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IRISH NATIONAL INCOME IN 1911
AND ITS CONTEXT

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Authors	Title	No. and Date
R. O'Connor and E. W. Henry	Estimates of gross and net output and income arising in agriculture in all Ireland and in the Free State area in selected years between 1908 and 1926/27	WP 58, April 1995
L. Cullen	Irish national income in 1911 and its context	WP 63, Oct. 1995
A. Bielenberg & P. O'Mahony	An expenditure estimate of Irish GDP (at market prices) in 1907	WP 64, Oct. 1995
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Irish national income in 1911 and its context

I

The calculation I made many years ago of national incme in 1911 and which rounded up, gave a figure of £150 million, first quoted in 1977[1], arose out of an interest in the relationship between foreign trade and income levels. The role of foreign trade in the Irish economy over several centuries could not be understood without some idea of incomes, and especially for the 19th century with its many wisps and straws of figures for income here and abroad, could not be understood without some idea of what income actually was on the eve of the first world war. It was vital to have an estimate of clearly defined income which would not be an overestimate, and which would be the bench mark date for estimating the role of foreign trade at the end of the period. A figure of £131 million was arrived at from relatively accessible data for well-identified categories or from larger categories, with large deductions to eliminate doublecounting: a residue , if any, caused by doublecounting, should be counterbalanced by income that was overlooked, or that got loss within the handling of the data. A figure of £131 million was sufficient to eliminate some of the impossible scenarios that otherwise existed: an economy, whose foreign trade-orientation was not only high, but far beyond the level of other countries or, if the lower estimates of income, were accepted, a whirl-wind expansion during or after the first world war, one unknown to contemporaries (except modestly in the war-time inflation) and to historians.

In other words with a figure of £131 million, one was close to a realistic estimate: it made sense of past development, and eliminated the problems inherent in calculations of foreign trade as a proportion of national income on the basis of comparing low estimates of pre-war income with better ones post-1922. For the purpose in hand at the time, this figure would itself have been sufficient, and hence it was never refined further in detail. Additions for price adjustments because of the use of 1907 and 1908 data (£5 million) and for omissions and evasion (£5 million) raised the figure very conservatively to £ 141 million, and the rise in volume between 1907 or 1908 and 1911 was ignored with the purpose of creating a further inbuilt guard against overestimation. If one wished to calculate national income on its probable footing, the addition of £10 million seemed inadequate. At £141 million as well as at £141*plus* million , Irish income still seemed on the small side, unless the foreign trade data were to be regarded as an overestimate , a possibility which was for a number of reasons explicitly excluded. Ireland was still more foreign-trade oriented than other economies, and some crude considerations warranted regarding the figure as £150 million as a safe one for the outer parameters of income.

Until recently long-term trends in relative income were little studied, and apart from the studies of Bairoch which confuse rather than help the issue because they juxtapose both reliable and incredible estimates are still rare.[2] The historical starting point of such comparisons was the seminal one by Kuznets of U.S. incomes with those of European industrial countries.[3] But even this was based on estimates which did not go back beyond 1844. This was largely due to the statistical deficiencies, already substantial for the second half of the nineteenth century, and perhaps insurmountable for preceding decades. Still any study of comparative income raised the question

whether Kuznets' conclusions could be paralleled for the same period from comparisons nearer home and also whether it was possible to push, however crudely , the prospects of study back beyond 1844. Even conclusions subject to qualification would help to confirm or qualify the validity and significance of conclusions drawn in comparisons between Britain and Ireland from the less speculative statistical data of the post-1844 period. Study of very loose estimates of Irish income (which are not discussed here as pre-1821 estimates belong to a world of heroic guess scholarship) with the scarcely better estimates for British income seemed to bear out the comparative long-term stability of relative per capita income levels inferred by Kuznets from the study of the growth of per capita incomes in the United States and other industria1 countries.[4] Irish income was neither incredibly low, nor at any time exceptionally high. The study did however bear out the likelihood of substantial short-term swings, or cycles if you wish,which seemed plausible. In somewhat narrower contexts, longterm comparisons of incomes were possible, as in the case of wages between Ireland and Scotland. Moreover the gap between skilled and unskilled wage rates was relatively easy to study and relatively free from pitfalls, and the gaps within the range , or the contrasts with England or Scotland, proved surprizingly persistent.[5]

I have to say however that in the aftermath of this work I encountered some reluctance among historians to concede that it was possible that Irish income could ever be as high as even half of English income. In a sense this is reflected in the possiblity which exists , using the Bairoch data, to suggest that Irish incomes in the mid-nineteenth century were as low as incomes in eastern Europe or the Balkans.[6] This dilemma is reflected in Mokyr's book in a rather striking way: on finding that his own estimates were rather higher than he expected, -about half British income - which was inconvenient for his argument, he proceeded to devise a curious definition of Irish income.[7] Prof. O Grada more recently refers to the gap as a huge one,[8] and at the outer reaches of credibility many years ago occurred Hobsbawm's absurd comment on " eight and a half million Irishmen impoverished beyond belief".[9]

The conclusion drawn from a study of Irish conditions seemed to widen the applicability of Kuznets' statement and supported the inference that disparities between agricultural and industrial countries may be of long standing just as the disparities between the United States and industrial countries may have preceded modern industrialisation. In the case of Ireland, the rate of increase of income in the long term may have been as rapid or more rapid than in neighbouring Britain despite the relative failure of industrialisation in Ireland. The Irish case thus appeared to bear out for a labour-surplus low-wage economy in contrast to the labour-shortage, high-cost United States economy, the truth of Kuznets' proposition. This conclusion, was also at first sight unexpected, because it seemed to confirm from a less promising instance, that industrialisation did not create or widen disparities and that the explanation of the existing disparities must rest on factors other than the obvious but apparently deceptive one of relative success or failure in industrialisation.

