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EMIGRATION AND LIVING STANDARDS IN IRELAND SINCE THE FAMINE

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Abstract

Ireland experienced dramatic levels of emigration in the century following the Famine of 1845-49. The paper surveys the recent cliometric literature on post-Famine emigration and its effects on Irish living standards. The conclusions are that the Famine played a significant role in unleashing the subsequent emigration; and that emigration was crucial for the impressive increase in Irish living standards which took place during the next 100 years.

The Irish Famine of 1845-49 ranks as one of the great disasters of the 19th century. Proportionally, it involved excess mortality on the scale of the Bengali famine of 1943-44, despite the fact that it occurred in the backyard of the then dominant world power. What effect did this catastrophe have on the subsequent development of the Irish economy? To what extent did it influence subsequent Irish emigration? And what was the effect of that emigration on Irish development, and Irish living standards?

This paper attempts to provide a survey of current work on these issues, drawing on the work of several economists and economic historians. It does not try to cover the well-known demographic responses to the Famine-- principally a higher rate of celibacy-- studied by Kenneth Connell (1950), Tim Guinnane (1991, 1995), Cormac Ó Gráda (1991, 1993), and others. Despite much recent activity, Irish economic history remains an under-researched area; the paper will highlight particular areas where further work needs to be done.

Section 1. Pre-Famine Ireland: living standards

"Pretty country. Land very fertile. Beautiful road. Toll gates far apart. From time to time some very beautiful parks and rather pretty Catholic churches. Most of the dwellings of the country very poor looking. A very large number of them wretched to the last degree. Walls of mud, roofs of thatch, one room. No chimney, smoke goes out the door. The pig lies in the middle of the house. It is Sunday. Yet the population looks very wretched. Many wear clothes with holes or much patched. Most of them are bare-headed and bare-foot."

(Alexis de Tocqueville, on the Dublin-Carlow road, 1835)

"With the exception of this street and the quay, with their whitewashed and slated houses, it is a town of cabins. The wretchedness of some of them is quite curious...As for drawing them, it was in vain to try; one might as well make a sketch of a bundle of rags. An ordinary pigsty in England is really more comfortable. Most of them were not six feet long or five feet high, built of stones huddled together, a hole being left for the people to creep in at, a ruined thatch to keep out some little portions of the rain...I declare I believe a Hottentot kraal has more comforts in it: even to write of the place makes one unhappy, and the words move slow."

(William Thackeray, Bantry, 1842)

These two citations are not atypical of the impressions of visitors to pre-Famine Ireland. Travellers came, saw and were appalled at the squalor of the housing, the wretchedness of the clothing, and the general poverty they encountered. Of course, their impressions do not give the whole story, and may in any case be coloured by prejudice about the way the world ought to be; but neither should such impressionistic evidence be rejected out of hand. Recent cliometric research has nevertheless sought to show that the question of how poor pre-Famine Ireland was is a more subtle issue than traditional accounts suggested. Joel Mokyr (1985, Chapter 3) has attacked the view that pre-Famine Ireland was inevitably headed for catastrophe on Malthusian grounds; and Mokyr and Cormac Ó

Gráda [(1988); see also Ó Gráda (1994, Chapter 4)] have detected some signs of improvement in living standards in the decades before that catastrophe. Tea, sugar and tobacco consumption per capita were growing more rapidly than can be accounted for by relative price movements alone; the Irish were relatively well-nourished; and literacy was increasing.

Nonetheless, this revisionism has left the view that the poor in Ireland lived in squalid conditions untouched. Mokyr's national income estimate for Ireland in the early 1840s puts Irish income per capita at around 40% of contemporary British levels, or the same as Zaire or Uganda in 1970 [Mokyr (1985), pp. 10-11; Ó Gráda (1994), pp. 96-97]. Moreover, the lot of the poor was not improving over time in pre-Famine Ireland. The Poor Law Inquiry of 1835-6 asked witnesses whether the living conditions of the poor had improved or deteriorated in the period since 1815. Mokyr (1985, p. 12) has found that the balance of opinion was overwhelmingly in favour of the view that the poor were getting poorer.

