production, marketing, and distribution of whisky worldwide. No *a priori* conclusion as to the exigency of government sustenance for the industry is possible without undertaking such a critical appraisal of the whisky industry's performance in these ambits which are within its competence to affect.

An account of the history of distilling in Scotland in Section 2.2 details the various government measures and the revolution in blending that laid the foundations for the production of whisky on a commercial scale. Section 2.2 concludes with a delineation of the legal innovations that have protected the character and integrity of Scotch whisky in the United Kingdom, and provided a standard for

nations overseas to abide by. In Section 2.3, the process of whisky distillation is briefly described, including a summary of capacity utilisation in the industry in recent years, concluding with an examination of recent transformations in productivity.

The process of industrial consolidation in the industry is described in Section 2.4, with reference to the standard theories of industrial economics. This includes an explanation for the sizeable shifts in ownership in the 1970s, the demise of the Distillers Company Limited (DCL), once the dominant firm in the industry, and the debut of Guinness on the scene with its infamous takeover of DCL in 1986. The Section also analyses the motives behind the considerable foreign investment in the industry and any untoward effects this may have had upon the regional economy. Finally, developments are brought to date by an appraisal of the issues surrounding the recent merger between two of the largest firms in the industry, Guinness and Grand Metropolitan.

Section 2.5 discusses recent trends in consumption, production and marketing. Explanations are tendered for the secular decline in whisky consumption in mature markets, and the consequences upon production considered. The advertising and marketing of whisky is scrutinized, as is the growth in new products such as single malts, and the prospects for the industry in overseas markets contemplated. Section 2.6 conducts an investigation of the issues surrounding the continuing controversy over the export of whisky in bulk, and considers appropriate strategies in this arena as well as in the more general ambits of distribution and overseas investment. Section 2.7 concludes Chapter 2.

2.2 The History of Distilling in Scotland

On the grim battlefield of Culloden whisky was used, perhaps for the first time, for a sacred purpose, when John Maitland, a Presbyter of the Episcopal Church of Scotland, administered the Holy Eucharist to the mortally wounded Lord Strathallan with oatcake and whisky, 'the requisite elements not being obtainable.'

From Sir Robert Bruce Lockhart (1995) *Scotch: The Whisky of Scotland in Fact & Story*

Mr Johnson, whom I had not seen taste any fermented liquor before during our expedition, had a gill of whisky brought to him. "Come," said he, "Let me know what it is that makes a Scotchman [sic] happy." He drank it all but a drop, which I begged leaved to pour into my glass, that I might say we had drank whisky together.

James Boswell (1807) in *The Journal of A Tour to the Hebrides*

The process of spirit distillation is mentioned by Aristotle writing some 350 years before Christ, and his contemporary Zosimus of Alexandria gives an accurate description of the necessary apparatus. He does not claim to be its inventor, but to have derived his material from wall-paintings in an Ancient Egyptian temple. It is probable that distillation was known to the Chinese at an equally early date.¹

During the disasters of the Barbarian invasions, much of the lore of the Ancient World was preserved by the Arabs. The Arab chemist Geber,

who lived in the 8th century AD, was very familiar with distillation, and the Arabic word 'alcohol' is universally applied to its product. From the Moors, the secrets filtered through to the abbeys and monasteries of Spain and Western Christendom,² where devotion to God and a supposedly ascetic existence did not seem to preclude the production of alcoholic drinks, initially regarded as cordials or medicines. It is no accident that so many liqueurs bear monastic names.³

There is also evidence to suggest that distilling had been practiced in Ireland from the beginning of the eleventh century, even perhaps by the ancient Celts, who believed its product's power "To revive tired bodies and falling spirits, to drive out the chill and rekindle hope, was a gift from God."

Though it was not until 1505 that the Guild of Surgeon Barbers in Edinburgh were given a monopoly to distill strong waters for medicinal purposes,⁴ the first indisputable reference to distilling in Scotland is an entry of 1494 in the archives of the National Exchequer. It records the purchase of "eight bolls of malt by Friar John Cor (of Dunfermline, the former capital city) wherewith to make *acqua vitae*."

Acqua vitae, 'The Water of Life', indicated simply 'spirits'. This word, in various spellings, is found today in some Nordic countries, and the French *eau-de-vie* translates in the same way. Rendered in the Irish and Scottish-Gaelic, the term becomes *uisge beatha* or *usquebaugh*, among other spellings. These Gaelic names, sounding to the English speaker like 'uishgi', were corrupted to 'whisky.'⁵

For several centuries whisky distilling remained a small cottage industry, usually carried out by crofters and farmers, quite often in extremely remote and isolated areas of the country. The government were nevertheless determined to raise revenue by imposing excise duties on the sale of whisky. The still operators and consumers were equally determined that they were not going to pay these duties. Towards the end of the 18th century there were literally thousands of illicit distilleries scattered throughout Scotland, immortalized in Sir Edwin Landseer's famous painting *The Highland Whisky Still* (see Plate 1).

In 1823 after a Board of Trade Commission had reported on the facts to Parliament, a Distilling Act to eliminate illegal distilling was passed with the support of the Duke of Gordon. Under the provisions of this act, all of Scotland's distilleries were required to be licensed, and to make provision for a resident Excise Officer (see Plate 6). A flat rate was introduced on all stills of 40 gallons upwards and a duty of 2s 3d was levied on each gallon of spirits distilled, with the immediate result that within two years the amount of tax-paid whisky had increased from 2m to 6m gallons annually. Producers operating within the law started to prosper, the authorities clamped down ever harder on the illegal stills, and their operators either became honest men or were closed down. Encouraged by the Duke of Gordon, one of the first such 'honest men' to take advantage of the 1823 act was his tenant George Smith of Glenlivet, whose whisky became what is now one of the most famous malts.⁶

It was in this new climate that some of the industry's most astute and

imaginative men turned their attention to the matter of their whisky. Towards the middle of the 19th century they began to investigate a new idea, which was to revolutionize the Scottish whisky industry, and facilitate an explosion in demand. The concept which attracted attention was that of blending: the combination of different whiskies to produce a new and different Scotch.

Hitherto, much of the whisky produced had been rough and fiery because of the primitive conditions in which it was created; there was little quality control, and as a result the flavour, character and strength could vary wildly. The notion of 'brands' or trademarks were unknown in any industry. Whisky was sold by the cask to country grocers and wine merchants. Johnnie Walker was one such shopkeeper; George Ballantine another; the Chivas Brothers were partners in a shop. These merchants dealt with the lack of consistency or volume by creating their own in-house vattings, and these became brands. John Dewar, who went into the business in 1806, was the first person to sell branded whiskies in bottles.⁷

The first commercial blend - in the sense that it was offered for sale to a wider market, and thus had to be consistent - was made by Andrew Usher in 1853. Usher was the Edinburgh agent for Glenlivet, and he named his creation Old Vatted Glenlivet. By 1860 it was being advertised in London, and in 1864 he was selling overseas, especially India. Others followed, spurred on by the fact that increases in tax (in 1853 and 1855) caused a slackening of demand for whisky in the United Kingdom.⁸

A concatenation of various factors were to assist the whisky



Plate 3 **The Monarch of the Glen** by Sir Edwin Landseer 1851. United Distillers Plc.

Contemporaneous with the writings of Sir Walter Scott, Landseer's romanticized paintings of Highland subjects came to epitomize Victorian infatuation with all things Scottish, greatly assisting the expansion of the whisky industry in the latter 19th century.

distillers in marketing their new creations. In 1827-28, the most prominent distiller in Scotland, Robert Stein, took out patents for a still which was heated internally by steam, instead of by an external furnace, and which distilled whisky in one continuous operation, unlike the traditional pot-still which had to be filled, emptied and refilled. But it was Aneaus Coffey, Inspector General of the Excise in Ireland, who in 1830 was sharp enough to adapt, patent and market the concept, and with 'Coffey's Continuous Patent Stills' it became possible to produce a light, palatable whisky fast and economically.⁹ Further encouragement to producing large volumes of blends came with Gladstone's Spirit Act of 1860, which permitted blending in bonded warehouses before duty had to be paid.

The growing success of Scotch whisky was aided by the infatuation in Victorian Britain, led by Queen Victoria, for all things Scottish, epitomized by the writings of Sir Walter Scott and the paintings of Sir Edwin Landseer, such as *The Monarch of The Glen* (see Plate 3), the well established rail and sea routes, which made transportation far easier than previously, and the existence of the British Empire, the largest free market in the world.

Finally, the rôle of the *Phylloxera Vastatrix* bug in heightening the demand for Scotch whisky was immense. The bug devastated the vineyards of France between the mid-1860s and the late 1880s, with the result that the production of Cognac virtually ceased. Hitherto, brandy (with soda) had been the drink of the middle classes in the United Kingdom. Blended whisky (with soda) was there to replace it.¹⁰ The change in tastes this phenomenon represented was attested to by Sir Winston Churchill in *A Roving Commission*: "My father could

never have drunk whisky except when shooting on a moor or in some very dull chilly place. He lived in the age of brandy & soda."¹¹

Legal Protection for Scotch Whisky

The position of Scotch was finally entrenched in a series of legal decisions, the first of which was recorded in the early years of the 20th century. In 1906 Islington Borough Council took a local publican to Court for selling grain whisky, alleging that this was "not the nature, substance and quality demanded by the purchaser." The result seemed a resounding triumph for the pot-still malt distillers when it was held that "whisky should consist of a spirit distilled in a pot-still derived from malted barley..."

Although at first hailing this legal decision as a resounding victory, the malt whisky distillers quickly realised that the enormously wealthy Lowland distillers would simply distill very cheap Lowland malts and use them instead of their Highland malts to produce blended whisky. Both sides therefore asked for a Royal Commission to decide the issue, and after six months, in 1909, the Commission concluded that: "Whiskey (the current spelling of the period), is a spirit obtained by the distillation of a mash of cereal grains saccharified by the diastase of the malt; that 'Scotch Whiskey' is whiskey, as above defined, distilled in Scotland..." This definition of Scotch whisky was finally incorporated in Statute Law in 1952.¹²

A revised legal definition of Scotch whisky was included in the Finance Act of 1969, covering the three major elements of what

constitutes whisky, what constitutes Scotch whisky, and a definition of blended Scotch whisky. The definition had the important effect of specifying the broad process of production & distillation, laying down a minimum period of maturation of three years in wooden casks, and gave the title 'Scotch whisky' a unique geographic meaning, implying that the product was distilled and matured in Scotland. Blended Scotch whisky may only claim that title if each of the individual whiskies in the blend is entitled to be called Scotch whisky in its own right.

In June 1982 the European Commission published proposals to establish general definitions within the Community to cover various alcoholic beverages. Included in these proposals were the acceptance of the unique nature of various national spirit products such as Scotch whisky and Cognac, and a definition of Scotch whisky in practice similar to that of the United Kingdom was established in European law in 1989.¹³

The current UK legislation relating specifically to Scotch whisky is the Scotch Whisky Act of 1988, and the orders made under it, which came into effect in June 1990 and superseded that part of the Finance Act of 1969, as subsequently amended, defining Scotch whisky as whisky:

a) Which has been produced at a distillery in Scotland from water and malted barley (to which only whole grains of other cereals may be added), all of which have been:

i) Processed at that distillery into a mash

- ii) Converted to a fermentable substrate only by endogenous enzyme systems; and
 - iii) Fermented only by the addition of yeast:
- b) Which has been distilled at an alcoholic strength by volume of less than 94.8% so that the distillate has an aroma and taste derived from the raw materials used in, and the method of, its production:
- c) Which has been matured in an excise warehouse in Scotland in oak casks of capacity not exceeding 700 litres, the period of that maturation being not less than 3 years;
- d) Which retains the colour, aroma, and taste derived from raw materials used in, and the method of, its production and maturation; and...
- e) To which no substance other than water and spirit caramel has been added..."

The Scotch Whisky Act of 1988 prohibits, *inter alia*, the production in Scotland of whisky other than Scotch whisky. The Scotch Whisky Act of 1988 and European Union legislation both specify a minimum alcoholic strength of 40% by volume, which applies to all Scotch whisky bottled and/or put up for sale within or exported from the EU.¹⁴

Thus, through this legal definition the name and reputation of Scotch whisky can be enforced within the United Kingdom & European Union, and provides the basis for persuading other countries to accept the

standards laid down and to incorporate such standards into their own national legislation.¹⁵ For example, in June 1996 Australia passed into Commonwealth law a definition of Scotch whisky matching that of the United Kingdom, including a statutory minimum strength of 40% alcohol by volume. In addition, in late August 1996, Chinese government officials visited the industry and explored the possibility of incorporating the United Kingdom definition into Chinese legislation.¹⁶

The Scotch Whisky Association (SWA) has been highly active in this area of 'protection' by litigation where misappropriation of the title 'Scotch Whisky' can be identified. The domestic whisky industry is heavily dependent upon brand images that have been nurtured over many decades and this investment can be seriously undermined by counterfeiting, which is a particular problem in the Far East.

The International Federation of Spirits Producers (IFSP) has been established to assist the local law enforcement agencies in detecting counterfeits of IFSP members' products and to handle investigations on behalf of its members.¹⁷ The SWA also receives considerable support from various government departments in its monitoring and protection activities.

2.3 The Production of Whisky

The immortal spirit grows
Like harmony in music; there is a dark
Inscrutable workmanship that reconciles
Discordant elements, makes them cling together
In one society.

Anon from Sir Robert Bruce Lockhart (1995) *Scotch: The Whisky of Scotland in Fact & Story*

Wide was our foresire' lore, but only these, the Northern Branch, were masters of the old Dark alchemy that from the barley frees the last elixir, in whose liquid gold the essences of the shining summers dwell, the mystery that none may ever tell, while still the heather to the hill returns.

Anon from H Charles Craig (1994) *The Scotch Whisky Industry Record*

As detailed in the previous Section, whisky is the distilled spirit of cereals, and within the United Kingdom, for this spirit to be called 'whisky', it must be matured in oak casks for at least three years, and to be called 'Scotch Whisky', it must be distilled in Scotland. Within this broad category there are essentially three types of Scotch whisky produced: malt whisky, made exclusively from malted barley, grain whisky, made from malted barley and other unmalted cereals such as barley, wheat and principally, maize,¹⁸ (accounting for around 85% of the ingredients of the recipe), and blended whisky, containing both malt and grain whiskies.¹⁹

Malt Whisky

Malt whisky is produced in batches by the pot still method, in relatively small distilleries scattered throughout Scotland, each of which claims to have its own individual flavour. Malt distilling can be divided into four main stages: malting, mashing, fermenting and distilling.

i) Malting

The barley is first steeped in tanks of water for two days or so and then allowed to germinate; the starch in the grains turns to sugar and rootlets begin to sprout from the barley. After five or six days germination is halted by drying the malted barley for about 24 hours in a kiln fired by oil, gas or coke together with peat. In the course of this drying the malt absorbs the smoke from the peat and this in part gives Scotch whisky its unique flavour.

Many distilleries now buy all or part of their malt ready made from specialist maltsters, although a handful, such as the Springbank distillery at Campbeltown, retain traditional floor maltings. Springbank is also one of only two distilleries which malt all the barley required for distilling, which obviously gives the company greater quality control than most other distilleries in Scotland.

The type of barley used is an important element in the quality of the final product. Maltsters and distillers traditionally favoured the local Golden Promise barley, but many have latterly substituted into higher yielding strains. It is perhaps no coincidence that the

customarily regarded 'Rolls-Royce' of malt whiskies, The Macallan, is produced exclusively from the costly, low-yielding Golden Promise variety. A few years ago, a decidedly inferior batch of Macallan emerged from the spirit still, occasioning much angst until it was discovered that the spirit had been produced with a 50-50 blend of Golden Promise and a lesser variety of barley. Even at this ratio, the whisky was unsaleable as The Macallan.²⁰

ii) Mashing

The dried malt is ground in a mill and this 'grist' is mixed with hot water in a large vessel called a 'mash tun.' The soluble starch is thus converted into a sugary liquid known as 'wort'.

iii) Fermenting

After cooling, the wort is passed into large vessels, known as 'washbacks', where it is fermented by the addition of yeast. The resultant liquid, known as 'wash', contains alcohol of a low strength which has been produced by the action of yeast on the sugar in the wort, emitting large amounts of carbon dioxide in the process. Purists maintain that superior quality whisky emerges from traditional pine or larch washbacks, but most parsimonious distillers have switched to stainless steel, which as well as being cheaper to purchase, are significantly easier to maintain.

iv) Distilling

Malt whisky is distilled twice in large copper pot stills, the shape

of which adds to the individual character of the distillery's whisky. The first distillation of the liquid wash is carried out in the wash still and separates the alcohol from the fermented liquid, eliminating the residue yeast and unfermentable matter. The solids remaining after the wort is run off, and the residue after distillation, are converted into cattle feed or fertilizer. This may be done at the distillery or in one of the number of 'dark grains' effluent disposal plants situated throughout Scotland and designed specifically for this purpose.

The distillate ('low wines') is then distilled in the spirit still but only part of this second distillate is of an acceptable quality and is collected in the spirit receiver. The first and last runnings of the distillation (the 'foreshots' and 'feints'), are run-off and redistilled with the next low wines. The pot still process is intermittent, the still being recharged every time a distillation is completed.²¹

Since the 1960s virtually all distillers have converted their stills from direct flame heating to internal steam coils. But at the Springbank distillery, the wash still continues to be fired from below by a live flame. To prevent solids within the wash at the base of the still from burning, Spingbank's wash still is fitted with rotating copper rummagers. This method of continually scraping solids has traditionally been considered an important factor in the whisky's eventual character; when distilleries began to convert to steam coil heating, many stillmen observed a notable diminishing in the quality of the spirit.

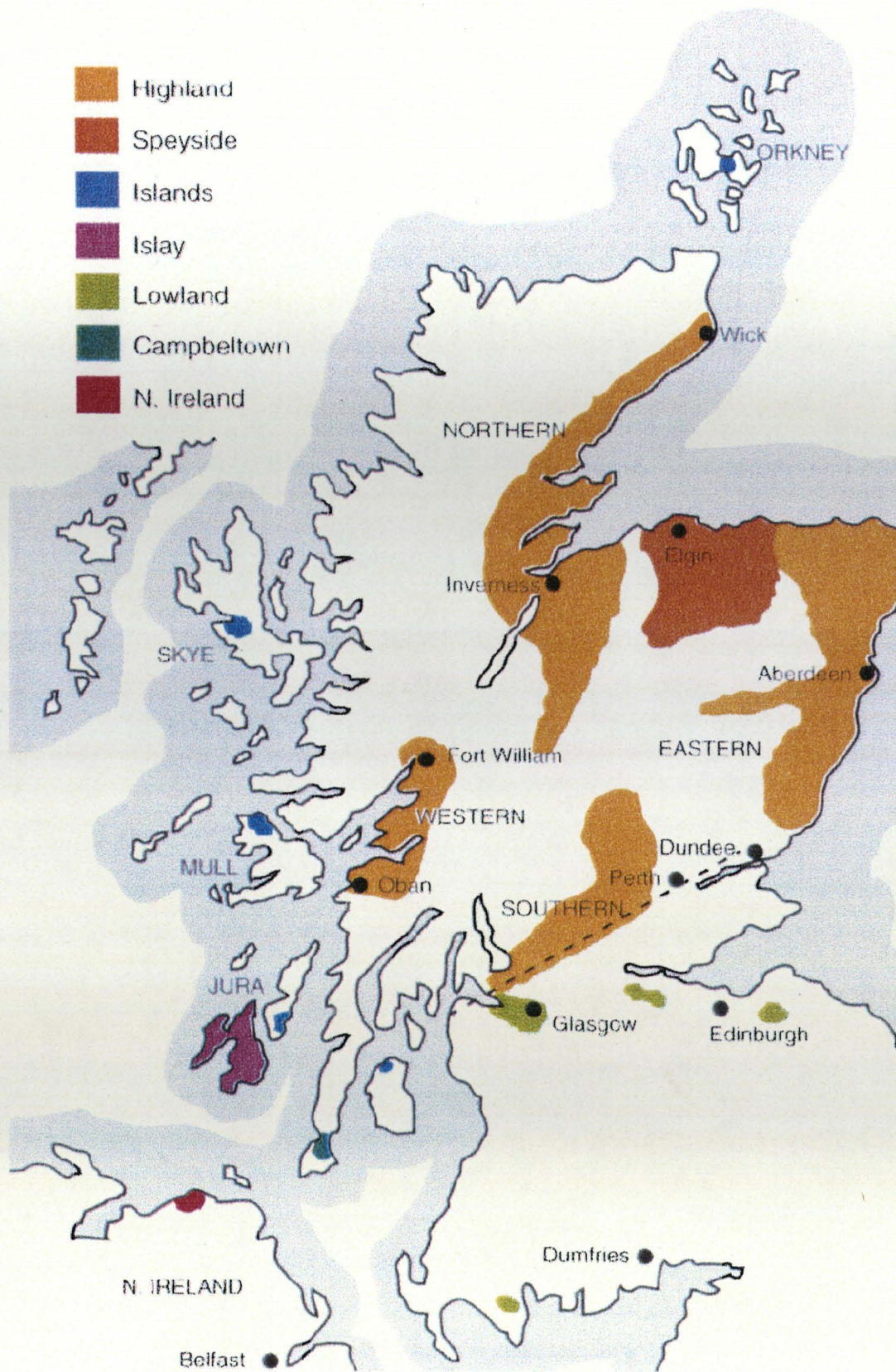


Plate 4 **The Malt Whisky Producing Regions of Scotland and Northern Ireland.**
 Wallace Milroy *The Malt Whisky Almanac* Courtesy of Neil Wilson Publishing Ltd.

The Malt Whisky Producing Regions of Scotland

As the fruit of the vine differs widely from Bordeaux to the Loire, so too do malt whiskies vary considerably in the nuances of body and flavour, depending upon the distillery from which they originate. In common with viniculture, the malt whisky distilleries of Scotland are categorized by geographical areas, summarized in Table 2.1 and illustrated in Plate 4. This map also features the one distillery in Northern Ireland, Bushmills, licensed by King James VI & I in 1608 and now the oldest licensed distillery in the United Kingdom. As Bushmills is the only remaining distillery in Ulster, it is usually categorized with the Scotch whisky industry. The Lowlands, Highlands (along with the subregions of Speyside and the Islands), Campbeltown and Islay regions have their origins in the regulation of licences and duties, but they do also embrace certain characteristics.²²

Table 2.1: Geographical Distribution of Whisky Distilleries

Highland	75
Lowland	2
Islay incl Jura	7
Campbeltown	1
Grain	8
Total	93

The Highland distilleries include one each on Arran, Mull and Skye, two on Orkney, and the cluster of distilleries in the Speyside region of Grampian.

Source: The Scotch Whisky Industry Review 1995

Of the total 85 pot still malt distilleries operating in Scotland in 1995, 75 may be classified as Highland Malts, made north of an imaginary line drawn from Greenock in the west to Dundee in the east.

The majority of Highland distilleries are located in the Grampian region of Speyside, with a particularly heavy concentration in the Moray district; here approximately 30% of manufacturing employment is provided by the whisky industry.²³ Given the large numbers of distilleries in this area, the Speyside malts are often regarded as a distinct subset of the Highland region, as are the whiskies produced on the islands of Mull, Skye & Orkney. In 1995 a distillery also opened on the island of Arran at Lochranza, whose first single malt is eagerly expected in January 2001. Since quality of water plays such an important role in the production of malt whisky the reason for the locational concentration of malt distilleries in Speyside & the islands is not surprising.

Lowland malts are produced south of the Greenock-Dundee line, and are distinguished by a softness untempered by Highland peatiness or coastal brine and seaweed. The number of operational Lowland distilleries has fallen sharply in recent years from 8 in 1980 to only 2 in 1995. There is also one distillery, Springbank, currently producing at the extremity of the Kintyre peninsula in Campbeltown, the whiskies' notably briny characteristics rendering their appellation as the product of a distinct region. Malts from the Hebridean island of Islay have an infamous iodine-like pungency occasioned by the heavy prevalence of peat on the island; most blends contain at least one Islay malt. The number of distilleries in operation has continued to fall, with only 7 producing in 1995, including one on the neighbouring island of Jura.

The industry should be concerned at the fall in number of Lowland and Campbeltown distilleries in operation as an important aspect of

Scotch whisky is the wide geographic range of malt distilleries within the industry, which has enabled blenders to develop such a wide-ranging variety of blends. The Glen Scotia distillery at Campbeltown closed in 1995, but is capable of re-opening.

v) Maturation

By law, all Scotch whisky has to be matured for a minimum of three years in an oak cask, and it is during this maturation period that the different whiskies obtain many of their defining characteristics. The majority of distillers use ex-Bourbon oak casks from the United States, but some 'finish' their products in Spanish sherry casks. The long-term supply position of these casks is tenuous, so in recent years there has been a developing interest in the use of new wood, and internal charring to prolong the life of existing casks.²⁴

The Macallan is matured exclusively in Dry Oloroso sherry casks, and it is widely held that it is this more than any other factor which is responsible for The Macallan regularly being rated the finest of all Scotch whiskies. To secure the continuing supply of these casks, the directors of Macallan-Glenlivet traditionally made an annual sojourn to the bodegas of Jerez, paying as much as £140 a hogshead, compared to £82 for a Bourbon and £37 for an ex-Scotch refill cask.²⁵

After maturation, malt whisky is either sold as a single malt, mixed with other malts to make what is known as a 'vatted' malt, or in the case of 85% of all malt whisky produced, eventually blended with grain whisky (in an average proportion of 30 per cent malt to 70 per

cent grain) to produce two thousand and more blended and branded whiskies.²⁶ With little variation in characteristics or quality between distilleries, grain whisky lends itself admirably to its role as the base for blended whisky, with the malts providing most of the flavour and character of the blend.²⁷

Grain Whisky

Unlike malt whisky, grain whisky distilling is not so dependent upon environmental or geographical factors, and as a result most of the 8 distilleries currently in operation are situated in the central belt of Scotland. Grain whisky is produced under the same definition as malt whisky, in that only malted barley, whole grain and yeast may be used in its manufacture. Whole grain (maize or wheat) is cooked under pressure before being added to previously milled malt in a mash tun, where conversion of the starch in both the malt and other cereals takes place. The resultant wort-sugar solution is cooled and pumped to washbacks, where, by the addition of yeast, fermentation takes place.

Grain whisky distillation is a continuous, large scale process using the 'Coffey' still, resulting in the typical grain distillery more resembling a chemical plant than a whisky distillery. As very large volumes are involved, grain distilleries have substantial by-products plants which recover approximately 30% of the original grain as animal feed. The carbon dioxide discharged during fermentation is generally recovered and sold as liquid CO₂.²⁸ The average annual capacity of a grain distillery is in the region of 41 million litres of pure alcohol (LPA) per year, whilst the average

capacity of a malt distillery is around 2.5 million LPA. But malt whisky distilleries also vary greatly in annual capacity, from 90,000 LPA (Edradour) to 10 million LPA (Tomatin).

Capacity utilisation in malt and grain distilleries since 1980 is detailed in Table 2.2. It will be noted that even during the prosperous late 1980s capacity utilisation rarely exceeded 80%, and at the depth of the recession in the early 1980s, fell to less than half.

Table 2.2: Capacity Utilisation 1980-1996, Malt & Grain Distilleries (million litres of pure alcohol)

Year	Malt Output	Capacity	Utilisation %	Grain Output	Capacity	Utilisation %
1980	177.9	259.2	68.6	238.0	365.9	65.0
1981	110.1	262.8	41.9	157.9	350.6	45.0
1982	96.7	264.6	36.5	151.0	350.6	43.1
1983	93.4	248.4	37.6	145.7	311.7	46.7
1984	99.5	242.5	41.0	153.9	311.7	49.4
1985	104.8	214.7	48.8	155.8	311.7	50.0
1986	103.8	208.5	49.8	161.1	284.6	56.6
1987	116.0	208.3	55.7	173.7	287.0	60.5
1988	138.0	203.0	68.0	191.9	268.9	71.4
1989	167.2	214.1	78.1	218.3	275.0	79.4
1990	193.1	238.5	81.0	235.9	306.0	77.1
1991	187.8	238.7	78.6	230.5	310.0	74.4
1992	167.9	237.3	70.8	217.0	310.0	70.0
1993	142.8	232.5	61.4	210.2	294.0	71.5
1994	148.0	230.9	64.1	210.9	300.0	70.3
1995	159.7	224.6	71.1	239.0	328.0	72.9
1996	173.1	221.2	78.2	268.3	333.0	80.6

Source: The Scotch Whisky Industry Review 1996

Creating & Sustaining a Blend

Over 90% of the Scotch whisky consumed in the United Kingdom is blended whisky, which can comprise anything from 15 to 40 or more whiskies. The objective is to make a blend which draws the best

qualities from all its component whiskies, but has flavour and character in its own right. In selecting whiskies, the Master Blender will combine malt whiskies of different characteristics from some or all of the whisky producing regions, along with grain whiskies of suitable character, and must ensure that the blend is consistent in flavour and quality at all times.²⁹

Having settled the formula for the blend, the blending company must secure the necessary quantities of new whisky from the different distilleries and allow it to mature. In practice, almost all Scotch whisky is earmarked for a particular use at the time of production, with orders usually agreed for a calendar year at a time, and filled into casks belonging to the purchaser. The distiller normally stores the casks while the whisky is maturing, charging the purchaser an annual storage rent.

Distillers do not normally distill and mature any whisky except against firm orders, because of the financing costs and risks involved. There is, however, a broker's market, which is used primarily for balancing stocks of maturing whiskies if, for example, actual brand sales prove to be different from original forecasts. There is thus a large degree of interdependence within the industry at the manufacturing stage, despite vigorous competition at the point of sale.³⁰

The whisky matures in the casks at strengths of 110-120 degrees proof, until, in the opinion of the blender, it is ready to be added to his blend. Although Scotch whisky can only be so described if it has matured for three years, in practice the average age at which malt

whisky is used is between 5-6 years, and between 3-4 years for grain.³¹ The necessity to mature whiskies for many years before blending means that an unusual degree of forward planning is required.

When the whiskies are considered ready to be incorporated into the blend they are brought from the maturation warehouse to the blending establishment, where they are mixed together in a blending vat. They may then, after reduction in strength by the addition of soft water, be returned to cask and left to 'marry' for a period, which may be from weeks to months, though a few companies eschew this practice.

Before bottling, most whisky is chilled and filtered to prevent the possibility of haze formation when bottles are stored at low temperatures. This chilling must be done carefully to avoid affecting the flavour of the whisky. For this reason, a handful of distilleries, including Springbank, do not chill-filter, bottling at higher proofs instead as a way of preventing hazing. Most distillers also add spirit caramel for colour uniformity; again, Springbank and a few others decline to do this.

All blenders of reputable brands would emphasise the importance of maintaining a consistent blend. As each malt whisky has a unique flavour, this means that even malt whiskies from similar geographical groups are not readily substitutable for each other in a particular blend. Nevertheless, some blenders do alter their brands, substituting malts according to availability and relative prices, but utilize existing stock holdings to ensure that change is

introduced gradually and the blend style is unchanged. The degree of substitutability is, however, generally considered to be less the higher the quality of the malt, as such malts provide most of the body and flavour in a blend.³² A rare example of a company substantially amending the style of a popular premium blend was United Distillers Master Blender Ian Grieve's creation of Bell's Extra Special in 1995.

In such a traditional industry, only relatively modest increments in productivity are possible. The alcoholic drinks industry in the United Kingdom achieved increases in labour productivity at an average annual rate of 7.6% during the period 1979-1986, substantially higher than the average 3.6% achieved by the manufacturing sector as a whole during this period.³³ But in the case of the whisky industry, much of this increase was the product of the mergers & acquisitions of the period, which whilst leading to increases in investment and improvements in management practices, involved a concomitant shedding of labour.

In more recent years productivity has improved as a consequence of rationalisation of production & bottling, whilst increased in-house distribution of brands has resulted in the major groups having much greater control of marketing.³⁴ Significant investments in warehousing technology, especially by the larger companies, will continue to generate a more efficient throughput of bottled whisky, thereby reducing overall transport and warehousing costs.³⁵ Yields from the raw materials used in distillation have also improved in recent years, as illustrated in Table 2.3:

Table 2.3: Yields (litres of alcohol) Per Metric Tonne of Cereal Malt & Grain Whisky

Year	Malt Whisky Yields	Grain Whisky Yields
1990	391	371
1991	397	372
1992	395	373
1993	402	377
1994	407	374
1995	403	374
1996 Est	407	375

Source: The Scotch Whisky Industry Review 1996

Within the realms of public policy, further developments in the EU's Common Agricultural Policy (CAP) may affect the whisky industry. The industry is a major consumer of top quality malting barley and other cereals and, although as depicted in Table 2.3, the efficiency of conversion to alcohol has been improving in recent years, the industry has been restricted by EU agricultural policy to sourcing grains from the EU wherever possible. The EU has provided financial support, via the Whisky Export Refund Scheme, to compensate the industry at times when EU prices for cereals were above world market prices.

The European Commission's "Agenda 2000" communication, published in July 1997, includes proposals for reform of the CAP, including those relating to the support of cereals prices. This development signals the Commission's intention to replace price support with direct payments to producers, one consequence of which is likely to be that cereal prices within the EU will move closer to world market prices. In turn, this will have implications for the future operations of the Export Refund Scheme.³⁶

In a recent article in *The Scottish Economic Bulletin*, Calum Scott &

Peter Winstanley wrote:

The whisky industry relies heavily on primary and secondary packaging to convey the image of its brands and products. Consequently, there is not as much scope for reductions in packaging materials in the industry as there might be in others. The Producer Responsibility Obligations (Packaging Waste) Regulations 1997 place obligations on certain businesses, including the whisky industry and its retail outlets, to register with the Scottish Environmental Protection Agency or a collective industry compliance scheme (VALPAK, WASTEPAK, etc) to recover and recycle specific tonnages of packaging waste and to certify that this recovery and recycling has been achieved.³⁷

But arguably there is considerable scope for economizing on packaging inputs, an area in which the whisky industry would appear to have lost sight of Scotland's heritage of ascetic Calvinism. In contrast to the marketing of most wines, fortified wines, liqueurs and other spirits, the Scotch whisky industry appears to have a fetish for encapsulating their product in fancy tubes, cartons or boxes. Such packaging adds nothing to the inherent quality of the product, but increases the price to the consumer. Even if part of the saving augmented producers' surplus, scaling down such unnecessary wrapping would be beneficial from an ecological point of view.

An additional innovation that would economize on glass and packaging inputs would be the substitution of the present 70cl bottle with a standard 1 litre bottle for all spirits sold in the European Union. This is discussed further in Chapter 4 in the context of the intra-EU duty free market, and in Chapter 7 where possible reforms to the present duty structure in the United Kingdom are advocated.

Energy is a major cost of Scotch whisky distillation, but low oil prices in recent times have stifled the impetus towards further conservation methods. An unusual use of recycled heat was the heating of a swimming pool adjoining Morrison Bowmore's distillery on Islay, whilst for many years Morrison's Glen Garioch distillery in Aberdeenshire grew tomatoes heated by water from the distillery. However, this project was subsequently abandoned, and the distillery has now also closed.³⁸

But with such a high proportion of the final retail price of spirits accounted for by duty and value added tax, even substantial reductions in costs results in an appreciably smaller fall in the final price. Tables 2.4 & 2.5 disaggregate the cost of producing one litre of pure alcohol of malt & grain whisky in 1993.

Tables 2.4a & 2.4b: Cost Structure (pence per litre of pure alcohol)
for Malt & Grain Whisky, 1993

Table 2.4a Malt Whisky			
Distillation			
Raw materials (malted barley)	80		
Fuel, electricity & water	14		
Labour	14		
Less: sales of by-products	2		
Total direct costs		106	
Overheads		26	
Total Distillation Costs			132
Warehousing			
Warehousing charges		40	
Evaporation (14.5% over 6 years)		25	
Finance charges		108	
Total Warehousing Costs			173
Bottling & Packaging			
Labour	34		
Materials (bottles, caps, cartons etc)	83		
Wastage (materials and whisky)	7		
Total direct costs		124	
Overheads		4	
Total Bottling & Packaging Costs			128
Total Costs			433

Table 2.4b Grain Whisky			
Distillation			
Raw materials (mainly maize)	48		
Fuel, electricity & water	8		
Labour	4		
Less: sale of by products	8		
Total direct costs		52	
Overheads		9	
Total Distillation Costs			61
Warehousing			
Warehousing charges		20	
Evaporation (10.5% over 4 years)		9	
Finance charges		30	
Total Warehousing Costs			59
Bottling & Packaging			
Labour	34		
Materials (bottles, caps, cartons etc)	83		
Wastage (materials & whisky)	7		
Total direct costs		124	
Overheads		4	
Total Bottling & Packaging Costs			128
Total Costs			248

Source: James Love, *The Whisky Industry*

On the basis of Tables 2.4a & 2.4b, and assuming that the average blended whisky contains one-third malt and two-thirds grain whisky,

the cost of a 70cl bottle of blended whisky at 40% alcohol by volume in 1993 approximated 86p. Advertising & marketing expenses may account for an additional £1 per bottle, giving a cost of £1.86. In total, according to Sutherlands Ltd the estimated realised wholesale price of a bottle of blended Scotch net of duty in January 1997 was £3.79, indicating a profit margin of just over 50%.³⁹ The retailers' margin adds approximately 83p to the price, summing to £4.62.

But with excise duty of £5.32 per bottle this figure rises to £9.94, to which value added tax at 17.5% is levied, giving a total selling price to the consumer of £11.68.

A 50% profit margin may seem high, implying excessive rates of return on capital employed, but the effect of high tax rates is to markedly diminish the incentive for distillers to compete more vigorously. On the basis of the figures presented above, even if the distillers were to accept a halving of their profit margins to 25%, retailers' mark-ups, duty and VAT would still result in the final price to the consumer being £10.55. A 50% reduction in profits thus results only in a 9.7% reduction in the final price. It is hard to identify another product where the producer has so little control over the final price in the market place.

This point is often made in the economic literature when assessing the relative merits of different forms of taxation. In *Public Sector Economics*, Brown & Jackson have written:

When commodities are subject to very high unit taxes, the final selling price is not very sensitive to the producer price. For example, if a good has a unit tax of 80p and the pre-tax price is 20p, the customer pays £1.00. A 50% cut in the price of the good to 10p will reduce its price only by about 10% (assuming the cut is fully passed on). [Hence] inefficient domestic producers are not penalised.⁴⁰

In addition, in 1994, 1995 and 1996, realised selling prices have been lower than the official listed prices, with substantial discounts available. Accordingly, profit margins in those years are much lower than shown. The profit margin per case on export is only just over 30%.⁴¹

2.4 The Present Industrial Structure

Here's tae us, wha's like us;

There's gey few o' us left!

Old Lowlands toast

Competition is the breath of business, but the death of profits

Tommy Dewar

The ownership structure of the Scotch whisky industry is complex, with firms vertically integrated from distilling through blending & bottling, brand ownership and marketing, but also horizontally integrated into other aspects of the alcoholic drinks industry. The industry is relatively highly concentrated and has been since the early part of this century when the Distillers Company Limited (DCL) began to emerge as the dominant company in the industry. By 1925 DCL had merged with its principal rivals and controlled approximately 80% of grain and malt output.

In subsequent years, mergers & acquisitions have continued as the predominant form of structural change in the industry. Almost all of the mergers have been of the horizontal form, where firms in the distilling industry, producing identical or similar products and selling in the same geographical markets, have decided to merge. By contrast, a vertical merger occurs when a firm producing an intermediate good (or factor of production) merges with a firm producing the final good that uses this intermediate good, or vice

versa.⁴² Throughout this Section, chronological descriptions of these developments in the whisky industry will be related to the traditional economic theories of industrial structure, which identify several motives for such activity.

In his *The Structure of Competitive Industry* (1958)⁴³, Robinson argued: "Firms will at some stage in their growth enter a critical stage which combines the technical disadvantage of smallness with the managerial disadvantage of being too large for individual control." Robinson referred to such a firm as one of 'pessimum' size.

Placed in such a position, the owners may decide either to continue at the same size or to accept the offer of a takeover by another company. In other cases owners will attempt to grow out of the critical stage. Substantial difficulties, however, may be faced, particularly in recruiting new management personnel and raising capital. Acquisition by another firm may be the only effective way of overcoming these difficulties.

Seeking greater scale economies is often a motive for mergers. Rival firms may produce several products on a small scale within each plant. By combining plants into a smaller number of firms, this may lead to economies of increased specialisation that could not be achieved, or at least would take a great deal longer to achieve, through internal expansion.⁴⁴

This factor also explains the spate of distillery closures in the 1980s. For example, United Distillers determined that one Lowland

distillery was sufficient for blending purposes, and closed the Rosebank distillery at Falkirk in 1993, concentrating production at Glenkinchie, just south of Edinburgh.

Whilst existing industry capacity may be sufficient to meet demand, many individual plants may be of a suboptimal size. Similarly, if economies of scale are large in relation to the annual rate of increase in demand, mergers may be necessary if scale economies are to be fully realised. The same result may be impossible, or take a very long time to achieve through internal expansion, because of such market imperfections as the control of distributive outlets, product differentiation advantages or simply the unwillingness of businessmen to take the risks of competitive expansion.

Securing economies in marketing & distribution are often prime motives for merger. Two previously competing firms can combine their advertising efforts and possibly obtain greater discounts from the advertising media. Part of their previous advertising efforts may also have been mutually offsetting, and this can be eliminated. If both firms own distributive outlets, the merger may also result in economies here as wasteful duplication is eliminated.

An important rationale for some mergers is the existence of complementarities. If one firm is strong on the research side but weak in marketing, and another has the opposite attributes, a merger of the two firms could result in benefits to both. Growth can often be achieved faster by merger than by internal expansion.⁴⁵

Moreover, a firm may consider acquisition to be a safer as well as a

faster way of entering a new field. In a relatively slow-growing industry, as whisky became in the 1980s, competitive investment programmes involve the danger of over-capacity followed by lower prices and profits. An acquisition will be a safer way for a firm to expand, because it does not mean an increase in the industry's capacity.

Finally, any merger or acquisition will be especially profitable when it results in increases in market power or when it eliminates a threatened increase in the intensity of competition. Once a dominant position has been established, mergers may be used to protect it.⁴⁶

This latter motive explains in part takeovers in the 1930s and 40s by the large Canadian distillers Hiram Walker and Seagram, which, along with other mergers & acquisitions, meant that by the late 1950s the blended whisky 'trade' could be described as being highly concentrated, possessing a leading firm (DCL) and high barriers to entry, mainly the cost of advertising (Evely & Little, 1960).⁴⁷ By 1968 three companies (DCL, William Teacher and Arthur Bell) had 85% of the market in the United Kingdom, while the export market was dominated by DCL, International Distillers & Vintners (IDV) and Highland Distilleries.⁴⁸

In their study, Evely & Little drew attention to the major importance of external acquisition in the growth of the leading firms in trades that were dominated by a small number of sellers, concluding that there were few firms among the leaders that had not been created by amalgamation or had not resorted to acquisition or merger at some

stage of their growth.⁴⁹

During the 1960s ownership in the whisky industry remained fairly stable, in sharp contrast to the years 1971-1993. Over this latter period a total of 82 distilleries changed hands at least once, and for some distilleries changes occurred with even more rapidity; eight distilleries changed hands twice, six changed hands three times, and one four times. Ashcroft & Love (1993) have estimated that this meant between 80% and 90% of the entire distilling capacity of the industry experienced changes in ownership in the years 1971-93.⁵⁰

These sizeable shifts in ownership were the product of several influences. During the 1970s several family-controlled whisky companies reached Robinson's 'pessimum' size, finding themselves in a position in which the only means of obtaining the funds necessary for expansion was through being acquired. This factor was responsible for the acquisition of some of the most famous names in the industry, including the Glenlivet Distillers by Seagram and William Teacher & Sons by Allied Distillers. It was at this time too that several of the major European distillers made their Scottish debut, with DYC of Spain and Pernod-Ricard of France purchasing Macnab Distilleries and S Campbell & Son respectively.⁵¹

In addition, there was clearly a profit motive behind much of these sizeable shifts in ownership. Until 1979 whisky distilling had been a highly profitable industry as demand grew at an unprecedented rate, attracting the interest of companies new to the industry and encouraging already existing firms to expand their activities. Due to unique geographical limitations and the importance of the

distinct characteristics of the whisky from each distillery, takeover represents a much more attractive prospect than 'greenfield' investment, which is usually only undertaken by well-established and fairly large groupings.

This is because blenders are very reluctant to buy immature spirit from a new distillery until its whisky is proven, and so the owners have to finance all the initial stocks for a number of years. This is generally only feasible if they can use them in their own blends.⁵² For those with no experience of the whisky business, takeover also allows the acquisition of a large amount of industry specific expertise.

The recession of the early 1980s reduced the incentive for acquisition, a tendency reinforced by the Monopolies & Mergers Commission's decision in 1980 to block the bid by Hiram Walker for Highland Distilleries, one of the few remaining sizeable Scottish-owned whisky companies. During this investigation the Monopolies & Mergers Commission placed great emphasis upon the potentially detrimental affect on competition which could result from any further increase in the concentration of distillery ownership.⁵³

The CR5 sales concentration ratio fell from a peak of 77 per cent in 1971 to 53 per cent in 1984 before beginning to rise again in 1985. By contrast, there is evidence that over the same period the ownership of distilleries became increasingly concentrated in the hands of the largest companies. In 1970, the five largest companies owned 55 per cent of operating malt whisky distilleries, a proportion which had grown to 67 per cent by 1988. At the same time, the number and

proportion of distilleries owned by single-distillery operators fell steadily from 29 per cent in 1960 to 10 per cent by 1993.

The resolution of the apparent paradox of a decreasing concentration ratio together with a rising concentration in distillery ownership is to be found in the reduced dominance of DCL, rather than in any major upheaval in the industry or because of new entrants into the market. Between 1959 and 1966, DCL's share of the market in the United Kingdom fell from 75% to 50%, and by 1985 its share had fallen to 17%. This was largely the result of poor marketing and occasionally perverse decisions, such as removing Johnnie Walker from the domestic market in 1977, following a dispute with the EC over DCL's dual-pricing system, the primary function of which was to protect its distributors from the impact of parallel exporting.⁵⁴

The distribution of whisky in export markets is normally undertaken by sole agents who are responsible for the marketing and promotion of brands in the particular market. Large margins are therefore required by the sole agent to cover these overheads. Parallel exporters rely on the differential between the net selling price of whisky in bond in the United Kingdom and the gross price charged to the export market. Whisky is purchased, ostensibly for sale in the United Kingdom, but is subsequently exported and offered to retailers at a price substantially below that charged by legitimate sole agents. DCL attempted to mitigate the worst impact of the parallel exporters by charging the gross United Kingdom price to those customers who subsequently exported, effectively creating a dual price structure dependent on where the whisky was destined to be sold.

This practice was referred to the Commission of the EC and in December 1977 it notified DCL that the dual pricing structure was contrary to EC law and must be discontinued, thus implicitly sanctioning the activities of the parallel exporters. DCL withdrew its best selling brand, Johnnie Walker Red Label, from the United Kingdom and applied to the Price Commission to raise substantially the price of the remainder of its domestic brands. Subsequently Haig Dimple was also withdrawn from the United Kingdom. By forcing up its prices in the United Kingdom and limiting Johnnie Walker Red Label to an export brand only, DCL protected its overseas distributors, but at dramatic cost to its market share in the United Kingdom. Competitors such as Bell's and Highland Distilleries benefited from DCL's actions, garnering increased volume and market share for their respective brands.⁵⁵ Overseas, DCL performed rather better, but all of its major brands lost out to aggressively marketed rivals such as Ballantines and Chivas Regal.⁵⁶

The company won a relaxation of the EC edict in 1983, but morale was badly shaken. In December 1985 the Argyll Group, a Scottish-based food retailing chain, made a takeover bid which was rejected outright. But the management was shaken by the equivocation of the shareholders and the Government, and recommended the acceptance of a £2.7 billion offer by Guinness plc, the brewing giant which had acquired Arthur Bell & Sons of Perth the year before.⁵⁷ Guinness acquired DCL in May 1986, after one of the most bitter and protracted takeover battles in the United Kingdom's corporate history. With these two acquisitions, Guinness emerged as the largest drinks company in the world, controlling an estimated 25.2% of whisky sales

in the United Kingdom and 35% of the industry's productive capacity.⁵⁸

In both the takeover of Arthur Bell and DCL, the Guinness Board placed great store on the complementarities between the products, arguing that the synergies between distilling and brewing would be such as to create greater value for shareholders. The acquisition of a large amount of expertise and goodwill, particularly in the case of DCL, made takeover a much more attractive prospect for the brewing group than developing its own distilling interests. It is undoubtedly the case too that the merged group was able to make substantial economies in marketing & distribution.

The agreed merger in 1986 between Allied Lyons and Hiram Walker Resources, the wines and spirits arm of the Canadian drinks conglomerate for £1.25 billion, had little impact on concentration of sales in the home market, because none of Hiram Walker's brands had more than 1% of the market in the United Kingdom. But the merger facilitated Allied's access to Hiram Walker's international sales network, a *sine qua non* for Allied to become a major international drinks company. Although Allied's Teacher's blend occupies second place in the United Kingdom market it has consistently failed to sell well abroad.⁵⁹ Allied subsequently acquired the Whitbread spirits division in 1990, and in 1994 the Spanish drinks company Pedro Domecq for £1 billion. This latter deal included NYC (Distileries-y-Crianza) which owned MacNab Distilleries.

This new wave of acquisition had been encouraged by a recovery in the mid 1980s of whisky sales, a desire for diversification, and by the

substantial sums of spare cash within many companies in the United Kingdom.⁶⁰

Throughout the period under discussion, Japan and the United States retained an interest in Scotch whisky; both countries are important export markets and significant producers of whisky in their own right. At one time, the Japanese company Suntory held a strategic shareholding in The Glenlivet Distillers, but the acquisition by Takara & Okura of Tomatin Distillers in 1986 was the first direct entry into a Scotch whisky distillery by a Japanese concern. Before the demise of Tomatin in its original form, the distillery was heavily involved in the export of malt whisky in bulk to Japan. Takara's purchase of the distillery was thus a convenient method of protecting this important source of supply.⁶¹

In 1989, Nikka Whisky Distilling became the second largest Japanese company to own a Scotch whisky distillery with the purchase of the Ben Nevis distillery. But the most notable Japanese involvement in the industry occurred in July 1994 with the purchase of Morrison Bowmore Distillers by Suntory.

The management buy-outs at Inver House Distillers, bought from Publicker Industries of the United States, together with the sale of Hiram Walker's interests in the United Kingdom to Allied Lyons, more than halved North American involvement in Scotch whisky, leaving Seagram as the only sizeable representative. However, North American involvement increased early in 1990, when the failure of an attempted management buyout of Whyte & Mackay led to acquisition by Gallaher (the British subsidiary of American Brands), which also

acquired Invergordon Distillers in 1993.⁶²

American Brands are the owners of the Jim Beam brands and are the third largest distilled spirits company in the United States. In a recent reorganisation, American Brands have put all their drinks interests under the control of Jim Beam Brands Worldwide, including Whyte & Mackay and Invergordon, and Whyte & Mackay has been renamed JBB (Greater Europe.)⁶³

The major changes in ownership in the whisky industry since 1971 are summarized in Table 2.5, which illustrates well the increasing concentration in distillery ownership over the past 27 years.

Table 2.5: Major Changes of Ownership in the Scotch Whisky Industry, 1971-96

Year	Acquired Company	Acquiring Company	Number of Distilleries
1971	Littlemill Distillery Co	Barton Brands	2
1972	Tullibardine Distillery	Invergordon Distillers	1
1972	Deanston Distillers	Invergordon Distillers	1
1972	Bladnoch Distillery	Inver House Distillers	1
1973	Macnab Distilleries	Distilerias-y-Crianza	1
1974	S Campbell & Sons	Pernod-Ricard	1
1976	William Teacher & Sons	Allied Breweries	2
1978	The Glenlivet Distillers	Seagram	5
1979	Whyte & Mackay Distillers	Lonrho	3
1981	Glenturret Distillery	Cointreau	1
1985	Arthur Bell & Sons	Guinness	5
1985	Charles Mackinlay & Co	Invergordon Distillers	2
1986	Distillers Company Ltd	Guinness	28
1986	Hiram Walker Resources	Allied-Lyons	10
1986	Tomatin Distillers	Takara & Okura	1
1987	Barton International	Gibson International/ Schenley Industries	2
1988	Burn Stewart Distillers	MBO	1
1988	Inver House Distillers	MBO	2
1989	Invergordon Distillers	MBO	7
1989	Whyte & Mackay	Brent Walker	3
1989	James Burrough Distillers	Allied-Lyons	3
1989	Ben Nevis Distillery	Nikka Whisky Distilling	1
1990	Glenturret Distillery	Highland Distilleries	1
1990	Deanston Distillers	Burn Stewart Distillers	1
1990	Invergordon Distillers	Flotation	7
1990	Whyte & Mackay	American Brands	3
1991	Burn Stewart Distillers	Flotation	1
1993	Tobermory Distillery	Burn Stewart Distillers	1
1993	Invergordon Distillers	American Brands	5
1994	Distilerias-y-Crianza	Allied Distillers	1
1994	Morrison Bowmore	Suntory	3
1996	Macallan-Glenlivet	Highland Distilleries	1
1998	Dewars (Guinness)	Ron Bacardi	4

Sources: James Love, *The Economic Effects of External Acquisition in the Whisky Industry*, *The Whisky Industry*, & Alan Gray, *The Scotch Whisky Industry Review 1995*

People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.

The *Daily Telegraph* City Editor, quoting from Adam Smith's *Wealth of Nations* (Canan edition), in respect of the luncheon at which Guinness Chairman Anthony Greener and Grand Metropolitan's George Bull allegedly discussed the merger of their two companies.

The announcement in May 1997 of an agreed merger between Guinness and Grand Metropolitan (whose Scotch whisky interests were managed by International Distillers & Vintners-IDV) was greeted with general enthusiasm by most City analysts, who opined that for some years, shares of both companies had "underperformed the market." Considering the performance of the three main Scotch whisky companies quoted in the United Kingdom, Allied Domecq has underperformed by 45%, Grand Metropolitan by 20% and Guinness by 21%.⁶⁴

Grand Metropolitan and Guinness believe that the key to the success of the merged company, to be styled Diageo, will be owning the leading brands and a broad distribution network, claiming that the economies of scope achievable by combining operations will save £175m a year by the third year after the merger - mainly by eliminating the jobs of about 2,000 salesmen and clerks. Industry analysts such as David Fleming, editor of the drinks magazine *Impact International*, believe that both the potential cost savings and synergies from the merger could be even higher.

Undoubtedly, the products and abilities of the two companies complement each other. United Distillers (UD), Guinness's spirits division, produces Johnnie Walker, the world's biggest selling Scotch whisky, and Cognac through its 34% stake in Moet Hennessy, the drinks division of France's LVMH. It has established itself in Asia, where such 'brown spirits' are popular, and is strong in Europe. IDV is strong in 'white spirits' - vodka (Smirnoff, its top selling brand, is the second best-selling spirit in the world) and tequila - and has a strong position in Eastern Europe as well as the United States.⁶⁵

Opposition to the merger from LVMH Chairman Bernard Arnault was thwarted in October 1997 by means of a £250 million sweetener and an extended distribution deal. M Arnault, the only member of the Guinness board to vote against the proposed merger, had wanted to combine his spirits business with UD and IDV. This plan was thwarted by the rest of the Guinness and GM boards as it would have left LVMH owning 35% of such a new company. But it is likely that M Arnault will continue to press for the demerger of the non-drinks businesses from Diageo.

