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<th>Protection, economic war and structural change: the 1930s in Ireland</th>
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<td><strong>Authors(s)</strong></td>
<td>Neary, J. Peter, Ó Gráda, Cormac</td>
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<td><strong>Publication date</strong></td>
<td>1991</td>
</tr>
<tr>
<td><strong>Publisher</strong></td>
<td>Irish Historical Studies Publications Limited</td>
</tr>
<tr>
<td><strong>Item record/more information</strong></td>
<td><a href="http://hdl.handle.net/10197/396">http://hdl.handle.net/10197/396</a></td>
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Protection, economic war and structural change: the 1930s in Ireland

If I were an Irishman, I should find much to attract me in the economic outlook of your present government towards greater self-sufficiency. (J.M. Keynes)¹

The 1930s were years of political turmoil and economic crisis and change in Ireland.² Economic activity had peaked in 1929, and the last years of the Cumann na nGaedheal government (in power since the establishment of the Irish Free State in 1922) saw substantial drops in output, trade and employment. The policies pursued after Fianna Fáil’s victory in the election of February 1932 were therefore influenced both by immediate economic pressures and by the party’s ideological commitments. The highly protectionist measures associated with de Valera and Lemass — key men of the new régime — sought both to create jobs quickly and to build more gradually a large indigenous industrial sector, producing primarily for the home market.

Political controversy complicated matters. De Valera was regarded as a headstrong fanatic by the British establishment.³ His government’s refusal to hand over to Britain the so-called ‘land annuities’ — a disputed item in the Anglo-Irish settlement of 1921 — led to an ‘economic war’, in which the British Treasury sought payment instead through penal ‘emergency’ tariffs on Irish imports. The Irish imposed their own duties, bounties and licensing restrictions in turn. The economic war hurt Irish agriculture badly; the prices of fat and store cattle dropped by almost half between 1932 and mid-1935. Farmers got some relief through export bounties and the coal-cattle pacts (quota exchanges of Irish cattle for British coal) of 1935-7, but Anglo-Irish relations were not normalised again until the finance and trade agreements of the spring of 1938, and the resolution of the annuities dispute did not mean an end to protection.

¹J.M. Keynes, ‘National self-sufficiency’ in Studies, xx (1933), pp 177-93.
²By ‘Ireland’ and ‘Irish’ we mean the Irish Free State throughout. Good introductions to the period discussed here include W.K. Hancock, Survey of British Commonwealth affairs, vol. i (Oxford, 1937), chs 3 and 6; James Meenan, ‘From free trade to self-sufficiency’ in Francis McManus (ed.), The years of the great test (Cork, 1967); T.K. Whitaker, ‘From protection to free trade: the Irish experience’ in Administration, xxi (1973), pp 405-23; Ronan Fanning, Independent Ireland (Dublin, 1983); and David Johnson, The interwar economy in Ireland (Dundalk, 1985).
The questions ‘Who won the economic war?’ and ‘What was the impact of protection on the Irish economy?’ are analytically distinct, but they are not that easy to keep apart in practice.

Insofar as there is a standard view nowadays of the 1930s, it is that the economic policies embarked on in 1932 were misguided at best. The reforms associated later with T.K. Whitaker (as secretary of the Department of Finance in the 1950s and 1960s) and Sean Lemass (as Taoiseach from 1959 to 1966) are seen as the victory of common sense over futility: indeed, the change in emphasis detected (by an opponent, it must be said) in Lemass’s speeches even over the 1930s has been seen as ‘an interesting study in gradual political education’. At first Lemass was seen as a leading ideologist of self-reliance and state intervention, but he seems to have become increasingly disenchanted with the potential of protected Irish industry. In the 1930s the mainstream economics profession was highly critical of Fianna Fáil policy. Prominent economists took turns in berating its alleged anti-rural bias in the influential quarterly Studies, and their arguments were reproduced regularly in the Round Table and the Economist, often with a dash of sarcastic humour added. The Irish Banking Commission’s report (1938) was, by implication at least, highly critical of government policy, and some of its findings were rejected in the Dáil by de Valera.6

Criticism of Fianna Fáil tariff and fiscal policy turned chiefly on its neglect of comparative advantage. The creation of industrial jobs through ‘a heterogeneous shambles of tariffs’ must damage agriculture: ‘while the government have been seeking to build up little industries which can never hope to do an export trade, the Danes, with the aid of their better standards and methods, have captured the huge British market for butter, bacon and eggs’. In the agricultural sector of the economy, Fianna Fáil’s preoccupation with cereal production at the expense of ‘those lines in which [the country should excel] by reason of the natural character of the soil, the natural aptitude and experience of the farming population and the geographical location of the country next to the greatest market for agricultural products’ also misallocated resources. The standard inference followed immediately: the output of the economy must decline.