The long-term character of disparities in per capita incomes is, of course, subject to qualification. For one thing disparities have narrowed or widenend significantly in the short-term, almost in a cyclical fashion. More importantly, over time some striking reversals have taken place, because some of the gains made in the shorter term have proved permanent. This is obvious not only between countries, but between regions and classes in the same country. Clearly existing disparities can widen, otherwise, against all expectations,

industrialisation would have left the existing relationships in terms of per capita income unchanged - a situation which as a general proposition would be in conflict both with theory and empirical experience. However with the deindustrialisation of the cradle districts of the classical industrial revolution we are now painfully aware both that districts can deindustrialise, and how their accumulated inheritance from centuries of economic activity has been disconcertingly small. In so far as they were rich , they were successful in tandem with metropolitam centres, and centuries of successful performance created little local infrastructure or skills outside a narrow base. We need in fact as we reach the end of the industrial patterns created by the original Industrial Revolution to rephrase many of the propositions of classical economics and of economic history: it is abundantly clear that the major areas of growth now centre on larger metropolitan districts and to a lesser extent on subdistricts, often artificially favoured by regional policy, playing the same role within large societies. Industrialisation or, the other side of the same coin, deindustrialisation, however is less likely to sharpen income disparities when factors of production are in elastic supply and when mobility is perfect. The widening of disparities implies less than perfect competition, less than perfect mobility inwards or outwards, and a partly closed regional or world economic system; undoubtedly mobility was comparatively limited for much of the period covered by modern industrialisation, and the indigenous populations of now -decaying districts are proving less than mobile outwards (at least in periods of weak general economic growth) or into new skills. This question is, therefore, even in its fundamentals, tied up with the world system, and it is difficult to understand the basis for disparities, their character and either their persistence or in some instance their melting away without bearing in mind the role of foreign trade and migration.

II

Recent compilations of income estimates, while intended to illuminate economic performance, have often confused the issue. Bairoch's data suggest some curious or improbable convergences in mid-nineteenth century Europe, which give eastern Europe a high place, and Scandinavia a comparatively low one. The estimates also give England a clear leadership. Yet the problems lie at times less in contrasting performance than in the estimates themselves. Given extensive industrialisation, a highly inegalitarian distribution of income, a large wage-labour force and an early and highly developed direct income tax, English - or British - data were or are by definition easy to calculate. Everywhere estimates of agriculture tend to be realistic or relatively so, because they rely on good estimates of aggregate production; estimates for industry and services are variable, heterogeneous, and even arbitrary ,and on balance are likely to omit or underestimate income. We are faced with the paradox that precisely because the performance of agriculture - closely monitored for statistical purposes, even from the eighteenth century in some instances - makes it posssible to calculate income from relatively good and comprehensive data for physical output, agriculture is the least uncertain component of income, far ahead of the "more advanced" sectors of industry and services. Thus in the case of France the curious equality of income between agriculture and other areas, commented on by Bellerby for instance[10], was simply a reflection of the deficiencies of data. Hence the gaps in income between countries are not real ones, but apparent ones between accurately enough recorded data for England, and less well recorded data for other countries. In other words Britain's relative leadership is somewhat less overstated, and the advance of other countries over time less dramatic. These

considerations have been borne out in interesting analyses such as those of relative incomes as varied as Japan and France. Thus Susan Hanley has suggested that income in Japan in 1868 at the outset of the Meiji advance was little below income in England a century previously on the eve of its industrialisation.[11] O'Brien and Keyder have found a sizeable difference between agricultural and industrial incomes in France, and aggregate incomes much closer to British than assumed in the earlier literature.[12]

Ireland's historical experience before 1914 was closely tied to foreign trade; more recently its poor economic performance between 1929 and 1958 was related closely to the problems whic were more acutely evident in world trade than in world production, and post-1958 growth has to be related to an expansion of the country's foreign trade in volume. Historically, the growth of Irish foreign trade was remarkably rapid through both the eighteenth and nineteenth centuries. By the end of the nineteenth century exports accounted for between 30 and 40 per cent of gross national product, per capita special exports were larger than Britain's and not much below the level of the Netherlands and Belgium. The Irish experience cannot be divorced from another factor, mobility of population. Irish migration in the second half of the nineteenth century exceeded the natural increase of population. Proportionately, Irish migration was larger than that from Scotland and Norway. It would be less unique if we sought parallels outside the period. The special case of Berlin and more appositely Portugal in recent decades have offered parallels.