A few days later the merger was given conditional approval by the European Commission. The conditions, which were said by drinks industry analysts to be relatively light, included selling two whisky brands, Dewars and Ainslie, on a Europe-wide basis, and the transferring of certain European distributorships to third parties. Guinness and Grand Met were believed to be privately delighted at the EU decision. Drinks analyst Alan Gray of Sutherlands Ltd

commented:

I think the companies will be quite pleased with the European Commission ruling. The conditions are not too rigorous at all. What with Arnault, things are moving rapidly. At this stage I cannot see anything to indicate any great problems with the deal going through.⁶⁶

The final hurdle, approval from competition authorities in the United States, was granted in December 1997. This was followed in March 1998 by the sale of the Dewars and Bombay Sapphire spirits brands to Ron Bacardi, the Bermuda-based white rum maker, for £1.15 billion. George Reid, Bacardi President and Chief Executive, said Dewar's and Bombay provided a "natural synergy" with its existing Bacardi Rum and Martini Vermouth brands, reinforcing the company's commitment to the spirits industry "for the long haul."

The Guinness-GM merger may oblige such offended rivals as Seagrams and Allied Domecq to reconsider their market positions. Diageo has a staggering 42% share of world whisky sales, more than double that of its nearest rival, Allied Domecq, and will command three-quarters of the premium gin market in the United States.⁶⁷ The Diageo response is that it will be selling less than 9% of the billion or so cases of spirits sold worldwide.⁶⁸ Robert Matschullat, Chief Financial Officer of Seagram, has said: "Anytime two of the biggest players in an industry consolidate, everyone examines their position." The merger may incline his company to acquire vulnerable rivals. "If they don't feel they can go it alone, we might be a possible partner," Matschullat says.

Allied Domecq is one possible target. Investment analysts believe Seagram could afford to purchase Allied, although distribution linkups between the two companies would be a less expensive alternative. But the two companies operations do not complement each other to the same extent as Guinness's and Grand Met's.⁶⁹

For instance, Seagram's and Allied's cognacs, Martell and Courvoisier, and their Canadian whiskies, Crown Royal and Canadian Club, are strong competitors, and neither firm has a strong vodka of its own. That said, Seagram's lacks a standard blend such as Allied's Teachers, whilst Allied's portfolio of malts is limited. Other interested parties could include M Arnault, who may now sell LVMH's 66% stake in Moet-Hennessy to Diageo, and privately owned firms such as Bacardi, whose white rum is the world's top-selling spirit brand, and Brown-Forman, which makes the American whiskey Jack Daniels.⁷⁰

It is therefore quite likely that the Guinness-Grand Metropolitan merger may prompt a further round of consolidation in the industry, or as *International Business Week* amusingly put it, "For smaller boozemakers, it may be time for another round."⁷¹ There is evidence that this is indeed happening, with the recent revelation of a possible joint venture between Burn Stewart Distillers and William Grant & Sons Ltd. This amalgamation reflects several of the extant theoretical motives for merger, in particular the problem of 'pessimism', suboptimal size, and the rôle of scale and scope economies.

William Grant is expected to take a major stake (49%) in Burn Stewart,

in return for a package including Grant's Channel Island-based wholesale distribution subsidiary, Quality Spirits International (QSI). QSI deals at the value for money end of the market - where Burn Stewart has traditionally been strongest. It is thought likely that, in addition to exchanging QSI for the Burn Stewart share stake, Grant's will provide warehousing facilities for Burn Stewart stock.

Other advantages to the deal might include bottling hall rationalization. Burn Stewart's East Kilbride facility is smaller than Grant's Bellshill facility which is not operating at full capacity. The deal would also provide a virtual tied customer for William Grant's grain production, as Burn Stewart has no grain distillery of its own. With a major stake taken by William Grant, Burn Stewart would also be protected against unwarranted attentions from a hostile bidder just as it is emerging from some very difficult trading years.⁷²

Recently, Burn Stewart has pursued a strategy of reducing the Group's previous dependence on bulk sales in favour of cased sales. This is being achieved by developing Buyers Own Brand (BOB) business supplying, *inter alia*, Asda, Safeway, Marks & Spencer and Booker Distribution, and expanding sales of Burn Stewart's own Bottled in Scotland brands.⁷³ Given that sales of own-label and low-priced brands, mainly in the supermarket and off-licence sectors, may account for around 30% of the market in the United Kingdom, this would appear to be a wise strategy, but it does mean that Burn Stewart has suffered particularly badly from the weak selling prices that have afflicted the industry in recent years. The joint venture with

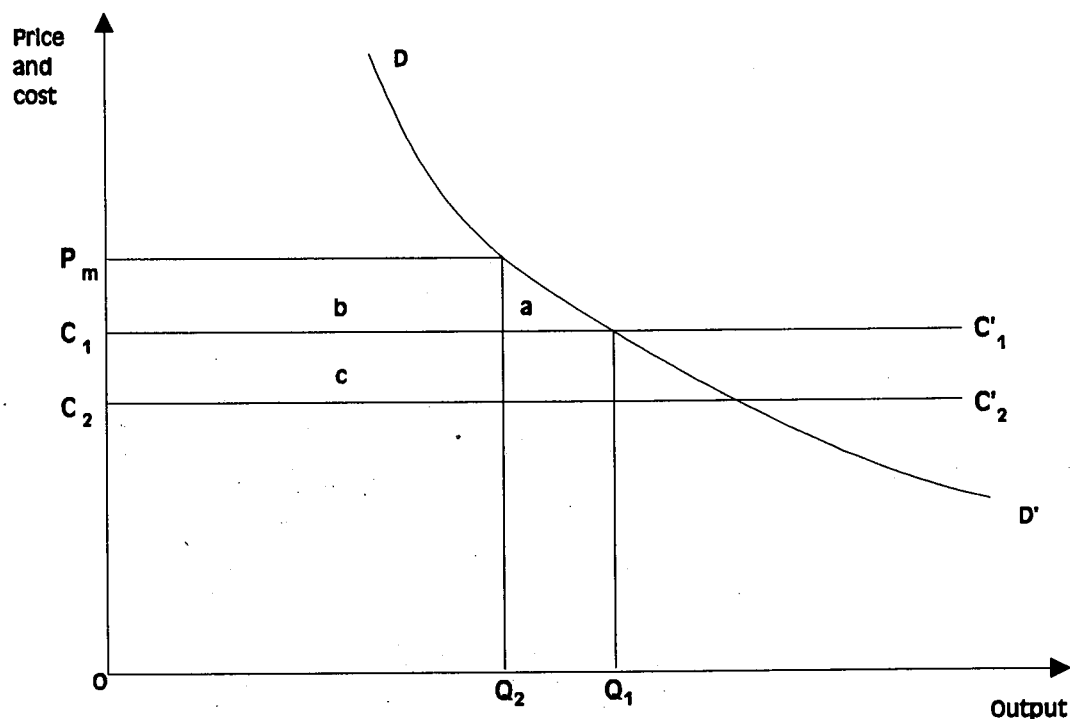
William Grant is therefore primarily a reflection of Burn Stewart's need to find ways of raising its margins and reducing its high gearing (96% in the year to June 1995), thus enabling its share price to rise once more.⁷⁴

There has been a great deal of material published on the effects of mergers & acquisition upon industries in the United Kingdom in general, which can be compared with actual performance of merged companies in the whisky industry. As the vast majority of mergers in the whisky industry have been of the horizontal form, attention will focus upon this type. A discussion of the welfare effects of vertical mergers can be found in Chandler (1977), Salinger (1988 & 1989), and Ordover *et al* (1990).⁷⁵

The effects of horizontal mergers upon prices, costs and output, and their implications for welfare, may be examined in terms of Williamson's trade-off model (Williamson, 1968).⁷⁶

In Figure 2.1, the merger transforms a competitive industry into a monopoly. The industry demand curve both before and after the merger is DD'. The unit cost curve before the merger is C1C'1, constant cost conditions are assumed for simplicity, price is equal to unit cost OC1, and output is OQ1. As a result of the merger it is assumed that costs are reduced to C2C'2, price is elevated to OPm, and output reduced to OQ2.

Figure 2.1: The Welfare Effect of a Merger Which Achieves Cost Saving



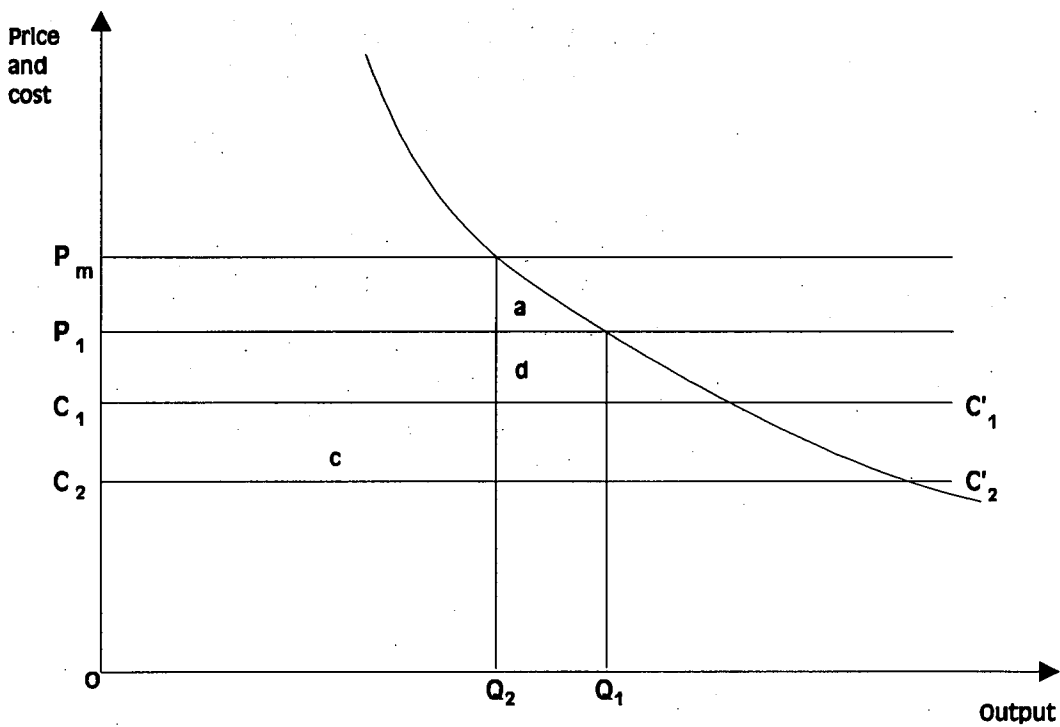
Source: Williamson (1968) in George, Kenneth & Joll, Caroline
Industrial Organization

To establish the net effect on welfare it is necessary to balance gains against losses. The gains in this case are equal to area c ; that is, they are the lower costs of producing the output of the monopolist. The loss is the reduction in consumer surplus which is associated with the fall in output brought about by the increase in price.

The total loss of consumer surplus is area $(a+b)$, but area b is matched by an equivalent increase in producer surplus, so that the net loss is equal to area a . The net gain in welfare is therefore equal to area $(c-a)$. It is clear from the figure that the more the merger raises price and the more elastic demand is, *ceteris paribus* the larger area a will be, and therefore the more cost savings are needed to offset this loss.

In addition, if there is pre-merger market power that maintains price above unit cost, the cost saving must be greater if the merger is to result in a net increase in economic welfare. In Figure 2.2, pre-merger price, P_1 is already above the competitive level C_1 , and the merger strengthens market power allowing price to be elevated further to P_m .

Figure 2.2: The Welfare Effect of a Merger With Pre-Merger Market Power



Source: Williamson (1968) in George, Kenneth & Joll, Caroline
Industrial Organization

If the merger leads to increased efficiency so that costs are reduced to C_2 , there is, as before, an efficiency gain equal to area c , but this must now be large enough to outweigh the loss of $(a+d)$ if there is to be a net gain. Area a represents, as before, a net loss in consumer surplus and area d measures the loss in producer surplus caused by the fall in output from Q_1 to Q_2 .

The examples given in Figures 2.1 & 2.2, in which merger results in lower unit costs and higher prices, describe only one possible outcome. It is possible that in some cases a merger between firms will increase competitiveness and lower prices compared with the pre-merger position. This is most likely where the merger is between small or medium-sized firms, which are then able to compete more effectively with larger companies. On the other hand, a merger may result in less efficiency and higher unit costs compared with a no-merger position.⁷⁷ But this caveat notwithstanding, Williamson concluded:

A merger which yields non-trivial real economies must produce substantial market power and result in relatively large price increases for the net allocative (ie welfare) effects to be negative.⁷⁸

But there are major conceptual weaknesses in Williamson's approach. It is a partial equilibrium analysis that abstracts from all interactions between the various sectors of the economy, including for instance the knock-on effects which one merger may have in inducing further mergers amongst competing firms. If a merger redistributes income from consumers to producers, this will normally mean a redistribution in favour of the better off. If such a change is regarded as undesirable it will count against the merger and allowance has to be made for this.

Another complication is that there may be 'external effects' associated with a merger; a merger may increase market power, but it may also result in the internalising of an externality. An additional difficulty is presented by the theory of second best.

Given the existence of monopoly power elsewhere in the economy, it is not clear that a merger which increases monopoly power in particular industry will have adverse resource allocation effects. Finally, the model presented is a static one, which does not take account of the effects of merger on investment in new assets and on technical progress.

Comparing the profit performance of the firm in the years following the merger with the profitability of the separate firms before the merger took place, is an alternative approach to evaluating the effects of merger. Some normalisation procedure has to be used to make allowance for such factors as a general adverse change in the state of trade that has nothing to do with the merger itself. One method is to relate the profitability of the merging companies, both before and after the merger takes place, to the average profit performance of the industries in which the firms operate.⁷⁹

Such a procedure was followed by Singh (1971)⁸⁰, who, for a sample of 35 mergers in the period 1955-60, found that in just over half of the cases there was a decline in the pre-tax profitability of the acquiring firms relative to the industry average both in the year of the takeover and also one and two years after the takeover took place. A similar but much larger study by Meeks (1977)⁸¹, covering the period 1964-71, came to much the same conclusion. In all years up to the seventh year after the merger, the firms in Meek's sample showed a decline in profitability relative to the industry average.

The major study of mergers in the United Kingdom is that of Hannah & Kay (1977).⁸² Their results provide very strong evidence of the

connection between mergers & concentration. During the years when merger had a predominant effect concentration increased sharply, whereas in those when merger was relatively unimportant concentration tended to remain much the same or even fall somewhat.

At a more intuitive level George (1975)⁸³ examined the increase in concentration as measured by the Census of Production five-firm sales concentration ratio between 1963-68, a period of unprecedently high merger activity. Once again, the coexistence of merger & increasing concentration was found to be unmistakable.

More recently, Mueller (1985) studied the impact of mergers on the market share for samples of companies drawn from the 1,000 largest firms in the United States between 1950 and 1972, concluding that the market share of the acquired firms tended to decline much more rapidly than the market share of firms that remained independent.⁸⁴

Ravenscraft & Scherer (1989) concluded that only if assets were acquired in a merger between firms of approximately equal size was there any indication that the effect on the profitability of the post-merger line of business was positive. Ravenscraft & Scherer also compared the change in profitability over time of two samples of similar firms, one of firms acquired by merger and the other of firms that remained independent. In both groups, the profitability of high-profit firms fell over time. But the profitability of firms acquired in mergers fell more rapidly over time than the profitability of firms remaining independent. They concluded:

The explanation for acquired units' sharp profit decline must be control loss owing to more complex organizational structures and lessened managerial competence and/or motivation. This control loss explanation is consistent with the high incidence of divestiture following acquisition and the tendency for sold-off units to have negative operating income in the year before their divestiture.⁸⁵

In Perry & Porter's (1985)⁸⁶ model of mergers, a firm's cost function depends upon the amount of capital it owns, and capital is in fixed supply to the industry. Merger combines the capital of the constituent firms in the survivor firms, which are not more profitable than before unless they include almost all of the firms in the industry. Farrell & Shapiro (1990 & 1991)⁸⁷ also concluded that mergers are likely to harm consumers unless cost savings are very great.

In the light of this evidence, Martin (1993) concluded:

Empirical evidence suggests that firms involved in mergers suffer reductions in market share and profitability compared with similar firms that are not involved in mergers. Takeovers yield a one-time benefit to shareholders of acquired firms but do not benefit shareholders of acquiring firms. Taken as a whole, these results suggest that the motives for mergers must be sought in non profit-maximizing behaviour, and that mergers cannot be interpreted as the market's way of enforcing profit-maximizing behaviour.⁸⁸

Non-profit maximizing models, such as managerial, growth and life-cycle models, are discussed further in Marris (1963) and Mueller

(1972).⁸⁹

A study by Cosh *et al* (1980)⁹⁰ on mergers in the period 1967-69 reached rather different conclusions. In this study of quoted companies, the control group consisted of companies that were paired with the merger firms in terms of year, size and industry group and that were free from merger activity involving quoted companies. Three measures of profitability were used: trading profits on sales, net income on net assets, and net dividends and retentions on equity assets.

A comparison of the post-merger profitability of the merging and non-merging firms showed no general tendency for the former to have worse performance. Indeed, statistically, the most striking result was that the merging firms had, on average, better performance in terms of post-tax profitability on equity assets. Furthermore, an analysis of post-merger changes in profitability showed merged firms to have the better performance on all three profit measures.

There are clearly substantial problems in attempting to evaluate the effects of mergers on efficiency. Case studies may fail to be representative of mergers in general, and there are obvious dangers in relying on the replies to questionnaires. For those studies that rely on the published accounts of quoted companies, there are accounting problems that may not be fully resolved. Different definitions of profitability may yield different results.

There are difficulties in finding a control group of companies with which to compare the performance of merging firms, particularly with

regard to product range and relative opportunities for internal and external growth. There are problems in determining how long an adjustment period should be allowed before the real effects of a merger can be seen. Those who tend to support merger activity are critical of some studies, because insufficient allowance has been made for post-merger reorganisation and not enough time allowed, therefore, for the benefits of the merger to be realised.

But this argument may work the other way as well. Since individual studies relate to a relatively short time period, they fail to pick up possible longer-term adverse effects on efficiency. A number of studies on the effects of mergers in a sector of industry covering only a few years may each find only a small adverse effect on efficiency, yet the total effect over the whole period may be substantial.⁹¹

But assuming that it is possible to obtain some independent measure of the monopoly power effects of a merger, and that changes in normalized profitability can be used as a reasonable proxy for changes in efficiency, a summary can be compiled of the static welfare effects of mergers (Hughes 1989).⁹²

Table 2.6: Static Welfare Effects of Mergers

Monopoly Power	Normalised Profits		
	Raised	No Change	Reduced
Raised	W?	W-	W-
No Change	W+	W0	W-
Reduced	W+	W+	W?

W = Social Welfare (Ignoring Distributional Considerations)

Source: Hughes (1989) in George, Kenneth & Joll, Caroline, *Industrial Organization*

In considering the linkages between the whisky industry and the Scottish economy, there are additional factors that need to be taken into account when evaluating the effects of mergers. The end result of most of the mergers & acquisitions in the industry discussed earlier is a very high degree of non-Scottish external ownership of an important sector of the Scottish economy, a subject of some concern to commentators in the past. Researchers at Stathclyde University's Fraser of Allander Institute have published several works in the area of acquisition of indigenous Scottish companies, concluding that whilst external takeovers may have led to performance enhancement in the acquired companies, the acquisitions nevertheless resulted in reduced regional linkages with suppliers, especially professional and business services.

In *Takeovers, Mergers & The Regional Scottish Economy*, Ashcroft & Love (1993)⁹³ examined three indigenous whisky companies acquired in the 1970s (William Teacher, Glenlivet Distillers & S Campbell & son), identifying superior management practices introduced by the acquiring company, the most common of which were improved financial control and management information systems. These were introduced in part to facilitate reporting to the acquirer's head office, but also augmented the internal efficiency of the companies concerned.

In addition, all three companies found investment finance easier to acquire as a result of the takeover; in the case of William Teacher this had been the principal rationale of the takeover from the point of view of the Scottish company. In two of the companies, the newly-acquired finance enabled substantial investment in new plant, an

unlikely development in the absence of takeover.

A loss of financial autonomy may be regarded as a *quid pro quo* for access to investment funds, but in the three acquired companies studied by Ashcroft & Love there was a tendency towards a diminution of responsibilities at the Scottish headquarters, in particular at the top level of management. In addition, two of the three case-study companies suggested that management promotion prospects within Scotland had been reduced as a result of the takeover. Overall, Ashcroft & Love concluded that "The distributional effects of linkage reduction may have implications for the long-run development of the Scottish economy."⁹⁴

For example, as a result of the merger with Grand Metropolitan, the former spirits division of Guinness, United Distillers, announced in February 1998 that it would be closing its sales & marketing operation at Cherrybank, Perth in September, and moving to IDV's offices at Harlow in Essex. Of the 158 people currently employed at Perth, over 100 will lose their jobs, with 40 being offered the chance to relocate to Essex and 10 remaining in Perth. As Dr Alex Russell, Senior Lecturer in Accounting & Finance at Dundee University commented:

It seems sad that companies are prepared to have the bulk of the work done in Scotland but have the top jobs located in England, so that staff who want to make it to the highest levels in such companies have to go South to do so.⁹⁵

Recently, the Secretary of State for Scotland, Donald Dewar, also chastised whisky industry leaders for the seemingly inexorable drift

of management functions to England. His remarks, made at the recent Annual Conference of the Scotch Whisky Association, were given added poignancy on account of his sharing a platform with SWA Chairman John McGrath, who is Chairman of Diageo's spirits division, United Distillers & Vintners:

I recognize we live in a global society and I accept that Scotland has to compete and that will mean change. But I hope we will have a good deal of the top jobs, and that a lot of the decision making in the whisky industry will remain very very firmly based north of the border in its own land.

As well as having disturbing implications for the long-run development of the Scottish economy, such a concentration of activity in the Home Counties is also potentially detrimental to the South East of England. Referring to the 40 positions available at Harlow to former Perth employees, a recent Editorial Comment in *The Courier* remarked sharply:

Who, unless they were desperate, would exchange a house in Perth for one in part of Essex, from which the last traces of character & distinction were erased long ago?⁹⁶

Developments such as these suggests that public policy toward mergers & acquisitions should consider not only the potential effects upon market power and consumer welfare, but the effects of any post-merger rationalisation on sustainable & equitable regional development throughout the United Kingdom.

It is also highly likely that the Diageo merger will result in the

disposal of more of the company's brands and the closure of one of the company's four Scottish bottling plants, employing approximately 2,000 people at Dumbarton, Kilmarnock, Glasgow and Banbeath, Leven. Nearly 600 people are employed at Leven, where more than a quarter of the 8 million cases bottled are Dewar's, which the brands new owner, Ron Bacardi, has indicated will eventually be bottled elsewhere. Yet the Banbeath operation was recently voted No 1 factory in the United Kingdom, so it came as no surprise to industry analysts when in June 1998 Diageo announced that the Strathleven bottling operation at Dumbarton would be closing, with the loss of 500 jobs.

The issues surrounding the disposal of brands and the rationalisation of production illustrate well the dichotomy among the traditional efficiency criteria highlighted in standard economic literature. The welfare of consumers who have preferences for variety increases with the number of brands produced in an industry. However, if each brand is produced by a different factory, and each plant is constructed with a high fixed-cost investment, then from a technical point of view, the number of brands produced should be restricted. Hence, there will always be a trade-off between technical efficiency and consumer welfare.⁹⁷

Returning to the example of Diageo's Scottish bottling operations, the Leven plant is set to bottle a variety of whiskies in different size bottles, chiefly 1ltr, 75cl and 70cl. But consumer preferences for United Distillers' Cardhu Single Malt whisky in square-shaped 50cl bottles, currently bottled at Kilmarnock, would require an investment of up to £100,000 to enable this product to be bottled at Leven.

The large multi-national companies - Diageo and Allied Domecq of the United Kingdom, Seagram of Canada, Pernod-Ricard of France, Suntory of Japan - all have wide-ranging drinks interests of which whisky forms only a part, and their portfolio of whisky brands is altered to suit their international strategy. Such corporations can hardly be thought of as being part of a separately identifiable Scotch whisky industry, yet they are vital to the development of the market for whisky. Over 70% of world sales of Scotch whisky are accounted for by just four groups, two of them British (Diageo & Allied Domecq) and the others North American (Seagram & American Brands). By 1998, Scottish-controlled companies were responsible for less than 13% of world sales of Scotch whisky.⁹⁸

In fact, there are now only three independent Scottish registered and controlled whisky firms of any significance with a full stock-exchange listing: Burn Stewart Distillers, Highland Distilleries (who took over Macallan-Glenlivet in an acrimoniously contested takeover in August 1996), and Glenmorangie, formerly styled Macdonald & Muir Ltd. To these must be added the three remaining family controlled private companies, J & A Mitchell & Co Ltd (Springbank Distillers, Campbeltown), J & G Grant Ltd (Glenfarclas Distillers, Ballindalloch) and William Grant & Sons Ltd (of Glenfiddich fame). Only the latter is of significant size in the industry. Burn Stewart remains vulnerable to takeover, as does Glenmorangie, according to Sutherlands:

Overall, we believe that the shares [Glenmorangie] constitute a a solid lock-away investment with spice added in the shape of takeover possibility as it is one of a rare breed of family owned whisky groups.

But the company is protected to a certain extent by the fact that it continues to be controlled by the "B" shares which carry five votes compared with only one for the "A" shares. Approximately 55% of total votes are controlled by directors and trustees.⁹⁹ Likewise, whilst several firms have been said to have ruminated upon Highland Distilleries recently, any takeover would have to be cognizant of a complicated ownership structure and the position of major stakeholders such as Suntory, Orpar (the parent of Remy Martin) and Robertson & Baxter.

The difficulties associated with realising greater profits from whisky suggests that takeover & mergers, further concentrating ownership, will continue to be the dominant instrument of structural change in the industry. Every wave of takeover has been tenaciously resisted by some, none more so than the Guinness acquisitions, but, notwithstanding the reservations of some economists referred to earlier, even here the general consensus throughout the industry is one of admiration for the statesmanlike approach adopted by United Distillers in such areas as pricing, reversing the cut-price low quality policy which had come to prevail during the 1960s and 70s, and setting out to restore Scotch whisky's reputation.¹⁰⁰ The major new groupings, each with powerful production, financial and brand marketing resources, have also brought more stability to the broking market for mature whisky, dampening the previous tendency to cyclical phases of over and under production.¹⁰¹

Finally, many of the alliances, joint ventures, mergers and acquisitions in the alcoholic drinks industry have as a principal motive achieving greater efficiencies in marketing & distribution, allowing for exploitation of scale & scope economies and savings in



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without immediate encroachment by competitors. According to Clark (1940 & 1961):

It is the ability of a firm to behave persistently in a manner different from the behaviour that a competitive market would enforce on a firm facing otherwise similar cost and demand conditions.¹⁰⁴

Of course, almost all industries exhibit some degree of market power. In practice, therefore, public policy, both in the United Kingdom and elsewhere, tends to focus not only on the possession of market power as such, but more especially on the way in which the power is exercised.

The standard approach to the study of market power, as determined by Bain, decomposes a market into structure, conduct and performance. Structure refers to how sellers interact with other sellers, with buyers, and with potential entrants. Market structure also defines the product in terms of the potential number of variants in which the product can be produced. Market conduct refers to the behaviour of the firms in a given market structure, that is, how firms determine their price policy, sales and promotion. Finally, performance refers to the welfare aspect of the market interaction - if the interaction in the market leads to an optimal outcome, or whether a failure occurs that requires the intervention of the regulator.¹⁰⁵

Investigations into the possession and use of market power in a given industry conventionally being by analysing the market structure, for which traditional neoclassical theory identifies four principal

models: perfect competition, monopolistic competition, oligopoly and monopoly. Duopoly arises when there are only two firms in an industry. Concentration, product differentiation and barriers to entry are considered to be the main factors differentiating these models of market structure.¹⁰⁶

i) Concentration

Table 2.8 details the market share of the major Scotch whisky groups in 1995, from which the degree of concentration in the industry can be determined.

Table 2.8: Leading Scotch Whisky Groups Based on Market Share, 1995

Rank	Name of Company	Market Share %, 1995
1	Guinness (United Distillers)	33.56
2	Allied Domecq (Allied Distillers)	10.84
3	Seagram (Chivas & Glenlivet)	10.11
4	American Brands (Whyte & Mackay & Invergordon)	8.75
5	Grand Metropolitan (IDV)	8.16
6	William Grant & Sons	7.65
7	Highland Distilleries/Robertson & Baxter	2.92
8	Berry Bros & Rudd	2.44
9	Burn Stewart	1.94
10	Pernod-Ricard (Campbell Distillers)	1.84
	Others	11.79
	Total	100.0

Source: The Scotch Whisky Industry Review 1996

The most popular method of assessing the degree of concentration in an industry is the CR_n ratio. The CR_n or n firm concentration ratio refers to the cumulated market shares of the n leading firms in the industry, and is computed as:

$$CR_n = \sum_{i=1}^n S_i$$

with $i = 1, 2, \dots, n$

where: the i th firm has rank i in descending order (ie where $i=1$ that is the largest firm, where $i=2$ that is the second largest, etc); S_i is the share of firm i in the market. This share can be defined on the basis of output, turnover, numbers employed, shipments, or as in Table 2.9, on the basis of sales.¹⁰⁷

Table 2.9: CR5 Concentration Ratios: Market Share (%) of 5 Largest Whisky Groups by Total Sales

Year	CR5(%)
1988	77 (0.77)
1989	78 (0.78)
1990	79 (0.79)
1991	80 (0.80)
1992	79 (0.79)
1993	77 (0.77)
1994	76 (0.76)
1995	71 (0.71)

The market share of the combined Guinness-GM (Diageo) group is approximately 42%, based on the 1995 case sales estimates. This represents a CR4 Concentration Ratio of 71% (0.71), with the CR5 climbing to 79% (0.79).

Source: Determined From Case Sales Estimates Presented in The Scotch Whisky Industry Reviews 1995 & 1996

A value close to zero would indicate that the largest n firms supply a small share of the market. Conversely, a value close to 1 denotes a high level of concentration. The concentration ratio is popular because of its limited data requirements, but is flawed by its inability to convey the relative importance of firms within a

particular industry. A five-firm concentration ratio of the type depicted in Table 2.9 does not reveal the extent to which one or more firms within the top five dominate a particular market, nor does it give any information as to the number or sizes of the firms outwith the r group.

The Herfindahl-Hirschman Index is the second most widely used concentration index, and is defined as the sum of the squares of the market shares of the n firms in an industry, ie:

$$H = \sum_{i=1}^n (S_i)^2$$

with $i = 1, 2, \dots, n$

where the i th firm and S_i are as defined for CR_i . S_i , can, for example, be measured in terms of firm i 's sales on the market (Q_i) as a fraction of total sales (Q_t). Defined in this way the H index would be:

$$H = \sum_{i=1}^n \left\{ \frac{Q_i}{Q_t} \right\}^2$$

The H index combines information about the size of all firms in a market. It is a measure of dispersion and can vary between 0 and 1. If H is 0, this suggests that there is a large number of equal-sized firms in the particular industry, and that concentration is low. If H

is close to 1, the market is dominated by one large firm. On the basis of Table 2.8, the Herfindahl-Hirschman Concentration Index for the whisky industry in 1995 was 0.17, which suggests a lower degree of concentration than implied by the CR5 concentration ratio.

The various measures of market concentration incorporate, usually implicitly, the assumption that there is a clear correspondence between a firm and a market, and that firms operate within their national boundaries. But multi-plant and multi-product firms, for example, do not belong to precisely definable, single markets. It follows that an industry is not necessarily congruent with a market.

In the case of the whisky industry, with nearly 90% of whisky sold overseas, a domestic perspective on the concentration index may not reveal the complete picture.¹⁰⁸ For example, whilst Diageo has nearly 42% of the world market for Scotch whisky, the company is still selling less than 9% of the total spirits sold worldwide.

Moreover, as the level of seller concentration in a market increases, it is not always possible to state unambiguously that there has been a lessening of competition. Competition among the few may be just as vigorous as competition among the many, although the character of the competitive process may be different. Instead of price rivalry, oligopolists may prefer to rely on product differentiation, resulting in products sold on the same market no longer being considered as perfect substitutes by buyers.

ii) Product Differentiation

Product differentiation can be either horizontal or vertical. Horizontally differentiated brands are ones that, if sold for identical prices, illicit from different consumers choices of different brands. Vertical differentiation, by contrast, involves brands that are uniformly ranked by all consumers, and differentiation is made upon the basis of quality. Models of vertical product differentiation are useful for analyzing the coexistence of high-quality and low-quality brands; the emphasis on income distribution as a determinant of the number of varieties is a feature that does not appear in models of horizontal product differentiation. For further discussion, see Beath & Katsoulacos (1991), Anderson *et al* (1992) and Gabszewicz & Thisse (1992).¹⁰⁹

Horizontal product differentiation models are further divided into two groups: non-address models, and address (location) models, after Hotelling (1929). A more formal discussion is given in Eaton & Lipsey (1989), but the main difference between the two approaches is that in the non-address model all consumers gain utility from consuming a variety of products and therefore buy a variety of brands. In contrast, in the location model, each consumer purchases only one brand, but consumers have different heterogenous preferences for their most preferred brand.¹¹⁰

There can be two interpretations of location. Location can mean the physical location of a particular consumer, in which case the consumer observes the prices charged by all stores and then chooses to purchase from the store at which the price plus transportation

cost is minimized. Alternatively, location can mean a distance between the brand characteristic that a particular consumer views as ideal and the characteristic of the brand actually purchased. In this case, the distance between a consumer and a firm can measure the consumers' disutility from buying a less-than-ideal brand. This disutility is equivalent to the transportation cost in the previous interpretation.

A third approach to product differentiation is found in Lancaster (1971). Lancaster's 'characteristics' approach assumes that each product consists of many characteristics (such as colour, durability, safety and strength); in choosing a specific brand, the consumer looks for the brand that would yield the most suitable combinations of the product's characteristics.¹¹¹

On the whole, oligopolists feel that more permanent advantages can be gained over rivals through non-price competition, because successful product differentiation, reinforced by competition through the market mix (including branding, packaging, selling efforts and distribution) cannot be matched as quickly and completely as price reductions.¹¹² The theory of the oligopolist seeking brand imaging as a means of maximising sales was first propogated by W J Baumol (1956), and is manifest in the whisky industry.¹¹³

To a much greater extent than other branded spirits producers, the whisky industry devotes an extraordinary amount of resources to horizontally differentiating its products, creating attractive boxes, tubes and cartons, particularly for malt whiskies. These

jostle each other for space on merchants' shelves, and seek to induce consumers to differentiate between products as much on this basis as on the inherent quality of the product.

The greater the extent to which a firm has succeeded in differentiating its product, the greater the extent to which it has raised a barrier to entry into its market. Product differentiation can thus be regarded as an element of market structure, but in many empirical studies it is also included as a barrier to entry.

iii) Barriers To Entry

Entry in a particular market or industry may be difficult or impossible, depending on the height of barriers. Barriers are all types of obstacles erected at the market edge by incumbent firms, by the nature of the product or process, and/or by the government, which makes entry difficult for potential entrants. Bain's (1956) taxonomy of entry barriers included technology, economies of scale and product differentiation. Much work has been done in this area since then. For example, Shepherd (1990) identifies two broad categories of entry barriers, exogenous and endogenous.

Shepherd describes exogenous conditions as "fundamental causes that cannot be altered." They lie outside the leading firms' control and are related to the nature of the product. They comprise: capital requirements, economies of scale, product differentiation, absolute cost advantages, diversification, R&D intensity, high durability of the firm's specific capital, which includes sunk costs, and vertical integration.

These are all of an economic nature. To list could be added institutional barriers more or less outside firms' control, such as government regulation, though some writers, such as Sapir (1993), include regulations as a third type of barrier.

Endogenous conditions result from the strategic actions of the dominant firms. They include: retaliation and pre-emptive actions, the building up of excess capacity to bar entry, advertising and other selling expenses, patents, control over strategic resources and other strategies that leave no room for other potential branded products. These barriers reflect the degree of imperfection in the market. They can be used by the incumbent firms against both potential entrants and existing rivals.¹¹⁴

Following Stiglitz (1987), it is possible to highlight the role competition plays in creating entry barriers; in a market for a homogenous product, the existence of even small sunk costs can serve as an entry barrier, so that entry will not occur even if the incumbent continues to make abnormal profits. In this model, entry depends upon the strategies adopted by incumbent firms; if firms play a Cournot game after new entry occurs, low sunk costs would not generate entry barriers. But if firms adopt a Bertrand strategy, price competition makes entry unprofitable for even low entry costs.¹¹⁵

In their work on the brewing industry in the United Kingdom, Hawkins & Pass (1979) defined entry barriers as structural, institutional or financial in character. Structural barriers reflect the fact that

established companies with substantial market shares and large-scale production and distribution facilities may have a decisive cost advantage. Strong consumer preferences may well favour the established companies, and markets outlets and/or essential raw material supplies may have been pre-empted. Institutional barriers are the accumulated advantages established firms have in owning patents, franchises, licences and exclusive dealing contracts. Financial barriers involve the new entrant having to make a substantial investment in large-scale production plant, advertising and product development.¹¹⁶

Barriers to entry in the whisky industry have traditionally been very high. Such a traditional industry, where great store is placed on pedigree and a proven track record, naturally favours the incumbents. Many of the prime water sources, so vital in the production of whisky, are already controlled by existing companies, particularly in the Speyside area. The cost of financing maturing stocks and the expenses associated with advertising are further barriers. Consequently, as discussed earlier, 'greenfield' investment has been comparatively rare, and takeover of existing operations represents a much more attractive option.

So on the basis of a fair degree of concentration, the great importance attached to product differentiation, and the existence of formidable barriers to entry, the market structure of the whisky industry could be considered fairly oligopolistic. Stigler (1942) has suggested that "an industry is workably competitive when, i) there are a considerable number of firms selling closely related products in each important market area, ii) these firms are not in

collusion, and iii) the long-run average cost curve for a new firm is not materially higher than that for an established firm." Considering this latter requirement, the whisky industry is not workably competitive. The issues of welfare norms and considerations of second best in workable competition are discussed further in Reid (1987).

But in respect of Clark's view, the market structure of the whisky industry could be considered competitive:

Favourable conditions include a substantial number of firms small enough, relative to the whole structure in which they compete, to have strong competitive incentives (though there is no need for atomistic smallness) and economically strong enough to make their competitive pressure count.

The fundamental weakness in the approach of many exponents of workable competition is, of course, that they tend to exaggerate the significance of market structure as a determinant of conduct and performance. Consequently, they see the effectiveness of competition in a given market primarily in terms of its structural characteristics, providing at best only a superficial perspective. In Markham's (1952) words:

A possible alternative approach to the concept of workable competition...is one which shifts the emphasis from a set of specific structural characteristics to an appraisal of possible remedial action. A first approximation to the concept of workable competition when viewed along these lines might be as follows: an industry is workably competitive when, after its market characteristics and the dynamic forces which shaped them have been thoroughly examined, there is no

clearly indicated change that can be effected through public policy measures which would result in greater social gains than social losses.¹¹⁷

It was contended in Section 2.3 that the high levels of duty imposed upon spirits severely compromises the incentive for firms in the whisky industry to compete on price, particularly in so far as standard blends are concerned. A substantial cut in duty, of the magnitude proposed in Chapter 7, would ensure that any reduction in margins could be passed on to the consumer to a greater extent than has hitherto been possible. Such a public policy initiative would thus facilitate much greater competitive pressures within the industry.

2.5 Recent Trends in Consumption, Production & Marketing

The various legal statutes referred to in Section 2.2 protected the integrity of Scotch whisky, and laid the foundations for the growth and development of the blended whisky trade, to the point where it was to become one of the most important export industries in the United Kingdom. In the years following the restoration of production and trade after 1945, whisky sales both within the United Kingdom and abroad made respectable growth, the latter increasing from 22 million litres of pure alcohol (lpa) in 1949 to 274m lpa in 1978. In its 1978, review, the National Economic Development Office (NEDO) Distilling Sector Working Group forecast annual growth of sales by volume of 4.4% into the 1980s, but the recession of 1979-81 saw an alarming decline in demand for whisky, especially bottled in Scotland blends which accounted for two-thirds of total sales.¹¹⁸

As Table 2.10 illustrates, sales in the United Kingdom have fallen by over a third since 1978. Table 2.11 following shows that the decline in exports to the United States - traditionally the most important market - has been even more precipitous, falling by nearly two-thirds over the same period.¹¹⁹

Table 2.10: Consumption of Scotch Whisky in The United Kingdom, 1978-1996 (million litres of pure alcohol)

Year	Total Consumption
1978	48.81
1979	52.54
1980	50.16
1981	47.71
1982	44.75
1983	44.48
1984	43.36
1985	46.14
1986	45.64
1987	44.62
1988	45.18
1989	43.03
1990	41.34
1991	38.26
1992	35.79
1993	37.55
1994	37.32
1995	31.01
1996	32.07
Growth in Sales 1978-96	- 34%

Sources: The Scotch Whisky Industry
Review 1995
The Scotch Whisky Association
Statistical Report 1995 & 1996

Table 2.11: Scotch Whisky Exports To The United States, 1978-1996
(million litres of pure alcohol)

Year	Exports	% of Which Bottled
1978	94.03	60.7
1979	86.04	62.9
1980	74.97	56.2
1981	77.29	53.1
1982	78.82	53.7
1983	68.11	55.7
1984	68.10	56.8
1985	65.94	58.4
1986	59.55	57.8
1987	58.84	59.2
1988	53.16	58.5
1989	48.99	59.4
1990	46.24	57.4
1991	40.88	54.1
1992	38.41	56.0
1993	40.44	56.8
1994	38.05	57.6
1995	35.74	59.5
1996	33.73	62.2

Growth in Sales 1978-1996 - 64%

Bulk shipments consist principally of blended whisky which is subsequently bottled in the United States.

Sources: The Scotch Whisky Industry Review 1995
The Scotch Whisky Association
Statistical Report 1995 & 1996

Unlike the rectified spirits such as gin and vodka, the nature of the Scotch whisky production cycle is heavily determined by the legal requirement to mature the spirit for at least three years, but on average, distilling take places six years prior to consumption for malt and four years for grain whisky. There are few industries in the world which are so reliant upon projections of future market growth, where an error of one or two percentage points in forecasting demand over a five or ten year period can result in a need for an adjustment in production of dramatic proportions. The slump in whisky sales therefore had an inevitable impact on output.

After 1980 increasing numbers of distilleries moved to short-time working, and operating at less than 50% of capacity became the norm. As the recession deepened, distilleries began to close, and by 1983 whisky production had fallen to just half the level of nine years earlier. DCL alone closed 21 of its 45 malt distilleries, one of its five grain distilleries, two bottling & blending plants, and two dark grains plants. In total, the number of distilleries fell from 125 in 1980 to 94 in 1985.

An upturn in sales meant that between 1989 and 1991 six of the 21 malt distilleries closed by the former DCL reopened, and in 1991 both William Grant & Sons and Speyside Distillers opened new malt distilleries.¹²⁰ However, rising stocks again forced production cutbacks to occur: in 1993 United Distillers closed 4 more distilleries and in 1995 Whyte & Mackay mothballed their three malt distilleries. In 1995, there were a total of 93 distilleries in operation, 85 malt and 8 grain.

Despite distillery closures, the industry's tendency to oversupply has not been resolved, as indicated in Table 2.12. Although the ratio of stocks to consumption declined between 1987-1990, raising prices & profits, in the years 1989-1992 production exceeded consumption. It will be observed from Table 2.12 that in 1993-95 production was less than consumption, but data from the Scotch Whisky Association shows that there was a notable increment in whisky stocks in 1996. Nevertheless, given that whisky is consumed at an average age of 6 years, a ratio of stock to consumption of between 6.5 and 7.0 is regarded as optimal by many in the industry.¹²¹

Table 2.12: Production, Consumption & Stocks of Whisky 1978-1996
(million litres of pure alcohol)

Year	Total Production	Total Consumption	Stocks	Ratio Stocks/ Consumption	Consumption as % distillation
1978	459.3	370.6	2,932.2	7.9	80.7
1979	459.0	356.5	3,034.7	8.5	77.7
1980	415.9	367.1	3,083.5	8.4	88.3
1981	268.0	417.9	2,933.6	7.0	155.9
1982	247.7	350.8	2,830.5	8.1	141.6
1983	239.1	326.0	2,743.6	8.4	136.3
1984	253.4	335.0	2,662.0	7.9	132.2
1985	260.6	324.3	2,598.3	8.0	124.4
1986	264.9	410.2	2,453.0	6.0	154.9
1987	289.7	304.4	2,438.3	8.0	105.1
1988	329.9	335.0	2,433.2	7.3	101.5
1989	385.5	345.6	2,473.1	7.2	89.6
1990	436.2	366.1	2,543.2	6.9	83.9
1991	418.3	332.5	2,629.0	7.9	79.5
1992	384.9	338.9	2,675.0	7.9	88.1
1993	353.0	355.5	2,672.5	7.5	100.7
1994	358.9	369.0	2,662.4	7.2	102.8
1995	398.7	372.4	2,688.7	7.2	93.4
1996Est	441.4	376.0	2,754.1	7.3	85.2
1997Est	480.0	385.0	2,849.1	7.4	80.2

Source: The Scotch Whisky Industry Review 1996

Consumption estimates for the main markets indicate a growth rate of 2% between 1995 and the year 2001, fuelled mainly by growth in Single Malts and *de luxe* blends. This will require the industry to lay down a commensurately higher level of stocks to meet this demand. As such, the increases in output in the past years allied to estimates of the next year do not at this juncture imply over-production.^{1 2 2}

The recession of the early 1980s accounted for much of the fall in whisky sales, but other, longer-term non-cyclical factors were at play. For many decades there had been, in northern markets, an established tradition of drinking spirits - whether diluted with water, mixers or other flavours - at various times of the day. This

had coexisted, in reasonable balance, with alternative consumer preferences for beers, aperitifs and wines.

There has, however, been a marked swing in two directions over recent years. First, to more neutral spirits, such as vodka and light rum, as a preferred mixer base for cocktails. Secondly, an even more marked tendency for wines of all types to feature as occasional drinks over the bar and at home. Wine has broken away from being seen only as choice to accompany food, and white wine, in particular, is now well established as an occasional drink.

The spread of wine bars throughout the United Kingdom and the popularity of wine packed in boxes - which have released consumers from the constraints of wine bottle quantities - all testify to this change in the home market. In the United States, the parallel swing to wine has been even more pronounced. This is additionally linked to the status and quality of the rapidly expanding domestic wine industry.

Several factors have contributed to this movement in taste. One is a perception that wine is light in alcohol and thus fits well with the current concern with physical fitness, whereas spirits have acquired a reputation for being strong and even harmful to health. The misconception is aggravated by the second factor, that in almost every market wine carries a far lower rate of duty than spirits - or sometimes none at all. This makes it better value for money as an alcoholic drink. In taxing alcoholic drinks in this erratic fashion governments give the impression of applying a form of moral disapproval against drinks which are bottled at a higher

strength.¹²³

A final factor may have been the perception that Scotch is a more mature person's drink, with younger people consuming American Rye and Bourbon whiskey or 'white' spirits such as vodka and tequila. This is predominantly attributable to the marketing of whiskies such as Jack Daniels, Jim Beam or Southern Comfort; the success of vodka, rum and white wine may also be a reflection of often 'racey', contemporary advertising promoting the attractiveness of these drinks to younger members of the 'smart set'.¹²⁴

In addition, sales of these drinks, unlike Scotch whisky, were dominated by a few leading brands, making for greater opportunity for mass marketing. Table 2.13 illustrates this shift in the United States market from whisky to more neutral spirits such as vodka and tequila. The top Scotch whisky in the United States is Dewar's, which featured in the top 12 spirits at one time but is now in 20th place, although the number 2 Scotch, J&B Rare, is in 32nd position.¹²⁵ Table 2.14 following shows how whisky now accounts for much less than half of total spirits consumption in the United Kingdom.

Table 2.13: Changes in Market Share of Spirits in the United States, 1985-1995

Spirit	% Change in Market Share
US Whiskey	-21.8
Scotch Whisky	-28.3
Canadian Whisky	-6.2
Irish Whiskey	nc
Gin	-3.4
Vodka	+11.7
Rum	+7.4
Brandy	+6.5
Cordials	+15.2
Cocktails	+90.5
Tequila	+71.4
Total All Whisky/Whiskey	-18.6
Total Other Spirits	+14.0

Source: The Scotch Whisky Industry Review 1996

Table 2.14: Scotch Whisky: Share of Total UK Spirits Consumption 1978-1995

Year	Whisky as % of UK Spirits
1978	51.0
1979	49.8
1980	50.3
1981	50.5
1982	50.2
1983	48.5
1984	47.5
1985	47.4
1986	47.0
1987	45.5
1988	43.7
1989	43.1
1990	42.2
1991	41.2
1992	41.5
1993	42.7
1994	42.0
1995	39.3
1996 Est	40.0

Source: The Scotch Whisky Industry Review 1995

By contrast to the advertising of other spirits, until very recently, advertising of Scotch whisky has remained traditional, with the industry maintaining the view that whisky was not a young person's drink, but one consumers gravitated towards as they matured.¹⁰⁹

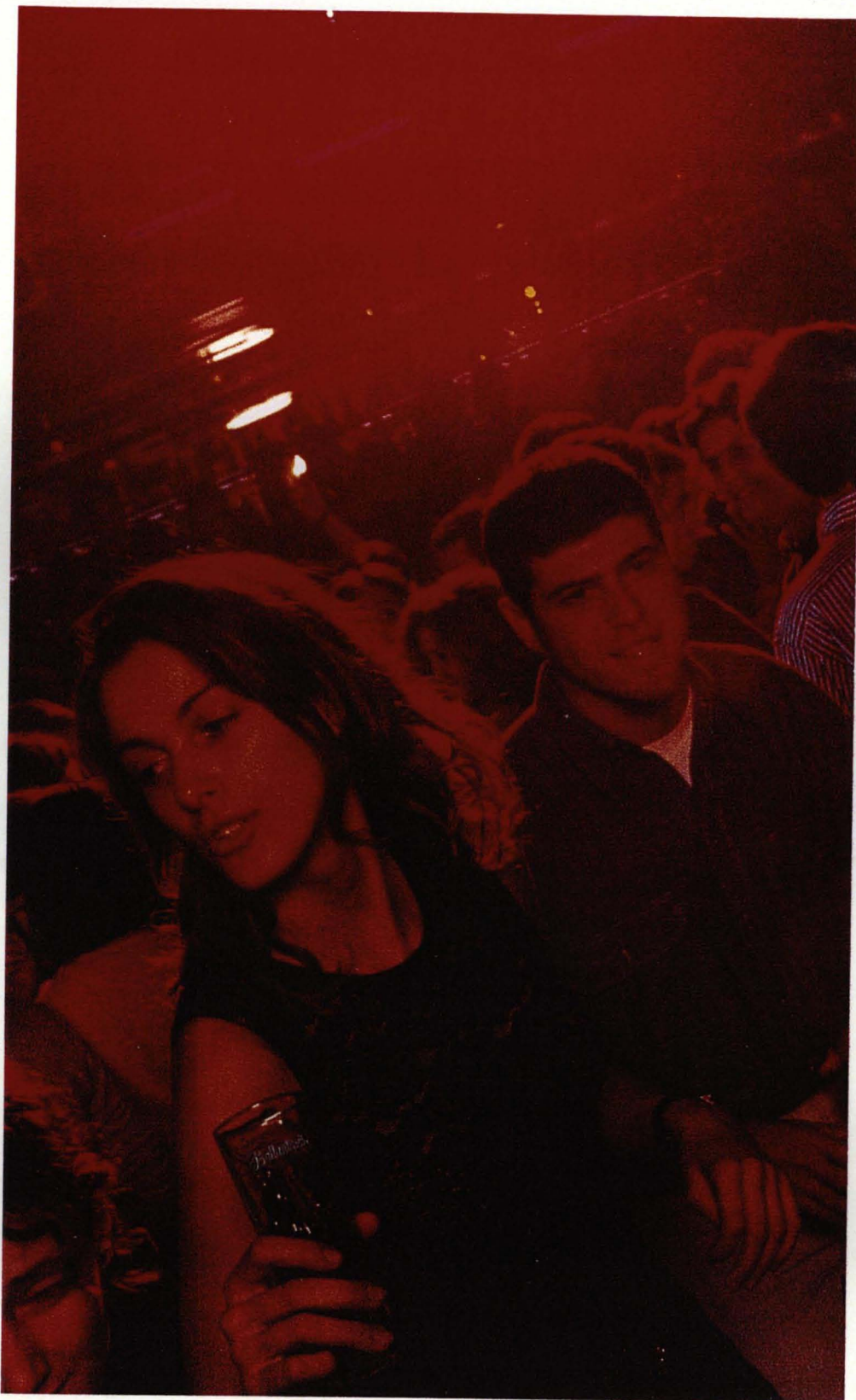


Plate 5 **Young Spaniards at Jimmy's Nightclub, Barcelona.** Allied Domecq Plc.

Scotch whisky is the *dernier cri* amongst youngsters in Southern Europe and the Far East. The success of blends such as Ballantine's in these markets, together with the continuing enthusiasm for single malts in the West, may ensure the industry's prosperity in the future. But fashion is fickle, and already there are signs in the Far East that wine is fast replacing whisky as the preferred drink of the 'smart set'.

Lately, there has been a shift in attitudes, as described by *The Economist* newspaper in a recent article:

Go to Bangkok's smartest nightclubs and the young blades and their dates will be living it up over Chivas Regal and cola. Spaniards, the fourth largest Scotch buyers, drank 25.28m LPA of Scotch in 1995, three times what they swallowed in 1985, and the heaviest consumers were 24-30 year olds.¹²⁶

This evidence from growing markets overseas of Scotch's appeal to the young lies behind the recent decision on the part of some companies in the industry to aim new campaigns at youngsters in the more mature markets of the United Kingdom and the United States. United Distillers' recent Bell's campaign in the United Kingdom, advertising for the first time through the medium of television, was aimed specifically at the youth market. Mindful of its growing appeal to young adults in Scotland, United Distillers has also utilized the Bell's brand in sponsoring the Scottish Premier Football League, whilst Highland Distilleries have supported Scotland's rugby team through the Famous Grouse brand.

Overseas, United Distillers have also reinterpreted the world's best selling whisky, Johnnie Walker, in an attempt to make it more relevant to young people. The famous striding dandy has been toned down, and a new 'Taste Life' TV and cinema advertising campaign recognizes self-reliance with the challenge: "When your life flashes before you, make sure it's worth watching." The commercials, shown across Europe and Australia, combine the distinctive taste of Johnnie Walker Red Label with the target audience's aspiration to live life to the full. A further encouraging development in this

respect has been the Dewar's campaign in the United States, launched in the Autumn of 1994 and aimed specifically at the 25-35 age group in New York.