Critical comment on the economic war focused on the high economic cost of political principles; in the words of James Meenan, ‘the victories of peace appear to be more costly than those of war.’ The agreement of 1938 stipulated that, in return for restored access to the British market, Ireland had to pay a lump sum as a final settlement of all past financial disputes and eventually allow British exporters the conditions available to them in Canadian and Australian markets since the Ottawa agreements of 1932. The latter stipulation was framed in a notoriously ambiguous way, however. The Irish promised to ‘give reasonable

5Round Table, xxix (1938-9), p. 377; Paul Bew and Henry Patterson, Sean Lemass and the making of modern Ireland (Dublin, 1982), pp 1-29.
7Round Table, xxix (1938-9), p. 594; Irish Times, 7 July 1932.
protection to the Irish trade and reasonable competition to British manufacturers', but as a trade union organiser wryly remarked at the time: 'if you can give reasonable protection and reasonable competition, well, it is wonderful'. Since the contested payments amounted to about £5 million per annum, the seemingly low sum accepted by the British — £10 million — was a major focus of attention; and despite his complaint to the Dáil that 'on the basis of justice . . . instead of paying money to Britain . . . the payments should be made the other way', the settlement must have inwardly pleased de Valera. It earned him the respect of old foes, and was a contributory factor in the massive Fianna Fáil electoral victory of 1938. The context of the economic war was political, and perhaps the main actors were concerned most with the political costs and benefits. The economic costs and benefits were mentioned, but they have never been measured.

Despite the criticisms, little thorough analysis of economic change in the 1930s exists. The consequences of the new policies for output and employment, and for commodity and factor flows, have yet to be fully examined. This paper makes a start, aiming to show that the period offers scope for the analysis of the effects of tariffs on employment, factor flows, and income distribution. Our aim is to show what an economic approach can bring to our understanding of the 1930s in Ireland. Section I sets the scene, providing a quick guide to the period, and assessing the impact of policy through contemporary data. Section II attempts to analyse some key features of the period from a trade-theoretic perspective. Some simple analytic models are developed which suggest at least two significant modifications of conventional wisdom: given the political commitment to protection, the prohibition of foreign investment may have been welfare-improving; and, by encouraging a shift towards labour-intensive tillage, government policies may have reduced the pace of agricultural decline. Finally, Section III turns to the issue of the costs and benefits of the economic war. Our calculations suggest that the debt write-off and lump-sum payment made by the United Kingdom in the 1938 settlement which ended the economic war may have more than compensated for the allocative inefficiencies attributable to the protective policies.

Though it is natural to see the 1932 Fianna Fáil victory as marking a clear political and economic break, something is lost by doing so. Parity with sterling was maintained, ruling out an independent monetary policy; bank rate remained

10De Valera, Speeches, p. 350.
11See editorial in Irish Times, 9 May 1938.
12A notable exception is W.J.L. Ryan's unpublished Ph.D. thesis, 'The nature and effects of protective policy in Ireland, 1922-1939' (Trinity College, Dublin, 1949). Ryan provides estimates of tariff changes and calculates their effect on the cost of living. He also calculates the 'excess cost' of protection in 1936 — the sum, over all economic activities, of differences between the prices charged by Irish producers and free trade prices.
at 3 per cent between June 1932 and August 1939; fiscal policy remained sober; and, though national debt rose, budgets continued to be balanced or nearly so. Besides, in some respects, the measures adopted in 1932 and after were only what any government would have adopted in similar circumstances. For some time before the election, events were forcing Cumann na nGaedheal into interventionist and protectionist ways that had been frowned on earlier. Cumann na nGaedheal speakers, such as the minister for agriculture Patrick Hogan, liked to claim in 1930 and 1931 that their attitude to protection was pragmatic rather than dogmatic: "We have tariffed, on the admission of anybody who has examined the matter, almost fifty per cent of our tariffable imports. And that is called free trade? I accept that definition of free trade." 13

The worsening economic situation in 1930-31 put the government in the unfortunate position of seeming to mimic Fianna Fáil policy whenever it tried remedial measures. True, there were differences which went beyond rhetoric, and some earlier ministerial statements had betrayed a very deep conservatism. Moreover, the average tariff level rose from 9 per cent in 1931 to 45 per cent in 1936. 14 Yet the apparent drift in Cumann na nGaedheal policy before 1932 prompts the ecumenical point that Fianna Fáil should get neither all the blame nor all the credit for what followed.

Economic policy during the 1920s had been cautious and orthodox. Taxes and public borrowing for capital purposes were kept low, budgets were balanced, and the main emphasis was on supporting agriculture. 15 Agricultural output grew by about 10 per cent during Cumann na nGaedheal's years in office, but farming alone could not provide the jobs needed to put an end to unemployment. The Tariff Commission, created to monitor requests for (and protests against) protection from interested parties, proved (to the satisfaction of most ministers) extremely reluctant to grant protection to industry. Some of the options later associated with Fianna Fáil were discussed within cabinet, however, or at least raised in civil service memoranda. For example, an investigation of the efficacy of tariff measures introduced since 1924 considered the consequent inflow of capital into the protected sectors, and raised the possibility of licensing foreign investors in the future. This foreshadowed the Control of Manufactures Acts, a cornerstone of policy for two decades after 1932. 16 Another study attempted to measure the capital value of foreign investment in the Irish Free State in the years 1927-8. Gordon Campbell, secretary of the Department of Industry and Commerce, recommended in 1927 that the initiative for sanitising tariffs be passed from the Tariff Commission to his department, reflecting a restlessness with the commission's over-cautious, snail's-pace approach. 17

The change of government coincided with the depression and, quite a serious matter for Ireland, an almost complete halt to Irish emigration to North

