

Distilling and Agriculture 1870-1939*

By R B WEIR

I

IN THEIR article 'Free Trade in Corn', published in 1959, Olson and Harris chastized historians for neglecting the developments which followed the repeal of the corn laws. 'From the attention lavished on repeal', they observed, 'one might assume that all that was important in British agriculture ended in 1846.'¹ Much the same criticism might be made about historians' treatment of the relationship between the drink industries and agriculture. The closeness of that relationship which involved the supply of barley and malt, the raw materials of the drink industries, and the return flow of waste products for animal feeding-stuffs, has long been an established part of the historical interpretation of the interaction between agriculture and industry.² It has less commonly been recognized that the relationship was highly dependent on a range of policy measures. These included, in addition to the corn laws, the high differential customs duties on imported drinks, prohibitions on the use of imported raw materials such as sugar, molasses and treacle, and, in the case of malt distillers, the exclusion of imported barley from the refund of the malt tax. All these were ways, directly and indirectly, of tying the drink producer to the British

farmer and of protecting the home cereal grower.³

Following the repeal of the corn laws, the underlying protective justification for these measures disappeared and by 1860 most had been removed. Molasses, treacle and sugar were permitted as raw materials by 1848, the malt drawback was withdrawn in 1855 and, in 1860, the differential customs duty on imported spirits ended.⁴ When viewed against the harmonization of the excise duty on spirits throughout the United Kingdom in 1858, it can be seen that distilling, like agriculture, was moving into a free trade environment.⁵ Much the same was true of brewing. Brewers were free to use sugar after 1847 and the customs duty on hops was abolished in 1861. Brewers, however, continued to face a duty on imported malting barley until 1880, when Gladstone 'freed the mash tun' by replacing malt duty with an excise on beer.⁶

Although large-scale production and a search for the cheapest possible raw materials had already strained the assumed harmony between drink producer and agriculturalist before repeal, liberalization greatly widened the possible sources of raw materials.⁷ The consequences for the relationship between the drink industries and agriculture remain unexplored and may legitimately be described as a neglected aspect of agricultural

* The author wishes to acknowledge the assistance given by the Malt Distillers' Association of Scotland and the Distillers Company Limited. Peter Solar kindly read and commented on an initial draft. The paper was presented at the Conference of the British Agricultural History Society at the University of St Andrews. April 1982.

¹ M Olson, Jr and C C Harris, Jr, 'Free Trade in "Corn": A Statistical Study of the Prices and Production of Wheat in Great Britain from 1873 to 1914', *Quar Jour of Econ*, LXXIII, 1959, pp 145-68.

² See, for example, P Mathias, 'Agriculture and the Brewing and Distilling Industries in the Eighteenth Century', *Econ Hist Rev*, V, 1952-53, pp 249-57.

³ For explicit recognition of the protective elements in such measures see Report from the Select Committee on the Use of Molasses in Brewing and Distilling, BPP 1831, VII, p xi.

⁴ The various changes are summarized in the First Report of the Board of Inland Revenue, BPP 1857, IV.

⁵ On harmonization, see R B Weir, 'The Drink Trades', in R A Church (ed), *The Dynamics of Victorian Business*, 1980, p 224.

⁶ Details of these changes are in G B Wilson, *Alcohol and the Nation*, 1940, chs 5 and 6.

⁷ See Weir, *op cit*, p 232.

history. In view of the general lack of consideration for the consumer, or the demand side, in British agricultural history, this neglect may not be surprising. In view of the common but seldom explained observation that the differential between barley and wheat prices narrowed during the Great Depression it is nonetheless a surprising omission.⁸

This paper examines the distilling industry's demand for cereals mainly, but not exclusively, through the changing purchasing behaviour of Scottish distillers and considers the implications for cereal farming. Some comparisons are made with the brewing industry. The first part of the paper deals with the period 1870–1914, when distillers operated in a free trade environment. For most of this period the demand for spirits was rising, consumption of home-produced spirits expanding from 24.4 million proof gallons (mpg) in 1870 to a peak of 42.8 mpg in 1900.⁹ After 1900 the market contracted and by 1914 consumption had fallen to 36.0 mpg. Between the wars depression in the distilling industry intensified, consumption falling to 13.1 mpg in 1933. The second part of the paper covers the revival of protectionist sentiment in the 1920s and seeks to unravel the complex political economy of drink and agriculture after protection was reintroduced in 1932.

II

To understand the changes in the distilling industry's demand for grain after repeal, it is necessary to explain one important technological innovation in the production of spirits.¹⁰ Until 1830 the most widely used distilling vessel was the pot still which

suffered from several economic limitations. This traditional method of distilling was — and is — a batch process. The still had to be filled, distilled, emptied and re-charged. The first distillation produced a rather weak concentration of alcohol and a second or even third distillation was needed. Recharging and inadequate concentration raised the cost of labour and fuel. Such delays greatly restricted the opportunities for large-scale production. Fractionation of the separate portions of spirit was also difficult. Because fractionation was imperfect and concentration limited, the quality of the raw material greatly influenced the flavour of the spirit. This was of considerable importance, for the Scottish pot still distiller was forced to use a mash entirely composed of malted barley, a much more expensive material than raw (or unmalted) grain.¹¹

The long search for a satisfactory alternative to the pot still ended in 1830 when Aeneas Coffey, a retired Irish exciseman, patented a design for a continuous still. The Coffey or Patent still broke away entirely from the traditional design.¹² It was heated by steam, and the exchange of heat between steam and wash cut the cost of fuel. With extraordinary efficiency the still produced a concentrated spirit containing between 86 per cent and 96 per cent alcohol. The spirit was relatively low in the secondary constituents which give pot still whisky its flavour. The flavour imparted by the raw materials was therefore minimal and patent still spirit came close to being a homogeneous commodity. As fiscal barriers were relaxed and transport improvements widened the market, the potential for severe competition in patent still distilling was very high.

The benefits of the Coffey still — its prodigious output and lower variable costs

⁸The substitution of barley and oats for wheat during the depression and the importance of malting samples for the greater stability of barley prices are discussed in P J Perry, *British Farming in the Great Depression*, Newton Abbot, 1974, p 108.