Guinness (now Diageo) Chairman Anthony Greener commented in the company's 1996 *Annual Report*:

We are now seeing encouraging signs in the largest market for premium spirits, the USA, where Dewar's and Johnnie Walker Red Label achieved higher sales into retail for the first time in many years, and our other premium brands showed continuing growth. We know that innovative brand management and well-targeted marketing investment generate growth, and we believe that there is no such thing as a mature market if you target the consumer properly and invest adequately to reach them.¹²⁷

The American drinks industry's self-imposed ban on touting spirits on television was also broken last year when Seagram started to advertise its Chivas Regal brand. Having denounced the advertisements at the time, on the grounds that too many young people were taking up drinking, in April 1997 President Clinton asked the Federal Communications Commission to consider ways of reimposing a ban. Seagram is unabashed; it has surveyed 18-45 year olds and launched a career guidance program that plays to youthful aspirations and incorporates material from its Chivas campaign.¹²⁸

Whilst there has been, therefore, an improvement in the marketing of Scotch in very recent years, much more needs to be done if the continued erosion of its domestic market share is to be halted. There

is also a need to promote Scotch whisky overseas generically, and although past SWA campaigns in the United States, Japan and Spain were useful, they were of modest proportions (only a few million pounds). A more productive approach would probably be for individual companies to play a much greater part in generic promotion but to augment this with aggressive and contemporary brand imaging.¹²⁹ This need to raise brand awareness and loyalties is underscored in a recent remark of Anthony Greener:

...increasingly affluent consumers - the majority of the population in a majority of countries - [are] looking for increased prestige and enhanced self-satisfaction through using and displaying more of the better-quality premium sector products in widely differing categories.¹³⁰

In addition to inadequate marketing, the Scotch whisky industry has also been somewhat reticent in introducing innovative products, with even the marketing of single malts dating only from the 1960s. The success of the Irish whiskey-based liqueur Bailey's Irish Cream suggests that there are lucrative returns to be made for the creative,¹³¹ but Guinness's recent attempts to clamber aboard the current craze for 'alcopops' (sweet fizzy drinks with the kick of strong beer) has been attended by controversy, 'alcopops' raising the ire of those concerned with the problems of underage drinking. It is encouraging to note from Guinness's 1996 *Annual Report* that new brand development has been substantially increased, with such products as a tinned mixture of Bell's and Irn-Bru and Loch Dhu Black whisky, representing a doubling of expenditure to more than £17 million.¹³²

Glenmorangie's extensive scientific research on the affects of different types of wood on maturing whisky appears to have paid dividends with the success of the recently launched Port, Sherry and Madeira 'Wood Finishes' Range. Astutely, too, Highland Distilleries diversified its spirits portfolio in April 1996 when the company introduced Gloag's Gin, a premium London dry gin which has been received very favourably by both the on and off trade.¹³³

Within the domestic market, too, there is still the problem of weak selling prices, the result of a resistance to price increases generally, in the face of a more benign inflation environment, lack of consumer confidence, and excessively aggressive competition within the industry as companies seek to maintain volumes and market share at all costs. Prices in the United Kingdom have been minimal since 1993 with only a 1.5% increase in 1994 followed by no increase in 1995 and a 1.5% rise in 1996. There has been an increase in own label sales at the expense of more profitable brands.¹³⁴ The current slump in sales of Cognac and resulting overproduction will only add to the difficulties faced by malt whisky producers in particular in achieving price rises.

There is a feeling that as market leaders, United Distillers should be more aggressive in raising prices, Alan Gray arguing that "It is proving difficult for individual companies to depart to any great extent from the norm."¹³⁵ Nevertheless, the success of Highland Distilleries' premium-priced 'Famous Grouse' in the United Kingdom, to give but one example, demonstrates that well thought-out and targeted promotion can win market share as effectively as price competition, and in this respect there has been some encouraging

signs in recent months of more emphasis among Scotch whisky producers on brand building, advertising and pricing rather than on short term promotional activity and price discounting.¹³⁶ Price increases in 1997 are likely to be slightly more robust at around 3%.¹³⁷

But despite the problems afflicting the whisky industry overall in mature markets such as the United Kingdom and United States, there is one rapidly-expanding sector which has defied the general trend and seen spectacular growth in recent years: single malts, the product of one distillery and made exclusively with malted barley.

The creation of blended whisky in the latter part of the 19th century had meant that the fine malts almost disappeared from the market place. The blending houses became all powerful, and drinkers became accustomed to asking not for Glenmorangie, Macallan or Balvenie, but for Bell's, Haig, Johnnie Walker and Dewar's. The malts were buried - some though forever - in heavily promoted brands like White Horse, VAT 69 and Chivas Regal. They were there, but not visible.¹³⁸

In Scotland, single malts retained their following, but it was not until the postwar years that there was a revival of interest in malt whiskies. The success of blends, owned by a handful of large corporations, made the few independent distillers of malt whisky nervous. In 1962 William Grant & Sons began to export their single malt Glenfiddich, first to England, and then, in the late 1960s and 70s, to the rest of the world.¹³⁹ More distillery owners followed and began placing their single malts in off-licences and duty-free shops.

Worldwide, single malts demonstrated very high growth over the period 1975-1996, with sales rising from 2.1m to 11.9m LPA, an increase in the share of the bottled in Scotland market from 0.7% to 5.0%, representing a growth in malt sales of nearly 500% over the period. £166 million of malt whisky was bottled in 1996 for sale overseas, with single malts like Glenfiddich, The Glenlivet, Glenmorangie, The Macallan and Laphroaig establishing themselves internationally. Even in the United Kingdom, as Table 2.15 illustrates, sales of single malts have almost doubled since 1978, partly offsetting the fall in sales of blends. In 1996, Single Malts commanded an approximate 7.3% share of the whisky market in the United Kingdom.¹⁴⁰

Table 2.15: Consumption of Malt Whisky in the United Kingdom, 1978-1996 (million litres of pure alcohol)

Year	Malt Whisky Sales	% of UK Whisky Market
1978	1.21	2.5
1979	1.28	2.4
1980	0.95	1.9
1981	0.81	1.7
1982	1.01	2.3
1983	0.94	2.1
1984	1.12	2.6
1985	1.21	2.6
1986	1.30	2.8
1987	1.48	3.3
1988	1.63	3.6
1989	1.71	4.0
1990	1.76	4.2
1991	1.43	3.7
1992	1.38	3.9
1993	1.63	4.3
1994	1.97	5.3
1995	2.03	6.5
1996	2.35	7.3
Growth in Sales 1978-1996	+ 94%	

Sources: The Scotch Whisky Industry Review 1995
: The Scotch Whisky Association
Statistical Report 1995 & 1996

The establishment of the Leith-based Scotch Malt Whisky Society in 1983 not only reflected the growing audience for malts straight from the cask, but encouraged more companies to market single malts by name vintage and at natural cask strength.¹⁴¹ Several Scottish universities have also established highly successful malt whisky appreciation societies, such as the Water of Life Society in Edinburgh and The Quaich Society at St Andrews (currently presided over by the author - see Figure 2.3).

Figure 2.3: Logo of The Quaich Society, University of St Andrews



Source: University of St Andrews Quaich Society

The trend of opening malt distilleries to the public and of building visitors' centres will continue, whilst more detailed guides to the histories and the characteristics of the whiskies of each distillery are likely to become available. Whisky distilleries are rapidly becoming one of Scotland's most notable tourist attractions. In 1996, over 860,000 people visited Scotch whisky distilleries, a 22% increase on the previous year. The largest enterprise, The Glenturret Distillery at Crieff (reputedly the oldest distillery in Scotland, see Plate 2), received over 228,000 visitors and was ranked as the 8th most popular attraction in the paid admissions category of The Scottish Tourist Board's Visitor Attractions Survey. The importance of these attractions is particularly significant in terms

of the provision of employment in remote rural communities. In general, visitor centres employ twice as many people as the distilleries to which they are attached.¹⁴²

The full potential for single malts nevertheless remains underexploited, with certain sections of the industry continuing to take the position that whisky remains a product which people gravitate towards as they mature. Arranging for distillers to call upon The Quaich Society can be a frustratingly arduous task, with requests often met by responses that range from indifference to "Conducting malt whisky tastings to a group of young students and university academics does not fit with our current marketing plans."

Such a view is perhaps myopic and misconceived, as graduates from the traditional Scottish universities often secure highly paid employment. In any case, St Andrews students in particular appear to have a fair degree of disposable income, an observation given empirical attestation by the town's thriving taverns and liquor stores.

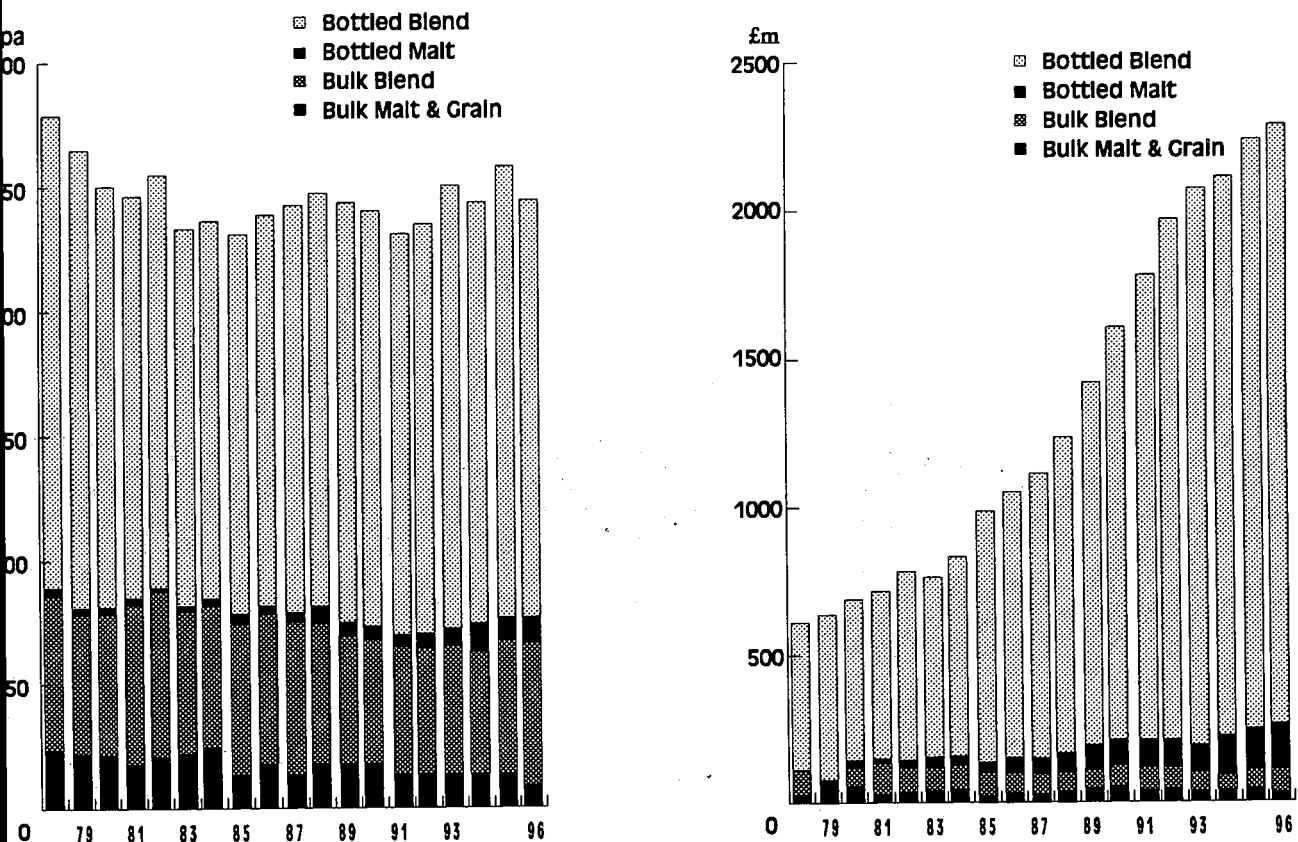
But the general industry opinion is that in the longer term the outlook for single malt sales is bright, as they become an increasingly understood and accepted drink, and that the sales performance of single malts is unrelated to the trend in blended whisky sales. However, this will require continued promotion of single malt brands by companies in order to differentiate their product, and in respect of this, it is worthy of note that within the United Kingdom at present, the industry currently devotes 20% of its

marketing budget to single malts.¹⁴³ Sutherlands believe that the world case market of single malts (out of a total whisky market of 78m cases) could well reach 5m cases by the end of the year 2001.¹⁴⁴

As well as the continuing success of single malts, Scotch whisky generally has opportunities in many parts of the world, in growing markets which should more than compensate for those in decline. As illustrated in Figure 2.4, export volumes, after reaching a low point in 1985 in the aftermath of the 1979-81 recession, grew strongly in 1986-88. Exports fell again in the recession of 1991, rose to their highest level since 1979 in 1995, but edged back in 1996. But as Figure 2.4 also shows, the realised sterling value of Scotch whisky exports has increased in every year since the restoration of trade after World War II, excepting 1969 and 1983, reaching £2.9 billion in 1997.

The value of exports in current prices is a poor indicator of export performance, as it is affected by changes in the price of the product. But the value of exports in real terms from the industry has increased substantially over the last 10 years, with exports of low-margin bulk malt & grain whiskies shrinking, and greater sales of high value-added bottled in Scotland *de luxe* blends and single malts.

Figure 2.4: Exports of Scotch Whisky in Volume and Value (Current Prices), 1978-1996



Source: The Scotch Whisky Association Statistical Report 1996

As will be noted from Figure 2.4, the years 1979 and 1995 saw similar volumes of Scotch exported, but the years in between witnessed a noteworthy shift in the importance of specific markets. Markets have shrunk in the United Kingdom, United States and Japan, whilst the European Union has grown in importance, accounting for 36% of exports in 1996 (excluding the United Kingdom). In part this is a reflection of the expansion in EU membership, but there has also been a rapid growth in exports to France and Spain, the former doubling between 1980 and 1996, the latter trebling.¹⁴⁵ In fact, in 1996 France became the largest market by volume, although by value the United States remains in first place.

Sales of Scotch whisky by value and volume to the major markets in

1996 are illustrated in Table 2.16. It will be observed that rankings by value in some instances differ from the position by volume, a factor largely explained by differing product mixes across markets. For example, Table 2.16 ranks Australia tenth by volume exported, ahead of Italy, but in terms of value realised, is significantly further down the league. This is principally a result of 65% of exports to Australia being in the form of low margin bulk blends, whereas the Italian market is almost 100% bottled in Scotland products, with 24% in the form of single malts. Margins are consequently much greater.

Table 2.16: Sales of Scotch Whisky to the Major Markets in 1996

Nation	Exports by Volume (mlpa)	% of Market	Rank (vol)	Exports by Value (£m)	Rank (value)
France	36.24	12.68	1	230.26	2
United States	33.73	11.68	2	273.02	1
United Kingdom	32.07	11.10	3	-	-
Spain	23.55	8.15	4	183.20	3
South Korea	11.44	3.96	5	128.90	4
Japan	10.91	3.78	6	128.86	5
Germany	10.25	3.55	7	98.26	6
Thailand	9.00	3.12	8	76.34	8
Greece	8.96	3.10	9	92.09	7
Australia	7.47	2.59	10	36.04	13
South Africa	7.31	2.53	11	46.97	11
Italy	6.65	2.30	12	59.02	9
Brazil	5.74	1.99	13	40.45	12
Portugal	5.28	1.83	14	55.50	10
Netherlands	4.5	1.57	15	34.34	14
Other EU	8.37	2.90		75.27	
Rest of World	66.97	23.17		755.65	
TOTAL ALL MARKETS	288.87	100.00		-	

Source: The Scotch Whisky Association Statistical Report 1996

The market share of the leading brands of blended and malt whisky are detailed in Tables 2.17 & 2.18.

Table 2.17: Market Share of Top Six Blended Scotch Whisky Brands, 1995

Brand	% UK	Brand	% Export	Brand	% World
Bell's	18.1	JW Red	11.1	JW Red	9.7
Famous Grouse	12.3	J&B	8.7	J&B	7.7
Teacher's	6.7	Ballantine's	6.8	Ballantine's	6.0
Grant's	5.9	Chivas Regal	5.4	Chivas Regal	4.8
Whyte & Mackay	4.6	JW Black	4.8	Grant's	4.6
The Claymore	4.3	Grant's	4.4	JW Black	4.4

Source: The Scotch Whisky Industry Review 1996

Table 2.18: Top Six Scotch Whisky Single Malt Brands, 1995

Brand	% UK	Brand	% Export	Brand	% World
Glenfiddich	17.5	Glenfiddich	24.5	Glenfiddich	23.2
Glenmorangie	9.5	Glen Grant	16.9	Glen Grant	13.8
The Macallan	6.3	The Glenlivet	9.6	The Glenlivet	8.9
The Glenlivet	6.0	Cardhu	4.4	Glenmorangie	4.8
Laphroaig	3.5	The Macallan	4.3	The Macallan	4.7
Lagavulin	2.7	Aberlour	4.1	Cardhu	3.8

Source: The Scotch Whisky Industry Review 1996

The great potential for increasing overseas sales is revealed by the fact that present sales account for only a small percentage of the spirits market and an even smaller proportion of the alcoholic drinks market in many of the important world markets. Even within the European Union, Scotch accounts for only about 13% of total spirits consumption, and whilst overall European spirits consumption has declined by about 1% annually in recent years, some premium products have shown growth. In the last 4 years malt whisky has grown by 75% and *de luxe* Scotch brands by 42%.¹⁴⁶

The Far East is an area of great promise; in 1996, the region was United Distillers' largest profit region, up 15% on the previous year.¹⁴⁷ The current economic difficulties in the region notwithstanding, Thailand, South Korea & Taiwan in particular have

recorded very impressive growth rates over the past decade, as shown in Table 2.19:

Table 2.19: Exports of Scotch Whisky to Far East (Million Litres of Alcohol)

	1985	1995	% Change
Thailand	1.2	6.7	+458
South Korea	1.6	9.4	+487
Taiwan	0.5	2.6	+420
Total	3.3	18.7	+467

Source: The Scotch Whisky Industry Review 1996

Latin America has potential too. When economic conditions improve, the heavy spirits drinkers of Eastern Europe are likely to take to Scotch in larger quantities, with United Distillers reporting a significant increase in volumes and profits in these areas in 1996, with particularly strong performances in the Czech Republic, Hungary & Russia.¹⁴⁸ In the longer term, the Indian sub-continent is an attractive prospect for the industry. It is estimated that in India at present, out of a total population of 900 million, around 150 million are sufficiently well off to be able to afford whisky. Despite religious taboos in parts of the country, substantial quantities of spirits are already consumed.¹⁴⁹

China's attraction to distillers, with its population of 1.2 billion, is very well illustrated by the fact that the former Guinness and LVMH formed a joint venture there to sell Guinness's whisky brands and LVMH's cognac. According to Guinness's then Chief Executive Tony Greener, "China represents a huge opportunity for us in the long term. It is estimated that international brands account

for only 1.4 per cent of the spirits market at present. Once the infrastructure is in place to deliver the product to the market, China could be a 20 million case market for premium branded imported spirits by the next century."¹⁵⁰

Certain other noteworthy markets saw substantial growth in 1996. Exports to St Helena were up 68% on 1995, Tonga 100%, Wallis & Futuna 325%, and Mayotte registered a significant increment of 8935%. Regretfully, these positive developments were slightly jaded by falls of 62% in exports to St Christopher & Nevis, a 68% decline in sales to the Turks & Caicos, and a similar reduction in shipments to The Holy See. Niue & Tokelau and The Svalbard Archipelago would appear to have dropped off the map; both nations registered a 100% fall in exports to zero. This disturbing intelligence notwithstanding, the boast of the Scotch whisky industry that no other industry in the United Kingdom achieves a wider geographical spread, with 89% of sales destined for over 200 overseas markets, would appear to be empirically correct.¹⁵¹

2.6 Bulk Exports, Distribution & Overseas Investment

Bulk whiskies, whether malt, blended or grain, are exclusively for export markets. Distilled, matured and blended in Scotland, bulk blend is shipped at high proof for subsequent dilution, bottling, packaging and distribution overseas. Bulk malt, however, is almost entirely admixed with locally produced whiskies to improve their quality. By comparison with sales of bulk blend and malt, exports of grain whisky are insignificant.¹⁵²

Historically, local bottling of Scotch whisky developed in such markets as the United States, Canada, Australia, New Zealand, South Africa and some European countries as a result of the adoption of fiscal measures by the importing country designed to discourage imports of Scotch whisky bottled in Scotland, and protect or develop their own distilling and bottling industries. Transport costs are another important factor, particularly in supplying markets such as Australia and New Zealand.¹⁵³

In recent years, bulk exports of blended whisky have risen substantially to markets, such as France & Germany, where the cost of transportation could not be considered a significant factor. Trends such as this give credence to the view that, so far as secondary brands are concerned, Scotch whisky is becoming increasingly considered as simply a commodity, developments which have led the Scotch Whisky Association to express strong reservations about the potentially damaging effects of the increased shipment of blended whisky in bulk.

The arguments in favour of the bulk exporting of blended whisky are based on the proposition that since Scotch whisky has to meet the needs of a variety of consumers it is necessary to offer the cheaper, bulk brands as an alternative to the more expensive Bottled in Scotland (BIS) brands. Without the availability of bulk brands it is argued that consumers would simply switch to alternative, locally produced spirits. Similarly, it is believed that the cheaper bulk exported brands give consumers the taste for Scotch whisky and that eventually they will trade up market to BIS brands.¹⁵⁴ The trade is an important export earner, which benefits the companies involved and provides additional employment.

The main arguments against the bulk trade in blended whisky are twofold. First, most of the employment benefits of the whisky industry to Scotland are in the bottling and handling activities rather than in the actual distillation of whisky. Second, although only processed and softened water should be added to dilute the bulk blended whisky before bottling overseas, there is the possibility, especially in smaller markets, that other spirits may be added during the blending operation. It can be argued therefore that the image of Scotch whisky can only be guaranteed if the product is bottled in Scotland.¹⁵⁵ The lower prices charged for bulk exported blends reduces the foreign exchange income of the United Kingdom, whilst the lower margins may reduce the profits of the whisky companies.

The percentage share of the total world market held by BIS blended & malt whisky and bulk blend, malt & grain is summarized in Table 2.20. Sales of bulk blend rose strongly between 1979 and 1981 when the recession was deepest, but have declined sharply since then as

consumers have slowly returned to BIS brands, and developed an interest in single malts. Exports of bulk blend stood at 13.4% of total whisky sales in 1995.¹⁵⁶

Table 2.20: Percentage Share of Total World Market Held By Each Whisky Category 1980-1995

	Bottled Blend	Bulk Blend	Single Bottled Malt	Bulk Malt	Bulk Grain
1980	73.4	17.2	1.3	7.7	0.4
1981	71.1	19.5	1.3	7.8	0.3
1982	69.9	20.7	1.4	7.6	0.4
1983	69.7	19.1	1.7	9.0	0.5
1984	69.2	18.3	2.1	9.4	1.0
1985	71.8	18.5	2.6	6.5	0.6
1986	70.5	18.5	2.7	7.3	1.0
1987	71.7	17.8	3.0	6.3	1.2
1988	71.7	17.1	3.4	6.6	1.2
1989	74.4	13.4	3.6	7.3	1.3
1990	75.0	12.1	3.8	7.7	1.4
1991	76.7	11.6	3.6	6.5	1.6
1992	76.7	11.3	3.6	6.9	1.5
1993	76.1	12.0	3.6	6.4	1.9
1994	75.3	11.2	3.9	5.4	4.2
1995	77.6	13.4	3.7	3.9	1.4

Source: The Scotch Whisky Industry Review 1996

Bulk exports of malt whisky, as detailed in Table 2.21, are dispatched mainly to Japan, which after expanding rapidly in the mid 1970s, accounted for over 70% of shipments in 1980, representing around two-thirds of Scotch exports to that country. By 1995 Japan still accounted for over 35% of exports of bulk malt whisky, representing 40% of total Scotch whisky exports to that country. In aggregate, Table 2.21 shows that bulk malt exports have fallen by a third since 1980, but of note in Table 2.22 following is the recent significant increment in shipments of bulk malt to France & Germany, where the malt is largely admixed with bulk grain to create cut-price non-Scottish blended 'Scotch' whisky.¹⁵⁷

**Table 2.21: Exports of Bulk Malt (million litres of pure alcohol)
1980- 1996**

	Japan	%	All Other Markets	%	Total
1980	16.98	73.1	6.24	26.9	23.22
1981	15.64	68.8	7.10	31.2	22.74
1982	16.93	74.6	5.75	25.4	22.68
1983	16.10	65.7	8.39	34.3	24.49
1984	13.52	52.5	12.22	47.5	25.74
1985	9.12	51.6	8.57	48.4	17.69
1986	10.57	51.3	10.05	48.7	20.62
1987	6.99	38.9	10.98	61.1	17.97
1988	7.95	41.3	11.27	58.7	19.22
1989	10.01	48.1	10.79	51.9	20.80
1990	11.81	54.7	9.77	45.3	21.58
1991	8.84	50.9	8.54	49.1	17.38
1992	9.39	50.8	9.09	49.2	18.48
1993	7.58	42.4	10.31	57.6	17.89
1994	5.19	32.8	10.62	67.2	15.81
1995	4.65	35.5	6.88	64.5	11.53
1996Est	1.85	33.6	3.65	66.4	5.50
Total					
Growth					
1980-1995 % - 68%		+ 60%		- 33%	

Source: The Scotch Whisky Industry Review 1996

**Table 2.22: Main Bulk Malt Markets (million litres of pure alcohol)
1993-1995**

	1993	% Change	1994	% Change	1995	% Change
Japan	7.58	-19.3	5.19	-31.5	4.65	-10.4
Spain	1.36	+7.0	0.66	-51.5	0.84	+27.3
Brazil	1.22	-3.9	1.26	+3.3	1.40	+11.1
France	1.07	+13.8	2.41	+125.2	0.92	-58.5
Sth Korea	1.99	+31.8	2.70	+35.7	0.27	-90.0
USA	0.20	-20.0	0.10	-50.0	0.08	-20.0
Uruguay	0.35	nc	0.34	-2.9	0.34	nc
Venezuela	1.10	+14.6	0.45	-59.1	0.60	+33.3
Argentina	1.00	+2.0	0.80	-20.0	0.73	-8.7
Germany	0.15	-43.3	0.26	+73.3	0.13	-50.0
Sweden	0.24	+118.0	0.09	-62.5	0.11	+22.2
Dominican	0.24	-	0.34	+41.7	0.35	+2.9
Sth Africa	0.32	-	0.24	-25.0	0.17	-29.2
Others	1.07	-10.1	0.97	-9.3	0.94	-3.1
Total	17.89	-3.2	15.81	-11.6	11.53	-27.1

Source: The Scotch Whisky Industry Review 1996

It cannot be denied that the export of bulk malt does help to improve the quality of the local product thereby increasing competition for BIS Scotch whisky in many markets. The confidence of those who say that Scotch whisky is well able to compete with any non-Scottish whisky is open to question and indicative of a lack of strategic understanding of the nature of competition in the international market for alcoholic beverages.

It is illustrative of the progress made by the Japanese whisky industry that the Suntory Company now claims that it has the world's top-selling whisky brand in 'Old Suntory', a blend which is thought to contain up to 25% Scotch malt whisky. In addition, Japanese whisky is estimated to have a total market share of 15% of the world consumption of all types of whisky, although sales are concentrated in the Far East.¹⁵⁸ This situation could only be exacerbated should Japanese companies, who are already putting considerable resources into promoting their brands in export markets, succeed in taking market share away from Scotch whisky in third countries such as the United States & Australia.¹⁵⁹

Not surprisingly, therefore, the issue of bulk exports of whisky has aroused much acrimonious discussion, with many of the protagonists advocating a ban on such exports. In February 1981 a trade union committee known as the the Scotch Whisky Combine Committee published a report highly critical of the policy of bulk exports, resulting in an unofficial agreement amongst those selling bulk malt not to expand beyond levels then pertaining, and generally this has held.¹⁶⁰ At about this time, two major pieces of work were published which analysed the economic factors associated with a possible ban.

The first, by Economic Associates in 1977, concluded against a ban on bulk exports, reporting that at best there would only be a small gain in employment to be set against a probable loss of earnings to the balance of payments and the risk of retaliatory action. The second, by J K Thomson in 1979, was in favour of a ban. Thomson calculated the effects of a ban to be a gain in employment (greater than that reported by Economic Associates) and a substantial gain to the balance of payments. As well as this he cited the need to preserve the future health of the industry as a major reason for the ban.¹⁶¹

The rather different conclusions reached in the articles by Economic Associates and Thomson are brought about by the different values of the variables made in the calculations. The crucial assumptions are firstly the percentage of bulk sales replaced by bottled sales, and secondly the realised price of the replaced bottled sales. Reasonable arguments can be put forward for these variables being at any point within wide ranges of possible values.

In all likelihood, the most likely result of a ban would be low replacement rates, resulting in a drop in foreign exchange earnings and a loss of employment. However, it is difficult to be definite about this since it is certainly possible that there could be high replacement rates (40% for bulk malt whisky and 60% for bulk blended whisky) in which case the economic effects would be positive. Thomson suggested high replacement rates,¹⁶² but even he concluded:

The elimination of bulk exports would not have a major impact on employment in the Scotch whisky industry. The ending of bulk blend exports would probably be beneficial, while the ending of bulk malt exports would be marginally detrimental to employment prospects in the industry as a whole, but seriously detrimental to malt distilleries alone. If both types of bulk exports were ended, this study suggests that in 1978 and 1979 there would have been a net gain of about 1400 jobs. However, the margin of doubt is particularly wide in the case of bulk blend exports.¹⁶³

Moreover, if the levels of replacement of bulk export are not as high as is hoped, then there is likely to be large losses in both foreign exchange earnings and employment; prospective gains in the event of high replacement levels are not as high as these losses. This consideration was ignored by both Thomson and Economic Associates.¹⁶⁴

The economic factors can thus be made to point either for or against a ban depending upon the percentage of banned bulk exports that it is assumed will be replaced by exports of bottled Scotch. More important, however, are the wider issues which concern the long-term health of the industry; the question of the ban on bulk exports is just part of the larger problem of how a well-established export industry should react to competition in overseas markets, particularly from local whisky industries enjoying comparative advantage.

In deciding upon a strategy, there are lessons to be learnt from the experience of international trade in other products over the last two decades. The industries of Western nations that appear to have been

most successful in withstanding foreign, especially Japanese, competition, are the ones that have fought back; the failures appear to be the industries that reacted to competition by withdrawing into smaller geographical and market segments. As such, it is suggested that the Scotch whisky industry should consider export strategies requiring greater involvement in the market segments where local whisky industries are currently being successful, not less involvement as implied by the strategy of banning bulk sales.

The strategy behind the proposed ban on bulk sales implies a withdrawal to a small segment of the market, whereby exports of BIS Scotch will only be made to the top sector of overseas markets.¹⁴⁹ Thomson believes this could be accomplished by means of an export duty levied on bulk exports of whisky and immature spirit:

Such a measure could be combined with a gradual reduction in the level of excise duty on spirits in the United Kingdom. The new measure would initially be unpopular with whisky exporters engaged in the bulk trade, but by making bulk sales more expensive the tax would have the effect of raising the price of foreign bottled Scotch whisky and other foreign whiskies containing Scotch malt. Assuming the bulk importing countries did not raise their import duties on bottled whisky to compensate for this United Kingdom export tax, the overseas market for BIS whisky would improve considerably.¹⁶⁵

Thomson's caveat concerning the possibility of retaliatory action in the event of a ban on bulk exports cannot be dismissed cavalierly. Even if there were a high replacement rate of bulk exports by bottled, the government of the importing country may subsequently decide to take fiscal action in order to protect its own industries. High

tariffs on bottled imports may be used to bring down the replacement rates to levels acceptable to the importing country.

For the Scotch whisky industry, the risk of withdrawing to a small segment of the market is that the industry loses volume sales and weakens itself while allowing competitors to gain strength and experience in export markets. Eventually the competitors may start making inroads into the BIS segment of the market. It is tempting to argue that, because of the unique position of the Scotch whisky industry, the high quality segment of the market can never be seriously threatened by other whiskies. Certainly, the high quality market share is more defensible in the case of whisky. At the same time, the market share of Scotch in the United States is now equal to that of Canadian whisky, and the fact of Japanese success in other follower industries suggests that it would be naive to be complacent about the threat.

An alternative strategy would be to compete freely in overseas markets against other whiskies. The lower market segments, usually involving local whiskies, are some of the fastest growing. This strategy recognizes the need to compete in these mass markets in an attempt to maintain the growth of the Scotch whisky industry while at the same time restricting the growth of competitors. This is the strategy adopted by the Scotch distillers who sell bulk whisky.

Bulk blend exports are bottled overseas and sold as Scotch whisky. They compete, therefore, with BIS Scotch at the top of the market; they also compete (more directly because of price) with some local whiskies at the lower end of the market. In this way the bulk blend

trade means that Scotch competes across a range of market segments.

Bulk malt exports are combined with local whiskies and sold as high quality local whisky. The bulk malt trade, therefore, ensures competition in the middle and lower market segments. The bulk whisky trade thus gives the industry involvement in mass markets which otherwise would be closed to it. This is important since there is a marketing view which states that consumers particularly in Japan and Developing countries have a bias and a loyalty towards local products.

Of course this trade is not guaranteed. In the case of bulk malt exports, the overseas local whisky producers may use Scotch for a few years until their product is established and then dispense with it. It would, of course, be desirable to sell bulk malt in the context of long-term agreements, but this may not be possible. This strategy has distinct short term advantages, therefore, in getting Scotch involved in segments of the market from which it would otherwise be excluded, but in the longer term carries no certainty of continuing advantage.

Even so, the risk of damage is a small one. It is difficult to believe that the local whiskies using Scotch (given that they do not sell in the premium market and given that 'Scotch' is not mentioned on the label) would not be almost as successful if high quality Canadian, Irish or American whiskey were used instead of Scotch. The local whisky, now containing a component of high quality non-Scotch whisky would compete with BIS Scotch just as before, but the sales of bulk

malt would be lost.

The industry could also consider licensing agreements with companies overseas. Any licensing agreement is a compromise between export companies who want a share of a fast-growing local market and the governments of the importing countries who wish to protect their economy and boost employment. Licensing agreements are well-established in industries from aerospace to Coca-Cola. Their exact specification differs from industry to industry, but essentially involve employment and other benefits being split between both parties in production to supply the local market.

Such an agreement involving a Scotch whisky company would probably mean that local whisky was blended with Scotch and bottled in the importing country; the agreement may also involve the question of a tariff on BIS Scotch. Agreements like this may only be possible where the local industry is not yet established. Although it can be argued that potential bottling jobs are being lost to Scotland, the jobs are notional in the sense that it is difficult to envisage a set of circumstances where the bottling could be done in Scotland while at the same time a worthwhile share of the developing local market was gained. This strategy carries two advantages over freely competing in all markets; the exports cannot be discontinued at short notice, and the agreement might include some other benefits such as tariff preferences.

Finally, the whisky industry could consider direct investment in overseas markets. In competing against local whisky industries in export markets, the Scotch whisky industry finds itself at a

disadvantage with respect to the following factors: import tariffs, especially against bottled products, consumer loyalty to (or preference for) local products against imports, and lower costs for the local industries, primarily because of labour rates and interest charges.

These factors, especially the first which is under the control of the government of the importing country, makes it difficult, if not impossible, for the exporters to gain complete victory over the local industries. Companies that have been successful in this sort of situation have been the ones that have recognized the nature of their comparative disadvantage and adjusted their strategy in order to compete. In some cases this has meant that they have invested in production facilities in the local market. Such a strategy offsets the comparative disadvantage in the export market while at the same time protecting the home industry.

While 'potential' jobs are lost to the home economy by establishing some production facilities overseas, the strategy enables the industry to compete more successfully in export markets and the resulting continued growth of the industry affords protection for already established jobs, and offers an opportunity for the creation of new, particularly skilled ones, at home. The essence of the strategy is compromise; if the success of the local industry is recognized as inevitable, the exporting companies should become involved in the local industry and its success. This will enable them to grow both at home and overseas.

This strategy might work well for the Scotch whisky industry.

Companies could invest in production facilities in the importing countries, the produce of which could be blended with bulk Scotch and bottled in the importing country. The whisky could then be sold as local whisky. A company making such an investment could then adopt a more integrated marketing policy; it would be offering to the local market: a) High Quality Local Whisky, b) Scotch whisky, bottled locally and c) Bottled in Scotland Scotch.

It would be a fallacy to argue that having local production facilities in the export market loses jobs to the Scottish economy. The only circumstances in which this would be true would be if local whiskies and BIS Scotch were direct alternatives to the consumer. Price differences alone make this impossible. The way to preserve jobs and profitability is to maintain the growth and health of the industry, even if compromises have to be made. This is the inevitable conclusion in view of the experiences of other industries threatened by overseas industries with comparative advantages.¹⁶⁶

Experience suggests that it is essential to compete in export markets against a wide range of types of whisky. Some companies are already doing this by exporting bulk whisky, but they have no control over what happens to the whisky nor any guarantee of the trade continuing when it ceases to be useful to the importers. Better strategies may involve companies more directly in the export markets either through licensing agreements or investment in off-shore production facilities.

The feasibility of these strategies will depend upon the countries and circumstances in question as will the financial viability. Although government regulations and financial difficulties will doubtless present problems in particular cases, it is truly surprising that Scotch whisky companies have so little direct investment overseas in the export markets which account for nearly 90% of consumption.¹⁶⁷

Most companies rely heavily, if not exclusively, on sole distributors, and the industry considers that this system is of great importance to the success of Scotch whisky abroad. The system rests on a double commitment, with the brand owner allocating distribution rights to a sole agent in the allocated area, and the distributors for their part promoting the brand. The distributor has to decide on the pricing policy, ensure sufficient supplies of stocks, report back on local competition, finance extensive advertising, promotional campaigns and expenditure on a motivated sales scheme.

Whilst the efforts of the distributors have generally been successful in the promotional function geared to local market conditions, as it would not be financially viable for smaller companies to have a subsidiary in each market, the reliance on export marketing strategies using sole distributors evolved in the age of slow communication, and is arguably less appropriate in major overseas markets with the coming of transcontinental air services. Moreover, the system means companies lack direct management expertise and experience in these export markets, making it more difficult to implement any strategy which involves investment or involvement overseas.¹⁶⁸

Lack of overseas investment is just one piece of evidence that the Scotch whisky industry is not adapting its marketing policies to changing circumstances. Suggestions that the advertising of Scotch is not as imaginative as that of some rival industries, examined earlier in Section 2.5, is another. A ban on bulk sales is a policy which also does not seem to have a basis in circumstances as they now are. Scotch whisky, while still a unique and generic product, is nevertheless substitutable in bulk whisky market segments.

Bulk sales of Scotch, if banned, would undoubtedly be replaced to a large extent by high quality bulk whisky from elsewhere. The Scotch whisky industry runs the risk of losing its bulk sales to competitors whilst gaining nothing. If the experiences of other industries is at all relevant, it is the forceful strategies that are likely to prove successful and the withdrawal strategies that are likely to fail.¹⁶⁹

Recently there have been some encouraging indications that the whisky industry is beginning to contemplate the need for re-appraising its exporting strategies. George Bull, ex-Chairman of the former Grand Metropolitan, suggested that part of the rationale for the merger with Guinness was the potential benefits to both companies of the synthesis of Guinness's distribution networks with Grand Metropolitan's ability to create new brands, by applying modern distilling techniques to local spirits, as it did in Brazil to create a fast-growing brand called Dreher.¹⁷⁰

In addition, during the last year the former GM acquired a majority

shareholding in Navarro Correas, a wine distributor in Argentina, and is engaged in a joint venture in China to produce and distribute both local and international spirits brands. In its 1996 *Annual Review*, Grand Metropolitan summarized its strategic approach to emerging markets:

The strategic approach to entering into new markets is broadly similar for all GrandMet businesses. It is to start small and targeted, often with specially created brands and with modest capital investment, sometimes in joint venture partnership with a local producer/distributor. As brand awareness begins to develop, international brands are introduced with significantly higher levels of investment.¹⁷¹

Allied Domecq own or control several companies in the rapidly growing Latin American market, including Mexico, Brazil, Argentina and Columbia. The Domecq brandies, with their strong local franchise, provide the critical mass to support the building of international brands such as Ballantine's Scotch whisky. The company has also responded to the opportunities manifesting themselves in Eastern Europe by establishing wholly owned sales and marketing companies. Allied's Beefeater gin is now the market leader in the rapidly augmenting Czech market.¹⁷²

Highland Distilleries current joint venture in India is a further encouraging sign of a shift in attitudes, and suggests too that it is not necessary to have a capitalisation on the scale of Diageo to engage in overseas investment. The Indian government granted approval for Highland Distilleries and Rémy Cointreau to invest approximately £1 million in a joint venture with an Indian partner,

to involve the blending, bottling, sales and marketing of liquor products including Scotch whisky, local whisky derivatives and some Rémy brands. DCM Shriram, the chosen partner, is an established New Delhi based company concerned with the manufacture of sugar and the distillation of potable alcohol.¹⁷³

Finally, Glenmorangie has invested £600,000 to date in its Indian venture, the principal element of which is developing the local bottling of its Highland Queen brand.¹⁷⁴ Glenmorangie has also secured a licensing agreement in China, to import both cased goods and bulk whisky, and to produce and distribute locally and nationally. The production unit, sales, marketing and financial capabilities are all controlled by expatriate Hong Kong Chinese management.¹⁷⁵

Throughout much of the developing world, most of the spirits drunk are inadequately marketed, poorly manufactured local concoctions, so western drinks firms may discover other opportunities comparable to those detailed here.¹⁷⁶

Such overseas ventures may also be wise in light of the constraint on strategies in the United Kingdom. In *Competitive Strategy* (1980), Michael Porter¹⁷⁷ identified five competitive forces acting upon a company:

- i) The Power of Suppliers
- ii) The Power of Buyers
- iii) The Degree of Competition Between Current Rivals
- iv) The Threat of Entry

v) The Threat of Substitute Products

In respect of the whisky industry, forces iii) and v) are clearly the most relevant. In *Competitive Advantage* (1985)¹⁷⁸, Porter argued that only three strategies exist that can succeed in overcoming these forces in the long run. These are differentiation, cost leadership and focus. But neither strategy is a panacea for any of the major firms in the industry.

Porter defines a firm seeking differentiation as:

Seeking to be unique in its industry along with some dimensions that are widely valued by buyers...It is rewarded for its uniqueness with a premium price...A firm that can achieve and sustain differentiation will be an above average performer in its industry if its price premium exceeds the extra costs incurred in being unique...The logic of the differentiation strategy requires that a firm choose attributes in which to differentiate itself that are different from its rivals.

This was the strategy adopted by the pioneers of the blended whisky trade in the 1860s, and by William Grant & Sons with the introduction of the single malt Glenfiddich a century later. In the present circumstances such a strategy is problematic. In the market for single malts and *de luxe* blends, each firm can differentiate on the basis of the unique nature of their particular product, and reasonable margins can be earned. This is much more difficult in the market for standard blended whisky, where in recent years competitive pricing has become the key factor.

The cost leadership strategy is based upon having the lowest costs and consequently the greatest profit margins, rather than on offering the lowest price. Cost leadership strategies require the firm to exploit any economies of scale and experience. Porter argues that low cost producers "typically sell a standard, or no frills, product and place considerable emphasis on reaping scale or absolute cost advantages from all sources."

As discussed in Section 2.3, with tax accounting for such a substantial proportion of the final selling price of whisky, discount pricing is ultimately limited. Consequently, the cost leadership strategy has suited some of the larger players in the industry. For instance, this strategy is reflected in the inexorable process of merger & acquisition within the industry, which facilitates economies of scale, particularly in bottling & packaging, marketing & distribution. In this respect, the Distillers Company (now United Distillers & Vintners) has traditionally been the dominant firm in the whisky industry, and looks set to continue to be as part of the Diageo group.

Porter has described Focus as a strategy based upon:

The choice of a narrow competitive scope within an industry. The focuser selects a segment or group of segments in the industry and tailors its strategy to serving them to the exclusion of others.

Focus can either be on cost, where the firm seeks a cost advantage in the target segment, or on differentiation, where a firm seeks differentiation in its target segment. Cost focus is the strategy

behind bulk exports of Scotch whisky, where the company attempts to access a market on the basis of a standardized product and a low price. Differentiation focus is an appropriate description of the small independent bottlers, or the handful of privately owned distilleries producing a premium product. The Springbank Distillery at Campbeltown, despite being a very small player in the industry, has secured a loyal following for its premium malt whiskies in specialist off-licences, independent bottlings, the duty free market, and overseas.

2.7 Conclusions

In the introductory Section of this Chapter, it was stated that no *a priori* conclusion as to the exigency of government intervention in those areas most directly impacting upon the whisky industry was possible without an examination of factors which were *intra vires* the industry to affect. Such an appraisal has been consummated, and a number of pertinent conclusions emerge.

Section 2.2 discussed the history of distilling, revealing that it was only timely intervention by the government in the early to mid-19th century that laid the foundations for the evolution of Scotch whisky into one of the United Kingdom's most conspicuously successful export industries. Even at the high water mark of Manchester liberalism, therefore, it was accepted that in the case of Scotch whisky at least, a completely *laissez-faire* disposition was inappropriate.

In Section 2.3 on the production of whisky, it was suggested that such a traditional industry does not lend itself easily to innovation, and in most areas where this has been attempted, the general consensus is that there has been an accompanying trade-off in quality. For example, traditional low-ceiling and earthen floor warehouses are held by traditionalists to be more favourable to the maturation of quality malt whisky than modern, more economical superstructures. In this respect, it is worthy of note that two whiskies in particular, Springbank & The Macallan, generally held to be the *premier grand cru classé* of malt whiskies, are produced utilising some very traditional (and expensive) methods that most distilleries now

eschew.

In attempting to justify its takeover of Macallan-Glenlivet in August 1996, Highland Distilleries argued that the company had been "underperforming." It is a moot point whether this was due to inadequate marketing & distribution (as Highland would no doubt contend) or a result of the higher costs associated with the fastidious attention to excellence highlighted in Section 2.3.

It should be noted nevertheless that it was revealed in Highland Distilleries' 1996-97 year to end-August figures that Macallan volumes were up 21% on 1995, the last published figures prior to the acquisition, while profits from Macallan were ahead 45% under the new management, leading a recent business editorial in *The Scotsman* to comment:

Its [Highland Distilleries] hostile acquisition of Macallan-Glenlivet last year is also bearing early fruit, largely vindicating its claim during the battle that the Macallan malt would benefit from the bigger group's marketing expertise and well-established distribution system.¹⁷⁹

Single malts are obviously the unique product of a single distillery, and the *sine qua non* for premium blended whiskies are that they contain malts from each of the whisky producing regions. Malt whisky production does not therefore lend itself to concentration in the way of grain distillation. The latter is already chiefly conducted in vast complexes in Lowland Scotland, as are the various 'dark grains' plants which convert the residue of distillation into animal feed.

Many distilleries are virtually fully automated, and whilst there may be some scope for innovation in energy conservation, in this area too the industry continues to invest a considerable amount of effort.

In any case, Table 2.2 in Section 2.3 illustrated that distilleries have never operated at anything approaching full capacity, so significant increases in output are possible without the need for a corresponding increment in capital. Sizeable reductions in cost are only really possible in bottling & packaging, where some scope for economies of scale exists. Economies in sales & marketing and in the distribution of whisky overseas have tended to follow from mergers & acquisitions, discussed in Section 2.4.

The process of merger & acquisition in the Scotch whisky industry has resulted in the industry becoming highly consolidated. The reservations of those who contend that external control of some whisky companies has had a negative effect upon the Scottish economy are persuasive, but some difficulty was encountered with the definition of "external control." *Ex libris* the works of the Fraser of Allander institute, this would appear to mean any firm registered outwith Scotland.

Perhaps a more appropriate definition, assuming Scotland remains part of the United Kingdom, would be companies where decisions are made overseas, and on this yardstick, firms registered in the United Kingdom still accounted for over 75% of Scotch whisky production in 1995.

Moreover, Scottish Production Database figures reveal that overseas-owned firms accounted for 20% of whisky industry employment in 1994. This compares with a 28% share of employment for overseas owned firms in the manufacturing sector as a whole. In addition, at £19,500 in 1994, average wages per employee were higher in overseas owned firms than the £17,200 average in companies owned in the United Kingdom.¹⁸⁰

Mergers & acquisitions look set to continue to be the predominant form of structural change in the industry, which is not surprising given the difficulty of 'greenfield' investment in an industry which places such great store on pedigree and a proven track record. Scotch whisky competes against a whole host of spirits, not to mention other alcoholic drinks, and in mature markets at least, for a declining share of consumers' expenditure.

It is arguably only large groupings, with powerful brand imaging and extensive distribution networks, that have the wherewithal to most effectively rise to this challenge. For example, in the financial year ending in 1996, United Distillers increased its marketing investment by 10% to a record £332 million; the success of such products as UD's 'Classic Malts' is evidence of what can be achieved given the necessary resources.¹⁸¹

This said, any further merger involving Diageo plc is problematic, considering the existing dominance in the market of that company. The onus should always be on those proposing a merger or takeover to demonstrate convincingly that it is in the public interest, rather than on the competition authorities having to prove otherwise; at

present, the MMC must be able to identify specific adverse effects to advocate thwarting a merger. The 'public interest' in this context can be taken to include not only the traditional consumer welfare issues surrounding mergers, but also the long-run development of the various regions of the United Kingdom in the aftermath of any rationalisation of post-merger activity.

Section 2.5 detailed the growth in Scotch exports since 1945, and the substantial fall in sales in more mature markets since the late 1970s. Recessionary forces were only partly responsible, as there has also been a long-term secular decline in whisky consumption in such countries as the United States and the United Kingdom. Much of this was perhaps inevitable as consumers substituted into other alcohol derivatives, especially wine, but marketing and innovation in the whisky industry has been shown to be wanting. Even the promotion of the by now highly successful single malts dates only from the 1960s.

Section 2.5 ended on a more up-beat note, depicting the success in recent years of Scotch in newer markets. Section 2.6 looked at the issue of bulk exports, concluding that banning bulk sales would be a highly retrograde step. A more appropriate strategy would be accompanying bulk sales with innovations in distribution, in particular contemplating investment in overseas facilities. Recently, there have been encouraging signs of some companies in the industry following this path, which is welcome news given the limitations for the whisky industry of some of the traditional managerial strategies proposed for firms in the domestic market.

It is tempting to conclude that prospects for the whisky industry are generally bright, with rising sales of single malts & premium *de luxe* blends in the more mature markets of the United States and Western Europe being augmented by a steady growth in blended whisky sales for admixing by youngsters, especially in the fashion-conscious markets of Southern Europe, and the dynamic economies of the Far East and Latin America. This catch-all strategy is one advocated by Alan Gray, whisky analyst at Sutherlands:

Whisky needs to be promoted as a versatile drink capable of being consumed by all age groups, at various times of the day, and suitable for mixing with lemonade, ginger ale and other soft drinks or cordials, as well as being imbibed as a straight drink.¹⁸²

But in a recent article, *The Economist* newspaper sounded a cautionary note, albeit colourfully:

Telling one fogeyish group of consumers that whisky should be compared to a vintage claret, whilst reassuring another that it is fit to be sloshed around with Irn-Bru, looks a dangerously contradictory message. It will work only if the Scotch market divides into two quite separate ones. Of the two, single malts, which remain secure at the top end of the market as a safely 'aspirational' product, have the most certain future. Blends, newly trendy, may - for a time - have a wild time down in the disco. But fashion is fickle. Who knows how long it will be before the young blades want to try something else? Tequila, anyone?¹⁸³

Disturbingly for the whisky industry, this sceptical tone was given empirical support in a comment in a recent edition of *The Scotsman*

newspaper: "In the Far East, wine is fast replacing spirits as the favourite tippie."¹⁸⁴ Fashion is indeed fickle, and it is indicative of the problems facing the whisky industry that Sutherlands have predicted the compound growth rate in consumption of Scotch to the year 2000 to be a mere 2%.¹⁸⁵

On the whole, the message to be gleaned from perusing Chapter 2 is that whilst there is limited scope for performance improvement, certainly in the field of marketing & distribution, the distillation of whisky is almost unique (excepting other alcohol producers) amongst industries in the United Kingdom. Unique because such a substantial element of the final price of the product - tax - is *ultra vires* the industry to meaningfully affect.

In times past times, circumstances necessitated a more proactive stance by the public authorities to ensure the continuing success of the whisky industry. The industry may be approaching a comparable pass today, with government action all the more important when the importance of a healthy whisky industry to multitudinous sectors of the Scottish economy is considered. It is to this latter relationship that attention now turns.

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CHAPTER 3: THE WHISKY INDUSTRY AND THE REGIONAL SCOTTISH ECONOMY

3.1 Introduction

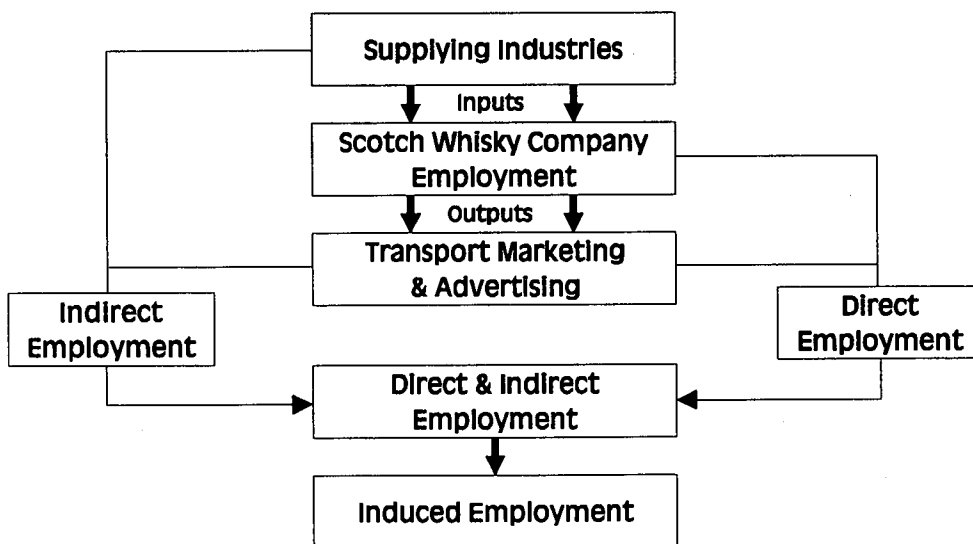
This Chapter examines the interlocking relationships between the whisky industry and the wider Scottish economy. The numbers directly employed by the industry are disaggregated by region and activity, and the Scottish Input-Output Tables are scrutinized to determine the value of Scottish inputs sourced by the whisky industry. Utilizing the multiplier estimates presented in the Input-Output Tables, the approximate number of jobs dependent upon the whisky industry's sourcing of Scottish supplies is estimated.

3.2 Direct Employment by the Whisky Industry

The Gaelic term for Scotch, *uisge beatha*, means, literally, 'the water of life'. Scotch whisky is the water of life for many remote islands and glens in the Highlands and Islands of Scotland, where whole communities can depend on a single distillery. But in addition to distilling, which accounts for about 17% of employment in the industry, firms also employ people in areas such as maturation & warehousing, blending, bottling & packaging, transport & distribution and advertising & marketing.

Where such activities are undertaken by distillers 'in house', the employment can be thought of as 'direct'; when the services are bought in, they are regarded as creating 'indirect' employment. Hence, in Table 3.1, employment in transport, distribution, and marketing is allocated to 'direct' and 'indirect' employment as appropriate. This offers a graphic overview of the chain of employment in the whisky industry.

Table 3.1: Chain of Employment Activities in the Whisky Industry



Source: Piedad, *The Economic Significance of Scotch Whisky*

Employment in the whisky industry peaked in 1978 at just over 25,000, but by 1988 it had fallen to about 14,000, at which level it has since stabilised. This decline in employment was mainly accounted for by the rationalisation which took place following the slump in sales in the aftermath of the 1979-81 recession, and the subsequent takeovers of the mid 1980s.¹ Direct employment as at September 1996, categorized by region, is detailed in Table 3.2. This census by The Scotch Whisky Association (SWA) includes approximately 98% of the industry's direct employment, and only 5% of that employment is based outwith Scotland - primarily in London.