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13 Dáil Éireann deb., xxxvi, 109 (19 Nov. 1930).
14 Ryan, 'Nature & effects of protective policy'.
16 See Mary E. Daly, 'An Irish-Ireland for business?: the Control of Manufactures Acts, 1932 and 1934' in I.H.S., xxiv. no. 94 (Nov. 1984), pp 246-72.
17 Patrick McGilligan papers (U.C.D., Archives Department, P35b/10).
America. Before 1932 Fianna Fáil speakers had often berated the government for the continuing high rate of emigration, emphasising one aspect of the outflow in particular, the associated human capital 'loss'. 'If it were possible', claimed Lemass in 1930, 'to estimate in terms of money the loss which the state has endured in consequence of emigration, it would be shown that the capital loss ... would amount to five or six times our national debt'. There is no evidence, however, that they saw the United States embargo on immigration as a solution to that problem. On the contrary, it made the need to provide jobs more urgent. The shock given to migration is clear from the recorded numbers: for the first time since the Famine, the movement to the United States became insignificant.

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Table 1: Emigration from Ireland, 1926-39 (1,000s p.a.)

In the circumstances, the case for the ambitious public housing programme embarked on in 1932, outlined in the Dáil by Lemass a year earlier, makes more sense: There are certain services for which we would like to see money provided on a much more lavish scale than has been provided heretofore, and in respect of which we would place no limit upon the amount the minister of finance might seek to secure. The service of housing is a case in point. Apart from the wisdom of embarking upon large development schemes during a time of depression and unemployment, and for that purpose borrowing money, the social need for improved housing is so great that the problem should be faced as one of first magnitude.

Of the 90,879 houses built between 1923 and 1938 over 65,000 were built after 1932.

Fianna Fáil's pot-pourri of measures included a massive increase in protection and a shift in emphasis in agriculture away from pasture to grain. For a brief period between late 1931 and early 1932, after Britain had introduced its new tariffs and before the change of government in Dublin, Ireland was, as James Meenan has pointed out, virtually the last predominantly free-trading economy in the world. The change from March 1932 on was dramatic: 'at the end of 1931, the list of tariffs covered 68 articles including 9 revenue tariffs. At the end of 1936 it covered 281 articles including 7 revenue tariffs. These figures do not include a profusion of quotas and other restrictions. At the end of 1937 it was calculated that 1,947 articles were subject to restriction or control.' The tariff level index calculated by W.J.L. Ryan rose from 9 per cent in 1931 to 45 per cent in 1936.\(^{21}\)

\(^{18}\)Dáil Éireann deb., xxxvi, 91 (19 Nov. 1930).
\(^{19}\)Ibid., xxxv, 36 (28 May 1930).
\(^{20}\)Meenan, Irish economy, p. 142.
Before turning to the economic analysis, it remains to provide a brief outline of trends in output, employment, living standards and prices. The appendix contains the statistical details. The art of national income accounting was in its infancy in Ireland in the 1930s. The first official estimates, for 1938-44, were not published until 1946, but Kiernan had already produced an estimate for 1926 and G.A. Duncan for several years during the 1930s. The latter prompted their author to lament the failure of the economy to grow at all during that decade. However, sectoral data for agriculture and manufacturing are difficult to reconcile with Duncan's claim. Net agricultural output dropped in real terms by only 4.0 per cent between 1929-30 and 1936-7, and by 2.8 per cent between 1929-30 and 1938-9, while real industrial output rose by 46.1 per cent between 1931 and 1938. The clear implication of this evidence is that, contrary to Duncan's widely-cited data (presented in the appendix), G.N.P. may have grown at least modestly during the 1930s.

Employment expanded between 1932 and 1938. The increase was unspectacular compared to Britain's, but notable in the Irish context. It probably represented the first sustained increase in numbers employed since the Famine and was comparable with any subsequent six-year increase. The considerable hardship caused by the economic war to farmers was matched by increasing prosperity in the towns. Cheap food and better job prospects go a long way towards explaining the substantial working-class support won by Fianna Fáil during the 1930s (which they have retained until the present day).

II

In this section we ask what light does simple general equilibrium analysis cast on the events summarised in Section I. Our strategy is to consider in turn the predictions of a sequence of simple models with a view to establishing the extent to which they succeed in capturing the stylised facts of the 1930s in Ireland. All of the models considered are variants of the so-called specific-factors model, which seems appropriate for the relatively short-run focus of the analysis. Our basic framework is one of an economy with two sectors, agriculture and manufacturing, each of which produces under competitive conditions.

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23 G.A. Duncan, 'The social income of Éire, 1938-40' in ibid., xvi (1940-41).
26 See Ronald W. Jones and J. Peter Neary, 'The positive theory of international trade' in R.W. Jones and P.B. Kenen (eds), Handbook of international economics, vol. i (Amsterdam, 1984), pp 1-62, for a recent review and for further references. Other applications of this model to issues in economic history are presented in Ronald W. Jones, 'A three-factor model in theory, trade and history' in J.N. Bhagwati et al. (eds), Trade, balance of payments and growth: papers in international economics in honor of Charles P. Kindleberger (New York, 1971), and Glenn Hueckel, 'War and the British economy, 1793-1815: a general equilibrium analysis' in Explorations in Economic History, x (1973), pp 365-96.
a single good whose price is determined on world markets. Each sector makes 
use of a mobile factor, labour, as well as a second factor specific to that sector: 
land in agriculture and capital in manufacturing. To begin with, we assume full 
employment of all factors, but, as we argue below, the models are consistent 
with more realistic interpretations.