What wage evidence we have also supports the view that the poor were not doing well in pre-Famine Ireland. Arthur Bowley's (1899, pp. 565-66) well-known agricultural wage index (of dubious merit, admittedly) stands at 49 in 1815, 47 in 1825, 46 in 1835, and 46 in 1845. When Bowley adjusts for 'want of work', the index stands at 39 in 1815, 32 in 1825, 26 in 1835 and 24 in 1845. Fergus D'Arcy's (1989) index of unskilled Dublin workers' daily money wages drops from 247 in the 1820s to 193 for the 1840s; juxtaposing the latter index

with John O'Brien's (1977) Cork cost of living index (averaging 83.4 in 1825-9, and 74.6 in 1840-4) implies a fall in real wages of 12.6% over the period. At the very least, it seems safe to say that unskilled wages were stagnant in pre-Famine Ireland; this can be reconciled with the Mokyr/Ó Gráda evidence of increasing average incomes if income distribution was becoming more unequal, and Mokyr and Ó Gráda suggest that this was indeed the case.

To conclude: pre-Famine Ireland was an extremely poor country. Moreover, unskilled workers' living standards were stagnant, or even declining, over the three decades 1815-1845. How this economy responded to the shock which the potato blight represented will be the subject of the next two sections.

Section 2. The Famine of 1845-49

The potato was at the heart of the pre-Famine Irish economy. It was the chief food of the rural poor; it played the role of wage good; it was fed to farm animals, and played an important part in crop rotations. When a new fungus, the potato blight, arrived on the scene in 1845, it was apparent that a disaster was at hand.

Ó Gráda (1994, Chapter 8), Mokyr (1985) and Peter Solar (1989) have all stressed in recent years that the Famine represented, not so much the inevitable working out of a Greek tragedy, but a massive and completely unforeseeable shock to the Irish economy. The chronology of the Famine is well

known. Blight destroyed nearly half the potato crop in 1845. There was little excess mortality in the ensuing year; but when nearly all the 1846 crop was destroyed, the outcome was disastrous. The 1847 crop did not fail, but very little land had been planted with potatoes; this experience induced peasants to try their luck again in 1848, when the potato crop again failed. The Irish economy was thus effectively deprived of the crop which had been at its centre for a period of four years.

The Irish population amounted to roughly 8.5 million in 1845. While historians, fearful of arousing nationalist passions, have on occasion tried to downplay the importance of the famine, Phelim Boyle and Ó Gráda (1986), as well as Mokyr, have all confirmed the traditional figure for excess mortality of at least 1 million. If you include averted births, an additional 400,000 is added to the toll. Around a million more emigrated during the period; in the language of a contemporary observer, almost a quarter of the population emigrated to either the New world or the next world in a period of little more than five years [cited in Ó Gráda (1994, p. 177)].

Section 3. Post-Famine adjustment

How did the Irish economy adjust to this massive and unprecedented shock? In fact, the Famine turned out to be the major turning point in nineteenth century Irish history. As Table 1 shows, a half century of rising population prior to

1845 was followed by a fall in population which in the 26 counties which now constitute the Republic of Ireland persisted up to the 1960s. The fall in population between 1841 and 1961 in the present-day Republic of Ireland amounted to an astonishing 57%. This fall in aggregate population was due to a decline in the rural rather than the urban population; male agricultural employment fell from 1.7 million in 1841 to 700,000 in 1911 [Mitchell (1980, Table C1)].

In turn, the decline in population was provoked by massive levels of emigration. Pre-Famine emigration was substantial: 1.5 million people left Ireland between Waterloo and the Famine, or 7 per 1000 per annum [Mokyr (1985, p. 35)]. But post-Famine emigration was far greater: more than 4.5 million left between 1850 and 1913, or 13 per thousand per annum [Hatton and Williamson (1993, p. 575)]. Table 2, taken from Hatton and Williamson (1994), makes it clear that in the scale of its emigration, Ireland was a clear outlier, outranking even such countries as Italy, Norway and Sweden. In the 1850s an average of 19 people per thousand emigrated annually; in the 1880s, the figure was 16 per thousand. At its peak (in the decade prior to World War 1) Italian emigration amounted to 18 per thousand; but Italian emigration was much lower than Irish emigration prior to the 1890s. As the table shows, Irish emigration was sustained at extremely high levels throughout the half century following the Famine.