Table 3.2: Direct Employment by the Whisky Industry as at September 1996, Categorized by Region

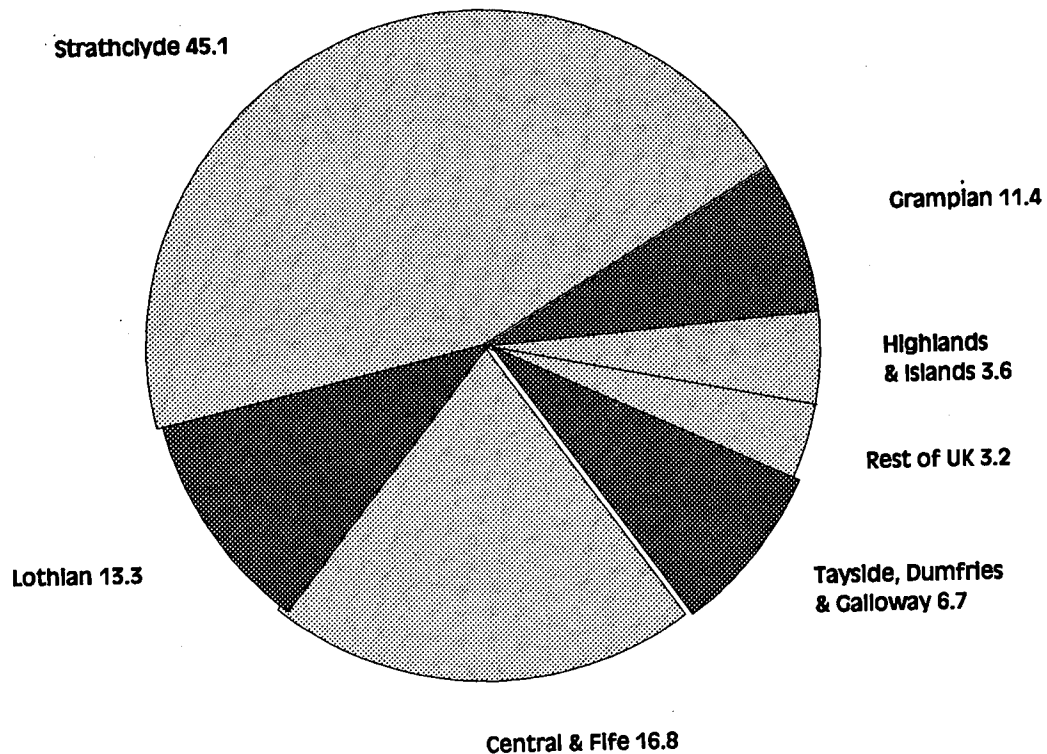
Region	1996	1995	% Change
Highland	546	513	+6
Grampian	1481	1576	-6
Strathclyde	6641	6808	-2
Lothian	1592	1691	-6
Central & Fife	2036	2117	-4
Tayside	553	589	-6
Rest of UK	496	404	+23
Total	13,345	13,698	-3

Source: The Scotch Whisky Association Statistical Report 1996

A graphic illustration of the distribution of this employment by region and activity is shown in Table 3.3 and Table 3.4 following. The Strathclyde, Grampian and Lothian regions together account for 70% of the industry's Scottish workforce. The greatest concentration of employment can be found in Glasgow City District, reflecting the large numbers of grain distilleries, warehouses, blending plants and offices located there. Glasgow, Edinburgh and Perth are the main administrative centres.

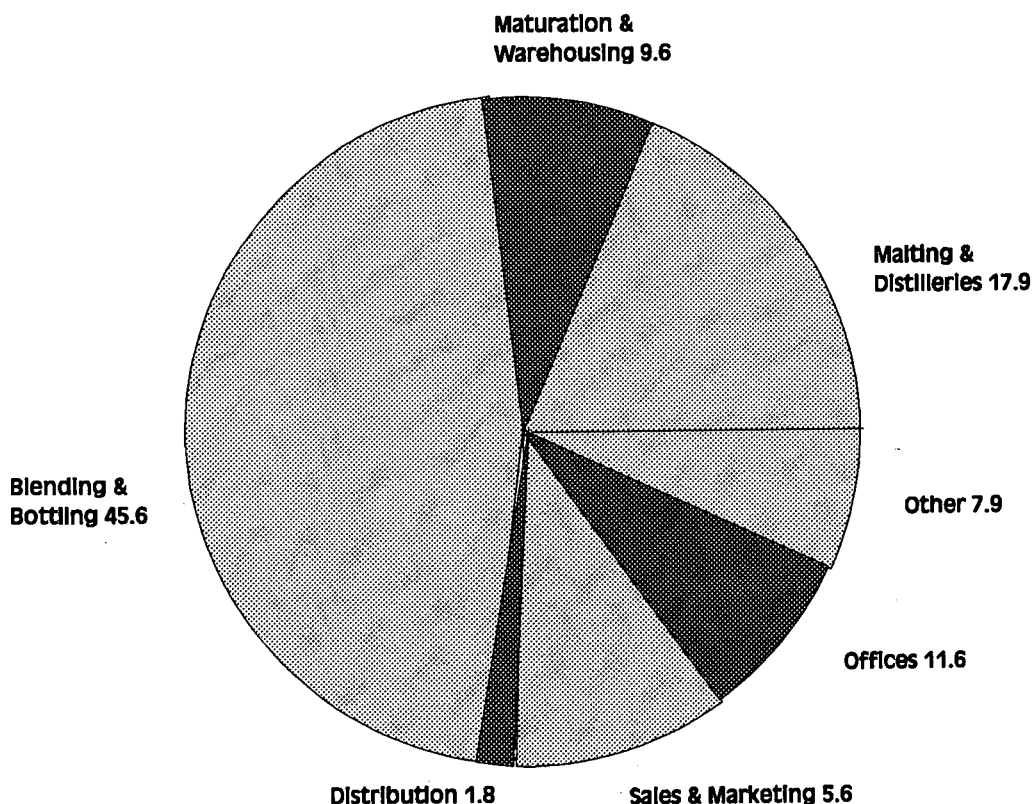
As Table 3.4 illustrates, nearly half (45%) of all direct employment in the industry is connected with blending, bottling, and packaging, most of this being located in Dumbarton, Renfrew and Kirkcaldy districts, a reflection of the need for a high amount of predominantly unskilled & female labour, and the necessity of minimising transport costs.²

Table 3.3: Scotch Whisky Employment By Region (% Share)



Source: Pidea, *The Economic Significance of Scotch Whisky*

Table 3.4: Scotch Whisky Employment By Activity (% Share)



Source: Piedo, The Economic Significance of Scotch Whisky

Moray district, in Grampian, is the single most important district in terms of the number of malt distilleries, warehouses and visitors centres. The remaining distilleries are widely scattered in many rural and island communities. Island communities have their own distinct economic difficulties, which have raised concerns as to their economic viability. A recent report by the Fraser of Allander Institute for Allied Distillers examined the Hebridean island of Islay, whose population fell by 2.7% between 1980 and 1993. The report concluded that this population loss is stemmed by the employment associated with whisky, accounting for 90.3% of manufacturing jobs and almost a fifth of all employment.³

The Annual Employment Survey (AES) gives information on the full-

time/part time shares of total employment in the whisky industry. 94% of total employees in the industry are full-time (defined as those working more than 30 hours a week.) This is similar to the proportion of total manufacturing employees in Scotland that are full time.

The Scottish Production Database reveals that at an average of £17,600 in 1994, gross wages per employee in the whisky industry were some 17% higher than the Scottish manufacturing average of £15,000. This is partly a reflection of the higher number of administrative, technical and clerical staff, but primarily due to higher pay in the industry for each type of employment.⁴

3.3 Indirect Employment: The Scottish Regional Input-Output Model

Scotch whisky companies indirectly support employment in various sectors of the economy as a result of their sourcing of raw materials, manufactured and service inputs to their production process. The main categories of 'indirect' employment include cereals producers/suppliers, energy producers, bottling & packaging companies, distribution & haulage companies, business services (including advertising), and capital goods manufacturers.

In order to measure the indirect employment generated as a result of Scotch whisky industry purchases it is necessary to have a detailed compositional breakdown of the supplier inputs. Table 3.5 details the principal inputs to the Scotch whisky industry in 1994. The inputs exclude imports from the rest of the United Kingdom and overseas, and hence relate only to domestic demand. The final three columns represent the proportion of each industry's domestic output destined for the whisky industry in 1979, 1989 & 1994.

Table 3.5: Whisky Industry: Scottish Inputs 1994 (£m)

Input	Amount (£m)	% Domestic Output		
		1994	1989	1979
Agriculture	176.6	8.4%	11.5%	5.4%
Paper & Board Products	56.5	9.1%	8.9%	-
Retail Distribution	41.3	0.8%	1.5%	-
Wholesale Distribution	39.6	0.8%	1.5%	-
Glass & Glass Products	30.5	18.9%	47.0%	23.0%
Architects	25.9	1.6%	1.7%	-
Banking	24.9	1.3%	1.8%	1.0%
Other Business Services	20.7	1.1%	1.8%	6.4%
Grain Milling & Starch	18.6	51.8%	-	-
Spirits & Wines etc	17.5	0.9%	7.7%	12.0%
Electricity	12.4	0.4%	2.5%	1.2%
Sugar	9.5	9.8%	-	-
Coke Ovens, Oil, Nuclear Fuel	8.8	0.4%	-	-
Sanitary Services	8.4	1.6%	-	-
Plastic Products	7.7	1.0%	-	-
Hotels, Catering, Pubs etc	7.5	0.3%	-	-
Road Transport	7.1	0.4%	6.4%	2.3%
Renting of Machinery	7.4	0.8%	-	-
Beer Brewing	6.7	2.1%	11.9%	17.9%
Recreational Services	6.4	0.4%	-	-
Accountancy Services	6.3	1.4%	2.1%	-
Others	79.8	-	-	-
TOTAL	620.1			

Source: Scottish Input-Output Tables 1994

It will be noted from Table 3.5 that the dependence of the Scottish agricultural, glass and paper & board sectors upon the whisky industry, measured in terms of the percentage of these sectors domestic outputs destined for the whisky industry, despite decreasing somewhat in recent years, is still significant. The glass industry in particular was identified by James Love in his various publications on the economy-wide effects of external takeover as having experienced significant linkage reductions with externally acquired whisky firms in the 1970s.⁵

A further indication of the reliance of the agricultural sector upon the alcoholic beverages industry is given in Table 3.6, which shows

that two-thirds of Scottish barley is destined for brewing and distilling.

Table 3.6: Destination of Scottish Barley, 1995 (000 tonnes)

Malting & Distilling	786 (66%)
Other Human & Industrial Usage	189
Exports	0
Seed	11
Stock Feed	201
Sales Into Intervention	0
TOTAL OUTPUT	1187

Source: Scottish Abstract of Statistics No 25 1996

The importance of Scotch whisky production to the agricultural sector is also apparent given the lack of alternative employment. The Rural Development Commission expects 100,000 job losses in agriculture over the next decade and 50,000 associated redundancies because of CAP reform. *A fortiori*, therefore, a reduction in whisky production would seriously compound these difficulties.⁶

These purchases of inputs by Scotch whisky companies constitute outputs for their immediate suppliers. To achieve those outputs the immediate suppliers, in their turn, purchase inputs from other firms, this constituting another set of outputs, and so on back up the supply chain. Thus the initial round of purchases by Scotch whisky companies represents the beginning of a ripple effect, spreading backwards through the Scottish economy and impacting upon a wide range of sectors. This multiplier process is described in more detail in the next section.

This chain of backward linkages is detailed extensively in the 1994 Scottish Input-Output Tables, 123x123 matrices which:

...record in detail the relationships between different sectors in the economy as they combine to produce the total of goods and services in any one year. They record the flow of goods and services both between industries themselves and between industries and Final Demand sectors (Consumers, Government, Investment, Stock Change, Visitors and Exports). In addition, they include information on the flow of Imports into the economy and information on the incomes generated within each industry. In this way, they provide an additional important dimension to the Regional Accounts which, as a subset of the UK National Accounts, are concerned only with the composition of the main Final Demand flows in the economy.⁷

The tables also incorporate household income and consumers' expenditure, thus allowing the induced as well as indirect effects of any exogenous shock to be modelled.⁸ Input-Output analysis is essentially an exercise in comparative statics; it is implicitly assumed that the economy is in an equilibrium position and is subjected to an exogenous shock which leads, through multiplier interactions, to some new equilibrium position at which the overall level of economic activity is either higher or lower than before.⁹

3.4 The Multiplier Process

The Input-Output Tables also include information on Type I output, employment and income multipliers. A Type I multiplier is a measure of the combined direct and indirect effects of a change in industry final demand on output, employment or income across Scotland, but ignores the additional impact induced by increased consumer expenditure resulting from the initial increase in final demand.¹⁰

It will be noted from Table 3.7 that the whisky industry's derived income and employment multipliers in 1989 were relatively high in comparison with other Scottish industries, with whisky's position *vis-à-vis* 78 other manufacturing sectors given in brackets. The highest ranked output multiplier in 1989 was attributed to milk & milk products, income multiplier, grain milling & starch, and employment multiplier, tobacco.

Table 3.7: Type I Multipliers: Scottish Manufacturing Industry 1989 (Effects of £1m Increase in Final Demand)

Sector:	Whisky	Highest Ranked	Average
Output Multiplier	1.75 (10)	2.15	1.47
Effect on Incomes	0.32		
Effect on Employment	24.0		
Income Multiplier	3.21 (3)	4.66	1.83
Employment Multiplier	3.66 (6)	9.15	2.16

Sources: James Love, *The Whisky Industry*
: Scottish Input-Output Tables 1989

The output multiplier of 1.75 attributed to the whisky industry suggests that for every increase of £1m in final demand for whisky, perhaps due to increased exports, there is an overall increase in

total Scottish output of £1.75m. Income and employment effects (included for whisky) relate to the total direct and indirect employment income or employment generated by a change in final demand, so a £1m increase in final demand for whisky should increase total employment in all Scottish industries by 24.¹¹ This diminutive figure is a reflection of relatively high capital intensity and low employment/output coefficients in the industry,¹² with whisky ranking only 88th out of 114 industrial sectors in terms of the employment effect associated with a change in final demand.

However, a different picture emerges when the multiplier effect not of a change in final demand, but of each individual job created in the industry is considered. In 1989, each new whisky-related job increases total employment in Scotland by 3.66, giving the whisky industry a position in 6th place out of 78 manufacturing sectors, far ahead of any of the 'hi-tech' or 'sunrise' industries.¹³

The employment created directly and indirectly by Scotch Whisky companies and their associated suppliers has a further impact on the Scottish economy, as the employment income generated will be used to purchase goods and services. This will, in turn, create additional income and employment, in a wide range of activities. These third round 'induced' effects are captured in 'Type II' multipliers, which express the ratio of the direct, indirect and induced employment change to the direct employment change occasioned by an increase in final demand.¹⁴

Obviously, the size of this multiplier effect will depend upon the 'leakages' which occur which divert expenditure away from domestic

consumption. The 1989 Input-Output Tables record an employment multiplier of 4.63 for the sector 'Spirits & Wine.'

Employment multipliers are the multipliers most commonly encountered in work on the Scottish economy, because analysts and policy makers are primarily concerned with the employment effects of any innovations in the regional economy. Multipliers are derived from the Leontief Inverse Matrix, produced as part of the Scottish Input-Output Tables. The Leontief Inverse Matrix shows how much of each industry's output is needed, in terms of direct and indirect requirements, to produce one unit of a given industry's output.

From the Annual Census of Employment, it is possible to determine total full-time equivalent (FTE) employment in each industry. This information, together with figures for the total output of each industry, facilitates the calculation of 'employment per unit of output' coefficients. These, combined with the Leontief Inverse, produce Type I and Type II employment effects. These employment effects reveal the total increase in employment in the Scottish economy as a whole, which results from a unit increase in final demand for the output of a particular industry, such as whisky. Using the disaggregated employment effects for a particular industry, it is possible to determine the Type I and Type II employment multipliers.

The mathematical definition of these Type I & Type II Multipliers is as follows:

Where l_{ij} = amount of industry i 's output required per unit output of industry j (that is the ij th cell of Leontief Inverse matrix).

λ_i = income from employment per unit output of industry i .

and V_i = FTE employment per unit output of industry i

$i, j = 1$ to 123

output multiplier (j) = $\sum_i l_{ij}$

income effect = $\sum_i \lambda_i l_{ij}$

income multiplier = $(\sum_i \lambda_i l_{ij})/\lambda_j$

employment effect (j) = $\sum_i v_i l_{ij}$

employment multiplier (j) = $(\sum_i v_i l_{ij})/v_j l_{jj}$

For further explanation, see Alexander & Whyte (1994)¹⁵.

A certain degree of circumspection is in order when using multipliers. The data from the Input-Output Tables and the multipliers attributed to the whisky industry are actually taken from the Input-Output Tables Sector 68 'Spirits & Wines etc'. 'Spirits & Wines', a broader definition of the industry than Class 15.91 of the 1992 Standard Industrial Classification (SIC 92), is the lowest level of disaggregation available from the Input-Output

Tables. The activities comprising this wider category are detailed in Table 3.8, but Class 15.91 of SIC (92) accounts for over 97% of employment in and output of 'Spirits & Wines' in Scotland.¹⁶

Table 3.8: Spirits & Wines As Defined in Scottish Input-Output Tables 1994

SIC(92)	Description
15.91	Manufacture of distilled, potable, alcoholic beverages
15.92	Production of ethyl alcohol from fermented materials
15.93	Manufacture of wines
15.93/1	Manufacture of wine of fresh grapes and grape juice
15.93/2	Manufacture of wine based on concentrated grape must
15.94	Manufacture of cider and other fruit wines
15.94/1	Manufacture of cider and perry
15.94/2	Manufacture of other fermented beverages
15.95	Manufacture of other non-distilled fermented beverages

Source: The Scottish Economic Bulletin No 55 September 1997

Class 15.91 is defined to consist of the manufacture of distilled, potable, alcoholic beverages. In addition to the manufacture of whisky, this definition includes the manufacture of brandy, gin, liqueurs, etc, although obviously whisky accounts for the vast majority of activity under this heading in Scotland. It is not possible to differentiate between whisky and these other activities, as with the exception of HM Customs & Excise, and latterly Scottish Whisky Association Database production figures, no official statistics are available at a more disaggregated level.¹⁷

The use of input-output analysis requires data on the relationship at the margin between the factor inputs and outputs for each industry, ie marginal technical coefficients. In input-output analysis particularly restrictive assumptions are made about this relationship; it is assumed that factor inputs are combined in fixed proportions, and that constant returns to scale prevail. Moreover,

the existing average technical coefficients, derived from the input-output tables, reflect an average of production functions established at different points of time in the past and not the production function based upon the latest technology.

The simplest, but not the only interpretation of this condition is to take the average input-output relationships observed in the existing input-output tables and to assume that they will apply unchanged as marginal relationships in the foreseeable future. For example, if 40 units of agricultural output are required as part of the input to produce 200 units of whisky at present, then in the future 80 units of agricultural output will be needed in the production of 400 units of whisky.

This line of reasoning is open to a number of obvious criticisms. It fails to allow for varying factor combinations, it fails to provide for scale effects, and it confuses present average relationships with future marginal relationships. The failure to allow for variations in factor combinations can be partially defended for short term predictions on the grounds that, with a given technology and production method in the short run, factor combinations will be relatively fixed.¹⁸

But constructing Input-Output Tables takes several years, and if the economy undergoes significant technological and structural change, or a major recession, in the intervening period, the tables may not reflect the underlying structure of the economy. Many industries are likely to have experienced significant productivity gains since 1989, and allowance for this has to be made when using

multipliers.

If there is substantial spare capacity in the economy the link between changes in output and changes in employment is less clear; it may be possible to increase capacity utilisation without hiring more labour. Multiplier analysis assumes that there are no changes in prices, wages or expenditure patterns taking place in response to a single change in final demand, and that increases in activity in Scotland will not lead to 'crowding out' elsewhere within the United Kingdom economy. In the short run at least such assumptions are probably valid.¹⁹

Finally, it should be noted that the multipliers referred to in this Chapter are essentially medium-term multiplier estimates. If the economic impact is to be considered over a limited period, then the indirect effects on suppliers will not have fully built up, and lower multipliers than those depicted would be more appropriate.²⁰

But according to James Love:

All these limitations imply is that the actual effects of the changes suggested may not be as significant as those derived from the multiplier ratios. They do not suggest that change would take place in the reverse direction or not at all, and there is empirical evidence which suggests that in practice multipliers do not vary very markedly through time.²¹

This latter statement may need to be qualified in the light of evidence from the most recent Input-Output Tables, published in September 1997. These Tables relate to 1994, and record the

following values for Type I & II multipliers attributed to the whisky industry:

Table 3.9: Employment Multipliers: Scotch Whisky Industry 1994

Multiplier	Value	Rank (Scottish Manufacturing)
Type I	2.47	8
Type II	3.10	

Source: Scottish Input-Output Tables 1994

Given that the SWA has estimated current employment in the whisky industry to be of the order of 13,345, a Type II employment multiplier of 4.63 suggests that an additional 48,442 jobs are sustained across the Scottish economy. Of course the process also works in reverse; with over 11,000 jobs shed in the industry since 1978, a multiplier of 4.63 implies an additional loss of nearly 40,000 jobs across Scotland.

But with a Type II employment multiplier of 3.10, only 28,025 jobs are sustained indirectly across the Scottish economy by the whisky industry. So the total contribution of the Scotch whisky industry to employment in Scotland as a result of direct, indirect and induced employment is disaggregated in Table 3.10, on the basis of both the 1989 and 1994 multiplier estimates:

**Table 3.10: Total Employment Impact of the Scotch Whisky Industry:
1989 & 1994 Multiplier Estimates**

Employment Type	1989 Multipliers	1994 Multipliers
Direct	13,345	13,345
Indirect	35,498	19,617
Induced	12,944	8,408
Total	61,787	41,370

1989 Type I Employment Multiplier: 3.66
 1989 Type II Employment Multiplier: 4.63
 1994 Type I Employment Multiplier: 2.47
 1994 Type II Employment Multiplier: 3.10

The estimate for total employment based upon the 1994 multiplier estimates is analogous to the figure of 47,500 determined by the Fraser of Allander Institute in their report for Allied Distillers in 1995.²²

But in their recent article on the whisky industry, Scott & Winstanley determined that total Scottish employment dependent upon the whisky industry was of the order of 33,200, based upon the 1994 multiplier estimates. But they assumed that only 10,700 people were directly employed by the whisky industry, utilising output, employment and wages figures from the Scottish Production Database (SPD) which is maintained by The Scottish Office Education & Industry Department.

SWA output and employment figures are likely to be higher than SPD figures as the SWA figures include returns from some SWA members who would not be included in the SPD whisky classification, as production of Scotch whisky is not recorded by the SPD as their main activity.²³

The fluctuating multiplier values calculated for 1989 and 1994 obviously make estimating the level of employment dependent upon the whisky industry difficult. There are a number of possible reasons for the sharp fall in the multipliers over the five year period; these include lower direct employment in the industry itself, import penetration, an absolute fall in the quantity of whisky produced, and increments in productivity.

The number of people directly employed in the whisky industry has fallen only slightly since 1989, from approximately 14,000 to 13,345. This in itself would not be sufficient to account for the contraction in the multiplier estimates. Comparison of the 1989 with the 1994 Input-Output Tables reveals that import penetration actually fell over the five-year period. Inputs to the whisky industry from the rest of the United Kingdom and overseas totalled £440.3 million in 1989, but were a mere £137.6 million in 1994.

The explanation would appear to be that there was simply less whisky produced in 1994 than in 1989. In 1989, approximately 428 million litres of pure alcohol (LPA) were distilled; in 1994, this figure had fallen to just under 355 million LPA. But in addition, productivity within the industry & suppliers seems to have increased as well; in 1989, the industry sourced £991.5 million worth of Scottish inputs, implying that each LPA produced in that year necessitated £2.32 worth of Scottish inputs. In 1994, the industry purchased £620.1 million of Scottish products, suggesting a cost of only £1.75 per LPA distilled in that year.

However, by 1996 production had increased to over 429 million LPA,

the highest level since the late 1970s. Presumably, therefore, Input-Output Tables for 1996 would present Type I & Type II multiplier estimates for the sector Spirits & Wines that were comparable to those for 1989. Of course, productivity in the industry & suppliers could have continued to increase in more recent years, in which case the multiplier estimates would be correspondingly smaller.

In the light of these difficulties, in Chapters 4 & 7 where the multiplier estimates are further utilised, calculations will be presented on the basis of both the 1989 and 1994 values.

3.5 Conclusions

This Chapter has analysed the many and varied linkages between the whisky industry and the Scottish economy. Scotch whisky companies directly employ people in Highland, Lowland, Island, rural and urban Scotland, and in multifarious activities - from relatively low-skilled bottling & packaging operatives, to highly-skilled, sturdy artisans. The latter category includes those engaged in coopering, distilling, and engineering, Real Men's jobs that invariably provide a lifetime of employment, from apprentice to journeyman, and finally, Master Craftsman.

Scrutiny of the Scottish Input-Output Tables revealed that the whisky industry sourced approximately £620.1 million of supplies in 1994, from a wide array of Scottish industries. It was noted that the agricultural, glass and paper & board sectors are particularly dependent upon the patronage of the whisky industry. In addition, it was observed that the injection of income into the Scottish economy from those directly & indirectly employed by the whisky industry and its dependent suppliers creates substantial additional employment across Scotland.

The Type I and Type II multiplier estimates associated with the whisky industry fell over the five year period 1989-1994, principally because of a reduction in the absolute quantity of whisky distilled, necessitating fewer Scottish inputs, and as a result of increases in productivity across the Scottish economy. But in recent years, output in the whisky industry has increased sharply, and whilst there may be some offset due to further increases in

productivity, this suggests that current multiplier values could be closer to the 1989 estimates.

The several multiplier estimates presented in this Chapter will be applied in Chapters 4 and 7 when the impact of exogenous shocks upon final demand for whisky is cogitated. The conclusions arrived at in this Chapter as to the salience of the whisky industry to the wider Scottish economy suggests that such permutations in demand are likely to impact not only upon the whisky industry, but have pervasive ramifications right across the Scottish economy.

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CHAPTER 4: PUBLIC POLICY ISSUES I: DUTY FREE

4.1 Introduction

Section 4.2 of this Chapter studies the intra-European Union duty free market, and in particular, that element which is accounted for by sales of Scotch whisky. Estimates of the value of this market to the whisky industry are presented, along with projected growth rates to July 1st 1999, the date on which European Finance ministers decided unanimously in 1991 that intra-EU duty free will be abolished.

Section 4.3 seeks to determine the impact abolition of the intra-EU duty free concession will have upon the whisky industry, and, utilising the multiplier estimates presented in Chapter 3, the potential effects on the regional Scottish economy are discussed in Section 4.4. Section 4.5 considers the various justifications advanced for retaining the intra-EU duty free concession post 1999. Section 4.6 concludes.

4.2 The intra-EU Duty Free Market

In early 1997 the Scotch Whisky Association (SWA) commissioned the European Travel Research Foundation (ETRF - a body established in 1995 to provide information to the campaign against the abolition of duty free) to compile a report on the potential effects of the abolition of intra-EU duty free shopping upon the Scotch whisky industry. The report, written by Piedad Plc and entitled *The Abolition of Intra-EU Duty Free Shopping: Impact on Scotch Whisky and other UK Spirits*, was published in July 1997.¹

On the basis of information presented in the ETRF's *1995 Statistics*, Piedad estimated the total value of intra-EU duty free sales to be of the order of £2.9 billion in 1995, of which £0.8 billion were sales of alcoholic drinks. SWA Databank figures reveal that in 1995, sales of duty free Scotch whisky in the European Union amounted to approximately £300.5 million. By examining data presented by the ETRF on passenger journeys, Piedad were able to estimate that 62% of these sales took place on travel wholly within the European Union, hence Piedad hypothesized that Scotch whisky sales of £185 million were 'at risk' in the event of ending duty free within Europe.

But this figure underestimates the true impact of abolition in 1999, as sales are anticipated to grow considerably over the remaining years of the concession. Between 1991-1995, duty free sales of whisky within the EU grew in value by 17.9%, a reflection of increases in *per capita* incomes and a greater propensity to travel. Assuming a comparable growth in sales over the years to 1999, Piedad concluded that intra-EU duty free sales of Scotch could amount to as much as

£218 million in 1999. Of this total, ferry sales are estimated at £112.7 million and sales through airports and airlines at £105.3 million.²

The ETRF also commissioned National Economic Research Associates (NERA) to determine the potential impact upon public finances in the United Kingdom of the abolition of the intra-EU duty free market. The report, entitled *The Impact on UK Public Finances of the Abolition of Intra-EU Duty & Tax Free*, concluded that the abolition of duty-free shopping will cost companies in the United Kingdom more than £340 million a year, jeopardise 10,000 jobs and produce no benefit for Government finances.³

This alarming conclusion is predicated upon a number of assumptions. NERA assumed that consumers may respond to the abolition of intra-EU duty free in a number of different ways:

- i) Purchasing same goods duty paid in former duty free outlet
- ii) Purchasing same goods tax paid in the United Kingdom
- iii) Buying duty paid goods overseas
- iv) Higher sales on extra-EU routes
- v) Trading down to cheaper alternatives
- vi) Switching to general consumption
- vii) Saving the money currently spent on duty free

- i) Purchasing same goods tax paid in former duty free outlet

The United Kingdom's Airports Authority (BAA) has claimed that intra-EU duty-free liquor sales will not be replaced by duty paid

sales in the same outlets after 1999. In compiling their report for the ETRF, NERA considered studies by The Netherlands Economic Institute and JRA Limited on duty free purchases, and conducted their own interviews with companies involved in the duty free industry:

Views expressed at the interviews we held with companies involved in the duty free industry tend to confirm BAA's claims that abolition of intra-EU duty free sales will not be replaced by duty paid sales. The general industry view, supported in some cases by market research, is that passengers regard duty free purchases as a luxury, particularly the more expensive brands.⁴

- ii) Purchasing same goods tax paid in the United Kingdom or
- iii) Buying duty paid goods overseas

NERA's analysis of passenger destinations from the United Kingdom to other EU countries suggests that over 90% of passengers travel to a country where duty rates are lower for spirits. For 90% of passengers it would therefore be worthwhile waiting until they reach their destination before buying these products. For the remaining 10%, United Kingdom high street prices are cheaper. This suggests, that, to the extent that the same products are still purchased, there will be a significant substitution from United Kingdom retailed products to products sold in other EU countries.

Other people interviewed by NERA, however, suggested that there may still be a market for specialist or prestige goods: the buying power of the former duty free outlet, plus the advertising benefits to the supplier from having a display at an airport or on a ferry, may be sufficient to ensure that margins can still be earned on these types

of products.⁵

iv) Higher sales on extra-EU routes

The expectation of higher sales on extra-EU routes is offset by a number of factors. For example, loss of intra-EU duty free sales may mean that costs go up for the duty free retailer, because suppliers are no longer willing to offer such a large discount. Prices will therefore be higher than currently at duty free outlets. Passengers may be confused as to when they are entitled to duty free purchases, and may therefore buy less. Retailers may be unwilling to offer dual pricing, so that all passengers will see an average price, set between the current duty free price and the higher duty paid price.⁶

v) Trading down to cheaper alternatives

So far it has been assumed that consumers will continue to purchase products of a similar quality when prices increase, adjusting volumes rather than substituting into alternatives. However, as prices increase, some consumers may seek cheaper brands in order to preserve pre-abolition volumes. There is no quantitative evidence on the extent to which consumers are likely to trade down, but a comparison of the market share of the different categories of alcoholic beverage in the United Kingdom, compared to their share in duty free purchases, reveals some notable differences, as revealed in Table 4.1.⁷

Table 4.1: Share of Products in Alcohol Expenditure (%): 1997

Category	Duty Free Purchases	Domestic Expenditure
Spirits	85	22
Wines	14	20
Cider & Perry	-	4
Beer	1	54

Source: NERA The Impact on UK Public Finances of The Abolition of Intra-EU Duty & Tax Free 1997

In domestic expenditure, beer is the main purchase; for duty free expenditure, spirits account for most of the purchases. This suggests that faced with significantly higher prices for spirits in the aftermath of the abolition of intra-EU duty free, consumers will either trade down vertically to cheaper brands, or substantially reduce their expenditure on the more expensive spirits by substituting horizontally into other products.⁸ Evidence presented on cross-price and own-price elasticities of demand in Chapters 6 & 7 reinforces this finding. Consumers are more sensitive to changes in the price of spirits than other alcoholic products, and as the Henley Study revealed, in every one of the EU member states examined there was price sensitive competition between spirits and one or both of beer and wines.

- vi) Switching to general consumption and/or
- vii) Saving money currently spent on duty free

Consumers may cease purchasing duty free products altogether in the aftermath of abolition and instead substitute into general consumption in the United Kingdom or save the money currently spent on duty free. Depending on the degree of substitution away from former duty free products, NERA concluded that general

consumption/saving could amount to between 5% and 40% of current expenditure on duty free alcohol.⁹

4.3 Impact Upon the Whisky Industry of Ending Duty Free

It was held in Section 4.2 that quantifying the effects upon the whisky industry of abolishing intra-EU duty free in 1999 will be problematic. Hitherto, there has been no comparable situation where the price of spirits has risen sharply and permanently *vis-à-vis* wine and beer; the econometric estimates of cross-price and own-price elasticities of demand presented in Chapters 6 & 7 involve a partial equilibrium analysis and relate to the experience of relatively small price changes, which were not known to be long-lasting. Large and permanent shifts in prices, occasioning a general adjustment in all prices & factors, have been comparatively rare and have occurred some considerable time in the past when the market for alcoholic drinks was less competitive than it is now.

Increases in prices in the aftermath of abolition will be regarded as 'permanent' and consumer behaviour may adjust accordingly - it is conceivable that demand for spirits will fall to a greater degree than that implied by the elasticity estimates presented in Chapters 6 & 7. But whatever the precise outcome, it is undoubtedly the case that the impact of abolition on Scotch whisky producers will be greater than that on manufacturers of other alcoholic beverages. Scotch whisky represents 27.8% of EU duty free liquor sales - a much higher proportion than any other product. The second highest spirits category is Cognac with 8.8% of the total.¹⁰

The loss in volume will be greatest for standard blends but the proportionate impact will be larger for single malts. Pineda estimated that the loss of single malt sales could be as much as 77%

of pre-abolition levels. This represents some 13% of total world sales, a figure in excess of current malt sales to Asia and South America combined, and approaching the total of sales to North America.¹¹

One reason for the dominance of Scotch whisky- which is at variance with the share of spirits in total alcohol consumption - is the distinct price advantage enjoyed by duty free outlets over high street stores, which gives these outlets a particular image which features prominently in their marketing strategies. This price advantage in duty free outlets is much greater for spirits than for other alcoholic drinks because tax is a much higher element of high street prices for spirits.¹²

There are likely to be longer-term adverse impacts upon international sales of Scotch whisky which cannot be quantified. Scotch whisky producers believe the environment of international travel has encouraged consumer experimentation in purchasing new products, enabling the industry to access new consumers in a manner which is not possible in high street stores.¹³ For example, as discussed in Chapter 2, the success of single malts owes much to the pioneering efforts of William Grant & Sons, whose Glenfiddich single malt was first introduced to the duty free market in the 1960s. Competitive pricing in duty free outlets encourages consumers to purchase more expensive *de luxe* blended whiskies and single malts, which they may not have considered purchasing in high street stores.

Abolition will force Scotch whisky to compete with other products for

intra-EU custom in the same unfavourable tax environment that it faces in the high street. When sales fall, duty free retailers may not provide the same shelf-space which Scotch presently enjoys. The need for separate distribution channels for intra and extra-EU travellers at EU outlets will further compound the difficulties faced by Scotch whisky.¹⁴

Finally, there is likely to be a further loss to the whisky industry from the abolition of intra-EU duty free in 1999. Whilst duty free spirits are generally vended in 1 litre bottles, under EC Directive 75/106 the European Commission decreed that from January 1st 1992, the standard bottle size throughout EU domestic markets must be 70 cl, 30% smaller. So to the extent that subsequent to the abolition of intra-EU duty free consumers purchase a lesser quantity of spirits tax paid, there will be an additional reduction in volumes of whisky traded.

The Scotch Whisky Association Industry Databank provides data on the volume of Scotch sold through or shipped to EU duty free outlets over 1991-95. In 1995 duty free shipments of Scotch from the United Kingdom to EU member states were 7.245 million LPA. Duty free sales in the United Kingdom were 3.667m LPA, giving a total of all EU duty free shipments/sales of 10.912m LPA (SWA Industry Database). The distribution of sales by these categories is shown in Table 4.2.¹⁵

Table 4.2: EU Duty Free Sales/Shipments of Scotch Whisky 1995
(million LPA)

Category	EU (except UK)	UK	Total EU	% Share
Malt	0.825	0.430	1.255	11.5
Deluxe	1.164	0.607	1.771	16.2
Standard	5.152	2.576	7.728	70.8
Secondary	0.103	0.053	0.156	1.4
Total	7.245	3.667	10.912	

Source: SWA Industry Databank, in Piedad Plc The Abolition of Intra-EU Duty Free Shopping 1997

But three further calculations are needed in order to estimate the volume of Scotch whisky sales threatened by the abolition of intra-EU duty free in 1999. Data provided by the leading Scotch whisky companies supplying duty free outlets indicate that diplomatic & military channels and ships' stores, which will be unaffected by the ending of intra-EU duty free, accounted for 17.9% of all EU sales/shipments in 1995, the remaining 82.1% being sales through airports, airlines and ferries. Applying this factor yields total EU duty free sales/shipments of 8.959 million LPA in 1995.

The ETRF estimates that for wines and spirits, intra-EU duty free sales account for 75% of total EU duty free sales. Piedad calculated that applying this percentage, yields intra-EU duty free sales in 1995 of 6.719 million LPA that are at risk from abolition. Scotch Whisky Association Databank figures reveal that total worldwide sales/shipments of whisky in that year were 292.87 million LPA, so intra-EU duty free sales of Scotch whisky represented approximately 2.3% of total Scotch sales/shipments in 1995.

Finally, an allowance has to be made for the likely increase in sales by 1999. Rising real incomes and the falling cost of travel are expected to continue to be at work over the period 1995-99. Piedad estimated that total intra-EU duty free sales of Scotch whisky could increase by 17.9% in the years to 1999, resulting in total sales/shipments of 7.922 million LPA on the eve of abolition.¹⁶

A study by The Netherlands Economic Institute in 1989 estimated that, on abolition, the demand for Scotch whisky through former duty free outlets might fall by 30-53%. The NERA study suggested that intra-EU sales of Scotch whisky might fall by 27-48% assuming no trading down to cheaper alternatives, and by 68-80% assuming 100% trading down. The internal estimates for the latter study result from NERA's computing 'low', 'medium' and 'high' case substitution scenarios. The various Scotch whisky companies interviewed for the Piedad study furnished a 'best guest' estimate that, on average, half of their intra-EU duty free sales might be lost post-abolition.¹⁷

On the basis of this evidence, Piedad concluded:

Overall, the calculations suggest that there could be a total fall in sales in 1999 from £218m pre-abolition to £82m post-abolition, a fall of £136m or 62% (all measured in 1995 prices) as compared with pre-abolition levels.¹⁸

Given the degree of uncertainty involved, estimates as to the consequences for the whisky industry of abolition will have to include a degree of sensitivity analysis. At a minimum, all the quoted studies assume that intra-EU duty free sales of Scotch whisky will fall by 30% in the aftermath of abolition. But it is conceivable

that sales could fall by 50% or even 80% from present levels.

According to SWA Databank figures, total sales/shipments of Scotch whisky in 1995 amounted to 292.87 million LPA, a growth of 9.2% in the four years since 1991. Assuming a comparable growth rate to 1999, total sales/shipments of Scotch whisky in that year should be approximately 319.81 million LPA.

This figure does not include Ships' Stores and duty free sales in the United Kingdom. Pineda estimated these to sum to 5.620 million LPA in 1995, but believe this figure could increase by 17.9% to 6.626 million LPA in the years to 1999.¹⁹ So total sales/shipments of Scotch whisky on the eve of abolition of intra-EU duty free could be of the order of 326.44 million LPA.

After contracting steadily for a number of years, the number of people directly employed by the whisky industry has stabilised at around the 14,000 level; at end 1995, employment stood at 13,698. On the assumption that the numbers directly employed by the whisky industry will remain at approximately this level in the years to 1999, this suggests that on the basis of total whisky production of 326.44 million LPA in that year, the volume of output *per capita* will be approximately 23,831 LPA. *Ceteris paribus*, this suggests that the 7.922 million LPA of whisky destined for the intra-EU duty free market on the eve of abolition will be sustaining 332 jobs in the whisky industry.

The academic studies considered in Section 4.2 concluded that between 30% and 80% of intra-EU duty free sales of Scotch whisky will

be lost in the aftermath of abolition. On the basis of the calculations above, therefore, job losses in the whisky industry associated with ending intra-EU duty free could be as detailed in Table 4.3:

Table 4.3: Job Losses in the Whisky Industry Associated With Ending Intra-EU Duty Free in 1999

Fall in sales from current levels	Job losses
30%	100
50%	166
80%	266

The existence of considerable spare capacity in malt & grain distilleries means that a substantial increase in output could perhaps be realised without hiring many more staff; the reverse side of this coin suggests that losing a proportion of the intra-EU duty free market in 1999 may not result in quite as many jobs losses as predicted. In other words, it does not necessarily follow that a 10% increase in output will demand a 10% increase in labour, or, in the case of losing intra-EU duty free, a 30% reduction in sales from pre-abolition levels results in a 30% fall in industry employment.

But in the analysis of the employment effects of abolition above, the assumption is of fixed technical relationships among factors and between factors and products, and that constant returns to scale prevail. But coefficients may change over time, either because of changes in relative prices or because of technical progress. This is discussed further in Chapter 3, but for the present purposes the failure to allow for variations in factor combinations can be partially defended for short term predictions on the grounds that, with a given technology and production method in the short run,

factor combinations will be relatively fixed.

Moreover, even if these estimates of employment losses in the industry are exaggerated, any reduction in whisky output will impact upon suppliers. The potential affects of the abolition of intra-EU duty free in 1999 upon the regional Scottish economy are considered in the next Section.

4.4 Impact Upon Wider Scottish Economy of Ending Duty Free

The previous Section reported upon estimates presented in the extant literature, suggesting that between 100 and 266 jobs could be lost within the whisky industry as a result of the abolition of the intra-EU duty free market in 1999. The purpose of this Section is to determine the impact upon the wider Scottish economy of linkage adjustments in the aftermath of a fall in output in the whisky industry.

Multiplier estimates discussed in Chapter 3 vary between the 1989 and 1994 Scottish Input-Output Tables. Given the degree of uncertainty involved, the total estimated employment impact upon the Scottish economy of the loss of intra-EU duty free sales of Scotch whisky in 1999 is summarized in Tables 4.4 & 4.5, on the basis of the 1989 and 1994 multiplier values.

Table 4.4: Estimated Employment Impact Upon Scottish Economy of Loss of Intra-EU Duty Free Scotch Whisky in 1999: 1989 Multipliers (Type I: 3.66, Type II: 4.63)

Job Losses	Fall in Sales From Current Levels		
	30%	50%	80%
Direct	100	166	266
Indirect	266	442	708
Induced	97	161	258
TOTAL	463	769	1232

Table 4.5 Estimated Employment Impact Upon Scottish Economy of Loss of Intra-EU Duty Free Scotch Whisky in 1999: 1994 Mutlipliers (Type I: 2.47, Type II: 3.10)

Job Losses	Fall in Sales From Current Levels		
	30%	50%	80%
Direct	100	166	266
Indirect	147	244	391
Induced	63	105	168
TOTAL	310	515	825

In sum, total estimated job losses range from 310 to 1232, depending upon the degree to which sales of Scotch whisky fall in the aftermath of abolition, and the employment multiplier estimate used. Differences in the short and long run elasticities of demand for whisky will also determine the number of jobs that are eventually lost.

In their report on the abolition of intra-EU duty free shopping, Piedad assumed that lost Scotch whisky sales would amount to 62% of pre-abolition levels, resulting in approximately 1000 job losses.²⁰ Similarly, on the basis of the calculations above, a 62% loss in sales would result in a contraction in employment of 954, according to the 1989 employment multipliers (used by Piedad), or 639 on the basis of the 1994 estimates.

4.5 Justifications for Retaining Duty Free

The lady doth protest too much, methinks

William Shakespeare *Hamlet* III.ii

In Sections 4.3 & 4.4 above, it was contended that the current level of intra-EU duty free sales of Scotch whisky could contract by between 30% and 80% in the aftermath of abolition in 1999. The calculated effects upon employment throughout the whisky industry and wider Scottish economy are job losses of between 310 and 1232. Predictably, therefore, the whisky industry has railed against abolition, believing it to portend an *annus horribilis* for the industry in 1999.

In May 1996, the Scotch Whisky Association met with officials of Her Majesty's Customs & Excise, to argue the industry's concerns at the portentous consequences of abolition, and to ascertain the willingness of the government to seek a review of the EU Council's decision. HM Customs & Excise retorted that convincing data would be required if Ministers were to be persuaded to raise the issue in the Council.

In October 1996, following reports that the Irish Presidency intended to raise the issue, the Association reminded the Chancellor, Kenneth Clarke, of the industry's concerns and objectives. In response, Mr Clarke undertook to give "very careful consideration" to any proposals for a review, but doubted whether this would lead the Council to change its mind. Informal

consultations were undertaken at the November ECOFIN, but with opposition from the United Kingdom and others, there was no consensus in favour of asking the Commission for a review. Nevertheless, the Irish Presidency later confirmed that it would continue to press for a study to be carried out on the implications of abolition.²¹

During the summer of 1997, the SWA had meetings with the new government at ministerial and official level to discuss the negative effects on the whisky industry of ending intra-EU duty free. But on the 28th August, a spokesman for the Treasury stated that HM Government ^{would} ~~will~~ not be lobbying the European Commission on behalf of the whisky industry:

The measure [abolition of intra-EU duty-free] had been decided upon and signed up to by member states in 1992. At the time, the EC had hoped that they could bring it in in 1992, but because of concerns raised by the industry over its implementation it was put back to allow the industry time to restructure itself.²²

At a conference in Brussels on September 24th 1997, industry representatives made a last ditch attempt to save the intra-EU duty free concession post 1999, claiming that abolition would threaten 140,000 jobs, with peripheral regions suffering most,²³ but the Commission remained unconvinced and ruled against any reprieve.

The EU Taxation & Single Market Commissioner, Mario Monti, appealed to duty-free shop operators to start concrete preparations for converting their shops to tax-paid retail outlets. Said he: "The industry has been given seven and a half years to prepare...it is high

time you used this time constructively, instead of trying to turn the clock back. Duty free sales distort competition."²⁴

The latter comment is somewhat rich given the Commission's highly inequitable proposals for the harmonisation of alcohol excises across the European Union, discussed in greater detail in Chapter 6. Pineda concluded in its report on the abolition of intra-EU duty free:

In a market context within which competing products were treated equally, there would clearly be no case for the continuation of intra-EU duty free shopping. In the EU, however, the basic condition is not met for alcoholic drinks, as existing excise duty regimes discriminate heavily against spirits. Spirits (and Scotch) compete on a level playing field only through EU duty free outlets. The paradoxical conclusion is that the abolition of intra-EU duty free sales for alcoholic drinks will move the EU further from the ideal of the single market as far as these products are concerned.²⁵

This point was also made in a recent article in *The Scotsman* by Hugh Morison, the Director General of the SWA, who has argued that the Commission legislated in 1992 to ban duty free after taking the view that duty rates across the EU member states would have been largely harmonized by 1999:

Today's single market still consists of 15 member states with 15 different tax regimes. The reality is that duty free is the only true single market where tax does not distort price. Its abolition will only worsen discrimination against spirits.

The business editorial on the next page concluded on similar lines:

"Ironically, at the moment duty free is the only real single market in which whisky, spirits and wine compete equally on price without discriminatory taxes."²⁶

But this notion that intra-EU duty free shopping represents a 'single market' does not stand closer scrutiny. Table 4.6 is taken from the 1997 Pidea report on the abolition of intra-EU duty free shopping, and shows very clearly the substantial variations in duty free savings for travellers between different airports within the European Union. Whilst a Dane purchasing a standard blended Scotch whisky may save over 77% on Copenhagen prices when he buys at Rome airport, the same whisky would cost an Italian almost 40% more in Stockholm's 'duty free' outlet than it would at a domestic retailer.

Table 4.6: Percentage of Duty Free Saving For Travellers: Standard Blended Whisky At Major Airport Outlets 1997

Percentage of DTF Saving for Travellers; Standard Scotch Blend; Major Airport Outlets													
Airport Outlet	London HR T2	Dublin	Frankfurt	Paris CDG T2	Amsterdam	Brussels	Rome	Madrid	Lisbon	Athens	Copenhagen	Stockholm	Helsinki
Citizenship													
Danish	70.24	71.44	73.99	72.45	72.93	68.96	77.15	74.76	72.15	73.35	69.73	66.33	67.90
Swedish	66.50	67.84	70.72	68.98	69.52	65.06	74.28	71.59	68.65	70.00	65.93	62.10	63.86
Finnish	65.27	66.67	69.65	67.85	68.40	63.78	73.34	70.55	67.50	68.90	64.68	60.71	62.54
British	49.91	51.92	56.22	53.63	54.43	47.76	61.55	57.52	53.13	55.15	49.06	43.33	45.97
Irish	45.92	48.09	52.73	49.93	50.80	43.60	58.48	54.13	49.40	51.57	45.00	38.81	41.66
Dutch	35.09	37.70	43.27	39.91	40.95	32.31	50.17	44.95	39.27	41.88	33.99	26.57	29.99
Belgian	29.22	32.07	38.14	34.47	35.61	26.19	45.67	39.97	33.78	36.62	28.02	19.92	23.66
French	25.70	28.69	35.06	31.21	32.40	22.51	42.96	36.99	30.48	33.47	24.44	15.94	19.85
German	21.58	24.74	31.46	27.40	28.66	18.22	39.80	33.50	26.63	29.78	20.25	11.28	15.42
Greek	-2.75	1.38	10.19	4.87	6.52	-7.16	21.21	12.86	3.86	7.99	-4.50	-16.25	-10.84
Portuguese	-12.58	-8.05	1.61	-4.23	-2.41	-17.40	13.58	4.53	-5.33	-0.80	-14.49	-27.36	-21.43
Spanish	-18.16	-13.41	-3.27	-9.40	-7.50	-23.23	9.29	-0.21	-10.56	-5.81	-20.17	-33.69	-27.46
Italian	-23.24	-18.28	-7.71	-14.10	-12.11	-28.52	5.4	-4.52	15.31	-10.35	-25.33	-39.43	-32.93

Source: Pidea Plc, The Abolition of Intra-EU Duty Free Shopping

The reality is that the absence of tax allows for almost as great a variation in prices between different 'duty free' outlets as pertains as a result of diverging rates of alcohol duties across Europe. Indeed, the evidence strongly suggests that the higher the alcohol excise as a percentage of retail prices, the greater the

proportion of the tax free saving garnered by the duty free outlet.

Overall, the NERA study found that duty free products were as much as 20% more expensive than the equivalent high street prices less duty and VAT. This comparison gives some indication of the margin that duty free outlets make on their products, in addition to the normal retailers margin.²⁷

But this is to understate the true mark-up, as duty free outlets have advantages over other retailers in terms of purchasing power, a product of high sales volumes and attractiveness of venue in respect of advertising. In addition, duty free outlets have access to a large captive market; numerous idle passengers aboard ship or in airport lounges, in a relaxed holiday mood and with cash to spend. Pineda stated:

In practice, the duty free outlets have such strong market positions that they can (and do) force the factory gate price down to, and in some cases below, the 'normal' level.²⁸

As an example, a certain 21 year old malt whisky currently retailing for approximately £44.00 costs the average retail merchant in the United Kingdom about £36.50. Of this figure, duty and VAT amount to £12.50. The in-bond price of this product should therefore be about £24.00. But in fact, this particular whisky is purchased by the major duty free outlets for a mere £10.00. The whisky would probably sell in an airport for £40.00. This price represents a £4.00 "saving" to the consumer, but implies a huge profit margin for the airport

operator of 75%, compared to 17% for the high street liquor store.

As another example, a litre of Bell's blended Scotch whisky currently retails for approximately £15.00. Of this figure, £7.60 is accounted for by excise duty, assuming 40% abv (in reality, export strengths are usually 43% abv). VAT amounts to £2.63, so the total tax is of the order of £10.23. Duty and VAT free, a litre of Bell's should therefore be priced at about £4.77.

At this price, the standard retailers' margin would still accrue to the duty free merchant, and as stated earlier, due to purchasing power may be able to acquire the product for significantly less than the average off licence. But for the sake of argument, it will be assumed that the duty free outlet purchases whisky in bond for the same price as a national chain of supermarkets.

A survey of any major duty free outlet will reveal that prices are seldom if ever as low as £4.77. Occasionally an outlet may offer a litre of blended Scotch such as Bell's for about £8.50, but in general, consumers can expect to pay anything up to £11.00. In this example, at any price over £9.89, the duty free outlet is garnering over half of the 'duty free' tax saving for itself.

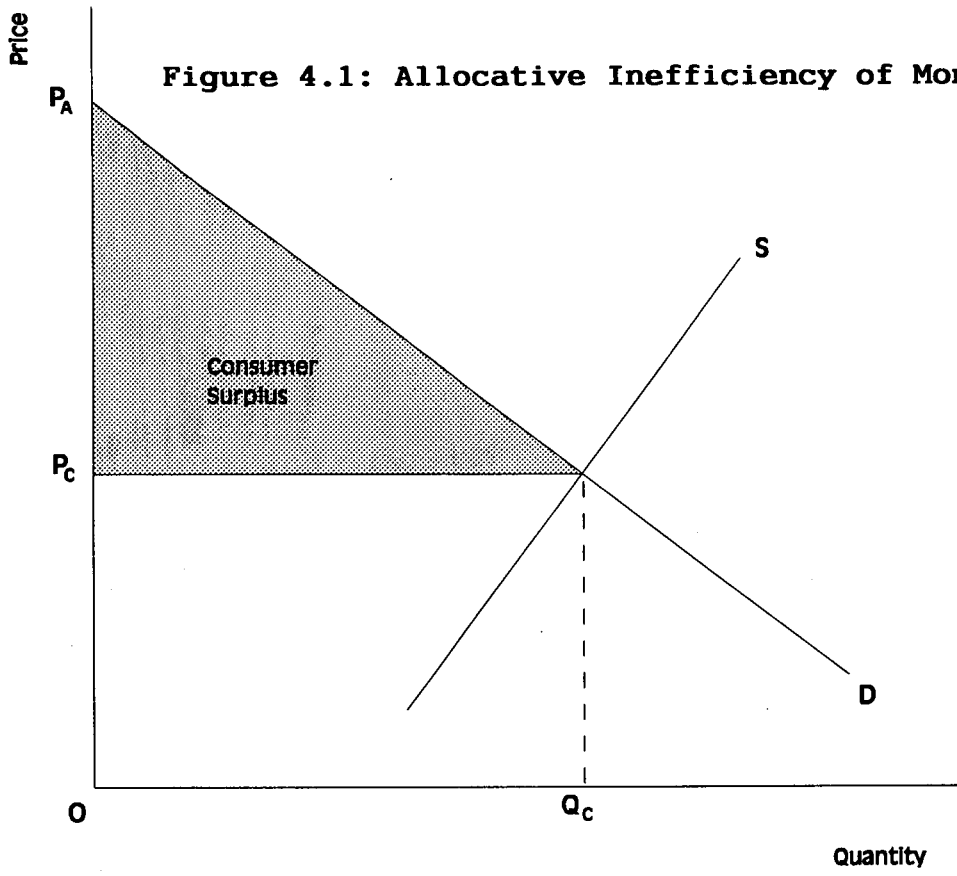
As a further indictment of the duty free retailers, in a tract published by the Adam Smith Institute entitled "Too Much To Swallow: The Case for Lower Excise Duties on Alcohol" (1995), Keith Boyfield revealed that in July 1995, a 70cl bottle of Teacher's whisky could be purchased in Tuscany for £5.32. This is equivalent to £7.60 a

litre.²⁹ Indeed, throughout Southern Europe, low rates of excise duty mean branded spirits generally cost less than in a supposedly 'duty free' store, a fact attested to in Table 4.6.