Our first model is the standard specific-factors model of R.W. Jones, in 
which all factors are assumed to be in inelastic supply. Before the imposition of 
a tariff on manufacturing, the initial equilibrium is represented by the points A 
and a in Figure 1. The first (left-hand) panel illustrates the labour market, with 
the equilibrium corresponding to the intersection point, A, of the labour demand 
schedules of the two sectors, each of which is a decreasing function of the 
nominal wage rate, w. The location of these schedules reflects the technology in 
each sector as well as the exogenously given output prices and stocks of land 
and capital. Technology and output price also underlie the shape of the unit cost 
curve (or factor-price frontier) c_m for the manufacturing sector illustrated in the 
second (right-hand) panel of the diagram. This curve shows the combinations of 
the wage rate and the return to manufacturing capital, r_m, which are consistent 
with zero profits in that sector.

![Figure 1: Effects of a tariff on manufacturing with and without international capital mobility](image)

The effects of a tariff on manufacturing are now easily deduced. The labour 
demand schedule for that sector is shifted upwards from L_m to L'_m and its unit 
cost curve is shifted outwards from c_m to c'_m by the extent of the tariff. The 
result is a new equilibrium represented by points B and b: the wage rate rises, 
forcing agriculture to shed labour and so reduce output, while the expansion in 
manufacturing output is associated with a rise in the real return to manufactur-
ing capital. The wage does not rise relative to the new (tariff-inclusive) price of 
manufacturing so that the change in real wages cannot be predicted without 
knowledge of the consumption patterns of wage-earners.

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26Jones, 'A three-factor model'.
The predictions of this model are reasonably well-known and intuitively plausible. However, it fails to take account of a crucial issue which, as noted in the last section, attracted considerable attention in Irish debates in the 1920s and 1930s: the possibility that tariffs may induce capital inflows.27 Our second model attempts to capture this aspect by postulating an exogenously given rental facing the manufacturing sector.28 With this change in assumptions the new equilibrium represented by points B and b cannot persist for long, since the increased return on domestic manufacturing capital will encourage the establishment of what Gottfried von Haberler called ‘tariff factories’29 seeking to benefit from the protection now given to the home market. Assuming that the home country has no influence over the world return to capital, the new equilibrium must be that represented by the points D and d. The capital inflow causes a movement along the post-tariff unit cost curve c"m to point d but a shift in the manufacturing sector’s labour demand schedule from L"m to L"r. Comparing the predictions of our first two models, it is clear that the presence of international capital mobility implies that there is no trade-off between real wages and industrial employment: both rise together following the imposition of a tariff as foreign capital flows in reinforcing the squeeze on agriculture. Hence, to the extent that the measures to restrict capital inflow after 1932 were successful,30 they worked against the objective of raising employment. On the other hand, a separate consideration is that, from an orthodox economic perspective (i.e., its effect on G.N.P. measured at world market prices), a capital inflow is undesirable in the presence of a tariff. This is because it reinforces the tendency of the tariff to induce additional production of the ‘wrong’ commodity.31

So far, we have assumed that full employment prevails at all times. This might be reconciled with the facts of the Irish labour market in the 1930s by arguing that the models represent a moving equilibrium, in which a constant stream of labour out of agriculture is absorbed by emigration and the expanding manufacturing sector. However, there are at least two difficulties with this interpretation: first, as noted in the last section, emigration fell by a third in the early 1930s. As can easily be checked by manipulating Figure 1, this should

27As a referee has pointed out, fears of political instability following de Valera’s coming to power also encouraged some capital outflow, most notably the transfer by Guinness of much of their productive capacity to London. (See Kennedy et al., Economic development, p. 47.) However, pending a more detailed quantitative analysis, we assume that capital outflows were insignificant relative to actual and potential capital inflows.


30Daly, ‘An Irish-Ireland for business’, presents substantial documentary and anecdotal evidence to suggest that these restrictions were successfully evaded in many cases.

31See Neary & Ruane, ‘International capital mobility’, for an elaboration of this argument.
have put considerable downward pressure on the wage rate. Secondly, the bias against agriculture in the new government's policies might have been expected to accelerate the flight from the land. Was the increase in manufacturing employment alone sufficient to offset both these influences?

Consideration of a third model suggests an offsetting influence whose significance in this context has not been noted by other commentators: the change in the product mix in agriculture towards more labour-intensive tillage, which increased the share of crops in value added by one half (see the appendix). The model is similar to the first model in assuming that manufacturing capital and agricultural land are specific and immobile. Its new feature is the disaggregation of agriculture into pasture and tillage, the first of which is assumed to require at all times a higher ratio of land to labour than the second. The initial equilibrium in this model is illustrated by the points a, A and A' in the three panels of Figure 2. The curves in the first panel of this diagram (like that in the second panel of Figure 1) are unit-cost curves, illustrating combinations of the wage and the return to land, \( \rho \), consistent with zero profits in tillage and pasture. (The assumption that pasture is relatively land-intensive is reflected in the fact that the unit-cost curve for that sector has a higher slope than that for tillage.)