A rough and ready estimate of the impact of the Famine on subsequent emigration can be obtained from the time series model contained in Hatton and Williamson (1993). They

estimate a model of Irish emigration over the period 1877-1913, finding that emigration responded strongly to relative wages and business cycles in Ireland and abroad. They also found strong evidence of path-dependence: for every 1000 previous migrants, an extra 41 were attracted overseas each year.

The famine directly led to at least one million people emigrating. The Hatton-Williamson results imply that this shock alone might have implied as many as 41,000 extra migrants per annum. The Irish population was roughly 6.5 million in 1851; the path dependence effect alone might have boosted the emigration rate by 6 (41000/6500) per thousand per annum, which is in fact the amount by which average post-Famine emigration rates (13) exceeded pre-Famine rates (7).

Amazingly, there have been some attempts by well-known economists to deny that the Famine was responsible for this flood of emigration and consequent depopulation. Indeed, until recently this view was widely accepted among Irish historians. The argument went as follows [see O'Rourke (1991)]. There was a massive shift from labour-intensive tillage activities to land-intensive animal husbandry in the half century following the Famine: between 1840-45 and 1908, the share of pasture in agricultural output increased from 44.4% to 87.5% [Solar (1987, Table 9.1, p. 360), Ó Gráda (1993, Table 29, p. 154)]. This shift is further reflected in the data on land use and livestock numbers. The second half of the nineteenth century was also characterised in Europe by an increase in the price of animal products such as meat and

butter relative to cereal prices. Economists as diverse as Karl Marx, John Elliott Cairnes and Bertil Ohlin have all argued that this international relative price shock caused the shift in Ireland's output mix, which in turn reduced the demand for Irish agricultural labour. The Irish were pushed off the land; Ireland's population would have declined even had the Famine not occurred.

This argument doesn't hold water. In fact, simple CGE exercises show that, for a wide range of elasticities and specifications, these relative price shocks actually increased the demand for labour in Ireland [O'Rourke (1991)]. What is more, it seems likely that some of the shift away from labour-intensive tillage was due to the Famine-induced fall in population, with a Rybczynski-style effect at work: precisely the opposite chain of causation to that proposed by Marx [O'Rourke (1994a)]!

More relevant for the purposes of this paper, real wage data can be used to test the Marxist proposition that the Famine was in some long run sense 'irrelevant'. If emigration was due primarily to labourers being pushed off the land, agricultural real wages in Ireland should have been stagnant or even declining; on the other hand, if emigrants left Ireland in search of better living conditions overseas, then wages might be expected to have increased.

Karl Marx was well aware of this implication of his argument; he was also aware that nominal wages had increased dramatically between 1849 and 1869: by between 50% and 60% according to the government report cited by him. He therefore

appealed to data which showed that in a certain workhouse the cost of provisions had doubled over the same period: the result was stagnant or even declining real wages. The result: "...the relative surplus population is as great today as it was before 1846; wages are just as low; the oppression of the labourers is increased; misery is forcing the country towards a new crisis" [Marx (1977, p. 862)]. Marx's characteristic pessimism has influenced subsequent Irish scholars, for example David Fitzpatrick (1980).

The remainder of this section investigates the behaviour of Irish living standards in the second half of the nineteenth century. It presents an unpublished index of real agricultural wages between 1855 and 1880; and reviews the evidence on real industrial wages produced by Jeffrey Williamson (1994a), and George Boyer, Timothy Hatton and O'Rourke (1994).

First, what about real agricultural wages? The nominal wage series given in Fox's Second Report on the Wages and Earnings of Agricultural Labourers in the United Kingdom (1905, p. 137) are preferred to those contained in Bowley (1899) for reasons outlined in O'Rourke (1989). Fox's wage figures imply a lower increase in nominal wages than do Bowley's: the nominal and real wage increases estimated here should therefore be regarded as lower bounds. Bowley also attempts to adjust his wage series for the availability of work. Despite the crudeness of his methods, his adjustment ratios have been applied to the Fox data, and both adjusted and unadjusted series are presented below.