That Irish experience, if not in its short-term cyclic movements or its almost unique migration, was in point of income in the long-term favourable in a comparative sense, has not been the generally accepted view. In fact, the lack of comparative income data did not prevent the formulation of assumptions as a matter of course that Irish income fell progressively behind incomes in industrialising countries. Deane and Cole argued by implication, three decades ago, that Irish per capita incomes rose less than English per capita incomes in the nineteenth century[13], and they maintained the same view for the eighteenth century: "Certainly it would be difficult to find evidence for an accelaration of this order in Ireland which by the end of the eighteenth century is estimated to have accounted for about a third of the population of the United Kingdom (*sic*)."[14] Their conclusion was that if their estimates for Eng1and and Wales were extended "to include Scotland and Ireland, it may be supposed that the 18th century rate of growth would seem lower".[15] The confident reference even to Scotland reflects the unquestioning arrogance of England-centred-ness.

This argument was also put forward as part of the hypothesis advanced in what appeared to be a very persuasive article by Professor Butlin in the ensuing debate on the subject of English economic growth in percentage terms. Professor Butlin's article was directed towards arguing that England's lagging rate of growth was due in part to the United Kingdom's estimates being dragged down by the poor performance of Ireland.[16] If Ireland should be excluded, England's performance would appear less dismal in international comparison. This approach was based in effect on comparisons between an estimate of Irish national income for 1911 which must, on examination be reyarded as comparatively low and an estimate for 1851 which is probably true to the mark.[17] Professor Butlin also speculated that it is possible that per capita Irish real wage incomes in 1851 bore a closer relation - some three quarters - to the British level than they did half a century later.[18] If so, Irish incomes would have risen very sluggishly in per capita terms, and the exclusion of Ireland would produce a

higher rate of growth of per capita incomes for the rest of the United Kingdom. Indeed, it is possible that total Irish income in Professor Butlin's account, fell in absolute terms between 1855 and 1911: this possibility is suggested by providing for "a shortlived recovery" between 1851 and 1855 which would temporarily have boosted aggregate incomes above the 1851 level.[19] If Professor Butlin's suggestions should be close to the mark, the exclusion of Ireland from United Kingdom estimates would have the effect of both boosting per capita figures by excluding a territorial entity characterised by a shrinking income even in aggregate terms, and the residual gross aggregate for the United Kingdom *less* Ireland.[20]

Professor Butlin's estimates, while obviously convenient from the point of view of the hypothesis he put forward, raised considerable difficulties. Not only was Professor Butlin's short-lived recovery in the early 1850s, necessary to sustain the more extreme possibility of a declining aggregate income distinctly awkward to relate to the facts of Irish economic history, but by firmly excluding the possibility of qualitative improvement in the structure of nonagricultural employment, he weakened even the broader basis of his arguments:

> If this approximates historical experience, Irish gross domestic product per head cannot have risen as fast as that of England, Scotland and Wales, given the importance of the agricultural workforce throughout, unless there was a much greater transformation of the non-agricultural sector. The tendency of the workforce in manufacturing, trade, building and transport to dwindle at much the same rate as that in agriculture, does not lend strong support to this condition. [21]

While for Professor Butlin, the relatively unchanged share of the workforce in the complex of manufacturing, building, transport and trade proved Ireland "substantially unresponsive to modernisation and structural change occurring in the rest of the United Kingdom", [22] it is precisely this deceptive stability that makes crucial the assessment ot the qualitative change. Feinstein made an assumption similar to Butlin's: arriving by careful estimation at an Irish residual amounting to 6 per cent of the United Kingdom gross domestic product in l907, average Irish real product in previous periods, total and per capita, was then calculated on the assumption that marked changes in relative labour productivity were "in general .... not likely to have occurred".[23]

The likelihood of a qualitative improvement in the structure, however, seems highly likely where population is declining in the circumstances of the second half of the century: moreover Butlin seemed to underestimate both the quantitative growth in areas within the tertiary sector and qualitative growth in the secondary and tertiary sectors taken as a whole. In fact, unintentionally he found himself, as an economist, curiously allied to those among nationalist contemporaries who, aware of the growing tertiary sector, challenged its productivity and like T. Lough in 1896 decried it:'"Thus a larger percentage of the people describe themselves as dealers - those who live by buying and selliIng ... none of those classes are wealth producers".[24]

It is possible, of course, to argue that the undoubted rise in Irish living standards was a once for all rise in the immediate aftermath of famine mortality in the late 1840s and massive emigration in the early l850s. This is unlikely in practice. Even if agricultural wages, the lowest wage category in Ireland, are taken, wages not only rose in the early 1850s, but even between 1860 and 1896, rose more sharply than they did in England and Wales, both over the thirty-six year period as a whole and in each

successive decade within the period.[25] In another source, an official one, the wages of agricultural labourers rose more rapidly in Ireland than in Britain between 1880 and 1907.[26] If allowance is made for the decline in underemployment in the industrial and commercial sectors and a significant qualitative improvement - both likely consequences of the large and continuing shakeout in employment - the likelihood of a sharp and continuing rise in per capita money wages is overwhelming.