Figure 2: Effects of a subsidy to tillage with labour mobile between tillage, pasture and manufacturing

\[32\] An exception is Johnson, *The interwar economy*, p. 19, although he argues that the employment effect was minimal. However, our data for adult male employment in the appendix suggest that the rate of decline was significantly reduced.

\[33\] In its essential features, this model is similar to that of F.H. Gruen and W.M. Corden, 'A tariff that worsens the terms of trade' in I.A. McDougall and R.H. Snape (eds), *Studies in international economics: Monash conference papers* (Amsterdam, 1970), pp
With output prices exogenously given, the equilibrium wage and rent are determined at point $a$, which in turn determines the manufacturing sector's demand for labour in the second panel. Finally, the remaining labour available to the two agricultural sectors may be read off from the Edgeworth-Bowley box (whose dimensions measure the total supplies of labour and land available to the economy) in the third panel of the diagram. With factor proportions in the two sectors already determined, the allocation of labour and land between them is therefore as illustrated by point $A'$. Two distinct events in the 1930s implied a relative price movement in favour of tillage: an increase in domestic subsidies and the British levy on cattle imports (which, as we argue in Section III below, appears to have been almost completely passed back onto Irish producers). For convenience, we illustrate in Figure 2 the effects of a rise in tillage prices only, but it can be checked that a fall in cattle prices has identical effects. The outward movement in the unit-cost curve for tillage leads to a new equilibrium in the first panel at point $b$, with a higher real wage and a lower rent on land. In the absence of any change in manufacturing prices, this implies a contraction of that sector and the release of labour into agriculture, leading to a new equilibrium at points $B$ and $B'$. We do not insist on this implication of the model; obviously, many other things were taking place simultaneously in the rest of the economy. Rather, the most significant result of this model is that the price changes imply a shift towards greater labour-intensity in both lines of agricultural production: a reduction in the outflow of labour from agriculture is quite consistent with a major decline in agricultural incomes, especially from the point of view of land-owners. Thus, taken together, the models highlight the pro-labour and small-farmer bias in Fianna Fáil's programme.

The models we have examined draw attention to a number of plausible features of the changes in the structure of the Irish economy in the 1930s as a result of external shocks and policy changes. We have not sought to test the validity of the models; their usefulness rests on their ability to identify implications and contradictions of policy which cannot be pinned down with precision in discursive accounts.

III

The economic war is over. It is, I suggest, a complete waste of time to discuss who began it. The important fact is that we won it. (Sean Lemass)\textsuperscript{33}

55-8. For ease of exposition, we present only a simple version of it, although this is strictly speaking inconsistent with our second model. (International capital mobility, by fixing the wage rate, would drive the economy to specialise in either pasture or tillage.) Straightforward extensions of the model (such as heterogeneous land or constraints on the rate of intersectoral factor movements) would avoid this inconsistency while adding more complexity than insight.

\textsuperscript{34}For an earlier application of this disaggregation of the agricultural sector to Irish economic history, see Cormac Ó Gráda, 'Models of post-Famine adjustment', ch. 4 of 'Post-Famine adjustment: essays in nineteenth-century Irish economic history' (Ph.D. thesis, Columbia University, 1973).

\textsuperscript{35}\textit{Dáil Éireann deb.}, lxxi, 183 (28 Apr. 1938).
It was to a great extent a bluff . . . We had these catch cries of the minister that we could get markets elsewhere; that Great Britain must buy; that we could cut off British supplies and would have Great Britain on her knees in no time . . . The Fianna Fáil government has made a demonstration to the world of what exactly our strength is. (Patrick McGilligan)36

Though 'economic war' is perhaps a misnomer for what took place between Ireland and Britain between 1932 and 1938, the economic costs of measures taken by each state against the other were appreciated on both sides. The Irish decision to make the annuity payments a domestic tax source and to freeze other disputed payments was based on both legal and 'fairness' arguments which need not concern us here. The extra duties imposed by Britain on a wide range of imports in July 1932 were immediately countered by Irish tariffs and quotas.

An assessment of the economic costs and benefits to Ireland of these measures hinges on how they affected the prices facing Irish producers and consumers.

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Table 2: Store cattle prices, Ireland, Great Britain and Northern Ireland, 1927-38 (£)

Contemporary observers were divided on this issue. On the one hand, British ministers claimed that the revenue from the special duties recouped virtually all the loss from the annuities and other frozen payments. This view is supported by a mutinous memo written in 1937 by Ireland's foremost civil servant mandarin.37 On the other hand, it was argued that Ireland had some monopoly power, at least in the cattle trade. As one British M.P. put it:

It is disputed as to whether these taxes will be paid by the exporter or whether as I believe, they will in the long run be paid by the importer . . . The farmers of Leicestershire earned their living by fattening Irish stock and by buying store cattle. The same is the case in south Scotland. Livestock is going to be subject to taxation and that not only means injury to our own farmers but must be reflected in the price of fresh meat. I know

36Ibid., lx, 850 (13 Nov. 1935).
that it is arguable, but it is not a very sound argument that there are other sources of supply. That is open to question.\textsuperscript{38}

In the same vein, the dispute's disastrous effect on certain coal mines in South Wales was repeatedly raised.\textsuperscript{39}

Calculating the costs and benefits to Ireland of the economic war requires more information on such questions. A full examination of store and fat cattle prices in both countries before and after July 1932 would be a starting point. The data in Table 2 refer to older store cattle only, but reflect a common pattern.\textsuperscript{40}

Such numbers seem to suggest that the wedge between Irish and British prices fully matched the special duties imposed by Britain. This means that Ireland did not have monopoly power in this market and, therefore, that the Irish default — totalling about £28.7 million between 1932 and 1938 — was collected by Britain through the duties.