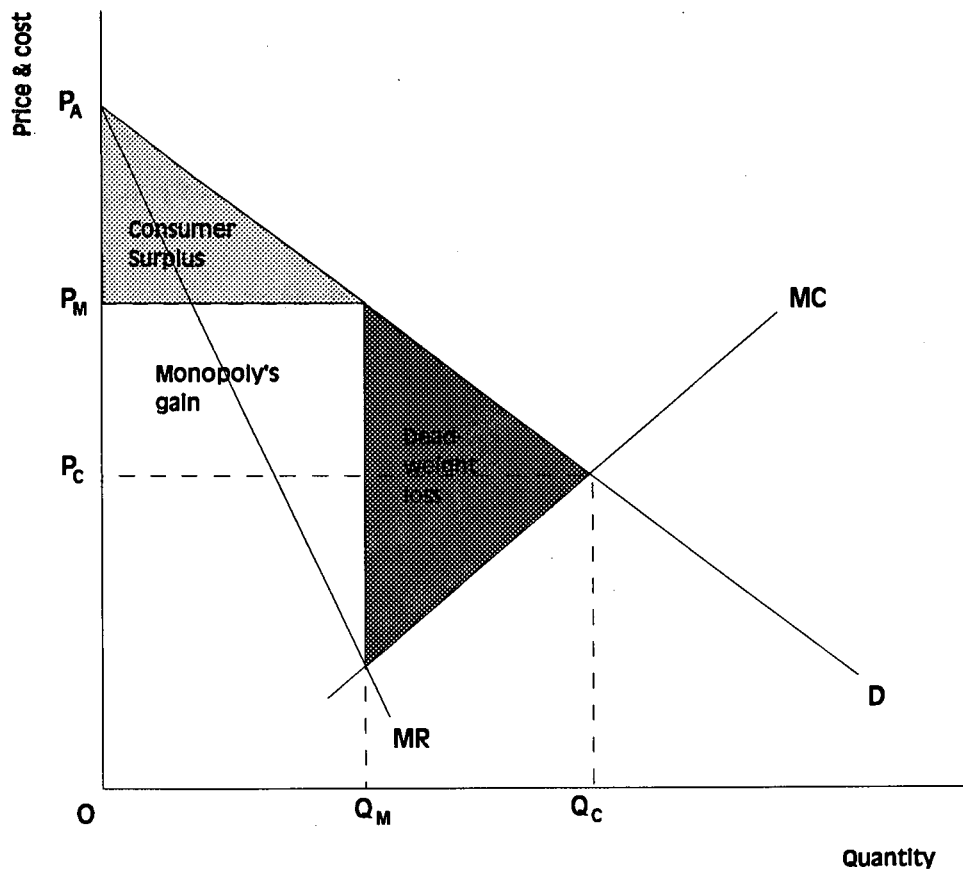
Standard neo-classical economic theory, with its emphasis upon competitive markets and complete information, would argue that the existence of such substantial returns suggests the possibility for profitable arbitrage activity. But observation of the duty free industry in reality suggests that it is a good example of market failure; the market is far from competitive and there is an information deficiency in so far as consumers are not at all informed as to the net of tax price of the product they are purchasing.

Consider a flight from Edinburgh to Lisbon. The traveller has the choice of purchasing duty free products from the single BAA outlet at Edinburgh airport, onboard the aircraft, or at the single duty free store at Lisbon airport. The impracticality of carrying a wide range of liquor products aboard an aircraft renders the in-flight market less attractive to consumers than those at the airports. So within each airport, the traveller is faced with a monopoly provider of duty free products. The allocative inefficiency of such a monopoly is illustrated in Figure 4.1.

Figure 4.1: Allocative Inefficiency of Monopoly



(a) Perfect competition



(b) Monopoly

In perfect competition (Part a), the quantity of duty free products traded is Q_c , Price P_c , and consumers' surplus is represented by the shaded triangle. Duty free outlets' excess profits are zero in the long-run equilibrium. Under a single price monopoly (Part b), output of duty free products is restricted to the profit maximizing level (where $MC = MR$) at Q_m , and the price increases to P_m . Consumers' surplus is reduced to the small shaded triangle. The duty free monopolist garners the rectangle underneath. But the grey triangle represents the deadweight loss of restricting output of duty free products to less than the efficient level. The area above P_c is the loss of consumers' surplus, and that below P_c is the loss of producers' surplus.

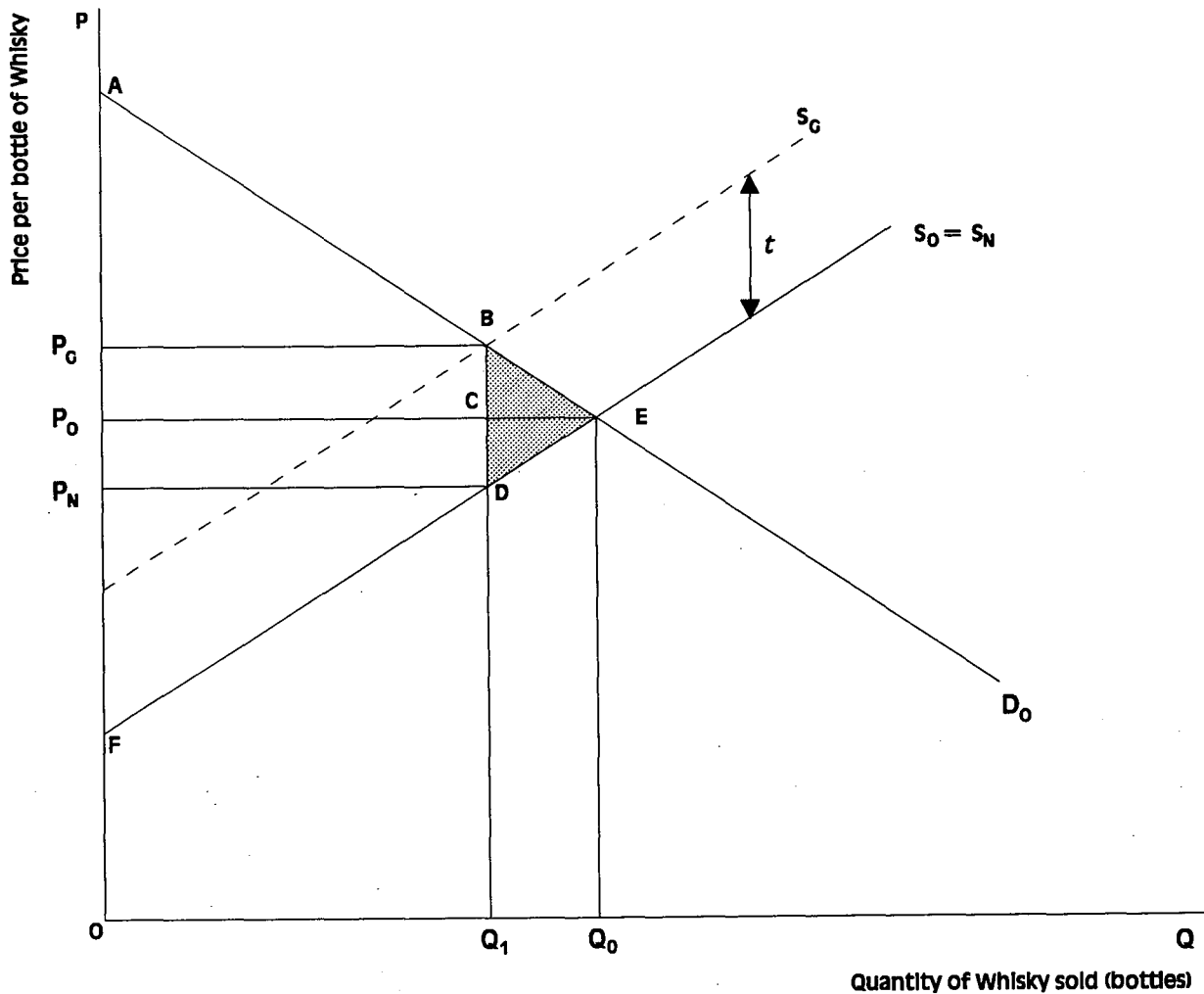
Clearly it would be impractical to have a number of competing duty free outlets onboard a ship, much less in an aircraft cabin. But were the public authorities to oblige both sea and air port authorities to allow other licensed operators upon their premises, and the information asymmetry between retailers and consumers were attenuated or even eliminated, then it would be possible to move closer to the competitive outcome illustrated in Figure 4.1.

In reality, the existence of powerful brand imaging in the market for alcoholic products suggests that such innovations would result in the duty free market approximating more closely to an oligopolistic or monopolistic competition outcome, rather than the idealized scenario of perfect competition illustrated in Figure 4.1. Nevertheless, from the perspective of the consumer, such moves could well lead to an improvement in welfare.

Similar stratagems have been adopted in the United Kingdom in respect of the various 'beer orders', which forced the owners of tied houses to allow innkeepers to stock at least one 'guest beer' on their premises. But it is perhaps not surprising that such market access policies have not been adopted at Europe's ports & airports. Most remain under state ownership, and even in the United Kingdom, it was never likely that Conservative administrations would have wished to contemplate a move which would have diluted the profits of the Airports Authority prior to privatization.

It has also been contended in traditional theories of welfare economics that the imposition of commodity taxes, such as will be imposed upon alcoholic beverages sold in duty free outlets after 1999, represents a welfare loss to both consumers' and producers', as well as an excess burden resulting from consumers substituting into non-taxed products with a lower ranking on their preference scale. This subject is discussed in much greater depth in Chapter 5.4, but for the present purposes, excess burden in a partial equilibrium setting is illustrated in Figure 4.2.

Figure 4.2: Alcohol Taxation: Standard Excess Burden



Source: Brown & Jackson, *Public Economics*

Prior to the introduction of the tax, equilibrium occurs at point E. A specific excise tax of t is levied upon alcoholic beverages, raising the supply curve to S_G . Consumers' surplus falls by P_0P_GBE , producers' surplus by P_NP_0ED , and the excess burden is represented by the shaded area BDE . On the basis of this analysis, overall welfare would be sustained by not levying the tax; that is to say, by retaining the intra-EU duty free concession *in perpetuum*.

But this conclusion is premised on a number of highly restrictive assumptions. In the first place, the analysis is of a partial

equilibrium; once all other factors and prices in the market have adjusted, the resulting welfare loss may not be so great. It is assumed that all markets are perfectly competitive, and that a Pareto-optimum prevailed prior to the introduction of the tax. But it has been demonstrated above that the intra-EU duty free market is far from competitive. Hence the imposition of an excise which extracted some of the abnormal profits made by producers could be justified on equity grounds.

Much of the rhetoric flowing from those concerned with maintaining duty free fails to take account of the fact that from the perspective of welfare economics, the income effect of extending excise taxes to duty free products simply represents the transfer of resources from producers and consumers to the government, and does not affect overall welfare. In Figure 4.2, therefore, whilst the gross loss from the excise tax is $P_n P_g B E D$, if what is provided by the tax revenue is of equal value to the revenue that pays for it, then the deadweight loss is reduced to $B D E$. In Chapter 5.4 this analysis is extended to suggest that if consumers are continuously compensated for the income effects of price changes, the excess burden becomes even smaller.

Finally, the existence of negative externalities associated with alcohol consumption suggests that the taxation of alcohol could well be Pareto improving. This subject is considered in much greater depth in Chapter 5.5, but at this juncture it could be argued that vending a substantial quantity of alcohol tax free, at a price that does not fully take into account the social costs associated with its consumption, diminishes overall social welfare.

Proponents of retaining the duty free concession after 1999 have argued that whilst the special taxation of alcohol may well be justified on the grounds of negative externalities, in certain places, namely within the market for intra-EU travel (or their lucrative businesses), alcohol should be vended tax free because the EU has failed to develop a harmonized regime for excise duties.

Any final conclusion on this issue would therefore have to attempt to determine the extent to which the deadweight loss of imposing taxes on hitherto duty free products did or did not outweigh the social costs of the extra alcohol consumption not reflected in the duty free price. But on the basis of the evidence presented in this Chapter, it is contended that continuing to sell alcohol duty free, at a price that fails to reflect fully the social costs of its consumption, does not offset the welfare loss from a disrupted alcohol market in Europe, but reduces overall welfare even further.

Airlines and ferry companies have also argued that high mark-ups on duty-free sales enable them to increase profits and hence lower the cost of fares. The major air and shipping lines have contended that the loss of duty-free revenues could force up air-ticket prices in Europe by 5-20%, and ferry prices by even more, since on-board sales, including duty-free, account for roughly half of ferry operators' income.³¹

The cross-Channel ferry sector in particular continues to see its profits actually and potentially threatened from a variety of sources, of which the proposed abolition of intra-EU duty free in 1999 is only one. Ever increasing competition from the Channel

tunnel and the rigid new safety rules for ro-ro vessels agreed under the auspices of the various SOLAS (Safety Of Life At Sea) Conventions have had a further impact upon costs. In addition, if the relaxation of personal imports of duty-paid goods across the European Union does occasion a gradual harmonisation of alcohol duties, the propensity to embark on 'booze cruises' from the United Kingdom and the Scandanavian countries will gradually diminish.

Such jaunts are popular with travellers as well as being highly profitable for the ferry operators, but arguably they represent an inefficient use of resources, and provide lucrative opportunities for criminal activity (discussed further in Chapter 7). A long-term trend of rising real incomes and greater leisure time amongst Europeans will ensure that throughput at air and sea ports continues to increase, with or without the presence of duty free. The strong pound and warm weather in the summer of 1997 ensured that ferries sailing from ports in the south of England were loaded to the gunwales with families making for the continent, for whom duty free was a bonus, but not the *raison d'être* of travelling. On-board retailing and catering services will still be highly profitable even after the abolition of intra-EU duty free in 1999.

This point was also made recently in respect of air travel, by James Currie, the EU Commission's Director-General for Customs & Indirect Taxation:

Travel overall is going up by 7% *per annum*. The increase in air travel in the EU had been enormous - not because of duty-free shopping - but because of liberlisation which has been driving down fares.³

4.6 Conclusions

Section 4.2 of this Chapter ruminated upon the intra-EU duty free market, revealing that in 1995 the market was worth approximately £185m to the whisky industry. Utilizing estimates presented in recent reports by National Economic Research Associates and Piedad Plc, it was concluded that consumers may react to abolition in a variety of ways, but even in a best case scenario for the whisky industry, producers may well lose 30% of the current level of intra-EU duty free sales.

The possible impact of this loss upon the whisky industry and wider Scottish economy was explored in Sections 4.3 & 4.4, with preliminary estimates suggesting that job losses associated with the contraction in whisky sales could be between 310 and 1232 in total. Section 4.5 considered the arguments advanced in favour of retention of the concession after 1999.

However, the data presented revealed that a substantial element of the tax free saving is currently extracted by the duty free retailer, and not passed on to the consumer. In fact, many so-called 'duty free' products, particularly spirits such as whisky and gin, are cheaper duty paid in some Mediterranean countries than in 'duty free' outlets. The arguments frequently advanced that duty free sales represent the 'only true single market' for alcoholic drinks in Europe were also shown to be specious, given the evidence of widely varying prices across different outlets.

The irresistible conclusion to be drawn is that calls by those

involved in the intra-EU duty free trade for its retention after 1999 constitute pleas for favourable treatment, with little rational economic justification. Duty free originated in an era of high barriers to trade in the form of customs duties, tariffs, taxes, and restrictions on the personal import of goods between nations. With the arrival of the Single European Market, such a concession is arguably outmoded within the European Union. To the extent that fares are artificially subsidised by duty free sales this distorts the effective operating of the market for travel, and confounds attempts at rationalisation & reconstruction within the transport industry, especially in cross-Channel ferry services.

As a recent article in the *Economist* newspaper commented colourfully:

Duty-free sales in Europe represent a subsidy of some 2 billion ecus a year to the cigarette puffing traveller or the itinerant toper on a Baltic booze cruise. Claims about job losses ignore bigger potential gains from scrapping this subsidy. Why should tax-payers subsidise the fares of travellers, who tend to be better off? Like all subsidies, duty-free sales distort competition, both in travel (not available on trains) and in retailing. Against all these blemishes, failure to harmonize EU taxes in no way justifies keeping duty-free.³³

Nevertheless, the deleterious effects upon the whisky industry and wider Scottish economy of losing all or part of the current level of sales in intra-EU duty free outlets cannot be ignored. In Chapter 7, it is argued that were the government in the United Kingdom to reduce the excise applied to spirits, such that all alcoholic beverages are taxed on the same basis according to alcoholic content, this would

rectify an inequity and enable the government to lobby with much more credibility for fairer tax treatment overseas.

By increasing sales of whisky, this would also have the effect of creating jobs both within the industry and across the Scottish economy. In fact, the estimated number of jobs created by the proposed reduction in spirits duties offsets those threatened by the complete loss of intra-EU duty free sales of Scotch whisky in 1999. To the extent that there is partial replacement of intra-EU duty free sales after 1999, there may well be a net creation of jobs.

Endnotes to Chapter 4

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5. Ibid, P.38,P.31
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7. Ibid, P.43
8. Ibid, P.43
9. Ibid, P.40,P.42
10. Op Cit, "The Abolition of Intra-EU Duty Free Shopping," P.1
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CHAPTER 5: PUBLIC POLICY ISSUES II: ALCOHOL TAXATION

5.1 Introduction

Wretches, hired by those to whom excise is paid.

Dr Samuel Johnson on His Majesty's Excisemen

Section 5.2 of this Chapter examines the history of alcohol taxation, and the bearing of past prejudices upon the current regime of alcohol excises in the United Kingdom, which is analysed in more detail in Section 5.3. In Sections 5.4 and 5.5, the rationale for the special taxation of alcohol is considered in terms of various propositions, amongst the most frequently advanced of which are concerns for efficiency and equity in taxation, the favourable treatment of various manufactures and regions, the utility of excise taxes as revenue earners for governments, and health and welfare considerations. Section 5.5 concludes.

5.2 The History of Excise Taxes

Thae curst horse-leeches o'th' Excise,
Wha mak the whisky stills their prize!
Haud up thy han' Deil! ance, twice, thrice!
There, seize the blinkers!
An' bake them up in brunstane pies
For poor damn'd drinkers!

Exciseman Robert Burns, *Scotch Drink*

The taxation of alcoholic drinks in the British Isles has a long history. Norman Kings claimed a proportion of all wine imports as payment for ensuring the traders' safe passage,¹ and Edward I imposed a monetary tax on wine imported to England as early as 1303. Beer and spirits, on the other hand, were first taxed in 1643 when the English Parliament levied excise taxes to pay for its army in the English Civil War.² A year later the tax was extended to Scotland, "To supply and relieve the necessities of the armies sent forth for Reformation and Defence of Religion,"³ but in the same year the Scots Parliament also imposed an excise tax on spirits, at the rate of 2s 8d per Scots pint (about one third of a gallon), probably to meet the military expenses of the Royalist army.

On the Union of Parliaments in 1707, the revenue from the excise on spirits was incorporated with income from other duties under the Edinburgh-based Board of Excise, to be used to defray the costs of the civil administration in Scotland. But the Treaty between England and Scotland stated that there should be no malt tax in Scotland, so when



Plate 6 **His Majesty's Excise Officer performing his duties.** Source unknown.

The Distilling Act of 1823 required all Scotland's distilleries to be licensed and to make provision for a resident Excise Officer. The rapid development of the industry in the 19th century was to ensure the Crown of a lucrative stream of income from this source.

in 1713 the malt tax was extended from England to Scotland (at half the rate, possibly because of the poorer quality of Scottish barley), it met with ferocious opposition. Sir Robert Walpole raised the tax in 1725 to 3d per bushel of malt, in lieu of a proposed excise duty of 6d per barrel on ale.⁴ The resulting riots culminated in the infamous Porteous Affair, in which Captain Porteous, a member of the Edinburgh City Guard, was murdered.

Genever had been introduced from Holland in 1690, and production, together with consumption, boomed throughout the 18th century,⁵ to a level nearly four times the current average in the United Kingdom.⁶ In an attempt to mitigate the health problems and social disorder that resulted, successive tax increases were introduced.⁷ Indeed, a marked stimulus to the output of Scotch whisky was the imposition of the Gin Act in 1736, which taxed heavily gin produced in England or imported genever from Holland.⁸

The political and social animus towards spirits was formidable throughout the Victorian era, as exemplified by Cobden's Commercial Treaty with France in 1860. This cut the import duty on wine substantially, causing a mini-boom in wine drinking during the period 1860-1890, and was motivated not just by an ideological commitment to free trade, but also a desire to induce people to imbibe wine, a 'civilised' and 'respectable' drink, instead of spirits. Gladstone described spirits as "not only an evil in themselves, but fruitful parents of crime."⁹

The spirits tax was raised by 30% in 1909, and during the First World War, the supposedly deleterious effects of excessive alcohol

consumption upon the war effort - in the form of widespread drunkenness and alcoholism, especially amongst female munitions workers drinking gin - occasioned substantial increases in taxation and tougher licensing regulations. David Lloyd George, The Prime Minister in-waiting and a leading temperance advocate, commented during a speech at Bangor in February 1915:

We are fighting Germany, Austria, and Drink and, as far as I can see, the greatest of these deadly foes is the drink... drink is doing more damage in the war than all the German submarines put together - we have great powers to deal with drink and we mean to use them.

The emergency wartime restrictions appeared to have a dramatic impact upon alcohol consumption and the level of alcohol abuse, persuading the authorities to retain most of them in peacetime, albeit in an attenuated form.¹⁰ In 1918 the excise duty on spirits was doubled. It was then raised by another 66% in 1919 and by a further 40% in 1920, equivalent to raising the 1918 excise duty by a factor of five, and all within two years.¹¹ There was, however, no corresponding increase in the duty on wine, which had not increased since 1889, decisively setting apart the taxation of spirits *vis-à-vis* other alcoholic beverages. In 1919, responding to questioning on this anomaly, the Chancellor of the Exchequer, Austen Chamberlain remarked: "I would like to get more money out of wine...(but), people do not buy wine."¹²

These budgets were to lay the foundation for the United Kingdom's present structure of alcoholic drinks taxation, with successive increases in excise duties every year. Value Added Tax was also

imposed on alcoholic beverages at the rate of 10% from 1 April 1973, 8% from 29 July 1974, 15% from 12 June 1979, and 17.5% from April 1st 1991.¹³ As VAT is levied upon the duty-paid price, it is in effect a tax upon a tax, which has the effect of widening the absolute differential between excises on different categories of alcoholic beverage.

5.3 The Present Duty Structure in the United Kingdom

But in this world, nothing can be said to be certain, except death and taxes

Benjamin Franklin letter to Jean Baptiste Le Roy 1789

As detailed in the foregoing Section, the current regime of indirect taxation in the United Kingdom levies two taxes on alcoholic beverages: excise duties and Value Added Tax. The latter is an *ad valorem* tax levied at 17.5% and applied uniformly to beer, wines and spirits in common with most other goods liable to VAT. Premium brands tend to suffer most from this form of tax since they cost more to buy than inferior alternatives, and for this reason, specific taxes are often preferred over *ad valorem* taxes since they give producers a greater incentive to manufacture goods of a higher quality; the higher is the pre-tax price, the lower is the specific tax as a percentage of the final duty-paid price.¹⁴

Excise duties in the United Kingdom are applied according to the alcoholic content of each beverage, but, reflecting the past prejudice against spirits, regard the alcoholic content of beer, wine, spirits and cider & perry differently. There is a separate structure for 'intermediate' drinks and an additional one for 'mixed' drinks.¹⁵

The taxation of beer was changed on June 1 1993 and there is now a charge per hectolitre (100 litres) of beer of £10.82 for every per cent alcohol by volume.¹⁶ The dutiable unit for spirits is the 'litre of alcohol' which currently attracts a duty of £18.99, which

translates into a specific tax of £5.32 for a 70cl bottle at 40% alcohol by volume.

Wine is defined into 4 groups for excise purposes: 'light', 'medium', 'heavy' and 'sparkling', with still table wine taxed at a uniform rate per hectolitre of finished product. For wine of an alcoholic strength of 11%, the implied level of duty per litre of pure alcohol is £12.54. For wine of strength 13%, the implied duty level is £10.80.¹⁷ Thus, somewhat perversely, the level of duty per unit of pure alcohol falls as the alcoholic content increases. In addition, sparkling wine pays more duty than fortified wine, even though the latter is stronger.

For cider and perry, the excise duty is charged at one rate up to a strength of 8.5% alcohol by volume; thereafter, the duty applied is on the same scale as that for wine.¹⁸ Table 5.1 details the current duty charged per centilitre of pure alcohol in the United Kingdom. Table 5.2 following translates this into the approximate duty applied to typical 'pub measures' of each of four kinds of alcoholic drink, each containing a comparable quantity of alcohol.

Table 5.1: Duty Charged Per Centilitre of Pure Alcohol For Four Different Kinds of Drink, 1997

Beverage	ABV	November 1995	November 1996
Fortified Wine	17.50%	10.70p	10.70p
Beer	4.93%	10.82p	10.82p
Table Wine	11.20%	12.54p	12.54p
Scotch Whisky	40.00%	19.78p	18.99p

Note: The duty paid price is subject to VAT of 17.5%

Source: The Scotch Whisky Association Statistical Report 1996

Table 5.2: Approximate Duty Applied to Four Typical Measures of Alcoholic Drink, Each Containing a Comparable Quantity of Alcohol, 1997

Beverage	ABV	November 1995	November 1996
80ml Fortified Wine	17.50%	14.98p	14.98p
284ml (1/2 pint) Beer	4.93%	15.15p	15.15p
125ml Table Wine	11.20%	17.56p	17.56p
35ml Scotch Whisky	40.00%	27.69p	26.59p

Note: The duty paid price is subject to VAT of 17.5%

Source: The Scotch Whisky Association Statistical Report 1996

It will be noted from Tables 5.1 & 5.2 that the implied tax rates per unit of pure alcohol are not uniform between drinks and there is a substantial tax bias against spirits, the duty rate per unit of alcohol levied on spirits being nearly twice that applied to beer. Indeed, when VAT is included, the total tax on a typical bottle of spirits amounts to almost two-thirds of the price; by contrast, the comparable proportion on an average bottle of wine is 39%, and on beer, 33%.

These inequities were worsened in the new government's first budget on July 2nd 1997, when Chancellor Gordon Brown announced an across-the-board increase in duties on alcohol of 3%, effective of January 1st 1998. This will add 1p to the price of a tot of whisky, or 19p on a

70cl bottle. By imposing a uniform percentage increase, Mr Brown widened the absolute differentials between the taxation applied to different categories of alcoholic beverage.

It is argued in the next two Sections that this discrimination is not justified by any principle, and is to a very great extent the result of the historical prejudice discussed in Section 5.2. The international ramifications of this domestic bias against an indigenous industry are discussed in Chapter 6.

5.4 The Rationale for Alcohol Taxation: Taxation & Welfare Considerations

As discussed in the previous Section, alcoholic beverages in the United Kingdom are subject, in common with certain other 'luxury' food products such as coffee and confectionery, to the full value added tax rate of 17.5%. But in addition, alcoholic products attract, and have done since at least the 14th century (as Section 5.2 detailed), specific excise taxes. Such special taxation was once an important source of revenue to governments, and even today as much as £5.5 billion is raised by alcohol duties.¹⁹

As far as the VAT element is concerned, there would appear to be a widespread consensus both within and outwith the United Kingdom and the wider European Union as to the utility of broadly-based sales taxes. An important component of the Commission's 1987 proposals "Completing The Internal Market," was the establishing of minimum rates for value added tax across the European Union. The Commission proposed that VAT should lie within two bands: 14-20% for the majority of goods and services, and 4-9% for a limited range of essentials such as most foods, domestic energy, books & newspapers, and public transport.²⁰

Such authorities as Nicholas Kaldor have argued that consumption is a better tax base than income - that people should be taxed according to what they take out of the common pool rather than what they contribute. The relative merits of direct and indirect taxes are considered further in Little (1951), Friedman (1952), Walker (1955), Harberger (1974) and Atkinson (1977), but it is very unlikely that

governments will wish to reduce sales taxes significantly, especially given their importance as revenue earners; in 1996, for instance, receipts from VAT amounted to over £43 billion in the United Kingdom.²²

The specific taxation of alcohol, however, requires justification, as it is likely comparable sums could be raised by extending excise duties to other goods & services, widening the VAT base, or via direct taxation. Various contentions have been advocated with which to judge a good tax, and to justify alcohol duties in particular, but in essence they can be categorized into considerations of:

- i) Efficiency
- ii) Sumptuary Goods
- iii) Equity
- iv) Convenience
- v) Revenue
- vi) Production Bases & Regional Specialities
- vii) Public Health & Externalities

The previous Section also revealed that the current excise regime in the United Kingdom taxes spirits, on a degree of alcohol basis, at almost twice the rate applied to wine and beer. Such discriminatory treatment of spirits will also be examined in the context of these arguments.

i) Efficiency

The efficiency criterion of a good tax is that it should occasion

minimal distortion to the Pareto optimum condition for production & exchange - the tax should interfere as little as possible with the principle of an allocation of resources such that none can be made better off without making somebody else worse off.

The excise tax has come to be singled out in standard economic literature as especially inefficient, as it induces consumers to purchase goods that have an inferior ranking on their preference scales. It has been argued by such authorities as Hicks (1939), Joseph (1939) and Allen & Brownlee (1947), that commodity taxes result in an excess burden that could be avoided if they were replaced by a Pareto improving general tax on consumption or income which did not interfere with consumer preferences.

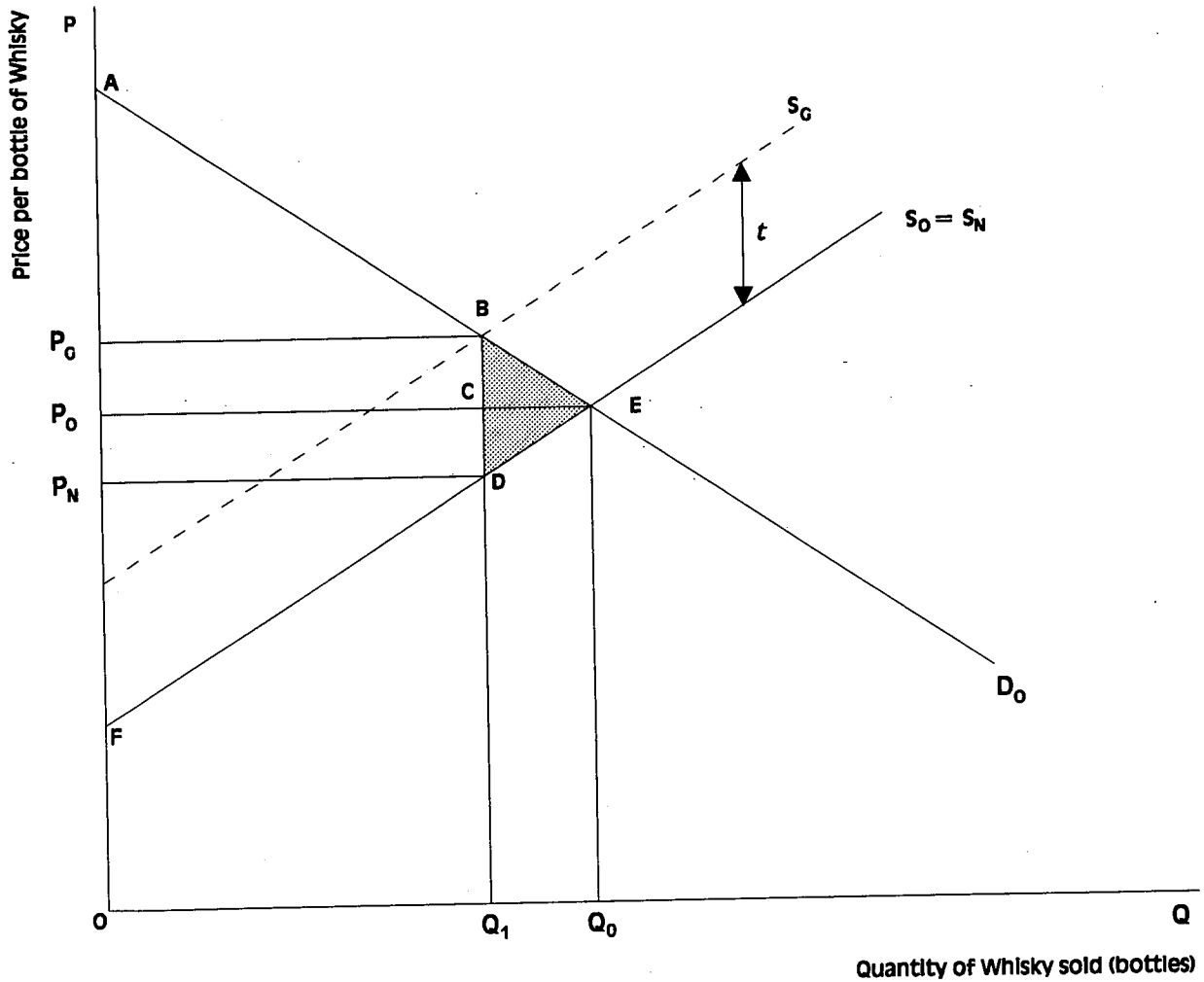
This is because a proportional income tax or a general sales tax levied at a uniform rate on all goods and services only has an income effect, which simply transfers resources from consumers to the government, but an excise, being selective, in addition induces households to substitute non-taxed (or lower taxed) goods for taxed (or higher taxed) goods.²²

Evidence presented in Chapter 6 suggests that alcoholic beverages are in most instances close substitutes for each other. This being the case, the higher duties levied upon spirits will likely induce consumers to substitute into wines and beers. According to Pareto's formulation, therefore, reconstituting alcohol duties such that each beverage is taxed at an identical rate according to alcoholic content would be Pareto improving, as the scope for tax-induced substitution between different categories of beverage would be

eliminated.

Excess burden in a partial equilibrium setting is illustrated in Figure 5.1.

Figure 5.1: Excise Duties on Whisky: Standard Excess Burden



Source: Brown & Jackson, *Public Economics*

Prior to the introduction of an excise duty on whisky, there is an original demand curve D_0 and an original supply curve S_0 , with equilibrium price and quantity of P_0 and Q_0 respectively. The supply curve is shown to be upward sloping, implying diminishing returns in the production of whisky. This is a somewhat unrealistic simplification, but is made for the purposes of illustration. A tax

of t per bottle is levied. Before the introduction of the tax, firms in the whisky industry were willing to supply Q_0 bottles at the price P_0 . But after the tax they will require a price of $P_0 + t$ in order to be willing to supply Q_0 bottles. The supply curve will thus shift vertically upwards by the amount of the tax S_g . The difference between the two supply curves is t , the amount received by the government for each bottle sold.

As consumers are faced with S_g , they will demand Q_1 bottles for which they will pay a tax-inclusive price of P_g . Producers will receive $P_n = P_g - t$. The effect of the tax is thus to raise the price paid by the consumer from P_0 to P_g , reduce the price received by the producer from P_0 to P_n , reduce the whisky industry output by $Q_0 - Q_1$, and bring in revenue of $P_n P_g B D$ to the government.

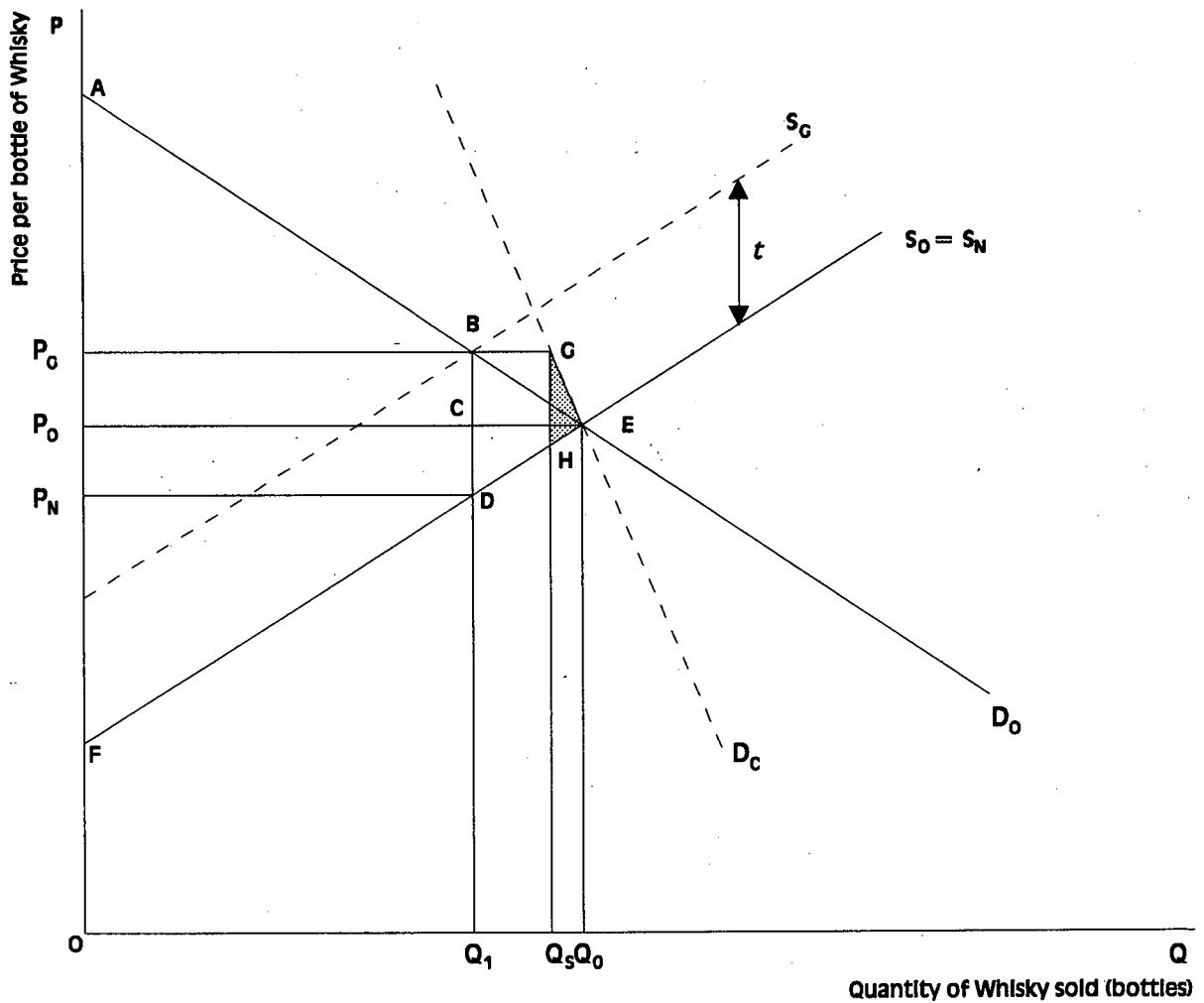
Prior to the introduction of the tax, consumers' surplus was $P_0 A E$ and producers' surplus was $F P_0 E$. After the introduction of the tax, consumers' surplus falls to $P_g A B$ and whisky producers' surplus to $F P_n D$. There is thus a gross loss from the tax of $P_n P_g B E D$. But if what is provided by the tax revenue is of equal value to the revenue that pays for it, then the deadweight loss or excess burden to society is reduced to the shaded area $B D E$. If the government services provided from the tax are worth more to the public there may not be quite such an excess burden.

Where there are significant income effects, the calculation of the excess burden is slightly more complicated. In any final determination of excess burden, concern should focus only on the substitution effect of the price change, because income effects will

cancel out if the government spends the money raised by the tax.

This is shown in Figure 5.2, which is Figure 5.1 with the addition of a compensated demand curve D_c .

Figure 5.2: Compensating Variation Excess Burden



Source: Brown & Jackson, *Public Economics*

D_c shows the amount of whisky that would be purchased by consumers who are continuously compensated for the income effects of price changes. If a tax raised the price paid by consumers from P_0 to P_G , and if the revenue raised were used to compensate consumers, the

consumers would remain on their compensated demand curves. In these circumstances, they would reduce their consumption of whisky from Q_0 to Q_s , and the excess burden would be the shaded area GEH, manifestly less than BED. Thus using ordinary demand curves overstates the excess burden, but if income effects are small, the differences in the two measures could be ignored.²³

It will also be readily apparent from Figures 5.1 & 5.2 that the incidence of the tax is shared between consumers and producers. In a partial equilibrium setting, incidence analysis simply involves the application of general price theory to taxation. Demand schedules for untaxed goods and related factor supply schedules are assumed to remain unchanged.

In a profit-maximising competitive world - and, except for extreme circumstances, in monopoly situations too - the direction and extent of an excise-induced price change, the incidence and excess burden thus depends upon the demand and supply elasticities of the taxed commodity. The general rule is that the more elastic the supply and the more inelastic the demand, the greater the amount of the excise borne by the consumer relative to the producer. This appears logical, since with elastic supply the producer can readily leave the industry, and with inelastic demand, the consumer is less able to turn to alternative goods. Generally, it is assumed that supply is the more elastic, particularly in the longer-run, and therefore, a forward shifting of the tax to consumers is considered the more plausible outcome.

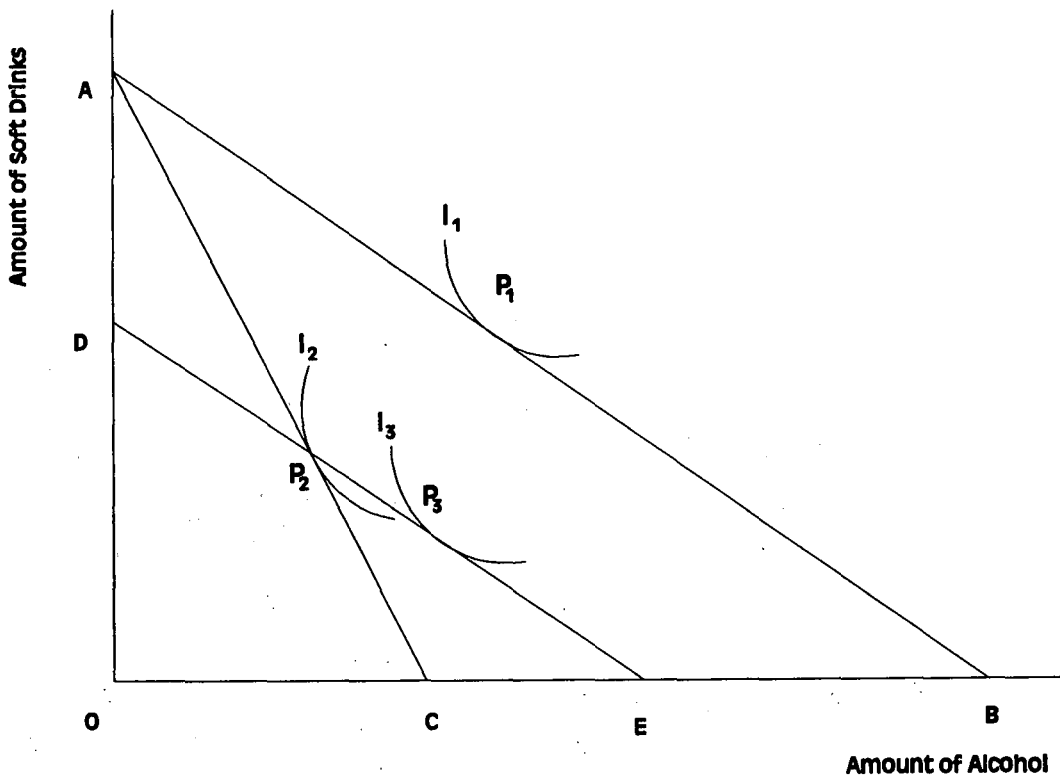
Modern incidence theory attempts to account for all changes in real

income. In a general equilibrium setting, the effects of a tax on households are examined both in their role as consumers of goods and services - the income-uses side of the budget - and that of suppliers of factors of services - the income-sources side.²⁴ Calculating the extent of the excess burden thus becomes more problematic.

The superiority of an income tax over specific excise taxes, such as those levied upon alcohol, is illustrated more formally below, in both a partial and general equilibrium setting. A partial approach to the problem confines itself to the effects of the taxes on the choice which a typical consumer makes between the two goods, as opposed to a more general analysis of a simple economic system. In both instances, it is assumed that perfect competition prevails, that there are no external effects and that a Pareto-efficient allocation of resources pertains before either tax is imposed. The supply of the factors of production is fixed, and these factors are fully employed both before and after either the income tax or the excise tax is imposed.

To abstract the analysis from distributional considerations, each individual will be assumed to be the same, that is to have the same income and tastes. Neither tax involves any administrative or compliance costs, the same amount of revenue has to be raised whichever tax is used, and the pattern of government spending is the same in both cases. The taxes will be applied to a simple two-good (alcohol & soft drinks) model. Finally, the choice of tax is between a specific excise tax, which is levied upon alcohol, but not upon soft drinks, and a proportional income tax which is levied on all incomes.²⁵

Figure 5.3: Indifference Curve Analysis of an Income Tax/Specific Excise Tax: Partial Equilibrium



Source: James & Nobes, *The Economics of Taxation*

Figure 5.3 represents the position of a typical individual with a choice of consuming different combinations of alcohol and soft drinks. Before either tax is imposed, and with a given money income, the individual faces a budget constraint of AB, which shows that he could consume a maximum of B of alcohol or A of soft drinks, or some combination of alcohol and soft drinks. The slope of AB reveals the relative prices of alcohol and soft drinks. The consumer's preferences are represented by a set of indifference curves, each of which is a locus of the combinations of alcohol and soft drinks between which the individual is indifferent. If the consumer wishes to maximise the benefits he derives from consumption, he will choose that combination of alcohol and soft drinks which enables him to reach his highest possible indifference curve, given his budget constraint. Without either tax the highest attainable indifference

curve is I_1 , and so the individual will consume at point P_1 .

A specific excise tax levied upon alcohol has the effect of shifting the consumer's budget constraint from AB to AC . It must swivel in this way because, if the individual consumed only soft drinks, he would be able to buy the same amount as before. The increase in the slope of the budget constraint signifies an increase in the relative price of alcohol. Given a budget constraint of AC , the highest attainable indifference curve is now I_2 . The difference between the levels of benefit derived at P_1 on indifference curve I_1 and at P_2 on indifference curve I_2 represents the amount the consumer is worse off as a result of the tax.

If an income tax is imposed instead, the effect is also to shift the budget constraint inwards. The income tax does not distort the consumer's choice between alcohol and soft drinks, and so their relative prices must remain the same. Therefore, the new budget constraint DE must be parallel to AB . The tax simply reduces his income so that he can afford less of both. As the income tax is required to raise the same revenue as the excise tax, DE will pass through P_2 , so that the individual is left with sufficient income to be able to buy the same combination of goods, irrespective of the tax to which he is subjected. However, with a budget constraint of DE he can attain the higher indifference curve of I_3 .

Clearly the consumer is better off on I_3 than I_2 . On the basis of the assumptions enunciated, therefore, an income tax inflicts less excess burden on the taxpayer than does a specific excise tax of equal yield, because it interferes less with consumer choice and the

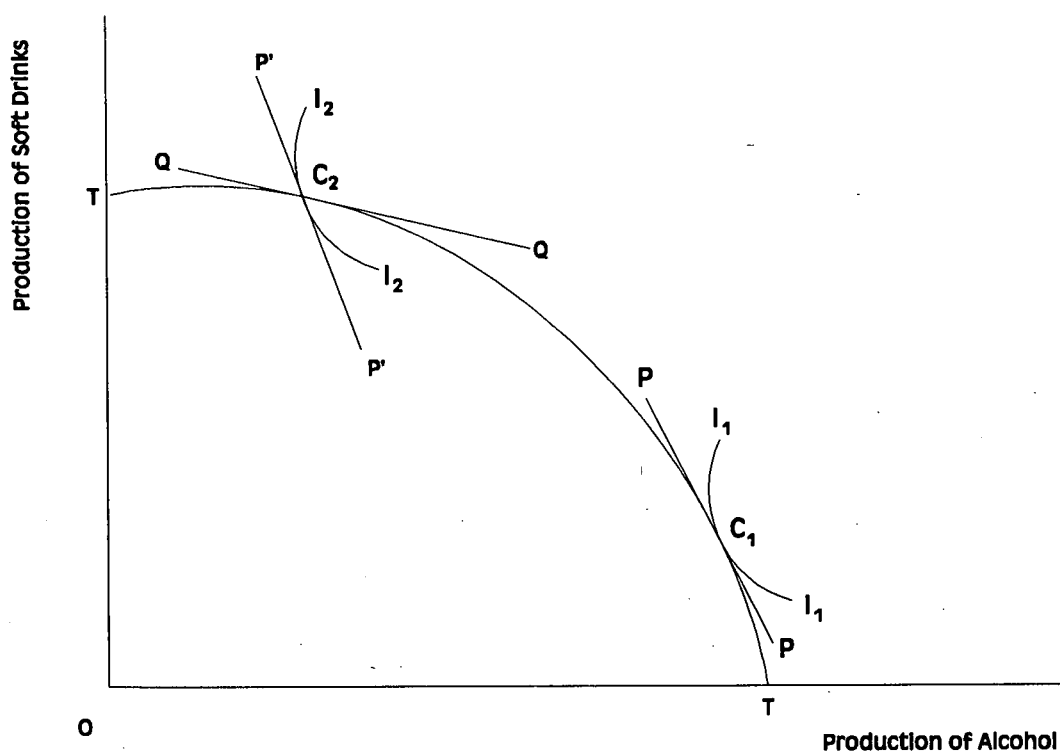
allocation of resources.

The foregoing argument depends upon the indirect tax being imposed upon alcohol but not on soft drinks. If the tax were levied on both goods, the analysis would be the same as that for an income tax. The crucial point is that the excess burden of a tax depends on the extent to which the tax distorts the price mechanism. This result suggests that a tax system with a broad base is likely to impose less excess burden than one with a narrow base. If the collection of the tax is spread over a large number of goods and activities, then generally it will interfere less with consumer choice than if taxes were concentrated on a smaller area of the economy.²⁶

In the case of alcohol duties, it can be seen that a system which taxes all beverages equally merely induces substitution between alcohol and untaxed goods such as food, but discriminatory taxation between categories of alcohol (as exists between spirits and wine for instance), will induce substitution of the type illustrated above.

The general equilibrium approach is not limited to the consumption side of the economy: it also includes the production of goods. The simple two-commodity model of alcohol and soft drinks is retained, and it continues to be assumed that each individual is the same and has the same income and expenditure patterns.

Figure 5.4: Indifference Curve Analysis of an Income Tax/Specific Excise Tax: General Equilibrium



Source: James & Nobes, *The Economics of Taxation*

TT in Figure 5.4 represents the production possibility frontier and shows the combinations of alcohol and soft drinks which can be produced. It is concave to the origin because the production of alcohol and soft drinks is subject to diminishing returns. The slope of TT at any point represents the social opportunity cost of producing each good in terms of the other. The highest indifference curve attainable by the individual is I_1 , which means that his most preferred combination of alcohol and soft drinks is the point C_1 . This is also the point which maximises profit for producers and is economically efficient.

At C_1 , the tangent to both TT and I_1 is the line PP, the slope of which represents the initial relative price of alcohol and soft drinks in terms of each other. This same price ratio initially faces

both producers and consumers. Finally, as an additional simplifying assumption, is it supposed that the tax revenue raised is shared out equally among the taxpayers.

If a specific excise tax is imposed upon alcohol, its price will rise, and the relative price ratio will become steeper as shown, for example, by $P'P'$. As a result consumers buy less alcohol but more soft drinks. But because the tax revenue is redistributed among consumers, the representative individual is not forced inside the production frontier. However, given the new relative price ratio, the highest attainable indifference curve is now I_2I_2 . Producers still face the real opportunity cost of producing soft drinks in terms of alcohol. This is shown by the price ratio represented by the slope of QQ . It is only the prices between producers and consumers that have been distorted.

However, a wedge has been driven between the price paid by the consumer for alcohol and that received by the producer. Again, consumers have substituted away from consuming alcohol as though the higher price were the result of a higher social opportunity cost of production, whereas it is only a result of the tax. As the tax revenue is redistributed to taxpayers, the difference in benefit between I_1I_1 and I_2I_2 is the excess burden of the specific excise tax.

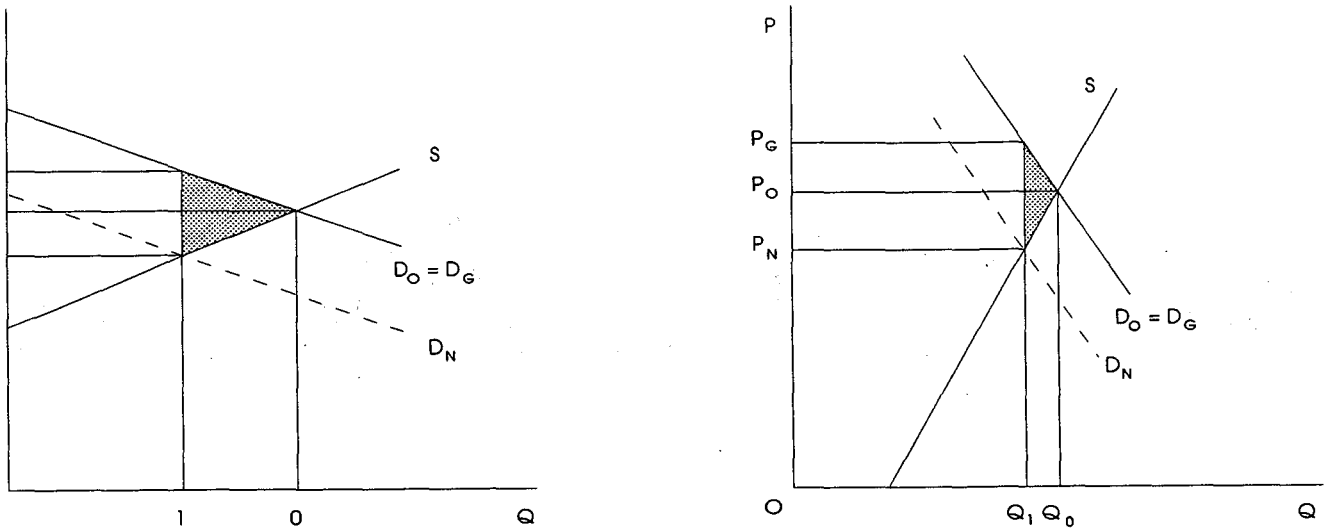
Contrast this result with that of an income tax. Under the previous assumptions such a tax would not affect the relative prices facing consumers. Also, because the tax is returned to taxpayers, the representative individual could continue to attain I_1I_1 .

It follows, therefore, that in these circumstances the income tax imposes no excess burden. So from both the partial and general equilibrium approaches it is possible to conclude that a specific excise tax has a greater excess burden than an income tax.²⁷

But modifications of the excess burden theorem are required if the assumption of a fully competitive equilibrium is relaxed. The traditional doctrine must also be modified if market failures are interpreted to include situations in which the production or consumption of certain goods gives rise to external economies or diseconomies not accounted for in market prices. In these cases, private benefits or costs differ from social benefits or costs, and it may be argued that an excise (or subsidy) aimed at closing the gap may move the economy closer to optimum conditions.²⁸ This argument has particular relevance in the context of the externalities associated with alcohol consumption, a subject explored further in Section 5.5.

For the present purposes it will be assumed that in general, commodity taxes are a second best alternative to a more general sales or income tax. But as Figure 5.5 indicates, when elasticities are high, tax receipts tend to be lower and excess burden higher than when elasticities are low. Both graphs have the same original price and quantity and the same tax. The difference in the shaded areas shows the difference in excess burden associated with the different elasticities. This suggests that unit taxes should tend to be concentrated on goods with low demand and/or supply elasticities.²⁹

Figure 5.5: A Comparison of Excess Burden with Differing Elasticities



Source: Brown & Jackson, *Public Economics*

This theory was first propogated by Frank P Ramsey (1927) following its proposal to him by A C Pigou. Ramsey concluded: "If some commodities only are to be taxed, then that should be taxed which has the least elasticity of demand, but if the supply of labour is absolutely inelastic, all the commodities should be taxed equally." In general, excess burden is minimised if consumption falls proportionately to demand elasticities when the supply of labour is fixed, and if consumption falls equiproportionately when the supply of labour is variable.³⁰

The Ramsey, or Inverse Elasticity Rule, is discussed in detail in Baumol & Bradford (1970).³¹ It has often been used to justify high rates of duty on alcohol, for which demand has traditionally deemed to be inelastic. But evidence presented in Chapter 7.5 on own-price elasticities suggests that the commonly-held view as to the

inelasticity of demand for alcoholic beverages is misplaced.