Fox's wage series, and the adjusted wage series, are given in columns 2 and 3 of Table 3, each converted to index form. As can be seen, nominal wages increased substantially over the period, by between 30% and 40% (column 2). However, when the increased frequency of work over the period is taken into account, we see that wage earnings rose by as much as 50% or 60% (column 3). This is due to the fact that in later years workers were assured of work for a greater proportion of the year than previously.

What about consumer prices? Column 4 of Table 3 gives a CPI, and columns 5 and 6 real wage indices calculated for the period 1855-80. Again, there are two Irish real wage indices, the second being adjusted for availability of work.

As can be seen, the CPI fluctuates considerably over the period, but its trend is broadly constant. The implication for real wages is obvious: they increased substantially over the period, contrary to Marx. Real agricultural wages rose by over 40% between 1855 and 1880; adjusted for unemployment, they rose by over 60%. This relatively impressive performance was not limited to agriculture. Jeffrey Williamson (1994a) has recently compiled an internationally comparable, PPP-adjusted set of urban unskilled real wages across old and new world countries. His Irish index rises from 41 in 1850 to 90 in 1913.

Boyer et al. (1994) present wage data for a wider variety of workers in the three countries after the mid-1850s: the same picture emerges. They add to the picture, by including information on skilled wages (carpenters and fitters).

According to their data, real agricultural wages doubled between 1860 and 1913; unskilled building wages doubled between 1860 and the early 1890s; real skilled wages grew by roughly 57% between 1866 and 1895, before declining somewhat thereafter.

This wage evidence is clearly incompatible with the Marxist view that price shocks reduced the demand for labour, and would have led to a fall in population in the absence of the Famine. The contrast with the pre-Famine period's stagnant living standards, documented in Section 1, is also obvious. Figure 1, which plots Bowley's and Williamson's real wage data, is not the final word, as it makes use of British CPI data [taken from Mitchell (1988, p. 737) and Bowley]; but it makes the point very neatly.

A clear distinction emerges. Pre-Famine emigrants tended to come from the more affluent north and east of the country. Before the Famine many potential emigrants from poorer areas were constrained by a lack of money, contacts and/or information; the result was that emigration was 'labour supply constrained', in the language of Hatton and Williamson (1994). Living standards in Ireland were thus largely determined within the country. The Famine changed all that, by forcibly displacing so many people (and indeed, by killing many who had previously been victims of the poverty trap just described). Wages in Ireland rose initially in response to Famine mortality; thereafter, relatives and friends in the US or elsewhere could make information and money available. Emigration now became 'emigrant demand constrained', again in

Hatton/Williamson language; and Irish living standards began to increase rapidly.

One substantial shock was enough to send Ireland down a road leading to complete integration with world labour markets. Given the strong path dependence involved in migration, this makes perfect sense. Many years ago, Roy Geary (1935-36, pp. 25, 31) stressed the role of the Famine in integrating the Irish labour market with world labour markets: "the great exodus of 1847-54, in placing vast Irish population across the Atlantic and the Irish Sea which created a powerful magnetic field in which millions of Irish were irresistibly drawn from their native country in subsequent decades, was the fount and origin of Irish emigration and depopulation...(the Famine made) migration part of the ordinary life of nearly every family in Ireland...thus making Irish labour the most mobile in the world and the most free to pursue its best market". More recently, Ó Gráda (1989, p. 56) has written that "before the Famine the relative income of a marriageable Irishman was defined with reference to life in a few parishes; later the comparison embraced conditions in London or San Francisco."

Section 4. The Irish miracle: emigration and wage growth before 1914

As Hatton and Williamson (1994) show, Ireland was not unique in moving from a phase where emigration was constrained by poverty, to one where it was positively related to wage

gaps between sending and receiving countries. Southern Ireland was surely unique, however, in achieving such an impressive growth in living standards, in the absence of anything approaching serious industrialisation. Indeed, over much of the nineteenth century Ireland was if anything experiencing de-industrialisation, due to stiff British competition. While there was probably an increase in overall Irish industrial output between the 1840s and the 1910s, much of the expansion of industry took place in sectors such as linen and shipbuilding, located in the north-east; in the south industrial output almost certainly declined. At the time of independence, food and drink industries represented virtually the entire southern manufacturing sector. Moreover, even on an all-Ireland basis, male industrial employment declined by 32% between 1841 and 1911; female industrial employment declined by a massive 77% [Mitchell (1980, Table C1)].