The loss of producers' surplus to Ireland can now be considered. Deriving a preliminary approximation is straightforward.\textsuperscript{41} Over the period Irish exports to the United Kingdom averaged about £10 million per year. Given the presumption that United Kingdom tariffs were fully reflected in Irish prices, export earnings in the absence of the economic war would have been £4 million greater. For a supply elasticity of two, for instance, the implied loss in producers' surplus would have been about £1.6 million annually; for a unitary elasticity, half that sum.\textsuperscript{42}

The other main items in the calculation are the loss in consumers' surplus from special Irish import duties and the lump-sum payment of £10 million at the end. Since demand for commodities subject to special duties — items such as coal and steel manufactures — was probably inelastic, consumers' surplus losses are likely to have been small. During the negotiations of 1938, the value of total outstanding annuity and related Irish obligations was reckoned at about £80-100 million. Both sides acknowledged the wisdom of a once-and-for-all settlement, but the Irish side was in no position to raise a sum of that size. The eventually agreed sum of £10 million was raised with ease at 3.75 per cent.

Elements in the calculation, then, are the 'deadweight' losses to Ireland between 1932 and 1938, the payments not made after 1938 and the lump sum. The outcome cannot be judged with precision. A very high elasticity of Irish export supply and a high elasticity of Irish import demand could have tilted the balance against Ireland. But otherwise the outcome probably represented a net


\textsuperscript{39}See, e.g., Irish Times, 4 Jan. 1935; Canning, British policy, pp 155, 158-9.

\textsuperscript{40}The Irish Free State and Northern Ireland data are those used by David S. Johnson, 'Cattle smuggling on the Irish border, 1932-38' in Irish Economic and Social History, vi (1979), pp 41-63; the British data refer to second-quality two-year old shorthorn stores as reported in Agricultural Statistics.

\textsuperscript{41}We are here applying standard techniques of cost-benefit analysis. For a discussion and review in the open economy, see W.M. Corden, 'The costs and consequences of protection: a survey of empirical work' in P.B. Kenen (ed.), International trade and finance: frontiers for research (London, 1975), pp 51-91.

\textsuperscript{42}The standard formula for the change in producers' surplus when prices are given (as here) is $(\Delta Q, \Delta P)/2$, where $\Delta Q$ and $\Delta P$ are the changes in quantity and price respectively. This may alternatively be expressed as $\varepsilon P Q (\Delta P/P)^2/2$, where $\varepsilon$ is the elasticity of supply. From our data, $P Q$ equals 10 and $(\Delta P/P)$ equals 0.4, implying a loss of 0.8e.
welfare gain for Ireland in economic terms. Of course, the success of the Irish negotiators in obtaining a favourable resolution to the economic war owed more to British concerns with the deteriorating international situation than to British economic weakness.43

IV

In both political and economic terms the victory of Fianna Fáil in 1932 marked a watershed. The new administration’s commitment to tariff protection transcended the depressed conditions of the day. In this paper we have attempted a preliminary exploratory analysis of the new policies pursued.

In focusing on the imposition of tariffs, the theoretical model considered in Section II showed clearly that, from the perspective of increasing industrial employment, the strict limitation on capital inflow after 1932 was misconceived. On the other hand, the perspective of economic efficiency suggests an alternative conclusion: given the introduction of tariffs, the exclusion of capital, to the extent that it was effective, was welfare-improving. In addition, it was noted that the bias in the new government’s policies towards labour-intensive tillage rather than land-intensive pasture may have somewhat slackened the flight from the land. In Section III we presented some calculations of the economic costs and benefits of the economic war. These suggested that the debt write-off and the lump-sum payment made by the United Kingdom in the 1938 settlement which ended the economic war may have more than compensated for the allocative inefficiencies attributable to the protective policies.44

Two more general points may be added. First, from a longer-term perspective, such gains as the policies gave rise to were not costless. The tariff-induced growth in employment could not continue, and industrial employment rose by barely 10 per cent between 1938 and 1958. The policies involved an intertemporal trade-off: since the infant industries established in the 1930s failed to grow up, the redundancies which followed the movement back to free trade in the 1960s and 1970s may be seen as the price of the extra employment in 1932-8. Second, we have not explicitly considered here the issue of whether tariffs themselves may have been justified as a response to a decline in world demand in a small open economy with a relatively underdeveloped fiscal system. A consideration of such issues would require a more Keynesian analysis than that provided above.45 Pending such an analysis, we may surmise that economic policy erred less in following the world trend towards protectionism in the 1930s than in failing to follow the trend towards trade liberalisation after the second world war.

43For another interesting example of political preoccupations overriding economic gains and losses, see Jeffrey A. Frankel, 'The 1807-1809 embargo against Great Britain' in Journal of Economic History, xlii (1982), pp 291-308.