In addition, most studies of price elasticity in the alcoholic drinks market have concurred that beer is significantly more price inelastic than either wine or spirits. Hence the inverse elasticity rule suggests that beer should be taxed at a higher rate than either wine or spirits (the reverse of the present situation in the United Kingdom). But to minimise the loss of efficiency on the supply side, commodities need be taxed at the same rate in so far as they are competitive in consumption. So, although according to the Ramsey formulation, taxes on commodities (such as beer) with a relatively low elasticity of demand do less damage than taxes at the same rate on commodities with a high elasticity (wine & spirits), excess burden occurs still because of the substitution induced by variations between rates of duty on these different commodities.

ii) Sumptuary Considerations

The notion that alcohol is a 'luxury' product has encouraged the application of special duties on sumptuary grounds. With this in mind, Corlett & Hague (1953) extended the Ramsey Rule and suggested that when there are two commodities, efficient taxation requires taxing the commodity that is complementary to leisure at a relatively high rate. If it were possible to tax leisure, an optimum result would be obtainable - revenues could be raised with no excess burden. Although the tax authorities cannot tax leisure, they can tax goods that tend to be consumed jointly with leisure, indirectly lowering the demand for leisure. If alcohol is taxed at a very high rate, people consume less alcohol and spend less time at leisure. Taxing

complements to leisure at high rates thus provides an indirect way to tax leisure, and, hence, move closer to the perfectly efficient outcome that would be possible if leisure were taxable.³²

It is readily apparent that there is a fundamental contradiction inherent in the arguments advanced for the special taxation of alcohol. If the thrust of policy is to tax alcohol heavily so as to reduce its consumption, in so far as behaviour is influenced, excess burden is correspondingly larger; if excess burden is small, so is the reduction in consumption, and the sumptuary purpose of the tax is not fulfilled.³³

The Corlett-Hague rule has been extended to include a sumptuary tax on any commodity considered a 'luxury', for which demand is deemed to be inelastic. In his *Excise Systems* (1977), Cnossen refers to the results of a fairly detailed study in the United States in 1965, which found that retail price changes on luxury goods generally equaled the excise increase, presumably because related price elasticities of demand were low and supply elasticities large in the relevant range of output of the taxed products. Hence excess burden was minimised and the incidence of the tax largely borne by consumers.³⁴

But Cnossen refers to a study undertaken more than 30 years ago, when leisure was at a much higher premium, and the market for goods & services associated with leisure was undoubtedly less competitive. It was noted above that the widespread belief as to the inelasticity of demand for alcoholic beverages is misplaced. Indeed, recent empirical evidence, also from the United States, suggests that even for luxuries such as yachts, demand is fairly elastic. As part of the

budget agreement reached with the Democrat-controlled Congress in 1990, President Bush imposed a sumptuary tax upon yachts. The deleterious effects upon the Maine boatbuilders were a significant factor in his losing this normally conservative state in the 1992 election.

Another problem with the Ramsey Rule is that price elasticities of demand vary over time and place and their computation is subject to a wide margin of error. The supply of labour may not be significantly variable in the context of changes in the rates of duty on particular commodities such as alcohol and tobacco; and if it were significantly variable, it might either expand in response to an increase in duty in order to maintain consumption or contract because untaxed leisure had become more competitive with the commodities subject to duty.³⁵

The Ramsey Rule implies that indirect taxes should be levied on other goods for which demand is price inelastic. As this is often a feature of products such as food which form a high proportion of the income of low income households, a uniform application of the Ramsey Rule might result in a highly regressive system of taxation, which would cause a proportionately greater reduction in the welfare of poorer households. This interpretation has been demonstrated more formally by Deaton (1981), under the assumption of weak separability of preferences. Such a policy would not be likely to command support on equity grounds.³⁶

In sum, therefore, any discriminatory tax on a particular good or service faces the dilemma that taxes on luxuries (with elastic

demand) increase excess burden and thus the loss of economic welfare, whereas taxes on necessities (with inelastic demand) fall disproportionately on the poor and are thus regressive.

The inequitable nature of this outcome is a reflection of the single-household assumption: the objective function of the maximisation does not care about equity and the solution reflects only efficiency criteria. Extending the single-household economy of the Ramsey Rule to incorporate additional non-identical households introduces equity considerations into the determination of the optimal tax rates. The principal paper in this area is Diamond & Mirrlees (1971) in which was presented the first integrated analysis of this issue. Other important references are Diamond (1975) and Mirrlees (1975). The value of the Ramsey Rule is therefore primarily in providing a framework and method of analysis that can easily be generalised to more relevant settings.³⁷

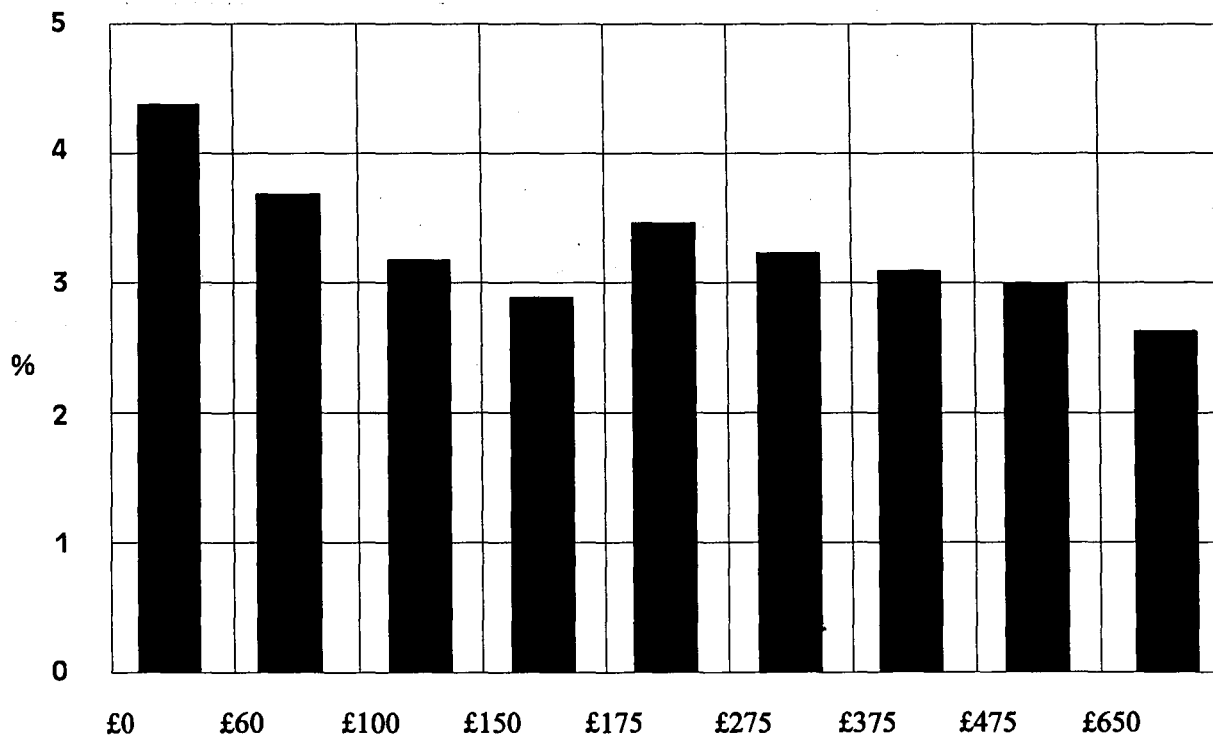
iii) Equity

It is widely held that taxes should bear some relationship to ability to pay. Taxes should be comparable for people in the same economic position (horizontal equity), but different for people in different economic circumstances (vertical equity). Horizontal equity may be associated with the concept of equal treatment before the law. Vertical equity, on the other hand, is related to the income redistribution function of the tax system that lessens differences in primary distribution caused by the market mechanism; it is associated with progressive taxation.

The excise base is a poor indicator of taxpaying ability. Given the same income, excises discriminate on the basis of the consumption or use of particular goods or services, and thus the burden of excises depends upon consumption patterns. Hence, excises flout the principle of horizontal equity.³⁸ This can be seen in the case of the present structure of alcohol duties in the United Kingdom; differential rates of taxation between beverages implies that consumers with identical income patterns but alternative drinking preferences are not treated equally.

Moreover, empirical evidence suggests that alcohol duties in the United Kingdom are at variance with the principle of vertical equity as well. Consumption accounts for a higher proportion of the income of low income households,³⁹ as illustrated in Figure 5.6.

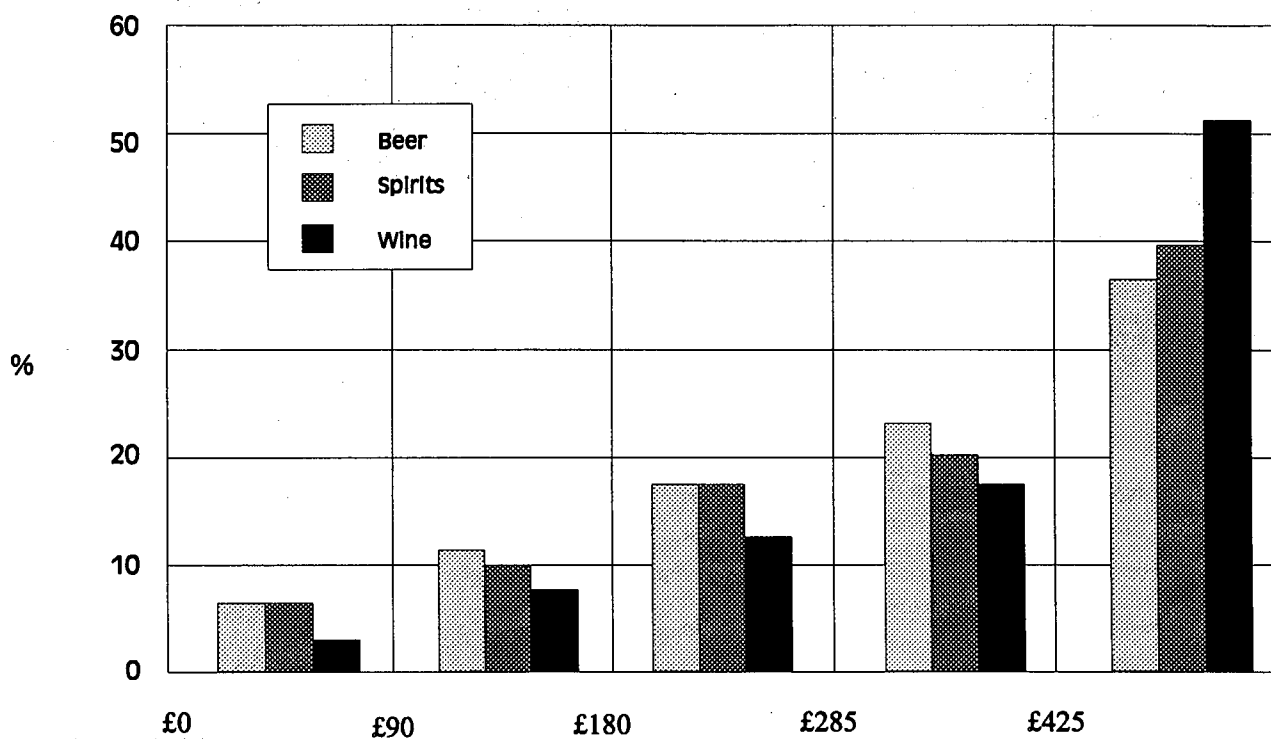
Figure 5.6: Expenditure on Alcohol as % of Household Weekly Income 1993



Source: Pidea Plc, Overtaxing Our British Spirit

The most recent evidence extracted from the Family Expenditure Survey and depicted in Figure 5.7, shows that beer and spirits have much the same consumption profile when analysed against income category, whilst wine consumption is concentrated in higher income groups.

Figure 5.7: % Alcoholic Drinks Expenditure Devoted to Each Category: According to Household Weekly Income, 1993



Source: Pidea Plc, Overtaxing our British Spirit

In the light of this evidence, vertical equity arguments for high duties on alcohol in general are dubious, and even if they were to be the basis for alcohol taxation, would suggest taxing spirits and beer on the same basis and discriminating against wine. Equity is more appropriately secured by progressive income taxes than specific commodity taxes, a point made by John Kay & Michael Keen in Sijbren Cnossen's (1987) *Tax Co-ordination in the European Community*:

It is clear that excise taxation is an extremely blunt instrument with which to pursue distributional objectives; while it is only in special cases that commodity taxes have been shown to be superfluous (Atkinson & Stiglitz, 1976) one would certainly expect income tax transfer schemes to be a more powerful device than alcohol taxation, particularly in view of the heterogeneity of consumers' preferences towards these goods. Distributional considerations may be relevant in some less developed countries with creaky institutions and unsophisticated income taxes; they should be given little weight in the EC.⁴⁰

Professor Sijbren Cnossen, whose *Excise Systems* is still the most authoritative work on the theory and practice of excise duties in most of the countries of the world, concludes on similar lines:

There appears to be less potential for progressive excise taxation in high-income countries...on the whole, they [excises] do not appear to be very progressive in high-income countries.⁴¹

iv) Convenience

Convenience was proposed by Adam Smith as one of the criteria by which to judge taxation: "All nations have endeavoured, to the best of their judgement, to render their taxes...as convenient to the contributor, both in time and in the mode of payment.. as is possible." In this respect at least, the system of bonded warehouses facilitates economical collection of alcohol duties. But if convenience were the basis for alcohol excises, then the tax could be levied on any number of commodities. Even if convenience were accepted as an appropriate basis for alcohol taxation, such a tax should be comparable across all alcoholic drinks. There is no reason

to believe that collection costs are higher for spirits than for wine and beer.

v) Revenue

In the foregoing discussion of an efficient tax system, it was concluded that excise taxes were an inferior alternative to a general sales tax or income tax. The existence of negative externalities associated with alcohol consumption, discussed further in the Section 5.5, qualifies this general principle in welfare terms, but does not do so in respect of a purely revenue-raising rationale for alcohol duties.

As was argued in Section 5.2, the specific taxation of alcohol and other commodities in the United Kingdom was originally a convenient method for governments to raise revenues, at a time when the vast majority of the population did not pay income tax. Writing in 1776, Adam Smith observed that "taxes upon consumable commodities owe their origin to the impossibility of taxing the people, according to their revenue, by any capitation."⁴²

The growth of the temperance movement in the 19th century, epitomized by Liberal politicians such as Gladstone and Lloyd George, ensured that whilst commodity taxation in general fell out of favour, alcohol was to continue to be a candidate for special taxation. The existence at the close of the 20th century of a highly developed tax & benefit system, which is able to equate direct taxes much more equitably to ability to pay than indirect taxation, has rendered the revenue-raising rationale for alcohol taxes much less relevant.

vi) Production Bases & Regional Specialities

In the overall context of alcohol taxation, discriminatory taxation against spirits was justified in a Working Document by some Members of the European Parliament by reference to the nature of the production process:

The production of alcohol by natural fermentation, a slower and more costly process, cannot be compared with the production of alcohol by distillation, an industrial process. It is therefore impossible, as much for technical reasons as for economic and social reasons, to encompass all alcoholic beverages in a single tax bracket, however tempting this solution might appear.

This argument implies that beverages which are costly to produce deserve favourable tax treatment in order to compete in the market place with other beverages. Such reasoning could also be made to apply to a vast range of commodities, favouring luxury goods as compared to low cost products. Such a system would be regressive in nature and would run counter to the principle that the cost of production should be reflected in retail prices in order to ensure the economic use of available resources.

In the same Working Document the view is also expressed that exceptional treatment may be justified where the beverage is considered to be:

Difficult to produce and subject to stringent production standards and rigorous inspection...leaving aside the regional and social aspects of the production of natural sweet wines, the disappearance of regional specialities, which owe more to agriculture than to industry, would not be in the interests of the consumers, because their choice, far from being widened, would be reduced.⁴³

A year previously, a similar resolution had also been passed by the European Parliament:

The harmonisation of taxes on wine, beer and alcohol (including spiritous beverages)...should take into account the economic and social aspects of the manufacture of these products, particularly as regards their importance for the less favoured regions of the Community.

Devoid of their spurious reasoning, these resolutions are nothing less than a plea for exceptional treatment of certain regions. Regional specialities reflect consumer preferences, and will continue to exist so long as these preferences persist, without the need for the social engineering implicit in these arguments.⁴⁴ Marginal regions should be supported overtly by regional policy, and not surreptitiously by consumer taxation.

Even if these arguments concerning production bases and regional specialities were valid they would not constitute a reason for discrimination against all distilled products. Scotch whisky is subject to a long period of maturation, which in terms of duration and cost is not inherently different from the ageing of wine. As the appellation 'Scotch' signifies, it is also the archetypal regional speciality and a product which is of critical economic and social

significance to agricultural communities which are amongst the most rural and marginal in Europe.⁴⁵ Over 90% of Scotch whisky production takes place in areas that have been recognized by the European Union as eligible for Regional Fund Assistance.

The special taxation of alcohol cannot, therefore, be justified in efficiency, Sumptuary, equity, convenience, regional or indeed any economic terms. This leaves just one argument - that of negative externalities associated with alcohol consumption - which may commend high alcohol excises. It is to health and social welfare considerations that attention now turns.

5.5 The Rationale for Alcohol Taxation: Externalities

Beyng moderately taken, it cutteth fleume, it lighteneth the mynd, it quickeneth the spirits, it cureth the hydropsie, it healeth the straguary, it pounceth the stone, it repelleth gravel, it puffeth away ventositie, it kepyth and preserveth the hed from whyrling, the eyes from dazelyng, the tongue from lispyng, the mouth from snafflyng, the teeth from chattering, the throte from rattlyng, the weasan from stiefflyng, the stomach from womblyng, the harte from swelling, the bellile from wirtching, the guts from rumblyng, the hands from shivering, the sinoews from shrinkyng, the veynes from crumplyng, the bones from akyng, the marrow from soaking, and truly it is a sovereign liquor if it be ordlie taken.

Raphael Holinshead (1577) compiler of *The Chronicles of England, Scotland & Ireland* on the virtues & qualities of *usque baugh*. Emphasis added.

If a body could just find oot the exac' proper proportion and quantity that ought to be drunk every day, and keep to that, I verily trow that he might leeve for ever, without dying at a', and that doctors and kirkyards would go oot o' fashion.

James Hogg

Moderation, Sir, aye moderation is my rule. Nine or ten is reasonable refreshment, but aifter that it's apt to degenerate intae drinkin!

A serious-minded Scot defining the subtle divide between sufficiency and excess in Derek Cooper *The Whisky Roads of Scotland*

L'abus d'alcohol est dangereux pour la santé: consommez avec modération.

The abuse of alcohol is dangerous to health: consume with moderation.

'Moderation statement' required for all alcoholic beverage advertising in France.

Many people enjoy drinking and the social occasions alcohol accompanies. It has been suggested that when drunk in moderate amounts, alcohol reduces the risk of cardiovascular disease and relieves stress in a wide range of age groups. It also provides calories without fat and several trace elements such as copper which, though essential for the smooth running of the heart, are in short supply in convenience diets.⁴⁶

The notion that the moderate consumption of alcohol may actually have a salutary affect on health was given notoriety in November 1991 when the CBS 60 minutes program introduced Americans to the 'French paradox', the premise of which was that the French have a low incidence of heart disease, despite having a high fat diet and being the world's heaviest drinkers (12.6 litres of alcohol at 100% alcohol by volume *per capita*, compared with 7 litres in the United Kingdom). In the wake of this revelation, red wine sales in the United States nearly doubled in the following nine months.⁴⁷

It would appear that the 'French paradox' has received official sanction in the form of the latest guidelines on sensible drinking issue by the Department of Health, which revised upwards the suggested safe weekly levels of intake of alcohol from 21 to 28 units for men, and 14 to 21 units for women. Equally important was publication of the Government Working Group's View that the so-called Ledermann theory - that any rise in total consumption automatically brought a corresponding rise in misuse - was unreliable.⁴⁸

In the light of this evidence, a minority have questioned the efficacy of the traditional excise taxes on alcohol. Not surprisingly, the drinks industry frequently claims that the positive externalities of drinking are generally overlooked, and contends that that high taxes on alcohol hurt the innocent moderate drinker, without affecting the heavy drinkers that cause the problems. One Pidea brief has written:

It is doubtful whether taxation policy is a sensible instrument for regulating alcohol consumption in the interests of health. For example, drink related health problems are much more common in the high consumption, wine producing member states of the EU than in the United Kingdom. However, in these member states there is a clear tendency for total alcohol consumption *per capita* to fall. As taxation on wine remains zero or minimal, the fall reflects education and changed life styles, and is not tax induced.⁴⁹

In a tract published for the Adam Smith Institute entitled "A Disorderly House," Dr Barry Bracewell-Milnes argued:

Any such computations [as to the social costs of alcohol consumption] are open to challenge on statistical grounds and on grounds of causality - what is the relationship between the level of consumption and the resulting social losses? But they are more readily open to challenge on the grounds that they systematically omit all the relevant data on the other side of the account.

A patient who dies prematurely as a result of heavy consumption of alcohol may save the Treasury a great deal of money through the reduction in payments for his state retirement pension and other social security payments; he may also substantially reduce his call on private pension funds. Both of these effects are benefits for the rest of society. Moreover, an individual who dies early as a result of drinking would otherwise have died eventually of something else, and there is no *a priori* reason for believing that the alcohol-related disease is more costly to treat than the alternative.

This report argues that public finance theory shows no good reason for imposing excise duties on alcohol in an industrialised country.⁵⁰

A European Parliament Resolution of January 1986 recommended that the Community should work towards: "The gradual and complete abolition...of taxes on alcohol, since they are a relic of an undemocratic mentality." It would appear that The European Parliament disliked the apparent paternalism of government's attempts to control consumer choices.⁵¹ John O' Hagan (1983) has asserted: "There are very good reasons for abolishing special taxes on alcohol altogether."⁵²

O'Hagan believes that there is evidence to suggest that the dependent heavy drinker is well informed and empirically behaves in accordance

with rationality, (Room 1983)⁵³, and suggested too that there may be few drinkers of legal age who are unaware of the fact that serious private costs could follow from excessive alcohol consumption. Courts in the United Kingdom and North America have not accepted dependence on alcohol as an exception to their general assumption of rationality on the part of citizens and criminals. O'Hagan has concluded:

If misuse of alcohol is but a symptom and not the cause of the problem [of alcoholism], it could be argued that attacking the source (eg home background, unemployment) is the more appropriate solution for alcohol abuse. Legislative methods (eg drink-driving laws) and educational programs (eg public information on the consequences of alcohol abuse) are direct and, if properly formulated, should therefore be much more discriminatory and fairer than taxes as a means of curbing excessive use of alcohol.

A high tax policy for control purposes could also have alarming distributional effects - resulting simply, perhaps, in a massive transfer of resources from the families of heavy drinkers, thereby worsening the problems it was supposed to have counteracted.⁵⁴

But these arguments notwithstanding, there would nonetheless appear to be a clear theoretical case for using alcohol taxation as an instrument of health policy. This is not to deny the value of the medical and information campaigns that O'Hagan advocates, but there is no reason to reject taxation as he and others have done. The justification relies on the widely-used economic concept of market failure. This holds that although in general a market system of resource allocation will maximise the welfare of a society, there are

instances in which a market does not function properly. There is a divergence between private and external costs, and the outcome is imperfect, in the sense that a different possible outcome would make at least some people better off, and make nobody worse off. Government intervention in the market might then be able to increase social welfare.⁵⁵

A survey of the classification of various types of externality is provided in Baumol & Oates (1988)⁵⁶, but in essence, the two major categories include those which define an externality by the reason for its existence and consequences, and the second, as in the case of alcohol, by its effects. In response to the non-optimality of the market equilibrium in the presence of externalities, a natural policy to adopt is the imposition of taxes to correct for distortions. Such taxes are often termed Pigouvian, following the work of A C Pigou (1920).⁵⁷

Market failure in the alcohol market is primarily the product of information deficiencies and the existence of negative externalities of consumption. It may be argued that the addictive nature of alcohol, or lack of information about the potential effects of alcohol consumption, prevents consumers from making well-informed rational decisions.⁵⁸ How significant this lack of risk awareness is as a determinant of alcohol-related damage is not clear. However, a case can be made that the market does not provide sufficient information about the risks involved in heavy drinking: prices are distorted because of externalities, and explicit information as a commodity is not produced in sufficient quantity because of its public good character.⁵⁹

One interpretation of alcoholism is that chronic alcoholism interferes with the basic rationality postulate of consumer theory, in that an alcoholic is not free to choose whether or how much he will drink. As D Taylor (1983) has argued:

Clinicians and others confronted with the appalling damage caused by the misuse of alcohol, not just in terms of accidents and physical ill-health, but with regard also to personality destruction and social decay, may feel strongly that most people have neither the experience nor the insight to judge its full costs.

It is also argued that economists ignore the process by which preferences are formed. Preferences and behaviour, Taylor has argued, reflect a wide range of cultural and historical influences, and are "not simply the result of a constantly updated Benthamite calculus, carried out by the individual in isolation."⁶⁰

A varied range of policy measures are possible to redress the information deficiency problem; in addition to taxation, the government may wish to restrict the sale of alcohol by legislative means. In particular, it may prevent certain sections of the population (typically the young) from buying alcohol at all. Other options include better health education, through which information about the likely costs and benefits of alcohol consumption may be made publicly known, and restrictions on alcohol advertising.⁶¹

Consumption of any alcoholic drink is likely to exceed the optimum level when negative externalities are taken into account, as

happened in the 18th century gin epidemic. Thus whilst the price mechanism can safely be left to reflect the cost of production, the tax system is needed to better reflect the social costs of consumption.⁶² It has been estimated that at least three-quarters of a million people in the United Kingdom have drink related problems, and the most concerning aspect of this is the increase in problem drinking amongst women and younger people.⁶³

The medical problems associated with excessive alcohol consumption include alcohol poisoning, cirrhosis of the liver, stomach ulcers, heart problems, and also alcohol-related illnesses. Social problems involve the (often related) affects of alcohol consumption upon other aspects of individual behaviour or on other people, and arise from drink-driving, hooliganism, assault, family breakdown and absenteeism from work.⁶⁴

Heavy alcohol users as a group are thought commonly to have higher health care costs, creating external costs for moderate drinkers and abstainers. In effect, these raise the social cost of alcohol consumption above the private cost, thus justifying the imposition of a special tax on alcohol consumption which better equates private and social costs.

Of especial pertinence to this thesis is the notion that alcohol consumed in certain forms is more likely to create external costs than alcohol in other forms, in particular that alcohol in less dilute forms, such as spirits, may be more quickly consumed than more dilute alcohol and dangerous levels of consumption thus more quickly reached. Moreover, casual observation suggests that many heavier

drinkers prefer spirits to other drinks, presumably owing to the more rapid consumption of alcohol possible with less dilute forms of alcohol.

However, it cannot be concluded that extra consumption of a drink typically consumed by those who face the greatest alcohol problems imposes more costs on the rest of society than additional consumption of a different alcoholic drink: the social costs approach is concerned with the marginal effect of the extra consumption of alcoholic drinks. If the dilution of alcohol is considered to be important in imposing social costs, then the tax system should tax spirits more heavily, wine less so and impose the lowest duty level on beer.⁶⁵

As discussed in Section 5.3, the current structure of alcohol taxes in the United Kingdom to some extent taxes alcoholic drinks according to the quantity of pure alcohol that they contain. However, this principle of taxing according to alcoholic strength is applied only within and not across different types of alcoholic drinks. On this basis, the current system of alcohol taxation discriminates heavily against spirits, to the considerable chagrin of The Scotch Whisky Association:

Measure for standard measure, Scotch whisky contains equivalent amounts of alcohol to a glass of wine or a half pint of beer. There is no evidence to suggest that, when too much is taken, Scotch (or any spirit drink) is more harmful to health than any other alcoholic drink. It is the amount of alcohol consumed that matters, not the form in which it is taken, a point which the Government's 1995 Report, "Sensible Drinking", has underlined.⁶⁶

No *a priori* rejection of the view that the social costs of concentrated alcohol are greater than those of more dilute forms is possible; instead, empirical work is needed to assess the validity of this claim. Available medical evidence indicates that the consumption of alcohol in spirits is no more damaging to health than alcohol taken in any other alcoholic drink. It is the excessive intake of alcohol, whatever its form, which endangers health. A report in *The Lancet* in August 1991 found that "The associations between alcohol from beer, wine or spirits with risk of coronary artery disease did not differ significantly."⁶⁷ The French government has recognized: "The harmful effects of alcohol are due to the amount consumed and not to the type of drink containing this alcohol or to its alcoholic strength."⁶⁸

The Central Policy Review Staff reached a similar conclusion:

No one drink is much more dangerous than another as to justify punitive taxation being imposed upon it, leaving other drinks relatively untouched. Those countries which have tried differential taxation of this kind have found that in the long run total consumption adjusts so that broadly similar amounts of alcohol will be consumed in other ways."⁶⁹

The House of Commons Select Committee on Agriculture concluded in its Fourth Report 1992/93:

...that it would be sensible if alcoholic drinks were taxed according to their alcohol content rather than according to the product category in which they fall.

The Royal College of Physicians declared: "For all alcoholic drinks, it is the alcohol content that matters...", the Institute for Fiscal Studies are: "...not aware of any evidence of a higher incidence of alcohol-related harm being caused by spirits than by any other form of alcohol..."⁷⁰

And The Royal College of Psychiatrists stated in a study entitled "Alcohol: Our Favourite Drug":

It is alcohol content which matters, rather than the unique qualities of a particular drink...the widespread belief...that only spirit drinkers become alcoholics...is quite without foundation.⁷¹

As far as the evidence on drinking and driving is concerned, Wagenaar (1984), Berger & Snortum (1985) and Crooks (1989) conclude that there is no disproportionate effect from spirits drinking. Once again it would appear to be alcohol content which is the key factor. To the extent that there is a problem with any specific drink, the Minister for Roads & Traffic stated in 1989: "90% of road accidents are caused by people drinking beer,"⁷² possibly because a high proportion of beer is consumed through the on trade (in pubs), whereas most spirit consumption is through the off trade (at home).

A study by the Department of Health and Social Security and the Scottish Home and Health Department, "Adolescent Drinking" (1988), claimed that the overwhelming majority of teenage drinkers are beer drinkers and that only a minority consume any wine or spirits. 78% of 17 year old boys in England and Wales reported that when they drink

they consumed beer, cider or shandy "most of the time", compared with only 1% for wine and 10% for spirits.⁷³

On a calorific score, a pub measure (one unit) of Scotch contains about 55 cal, whilst a glass of wine contains from 80 to 115 cal, and a pint of bitter 180 cal.⁷⁴ Indeed, F A Whitlock, in his econometric study of male liver cirrhosis death rates and alcohol consumption in 38 countries concluded that:

If wine is drunk as the principal alcoholic beverage, the hazard, in terms of cirrhosis, is greater than if beer or spirits are consumed. When the six countries having the highest *per capita* wine, beer and spirits consumption are compared, there is no significant difference in cirrhosis death rates between the beer and spirits drinking countries, whereas both are significantly lower than those rates in the wine-drinking countries.⁷⁵

Given that it is the excessive consumption of alcohol, whatever the form, which creates the externality, there still remains the difficulty of quantifying the role of alcohol consumption in causing particular health problems, such as liver disease, stomach ulcers, and heart disease. The estimates of alcohol related deaths in the United Kingdom vary from 4,000 *per annum*, in a study by the Royal College of Psychiatrists (1986) to 40,000 *per annum* in a study by the Royal College of General Practitioners (1986).

Ledermann's research in the 1950s suggested that there is a statistical relationship, across countries and across time, between *per capita* alcohol consumption and alcohol related illnesses. In more recent years, however, Ledermann's work has attracted severe methodological criticism. Jackson found, in his empirical work, that "very little of the variation in mortality rates between (European) countries can be explained in terms of variations in *per capita* alcohol consumption. None of his (Ledermann's) relationships were statistically significant." And as stated earlier, the Ledermann theory is regarded by the government's working group on alcoholism as unreliable.

This is not to say that excessive consumption of alcohol over a long period does not result in medical problems like cirrhosis of the liver, and social problems such as absenteeism. Rather, that it is hard to establish a clear cut relationship between the amount of alcohol consumed and these problems. Still more, to establish the extent to which changes in taxes will impact on health related problems through reducing the consumption of persons with a high alcohol intake.⁷⁶

There are also problems of valuation, as evidenced by the the wide variation in results reported by studies in the United Kingdom of the social costs of alcohol related harm. One of the best know of these is McDonnell & Maynard's (1985) estimate for 1983⁷⁷. They calculated the cost of funding the health service, the cost to industry in terms of loss of output through absenteeism and other such variables, and estimated what proportion of these costs were alcohol related. They

estimated that in 1983 alcohol related costs were between £440m and £1.6 billion *per annum*, with a median estimate of £1.16 billion. The range itself indicates the degree of uncertainty involved.

Accepting that there are medical and social costs associated with alcohol consumption, and if the rationale behind alcohol taxation is, as economic theory suggests, to account for the social costs which would not otherwise be reflected in the price of alcohol, then the appropriate level of taxation should correspond to the size of these costs for each drinker on each occasion.

It would nevertheless be impossible to apply such a tax system, since this approach implies that different levels of tax should be applied to different persons, or for different situations. The marginal social cost of consuming the fifth unit of alcohol may be different from consuming the first; the social cost of a teenager having one more extra pint of beer before going to a football match is unlikely to be equal to that of a middle-aged man having two glasses of wine with his dinner (the alcohol content being equivalent). Similarly, if it is true that women have a lower alcohol tolerance than men, a higher tax rate should be applied to female consumption than to that of males.^{7 8}

Given that it is impossible to calculate all these variations in social cost, each unit of alcohol could be taxed according to the expected average social costs associated with its consumption. This could take the form of an 'insurance tax,' analogous to compulsory third party motor insurance: alcohol consumers as a group should meet all the costs of alcohol consumption. Insurance in this context is

being used in the sense that the tax on the drink can be regarded as a premium, which both increases as the individual's consumption increases and varies by type of alcohol consumed.

Expected average social costs could be approximated by estimating total social costs for a previous year and dividing by that year's total alcohol consumption. In this manner, the total social costs of alcohol consumption are paid for by drinkers, with each drinker's contribution related in a very crude (although probably no cruder than in the case of motor insurance) way to costs imposed.⁷⁹

Taxes should therefore be based upon the characteristic of the good that is related to the marginal harm caused. In the case of alcoholic drinks, this is usually taken as the quantity of alcohol they contain. If this is a correct indicator of likely harm, then alcohol duties should be related to the alcohol content and should not differ across different forms of consuming that alcohol.⁸⁰ If the present tax on beer and wine correctly reflects the social costs of consuming alcohol, then spirits are overtaxed. If these costs are correctly reflected by the tax on spirits, then beer and wine are too lightly taxed.⁸¹

Taking a high estimate of the total social cost of alcohol consumption, such as McDonnell & Maynard's £1.6 billion for 1983, and dividing by total alcohol consumption in the United Kingdom for the same year, results in a duty of £4 per litre of pure alcohol. This is significantly lower than the tax on all alcoholic drinks in 1983, which yielded some £3.9 billion, implying that the present level of alcohol duties greatly exceeds the rate necessary to account for an

estimate of the total social costs of alcohol consumption.

5.6 Conclusions

This Chapter has examined the history of excise taxes on alcohol in the United Kingdom, and noted the influence of past prejudices against spirits upon the present duty structure, which taxes spirits, on a degree of alcohol basis, significantly more severely than either wine or beer. This anomaly, together with the rationale for special taxes on alcohol in general, was critically analysed in Sections 5.4 & 5.5, in the context of the various arguments that have been advanced for alcohol excises.

Close scrutiny in Section 5.4 revealed most of these propositions to be wanting. Alcohol, including spirits, is no more a sumptuary good than many other products that are regarded as non-essential to life. Chapter 7.5 reveals that the own-price elasticity of demand for alcohol, especially spirits, is significantly more elastic than generally assumed, so there is no convincing argument in terms of efficiency for alcohol taxation. Nor of equity, as high excises impact disproportionately upon poorer households, who are also more likely to consume beer & spirits than wine. The special pleading for discrimination in favour of fermented beverages and peripheral wine producing regions was dismissed as thinly disguised protectionism.

The health and welfare issues associated with alcohol consumption were examined in some depth in Section 5.5, utilizing the familiar tool of externalities to determine the cost to society of alcohol abuse. No convincing justification for higher taxes on spirits was discovered, as the externalities were related to the volume of

alcohol consumed, regardless of the form. This suggests that an ideal system of excise duties would seek to determine the total social cost of alcohol consumption, and then charge the average cost on each degree of pure alcohol consumed in a given year.

Notwithstanding the difficulties inherent in any analysis of this kind, even a generous figure for the estimated total social cost of alcohol consumption would not justify the current level of excise duties in the United Kingdom. To this extent, the *raison d'être* for alcohol excises in the United Kingdom would appear to be overwhelmingly to raise revenue for the government, an observation supported by this assertion of former Chancellor Nigel Lawson:

I cannot subscribe to the view that health and social implications are the most important factors in determining the duties on alcoholic drinks...the primary purpose of the duties is to raise revenue for the Government.

This Chapter has attempted to marshal arguments which suggest this view is misplaced. The next two Chapters further contend that this attitude on the part of the United Kingdom government is no longer tenable in the context of the Single European Market and the harmonisation of alcohol excises in the European Union.

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CHAPTER 6: PUBLIC POLICY ISSUES III: HARMONISATION OF ALCOHOL EXCISES IN THE EUROPEAN UNION

6.1 Introduction

There are many things so many of us want to achieve...sometimes there has to be a little bit of give-and-take. But once you get people together and have a nice stiff glass of whisky, you actually find you can come to an enormous degree of agreement about what is required.

His Royal Highness The Prince of Wales

This Chapter examines the European market for alcoholic beverages, in the context of the most recent proposals of the European Commission's for the harmonisation of excise duties in Europe. Section 6.2 analyses the production and consumption of alcohol in the different European nations, whilst Section 6.3 examines the existing structure of alcohol excises in the EU. Section 6.4 seeks to determine whether there is price-sensitive competition between the different categories of beverage, as if there is then the widely varying structure and levels of excises across Europe will materially disrupt the free operating of the market for alcoholic products.

Section 6.5 details the history of attempts to approximate indirect taxation in Europe, and the efforts of European institutions such as the Court of Justice to mitigate the more flagrant violations of the European treaties that have sought to establish a Single Market. The most recent proposals on the harmonisation of alcohol excises are

critically appraised in Section 6.6, and their example on nations outwith the EU considered. Alternative proposals to indirect tax harmonisation are considered in Section 6.7. Section 6.8 concludes.

6.2 Production & Consumption of Alcohol in The European Union

The northern nations are more addicted to the use of strong liquors than the southern, in order to supply by art the want of that genial warmth of blood the sun produces.

James Boswell (1807) in *The Journal of A Tour to the Hebrides*

Significant differences in patterns of both alcohol consumption & production exist within the European Union. This can be seen from Table 6.1, which details *per capita* consumption of the three principal categories of alcoholic beverage in eleven member states in 1989.

Table 6.1: Per Capita Consumption of Alcohol for Eleven Member States 1989 (Litres of pure alcohol)

Nation	Wines	Beers	Spirits	Total
France	8.88	2.04	2.40	13.32
Luxembourg	7.37	3.58	1.57	12.52
Spain	5.66	3.56	2.80	12.02
Germany (FRG)	2.63	5.72	2.05	10.40
Portugal	6.36	3.19	0.80	10.35
Belgium	3.12	5.55	1.24	9.91
Denmark	2.30	5.92	1.37	9.60
Italy	7.67	1.08	0.75	9.50
Netherlands	1.78	4.55	1.92	8.25
United Kingdom	1.40	4.08	1.75	7.23
Irish Republic	0.50	3.61	1.70	5.82

Source: Pidea, *Competition Between Alcoholic Drinks*

Most of the differences between countries observable in Table 6.1 may be explained by a high (but decreasing) propensity to enhance food with wine in southern member states, and the high propensity to prefer beer for all needs in northern member states.¹

Widely differing characteristics in the production of beer, wines and spirits across the European Union are also notable. In the United Kingdom, brewing & distilling are for the most part conducted in large scale plants, where sizeable economies of scale exist. Both industries are relatively highly concentrated, with sales dominated by a handful of powerful enterprises. The brewing sector is also notable for a high degree of vertical integration, with a substantial proportion of licensed premises owned by the regional brewing concerns.

Two distilling companies, Allied Domecq and Diageo, and a brewer, Bass, are among the 40 largest industrial companies in the United Kingdom. The two spirits producers are, alongside Canada's Seagram, the largest sellers in world markets. The United Kingdom is the largest spirits producer in the EU, producing almost twice as much spirit as France and three times as much as Germany. Moreover, the United Kingdom is the only Member State where spirits production is greater than beer and wine production in absolute alcohol terms.

In contrast to brewing & distilling in the United Kingdom, the most conspicuous feature of continental European wine production is, in the words of a European Parliament Working Paper, that its methods "owe more to agriculture than to industry." This is not just because the main raw material input is a crop - this is also true of beer and spirit production - but because wine-making is characterized by small scale independent production in rural, often impoverished, areas. The EC's Farm Accountancy Data Network, a survey of European Agriculture, shows that the average size of a wine growing farm was

just 9 hectares (22 acres) in 1986. By comparison, the average size of farms in the United Kingdom is 147 hectares. It is estimated that perhaps as many as 10 per cent of France's population is involved with the production and distribution of wine.

In common with most other European agricultural producer groups, the wine industry wields considerable political influence. Wine producers' incomes are supported by the Common Agricultural Policy (CAP) through price maintenance intervention, and often also by domestic tax systems that favour wine-drinking.² By contrast, whisky, classified as an industrial as opposed to an agricultural product, has received no support from the CAP to resolve the problem of excess stocks known colloquially as the 'whisky loch;' the annual cost to the industry of financing such surplus stocks, based upon an interest rate of 8%, could well be as much as £200m.³

Arguably the most appropriate method of supporting low-income rural communities is by direct grants, not by subsidising them indirectly through excise taxation. This merely distorts the effective functioning of the market for alcoholic beverages, a subject discussed in more detail in Section 6.3. But the political power of the agricultural lobby makes reform unlikely. This political influence was made manifest in a European context in the negotiations for tax rate harmonisation in 1992, a matter that will be examined in Section 6.5.

Scotch whisky therefore faces great difficulty competing in a wine dominated European Union, a difficulty which is compounded by a structure of alcohol excises in every European country that

discriminates against spirits in favour of wine and beer. National vinicultures are further protected by rate structure distinctions between wine from fresh grapes and fruits, ordinary and fortified wines, and still and sparkling wines.⁴

6.3 The Existing Structure of Alcohol Excises in the European Union

Table 6.2 quantifies the current level of alcohol excises in the European Union, European Economic Area, and Switzerland.

Table 6.2: Alcohol Excises in the European Union, Iceland, Norway and Switzerland as at April 1st 1996. Denoted in ECUs Per Hectolitre of Pure Alcohol

Alcohol by Volume	Spirits 40%	Intermediate Products 18%	Wines 11%	Beer 5%	Additional Taxes
Austria	755	294	nil	362	Yes
Belgium	1641	388	346	381	No
Denmark	3980	750	817	883	Yes
Finland	5327	4932	2744	3018	Yes
France	1398	1200	31	193	Yes
Germany	1355	295	nil	205	No
Greece	801	260	nil	314	Yes
Ireland	2688	2134	2408	1927	No
Italy	522	252	nil	321	Yes
Luxembourg	1085	388	nil	207	No
Netherlands	1573	495	464	445	No
Portugal	762	254	nil	280	Yes
Spain	560	255	nil	168	No
Sweden	5316	2710	2672	2609	No
United Kingdom	2388	1225	1543	1306	No
Iceland	6501	6027	5479	3789	Yes
Norway	7452	7355	3865	4401	Yes
Switzerland	3827	1056	nil	321	No

Source: The Scotch Whisky Association

It is readily apparent from Table 6.2 that widely differing patterns of excises exist across Europe, even within the supposedly 'Single Market', and that no country in Europe taxes all alcoholic beverages at a comparable rate per degree of alcohol, or indeed in a consistent manner. It is also noteworthy that the rate of excise duty levied on spirits in the United Kingdom is higher than for all other EU member states, excepting the Scandanavian countries and the Republic of

Ireland. But for every member state, the excise duty per degree of alcohol is greater for spirits than for wine and beer. The application of the same rate of VAT widens the absolute (but not the relative) indirect tax differentials in nine member states. However, in three member states (Luxembourg, Portugal and Italy) beer and spirits are subject to higher VAT rates than wine, widening the absolute and relative indirect tax differentials.⁶

Also of note from Table 6.2 is that excise duty on wine is zero in five member states, and minimal in France. In fact, wine excises reach 30% of final price only in the Republic of Ireland. Excise duty on beer is less than 10% of final price in seven member states and exceeds 30% only in the Republic of Ireland. Excise duty on spirits is never less than 10% of final price and exceeds 30% in eight member states.⁷ The implications of this for competition between alcoholic beverages is discussed further in Section 6.3, but the much higher level of tax applied to spirits also markedly reduces the incentive for competition within the spirits industry, a phenomenon examined in Chapter 2.3.

France has an excise duty on beer depending on alcohol content and container size; a Vignette tax which applies a special levy on alcoholic beverages over 25% volume, and, lastly, a 'droit de circulation' on wine, which applies different rates to natural sweet wine and champagne, fortified wines and all other wines. In terms of excise duty alone French duty on spirits is 42.5 times that of the duty on wine on a per degree of alcohol basis,⁸ an inequity worsened by a 17% rise in the French spirits excise in January 1997.⁹

Germany discriminates heavily against spirits in favour of beer (the excise duty ratio is 8.5 for spirits to beer) as a consequence of it being a major beer consuming/producing country. In addition, while excise duty is set by the Federal Government, the revenue obtained accrues to the provinces where beer is produced, this being the only commodity with such special treatment. There has been a standstill on beer taxation in Germany over three decades.¹⁰

6.4 Competition between Alcoholic Beverages

I should never have switched from Scotch to Martinis

Humphrey Bogart

If it can be shown that in any or all of the markets of the European Union, different alcoholic beverages are in competition with each other for market share, then the systematic discrimination against spirits enshrined in national excise regimes will occasion price-induced substitution between beverage categories, distorting the effective functioning of competitive markets. The resulting reduction in consumer welfare is demonstrated more formally in Chapter 5.4 utilising indifference curve analysis.

The usual economic tool employed in measuring the degree of competition between products is cross-price elasticity of demand analysis. Values for cross-price elasticities of demand illustrate how the demand for one beverage will respond to a change in the price of other beverage categories. The critical issue, given that European Union excise duty regimes systematically discriminate against spirits, is the cross-price elasticities between spirits and other beverage categories - wine and beer.¹¹

In respect of the value of these cross-price elasticities, there are three possible outcomes, depending on whether the different categories of beverage are 'complementary', 'substitute' or 'independent' goods. If beverage categories are complementary goods, then an increase in the price of spirits will reduce the demand

for spirits and the demand for wine and beer, implying a cross-price elasticity which is negative and significantly different from zero.

If categories are substitute goods then an increase in the price of spirits will reduce the demand for spirits but this will be accompanied by an increase in the demand for beer and wine, implying a cross-price elasticity which is positive and significantly different from zero. If the categories represent independent goods, then an increase in the price of spirits will have no effect on the demand for wine and beer. Where no significant effect can be shown, the categories may be independent or the degree of substitutability or complementarity is too small or inconsistent to be measured with statistical confidence from the data available.¹²

There are two conceptually separate effects which can take place when the price of any particular beverage increases: first, the substitution effect on the sales of both that beverage itself and of other beverage categories, resulting purely from the change in price; second, the income or expenditure effect on sales, resulting from a squeeze on consumers' total expenditure on beverages because of the rise in price of the beverage in question. In aggregate, these two effects form the 'total' effect of price changes. Disaggregating the substitution effect from the overall total effect facilitates computation of the degree of complementarity or substitutability between categories within the overall market for alcoholic beverages.¹³

If there is evidence that, in any market within the European Union,

wine and/or beer are substitutes for spirits, then the higher excise duties levied on spirits will shift market share in favour of the other drinks categories. That is, there will be price-sensitive competition between the various categories of drinks.¹⁴ The available data on cross-price elasticities across a number of studies suggests that price sensitive competition between different categories of drinks is a common occurrence.¹⁵ The results of a survey by The Henley Centre¹⁶ on the principal European nations are detailed in Table 6.3.

Table 6.3: Estimated Cross-Price Elasticities: 1991

Nation	Spirits/Wines	Spirits/Beers	Beers/Wines
United Kingdom	Significant	Not Significant	Significant
France	Significant	Significant	Not Significant
Germany	Not Significant	Significant	Significant
Spain	Not Significant	Significant	Not Significant
Italy	Not Significant	Significant	Not significant
Significant = Positive and statistically significant			
Not significant = Not significantly different from zero			

Source: Pidea, Competition Between Alcoholic Drinks

Table 6.3 indicates that price-induced substitution is most common between spirits and one of the other two beverage categories; six of the eight positive cross-price elasticities detailed above involve spirits. In fact, the Henley Study discovered that in every one of the EU member states examined there was price sensitive competition between spirits and one of the two other categories (in the case of France, between spirits and wine, and spirits and beer.)¹⁷

In Italy, Germany, France, Belgium and The Netherlands, there are also clearly observable examples of significant changes in

consumption coinciding with large differential changes in taxation: in general, the category which increases in price relative to the other categories suffers a fall in consumption and the other categories experience an increase in consumption. The fact that such changes can be observed on different occasions and in different member states reduces the possibility that they are mere coincidences.¹⁸

The fact that these analyses find a large number of consistently positive cross-price effects is technically impressive given the nature of the data and the complexity of the markets. Where positive and significant cross-price elasticities are reported, they are mostly around 0.40, indicating that a 10% increase in the price of one beverage category is associated with a 4% increase in the consumption of the other beverage category. None of the cross-price elasticities calculated was negative and/or statistically significant, indicating an absence of complementarity.¹⁹

A comprehensive model of the market for alcoholic beverages in the United States was compiled in 1984. The model quantified four primary needs which are satisfied by alcoholic beverages, viz quenching thirst, enhancing food, personal relaxation or reward and socialising. More than one of these needs were found to be satisfied at the same time, such as when socialising and enhancing food at a dinner party. Whilst each of the beverages were deemed to be more appropriate to some of the needs than to others, the analysis clearly indicated several instances where different beverages acted as substitutes for each other.

In order of the degree of substitutability, beer, wines and spirits were strong substitutes for the purposes of socialising, beers and wine for food enhancement, beers and spirits for personal relaxation or reward, and beers and spirits (cocktails and mixed drinks) for quenching thirst.

All three principal beverage categories were therefore found, to varying degrees, to be potential substitutes for each other in respect of their appropriateness to satisfy each and all primary needs. In particular, for the largest primary need (socialising, accounting for over 30% of consumption), there was the greatest and most direct substitution. In addition, it should be noted that in three of the four instances where the possibilities of substitution appeared particularly strong, one of the beverage categories was spirits.²⁰

It is of course the case that others factors in addition to changing prices, such as changes in real personal disposable incomes, tastes and preferences, can obscure the effects of changes in prices. Demand curves are shifting through time, making it difficult to detect movements along a demand curve due to price changes. In order to address this problem, The Henley Centre commissioned a survey of drinking habits in the United Kingdom, analysing the effect of relative prices on consumption choices. The respondents were asked about drinking in a pub and how they would respond if the price of their preferred category increased by 30p (equivalent to a price rise of approximately 25%).²¹ The results are shown in Table 6.4.

Table 6.4: Response of Pub Drinkers to 30p Increase in Price of Preferred Category: 1991

Sample 878	Spirits	Wines	Beers
% Drinking Most Often in a Pub	9	4	82
Response to 30p increase:			
% No Change	42	36	63
% Another Category Occasionally	16	21	9
% Another Category Normally	16	3	6
% Stop Drinking in Pubs	23	39	21
% Any Change of Category	32	24	15
% Of Which Change to			
* Spirits	-	6	7
* Wines	10	-	4
* Beer	19	6	-
* Other	3	12	4

Source: Piedad, Competition Between Alcoholic Drinks

It can be observed from Table 6.4 that consumers switch to other categories of beverage when their preferred beverage is not available, a proportion of consumers who prefer any particular category would switch beverages, given a significant price rise for their preferred category, and in the United Kingdom at least, spirits appear more vulnerable to price-induced substitution than either wine or beers.

Balasubramanyan & Salisu (1993) have also ascertained that beer and wine and wine and spirits are pairwise substitutes, but that the degree of substitutability is stronger between wine and beer than that between wine and spirits. They also discovered an asymmetry in the sense that the cross price elasticities are not numerically equal; the demand for spirits is less sensitive to changes in the price of wine, but wine consumption appears to be highly sensitive to changes in the price of spirits.

In other words, as spirits become more expensive spirits drinkers switch to wine but wine drinkers do not switch to spirits as the price of wine increases. Asymmetry was also noted between wine and beer. While wine drinkers do not switch to beer, traditional beer drinkers appear to switch to wine as the beer price is increased. However, no discernible relationship between beer and spirits was discovered.²²

Other studies on the United Kingdom market have reached widely differing conclusions. Jones (1989) found that wine, cider and beer are all substitutes for each other, but that spirits are complements to all the goods. This is consistent with Walsh (1982) who finds spirits and wine to be complements, but contradicts Walsh (1982) and McGuinness (1983) who show spirits and beer as substitutes.

It can be nonetheless be concluded that there most likely is a degree of price sensitive substitution between the three principal categories of alcoholic beverage which varies from country to country, and that differential taxation can cause substitution between the categories and thereby distort competition.

This is a view held by both the European Parliament & the Commission. As part of the Directive establishing minimum rates of alcohol excises across Europe, in November 1993 the Commission engaged the consultants Bossard Associates of Paris to undertake a detailed 'Competition Study' to examine the nature of competition between categories of alcoholic drinks, the findings of which were published in 1994 in a report entitled "*Concurrence entre les Differentes*

Categories des Boissons Alcoolisees," (Bossard, Paris 1994).²⁴

The terms of reference for the study stated that its objective was to:

Produce a comprehensive and impartial investigation into competition in the alcoholic beverages sector and the effects of taxation upon it. *Inter alia*, the study will examine on a Community-wide and state by state basis, the general effects of the minimum rates laid down in the Directive - and of the rates actually applied in the Member States - on the consumption of competing alcoholic drinks, and the particular effects of the rates actually applied in Member States with regard to competition between the different categories of drink.

The findings of Bossard's report confirmed the findings of the Henley Study and the stated views of the Commission that: "...all alcoholic beverages are to a greater or lesser extent in competition with each other...",²⁵ that: "...taxation affects competition between types of drink (eg between beer and spirits) and within each type...",²⁶ and therefore "...the application of taxes affecting the consumption of alcoholic drinks should not distort competition between these products..."²⁷

The conclusions above point to the desirability of reducing excise duty differentials both between Member States and between different beverage categories; failing this there will be significant tax induced distortion of competition in the market for alcoholic drinks.

6.5 Indirect Tax Harmonisation in Europe

Article 2 of The Treaty of Rome states:

The Community shall have as its task, by establishing a Common Market and progressively approximating the economic policies of Member States, to promote throughout the Community a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated rising standard of living, and closer relations between the States belonging to it.²⁸

In respect of this, the European Court of Justice has been vigorous in applying Article 30 of the Treaty of Rome to remove technical barriers, which often have the effect of protecting the domestic market from goods produced elsewhere in the EU. In a landmark case, *Cassis de Dijon*, in 1978 the Court established the important principle that any good lawfully produced and marketed in one member state should be legal in any other: national laws that directly or indirectly excluded such goods can be justified only on highly restrictive terms.