In the light of this failure to industrialise, Ireland's income growth seems remarkable. We have seen that real wages grew rapidly; Ó Gráda (1994, p. 242) suggests that national income per capita almost trebled between 1845 and 1914. Other trends-- post office savings, housing standards, literacy-- also suggest improvement. More remarkable than all of this however, is Ireland's relative performance over this period. Ó Gráda concludes that Irish national income per head rose from 40% to 57% of the British level between 1845 and World War 1. The same picture emerges from the wage data. Williamson's (1994a) figures show Irish real wages catching up

with US and British real wages over the period 1830-1913, although there is regression in the 1900s (and from 1890 on vis a vis the US, which was then fast pulling ahead of Europe as a whole). In 1852, unskilled real wages in the Dublin and Cork building trades were 51% of British wages; they were 71% of British wages in 1870, 93% in 1904, and 82% in 1913. Again, there is a clear break in the data: no catching up, or falling behind, before the Famine, and strong catching up afterwards.

Boyer et al. (1994) also examine Irish/British real wage ratios based on previously unknown Irish data. One particularly striking finding emerges: Irish skilled urban wages hovered at around 90% of British levels between 1870 and 1913. The obvious interpretation is that the Irish and British skilled labour markets were in fact one, with the difference in real wages representing a compensating differential for Irishmen emigrating. The unskilled wage data tell the same story as before: wages in Ireland being much lower, but catching up over the period as a whole. Between 1860 and 1913, the unskilled building wage rose from 58% to 72% of the British level, while agricultural wages rose from 61% to 75% of the British level.

Ireland thus experienced an impressive catch-up with her immediate neighbour in the decades following the famine. It should be noted that in this respect Ireland was part of a more general pattern of convergence, as Williamson (1994a) shows; indeed, Williamson (1994b) argues that her catch up was precisely what would have been expected, given her initial

starting position. Nevertheless, the fact that this catch up was achieved despite widespread deindustrialisation in the south still makes Ireland an outlier in the data. The question which naturally arises is: to what extent did this 'Irish miracle' rely on emigration? Boyer et al. (1994) attempt to answer this question, using a small-scale CGE model of the Irish economy calibrated to 1907-8 data. They estimate that if there had been no emigration between 1851 and 1911, the 1911 Irish population would have been between 49% and 123% higher than it actually was, depending on what demographic assumptions are made. They then impose these counterfactual population levels on the 1907-8 model, and see what would have happened to living standards.

Unfortunately, it all depends on what assumptions you make about international capital mobility. In particular, if capital inflows were a realistic possibility, then a higher population and lower wages would have attracted such inflows, moderating the reduction in wages. Thus, if capital is assumed to be internationally immobile, then in the absence of emigration the real urban wage would only have been 66-81% of its actual 1908 level, while per capita income would have been 75-87% of its actual level. If capital is assumed to be mobile, however, then the urban wage would have been 89-94% of its actual 1908 level, and per capita income 91-95% of its actual level.

Table 4 gives the results of the exercise in terms of the impact of emigration on Anglo-Irish wage convergence. With immobile capital, the Irish/British real wage ratio would have

remained constant or declined from 1858 to 1908, in the absence of emigration; with mobile capital, there was still scope for some convergence, although the relative growth in the Irish wage could have been cut by as much as half.

The results are somewhat less dramatic than those obtained by Taylor and Williamson (1994), who examine the effects of migration on wages in 17 countries in the context of a simple partial equilibrium model. They find that Irish wages would have been 31% lower in 1910 in the absence of emigration from 1870-1910; that the American-Irish wage gap would have risen from 134% in 1870 to 201% in 1910, while in fact it fell to 86%; and that the British-Irish wage gap would have risen from 41% to 55%, while in fact it fell to 15%. It appears that a general equilibrium assessment of emigration mutes its impact somewhat; especially if the possibility of capital flows is taken into account (a possibility which Taylor and Williamson recognise).