44These conclusions are broadly confirmed by Kevin O’Rourke, ‘Burn everything English but their coal: the Anglo-Irish economic war of the 1930s’ (Mimeo, Columbia University, 1990), which extends our approach using computable general equilibrium techniques.

45But see also Isaac Butt, Protection to home industry: some cases of its advantages considered (Dublin, 1846), p. 63.
Finally, just as the post-1932 tariff structure was partly political in origin, the economic war of 1932-8 was a reflection of post-colonial tensions. Nevertheless, in concentrating on the purely economic aspects, our analysis has shown that, in retrospect, Ireland under Fianna Fáil rule may not have lost the economic war.46

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46 An earlier version of this paper was circulated as Discussion Paper no. 117 of the Centre for Economic Policy Research, London, in July 1986 and was presented at the World Cliometric Meetings, Evanston, Illinois. We are grateful to participants on that occasion and to Mary E. Daly, David Johnson, Frank Lewis, Dermot McAleese, Marvin McInnis, Brendan Walsh and the referees for helpful suggestions.
APPENDIX

OUTPUT, EMPLOYMENT AND PRICE DATA, 1930-38

(1) Trade. The decline in Irish trade between 1932 and 1938 was massive, even by contemporary standards. Merchandise trade (imports plus exports) as a share of national income dropped from 67 per cent in 1929 to 39 per cent in 1934 and 41 per cent in 1938. Exports, particularly agricultural exports, were worst hit. Between July-December 1931 and July-December 1934 the value of livestock and butter exports to Britain fell by two-thirds; the so-called coal-cattle pacts brought some respite thereafter.

In addition, the composition of trade changed considerably. In some lines trade was almost wiped out:

Imports of shoes, spirits, wool stockings, 1929-38

<table>
<thead>
<tr>
<th>Year</th>
<th>Boots and shoes (dozen pairs)</th>
<th>Spirits (gallons)</th>
<th>Wool stockings (dozen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>336,367</td>
<td>174,613</td>
<td>279,648</td>
</tr>
<tr>
<td>1931</td>
<td>325,383</td>
<td>197,021</td>
<td>289,886</td>
</tr>
<tr>
<td>1936</td>
<td>65,335</td>
<td>29,498</td>
<td>41,786</td>
</tr>
<tr>
<td>1938</td>
<td>16,377</td>
<td>33,896</td>
<td>68,655</td>
</tr>
</tbody>
</table>

Imports of some machinery and semi-processed goods — boiler-house plant and milling machinery, for example — increased, however. The U.K. share of the total dropped from 76.6 per cent in 1932 to 50.4 per cent in 1938.

(2) Agriculture. Agricultural output fell in real terms between 1929-30 and 1938-9, by about 3 per cent. The output of livestock and livestock products fell — a drop of 7.3 per cent — and this was just about matched by a big rise in the output of some crops, notably wheat and sugar-beet. The acreage under corn rose by an eighth, that under beet quadrupled.47 Crops made up 16.3 per cent of output in 1929, 25 per cent in 1938.48 The number of adult males engaged in agriculture fell from 483,864 in 1927 to 459,325 in 1932 (5.1 per cent) and to 457,606 in 1937 (only a further 0.3 per cent).

(3) Industry. The data here are somewhat controversial. The census of industrial production implies that industrial output and employment increased in the 1930s. Johnson, echoing earlier claims by McGilligan and FitzGerald, suggests that much of the increase was illusory, reflecting the improved coverage of the census over the period.49 But we concur with the majority opinion that a genuine rise took place.50 According to the census, output (in current value terms) of 'principal industries and trades' rose from £23.0m in 1926 and £24.9m in 1929 to £35.5m in 1938; the output of transportable goods rose faster than that

48 O'Connor & Guionard, 'Agricultural output in the Irish Free State'.
50 Mary E. Daly, 'The employment gains from industrial protection in the Irish Free State during the 1930s: a note' in Irish Economic and Social History, xv (1988), pp 71-5; Kennedy et al., Economic development, pp 47, 53; Brian Girvin, Between two worlds: politics and economy in independent Ireland (Dublin, 1989), pp 107-11.
(from about £18m in 1929 to £28m in 1938). In volume terms gross output rose 47 per cent over 1931-8. The numbers employed in transportable goods and services rose from 102,515 in 1926 to 110,588 in 1932 and 166,174 in 1938, while nominal capital rose from £48.1m to £50.9m and £76m.

### Industrial employment, 1926-38

<table>
<thead>
<tr>
<th>Year</th>
<th>Juvenile Male</th>
<th>Juvenile Female</th>
<th>Adult Male</th>
<th>Adult Female</th>
<th>Total (incl. proprietors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1926</td>
<td>3,000</td>
<td>3,533</td>
<td>80,893</td>
<td>16,151</td>
<td>105,526</td>
</tr>
<tr>
<td>1929</td>
<td>3,650</td>
<td>4,348</td>
<td>84,335</td>
<td>18,206</td>
<td>112,460</td>
</tr>
<tr>
<td>1931</td>
<td>3,425</td>
<td>4,330</td>
<td>84,728</td>
<td>18,895</td>
<td>113,323</td>
</tr>
<tr>
<td>1936</td>
<td>6,959</td>
<td>9,396</td>
<td>109,452</td>
<td>29,384</td>
<td>157,980</td>
</tr>
<tr>
<td>1937</td>
<td>7,183</td>
<td>9,186</td>
<td>114,933</td>
<td>30,270</td>
<td>161,572</td>
</tr>
<tr>
<td>1938</td>
<td>6,486</td>
<td>8,041</td>
<td>115,330</td>
<td>31,370</td>
<td>161,227</td>
</tr>
</tbody>
</table>

This increase occurred without any remarkable drop in output per worker (£225 in 1926, £233 in 1929, £214 in 1938). If brewing is excluded the numbers are £183, £192 and £197. The averages mask a wide variation across industries. Some — notably bacon curing, grain milling, paper making — performed very well; others, including brewing and vehicle assembly, registered quite a decline in net output per worker.