⁹These figures are for UK consumption of home produced spirits and exports of British spirits. Figures from Wilson, *op cit*, Appendix F, Table 1, pp 331–4 and Table 8, pp 352–3.

¹⁰A fuller description is in R B Weir, 'Competition and the Patent Still Distillers', in L M Cullen and T C Smout (eds), *Comparative Aspects of Irish and Scottish Economic and Social Development, 1660–1900*, Edinburgh, 1975, pp 135–42.

¹¹In Ireland pot still distillers worked from a mixed mash, normally 30 per cent malt and 70 per cent unmalted grain. They also used three stills rather than two as in Scotland. The origin of this difference probably lay in the remission of malt duty which Scottish but not Irish distillers benefited from. A high proportion of raw grain economized on malt.

¹²Discussion of the features of the Coffey still is in A W Slater, 'A London firm of still makers', *Business History*, VII–VIII, 1965–66.

— required a sizeable fixed capital investment. It tended therefore to be adopted by the largest producers serving growing urban markets. In Scotland by 1860 there were 12 patent still distilleries with a combined output of 6.9 million proof gallons. Pot still distilleries numbered 111, a reduction of 57 since 1845, and shared an output of only 5.7 mpg. In the UK as a whole 27 mpg of spirit were distilled; 63 per cent came from patent stills concentrated in a mere 28 distilleries.¹³

Although the patent still distillers' star appeared to be in the ascendant the prospects were by no means trouble free. Their growth took place against a background of falling spirit consumption as a result of the increases in spirit duty necessary to achieve fiscal harmonization. Attempts to control the output of patent still spirit were one response to this situation and because the number of patent still distilleries was relatively small, combination was a feasible proposition. By 1877 six of the Lowland grain distillers had formed the Distillers Company Limited (DCL) and between 1878 and 1888 most of the patent still distillers were members of the United Kingdom Distillers' Association which sought to regulate the price and output of grain whisky.

Combination was one response to the intense competition in grain distilling. Another, and an important one from the point of view of British agriculture, was the search for cheaper types and sources of grain. Grain was the major component of patent still distillers' costs. In the 1850s it accounted for an estimated 80 per cent of the price (excluding duty) of a gallon of grain whisky. Although the patent still distillers began to experiment with maize, an entirely new raw material, immediately after the repeal of the corn laws, the major switch towards foreign sources of supply took place in the 1860s.¹⁴

Witnesses for the Irish and Scottish patent still distillers appearing before the Select Committee on British and Foreign Spirits in 1890 and the Royal Commission on Whiskey of 1909 dated the large-scale use of maize from the mid-1860s.¹⁵

By 1877, when the first detailed record of an individual firm's grain purchases becomes available (Table 1), the constituents of the patent still distillers' mash had developed what may be described as its modern form. The Distillers Company, which controlled over one-third of patent still output, made a mash 77 per cent maize, 19 per cent barley and 2 per cent oats.

TABLE I
Grain Purchases of the DCL in 1877
(quarters)

Type of Grain	Total Quantity Purchased	Type as % of Total Purchases	Home Supplies	Home as % of Total Purchases
Barley	40,402	19.78	841	2.08
Maize	157,483	77.12	0	0.00
Oats	5,197	2.54	342	6.58
Rye	14	0.02	14	100.00
Others*	1,117	0.54	17	1.52
	204,213	100.00	1,214	0.59

* Wheat 817 qrs, malt 300 qrs.

Source: DCL Board Minute Book, No 1.

Malted barley, as the most expensive raw material, was kept to a minimum, only sufficient malt being used to produce the enzymes which would convert the starch in the maize into fermentable sugars.¹⁶ The small amount of oats gave essential drainage in the mash tun.¹⁷ Home grown supplies accounted for a mere 0.59 per cent of total purchases. With the exception of a small amount of rye, included because of its

¹³ The other economic consequences of the patent still are discussed in Weir, *op cit*, pp 232-3.

¹⁴ Royal Commission on Whiskey and other Potable Spirits, Final Report, BPP 1909, Cd 4796, p 9.

¹⁵ Select Committee on British and Foreign Spirits, BPP 1890, X, Qn 2735.

¹⁶ As J P Currie, a London distiller, explained to the Select Committee in 1890: 'we only use the malt to convert the starch of the raw grain into the sugar, and every ounce . . . we use beyond that we lose by . . .', Qn 2875.

¹⁷ The larger husk on oats assists in drainage.

usefulness in yeast cultivation, home grown grain accounted for only 6 per cent of oats and 2 per cent of barley purchases.¹⁸

The movement away from home sources was not simply a function of relative prices. Maize had a higher starch content than barley. Foreign barley and oats could be bought in larger 'parcels' and the quality was more uniform than home grown grain. This and the fact that imported barley was more thoroughly ripened made storage and working easier. Imported barley also had a lower nitrogen content which reduced the risk of bacterial infection during fermentation. To these advantages may be added an institutional one, namely the growing sophistication of the international grain trade which lowered the costs of large-scale grain purchasing.¹⁹

The switch to imported supplies was very rapid. Between 1877 and 1884 the highest percentage of home grown grain purchased by the DCL was 5.8. After 1884 the firm was buying foreign grain entirely, a pattern which continued until the very different circumstances of the 1930s. The bulk of the DCL's maize purchases came from America and Canada, although a small amount also came from countries round the Black Sea. Barley came from North Africa and the Baltic, with oats being drawn from the latter area also. There is no reason to believe that DCL's behaviour was unique. The use of maize prices as the key indicator when the United Kingdom Distillers' Association was fixing spirit prices suggests the move to foreign sources was common practice.²⁰

The use of imported supplies effectively severed the patent still distillers' long-standing connection with the British farmer and marked yet another distinction between pot and patent still distillers for the pot still

distillers could not use maize. As Andrew Jamieson, the Irish pot still distiller, told the Royal Commission on Whiskey:

Maize is something like 30 per cent cheaper and besides has high extractive quality, and, of course, it would pay us tremendously if we could use maize. But we could not use it because it would give a flavour to the whiskey in our pot still which people would not like.²¹

Restricted in the range of his raw materials by the inferior fractionation of his still, the pot still distiller was limited to a choice between home and foreign barley. With the ending of the malt drawback in 1855 the fiscal incentive to use home grown barley disappeared. Imported barley entered the United Kingdom in increasing quantities from the second half of the 1860s, beginning the long slide in barley prices down to 1896 when barley was 21s 8d per quarter compared with its post-repeal peak of 43s 7d.²² The malt distiller, like the grain distiller, enjoyed falling raw material prices, but did he react in the same way by turning to foreign sources?