III

Estimates of Irish income, both contemporary and later, all erred on the side of being too low. It is true, of course, that Irish nationalists had a vested interest in seizing on low estimates. Lough, for instance, quoting a national income estimate of £70 million, thought that "this amount cannot err on the side of being too low".[27] But in fact, most of the estimates of Irish income were British. Sir Robert Giffen in 1886 estimated Irish income at £70 million, thinking that his calculations gave "too little to Great Britain if not too much to Ireland."[28] Before the First Financial Relations Commission, he put Irish national income "at some point" between £63 million and £76 million.[29] Leoni Levi's estimate of Irish income in 1882/3 (quoted before the same Commission) was £85 1/2 million. [30] Another estimate of the period appears to be that by Mulhall, £92 million in 1895. [31] Crammond, in the culminating phase of this writing put income at a level of around £85 million, and provided per capita figures of £36 and £19 for Scotland and Ireland respectively.[32]

Later estimates are not much happier. Arthur Bowley estimated the income of the area corresponding to the Irish Free State as 4 per cent. of the United Kingdom home national income or £76 million in 1911.[33] If one should assume that per capita incomes in Northern Ireland were the same as southern incomes,[34] the all-Ireland figure for 1911 would be approximately £110 million.[35] More recent estimates, relating to the same period, also result in relatively low figures. Emmet Larkin's calculations, for instance result in a figure of £82 million for 190l (a figure which served to greatly enhance the relative importance of "unproductive" church expenditure which he was writing about). [36] More recently Garvin was scathing in his review of Lee's book, where Lee had accepted the estimate of £150 million for 1911, a stance adoptly less stridently by Fitzpatrick in another review.[37]

It was not feasible to arrive at estimates for Ireland as a residual by subtracting estimates for Great Britain from estimates for the United Kingdom. [38] As Butlin stated in relation to United Kingdom estimates and those for Great Britain calculated by Deane and Cole, "the two estimates differ by much more than the inclusion and exclusion of Ireland". [39] The fluctuating level and erratic trend of Irish income derived from them would amply bear out that contention. Deane and Cole also created United Kingdom figures based on their Great Britain calculations, but while useful from the standpoint of studying British conditions because the margin of error would affect the greater whole relatively little; "a crude estimate of the net product of Ireland based on assumed average income per head"[40] is too arbitrary for useful study of the Irish entity. The nearest approach to a separate calculation was Feinstein's calculation of the Irish residual of the components of British gross domestic product for 1907. The gross domestic product of the United Kingdom according to Feinstein's calculation in 1907 was £2,156 million at market prices and the Irish component estimated at 6 per cent would be £129 million. Applied to Feinstein's United Kingdom gross domestic product of £2,316 million in 1911, the 6 % fraction would give an Irish figure of £139 million.[41] Professor Feinstein pointed out that it did not take into acccount components of Irish income that might be

included in an independent calculation and that in calculating the residual the Irish element, the smaller one of the components, the margin of error is potentially much greater than for the British constituent. However, the estimate is an interesting one, higher than existing ones, and at least one level off the range of incomes of the Irish economy at this time.

I V

The estimate for Ireland for 1911, which is the subject of this paper, was based on the censuses of industrial and agricultural production, 1907 and 1908 respectively, income tax assessments, and wage and salary rates applied to categories in the decennial census of population, duly adjusted where figures from the industrial census, tax data, and official figures for incomes in the public sector were available. The main problem in using the data is the need to make allowances to avoid doublecounting. The key difficulty lies in eliminating doublecounting in estimating non-agricultural income, a problem which is greatly exacerbated by the failure of the Census of Industrial Output for 1907 unlike later censuses to distinguish between wages and salaries, and also by the problem of identifyingly unambiguously in the 1911 population census the groups covered by the 1907 Census of Industrial Output. Unemployment and underemployment could perhaps be regarded as a problem also: however to the extent that eliminations were generous and income estimates cautious or ungenerous, this problem has itself been either eliminated or moderated. In addition the 1911 census returns of 804,850 males without occupation includes some 70,000 males of 20 years and upwards and below 65. It is hard to see all these as having no income or maintenance which would warrant classification as an income. I have treated this category as covering part of the underemployment / unemployment factor.. In so far as their income has been overlooked, it compensates, in conjuction with cautious figures for earnings, for underestimation or unemployment/ underemployment elsewhere.

As presented in the Appendix the estimate is largely unchanged. The key calculations are left untouched , and some additional adjustments have been made only for some of the final stages of processing of the subtotals. To do otherwise, at twenty years remove, to the original worksheets would be unwise without a long process of refamiliarisation with the detail: error could be compounded, small income categories added in a second time, or more probably doubly eliminated. However, deductions have been increased further, and some new conceptual refinements have warranted a series of relatively small pluses and minuses. One change noted as being necessary even in putting the final round of the original figures together , has still not been carried out. Some income assessments were on a current income basis(most , though not all, schedule E income), others on a preceding year basis (most importantly schedule D). Hence, assessments for the year ended March 1912 related to income earned in the year to March 1911, and are the figures used in the calculations. This covers one quarter of the calendar year 1911, but it would be preferable to use assessments issued for the year ended March 1913. For reasons of time, this change noted as desirable at the time of the original calculation still has to be undertaken, though for the year 1911 itself the consequences are small.