It thus appears that simply appealing to the law of diminishing returns cannot tell us all we need to know about the impact of emigration on Irish living standards. A crucial counterfactual question remains: if Irish labour had not chased British capital, might British capital have chased Irish labour? If not, why not?

The question of whether labour flows from poor to rich regions, or whether capital flows in the opposite direction, is a question that inevitably arises when considering the economic histories of neighbouring rich and poor countries. An 1825 observer [cited in Mokyr (1985, p. 259)] predicted

that "Lancashire and Louth will form as it were one factory, (in which) each will take to itself the processes to which it is best fitted...whatever operations can be procured best by the human hand, I think, will be performed in Ireland, for the hand which is satisfied with the cheaper subsistence will necessarily undersell the hand not so circumstanced."

Why capital did not flow to Ireland was a puzzle to English observers, at a time when British capital was building up other continents. The question has never been satisfactorily resolved. As long ago as 1845, Robert Kane disposed of the argument that a lack of natural resources was to blame. Many contemporaries, such as Sir G.C.Lewis, blamed the lack of British investment in Ireland on the perceived insecurity of property there, and Mokyr gives risk of this kind a prominent role. However, such risk should presumably be reflected in financial markets, if it existed; in the only study of its kind to date, Ó Gráda (1994, pp. 333-34) finds that the Sun Insurance Company did not charge higher premia in Ireland than in the rest of the UK.

Clearly emigration made inward investment less likely to the extent that it increased wages; might it have reduced capital inflows in other ways as well? As will be seen, many of those arguing that emigration was not such a good thing for the Irish economy are implicitly arguing precisely the latter point; these contrarian views will be examined in the next section.

Section 5. Emigration and welfare: some contrary views

In Ireland, of course, emigration has always been seen as a calamity, rather than the key to the country's prosperity, such as it is. It is no surprise, therefore, that a variety of arguments have been put forward to support the notion that emigration prolonged Irish underdevelopment; which amounts to saying that emigration reduced investment in Ireland so much that it might actually have depressed Irish living standards in the long run. Neoclassical models such as the CGE model employed in the previous section are unlikely to commend themselves to such authors.

There are a variety of models, no doubt, that one could construct within the economic geography tradition in which increasing the mobility of labour could lead to capital inflows declining or even yielding to capital outflows. Hints of such models are rife in the Irish literature. It is claimed, for example, that emigration reduced the size of the market, making it impossible for local firms to achieve scale economies. Such an argument seems bizarre for a small open economy like Ireland, unless transport costs are high (which is of course precisely what Krugman and others emphasise); Ó Gráda (1994, p. 345) argues that Dunlop's decision to transfer its bicycle business to Coventry from Dublin was due to its desire to be near markets. External economies of scale might also mean that depopulation would be bad for an economy in the long run.

There are also arguments based on the relative quality of the workers who left. Emigrants certainly self-selected in

terms of age, with young adults being disproportionately represented; contemporary observers felt that it was also the most energetic and productive who emigrated. For example, the Royal Commission on Agricultural Labour of 1893 asked questions regarding the efficiency of agricultural labour; Mr O'Brien, reporting from Kanturk in Co. Cork, stated that "there is a very general opinion, and, probably, a perfectly well-founded opinion entertained by the employers of labour in this district that the labourers are now neither as efficient as formerly, nor as those met with elsewhere, owing to the circumstance that the best, youngest, and most competent are those who have emigrated; the old and immature remaining behind" [BPP (1893-4), Vol. IV, Part II, p. 35].

Such an argument is clearly appealing. If low wages did not translate into cheap labour, because Irish workers were less efficient than their British counterparts, that could help explain why Ireland did not industrialise. Ó Gráda (1994, pp. 337-342) has indeed produced some suggestive wage evidence from the Gardeners' Chronicle of 1860. While weekly agricultural wages in Ireland were 6.49 shillings, as opposed to 10.83 shillings in England, and 12.4 shillings in Scotland, the picture was very different when piece rates rather than time rates were examined. The cost of moving an acre of hay was 3.6 shillings in Ireland, 3.58 shillings in England and 3.08 shillings in Scotland; the cost of cutting and reaping an acre of wheat was 10.09 s. in Ireland, 11.48 s. in England, and 9.44 s. in Scotland.