Two problems are involved in attempting to answer this question. The first is simply the difficulty of generalizing about an industry composed of a great many small producers. In 1860, as was noted above, there were 111 malt distilleries and only 12 grain distilleries in Scotland; by 1908 the respective figures were 142 and 8. The second problem is possible regional differences in malt distilling. By the 1870s the malt distillers were clustered into four main groups: Lowland, Islay, Campbeltown, and Highland. The bulk of the available evidence relates to the last group which was concentrated in the Eastern Highlands around Speyside and the Moray Firth. This group, however, accounted for the majority of Scottish malt distilleries and of malt whisky output. In 1874 they formed the North of Scotland Malt Distillers' Association, whose records provide useful evidence on the

¹⁸ The nitrogenous properties of rye are a valuable yeast food.

¹⁹ Changes in the market are discussed in A A Hooker, *The International Grain Trade*, 1936, pp 7-9.

²⁰ For discussion of UKDA see R B Weir, 'The Development of the Distilling Industry in Scotland in the Nineteenth and early Twentieth Centuries', Univ Edinburgh unpubl PhD thesis, 1975, pp 343-88.

²¹ Royal Commission on Whiskey, Minutes of Evidence, BPP 1908, Cmd 4181, Qn 1764.

²² See O M Ojala, *Agriculture and Economic Progress*, Oxford, 1962, Table II, pp 192-4.

TABLE 2
Barley Purchases at Glen Mhor Distillery 1894-1922

Season (Sept/Aug)	A Total	B Foreign	C B/A%	Season (Sept/Aug)	A Total	B Foreign	C B/A%
1894/95	2,647	1,036	39	1908/09	5,114	1,131	22
1895/96	4,062	500	12	1909/10	3,419	0	0
1896/97	5,368	755	14	1910/11	4,236	1,127	26
1897/98	5,530	632	11	1911/12	4,206	0	0
1898/99	4,216	250	5	1912/13	5,924	3,935	66
1899/1900	1,837	0	0	1913/14	7,342	1,740	23
1900/01	2,064	0	0	1914/15	5,679	0	0
1901/02	2,216	0	0	1915/16	5,940	3,673	61
1902/03	2,631	1,590	60	1916/17	5,383	2,592	48
1903/04	2,688	1,638	61	—			
1904/05	2,948	0	0	1919/20	8,188	2,879	35
1905/06	4,003	300	7	1920/21	11,462	3,461	30
1906/07	4,794	0	0	1921/22	6,463	644	9
1907/08	4,637	975	21				

Source: Glen Mhor Distillery Records, Grain Purchase Books.

relationship between distilling and agriculture.²³

It is worth beginning by considering detailed evidence of grain purchasing by an individual pot still distillery and then relating it to a wider range of evidence. The barley purchases of Glen Mhor distillery in Inverness are shown below (Table 2).

Glen Mhor was built in 1892, just at the start of the whisky boom of the 1890s. Like many of the new distilleries established at that time it was founded by a partnership between a distiller, John Birnie, and a blender, James Mackinlay.²⁴ Column C of Table 2 shows foreign barley as a percentage of total purchases. The pattern, if such it can be called, is rather curious. The Glen Mhor contract books reveal a close relationship with local growers, few purchases being made beyond a 20-mile radius of the distillery.²⁵ At the start of each distilling season Birnie initially looked to local farmers for his barley supplies. In the boom of the 1890s when malt whisky production grew substantially (from 7.7 mpg in 1890 to a peak of 15.8 mpg in 1898) local supplies were

insufficient, so Glen Mhor was forced to buy in foreign grain. It is this which accounts for the appearance of foreign barley between 1894 and 1899 (Table 2). Thereafter, as output dropped, the pressure on local supplies eased and in the years before the First World War foreign purchases were usually limited to years when the local harvest was poor. As another malt distiller, Col George Smith Grant of the Glenlivet distillery, told the Royal Commission on Whiskey:

In a good season we get our barley from Morayshire, or Banffshire, or Aberdeenshire but if the season is a backward season and there is a poor harvest we go abroad for example, Denmark and get the best barley we can procure.²⁶

If limited supplies and the effects of bad harvests explain annual fluctuations in the use of imported barley, the attachment to local supplies depended ultimately on the belief that home grown barley made the best whisky. This belief was very much part of the craft mystique which surrounded malt distilling and originated in the malt distillers' fear that any alteration in technique or raw material would ruin the product. By the 1880s this conservatism had found a new

²³ See R B Weir, *The History of the Malt Distillers' Association of Scotland 1874-1974*, Elgin, 1974, Part I, The North of Scotland Malt Distillers' Association, 1874-1926, pp 1-56.

²⁴ Blending is the practice of mixing malt and grain whiskies.

²⁵ Glen Mhor Distillery Records, Contract Books

²⁶ Royal Commission on Whiskey, Minutes of Evidence, BPP 1908, Cmnd 4181, Qn 9154

raison d'être: faced with competition from cheaper grain whisky and the growing power of the whisky blender, malt distillers waged a persistent campaign to pre-empt the exclusive use of the title 'Scotch whisky' for their product. The more extreme protagonists, in Ireland as well as in Scotland, sought legal definitions of whisky which would restrict the title to pot still whisky made from a mash *entirely composed of home-grown grain*.²⁷ At this point trade protectionism harmonized with agricultural protectionism. As Sir Horace Plunkett, the Irish agricultural reformer, told the Royal Commission:

... I am concerned to see that Irish farmers ... are not unfairly competed with through the sale of manufactured articles the raw materials of which people imagine to be produced by Irish farmers [but] are not ...²⁸

Spirit made from maize misled the consumer and deprived the farmer. Even after the campaign failed, when the Royal Commission rejected such a restrictive definition of whisky, the malt distillers were still asserting that 'foreign barley was not so suitable for Pure Malt Whisky distillation'.²⁹ A M Cowie of Mortlach distillery offered an explanation for the limitations of foreign barley which ambiguously mixed economics and taste:

Despite their soundness, it is no great advantage to use cheaper Black Sea and Danubian barleys because the cost of labour and fuel are the same in both. Also from light Danubian barleys you would never get the same quality of spirit. You do not get the same thickness and body in the whiskey.³⁰

Whilst quality was of vital importance for a heterogeneous product like malt whisky there were other financial considerations which kept the malt distillers loyal to the home cereal supplier. One was that by purchasing direct from the farm the distiller cut out the grain merchant's commission and handling charges were also lower. The other was that in the north-east beef and dairy

cattle were important and farmers were more ready to buy draff (spent grains) from distillers who took their barley.³¹ In the boom years the large quantity of draff posed a serious disposal problem for distillers.³²

One factor absent from the malt distillers' choice between home and imported barley was any scientific appreciation of their respective merits. No malt distillery employed a chemist until after the First World War, and in the application of scientific technique to the analysis of raw materials, the malt distillers lagged far behind other sections of the drink trade and even the farmers. In the brewing industry, the brewers of Burton-on-Trent could boast three Fellows of the Royal Society within their laboratories whilst two schools of brewing had been founded by 1906, one at Birmingham, the other at Heriot-Watt.³³ In Ireland, Guinness, which absorbed 40 per cent of the Irish barley crop in 1900, had begun large-scale trials of barley varieties jointly with the Irish Department of Agriculture.³⁴ The grain distillers, too, ever mindful that all they wanted from grain was 'saccharine' employed a handful of chemists and chemical engineers.³⁵ The malt distillers' lack of enthusiasm for a scientific approach frustrated some northern farmers and also the North of Scotland College of Agriculture. The College had begun testing the yield per acre of different strains of barley but lacked any confirmatory evidence of the performance of different strains in the mash

³¹ Draff is the spent grain left in the mash-tun after the liquor, wort, has been drawn off. It represents about 25 per cent of the cereals in the mash tun and is sold for animal feed.

³² NSMDA, Minute Book No 2 at 3 July 1896. Later, from 1909 to 1913, the Association formed a combination to control the distribution and sale of draff. The combination investigated schemes for drying draff to eliminate the problem of the seasonal fall in draff prices when spring grass became available.

³³ J S Hough, 'Seventy Years' Progress in Malting and Brewing', An Inaugural Lecture delivered at the University of Birmingham (nd). See also E M Sigsworth, 'Science and the Brewing Industry, 1850-1900', *Econ Hist Rev*, XVII, 3, 1965, pp 536-50.

³⁴ Lord Iveagh, 'Guinness and Agriculture', *The Times*, 10 November 1959.

³⁵ A J Tedder, Chief Inspector of the Excise, described the distillers' attitude to maize in the following way: 'All the distiller wants is a saccharine'; see Royal Commission on Whiskey, Minutes of Evidence, Qn 309.

²⁷ Emphasis added.

²⁸ Loc cit, Qn 2867.

²⁹ NSMDA Records, 1909.

³⁰ Loc cit, Qns 8973-5.

tun.³⁶ Although distillers were urged to: '...take a leaf from the book of the manufacturer of wine and try to ascertain by practical experiment which variety of barley will yield the greater quantity of whisky per bushel',³⁷ no Highland malt distiller did so before 1914. A contrast thus existed between the farmers, 'especially the younger race of men, who at most of the schools in Scotland have the opportunity of getting a technical and scientific training' and who regarded 'the growing of barley [as] more and more a science', and their customers, the malt distillers.³⁸ This lack of a stimulus from the malt distillers was held by 1914 to be a potential threat to Scottish barley growing because the Danes with their improved varieties were beginning to penetrate the market. After 1918 attitudes to science and the pattern of grain buying were to alter markedly.

What conclusions then can be drawn about the relationship between the Scottish distiller and the cereal grower during the last quarter of the nineteenth century?

The first point is the sharp contrast between the grain purchasing patterns of pot and patent still distillers. By the early 1880s

the latter group was effectively divorced from the home farmer and at the very time when the cereal farmer was facing international competition he lost a large and growing demand. The output of Scottish grain whisky increased from 19.3 million proof gallons in 1870 to 43.4 mpg in 1900 and, if the argument about the patent still distillers' switch to imported sources is correct, none of this output was translated into acres of Scottish barley. Had the patent still distillers continued to use Scottish cereals then, at the level of output in 1880 an extra 118,000 acres, or 45 per cent, would have been added to Scotland's barley acreage.³⁹ Such, then, was the crude magnitude of the Scottish barley farmers' loss from free trade.

The second conclusion is that malt whisky producers remained closely integrated to local cereal farming. Moreover, although pot still whisky had a declining share of the spirit market, the market overall was expanding. Scottish pot still output rose from 10.2 mpg in 1870 to 14.5 mpg in 1900, less than a third of the increase in grain whisky output. Using certain assumptions it is possible to estimate the effects of this output on Scottish barley acreage (Table 3).

³⁹ Estimated on a similar basis to Table 3 but allowing a greater spirit yield because of the use of unmalted barley.

TABLE 3
Estimated Increase in Demand for Scottish Barley, 1870-1900

	Scottish Pot Still Output (mpg)	Barley (qrs)	Yield per Acre (cwtspa)	Number of Acres	Total Scottish Barley Acreage	Distillers Requirements as a %
1870	4.969	361,757	16.6	87,170	244,000	35.7
1880	6.502	394,060	16.6	94,954	264,000	36.0
1880	7.740	469,090	17.9	104,824	216,000	48.5
1900	10.398	630,182	15.9	158,536	240,000	66.1
	(1)	(2)	(3)	(4)	(5)	(6)

Sources:

Column (1) G B Wilson, *op cit*, Table 5, p 349.

(2) Assumes spirit yield of 16.5 proof gallons per quarter.

(3) HMSO, *A Century of Agricultural Statistics*, Table 56, pp 110-11. Statistics for yield per acre do not become available until 1885. The yields for 1870 and 1880 are based on the 1885 figure.

(4) Column 2 converted to hundredweights and divided by column 3.

(5) *Ibid*, Table 46, pp 98-9.