A wiser man twenty years later, if I were doing the exercise afresh, I would take the income tax figures, and use the 1907 industrial census sparingly for isolated purposes rather than general ones. In other words, the tax assessments would be used more centrally and after some suitable elimination of individual taxpapers and one-man taxpaying

firms, income would be calculated primarily by multiplying whole sectors of census-returned figures by estimates of wage rates or earnings. The incomes of larger firms would also be caught in this fashion automatically without the need to make further adjustments (except separately and at a later stage in the exercise for avoidance and evasion). This would reduce the amount of eliminating necessary and in consequence avoid much of the complexity of simultaneously using income tax, census and other data in a closely overlapping way which extends the somewhat ambiguous process of eliminating-procedures with its inherent, though mutually cancelling dangers of doublecounting and double elimination. Moreover, comparisons between categories within the 1907 census, as also with later censuses raise questions about the reliability of the data. As a result of experience of using the data twenty years ago and reflection since then, I would now venture the personal opinion that the Census of Industrial Output for 1907 should not be used. Rough calculations, created by taking agricultural income, income tax returns, public sector incomes, and the retention of existing or revised computations for other categories, and the addition of a figure for the balance of income earners in the 1911 census of population given arbitrarily an income £75 a year each (pitched at that level to take account of profits as well as wages) would give a not very different result.

The likelihood of a higher figure than £141million for 1911 seems implied in the fact that such a figure leads to an unduly high share for agricultural income for a country at Ireland's state of development. One of the few certainties of Irish income is that per capita agricultural incomes were about half those of Scotland or England. On the other hand, industrial incomes were closer together, a fact reflected in per capita net output of £102, £98 and £78 for England, Soctland and Ireland respectively in the 1907 Census of Industrial Output. The fact that £142 million seems a low estimate is reinforced by the fact that £67 million for exports in 1911 results in a figue of almost 50 per cent for exports expressed as a percentage of GNP. This seems unacceptably high except for a small enclave economy or for a district within an economy, and is hard to accept for Ireland. A figure of £150 million in 1911, giving a percentage net agricultural income of 33 % and an export proportion of 43 % of G.N.P.,is inherently more probable. An export trade accouting for 43 per cent of GNP still seems high and suggests that G.N.P. may have slightly exceeded £150 million. This figure, if correct, would reinforce the extent to which Irish incomes contracted in 1920s, and is somewhat more probable, though the whole question remains speculative, and will be best attested ultimately not by juggling with figures but by some serious study of living standares as measured by life styles and the availability or use of consumer goods. [42]

A crude cross check is possible from the calculation by Kiernan of the National Income of the Free State for 1926. Kiernan's calculation is £164 million . If Northern Ireland income were assumed to be a half of this (which gives northern income a generous margin above southern income), the total Irish income in 1926 would have been £247 million. If the 1926 estimate was deflated by the rise in retail of prices of 78%),[43] it would give a total income for 1911 of £139 million. . Of course, if there had been a growth in volume in the interval, the income in 1911 would have been lower. A comparison of pre-war exports from Ireland with post-war exports and of the 1908 Census of Agricultural output with the 1925 and 1926 censuses of Northern Ireland and the Irish Free State respectively suggest stagnation in volume and even decline.[44] Linen exports from the United Kingdom (mainly from Northern Ireland) had contracted sharply, and this is confirmed more directly in the export data for the 1912 and 1925 censuses of industrial output; the booming ship building had waned (even if Belfast with its liner specialisation in the

great decade of the Ocean Queens fared better than other U.K. yards). The static nature of the trends is reinforced if we make the 1912 agricultural output census the basis for the income calculations rather than the 1908 census: it would automatically embrace the rise in prices which I allowed for elsewhere within an adjustment addition, and a rise in volume which I did not allow for. Its figure is £59 million for gross output compared with £45 million for 1908, and converted for national income accounting on the basis employed in this paper, including turf and imputed income and net of rent remitted to absentees, would amount to £64.2 million, compared with £50.54 million.

V

Three features of Irish trade which are important to bear in mind are: (i) the growth in trade in the nineteenth century, (ii) the emergence of a deficit in the balance of trade financed by an invisibles surplus, (iii) the evidence , in structure at least, of a mature economy, with an invisibles surplus matching the commodity imbalance. These features are dynamically related. They can also be related to the changes in banking These are not only important in themselves and for the time of their emergence, c.1875, but also in interpreting the structure of the economy in the 1920s. The proportions of the deficit in visible trade in the 1920s in the Irish Free State, larger than in 1911 for the whole island, could easily be interpreted as a consequence of increased imports consequent on the war-time rise in incomes and the enhanced investment income. However, the banking structure in the nineteenth century varied between north and south: northern banking was more closely geared to industrial investment with deposits close to bank advances; southern banking especially as it tapped rising rural incomes effectively with an enhanced branch network (made even more effective with the advent of the sub-branch) from the 1870s onwards increasingly conformed to the typical agricultural pattern of deposits running well ahead of advances.