Were Irish workers indolent, as contemporary British

observers suggested? Selective emigration appears to offer a way of building a story based on Ó Gráda's wage data, without appealing to crude cultural stereotypes; both Mokyr (1991) and O'Rourke (1992) seize the opportunity, the latter in the context of a simple two-country two-factor trade model. The evidence on selective emigration (which to date relates solely to the pre-Famine period, and is thus largely irrelevant for the present discussion) is however mixed. Nicholas and Shergold (1987) compare Australian convicts shipped from Ireland with convicts born in Ireland but shipped from Britain; the latter group were more likely to be literate and report skilled occupations than the former. On the other hand, Mokyr and Ó Gráda (1982) find no evidence of brain or skill drains in the passenger lists of ships carrying the pre-Famine Irish to North America.

Moreover, both non-convexities and anecdotes can be used to support any conceivable position: consider the following extract from an interview with St. George Johnston, in the Land Act Commission Report of 1881:

Labour has of late increased very greatly in price, still I fancy that though I pay more for labour than I did formerly, I have it practically just as cheap as when I paid a great deal less...After some time I considered it was bad economy to have my horses well fed, and the men that were driving them badly fed. The men could not work after a good horse inasmuch as they were not fed up to the mark. I determined to put them in a better position, and I increased their wages to 1s.3d. a day, and a cow's grass...it is in reality cheaper than when they were not so well paid; I used to employ fifty men, I can now do with thirty, and they work more and work better.

This efficiency wage argument, which implies that

emigration indirectly raised the average productivity of those staying behind, seems as theoretically plausible as the selective emigration argument (although there is no quantitative evidence to support it either). The stories outlined above seem interesting and important enough to warrant serious study; but unless we get hard empirical evidence supporting them, the counter-argument that emigration was crucial in boosting nineteenth century Irish living standards will surely convince most impartial observers.

Section 6. Emigration and wages in twentieth century Ireland

Emigration continued into the twentieth century, as Table 5 shows. It was particularly high in the dreadful 1950s, was reversed in the 1970s, when Ireland experienced net immigration, and resumed in the 1980s. However, the direction of the outflows changed. From 1930 to the late 1980s, US immigration restrictions effectively stopped Irish emigration to the States: England became the destination of choice.

Irish wages continued to converge on British levels after World War 1. Indeed, in many cases they did better than that. The International Labor Organisation has been collecting data on wage rates, by occupation, in different countries since the 1920s. There are three industries for which data are available for both skilled and unskilled labour: construction, engineering, and printing and publishing. Adjusting the data for differences in purchasing power in the two countries yields Tables 6 and 7: amazingly, for most years, and most

occupations, real wages were higher in Ireland, the labour-exporting country, than in Britain, the labour-importing country! It would appear that in the twentieth century, Ireland has moved from being a country with low wages but expensive labour, to a country with high wages (and even more expensive labour?).

There are several obvious puzzles here. The most straightforward one is why people continued to emigrate to Britain if wages were higher in Ireland. The answer would seem to come in two parts. First, unemployment was consistently higher in Ireland than in Britain. As O'Rourke (1994b) shows, this implies that real expected wages, in the Harris-Todaro sense, were not generally higher in Ireland than in Britain. Second, many emigrants came from rural areas, where wages continued to be much lower than in Britain.

The second puzzle concerns the contrast between Irish real wage growth and Ireland's overall economic performance. As Ó Gráda and O'Rourke (1994) show, Ireland's post-war economic growth has been abysmal in an international context, according to both the OECD and Penn Table national income data. Given its starting point, Ireland should have done better. However, Williamson (1994b) shows that, according to the same criteria, Irish real wage growth was more than satisfactory over the same period. Again, high and increasing levels of unemployment, and possibly increasing relative levels of income inequality in Ireland, may be part of the answer. It could also be that the Irish labour force was not becoming more skilled to the extent that was true of labour

forces elsewhere: the issue remains unresolved.