This interpretation paved the way for the so-called 'new approach' to harmonisation, which is based on mutual acceptance of the measures taken by each Member State to ensure that the essential standards of health and safety are met by all goods produced on its territory. There is now, therefore, considerable pressure against national laws that restrict the import of goods lawfully produced and marketed elsewhere in the Community.²⁹

Nevertheless, in the field of indirect tax harmonisation, progress has remained slow, despite Article 99 of the Treaty of Rome requiring that:

The Council of Ministers shall, acting unanimously on a proposal from the Commission after consulting the European Parliament, adopt provisions for the harmonisation of legislation concerning turnover taxes, excise duties and other forms of indirect taxation to the extent that such harmonisation is necessary to ensure the establishment and functioning of the internal market.³⁰

A working party was established as early as 1960, and the Neumark Report (1963) emphasized that excises should be harmonized in step with sales taxes, but it was not until 1972 that the EC Commission issued a framework directive outlining the features of a possible harmonisation policy. Common definitions for bases of assessment, followed by rate unification, would be applied to the traditional excises on tobacco products, alcoholic beverages, and petrol.

Nothing came of the framework directive, and member states continued to consume the products of which they were the major producers, leading the Commission (1980) to comment:

The symbiotic relationship between national industries and national excises has resulted in excise tax structures that discriminate against products of other member states...real or feigned concern with national social and health policies generally result in preferential treatment of domestic production.

Until quite recently, for instance, France & Italy imposed substantially higher excises on spirits derived from cereals, such

as gin, whisky, and vodka, than on spirits distilled from wine, such as cognac, armagnac and calvados. Since the cereal distillates were all imported, in effect the excise structures of these countries favoured domestic products, although there was no open discrimination on the basis of origin. Similarly, Denmark had a separate rate for akqavit, which was taxed at only two-thirds the rate imposed on brandy, gin, rum and whisky, which were mostly imported.³¹

In 1980, the European Court of Justice (Cases 168-171/78) ruled that all these products stood in a competitive relationship to each other, according to the non-discrimination principle of Article 95 of The Treaty of Rome:

No Member State should impose, directly or indirectly, on the products of other Member States, any internal taxation of any kind in excess of that imposed directly or indirectly on similar or competing domestic products.³²

Case 170/78 was the famous 'beer ruling' in which the Court ruled that the system of alcohol taxation in the United Kingdom discriminated against wine by taxing beer at a lower rate. The European Commission had set a limit for English wine production of 2.5 million litres, 0.3% of United Kingdom wine consumption, and thus in the Court ruling the United Kingdom was regarded "as if" she were not a wine producer. It was decided that the ratio of the two excises should not exceed that of the alcoholic strength of an average table wine and the most popular beer. This pointed to a ratio of 3:1, since table wine is typically 11% alcohol by volume and beer about 3.5%.³³ The ECJ measured discrimination by reference to the rate of duty per degree

of alcohol content, accepting that different categories of drinks compete for market share.

In the subsequent budget, (March 1984), excise duty on wine in the lowest tax band was therefore reduced substantially. The rates set implied that exactly the same amount of duty was levied upon one centilitre of pure alcohol in wine of 9% abv and in beer strength 3% abv. It is ironic that the European Commission's recent proposals for approximating rates of excise duty would require the United Kingdom, in the long term, to alter the ratio in favour of wine.

Most member states have some domestic production of either wine, beer or spirits. However, in all member states, save the United Kingdom and the Republic of Ireland, the domestic spirits industry is of little economic or social significance. As a result, member states can comply with the letter, but flout the spirit, of the various judgements of the European Court of Justice.

As detailed in the previous Section, the major wine producing countries tax wine lightly, if at all. The major beer producing countries tax beer lightly, and all discriminate against spirits.³⁴ But because, for instance, 90% of France's beer consumption and 70% of its spirit consumption are home-produced, the Court can argue that if the French government chooses to impose higher taxes on beer and spirits, it is discriminating against domestic producers as much as foreign ones. The Court should nevertheless consider the potential market for imported spirits, not the existing one.³⁵ In addition, a member state can still disadvantage an alcoholic drink it does produce, such as, in the case of the United Kingdom, spirits.³⁶

As part of the programme to create the Single European Market, in 1985 the Commission published a White Paper, *Completing the Internal Market*, which argued that a single market required not only administrative changes but also changes in both the rates and the structure of indirect taxes in member countries.³⁷ In addition, it was felt that in the absence of harmonisation there would be a tendency for tax rates to fall towards the minimum of those applied in the EU.³⁸

Subsequently, in August 1987 the Commission published a series of documents on the 'approximation' of indirect tax rates. According to the Commission, its proposals were the "minimum changes which must be made...in order to achieve a significant degree of fiscal harmonisation." These were not, in the end, adopted because the resulting budgetary changes would have been unacceptable to a number of countries.³⁹

A second set of proposals were agreed by the European Finance Ministers (ECOFIN) on July 27th 1992. The subsequent EC Directive 92/84, which took effect from January 1st 1993, required member states to apply the following minimum rates of excise duty to alcoholic beverages:

Wine	Zero
Beer	187 ecu per hectolitre pure alcohol (h1pa)
Spirits	A two-tier threshold of 550 ecu or 1000 ecu per h1pa determined by the actual rate on January 1st 1993. ⁴⁰

The Directive also required that all alcoholic beverages should be taxed at the same VAT rate in each member state within a 14%-20% band. The legal minimum rates have had little impact on actual rates, because the minimum rates established are at about the lowest prevailing level for each category of drink.⁴¹

As part of the 1992 agreement, it was agreed that a review of rates would take place in 1994. However, this was deferred and was followed in November 1995 by a low key meeting in Lisbon, comprising government and industry representatives, simply to air views. This meeting achieved nothing tangible, but the European Commission was due to have another review of rates by the end of 1996, which, *inter alia*, would take into account the question of competition between different alcoholic products. The Commission was required to present this review to the European Parliament and the Council of Ministers, but thus far has continued to procrastinate and little further progress has been achieved.⁴²

6.6 Problems with European Proposals for Excise Harmonisation

In a report for the Adam Smith Institute entitled "A Disorderly House", Dr Barry Bracewell-Milnes stated that the 1992 ECOFIN Agreement was "the outcome of a power struggle, in which the principal vested interests were appeased or at least not seriously affronted. It was not informed by any economic principle."⁴³ The various principles advocated for the special taxation of alcohol are reviewed extensively in Chapter 5. But certainly from the perspective of Scotch whisky producers, indeed the wider spirits distilling industry in the United Kingdom, the agreement was highly disagreeable. Prior to the Council of Ministers meeting, the Scotch whisky industry had made known to the Chancellor its objectives with regard to excise tax harmonisation, which included:

- 1) Obtaining the lowest minimum rate for excise duty
- 2) Introduction of a capping mechanism aimed at ensuring that discrimination against Scotch whisky does not increase
- 3) Imposition of a positive rate of duty on wine
- 4) Granting of no advantages to special interests
- 5) Achievement in the long term of equality of taxation based upon alcoholic strength

Item One was the only one to have been achieved. A capping mechanism would have meant that any increase in spirits duty in EU member countries would have had to be accompanied by a similar increase on all other alcoholic products, preventing a widening of discrimination against both Scotch whisky and spirits generally. The absence of such a mechanism means there is no EU legal restraint

upon extending discrimination against spirits.⁴⁴ Since 1992, duty discrimination against spirits has increased significantly; ten EU countries have widened discrimination against spirits as compared to wine, and eight as compared to beer.

The zero rate for wine was a triumph for the wine producing countries whose governments once again successfully defended their local industries. As for the 187 ecu minimum rate for beer this was also unsatisfactory; not only is the rate much lower than that applied to spirits, but it also embodied discrimination against beer compared with wine. In addition, therefore, to the negative affect upon distillers, companies in the United Kingdom with brewing interests are also adversely affected. Guinness, for example, has a large Spanish brewing subsidiary, Cruzcampo, which is clearly in competition with Spain's zero rated wine industry.⁴⁵

There is a further practical issue which arises from the positive minimum rates determined for spirits and beer and the zero minimum for wines. The spirits and beer minimum rates are denominated in ecu. Thus, if the domestic currency depreciates against the ecu, to the extent that the rate applied (expressed in ecu) falls below the prescribed minimum, then the duty (expressed in the domestic currency) must rise. As a result, in Greece, Spain and Italy, increases of 4% to 7% in excise rates for spirits were required to offset the effect of the depreciation in the value of their domestic currencies over 1992-93. Since wine is zero rated, no corresponding change in the rate for wine was required. Further, since the rates are minimum and not maximum rates, there is no automatic downward adjustment of excise rates on spirits and beer when a domestic

currency appreciates against the ecu. The result is to create a 'ratchet' effect which operates to increase the duty differentials against spirits and beer.⁴⁶

The one saving grace is that strong pressure from the Scotch whisky industry thwarted Norman Lamont in June 1991 from acquiescing to proposals setting a minimum rate of excise duty on spirits of 1118.5 ecu. This would have triggered major duty increases in the fast growing Southern European markets of Greece, Spain and Portugal and in the already large market of Italy. Price increases could have been between £2 and £2.50 a bottle.

Nevertheless, establishing an additional threshold rate of 1000 ecu per hlp_a will both prevent member states with duties above this level from reducing their rate below 1000 ecu, and also prevent those countries whose rates are between 550 ecu and 1000 ecu from reducing their spirits rates at all. This anomaly appears to have been brought in to curb cross-border trading between low-tax Luxembourg and Belgium & France.

The July 1992 ECOFIN agreement provided widespread concessions for small distilleries and special deals for certain spirits producers, conceding reduced rates of excise duty of "not more than 50% below the current national rate." 'Small distilleries' are defined as those producing no more than 10 hlp_a per annum, or in the case of existing establishments, no more than 20 hlp_a.⁴⁷

No Scotch whisky distillery would qualify on this basis as a 'small distillery', and the concessions are also detrimental to companies

in the United Kingdom with overseas spirits interests; Grand Metropolitan's Metaxa brandy, for example, is at a disadvantage *vis-à-vis* products from small Greek producers whilst Guinness's Asbach brandy suffers competition from small German producers.

Special concessions were also agreed for Greece in respect of ouzo and spirits consumed in the Greek islands, certain drinks in Madeira, and for the products of the Italian regions of Gorizia & the Aosta valley.⁴⁷ In addition, rum from French overseas departments attracts an excise of FF 5215, compared to the FF 9060 rate applied to other spirits.⁴⁸

Finally, in December 1996 the EU Council also agreed to extend the duty-paid derogations, in the case of Sweden until 30 June 2000, subject to prior review, and for Denmark and Finland until the end of 2003.⁴⁹ This effectively means that Scandinavians will be limited as to the quantities of duty-paid alcohol they may legally import into these countries, presumably to protect lucrative government monopolies and to avoid compromising their Lutheranesque alcohol control policies. Whatever the reasoning, such concessions undermine the whole concept of a Single Market, and deny Finns and Swedes in particular one of the few tangible benefits that were supposed to result from their acceding to the European Union.

It is not acceptable for the Commission to plead that its proposals are not intended to lay down an 'ideal' tax system for the EU but only to facilitate the removal of fiscal frontiers. The EC directive establishes the principle of *de jure* discrimination against spirits because it reflects the implicit assumption that it is appropriate to

apply different levels of taxation to different beverage categories.⁵⁰ The Directive thus provides a legal underpinning to the existing *de facto* structures of excise duties which are mainly noticeable for discriminating against spirits. Extension of this approach will entrench such discrimination.

It was argued in Chapter 5 that there is no convincing rationale in economic theory for the discriminatory treatment of one type of beverage category and in favour of another. Moreover, the widespread existence of such discrimination in tax rates across Europe reduces consumers' welfare by inducing substitution between beverages, as well as producers' welfare by disrupting attempts to market their product throughout the Single Market.

This being so, harmonisation should be applied to all competing products on the same basis, rather than on a quite artificial distinction between different beverage categories, based on protectionism of vested interests, and which pays no attention to the distortionary effects on the market.⁵¹

In this respect, the Commission claimed to have:

Examined the feasibility of fixing the rates of taxation for all alcoholic drinks by reference to a single criterion, for example, alcoholic strength, volume or value. It found that while the simple logic of a consistent system is attractive, the rates which result are invariably extremely disruptive both as regards the revenue of individual member states and the distribution of the Community-wide tax burden on the categories of drinks concerned.... . In the Commission's view, when set against the complexity and diversity of Member States' current treatment

of alcohol products, the minimum rates present a reasonable and even-handed solution.⁵²

There is no expression of concern for proposing a system of tax rates which Scotch whisky producers would see as "extremely disruptive" of their industry's ability to compete.

Interestingly, the European Parliament has adopted a different stance on the issue of excise harmonisation. As early as 1983, the Economic & Monetary Affairs Committee wrote:

If, therefore, we were considering a system of excise structures *de novo*...the most obvious system to propose would be a single rate of excise duty per degree of alcohol for all alcoholic beverages. Such a system would avoid both distortion of competition and problems of definition.⁵³

The European Parliament has also stated that it:

...considers the continuing fiscal discrimination between different alcoholic drinks in Member States constitutes a barrier to inter-state trade, denies the consumer the benefits of increased choice and competition which are amongst the most important objectives of the EC Treaty, and is an obstacle to the achievement of the common market...⁵⁴

Nevertheless, the European Parliament claims to be fully aware of the "resistance deeply rooted in national traditions and interests" in evolving a fair excise duty on alcoholic drinks, and in view of this considered:

Whether the desired harmonisation of taxes on alcohol might not be attained more easily and more rapidly by a change of strategy directed towards the gradual and complete abolition, over a period, of, say, twenty years, of taxes on alcohol, since they are a relic of an undemocratic mentality.⁵⁵

The language in this resolution is somewhat inappropriate, as it is not clear that excise taxation should be considered against constitutional principles. The abolition of special taxes on alcohol would doubtless also increase consumption above the socially desirable optimum, a matter which was explored in Section 5.5.

The latest resolution of the European Monetary Affairs Committee in September 1996 was more helpful, calling for the differences between excise rates on wine, beer and spirits not to be increased, and rejecting a zero rate on wine. The SWA commended the resolution, claiming: "Delivery of Parliament's opinion represents a significant development in the fight to remove discrimination from EU alcoholic drinks tax structures."⁵⁶

The political difficulties involved in creating across Europe a system of excise taxation based upon alcohol content were recently stated succinctly by Leonard Harris, Director of International Taxes for HM Customs & Excise, who told the Parliamentary Select Committee on the Treasury and Civil Service:

You could organise a drink structure *de novo* which bore a close relationship to alcoholic strength, so that spirits taxes would come down and beer would go up and so on. Whether or not that is going to cut any ice with the twelve member states when it comes to protecting national interests, is quite another matter.⁵⁷

As an indication of further difficulties ahead for the United Kingdom, Peter Wilmott, the Director-General of Customs & Indirect Taxation at the European Commission, is on record as saying he believes that only if tax changes are decided by qualified majority voting (and not, as at present, by unanimous vote) will agreement ultimately be possible.⁵⁸

Such a move would not only have significant implications for alcohol control policy in the United Kingdom, but, given the likelihood that subsequent agreements reached under such a system would entrench discrimination against spirits, seriously jeopardize the interests of the Scotch whisky industry as well as other spirit distillers in the United Kingdom. The United Kingdom government should consider very seriously vetoing any attempt by other European Union members to move to qualified majority voting on fiscal policy.

Not surprisingly, the issue of tax harmonisation across Europe has been of great concern to the drinks industry in the United Kingdom. Western Europe is the world's largest and most important drinks market, representing approximately 25% of total world drinks consumption, worth at retail prices around £44 billion in 1989. At this level, which is equivalent to almost 2% of total Community GNP, the economic benefits of the drinks industry to Europe is evident. Anthony Greener, Diageo Chairman, has written:

The industry is important to Europe precisely because it is overwhelmingly European. If we look at the high-value end of the market - the profit earning dominance of British companies is especially clear. The three most profitable companies in the world are from the UK. I am unaware of such a strong European -

and particularly British - position in any other international business.

Mr Greener goes on to state:

The difficulties which could beset the European drinks industry as a result of the Single Market are quite profound. They could, at worse, severely handicap the potentially strong competitiveness of British producers. There is a hazard for my industry which even the British government has not yet fully recognized: It can be summarized in two words: tax harmonisation.

The prize for the drinks industry if these tax difficulties can be resolved is considerable, especially for companies in the United Kingdom - a truly single market, without trading barriers, in which consumer trends towards higher quality consumption of more international brands become increasingly similar in all countries. The long-range business implications for such an opportunity are considerable, in many functional areas - for example, physical distribution, marketing and sales organisations. Moreover, success and increased competitiveness in Europe will strengthen the industry's resources and abilities to be more competitive in other international markets, particularly in the United States and the Far East.

Conversely, if the European drinks industry is adversely affected by a failure to resolve the difficulties of tax harmonisation, this can only weaken the ability of that industry to compete effectively outside Europe. This would be to the advantage of non-European competitors and to the ultimate disadvantage of the wider European economy.⁵⁹

In this respect, the principle of *de jure* tax discrimination against spirits implicit in the latest European excise duty structure will be noted outwith Europe and add to the difficulties the whisky industry faces in lobbying for fairer tax treatment.

The Scotch whisky industry faces as many as 400 cases of discrimination in over 200 export markets worldwide. Some countries prohibit the sale of all alcoholic drinks on religious grounds. Such prohibitions must, of course, be respected. Other countries restrict the sale and/or advertising of alcoholic drinks on health or social grounds. Where such restrictions are applied without discrimination to all alcoholic drinks, the right of those countries to do so should be tolerated. In some countries, however, restrictions which purport to be based upon health or social grounds are applied indiscriminately against some types of alcoholic drinks but not against others.

There are many markets where imports of Scotch whisky are either prevented or very substantially reduced by tariff or non-tariff barriers. These fall into two categories:

i) Countries which restrict the import of Scotch whisky and/or tax it significantly more heavily than competing locally-produced alcoholic drinks for the express purpose of protecting local industry.

ii) Countries which, because of balance of trade difficulties, have been forced either to impose restrictions on all imports or on

imports of luxury goods; or to erect high tariff barriers. The industry may have to accept that it is unrealistic to expect the early removal of many such barriers, particularly in Latin America.

A sustained and determined effort should be made, both by the Government and the industry, at securing fairer trading conditions worldwide.⁶⁰ In this respect, each year the Scotch Whisky Association (SWA) meets with the Department of Trade & Industry and the Ministry of Agriculture, Fisheries & Food to examine trade barriers market by market, to prioritise markets to be targeted, and to determine appropriate strategies. This collaboration has paid dividends over the years, and has ensured that both the Government and overseas legations are fully aware of what is required to enhance the export success of Scotch whisky.⁶¹

In 1996, for example, the EU Commission, the United States & Canadian governments, the Scotch Whisky Association & other European spirits producers, and the World Trade Organization, successfully persuaded Japan to implement the 1987 GATT ruling which called for Japan to equalise spirits taxes.⁶² In most other developed countries of the world, the imported spirits share of the spirits market is in excess of 30%. But in Japan, due to discriminatory taxation, it is only 7%, compared with nearly 74% for the local spirit Shochu.

In less than two years time duty on Scotch will be reduced by 58% whilst tax on Shochu will rise. Accordingly, by October 1st 1998, the differential will have largely been removed although it will not be finally eliminated until 2001.⁶³

As Hugh Morison, Director General of the Scotch Whisky Association commented in the Association's 1996 *Annual Review*:

The wider impact of the Japanese ruling should not be underestimated. The WTO has made it clear that tax discrimination against imported spirits breaches world trade rules, and its ruling will provide a benchmark for tackling discrimination in other markets.

The SWA believe Chile had been awaiting the outcome of the Japanese case before deciding how to comply with Europe's requirement that she, too, should cease discrimination. In October 1997, the European Commission asked the WTO to ban Chile's discriminatory taxation, which taxes Scotch whisky at nearly three times the level of locally-produced spirits. The Chilean government imposes duties of 70% on whisky imports, in order to help promote sales of the local spirit pisco, taxed at only 25%.⁶⁴

India has long been regarded by the industry as a potentially lucrative market, but progress is impeded by import restrictions and high tariffs.⁶⁵ The importance of a co-ordinated effort by the industry and government cannot be overemphasized because, until a substantial reduction in trade barriers takes place, no significant growth in Scotch whisky exports can be expected, a point made by Ivan Straker of the SWA in August 1989:

Volume sales and foreign exchange will not increase substantially until these barriers to our exports have been removed...Scotch whisky will not achieve its true potential until it has free and unfettered access to all world markets.

The SWA anticipate that the GATT market access agreement, which dealt primarily with tariff barriers, will increase general economic prosperity, boost sales and encourage governments to take further action in tackling equally damaging non-tariff barriers which have greatly increased in recent years.

In particular, it was envisaged that the "zero for zero" agreement, initiated in Tokyo in July 1993, would remove import duties in all the EU markets plus seven others, namely the USA, Canada, Japan, Australia, New Zealand, Hong Kong and Singapore. Based on exchange rates then prevailing, it was calculated that there could be a reduction in the United States of £1.45 per bottle, £1 a bottle in Japan and 50p in New Zealand. In addition, it was expected that the agreement would result in a 30% import duty reduction in all other countries which were signatories to the GATT.⁶⁶

The current European proposals for excise harmonisation will seriously impede these efforts at securing fairer trading conditions for Scotch whisky worldwide.

6.7 Alternatives to European Excise Harmonisation

We know no spectacle so ridiculous as the British public in one of its periodical outbursts of morality.

Lord Macaulay *Essays*

A number of economists have rejected the arguments put forward by the Commission in favour of indirect tax harmonisation across Europe, and have instead come up with alternate proposals, most of which, were they to be implemented, would run directly counter to the wider objectives of the various treaties attempting to establish a Single European Market.

Moreover, these proposals primarily reflect concern at the deleterious effects of excise harmonisation upon national 'sovereignties', particularly in respect of alcohol control policies and exchequer revenue. Few if any have taken issue with the current minimum rates for the harm they will inflict upon important industries in the United Kingdom.

Sijbren Cnossen (1983) has argued⁶⁷ that origin-based rate-uniform excises are not a *sine qua non* for proceeding with the removal of border controls, contending that border controls could be eliminated by shifting border tax adjustments for excises to factory gates and retail outlets. Instead of being applied nationally, the destination principle would be implemented across the Union in conjunction with an EU clearing mechanism and a uniform system of in bond transportation for excisable goods. Whilst this would

eliminate the need for fiscal checks at frontiers, the proposal would do nothing to create a competitive market for alcoholic beverages across Europe or reduce the incidence of cross-border shopping.

In a report published by the Institute For Fiscal Studies entitled "Fiscal Harmonisation: An Analysis of the European Commission's Proposals," (1988)⁶⁸, Lee, Pearson & Smith argued that duty differentials between member states could be retained by introducing a system of tax stamps. Such a system would involve the EU market being split into two, or three, duty areas, within which duty would be uniform, but between which duty differences would remain and cross-border shopping restrained by restricting the movement of duty-paid goods. The authors believe the flexibility this would allow member states is important given that with national monetary policies eventually being phased out, the weight on fiscal instruments for short-term stabilisation and long-term structural adjustments will increase.

The problem with this proposal is that it takes no account of the widely diverging excises even within the three duty jurisdictions outlined, making harmonisation extremely difficult. Moreover, legal restrictions on the free movement of duty paid goods between nations runs directly counter to the whole concept of a Single European market.

In response to the 1989 Commission proposals on indirect tax harmonisation, The Institute For Alcohol Studies⁶⁹ commissioned an analysis of the effects upon public health policy in the United Kingdom, concluding:

There is no convincing reason for the approximation of alcohol excises at all... . Letting each Member State decide its own rate is the only way of showing a genuine respect for alcohol taxation as a public health tool... . There is sufficient evidence for concern over what the EC proposals imply for health and other alcohol-related problems in the United Kingdom that the United Kingdom should argue for national sovereignty, on health grounds, in choosing rates of alcohol excise duty. The Commission's explicit and public acceptance of the connection between alcohol taxes and health is an open invitation for Member States to present such an argument.⁷⁰

This Nigel Lawson did in a 1988 Treasury paper to fellow EC Finance Ministers:

Alcohol and tobacco must be treated as special cases because of the serious health risks associated with such products...Any harmonisation should not force individual Member States to adopt significantly lower tax rates than they would ideally wish to impose for health reasons.⁷¹

Such unilateral action on the part of European governments is arguably undesirable from the viewpoint of the disruption it occasions for European drinks producers. Nor is it really an option any longer, given that domestic tax bases are being steadily eroded by the substantial quantities of duty-paid goods legally and illicitly finding their way from high to low-tax countries.

The Institute for Alcohol Studies *et al* would no doubt retort that disruption to the marketing & distribution of alcoholic products within Europe and the problems of cross-border shopping are

justifiable trade offs, given the freedom national sovereignty on indirect taxation allows member states to pursue alcohol control policies.

The issue of indirect taxation in Europe is therefore in this respect at least analagous to the continuing controversy as to the merits and costs of a single European currency. Any potential gains in 'efficiency', which theoretically can be measured, are offset by a reduction in national 'sovereignty', a much less quantifiable phenomenon. Both issues also involve questions as to the extent to which there is an overarching 'European' interest that encompasses all member states, and is of sufficient magnitude to justify subsuming national preferences.

The inherent suspicion of governments in the United Kingdom to 'European' initiatives, together with the faith of Conservative administrations in the efficacy of the free market, has hitherto resulted in the United Kingdom adopting the stance that 'harmonisation' of indirect taxes should be an issue allotted to the market to decide. This would presumably result in cross-border shopping occasioning a gradual spiraling down of excises to the lowest common denominator. This sentiment was also expressed by Keith Boyfield of the Adam Smith Institute in a tract published in 1995 entitled "Letter To Lisbon:"⁷²

There is no benefit to be derived from adopting a maximalist approach which substantially raises the average rate of excise duty within the EU. It would be far preferable to maintain a minimalist approach which, although it may not deliver harmonised taxation rates in the short term, at least provides consumers

with the opportunity to purchase goods in Member States with lower tax regimes. Such a policy puts downward pressure on those EU countries which levy excessively high excise duties, bringing the 'hidden hand' into the fight for harmonisation.

Such a position has some merit in view of the current objectionable minimum alcohol excises applied across the EU, but the eroding of exchequer revenues brought about by the relaxing of personal imports of duty-paid goods from the Continent may occasion a shift in the United Kingdom government's attitude toward 'variable geometry' and 'subsidiarity' in the near future.

Moreover, if there is not a sufficient 'European' interest to justify even the harmonisation of alcohol excises, then arguably the vision of such pan-European thinkers as Goethe, Beethoven, Monet and Schumann is little more than a house of cards. If *alle menschen am den brüde...nicht* when it comes to supping a pint together, then it certainly bodes ill for any monetary union.

But such questions of 'high politics' are outwith the scope of this thesis. On a practical basis at least, it is contended that there are very sound reasons for a certain degree of harmonisation of alcohol excises in Europe. There is no reason to doubt the concerns within the drinks industry as to the opportunity cost of a fragmented drinks market, and the transport costs of cross-border shopping still represent an inefficient use of resources, even though they are borne by the consumer.

Moreover, modifications are needed to Adam Smith's 'invisible hand'

if it is recognized that a given market is imperfect. Chapter 5.5 attempted to prove that the case for the special taxation of alcohol to mitigate the externalities associated with excessive consumption is on the whole well-founded, as is the proposition that all beverages should bear an equal tax according to alcohol content. The Commission should therefore direct its efforts in this area to attempting to quantify a value of the negative social costs to the European economy associated with alcohol consumption.

Some would retort that such an exercise is fatuous as well as being potentially Herculean, given the wide, and with expansion in EU membership, ever wider divergencies between countries, especially as to levels of alcohol tolerance. But arguably similar arguments could be advanced toward every other aspect of European integration, such as the Common Agricultural & Fisheries Policies, the Schengen Agreement on border controls, a single immigration policy, harmonised standards, and, *a fortiori*, economic & monetary union.

McDonnell & Maynard's (1985) conclusions for the United Kingdom, examined in Chapter 5, were that a high estimate of the total social costs of alcohol consumption would amount to approximately half the yield from alcohol duties in the United Kingdom in 1983. But at this level duties in the United Kingdom would still be much higher than many other countries in the EU. So even attributing a low value to the negative externalities associated with excessive alcohol consumption in Europe would facilitate the setting of a *de minimis* 'floor' for alcohol excises across Europe that would likely be significantly higher than the current minimum rates.

To the extent that member states, such as the United Kingdom, opted to apply rates in excess of the minimum this would reflect a national preference for alcohol taxation as a 'convenient' means of garnering revenue. This is the position taken by Smith (1988):

Whilst the Community does need to set minimum duty rates, to prevent "undercutting" and a downward spiral in all rates, Member States wishing to set higher duty rates than the minimum bear the cost of doing so themselves; there are no grounds for Community control over their decision.⁷³

But high-tax sovereigns must expect that if juxtapositioned geographically with lower-tax jurisdictions, they will experience some eroding of their revenue base. Transport costs alone will ensure that sizeable disparities in alcohol excises could continue between Scandinavia and Southern Europe, but inevitably in the long-run some approximation of rates amongst the core countries of Western and Central Europe (the United Kingdom included) is likely.

6.8 Conclusions

This Chapter has studied the European market for alcoholic beverages, and considered the bearing this has had upon the various proposals of the European Commission for the harmonisation of alcohol excises. A recurring theme throughout is that such proposals have taken as their terms of reference points of departure rather than considering the whole subject *de novo*.

Section 6.2 showed that *per capita* consumption of alcohol varies markedly across European nations, as does the relative share of each category of beverage in overall consumption. To some extent this is a reflection of the comparative advantage each nation enjoys in producing the differing drinks; the United Kingdom is Europe's largest manufacturer of distilled spirits, but has virtually no viniculture. By contrast, the high propensity to imbibe wine in the Latin cultures of Europe is undoubtedly attributable in part to the salience of wine production in the culture and economies of these nations.

Not surprisingly, therefore, wine producers are a formidable lobby in these countries, to a much greater degree than spirits distillers have influence in the United Kingdom. Section 6.3 on the existing structure of alcohol excises in Europe detailed how this power is manifested, in the form of duty structures which in every European nation (including, perversely, the United Kingdom), discriminate heavily, on a per degree of alcohol basis, against spirits in favour of wine, and to a lesser extent, beer. In fact, five countries were shown to have no excise on wine whatsoever. Moreover, classified as

an 'agricultural' as opposed to an 'industrial' product, wine has been eligible in the past for considerable support from the Common Agricultural Policy. None has ever been forthcoming for the whisky industry.

Section 6.4 presented several carefully constructed academic reports, including one written for the European Commission itself, which all concluded that the different categories of alcoholic beverage are in competition with each other to fulfill consumer needs, and hence price-distorting excises will have an appreciable impact upon consumption.

Section 6.5 looked at the history of attempts to harmonise indirect taxation in Europe, as part of the goal of achieving a truly integrated Single European Market. The various institutions of the EU were shown to have been fairly proactive in seeking to outlaw practices in member states that have discriminated against the products of other states. Whilst this has largely prevented nations from overtly protecting indigenously produced categories of alcoholic beverage against comparable products from other countries, these rulings have done nothing to discourage the application of taxes that have had the effect of indirectly protecting domestic producers.

Hence countries such as Italy with a substantial wine industry and minimal, but nonetheless some, production of spirits, are abiding by the letter of these rulings when they levy no tax on wine, but tax Scotch whisky and home-produced spirits equally. Nonethemore for this, despite the fact that the United Kingdom's wine industry has

exhibited significant increments in quality in recent years and is now producing some well-rated vintages, the European Court of Justice ruled in 1980 that the United Kingdom "is not" a wine producer, so by taxing beer at a lower rate, was discriminating against imported products.

The most recent proposals of the European Commission's on the harmonisation of alcohol excises were scrutinized in Section 6.6, and shown to be highly nefarious to the United Kingdom in every respect. The proposals are grounded on no logical economic principles and are riddled with inconsistencies, which is perhaps not surprising as they emerged from a typical political "horse-trading" session of the Council of Ministers, intended to enshrine protectionism of vested interests, none of which are to the benefit of the United Kingdom.

Section 6.6 concluded by examining some of the many barriers to trade Scotch whisky faces around the world, the combating of which will only be made the more difficult by the example of the *de jure* discrimination against spirits inherent in the Commission's latest proposals. Section 6.6 also conveyed the opinion of industry leaders that the fragmenting of the supposedly Single European Market occasioned by 15 different excise regimes is highly disruptive from the point of view of production, distribution and marketing.

Section 6.7 gave vent to some of the indignation expressed by economists concerned with the impact upon alcohol control policies and the distributional effects of the Commission's proposals for the United Kingdom. Most of these economists advocate 'alternatives' to

the Commission's proposals that run directly counter to the whole concept of a Single European Market, not to mention the very *raison d'être* of the European Union. None reflect upon the justification for the special taxation of alcohol, or consider the deleterious effects of the Commission's proposals upon the United Kingdom's indigenous spirits industry, of such importance to certain peripheral regions in Scotland.

Section 6.7 concluded that wide variations in excises have been productive of a sizeable degree of legal and illicit cross-border trading in duty-paid goods, which has had the effect of eroding receipts from indirect taxation in high-tax regimes, such as the United Kingdom. This subject is explored further in the next Chapter.

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CHAPTER 7: PUBLIC POLICY ISSUES IV: SOME ALTERNATIVE PROPOSALS

Is there, that bears the name o' Scot,
But feels his heart's bluid rising hot,
To see his poor auld mither's pot
Thus dung in staves,
And plunder'd o' her hindmost goat
By gallows knaves?

Robert Burns *The Author's Earnest Cry & Prayer* "To the right honourable and honourable Scotch [sic] representatives in the House of Commons."

7.1 Introduction

In Chapter 5.3 it was revealed that the present structure of excise duties in the United Kingdom is illogical, compounded by numerous irrational anomalies, and discriminates heavily against spirits. When expressed on a degree of alcohol basis, the tax on spirits is almost twice that on wine and beer. In examining the rationale for alcohol taxation in Chapter 5.4 & 5.5, it was shown that no compelling arguments have been advanced for penal rates of taxation on spirits, and that a coherent system would tax all alcoholic drinks according to their alcoholic content.

In Chapter 6.4, evidence was marshalled to show that alcoholic drinks compete with each other for market share, and that, *ipso facto*, the higher rates of duty applied to spirits will adversely affect sales of that product. This is of especial importance given that alcohol consumption in the mature markets of Northern Europe is largely

static. Chapter 6.3 revealed that the discrimination against spirits in the United Kingdom is mirrored in other European markets, and is most noticeably reflected in the current minimum level of excises applied across Europe since January 1993.

Section 7.2 of this Chapter examines other problems associated with the present structure of alcohol excises in the United Kingdom, whilst Section 7.3 analyses several reforms proposed by economists. Section 7.4 presents preferred options, and, utilizing estimates of own-price elasticities in Section 7.5, Section 7.6 discusses the effects of the proposed reforms upon the Scotch whisky industry. The impact upon the regional Scottish economy is considered in Section 7.7, and finally, in Section 7.8, the effect of the proposed reforms upon government revenues is perused. Section 7.9 concludes.

7.2 Problems with the Present Structure of Duties in the United Kingdom

Tell them wha hae the chief direction,
Scotland an' me's in great affliction,
E'er sin' they laid that curst restriction
On aqua-vitae;
An' rouse them up to strong conviction,
An' move their pity

Robert Burns *The Author's Earnest Cry & Prayer* "To the right honourable and honourable Scotch [sic] representatives in the House of Commons."

High taxes, by sometimes diminishing the consumption of the taxed commodities, and sometimes by encouraging smuggling, frequently afford a smaller revenue to the government than what might be drawn from more moderate taxes.

Adam Smith *The Wealth of Nations*

The discriminatory treatment of spirits for excise purposes in the United Kingdom has the effect of depressing domestic consumption of a (mainly) domestically produced product, in favour of alcoholic beverages such as wine, which are almost entirely imported, and beer, which is increasingly imported from overseas. Even if foreign companies brew under licence in the United Kingdom, profits from sales are repatriated overseas. The Scotch Whisky Association has calculated that if wines were taxed on the same basis as spirits, then, according to HM Customs & Excise demand equations, this would reduce wine imports, increase sales of spirits & beer and improve the

trade balance by £200 million.¹

Moreover, the task of the Government in lobbying for whisky and other spirits to be taxed fairly alongside wine and beer in overseas markets, and in particular resisting any widening of discrimination in Europe, is made more difficult by the existence of high and discriminatory rates of duty on spirits in the United Kingdom. The European Union accounts for 40% of exports of Scotch whisky, worth £827 million in 1996, and 50% of spirits drunk in Europe are produced in the United Kingdom, but Scotch whisky exports to Europe are under threat if the tax bias against spirits in the United Kingdom is consistently copied and perpetuated across continental Europe.

This point was recognized by the last government, when Chancellor Kenneth Clarke announced in his 1995 Budget Speech: "High rates of duty at home have made it difficult for the Scotch whisky industry to press their excellent case for lower duty rates in other countries."² Tony Tucker of the Scotch Whisky Association has added: "So long as Britain continues to practice a high-tax policy, we see duty in our markets in Europe drifting upwards."³

As was enunciated in Chapter 6.5, the current minimum rates of alcohol excises applied across the European Union establish a minimum rate of duty for spirits that is four times the rate applied to beer, when expressed in terms of equal quantities of pure alcohol. There is no compulsion to tax wine at all. But the credibility of the United Kingdom government in arguing for reform of this prejudiced structure is compromised to a considerable degree by the discrimination against spirits in the United Kingdom's excise duty

structure.

High rates of duty on spirits have had the effect of contributing to lower employment in the industry. Since 1979, an estimated 12,000 full time jobs have been lost in the Scotch whisky industry, and an additional 10,000 jobs have been lost as a consequence of falling beer sales.⁴ Assuming a Type II employment multiplier of 4.63 for spirits and 4.09 for brewing, (see Chapter 3), this implies that as many as 94,460 jobs have been lost overall in the United Kingdom economy as a result of reduced output of spirits and lower domestic production of beer.

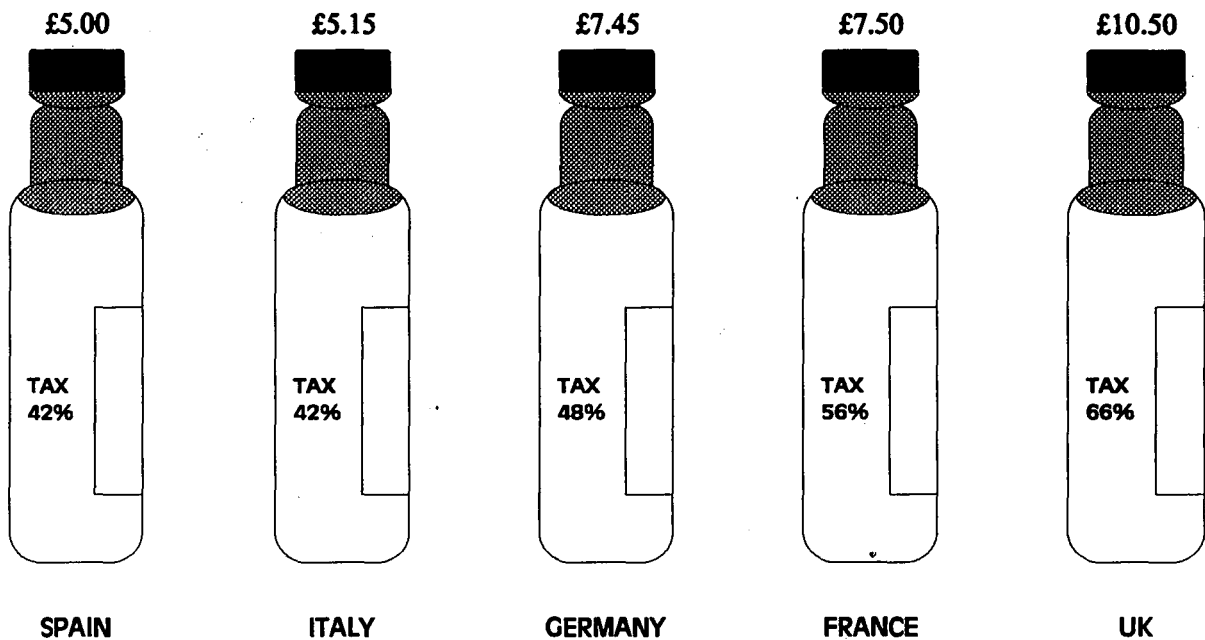
Alcoholic drinks companies face particular uncertainties about future pricing since a major element - taxation - is outwith their control. This uncertainty is particularly great in the case of spirits, since taxation currently forms such a high proportion of the final price, and of Scotch whisky, where production decisions have to be taken at least three years in advance of the product reaching the market.⁵ This contrasts with those low tax regimes in Southern Europe, where attractive pricing is possible, allowing Scotch whisky brand owners to expand their markets and more easily capture the enthusiasm of new drinkers.

A further problem with the United Kingdom's high rates of duty on alcohol in general and spirits in particular, compared with other countries in the European Union, is the encouragement this gives to both legal and illicit cross-border trading. As was expounded upon in Chapter 6.3, the United Kingdom levies higher taxes on alcohol than any other nation in the EU excepting the Republic of Ireland &

the Scandanavian countries.

A standard bottle of Scotch whisky may retail in Southern Europe for less than half the price obtaining in the United Kingdom. So even Britons dwelling in the glens where whisky is distilled are obliged to pay more than double the price charged in others parts of a supposedly 'Single Market.' Figure 7.1 presents a graphic illustration of the effect of different taxes upon final prices of a typical bottle of Scotch whisky in five key European markets.

Figure 7.1: Total Tax on a Typical Bottle of Scotch Whisky in Five European Markets



Source: The Scotch Whisky Association

In the past, with restrictions on the free movement of goods within the European Union, such disparities were sustainable, but the creation of the Single European Market on January 1st 1993 meant that in theory citizens of the United Kingdom are free to import as many

duty paid goods into the country for personal consumption as they wish. Whilst it is an offence in the United Kingdom for merchants or indeed individuals to re-sell duty paid goods unless they pay the normal United Kingdom rate of duty to Her Majesty's Customs & Excise, this has not presented a substantial increase in illegal smuggling.⁶

The problem was recognized by Kenneth Clarke in his original 1994 budget:

One of the most widely publicised other effects of the Single Market has been the increase in legitimate cross-border shopping in alcohol and tobacco, and in smuggling. Both of these have inevitably meant some loss of duty to the Exchequer, pressure on the British drinks industry and some damage to British business. No Chancellor can remain unmoved in the face of this.⁷

Cross-border trading imposes several costs. The resource costs of journeys across frontiers are borne by the individual, but cross-border shopping may result in an inefficient allocation of resources to the extent that consumers' purchasing decisions are driven by tax differentials rather than by underlying differences in producer prices.⁸ High rates of excise duty on spirits suggests that cross-border shopping will therefore be more disruptive to the spirits industry than to the beer and wine trade.⁹

The extra resources allocated to policing illicit trading also involves a cost to the taxpayer. In July 1993, HM Customs & Excise were obliged to create a new corps of 150 excise 'verification officers' in expectation of a surge in illicit activity following the removal of border controls.¹⁰ In May 1997, *The Scotsman* carried a

report on the defraudulent export and re-export of whisky in bond, criminal activity made lucrative by the very high duties levied on spirits in the United Kingdom. HM Customs & Excise estimated their loss associated with this particular enterprise to be of the order of £160 million.¹¹

HM Customs & Excise have suggested that in 1995, £210 million was lost from legitimate cross-border shopping (£110 million wine, £60 million spirits and £40 million beer). In addition, a recent HM Customs & Excise press release reported the results of a survey on excise evasion through smuggling. The survey showed that total revenue (excise duty and VAT) evaded on liquor and tobacco products from other EU countries could amount to some £770 million a year, of which £210 million is attributable to liquor products (£110 million to beer, £50 million each to wine and spirits).¹²

The Wine and Spirit Association conducted its own surveys at ports to collect information on the level of cross-border trade in wine and spirits. On the basis of these it made a preliminary estimate of the annual loss to the United Kingdom exchequer in excise duty and VAT of £573 million on wine and spirits alone in 1996.¹³ The Brewers & Licensed Retailers Association (BLRA) estimates that United Kingdom beer sales lost to cross-Channel shopping total some £430 million per annum. This implies a VAT loss of £64 million and a duty loss of £83 million.¹⁴

Differences between the official and trade estimates are partly a result of differing underlying assumptions about the volume of cross-border trade considered 'additional' to that which would have

been purchased in the United Kingdom. HM Customs & Excise assumes that half the alcohol imported from Europe represents additional consumption, and therefore has no implications for domestic excise revenue.

The availability of cheaper alcohol will lead to some extra consumption since people's real incomes will increase as a result, but HM Customs & Excise stresses that its estimate of the extent of this is subject to a large margin of error.¹⁵ In addition, it should be noted that a recent study by Oxford Economic Forecasting showed that for all reasonable price elasticities, at least 80% of personal beer imports were substituting for sales in the United Kingdom.¹⁶

According to Sutherlands, overall, and not including the Channel Tunnel, the quantities of duty-paid wines and spirits landed in the United Kingdom from Dover-based vessels are now three and a half times greater than they were in the first survey of 1993. In 1995 HM Treasury and the trade agreed that the overall legal element had a retail value in the United Kingdom of between £877m and £1322m.¹⁷

The cross-border trade in beer is having a particularly adverse impact upon brewers, publicans and licensed retailers in the South of England. Prior to the relaxation of frontier controls in January 1993, approximately 440,000 pints of duty-paid beer were landed each day from France. The Brewers & Licensed Retailers Association now estimate that imports have almost tripled to 1.3 million pints a day. This is equivalent to 4% of the beer market in the United Kingdom, 16.5% of the take-home trade, or the combined total of beer sales in all the taverns in Kent & Sussex. The Henley Centre has calculated

that lost beer sales in the United Kingdom may have been responsible for the loss of as many as 10,000 full time equivalent jobs.¹⁸ Ironically, in March 1998 the Prime Minister's partner, Ms Cherie Booth QC, won a legal battle on behalf of a major brewer, arguing that the United Kingdom's obligations under EU law require the harmonization of indirect taxes.

In the light of these problems, a review of duty on alcohol and tobacco to develop a policy aimed at combating smuggling from low-tax countries was announced by Gordon Brown in his first budget. Dawn Primarolo, Financial Secretary to the Treasury, said the review would be held because smuggling of alcohol and tobacco from lower taxed areas on the Continent was damaging the government's revenues:

It cheats the taxpayer and damages legitimate businesses. We want to forge a partnership with the industry with a view to finding new ways of tackling these problems. There will be no let-up in Customs' fight against this criminal activity. I have asked Customs to consult interested parties and report to me by the end of the year.

Responding to the announcement of a review, Brian Stewart, Chief Executive of Scottish & Newcastle, said that the review should recognize the beer and pub industry's ability to create large numbers of new jobs if there was a duty cut. Mr Stewart, along with other representatives of the drinks trade, made the sensible point that raising alcohol duties in the budget prejudged the outcome of the review:

Given that we are confident that the review of duty on alcoholic drinks will reveal a compelling case for their reduction, we are disappointed and surprised that the Chancellor has opted to make an increase in January 1998.¹⁹

The proposed review is especially timely, because in addition to the undermining of the revenue base of alcohol duties by cross-border shopping, recent evidence suggests that alcohol excises in the United Kingdom in general, but those levied upon spirits in particular, may have reached their revenue-maximising point.

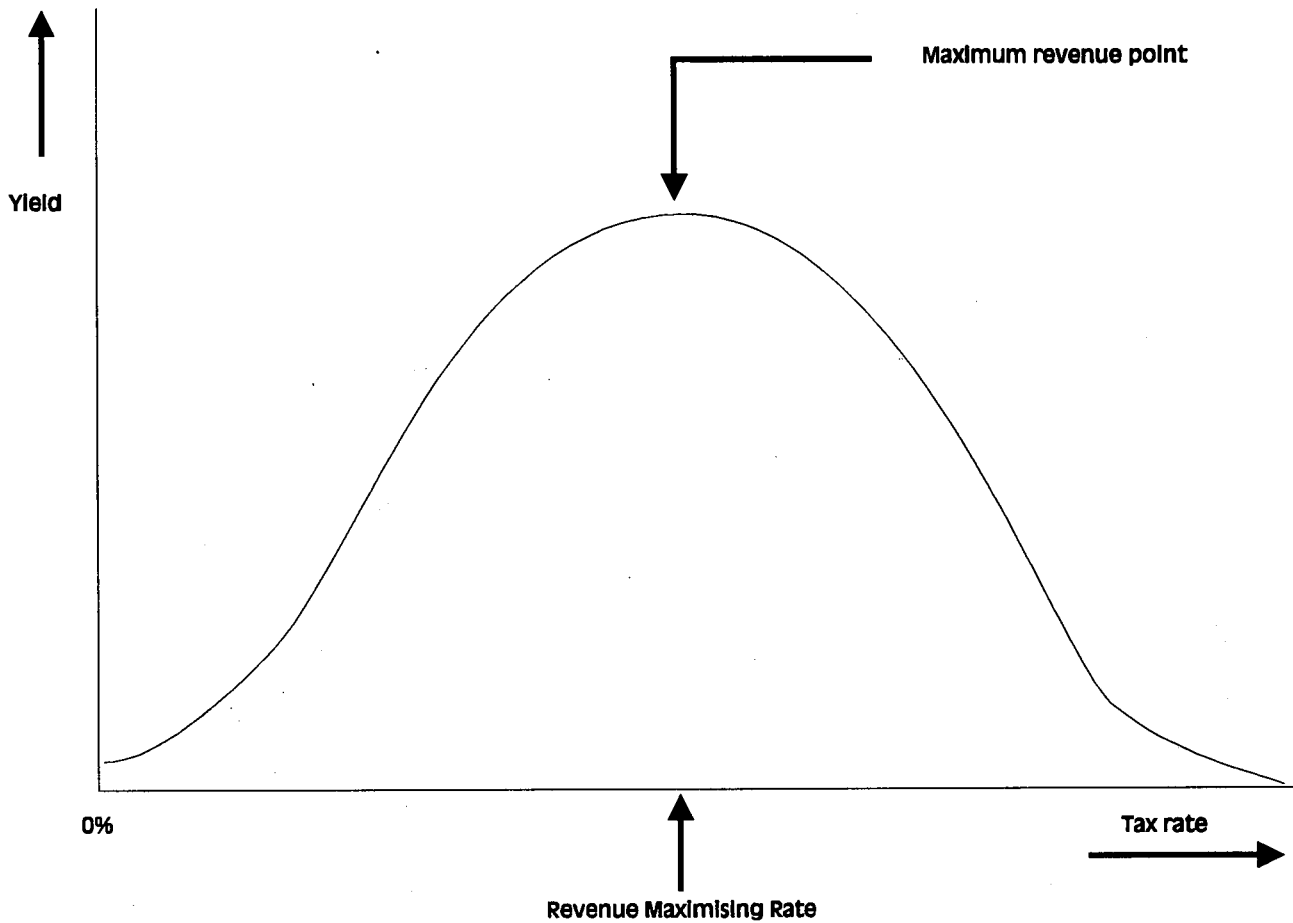
Whenever a tax is levied, be it upon labour, capital, or goods and services, the tax base tends to disappear as companies, households and individuals seek to minimise the incidence of the tax. This non-linear relationship between the tax rate and tax revenue is determined by the rate at which changes in the tax rate cause changes in the tax base (domestic demand) and hence lead to changes in tax revenues. The relationship was hinted at by Adam Smith (1776), and was stated succinctly by Dupuit (1844):

If a tax is gradually increased from zero up to a point where it becomes prohibitive, its yield is at first nil, then increases by small stages until it reaches a maximum, after which it gradually declines until it becomes zero again.¹⁷

Figure 7.2 illustrates this supply-side argument, viz that tax revenues fall if taxes are raised above a certain point. It is most often cited in respect of income tax, but it applies just as much to other taxes such as excise duties. If the actual rate is anywhere above the high point on the curve, then the yield would be increased

by a cut in the rate.²⁰

Figure 7.2: The Dupuit/Laffer Curve



Source: Keith Boyfield, *Too Much To Swallow*

In any case, revenue maximisation is not an appropriate aim of fiscal policy on general social or economic grounds: as the tax rate approaches the maximum-revenue rate, the increase in tax revenue is negligible but the reduction in consumers' and producers' surplus is substantial.²¹ This is discussed more formally in Chapter 5.4.

In recent years, empirical evidence on yields from excise duties suggests that in respect of spirits at least, the high point on the

Laffer Curve may have been surpassed. Following an increase in duty of 4.4% in March 1992, excise revenue from spirits fell by £79 million in the year to March 1993. Revenues rose by almost £46 million in the year to March 1994 after a period of unchanged duty. In the year to March 1995, revenue increased by £69 million. But in the mini-budget of December 1994, occasioned by the backbench Tory revolt over applying VAT at the full rate to domestic fuel, alcohol duties were increased by 4%.²² The result was that revenues from the spirits industry fell by £123m during 1995, despite spirits producers suffering a cut in profit margins in an attempt to maintain sales.²³

In the aftermath of the 4% spirits tax cut in November 1995, the first in 100 years, the market revived and stabilised in 1996, and home sales began to climb.²⁴ In December 1995-January 1996, excise receipts from spirits were up £17 million.²⁵ A second 4% cut followed in November 1996, but in the new Labour government's first budget on July 3rd 1997, Gordon Brown announced a 3% increase in excise duties, effective of January 1998.

Whisky industry leaders attacked the move, saying it was inconsistent in the face of the Chancellor's decision, also announced in the budget, to undertake a thorough review of the whole alcohol tax system. The Scotch Whisky Association (SWA) said it was "immensely disappointed" that the Chancellor had chosen a flat percentage increase of alcohol duties which it said would increase the duty on Scotch by more than that on other drinks. Campbell Evans, Press & Media Spokesman for the SWA said:

We are surprised that he should have made any changes, since it would seem to preempt the outcome of his review. By raising duties ahead of the review, the Chancellor has failed his own test of fairness. The last two rises in spirits duty generated less money for the Treasury so if the Chancellor expects to raise more revenue by this move he is likely to be disappointed.²⁶

7.3 Possible Reforms of the Duty Structure in the United Kingdom

The temptation to smuggle can be diminished only by lowering the tax rate

Adam Smith *The Wealth of Nations*

Section 7.2 determined that the present system of duties in the United Kingdom is contrary to the national interest. This Section looks at the effects of some alternative proposals, all of which take as given the need to first reform the system such that all alcoholic beverages are taxed on an equal basis according to alcoholic content.

It is sometimes contended that taxes on alcohol should reflect distributional considerations, although it has been argued elsewhere in this thesis that such matters are more candidly attended to through the tax & benefit system. Suffice to reiterate, that the current system of excise duties on alcohol in the United Kingdom is not progressive, an outcome which could only be achieved by discriminating against wine and in favour of beer and spirits. Such a regime would be contrary to the rulings of the European Court of Justice. Equalising duty per degree of alcohol would not make the system more inequitable, as none of the reforms proposed would result in a situation where any income decile paid significantly more of its income in alcohol tax.²⁷

The Institute For Fiscal Studies has conducted several studies on raising or lowering the level of alcohol duties in the United Kingdom, and the attendant consequences upon consumption, government revenues, and distributional effects. All models share

the common feature of favouring a system that taxes beverages according to alcoholic content, but offer alternative proposals on how to achieve this. The results of two of the more recent, "Alcohol Consumption & Taxation" written by Edmund Crooks in 1989, and "The Structure of Alcohol Taxes: A Hangover from the Past?" by Paul Baker & Stephen McKay in 1990, are examined here.