Exports per capita from the Free State were almost £14 in 1926, compared with £14.8 in 1911 for the island . If it were assumed that exports from the south were of the order of almost £11 in 1911 (the £14 figure less 33 per cent inflation in the interval), they would have been of the order of £ 34.5 million in 1911. In other words the balance - exports from the north (£30.7 million) - would have been roughly £25 per head compared with the national figure of £14.8 in 1911. In turn , if the income of the north was of the order of, say, £50 million, the percentage of export trade to income would have been about 65 per cent, or if income were £45 million (assuming that it was strictly proportionate to population , which would maximise the proportion) , it would have been 73 per cent. These considerations suggest that income has to be in the region of £150 million : otherwise exports become too high a proportion of the income of the island, or the enclave characteristic of the north becomes impossibly high. A figure of 43% is not too far out line. If we put trade at a proportion of not less than 50 percent for the island as Prof. O Grada suggests, the proportion of exports in the case of the north must have risen to an extremely high level, and one higher than its own only modestly advanced level of industrialisation would warrant.

If imports are looked at , the figures seem to match. Imports per capita were £20.4 in the Free State in 1926, compared with a national figure of £15.2 in 1911. Per capita exports were assumed to be approximately £14 for the 26-counties in 1911 (taking a 50 per cent price rise as a balance between a lower commodity rise for primary products and a higher one for manufactured goods), they would amount to £44 million, leaving £22.7 million for the north, or £18 per capita. . These figures would give percentages of import trade to income of 42 % (£44 million

of £105 million) for the Free State, and 51 % (£23 million of £45 million for the north). These calculations , while crude, provide a trade pattern which matches the contrasting structure of bank advances/investment in the two parts of the island.

The change in the structure of trade in the 1920s may be only apparent. I think I have greatly contributed to the existing optimistic assumption about incomes in the 1920s, both because I accepted Kiernan's income figure for 1926 and because at an earlier date I argued elsewhere that the rise in incomes in the first world war, despite subsequent deflation, to some extent did not lose ground and was reflected in an enlarged imbalance of trade.[45] There probably was some rise in the imbalance corresponding to the holding of large cash balances and to some redistribution of income from the saving classes to the wage earning and urban professional classes, who were by definition "high"-spending rather than saving classes. In fact incomes at large probably did not on balance rise in real terms. Nor was this rigidity of itself uncharacteristic. The longterm profile of per capita incomes is probably fitful and bunched in well-defined periods, occurring in the 1860s and early 1870s and again in the 1890s and first decade. of the century. [46] Whether the undoubted rise in and immediately after the First World War held its own or, with the distorted swings in relative prices, somehow or other was equitably distributed is of course a more problematic issue. On balance, netting out a rise in 1915-1920 and some reversal thereafter, probably little change occurred between the early1910s and 1948, even if cheaper and novel consumer goods in the 1920s altered appearances somewhat; change at that time was most evident for wage earners and professionals in the towns, and the salaried and clerical workers of the service sector. The farming community probably did not do well, even if the institutional devices of land reform which ensured that inflation eroded the real cost of rents and annuities alike greatly softened the impact and transferred a large part of the burthen to the landowning class who were the real losers (and whose plight of itself was of course necessarily somewhat deflationary in its impact on rural and small town life).

VI

The rise in per capita trade was sharp in the nineteenth century. By 1911 per capita growth rates of trade from the 1830s were comparable with some of the most favourable instances (a seven-fold rise compared with Bairoch's six-fold average for Europe).[47] However, there are some qualifications to make. Rates of total trade grew less rapidly: as incomes were competitive and labour plentiful, Ireland should have been able to do even better, unless one could argue full employment or shortage of other factors of production such as capital. Given the presence of surplus labour (as witnessed in Ireland's migration, near-unique for the century) and an emergence of a capital surplus (consecrated by a mature economic structure from the end of the 1870s) , if trade grew rapidly, the question arises why it did not rise even more rapidly. In other words, either costs were for some reason uncompetitive or the export composition was unhelpful (or if one chose to so - though personally I regard the argument simply as one which marks historians' being at a loss to explain a complex phenomenon and hence, grasping like a drowning man at a straw - speculate that there was widespread entrepreneurial failure running through the entire economy).

The export pattern itself seems to have been unfavourable or unstable. If we take the four main categories, the structure was shifting: grain featured heavily in 1792 and 1835; the composition of pastoral products shifted variously in its emphasis on beef, livestock or butter, and shipbuilding was important only in 1911.[48] Linen was prominent

throughout, but it was a poor textile, providing the lowest income among textiles and employing the highest proportion of women and children among textiles in the United Kingdom. In other words, large though the export trade was ,it was a fragile one. Perhaps for this reason, export units tended to be large, often integrated in the textile industries. Portlaw , Dublin, Limerick and Belfast variously had industrial plant which at one time or other were among the largest in the world. Just as its grain export trade, prior to repeal of the corn laws in 1846, depended on high yields, cheap labour and expensive kiln-drying in remarkably large and newly-built mills, its pastoral farming produced a complex pattern of movement of calves from dairying districts to feeding districts, and of young livestock from them in turn to finishing lands. Just as arable cultivation provided meagre returns to the labourers and cottiers who grew the essential root crop - potatoes - in heavy cropping rotations and provided the cheap labour which made the system possible, the livestock system was not equitable in its returns as between the interests within it. Superficially complex and sophisticated, it provided extremely low returns to many of the individual producers, locked into a system in which the benefits were not distributed equally , and which was conducted on very heavy working capital requirements from the banking system and yielded handsome returns to the jobbers or traders. It was an exploitive system to start with, and performed better in the nineteeenth century only in the sense that a larger turnover of cattle, with the rise of live cattle exports, redistributed in the second half of the century some of the benefits back to the sellers of calves and feeders of livestock in their first year. This redistribution of income within the trade added to the working capital demands but it itself perpetuated a structure whose intricacy depended more on the readiness or necessity of many farmers to work for very small returns. The Irish system brought even marginal lands into the market system, but in a sense its more fragile links were the counterpart of the vital role of the labourer/cottier in the expanding cereal husbandry of the period from the 1760s to the 1840s.