(6) Column (4) as a percentage of column (5).

The table shows that malt distilling requirements utilized an increasing proportion of a diminishing total barley acreage. It can thus be argued that the demand from malt distillers, though insufficient to prevent barley prices falling, continued to offer the northern farmer a market for his barley. And it was a much more remunerative trade than the only alternative for barley, as a feedingstuff. This demand may explain Scotland's growing share of UK barley acreage but it rested on an insecure footing: the scientific conservatism of the Highland malt distiller.⁴⁰

Finally, the brewer also loosened his ties with the home farmer during this period, partly through the use of substitute materials (sugar, rice, sago) and partly through imported barley.⁴¹ Reliance on imported supplies was, however, very much more modest than in patent still distilling, the proportion of foreign barley in the mash tun rising from 10 per cent in 1880 to 25–30 per cent in 1898.⁴²

III

A cyclical downswing in spirits consumption after 1900 turned into a prolonged depression as consumer demand wilted in response to sharp increases in excise duty (from 10s 6d per proof gallon in 1900 to 72s 6d by 1920). The extent of the depression is worth emphasizing: in 1900, home and export markets absorbed 42.8 mpg; by 1933, the year of the 'silent season' when malt distillers agreed to produce no whisky, demand had fallen to 13.1 mpg. Comparing the loss of markets suffered by the distilling industry between 1900 and 1933 with the experience of the great staple trades, industries whose problems attracted so much attention, only ship-building suffered a

greater loss. The depression confirmed the prescient observation by the *Wine Trade Review* in 1899 that 'farmers are beginning to realise that depression in the distilling industry may be inconvenient to them, as well as for the trade'.⁴³

Within the distilling industry the bulk of the structural adjustment needed to meet this fall in demand was borne by the pot still distillers for after 1900 a new market in non-potable spirit or industrial alcohol opened up for the patent still distillers. This new market which increased from 4 mpg in 1900 to 53 mpg in 1938 brought no comfort to the farmer for the major raw material, molasses, was nearly all imported.⁴⁴ Recovery in the potable market began in 1934 but it was not to be until 1959 that demand would pass the level reached in 1900. It was understandable, therefore, that in 1934 the Maitland Committee, investigating the use of Scottish barley by distillers, should describe malt distilling as 'a diminishing trade with an uncertain and precarious future'.⁴⁵

The depression brought in its wake far-reaching changes in the ownership and organization of the malt distilling industry which had important implications for relations between farmers and distillers. A widespread merger movement after 1918 produced increasingly concentrated ownership. By 1927 the successor organization to the North of Scotland Malt Distillers' Association, the Pot Still Malt Distillers' Association of Scotland (PSMDA), consisted of 52 firms who controlled 73 distilleries.⁴⁶ Forty-six firms controlled only 1 distillery each, leaving 6 firms with possession of the remaining 27. Within that group of 6, 1 firm, the Distillers Company, owned 17 malt distilleries. And in 1927 the DCL's

⁴³ *Wine Trade Review*, February 1899.

⁴⁴ For discussion of the non-potable market see R B Weir, 'In and Out of Ireland: The Distillers Company and the Irish Whiskey Trade, 1900–1939', *Irish Econ and Soc Hist*, VIII, 1980, pp 45–65.

⁴⁵ Report of the Committee on Scottish Barley for Use by Scottish Distilleries, Non-Parliamentary Scottish Office Paper 1934. A summary of the report is contained in P Ford and G Ford, *A Breviate of Parliamentary Papers 1917–39*, Shannon, 1969.

⁴⁶ The PSMDA united all the regional malt distillers' associations.

⁴⁰ Scotland's share of total UK barley acreage rose from 9.3 per cent in 1870 to 11.1 per cent in 1900. Calculated from Wilson, *op cit*, Table 29, pp 420–1.

⁴¹ Non-malt raw materials accounted for 6.2 per cent of the materials used by the Scottish brewers in 1896; see I Donnachie, *A History of the Brewing Industry in Scotland*, Edinburgh, 1979, p 187.

⁴² Figures from Wilson, *op cit*, p 53.

acquisitions had not reached a peak. By 1934 the DCL owned 51 malt distilleries. With its earlier 'consolidation' of patent still distilling and 'The Big Amalgamation' of 1925 behind it, the firm now came to dominate malt distilling as well.⁴⁷ For the politics of the malt distilling trade this development was of crucial importance: any policy, if it was to succeed, had to have the support of the DCL. Equally, any policy desired by the DCL tended to be accepted by the trade. Its power was great not only because it was a major producer of malt whisky but also because it was a major distributor and its purchases of malt whisky were important for many independent producers. The DCL used its influence to support the Scottish barley market and sought to coerce independent distillers to do the same. To understand this development it is necessary to consider the changes which occurred in grain purchasing in the 1920s.⁴⁸

Post-war circumstances settled the debate amongst malt distillers on the relative merits of home and imported barley largely in favour of imported supplies. In the face of falling demand malt distillers were, in the words of the Maitland Committee:

compelled to overhaul their businesses to secure the maximum of economy and efficiency. As a result they began to use imported barley, which was available in large quantities of uniform quality . . .⁴⁹

Barley purchases in the 1920s were drawn from a range of countries: Denmark, Romania, Chile, Tunisia, Canada, and Australia. Older distillers, former members of the Management Committee of the Pot Still Association who were interviewed in 1974, still remembered the favourable impression Danish and Australian barley made on them. By comparison with the Scottish crop it 'was beautifully dressed, had a consistent quality with only 10 to 12 per cent moisture and was

easier to store and work'.⁵⁰ A result of the prevailing international grain surplus, these low priced imports undercut home farmers and reduced the quantity of home-grown barley used by malt distillers. In the cost-conscious 1920s the malt distillers 'realised at last that all they were buying was starch and they wanted as high a percentage of starch as possible'.⁵¹

The search for cost reductions also involved a much closer scrutiny of many of the traditional processes surrounding malt whisky production. In an industry which had been the epitome of technological conservatism, scientists slowly began to erode the mysticism that underlay many cherished processes. S H Hastie was probably the first chemist to be employed in malt distilling. He started his career with Younger's, the brewers, and then moved to Sir Peter Mackie's firm⁵² to take charge of a new laboratory at Campbeltown. In 1923 when Mackie was attempting to arrange an amalgamation with Buchanan-Dewar Ltd, Mackie pointed to the benefits arising from industrial chemistry:

His (Hastie's) work is to check all the malt. He can tell us from the Barley what the possible extract should be, and if we don't get that, he wants to know the reason why from the manager, and he generally finds out. It may be improper drying in the kiln or the yeast or some other cause. For a considerable time at Lagavulin we were getting 98% of the possible, which is very good. It keeps our various Brewers and Managers up to the scratch; and if there is any bad work or ethers in the spirits Hastie pays a visit to assist them to get rid of it. He has been with us now for two or three years and we would not be without him. Otherwise, we would be working by the old rule of thumb which is no good . . .⁵³

The commercial pressures of the depression were such that by 1939 all malt distillers were investigating their yields, with the result that

⁴⁷ The amalgamation between 'The Big Three' blenders, Buchanan-Dewar Ltd, and John Walker & Sons Ltd, and the DCL.

⁴⁸ Much of the following discussion is drawn from the author's history of the Malt Distillers' Association of Scotland.

⁴⁹ Report of the Committee on Scottish Barley, Non-Parliamentary Scottish Office Paper, 1934.

⁵⁰ Interview with former members of the Management Committee of the Pot Still Malt Distillers' Association of Scotland, 1974.

⁵¹ Ibid

⁵² Later White Horse Distillers Ltd.

⁵³ John Dewar & Sons Ltd, Cameron Papers, Correspondence with Sir Peter Mackie re-proposed amalgamation of Mackie & Co Ltd by Buchanan-Dewar Ltd, 7 August 1923.

they are estimated to have risen from about 2.20 gallons per bushel to between 2.40 and 2.45.⁵⁴ The knowledge that different grains could make significant differences to yield was a contributory factor in malt distillers' preference for imported barley.

The crisis in Highland malt distilling was also a crisis for the northern barley growers. The malt distillers traditionally drew their main supplies from 9 northern counties, from Angus round to Ross & Cromarty.⁵⁵ This regional dependence on distilling was characterized by extremes of local dependence. The Scottish agricultural census of production of 1931 showed that in the 9 counties, 54 per cent of barley grown was used in distilling. For the counties of Banff and Moray alone, however, the figure was 84 per cent. As barley imports and falling spirit production reduced the price and demand for home cereals the historically close and generally genial relations between malt distillers and northern farmers took a sharp turn for the worse. At first distillers and farmers campaigned together for a reduction in spirit duty. Failure to convince the Government to reduce the excise persuaded farmers to seek other remedies. Their first initiative, the imposition of a tariff on barley, was rejected by a Treasury Committee in 1922 on grounds of administrative complexity, opposition from beef farmers wanting cheap barley for feeding and, not least, the political controversy surrounding protection.⁵⁶ Protection having been ruled out after the general election of 1923, the farmers sought a guarantee from the malt distillers that they would not give a preference to imported

barley. The guarantee which the farmers ultimately secured was that:

under no circumstances would the distillers buy or use foreign barley if sufficient home barley was available and suitable for their purposes, and other things being equal, a preference would be given every time to home barley.⁵⁷

The farmers believed they had 'a clear and unequivocal guarantee' but failed to appreciate the significance of the phrase 'other things being equal'. The critical point was that other things were decidedly not equal when comparisons were made between home and foreign barley. Malt distillers had at least two basic objections to the home crop: its excessive moisture, and the lack of uniform grading and bulking in adequately large quantities. Both added to the difficulty and hence the cost of malting and if the distillers considered economic advantage alone 'then they would buy very little home grown barley'.⁵⁸

The guarantee therefore did little to ease the farmers' difficulties. In the northern counties barley prices, which had steadied slightly at 40s 3d per quarter in 1928, resumed their downward course and by 1930 stood at 22s 3d. In March 1930 the farmers pressed for Government action. They once again sought import controls on barley, justifying these by the distillers' failure to support the home grain market:

with all deference we are satisfied that this pledge has not been carried out. Foreign barley is still being largely imported, though the supply of home barley of good quality, is ample.⁵⁹

This accusation greatly angered those distillers who had supported the home farmer.

⁵⁴ The estimate of yields is based on interviews with former distillers. In the brewing industry improvements also increased the rate of extraction and reduced the amount of malt required; see J Vaizey, *The Brewing Industry 1886-1951*, 1960, p 84. In 1925, S H Hastie commented on science in the distilling industry: 'Subsequent to the war . . . science has forced itself upon the attention of the conservative distiller and efforts are now being made to apply laboratory control to pot still distillation', *Jour Inst Brewing*, XXXI, 4 April 1925, pp 198-215.

⁵⁵ The nine counties were Aberdeen, Angus, Banff, Inverness, Kincardine, Moray, Nairn, Ross, and Cromarty.

⁵⁶ Distillers Company Limited, Board Minute Book, No 14, October 1923.

⁵⁷ PSMDA, Minute Book, 2 March 1928.

⁵⁸ Excessive moisture made barley more expensive to store as it had to be laid out thinner and turned more often than a drier barley owing to the danger of heating and the development of mould. This meant that it occupied more floor space and required more labour than a dry barley. Germination was less even and weaker. The amount of extract from a wet barley was smaller and there was a danger of poor fermentation. With some barley distillers were compelled to dry, condition, grade, and bulk the various barleys before they could be malted. Imported barley, by contrast, was ready for malting when delivered. A comparison of home and imported barley is contained in the Report of the Committee on Scottish Barley, Non-Parliamentary Scottish Office Paper 1934.

⁵⁹ PSMDA, Correspondence, 28 March 1930.