Both models use the IFS Simulation Program for Indirect Taxation (SPIT), based upon a demand system model of household expenditures estimated over 17 years of Family Expenditure Survey (FES) data from 1970-1986. The results obtained from the model are incorporated within a micro-computer programme which simulates the effect of tax changes over a sample of some 7045 households from the 1986 FES. Baker & McKay believe their model to be more accurate than Crook's, as it divides the sample into four groups, according to whether the household owns a car, or whether they smoke.²⁸

Crooks determined that 'levelling down' the tax rate on wine and spirits to the rate which applied to beer would result in spirits consumption doubling, but in this model, although beer is no more expensive, beer consumption falls as people move over to spirits. This conclusion is at odds with most other studies which show no significant cross-price elasticity between beer and spirits. In total, alcohol consumption, measured in terms of litres of pure alcohol consumed per annum, increases by 16.5%, government revenue increases by 1.5%. By contrast, Baker & McKay's model suggests that 'levelling down' would result in an increase in alcohol consumption of 12.2%, but would lower government revenue by 7%.²⁹

Conversely, Crooks calculated that in the case of 'levelling up' duties on wine and beer to that which pertains for spirits, beer and wine consumption both fall, and there is some switching to spirits. Overall consumption of alcohol falls by 11%, government revenue increases by 4%. In Baker & McKay's model, 'levelling up' would lower alcohol consumption by 18.7%, and increases government tax revenue by 14%.³⁰

One important assumption made in these simulations is that there is no response from the producers; the only change in prices is caused by the change in taxation. This implies that the incidence of the taxes is entirely on the consumer, and the whole burden is passed forward by the drinks companies. Arguably this is a fair assumption; in most circumstances companies will maximise profits by passing on any tax increases or cuts, although to the extent that they have monopoly power in the market some of the tax increase or cut will be absorbed in lower or higher margins. In this instance, the effects on consumption & revenue will be greater or less than the simulations suggest.

A feature of the two simulations in Crook's model is that both levelling up and levelling down lead to increases in total indirect tax receipts. This apparently paradoxical result is caused by the fact that spirits are much more price elastic than beer. So if taxes are levelled down, the increase in spirits consumption is large enough to boost revenue even though the tax rate is reduced, whereas if taxes are levelled up, the decrease in beer consumption is not great enough to offset the revenue-increasing effect of the higher tax rate.³¹

Baker & McKay concluded that revenue and consumption 'neutral' reforms could be effected by comparable rates of tax per unit of alcohol. This suggests that it would be possible for the Chancellor to implement a set of alcohol duties, based upon alcohol content, which would leave government revenue and total alcohol consumption largely unchanged, but which would reflect the social costs of alcohol consumption in a more consistent manner. The consumption neutral reform implies an increase in duties on beer and wine, and a decrease in the duty on spirits which offsets these increases. The result of this would be a slight increase in tax revenue of 1.5%.³²

But Crooks believes that there is a major problem with this plan from a public health point of view: in the long-term there would be a substantial increase in real incomes, and hence in alcohol consumption. The proposed increase in beer and wine duties would moderate that growth, but the fall in the real value of spirits duties would accelerate it. The increase in demand in response to increases in real income will of course depend upon income elasticity; some of the more recent estimates are given in Table 7.1.

Table 7.1: Income Elasticities of Demand

	Beer	Wine	Spirits
Walsh & Walsh (1970) (Republic of Ireland)	0.50-0.79	-	1.48-2.06
Her Majesty's Treasury (1980)	0.7	2.2	2.5
Duffy (1983)	0.80-1.10	2.5	1.6
Salvanathan (1988)	0.41	1.74	2.18
Crooks (IFS 1989)	0.92	2.56	2.09

Comparison of the income elasticities of wine & spirits in particular with their smaller own-price elasticities (see Section 7.5) suggests that even larger price increases may therefore be necessary to restrain consumption if real incomes are increasing. Studies across countries have discovered that the income elasticities tend to be lower the more important the drink is in terms of its share of total consumption. Thus in beer drinking countries, beer has a low income elasticity, in wine drinking countries (except for Italy), wine has a low value. In Finland, Sweden and probably Russia, vodka has a low income elasticity.³⁴

The reported income elasticities of demand can largely account for both the rapid growth in consumption of spirits and wine in the relatively prosperous 1960s & early 1970s, and the marked fall in the expansion of *per capita* consumption levels during the recession and stagnation after the 1973/4 oil price crisis, & during the 1979-81 recession.

Duffy's (1983)³⁵ estimates suggests that the *per capita* demand for wines and spirits is likely to grow at rates approximately 50-150%

faster than the consumer's real disposable incomes, *ceteris paribus*. Beer demand may increase at a rate 20% below the rate of growth of income. Duffy concludes:

Even if these estimates seem rather high, they do at least signal that the future rate of increase in consumption of alcoholic drinks may be very large indeed; the implication would seem to be that in the long-run any alcohol control policies are likely to be confronted with an uphill struggle against the affluent society's increasing propensity to consume drink.³⁶

On the basis of his estimates of income elasticity, Crook's predicts that an increase in national income of 2 per cent in real terms would increase the consumption of beer by just under 2 per cent, the consumption of spirits by 4 per cent, and the consumption of wine by as much as 5 per cent, arguing:

The volume of consumption could well double every 20 years. It has already been accepted that the Treasury should uprate the nominal value of duties each year in order to maintain their real value. Should we also adopt a different convention for uprating alcohol taxes, in order to curb the growth caused by rising incomes?³⁷

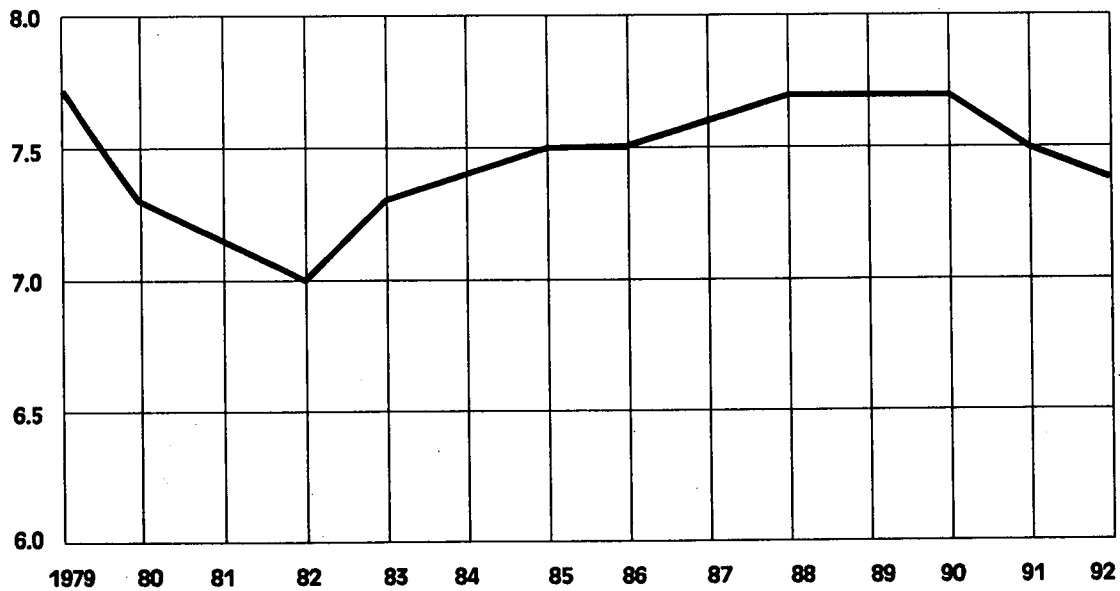
Evidence accrued by Brendan Walsh on the Republic of Ireland³⁸ casts doubt on the wisdom of Crook's suggestion. The excise tax on all alcoholic beverages, but on beer in particular, is extremely high, exceeded only in the Scandinavian countries, which suggests that alcohol is more expensive in relation to income in the Irish Republic than anywhere else in the Western world (Sulkunen, 1978).

But these rigorous fiscal policies notwithstanding, there has been a steady increase in *per capita* alcohol consumption during the 1960s and 70s, with an attendant rise in at least some of the indicies of alcohol-related problems. Perhaps if alcohol tax policy had been more lenient, there would have been a greater increase in problems, but the econometric evidence suggests the effect would not have been dramatic. One consequence of this policy of high alcohol taxes has been a marked rise in the proportion of income devoted to purchasing alcoholic beverages, to the point where the Republic of Ireland is ahead of all other countries on this statistic.

There is an understandable temptation for those concerned with public health to seek a solution to the problems fo alcohol abuse in a tougher fiscal policy. Undoubtedly many countries have neglected this possibility, but the evidence from the Republic of Ireland suggests that only limited inroads on the problems associated with excessive drinking can be expected from a policy of high alcohol taxes.³⁹

Moreover, recent evidence suggests that alcohol consumption in the United Kingdom has plateaued, and that fears rising real incomes will occasion ever higher levels of alcohol consumption may be exaggerated. Figure 7.3 illustrates that after rising through most of the 1980s, *per capita* alcohol consumption in the United Kingdom was actually less in 1992 than in 1979.

Figure 7.3: Per Capita Alcohol Consumption in the United Kingdom 1979-92 (litres of pure alcohol *per annum*)



Source: Pineda Plc, Alcoholic Drinks: Competition in the European Union

As a proportion of their total income, people are choosing to spend less on alcohol, a fact revealed in Table 7.2.

Table 7.2: Average Weekly Household Expenditure on Alcoholic Drink (%) : Scotland and the United Kingdom, 1977-1996

Year	Alcoholic Drink as % of Total Expenditure Scotland	% of Total Expenditure United Kingdom
1977-78	5.7	4.9
1979-80	5.4	4.8
1981-82	5.0	4.7
1982-83	4.7	4.7
1983-84	5.3	4.8
1984-85	5.6	4.8
1985-86	5.6	4.7
1986-87	5.3	4.6
1987-88	5.2	4.6
1988-89	4.9	4.3
1989-90	4.8	4.1
1990-91	4.5	4.1
1991-92	4.5	4.1
1993	4.6	4.3
1994-95	4.3	4.3
1995-96	4.0	

Sources: The Scottish Economic Bulletin, 1994-1996
The Scottish Abstract of Statistics, 1997

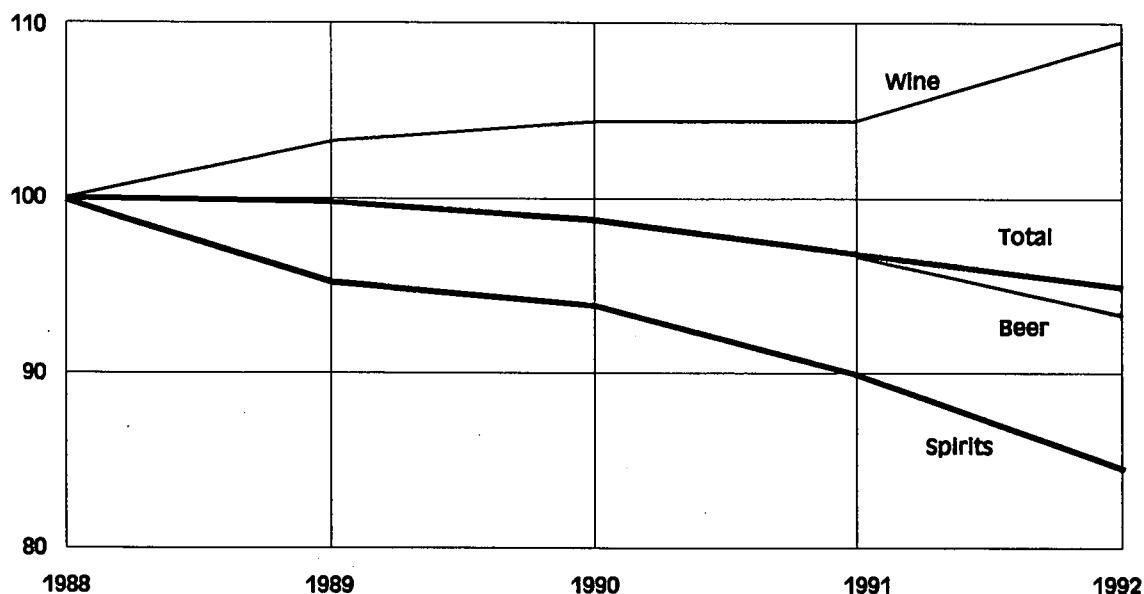
The Scottish Office based their estimates in Table 7.2 upon the Family Expenditure Survey (FES), published annually by HMSO. It should be noted that estimates for alcohol purchases reported in the FES are below those which might be expected by comparison with other sources. This caveat notwithstanding, the general thrust of falling alcohol expenditure as a percentage of total income holds good; evidence from *The Drinks Pocket Handbook 1995* also reveals a fall from 7.21% in 1970 to 6.28% in 1993,⁴⁰ whilst Sutherlands also report a fall from 7.20% in 1984 to 6.02% in 1994.⁴¹

Real absolute expenditure on alcohol in the United Kingdom has also fallen in recent years; in 1988, at the peak of the Lawson boom, total consumers' expenditure on alcoholic beverages summed to £21,789 million. By 1993, this figure had fallen to £20,513 million (expressed at constant 1990 prices).

This fall in expenditure masks significant shifts in the pattern of alcohol consumption. Consumption of both beer and spirits has fallen: beer production in the United Kingdom fell from 41.2 million barrels in 1979 to 34.85 million barrels in 1993, whilst production of Scotch whisky declined from 4,158,700 hectolitres in 1980, to 3,562,500 hectolitres in 1993. As a result, since 1979, the share of spirits in total expenditure on alcohol has fallen from nearly a quarter to barely a fifth, representing a reduction in sales of 30%.⁴²

But whereas brewers have been able to maintain profits on reduced sales because of a 45% increase in the real duty paid price since 1979, the real duty paid price of Scotch has fallen by 3%. By contrast, since 1979, sales of wine have soared by 60%, increasing the proportion of alcohol expenditure accounted for by wines from 16% to 25%.⁴³ The existing duty structure in the United Kingdom therefore levies the highest excise duties on that segment of the drinks market which has been diminishing - spirits - while subjecting wine, whose consumption has been increasing, to much lower excise duties.⁴⁴ These changes are illustrated graphically in Figure 7.4.

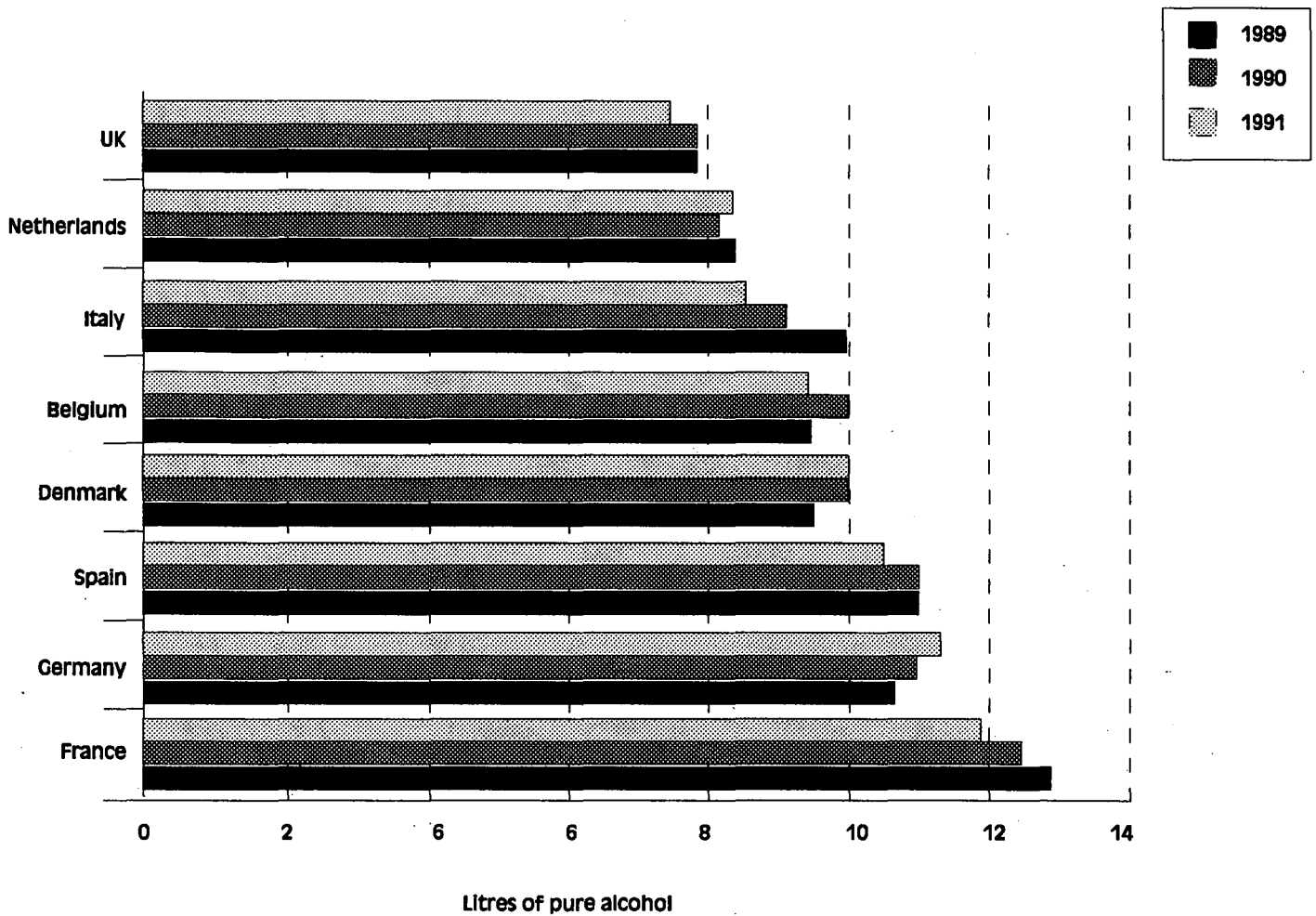
**Figure 7.4: Consumption of Alcohol in the United Kingdom
(hectolitres of pure alcohol) 1988-1992 (1988=100)**



Source: Pleda Plc, Alcoholic Drinks: Competition in the European Union

Finally, as depicted in Figure 7.5, comparison of *per capita* levels of alcohol consumption reveals that the United Kingdom ranks below most other European countries; 21st to be precise, in a league table of international *per capita* alcohol consumption.⁴⁵

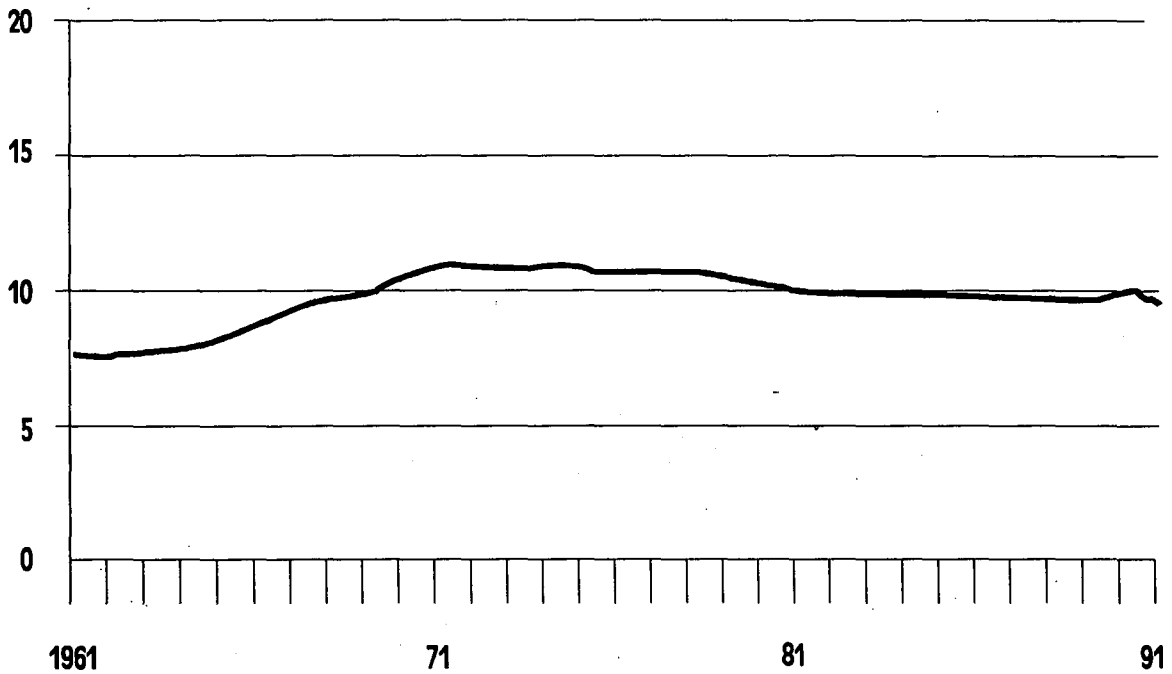
Figure 7.5: Per Capita Alcohol Consumption by Country



Source: Keith Boyfield, *Too Much To Swallow*

In sum, therefore, empirical evidence indicates a fall in *per capita* alcohol consumption in the United Kingdom since 1979, especially of beer and spirits, a long-term contraction in alcohol expenditure as a percentage of consumers' incomes, and a recent reduction in the absolute level of expenditure on alcoholic drinks. Moreover, in other countries of the European Union, where in general alcohol excises are much less than in the United Kingdom, there has only been a slight increase in *per capita* alcohol consumption since 1961, as depicted in Figure 7.6.

Figure 7.6: Average Per Capita Alcohol Consumption (LPA), EU Member States, 1961-1991



Source: Piedad Plc, Alcoholic Drinks: Competition in the European Union

This evidence, together with the findings of Brendan Walsh in respect of the Republic of Ireland referred to earlier, seriously qualifies the Apocalyptic scenarios envisaged by Duffy, Crooks *et al*, and hence markedly diminishes the validity of their arguments for frequent revalorisation of alcohol excises in the United Kingdom to take account of rising real incomes.

7.4 Preferred Options

The various reforms of the structure of alcohol excises in the United Kingdom advocated by economists, such as those attached to the Institute for Fiscal Studies, were considered in the previous Section. Arguments in favour of regularly uprating alcohol duties to take account of high values of income elasticity of demand (particulary for spirits & wines) were also examined, but these were discovered to be at variance with empirical evidence of static alcohol consumption.

It is contended in this Section that none of the proposed reforms outlined in the previous Section are really viable in the present context. Any substantial increase in alcohol duties would result in higher retail prices, politically unpopular, and the price changes would also feed through to the Retail Price Index. Moreover, none of the proposed reforms took into account the impact of significant reductions in alcohol consumption upon industries in the United Kingdom engaged in brewing and distilling. Such an omission also prevents an analysis of the effects of linkage reductions upon the wider economy resulting from a contraction in output in the drinks industry.

Of greatest concern, however, is the encouragement unilateraly raising duties in the United Kingdom would give to the already substantial levels of cross-border shopping, the scale and opportunity cost of which was discussed in Section 7.2. The level of duties in the United Kingdom have already reached such a meridian that the government is being forced to persuade other EU member

states to raise their excise duties on alcohol in order to defend the revenue base in the United Kingdom from the effects of cross-border shopping. The previous Paymaster-General, David Heathcoat-Amory, told a recent conference organized by the Wine & Spirit Association:

Ideally, we would like to see other member states, especially the low taxing ones, increase their duties on wine and beer to bring them more in line with ours...that will not be easy to achieve.⁴⁶

Such appeals are unlikely to win much support, but even if they were, one of the first to suffer would be the United Kingdom's domestic drinks industry. Prosperous markets in Southern Europe would contract sharply if there was any mandatory increase in minimum excise duty rates.

In Chapter 6.7 it was argued that the harmonisation of alcohol excises is a *sine qua non* for successfully completing the internal market. Given that the average level of duties in most member states of the European Union are appreciably lower than in the United Kingdom, any harmonisation will most likely result in rates that are below those pertaining at present in the United Kingdom. In seeking to ensure that any final settlement does not discriminate against spirits, the government will need to recognize that the duty structure first has to be reformed in the United Kingdom.

Reconstituting alcohol excises in the United Kingdom will therefore involve not only altering the relative duty structure such that all alcoholic beverages are taxed at an equal rate according to alcohol

content, but inevitably means a reduction in the absolute level of alcohol excises. This can be achieved most simply through not revalorising all alcohol duties in line with inflation, and cutting the tax on spirits in absolute terms.

The logic of these proposals was recognized by the previous Chancellor, who in his last two budgets, froze alcohol duties on wine and beer and actually reduced the spirits excise in two consecutive 4% cuts. But even with annual cuts of 4%, it would take 14 years for spirits to reach parity with other alcoholic drinks, and in any case, in his post-election budget the present Chancellor widened the absolute differentials between the taxation of alcoholic beverages by announcing an increase in alcohol duties of 3% from January 1998. The Chancellor did, however, freeze spirits duty in his March 1998 budget.

Table 7.3 outlines how the proposed reforms could be effected. The excise on spirits is almost halved, and the tax applied to other categories of alcohol adjusted downwards slightly such that all alcoholic beverages are taxed at a flat rate of £10.00 per litre of pure alcohol.

Table 7.3: Duty Charged (£) Per Litre of Pure Alcohol: Current Levels (1997) and Proposed Change

Product	ABV	Present Duty	Proposed Duty	% Cut
Fortified Wine	17.50%	10.70	10.00	6.5
Beer	4.93%	10.82	10.00	7.6
Table Wine	11.20%	12.54	10.00	20.0
Spirits	40.00%	18.99	10.00	47.0

Creating such a structure of alcohol duties in the United Kingdom

would substantially increase sales of spirits such as Scotch whisky, increasing output and employment across Scotland. This is discussed in more detail in Section 7.6. Moreover, reforming alcohol excises along the lines proposed would enable the government to lobby credibly for comparable structures in other nations, and for the principle of equivalency to be applied when setting minimum rates of alcohol duties across the European Union.

Nevertheless, in addition to reforming the domestic structure of alcohol excises, the United Kingdom government may need to adopt a more aggressive stance within the European Union if it is to oblige other member states to recognize its point of view. The government may wish to use its veto in the Council of Ministers to thwart any attempts at harmonising alcohol excises in the EU which does not apply the principle of taxation according to alcohol content. In addition, the government should fight tenaciously for the removal of the several 'concessions' allowed as part of the October 1992 agreement on minimum rates.

A *tête-à-tête* in the Council of Ministers may not be sufficient. The government should consider very seriously applying Imperial Preference in the form of abolishing duties & VAT on wine imported from the British Dominions of Australia & New Zealand. This would have the salutary affect of focusing the attention of wine enamoured European governments on the United Kingdom's viewpoint.

Such policies could be implemented by the United Kingdom *sans peur et sans reproche*, as they would be no different to the 'preference' France has secured for the spirits produced in its Caribbean

colonies, which places Scotch whisky at a competitive disadvantage in its most important market. Reducing the tax on spirits in the United Kingdom below that which obtains for wine would not be nearly so effective, because as well as undermining the case for equivalency in excise taxation, such a move would also benefit French producers of Cognac, Armagnac, and Calvados. New World wines currently represent formidable competition to European viniculture, not only in respect of quality, but in terms of value too. Abolishing taxes on Antipodean wines would therefore be highly efficacious.

7.5 Estimates of Own-Price Elasticities

A reformed system of alcohol excises in the United Kingdom was advocated in the previous Section, involving a reduction in duties in general, but on spirits in particular. The effect of these reductions on sales will clearly depend upon the responsiveness of demand to any fall in price. The precise value for own-price elasticity depends upon the shape of the 'Demand Function' for the alcoholic beverage concerned - how the demand for it responds to changes in price. If the measured elasticity is less than minus 1, a good is defined as displaying elastic demand; if the elasticity is equal to minus 1, the good is said to be of unit elasticity (ie if the elasticity of demand is precisely minus 1.0, a ten per cent fall in price would cause sales to increase by 10 per cent); and if the elasticity of demand is greater than minus 1 (eg -0.8) the good is deemed to display inelastic demand - a price change will have minimal impact on the quantity sold. Elasticity figures are usually expressed as minus figures, since if the price of a good increases, demand falls. Thus, an inverse relationship normally obtains between the price charged and the quantity demanded.

In a recent report for the Institute for Fiscal Studies (IFS) entitled *Alcohol Taxes & The Single Market* (1995), Ian Crawford & Sarah Tanner⁴⁷ analysed household expenditure on beer, wines and spirits, arriving at some estimates of own price demand elasticities for the year 1993. These are set out in Table 7.4, together with other estimates of own-price elasticities for alcoholic beverages, which will be referred to later in this Section.

Table 7.4: Own-Price Elasticities

	Beer	Wine	Spirits
Her Majesty's Treasury (1980)	-0.2	-1.1	-1.6
Salvanathan (1988)	-0.20	-0.49	-0.79
Crooks (IFS 1989)	-1.0	-0.91	-2.42
Constant Real Expenditure	-1.4	-0.4	-2.41
True Budget Shares	-1.29	-0.83	-1.64
The Henley Centre (1991)	-0.30	-0.30	-0.49
Balasubramanyan & Salisu (1993)	-0.34	-0.97	-1.06
Her Majesty's Customs & Excise (1993)	-0.5	-1.3	-1.3
Bossard (1994)	-1.4	-0.45	-2.10
Her Majesty's Customs & Excise (1995)	-0.96	-1.05	-1.07
Crawford & Tanner (IFS 1995)	-0.67	-1.40	-1.18
Blake & Nied (1995) Av of time series	-0.19	-0.54	-0.57
Av of cross section	-1.15	-0.13	-2.94
Range	-0.19/ -1.29	-0.13/ -1.40	-0.57/ -2.94
Mean	-0.74	-0.76	-1.51
Standard Deviation	0.480	0.401	0.766

Significantly, the official economic evidence collected by HM Customs & Excise also indicates that the demand for alcoholic drinks, especially spirits, is sensitive to price. As can be seen from Table 7.4, the demand equations employed by HM Customs & Excise in 1995 differ from those calculated by Crawford & Tanner. For example, Customs & Excise deem the demand for wine to be marginally more inelastic than the demand for spirits, whereas Crawford & Tanner concluded that the demand for wine is significantly more elastic than that which obtains for spirits.

In a recent report entitled *Too Much To Swallow* (1995)⁴⁸, the Adam

Smith Institute asked Her Majesty's Customs & Excise to explain the different estimates. It transpired that HM Customs & Excise demand elasticities were based upon some econometric studies undertaken by the IFS for Customs & Excise in 1990. It would appear that the different estimates of elasticity of demand are explained by the fact that the IFS regularly updates its model for alcoholic beverages in the light of changing personal incomes, tax rates and other variables. Crawford & Tanner believe that the differences between the two sets of estimates are not significant, if allowance is made for the standard errors involved in such calculations.

In a recent enquiry, the Treasury Select Committee questioned Henry Neuberger, the Head of the Economics & Statistics Division of HM Customs & Excise, about the official estimates of demand elasticity with regard to alcoholic drinks. Mr Neuberger pointed out that "Alcohol, by contrast with tobacco, has a demand which is very sensitive to price." Mr Neuberger confirmed that "On the whole, professional estimates put the elasticity of demand at about unity, which means that a one per cent increase in price will lead to about a one per cent fall in consumption."⁴⁹

The estimates of Crooks (1989) on own-price elasticity require some comment. It is possible that the own-price elasticities of -1.0 for beer, -0.91 for wine and -2.42 for spirits, are biased for alcoholic drink in particular, because of the under reporting of alcohol in the Family Expenditure Survey (FES). Consider the constant real expenditure own-price elasticities as -1.4 for beer, -0.4 for wine and -2.41 for spirits, on mean budget shares of 4.1, 0.75 and 1.1 per cent respectively. If, however, the true budget shares, discovered

from the National Accounts, are used instead of the FES shares, the elasticities become -1.29 for beer, -0.83 for wine, and -1.64 for spirits, much closer to the estimates of HM Treasury (1980).⁵⁰

If spirits have the same (or greater) own-price elasticity as wine and beer, then spirits' share of consumer expenditure must be reduced relative to other drinks categories. This follows from the fact that excise duties form a higher proportion of the final price of spirits products.⁵¹

Most other studies have at least concurred on the inelasticity of demand for beer, but disagree as to the position in respect of wine and spirits. Duffy (1980) believed the price elasticity of demand for beer in the United Kingdom to be low,⁵² whilst Walsh & Walsh (1970)⁵³ in their study of alcohol consumption in Ireland, came to the conclusion that a "rising relative price of beer has little or no effect on the quantity of beer consumed, but does lead to a proportional increase in expenditure on beer."

Duffy (1980) found that spirits and wine are significantly responsive to movements in prices, but Walsh & Walsh (1970) considered their best estimate for Ireland was 0.57. Salvanathan used the differential approach to analyse the demand for beer, wine and spirits in the UK, 1955-85, and he too found demand for all alcoholic beverages to be inelastic.⁵⁴

Balasubramanyan & Salisu's estimates are based upon a model combining the traditional approach and the systems wide method, believing this is likely to yield demand elasticities that are

consistent with stylised facts. They express *per capita* real expenditure on each of the three categories of alcoholic drink as a function of total real expenditures on alcoholic drinks, real prices of the three drinks, and the amount of expenditure incurred by vacationers from the United Kingdom abroad (particularly in Europe.)⁵⁵

In a 1994 paper utilising cointegration and error correction techniques, Balasubramanian & Salisu also found the own price elasticity of demand for spirits to be higher than that for wine and beer. But whilst the short run own price elasticity of demand for wine was found to be higher than its long-run price elasticity, the opposite was found to be true in the case of spirits. They found little difference between the estimated short-run and long-run price elasticities of demand for beer.

The error correction term in the error correction mechanism was found to be statistically different from zero, leading Balasubramanian & Salisu to conclude that: "This suggests that the extant studies on demand for alcoholic drinks in the United Kingdom have relied on equations which are misspecified, as they do not include the error correction term." For these reasons, Balasubramanian & Salisu have argued that the price elasticities of demand for the three categories of drinks estimated on the basis of the cointegration and ECM models may be much more accurate than those grounded in conventional econometric models.⁵⁶

In an in-depth econometric analysis of demand for alcoholic drinks in ten European Union countries, especially prepared for the European

Commission, Bossard (1994) found only three examples out of 40 alcoholic drinks sectors across Europe where a price rise did not result in reduced consumption. The three sectors discovered where price was not a significant influence were beer consumption outside of the home in France, consumption of still wine in Germany, and wine consumption in Spain. Bossard concluded:

On the whole, consumption of alcoholic beverages is highly sensitive to price...In most countries, the sensitivity to the specific price is greatest for spirits and least marked for the dominant alcoholic beverage.⁵⁷

In conclusion, the evidence suggests that precise estimates of the own-price elasticity of demand for different alcoholic drinks will remain elusive; Table 7.4 shows that there are *quot homines, tot sententiae* on this subject, and the standard deviations are particularly revealing. For this reason, average values have also been computed, and *faux de mieux*, for the purposes of this study the mean estimates calculated will be utilised. It should also be noted that the lowest level of disaggregated elasticity estimates available refer to 'spirits' in general; there are no officially recorded figures specifically for whisky, much less any distinction made between demand for the cheaper blended whiskies or the higher quality malts.

But recent empirical evidence suggests that attributing a value of approximately -1.5 to the price elasticity of demand for whisky with respect to own price may be appropriate. An article in *The Scotsman* newspaper on March 6 1997 reported that sales of Scotch whisky had increased by 3% in the aftermath of the 4% cut in duty in November

1996.⁵⁸ As duty accounts for approximately 50% of the final price, this represents a 2% fall in the final price; a 3% increase in sales therefore suggests a price elasticity of -1.5.

7.6 Implications for Whisky Industry of Reform

Section 7.4 advocated reforming the structure of alcohol excises in the United Kingdom such that all alcoholic beverages were taxed at a flat rate of £10.00 per litre of pure alcohol. This would necessitate minor reductions in the tax on beer, cider and fortified wines, a 20% reduction in the wine excise, (100% for wines imported from Australia & New Zealand), and almost halving duties on spirits.

At present, an average 70cl bottle of spirits at 40% abv attracts a specific duty of £5.32. Including Value Added Tax of 17.5%, this sums to £6.25. Reducing the tax on spirits from £18.99 to £10.00 per litre of pure alcohol implies a cut of just over 47%, which would lower the specific duty on an average strength bottle of spirits to £2.80, £3.29 including VAT. Assuming an average retail price for a typical bottle of blended Scotch whisky of £10.50, this 47% reduction in tax of £2.96 represents a fall in the final price of 28%.

The effect on sales of whisky from this cut will clearly depend upon the responsiveness of demand to this reduction in price. In Section 7.5, an average value for the own-price elasticity of spirits was determined to be -1.51. So a 28% reduction in the price of whisky would, *ceteris paribus*, result in a 42% increase in demand.

This assumes of course that the cut in duty is passed on fully to the consumer, not added to producer or retailer margins. Current pressure on the selling prices realised by producers suggests that some may attempt to garner some of the duty saving for themselves. A certain distributor in the Far East intimated that he believed the

Scotch whisky industry was being "optimistic" in assuming that the savings from lowering Japanese duties on imported spirits will be passed on to the consumer.

But presuming that demand for spirits does increase by the estimated 42%, what will be the effect upon employment in the whisky industry? In 1996, 32.07 million litres of pure alcohol (lpa) of Scotch whisky were consumed in the United Kingdom. A 42% increase in demand would therefore increase this figure by 13.47 million lpa to 45.54 million lpa. This 13.47 million lpa increase in output destined for the domestic market represents a rise of 4.7% in total Scotch whisky output, based upon 1996 world sales figures of 288.87 million lpa. As discussed previously, at end of 1996, some 13,345 people were directly employed by the whisky industry, so a rise in total Scotch whisky output of 4.7% should increase employment by 627.

This analysis assumes near enough 100% capacity utilisation in malt & grain distilleries, which in reality is seldom the case; in 1995, the figure was of the order of 70%, so it is quite likely that a substantial increase in output could be realised without hiring many more men. In addition, it is assumed that whisky distillers will wish to maintain current stocks in bond, estimated at 7.4 years supply at current (1997) sales projection. But since whisky is consumed at an average age of six years, a stocks/consumption ratio of 7.0 is held within the industry to be appropriate.⁵⁹ Moreover, even if the estimates of direct employment increases may be inflated, the extra whisky production will require additional inputs from suppliers who may well be operating at higher levels of capacity utilisation.

7.7 Effects on Regional Scottish Economy

In the previous Section it was calculated that up to 627 jobs could be created within the whisky industry by the proposed reduction in the spirits excise. This Section attempts to determine the impact increased output of whisky has upon the regional Scottish economy.

Multiplier estimates presented in Chapter 3 vary as between the 1989 and 1994 Input-Output Tables. Two estimates of indirect and induced employment created by the increase in final demand for whisky are therefore given in Table 7.5.

Table 7.5: Employment Created Across Scottish Economy Resulting From Increase in Final Demand For Whisky: 1989 & 1994 Employment Multiplier Estimates

Employment Created	1989 Multipliers	1994 Multipliers
Direct	627	627
Indirect	1668	922
Induced	608	395
TOTAL	2903	1944

1989 Type I Employment Multiplier = 3.66
1989 Type II Employment Multiplier = 4.63
1994 Type I Employment Multiplier = 2.47
1994 Type II Employment Multiplier = 3.10

These calculations assume that the income arising from direct and indirect employment created by the whisky industry is additional; there is no offset from reduced unemployment and supplementary benefit. This assumption is consistent either with the jobs being filled by in migration or by people entering the labour force, rather than leaving the unemployment register.

But conceivably, all those entering employment could come off the unemployment count. In an article for the *Scottish Economic Bulletin* entitled "Income & Employment Multipliers: Some Further Results," D S Henderson & G Storie⁶¹ calculated that taking this into account diminishes the Type II employment multiplier associated with the whisky industry by a factor of approximately 0.3. In this instance, the Type II employment multiplier, estimated by J M Alexander & T R Whyte on the basis of the 1989 Scottish Input-Output Tables, is therefore reduced from 4.63 to 4.33.⁶²

In Henderson & Storie's calculations, the income of the unemployed was assumed to be 20% of the income received in employment. This estimate had been derived by estimating the average receipts of unemployment and supplementary benefit per head of unemployed in Scotland, and taking this as a percentage of average income per person in employment, including the self-employed. They also assumed that the average tax rate is relevant to the change in income, but in reality this assumption is likely to understate the tax paid on additional income, and therefore to overstate the relevant multiplier, because of the effects of the income tax rate and of factors such as the loss of rent and rate rebate, eligibility for payment of National Insurance contributions etc.

In practice, it is unlikely that net increases in employment will result in either all persons coming off the count or none. Interpolation according to the expected outcome would yield more relevant estimates,⁶³ but for the present purposes the Type II employment multipliers associated with the 1989 and 1994 Input-Output Tables will be utilised.

Evidence presented on cross-price elasticities in Chapter 6.4 suggested that whilst there is no statistically significant cross-price substitution between beer and spirits when the relative price of one varies *vis-à-vis* the other, wine and spirits are close pairwise substitutes. The minor reductions in beer duties proposed will not therefore compromise the calculated employment gains above. The 20% reduction in the wine excise, 100% for wines from the Dominions, will however impact upon demand for spirits, but probably not to any significant degree.

It will be noted too that the projected increase in employment across Scotland occasioned by the reduction in excise duties (1944-2903) offsets the contraction in employment calculated in Chapter 4 in the event of losing intra-EU duty free sales of Scotch whisky in 1999 (463-1232). Even assuming that 80% of intra-EU duty free sales of Scotch whisky are lost in the aftermath of abolition, and employment gains from lowering the spirits excise were less than the minimum 1944 projected, in a likelihood there would still be a net creation of jobs.

By reducing duties on spirits along the lines proposed, the government of the United Kingdom would ensure that increased domestic demand for Scotch whisky compensates for the loss of the intra-EU duty free market, and will therefore at least sustain, if not augment slightly, current levels of employment across Scotland dependent upon the whisky industry.

At present, the majority of spirits destined for duty free outlets

are filled in 1 litre bottles. So an additional innovation that would assist European spirits producers in coming to terms with the abolition of intra-EU duty free in 1999 would be the substitution of the present 70cl bottle with a standard 1 litre bottle for all spirits sold in the European Union. Such a move would lower production costs and hence be popular within the whisky industry, especially if it were to provide the basis for further standardization in other markets. Litre bottles would also render a reconstituted duty system that taxed on the basis of 'litres of pure alcohol' transparent and readily understood.

Such a reform would be especially beneficial to the Scotch whisky industry. The proposed reduction in spirits duties in the United Kingdom would have the effect of cutting the tax on a typical 1 litre bottle of Scotch whisky at 40% abv by £4.23. Assuming a current retail price of £15.00 per litre, this would reduce the selling price to £10.77 - roughly equivalent to the 'duty free' price currently charged aboard a P&O ferry for a litre of typical blended Scotch whisky.

7.8 Impact of Proposed Reforms on Government Revenue

In this Section, the possible impact upon exchequer receipts in the United Kingdom of the proposed amendments to the structure of alcohol duties is considered. Reducing excise duties on spirits in particular would shrink tax receipts on each bottle sold, but the increase in sales would have the effect of enlarging the tax base, mitigating the final loss in tax.

According to Scotch Whisky Association Databank figures, in 1996 duty paid Scotch whisky retained for home use was 32,065,300 lpa, duty was £19.78 per litre of pure alcohol,⁶⁶ so tax receipts realised in 1996 were approximately £634 million. This is in line with Sutherlands' 1996 estimate of HM Customs & Excise duties from Scotch whisky of £653 million.⁶⁴

It was advanced in the previous Section that a reduction in the spirits excise to £10.00 per litre of pure alcohol would increase total whisky output by 13.47 million to 45.54 million lpa. Total excise receipts from whisky would therefore be of the order of £455 million. The increase in employment associated with higher output of whisky would reduce social security and raise income tax payments, but it was contended in the previous Section that this salutary benefit will most likely be offset by reduced employment resulting from lower exports of Scotch whisky in the aftermath of the abolition of intra-EU duty free in 1999. A similar qualification applies in respect of altered corporation tax receipts.

Nevertheless, the reductions in duty rates will act to curtail the

incidence of cross-border shopping. Estimates by HM Customs & Excise presented in Section 7.2 suggested that the duty and VAT loss on spirits in 1996 from legitimate cross-border shopping and illicit smuggling was at least £100m. The significant cut in duties on spirits proposed would render much of this activity unprofitable, so it is quite possible HM Customs & Excise would realise most of this revenue. In addition, lower duties on beer and the proposed 20% cut in wine duties (100% on wines from Australia & New Zealand), would also substantially stem the flow of cross-border shopping, and hence help to restore the domestic excise tax base.

The calculations above suggest therefore that lost revenues to the exchequer associated with the proposed reductions in alcohol duties are likely to be minimal, a finding supported by empirical evidence of the revenue effects of recent changes in duties. Data presented in Section 7.2 revealed that revenues accruing to HM Customs & Excise from alcohol duties fell in the financial year following a duty increase, but increased when duties were frozen or reduced.

As discussed in Chapter 5, the dependence of HM Treasury in the United Kingdom upon alcohol & commodity taxes reflects past administrative and political convenience rather than a calculated use of the tax system to influence consumption patterns. The growth of revenue from new and buoyant taxes during the 20th century has greatly reduced the pre-eminence of the old excise duties as a source of revenue.⁶⁷

Nevertheless, the United Kingdom continues to raise a higher proportion of total government revenue from taxes on alcohol than any other European Union member state, excepting the Republic of

Ireland and the Scandanavian countries.⁶⁸ The total revenue from alcohol duties in 1995-96 summed to over £5.6 billion (disaggregated in Table 7.6), equivalent to 2.5p on the basic rate of income tax, or 2.3% on VAT.

**Table 7.6: HM Customs & Excise Revenue from Alcoholic Drinks:
Year to 31st March 1996 £m**

Product	Total Revenue	% of Total
Scotch Whisky	652.6	11.6
Other Spirits	1000.8	17.8
Beer	2642.3	47.0
Wine	1187.3	21.1
Cider & Perry	134.2	2.4
Total Drinks	5617.2	100.0

Source: The Scotch Whisky Industry Review 1996

It is evident, therefore, that governments in the United Kingdom have been attempting to raise too great a proportion of revenues from alcohol excises, and substitution into other forms of taxation may be timely.

7.9 Conclusions

Section 7.2 of this Chapter discussed the many problems with the present structure of alcohol excises in the United Kingdom. This system depresses consumption of spirits, chiefly produced in the United Kingdom, and encourages the imbibing of wine, almost exclusively imported. The discriminatory treatment of spirits in the domestic market seriously compromises the efforts of the whisky industry to eliminate inequitable tax treatment overseas, most notably evident in the recent proposals of the European Commission for minimum alcohol excises across Europe.

Moreover, high rates of duty in the United Kingdom have been productive of lower employment in the drinks industry, a phenomenon worsened by the prevalence of cross-border shopping, which has been directly responsible for the loss of many jobs in the on-trade in Southern England. In addition, on the basis of HM Customs & Excise own estimates, the loss to the United Kingdom Treasury from reduced domestic sales of alcohol is substantial.

Empirical evidence taken from the effects of recent alterations in the excise rates suggests that government revenues from spirits duties fell in the aftermath of an increase in tax, but rallied when duties were frozen or reduced. This implies that excise duties in general, but on spirits in particular, may have surpassed their revenue maximising rate.

Section 7.3 analysed the various alterations to the United Kingdom's structure of alcohol excises proposed by economists. The 'levelling

up', 'levelling down', and 'revenue & consumption neutral' reforms advocated by those attached to the IFS were examined, as was the notion that high values of income elasticity of demand for alcohol (wine & spirits in particular) justifies regularly revalorising alcohol duties to take account of rising real incomes.

All these economists' arguments were found to be wanting. None took into account the effects of their proposals upon important industries in the United Kingdom, like the Scotch whisky industry, nor did they consider the bearing of cross-border shopping upon levying indirect taxation in the United Kingdom. The Republic of Ireland was shown to have utilized extensively indirect taxation in an attempt to curb alcohol consumption, but the results have been mixed. Moreover, other evidence presented revealed that total *per capita* alcohol consumption in the United Kingdom (especially of spirits & beer), has actually fallen since 1979, and risen only slightly in the wider European Union, where alcohol control policies have generally been much more relaxed.

In the light of this evidence, it was suggested in Section 7.4 that alcohol duties in the United Kingdom should be frozen, and the rate on spirits approximately halved in real terms, such that all alcoholic drinks would be taxed at the flat rate of £10.00 per litre of pure alcohol. On the basis of McDonnell & Maynards' estimates referred to in Section 5.5, this figure would still be more than adequate to take account of the negative externalities associated with alcohol consumption. Such a reform would also enable the government and drinks industry leaders in the United Kingdom to lobby credibly for 'equivalency' in alcohol taxation in other countries.

It was also contended that abolishing taxes on wines imported from the British Dominions of Australia & New Zealand would not only augment consanguinity with these Commonwealth nations, but have the effect of forcing those European countries for whom wine is an important industry to take account of the United Kingdom's viewpoint when discussing the harmonisation of alcohol excises across Europe.

Section 7.5 considered the widely varying estimates for values of own price elasticity of demand for alcoholic beverages in the United Kingdom, evidence if any were needed of the severe limitations on Economics as an 'exact' social science. Nevertheless, for spirits at least, the mean estimate calculated conformed quite closely with empirical evidence of the effect of recent reductions in the spirits excise upon sales of Scotch whisky.

Utilizing this elasticity estimate in Sections 7.6 & 7.7 facilitated a computation of the potential effects of a reduction in duties upon demand for whisky, and hence employment, in the whisky industry and wider Scottish economy. The estimated gain in employment was calculated to be sufficient to offset any negative linkage adjustments associated with a reduction in whisky exports in the aftermath of the abolition of intra-EU duty free in 1999.

Finally, in Section 7.8 the impact of the proposed reductions in duties upon government revenue was contemplated. It was suggested that the enlarging of the tax base associated with increased sales, together with a reduction in cross-border trading, would ensure that

any loss to the exchequer would be minimal. In addition, it was contended that governments in the United Kingdom have been relying too heavily upon alcohol excises as a source of revenue, and that alternative forms of taxation should be considered.

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CHAPTER 8: CONCLUSIONS

In the introductory Section of Chapter 2, it was stated that no *a priori* conclusion as to the exigency of government intervention in those areas most directly impacting upon the whisky industry was possible without an examination of those factors which were *intra vires* the industry to affect. Such an appraisal was consummated in Chapter 2.

It was revealed that the precedent for government intervention in the industry was set as far back as 1823, and since that time, the public authorities have periodically acted to assist the development of the industry. A consideration of the production of whisky revealed that in such a traditional industry, major improvements in productivity are rare, and where this has been attempted, there has often been a trade-off in quality.

The issues surrounding mergers & acquisitions within the whisky industry and indeed the wider Scottish economy were examined, and the reservations of those concerned with high levels of 'non-Scottish' control of indigenous industries noted. It was nevertheless argued that in the whisky industry at least, such consolidation facilitates economies in marketing & distribution, and may be necessary given contracting sales of whisky in highly competitive mature markets, and the uncertainty of continuing success in those newly emerging.

Chapter 2 concluded that whilst there is some scope for performance improvement in the arenas of marketing & distribution, the ability of

the whisky industry to achieve a sustained increase in demand for whisky is sharply constrained, considering that taxation forms such a significant element of the final price of the product.

Chapter 3 examined the linkages between the whisky industry and the regional Scottish economy, calculating that the whisky industry may support over 40,000 jobs across Scotland, directly, indirectly through suppliers, and by the process of multiplier induced employment. In particular, the Scottish Input-Output Tables revealed that the Scottish agricultural, glass and paper & board sectors are especially dependent upon the patronage of the whisky industry.

Whilst it was suggested in Chapter 4 that abolition of the intra-EU duty free concession in 1999 is timely, it was revealed that the intra-EU duty free market was worth approximately £185m to the whisky industry in 1995, representing almost 2.3% of total whisky output by volume in that year. Determining precise estimates as to the likely impact of abolition of intra-EU duty free upon the whisky industry was difficult, given the possibility that there may be an increase in duty-paid sales overseas in the aftermath of abolition. But it was concluded that there will likely be significant negative linkage adjustments with suppliers to the whisky industry post 1999.

Chapter 5 examined the history of the special taxation of alcohol in the United Kingdom, and noted the influence of past prejudices against spirits upon the present duty structure, which taxes spirits, on a degree of alcohol basis, significantly more severely than either wine or beer. It was concluded that there are no

economic, health or social justifications for such discrimination, and that an ideal system of excise duties would seek to determine the total social cost of alcohol consumption, and then charge the average cost on each degree of pure alcohol sold. On this basis, even attributing a high value to the estimated total social cost of alcohol consumption would not justify the current level of excise duties in the United Kingdom.

Chapter 6 studied the European market for alcoholic beverages, the form of which is in part determined by duty structures in every European nation which discriminate heavily against spirits in favour of wine, and to a lesser extent, beer. Several academic reports were presented in Chapter 6 which concluded that the different categories of alcoholic beverage are in competition with each other to fulfill consumer needs, and that this being the case, excise duty structures that discriminate against spirits will have an appreciable impact upon consumption.

The most recent proposals of the European Commission on the harmonisation of alcohol excises were shown to be based upon nothing more than blatant protectionism of European vinicultures, highly nefarious in every respect to spirits distilling industries in the United Kingdom. But the alternatives to excise harmonisation advanced by most economists ran directly counter to the concept of a Single European Market.

Chapter 7 discussed the many problems with the present structure of alcohol excises in the United Kingdom, which has the effect of depressing consumption of spirits, a largely indigenously produced

product, and encouraging the purchase of wine, almost entirely imported. In addition, it was revealed that high duties on alcohol in general have encouraged a surge in cross-border trading in duty-paid products, which as well as being to the detriment of employment and exchequer revenues in the United Kingdom, has been productive of criminal activity.

The various alternatives proposed by economists to the United Kingdom's structure of duties were considered, but all were found to be wanting. Most advocated reforms that would equalise the tax applied to all alcoholic beverages, but believed 'levelling up' duties on wine & beer to that which pertains for spirits was the most effective way of achieving this. None took into account the effects of such proposals upon important industries in the United Kingdom, such as whisky, nor did they consider the bearing of cross-border shopping upon levying indirect taxation in the United Kingdom. Moreover, empirical evidence presented in Chapter 7 suggested that alcohol duties in the United Kingdom, particularly those applied to spirits, have likely exceeded their revenue maximising rate.

In the light of this evidence, it was contended that the structure of alcohol duties in the United Kingdom should be reformed such that all alcoholic beverages are taxed at an equal rate on the basis of alcoholic content. This reform could be most effectively implemented by harmonizing alcohol excises at a level of £10.00 per litre of pure alcohol, and thereafter freezing duties with a view to reducing their real value. This implies a slight reduction in duties on beer, a cut in the wine excise of 20%, and almost halving the tax applied to spirits.

It has been argued throughout that such innovations in the United Kingdom are a *sine qua non* for the whisky industry & government to lobby with integrity for comparable reforms overseas and in any revised set of proposals on European excise harmonisation.

In addition, to incline other nations in Europe to the United Kingdom's viewpoint on these issues, it was suggested that the excise and Value Added Tax should be abolished on wines imported from the British Dominions of Australia & New Zealand.

Estimates of the own-price elasticity of spirits presented in Chapter 7 implied that reducing the excise applied to spirits would most likely increase sales of whisky to such an extent that the resulting fillip to employment across Scotland would be sufficient to offset any negative linkage adjustments associated with a reduction in whisky exports in the aftermath of the abolition of intra-EU duty free in 1999.

Chapter 7 concluded that the effects of the proposed reforms upon exchequer revenues would be slight, and that in any case, governments in the United Kingdom have been attempting to raise too great a proportion of revenues from alcohol excises.

O Whisky! Soul O plays and pranks!
Accept a bardie's grateful thanks!
When wanting thee, what tuneless cranks
Are my poor verses.

Robert Burns

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