VII

One of Prof. O Grada's reasons recently for doubts about an estimate of £150 million is that pitching income at such a level, compared with later years, would not allow for the income growth which occurred in the first world war.[49] I have already referred to the problems in that , and to my own probable role as one of the culprits. In fact what occurred in the first world war is complex. Wages and salaries certainly gained on balance (something that can be seen interestingly within the data of individual large firms - take Easons with which I am familiar for instance). However other gains were less clearcut. Farmers' circumstances in particular were complex. Savings were large: the system was awash with liquidity and larger farmers held dramatically large cash balances in the 1920s. Their business income can not have improved on balance, as commodity price trends did not advantage them. On the other the static character of cash outgoings on foot of rent (frozen in many surviving cases from or two past statutory court decisions) or even lower annuities (which replaced statutory rents on land sold to the occupiers) meant that they were on that front beneficiaries of the war and postwar inflation. Their cash outgoings on foot of annuities or rent of a mere £6.00 million in 1926 compared with £8.4 before the war. As gross farm output had risen from £45 million to £80 million, they had not only fallen in absolute terms but even more sharply, from 19 per cent to 7 1/2 per cent, as a proportion of total output. A combination of falling charges, and an increased income from investment and bank deposits, gave them a cushion. If labourer and farmer income are aggregated , the rural community, if we restrict it to farmers and labourers, did not lose out greatly. They did not of course

gain greatly: food patterns reverted to old ones, radio, newsprint and personal mobility were slow to advance (the new consumer durables of the 1920s were taken up by townmen and rural higher professionals who could afford them). The pattern is more gloomy if the income of the entire rural community is taken. The income of landowners fell further as rents were turned into annuities, and as the purchasing power of surviving rents and of the land bonds which up to 1917 had replaced them was decimated by inflation. In this sense a comparison between the 1920s and pre-war decades gives a less reassuring picture. The aggregate income of the countryside (if we include three classes) evolved much less favourably.

In comparing income it is important to provide an accurate measure of the economic aspects of the rural reforms. Unless we monetise the benefits of farmers by putting a cash price in some form on the new rights acquired by farmers, the outcome of the reform are minimised in the sense that the reforms would seem to have conferred little advantage on the farming community. If we do not include an element attributing a monetary recognition to security of tenure and house occupation, moreover, the position of labourer and small farmer is identical. Their cash income in the extreme example is identical: however, the labourer had to pay a cash rent for his house (or bore a cash deduction from his wage); the small farmer made no cash payment for his - usually larger - house.

One consequence of this failure is that in the short term the arguments about the economic damage allegedly caused by land reform seem more impressive than they actually are. The economic basis for the new dynamism of the countryside before the First World War, its politics, sports and Gaelic League, all bicycle-assisted and recorded by the rural camera, is unappreciated: new consumer goods reached the hands of the rural classes in a way they had not in the past and did not anew in the 1920s. In the longer term the continuing effect of the reform in softening the impact of adverse external events on farmers in the 1920s has to be borne in mind. In other words, national income has to be calculated on two bases as far as the conceptual framework is concerned: the first as has broadly speaking been done from the 1920s, the second constructed to reflect the benefits and losses in and through the process of land reform. The losses were borne less by farmers than by the landed class and this shift, already evident, was more so in the 1920s. It was reflected in the material condition of the landed class. The decline in their prosperity and even in their numbers entailed no doubt a loss for some professions as well, butlers and house maids for instance and the service sector of the small towns and villages, and may in some way be related to the phenomenon of the replacement to some extent of the protestant business class of small towns by catholics, a process already well under way before the first world war.

Ironically of course, that development combined two contrasting scenarios , a loss of opportunity and an increased mobility of protestants, and on the other hand increased local opportunities for catholics. There is much here to be comprehended, both at the level of the experience of the individual family and of the aggregates. Part of the story is the continued - accelerating - decline of the big house, its lack of occupancy, a turnover of owners and in many cases where owners did not abandon it, a succession of temporary occupiers renting house and demesne. The phenomenon was not unique to Ireland: it is paralleled in England in cases where landowers did not own urban property or enjoy mining royalties. The key point is that, unless we understand this situation and construct the aggregates correctly, the stagnation of rural income will exaggerate the precarious dimension of the surviving classes of the countryside. The costs were borne by the landed classes. In

their case, though they had been once the lords of the countryside literally and figuratively , incomes had already shrunk before the first world war, and the reduced incomes were roughly halved in purchasing power over the next decade. Moreover, as recipients of fixed incomes, they were particularly losers during the inflation itself: inflation even if it was replaced by deflation after 1920, had in the intervening years from 1915 to 1920 added to their emerging indebtedness and accelerated the process of losing their economic as well as social place in the life of the countryside . It was in the 1920s that the term Big House, known but never used in literary terms and little in real life, was popularised as a literary expression of nostalgia. Rural society through this process had become at least in economc terms more more egalitarian. While it does not have great significance for later decades, great care has to be taken between the 1880s and 1920s in, on one hand, putting a monetary price on the benefits of enhanced house and farm occupation, and on the other hand, taking careful account of two key cash outgoings, rents and the interest component of annuities.