The DCL's malt distilling subsidiary, Scottish Malt Distillers Ltd. under orders from the main Board to support the home farmer in the hope that protection might be avoided, was particularly incensed:

during the past season we have done everything we possibly could to help the farming industry generally. We have done everything possible to relieve farmers in the North of their barley, and this too at a price which value for value was much in excess of what we could have obtained by buying foreign barley. The farmers' statement . . . is quite out of place . . .⁶⁰

Strained relations were further embittered in September 1930 when the Pot Still Association recommended a 25 per cent reduction in production. The farmers interpreted this as 'a counter move to spite the farmers because they have asked for a 10s tax on foreign barley'. This inaccurately labelled 'Act of Revenge'⁶¹ was in fact one of many such recommendations the Association had made to little effect until in 1930 the DCL lent its weight to the task of reducing output (Table 4). A futile intervention by Ramsay MacDonald on holiday in his native Largs failed to improve farmer-distiller relations.⁶² The distillers would not pledge 'to buy no foreign barley because the market would go against the distillers every time'.⁶³ Thus at the beginning of the 1930s the distillers were still asserting their right 'to have a free hand in buying in the best markets'.⁶⁴ With the imposition of a 10 per cent *ad valorem* duty on foreign barley under the Import Duties Act of 1932 that freedom disappeared and the issue for malt distillers was no longer one of free trade versus protection, but whether farmers would be satisfied with a duty of only 10 per cent.

TABLE 4
Malt Whisky Production in Scotland
1923-1933
(million proof gallons)

Yearended 30 September			
1923	13.210	1929	8.863
1924	12.883	1930	8.719
1925	12.849	1931	5.288
1926	8.317	1932	2.193
1927	5.646	1933	0.285
1928	7.680		

Source: Records of Pot Still Malt Distillers' Association of Scotland.

At the same time as Britain was adopting protection it was becoming evident to the malt distillers that the agreed reductions in output in 1930 and 1931 had not been sufficient to resolve the crises in the new and mature whisky markets. In August 1932 the DCL announced that it had decided not to open any distilleries in the coming season. Independent producers were urged to follow suit in the hope that a complete cessation of distilling might have 'a certain political effect':

[it] would let the Government and Chancellor know the effects of their indifferent policy, and stimulate the farmers and others interested in the industry in the North to take a stronger action than they have hitherto done.⁶⁵

The silent season 1932-33 failed to influence the Government.⁶⁶ The Budget of 1933 brought no fiscal relief for the industry though it did bring a concession for the brewing industry with a 1d per pint reduction in beer duty in exchange for a promise from the brewers to use more home-grown barley.

The reduction in the distillers' demand for barley did move the farmers to act. Within less than a year of the imposition of the import duty on barley, the Scottish Farmers' Union was pressing for more help and in December 1933 a Committee was appointed to examine the market for distilling barley. It

⁶⁰ PSMDA, Correspondence, 2 April 1930.

⁶¹ PSMDA records, newspaper cuttings, *The Scotsman*, 8 September 1930.

⁶² MacDonald suggested a 'round-table conference' between distillers and farmers. As discussions had been taking place for several years without distillers agreeing to limit their purchases to domestic barley there was little prospect of success. Report in *Aberdeen Press and Journal*, 10 September 1930.

⁶³ PSMDA, Minute Book, March, 1930.

⁶⁴ Ibid.

⁶⁵ PSMDA Correspondence, Sir Alexander Walker, DCL to Secretary, PSMDA, 26 August 1932.

⁶⁶ Three distillers dissented from the closure decision and a small amount was produced.

reviewed the causes of the inferior quality of Scottish barley and discussed the possibility of establishing a marketing scheme, the Scottish Distilling Barley Growers' Association. This it rejected, recommending instead that if the position of the pot still industry 'should be stabilised owing to an adequate reduction of the duty on whisky, or any other cause' then grain producers and merchants should reorganize the trade to provide distillers with barley, graded and bulked. In exchange the distillers should undertake to buy 100 per cent Scottish malting barley, to pay a reasonable price for it, and not to buy imported barley unless Scottish supplies were exhausted.⁶⁷ The Report greatly satisfied the distillers for it left them free from a compulsory marketing scheme.⁶⁸ The farmers were much less enthusiastic, and in 1934 applied to the Import Duties Advisory Committee for a revision of the import duty on barley. The application, a joint one by the Scottish Chamber of Agriculture and the Scottish Farmers' Union, sought the replacement of the existing 10 per cent *ad valorem* duty with a specific duty of 10s per quarter. With import prices at 19s 3d this would bring import prices nearer to the average cost of production in Scotland of 32s 10d.⁶⁹ The increase was to cover all types of barley, indicating that the opposition of the cattle interest had been overcome. The National Farmers' Union of England and Wales submitted a separate application which also sought a specific duty but at double the level suggested by Scottish farmers and thus higher than the current import price. Moreover, the NFU wanted the increase to cover malting barley and substitute brewing materials such

as sugar, molasses, maize and rice, but not barley for feeding.⁷⁰ Objections to the applications were submitted by brewers and distillers. The distillers argued that the cause of the farmers' problems originated with the spirit duty and that the import duty would further increase the price of whisky. This would lower whisky production, a smaller demand for barley would result and accordingly 'the tax would be to the disadvantage of the farmers themselves'.⁷¹ Scottish Malt Distillers Ltd in their objection pointed out that the Company was supporting the Scottish farmers to the extent of £37,000 a year, the difference between home and dominion barley prices.⁷²

In May 1936 IDAC reported that it had decided 'not to make any recommendation in the matter in the present circumstances'.⁷³ It gave two main reasons. One was the position of livestock producers. A duty on all imported barley was unlikely to be 'on balance' to the advantage of the farming industry as a whole, because an estimated two-thirds of imported barley was consumed by the farming industry and a high duty would merely increase costs. The other reason was the old administrative problem of distinguishing between the different uses of imported barley. 'An elaborate and burdensome control would be necessary' and it was preferable that a solution to farmers' problems should be sought in other ways, possibly by 'voluntary undertakings as to the purchases of home grown barley . . . by the chief consuming interests'. Provided the distillers continued to encourage home growers, IDAC would regard 'the application for an increased duty on malting barley as in suspense'.

⁶⁷ Report of the Committee on Scottish Barley, Non-Parliamentary Scottish Office Paper, 1934.

⁶⁸ PSMDA, Management Committee Minutes. The Report 'served the purpose of contrasting the uneven supplies which Distillers received from home growers'.

⁶⁹ PSMDA Records, IDAC Papers, 'Application to the Import Duties Advisory Committee for the imposition of increased import duties on imported foreign barley', prepared by John Hutchison, Secretary, Scottish Chamber of Agriculture, 17 December 1934.