(4) Employment. Between 1926 and 1936 total numbers at work rose marginally, from 1,223,014 to 1,235,424. Agriculture’s share dropped from 648,475 to 609,178, but the only other sectors to lose numbers were domestic service, brewing, vehicle assembly, transport, and fishing. The increase in construction was notable — from 36,456 to 55,764. Interestingly, too, public administration and defence hardly changed. No reliable continuous unemployment series exists; administrative changes were such as to make comparisons of official data over time almost meaningless. An official memorandum argued a meliorist position, although it failed to convince some sceptics. It is worth noting that in Northern Ireland the percentage of the insured work force unemployed rose from 19 in 1923-30 to 27 in 1931-9.

(5) Wages and living standards. A massive drop in rural living standards during the mid-1930s is not in dispute, although O’Connor and Guionard’s estimate of a 3 per cent drop in output volume between 1929-30 and 1938-9 is matched by a 6.2 per cent drop in the farm labour force. Relative prices moved against agriculture too. The effect was mitigated to some extent, however, by rural employment schemes and the introduction of a farmers’ dole scheme, albeit of a very restrictive kind. Despite qualitative accounts suggesting greater prosperity in the towns and cities, there seems to have been little change in real wages.

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55See, e.g., Round Table, xxviii (1937-8), p. 74.
(6) Public finances. Minor current budget deficits had been an annual event since 1923. This did not change after 1932.\textsuperscript{56} However, the size of the budget rose substantially during the 1930s, and so did public capital liabilities:

<table>
<thead>
<tr>
<th>Year</th>
<th>1925-6</th>
<th>1931-2</th>
<th>1938-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customs</td>
<td>7.0</td>
<td>8.3</td>
<td>10.1</td>
</tr>
<tr>
<td>Excise</td>
<td>6.3</td>
<td>5.5</td>
<td>6.1</td>
</tr>
<tr>
<td>Other taxes</td>
<td>11.1</td>
<td>11.7</td>
<td>15.7</td>
</tr>
<tr>
<td>Total</td>
<td>24.4</td>
<td>25.5</td>
<td>31.9</td>
</tr>
</tbody>
</table>

(b) Capital assets and liabilities (£m)

| Liabilities | 14.6 | 31.8 | 61.4 |
| Assets       | 3.3  | 15.7 | 30.6 |

(7) National income. Official national accounts begin in 1938. For earlier years, there is a series prepared by Duncan for the Banking Commission.\textsuperscript{57} Duncan’s claim that at no point during the 1930s did national income regain the levels of 1929 are reflected below:

Estimates of national income (£m)

<table>
<thead>
<tr>
<th>Year</th>
<th>1926</th>
<th>167.5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1929</td>
<td>161.7</td>
</tr>
<tr>
<td></td>
<td>1931</td>
<td>150.8</td>
</tr>
<tr>
<td></td>
<td>1932</td>
<td>145.5</td>
</tr>
<tr>
<td></td>
<td>1933</td>
<td>140.1</td>
</tr>
<tr>
<td></td>
<td>1934</td>
<td>143.8</td>
</tr>
<tr>
<td></td>
<td>1935</td>
<td>149.2</td>
</tr>
<tr>
<td></td>
<td>1938</td>
<td>155.4</td>
</tr>
<tr>
<td></td>
<td>1939</td>
<td>164.4</td>
</tr>
<tr>
<td></td>
<td>1940</td>
<td>179.1</td>
</tr>
</tbody>
</table>

The data are all in nominal terms. Two points: (a) Duncan’s allowances for industrial output — £30.7m in 1929, £28.7m in 1932, and £35.1m in 1935 — do not seem to capture fully the increase suggested by Statistical Abstract data (£24.9m in 1929 and £35.5m in 1935); (b) constant price estimates of national income for the period do not exist, but the rise in import and export prices, about 10 per cent between 1932 and 1938, implies, if Duncan’s numbers are taken at face value, at best no change in volume terms.

If Duncan’s data are right, this puts the Irish performance between 1929 and 1938 in a very bad light, comparatively speaking. Few European economies failed to register an increase in real terms over the period; in Britain G.D.P. dropped by 5 per cent in 1929-32, but grew by 25 per cent in 1932-8.\textsuperscript{58} However, as pointed out in Section I, there is reason to suspect Duncan’s estimates.

\textsuperscript{56} Statistical Abstract 1939, pp 156-7.
\textsuperscript{57} G.A. Duncan, “The national income of the Irish Free State” in Reports and minutes of evidence of commission of enquiry into banking, currency and credit, P. 2628 (Dublin, 1938), appendix 7; and idem, “The social income of Éire, 1938-40”.