VIII

A final concluding comment is worthwhile on methodology. The methods of the 1911 calculation can be applied to earlier years. If we disregard the absence of census of industrial production, the handicap is not serious and the methods homogeneous: agricultural income, industrial incomes, and other earnings can be aggregated. With further work this can be bettered, though the problem of discriminating between buyers and makers, and employers and employees in the census can not be overcome. Broadly speaking the problems in handling the 1881-1911 censuses are similar; 1867-1871 (and to some extent 1851) would present some problems of their own; 1841 presents quite distinct problems compared with later censuses; and the use of the 1831 and 1821 censuses would be much cruder. Two problems become particularly important as we precede backwardss: the absence of income tax date before 1854 (ignoring the question of three shifts in the threshold: £100 in 1854 , £150 in 1874 and finally £160 in 1894), and the absence of agricultural statistics before 1847. The absence of foreign trade data between 1826-1903 is not as serious as it appears, because many individual series exist (quite apart from Solar's excellent work in making up the gaps). From roughly mid-century, the runs of agricultural statistics and income tax returns would make it possible to calculate adjusted figures of some authority for income in the intervening years of each decade between the benchmark census years. The essential question is not the possibility of making estimates but how far it is worth going in refining the estimates of wages and employment: at what point i do diminishing returns set in?

The data readly available in serial form cover tax charged only, in 1854-1865. The amounts of income are given for later years, either gross or net, and where amounts do not exist, or only net yields are readily available, the necessary figures may be obtainable in further work in either parliamentary or mansucript sources. Income for non- land sources - available in a single omnibus category for these years at any rate in summary returns - rose remarkably rapidly in 1865-67, testifying to a boom which did not come to an end till after 1873(assesment years, referring to previous year's income). Section D income did not recover its 1876 level till 1891 (with two intervening troughs in 1882 and 1887) . It peaked in 1894, but the downturn in the following years is in part a result of change in the threshold in 1894. A severe downturn is evident only in 1901-1905, to be replaced by a remarkably sharp upturn in 1906-1912. What is particularly interesting for both the 1890s and 1910s is the rise in schedule E taxpayers' income in the 1890s but more particularly in the first decade, a rise of 50 per cent

over the two decades. As it includes officials in public companies, the data point to a new and novel strengthening of the corporate sector. In general the evolution of the economy was quite strong in the 1890s and 1900s. They are a highwater mark in some respects, one exceeded in the urban milieu of clerical employees in the 1920s and of business in the 1930s, but otherwise not widely diffused in quite the same broad way as in this period for almost another generation. The phenomenon is evident even in a physical sense in house building , and in the enlargement of both Belfast and Dublin. The way in which this is underestimated is strikingly evident in the persistence in choosing to look at Dublin as a city of 300,000 citizens with a deep sump of poverty at the centre , whereas if we look at the city as an urban agglomeration rather than a product of outdated boundaries, it was a city of 400,000 with an impressive and almost uninterupted pattern into the new century of new building for the upper-middle and clerical classes. The comfortable artizans complemented them, and even the slums contracted in size somewhat, and in colonising better but now socially decaying central districts in some respects had improved their lot compared with the less favourable circumstances which they left in the 1860s and subsequent decades. Health statistics, slow to show improvement before the late nineteenth century compared with British cities, offer a parallel trend.

The dilemma is not the aggregates, though the reluctance to envisage them as in any way moderately favourable, is persistent, but distribution within the aggregates. Irish incomes were unequally distributed, in part a phenomenon of an English-style inegalitarian favouring of landed society in the first instance, in part one of comparatively low agricultural incomes, in part one of a sharp divide beween skilled and unskilled earnings. In the end, whether we cast Irish income as high as I have suggested or lower, we are confronted with the problem of a society less endowed with fortune than western Europe at large, or one which is more properly a semi-industrial or semi-developed country than a close sharer with its richer neighbours. The idea that gaps can be closed by institutional devices in the form of Brussels-generated devices or by large amounts of cash (even if they were larger than they are) seems doubtful given the persistence in society whether in its internal relationships or in its external ones, of inequalities.

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1. L.M. Cullen and T.C. Smout, "Economic growth in Scotland and Ireland" in Cullen and Smout, ed. *Comparative aspects of Scottish and Irish economic and social history* (Edinburgh, 1977)

2. P. Bairoch, "The main trends in national economic disparities since the Industrial Revolution " in Bairoch and M. Levy Le Boyer, *Economic disparities since the industrial Revolution* (New York 1981), quoted in K.A. Kennedy, Giblin and D. McHugh, *The economic development of Ireland in the twentieth century* (London, 1988)

3. S. Kuznets, "Notes on the pattern of U.S. economic growth", *Modern Economic Growth and Structure* (London, 1965), p.311.

4. L.M. Cullen, "Income, foreign trade and economic development: Ireland as a case study", paper read in New Orleans, December 1974