⁷⁰ PSMDA Records, IDAC Papers, 'Application for Imposition of Increased Tariffs on imported foreign malting barley and other material of foreign origin used in brewing, distilling, and the manufacture of malt products', prepared by the National Farmers' Union of England and Wales, 5 December 1934.

⁷¹ PSMDA Minute Book, Objections to the Proposed Increased Import Duty, 20 May 1935.

⁷² PSMDA Records, IDAC Papers, Objections to Applications by Scottish Chamber of Agriculture and National Farmers' Union from Scottish Malt Distillers Ltd, 20 May 1935.

⁷³ PSMDA Minute Book, 19 September 1936.

Following IDAC's decision members of the Pot Still Association were urged 'to refrain from purchasing foreign barley otherwise the whole question of an increased duty on foreign grain would come up again for consideration by IDAC'.⁷⁴ The DCL made it clear that it would not hesitate to use its formidable powers as a distributor to enforce the undertaking:

The D.C.L. are willing to carry out the undertaking . . . and they will expect other distillers to do the same. This is being done for the benefit of the Malt Distilling industry generally . . . If the D.C.L. are restricted to the use of home barley it may be necessary for them to purchase only whisky . . . made at other distilleries from the same raw material . . .⁷⁵

Although the DCL adhered to the undertaking and by 1939 calculated that it was subsidizing home farmers to the extent of £100,000 a year, some independent producers refused to honour the undertaking.⁷⁶ They pointed out that the undertaking had not been accompanied by a reduction in spirit duty, no additional duties had been placed on imported spirits, and there was still only an inadequate statutory definition of Scotch whisky, insufficient to protect the distillers from piracy overseas. In April 1937 the Pot Still Association met Walter Elliot, the Scottish Secretary of State, and announced their intention to withdraw from the gentleman's agreement. The distillers told him that they appreciated the importance of agriculture to the country and:

in the event of certain safeguards for the benefit of our trade being obtained we would be prepared to give the farmers something much more definite and tangible. All that we ask is that the Government give a definite designation for our product under the title 'Scotch whisky'.⁷⁷

If the Government would give the distillers a clear and exclusive title to the words 'Scotch whisky' then the malt distillers would agree to use a minimum of 70 per cent of home

grown barley in the mash. Further, the patent still distillers would also agree to use a minimum of 5 per cent of home barley. Elliot undertook to review the barley situation and suggested the distillers draft a short bill giving a legal definition for Scotch Whisky. The bill proved unnecessary, for in December 1938 the Board of Trade instituted proceedings against the proprietors of a blended Irish patent still and Scotch pot still whisky sold as 'Scotch whisky'. This ultimately, in 1939, produced the legal ruling that to merit the description 'Scotch whisky' all the contents of a container must be made in Scotland. The geographical meaning of 'Scotch' must be kept. The case finally established the legal position of Scotch whisky and ended a campaign which the trade had pursued since before the First World War.⁷⁸

But what of the other part of the deal: Elliot's review of the barley market? A scheme to create a barley subsidy fund based on contributions from the importers of barley, brewers and distillers was included in the Agricultural Development Act of 1939.⁷⁹ If distillers only used home-grown grain they could claim exemption from the levy. To distillers, ever aware of the attractiveness of their trade for 'financial lactation' the levy looked dangerous: there might be no limit to which it could rise. By August 1939 the distillers were back negotiating with the

⁷⁴ The expansion of the export trade in Scotch whisky before 1914 created a growing problem of mixtures of Scotch with indigenous spirits which were retailed as 'Scotch whisky'. This intensified in the inter-war period whilst exports, with the collapse of the home market, became ever more important. The first statutory definition of Scotch whisky was in the Finance Act of 1933 but this did not go beyond the definition adopted by the Royal Commission on Whiskey, viz a spirit obtained by distillation from a mash of cereal grains saccharified by the diastase of malt. It could not thus be used to protect Scotch against mixing with (say) Canadian or Irish whisky.

⁷⁹ Details of the scheme and brewers' reactions to it are given by Vaizey, *op cit*, p 38. The initial version of the scheme was rejected by the Brewers' Society after a referendum. The 1939 scheme imposed a maximum levy of 1s per standard barrel on beer, together with a levy on distillers and a subsidy from the Exchequer. Barley growers got a subsidy of 30s per acre which was never paid as the price per cwt was higher than the 19s 11d per cwt which had been envisaged by the framers of the scheme. See also K A H Murray, *Agriculture*, 1944, pp 34, 57, 70, and R J Hammond, *Food, Vol I, The Growth of Policy*, 1951, pp 82-4.

⁷⁴ PSMDA Minute Book, 21 August 1936.

⁷⁵ PSMDA Minute Book, 21 August 1936.

⁷⁶ DCL Annual Report, 22 July 1939.

⁷⁷ PSMDA Minute book, 16 April 1937.

Government trying to have the levy dropped in exchange for the acceptance by distillers of a guaranteed minimum price for barley and a minimum use of 50 per cent home grown barley in the mash tun. By then the barley market was curing itself as prices edged upwards in anticipation of war. Very soon the problem would no longer be one of low barley prices but of obtaining cereals at any price.

IV

In the 1920s malt distillers moved decisively towards imported supplies of barley. Unity of purpose between distillers and farmers broke on the rock of the Government's unwillingness to reduce the spirit duty. In seeking protection as a remedy for the desperate state of the barley market, the farmers encountered a problem familiar to students of protection, namely the reliance of other sections of their industry on imports. Scottish, but not English, farmers were

apparently able to resolve this internal conflict but the body regulating the tariff failed to be convinced. With oats, the main cash crop in Scotland, also facing falling demand and without wheat as an alternative, reversion to pasture followed the decline of the malt whisky industry. The depression highlighted many deficiencies in the Scottish barley farmer's approach to his market. None were solved in the 1930s, and in the 1950s complaints by distillers about the poor state in which Scottish barley was marketed were still common. Distillers, on the other hand, waged a successful campaign against increases in the import duty and greater Government regulation. The price they paid was an 'unofficial' subsidy to the Scottish barley farmer, in effect an economic rent that kept land under barley, but the subsidy brought a useful benefit in legal protection for their product. The subsidy also reflected the substantial influence and market power of one particular company.