The third puzzle is one which will be familiar to students of the former DDR. The Irish and British labour markets are clearly connected; and so are Irish and British wage levels [see Ó Gráda and Walsh (1993) and the references therein]. In the context of the nineteenth century, the market explanations given above for the convergence of Irish wages on British levels seem convincing: people left in search of higher wages, implying labour scarcity and wage growth domestically. But the argument does not apply to the Ireland of the late twentieth century, for the simple reason that labour is not scarce. What can explain the coincidence of high wages, high unemployment and high emigration in Ireland? Union behaviour, politics, or some other institutional feature of Irish life? Is there some deeper structural reason, connected for example with the thin nature of Irish labour markets? The truth is, we don't know.

Conclusion

Since the Famine of 1845-49, emigration has been one of the key driving forces in the Irish economy. Ireland offers a telling example of the contribution which migration can make to the convergence of living standards between different regions in the long run. [Convergence can be in the eye of the beholder, however; faced with much of the same evidence, Walsh (1994) concludes that migration is not a particularly efficient deliverer of convergence!] In particular, it is

difficult to see how the Irish combination of catch-up and deindustrialisation could have been achieved in any other way. Emigration is still an integral part of Irish life, and unravelling the links between it and unemployment remains one of the key tasks facing Irish economists.

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Table 1. Population of Ireland, 1791-1971

(a) Population of entire island (32 counties)

<u>Year</u>	<u>Population</u>	<u>Year</u>	<u>Population</u>
1791	4,753,000	1891	4,704,750
1821	6,801,827	1901	4,458,775
1831	7,767,401	1911	4,390,219
1841	8,175,124	1926	4,228,553
1851	6,552,385	1936-7	4,248,165
1861	5,798,967	1951	4,331,514
1871	5,412,377	1961	4,243,383
1881	5,174,836	1971	4,514,313

Source: Vaughan and Fitzpatrick (1978), Tables 2, 3.

(b) Population of Republic of Ireland (26 counties), 1841-1971

1841	6,528,799	1926	2,971,992
1861	4,402,111	1951	2,960,593
1881	3,870,020	1961	2,818,341
1901	3,221,823	1971	2,978,248

Source: C.S.O. (1986), Table 7.

Table 2. Gross emigration from Europe, 1850-1913
(Emigrants per 1000 Population: decade averages)

<u>Country</u>	<u>1850-9</u>	<u>1860-9</u>	<u>1870-9</u>	<u>1880-9</u>	<u>1890-9</u>	<u>1900-13</u>
Belgium	1.9	2.22	2.03	2.18	1.96	2.32
Denmark	-	-	1.97	3.74	2.60	2.80
France	-	0.12	0.16	0.29	0.18	0.15
Germany	1.80	1.61	1.35	2.91	1.18	0.43
Britain	4.38	2.47	3.87	5.71	3.92	7.08
Ireland	18.99	15.16	11.28	16.04	9.70	7.93
Italy	-	-	4.29	6.09	8.65	17.97
Netherl.	0.50	1.67	2.66	4.06	4.62	5.36
Norway	-	-	4.33	10.16	4.56	7.15
Spain	-	-	-	3.91	4.63	6.70
Sweden	0.51	2.52	2.96	8.25	5.32	4.49

Source: Hatton and Williamson (1994), Table 1.

Table 3. Irish agricultural wages, 1855-1880

(1)	(2)	(3)	(4)	(5)	(6)
1855	100.0	100.0	100.0	100.0	100.0
1856	102.8	105.1	92.3	111.4	114.0
1857	102.8	105.0	103.5	99.3	101.4
1858	106.3	104.5	86.5	122.9	120.9
1859	106.9	101.2	89.8	119.1	112.7
1860	110.4	100.6	101.9	108.3	98.7
1861	110.4	96.8	120.5	91.7	80.4
1862	109.7	97.1	95.2	115.3	102.0
1863	109.7	99.4	96.5	113.7	103.0
1864	113.2	103.5	100.9	112.2	102.6
1865	113.2	104.4	98.8	114.5	105.6
1866	116.7	108.4	104.9	111.2	103.4
1867	118.1	110.6	107.8	109.5	102.6
1868	119.4	112.8	101.1	118.2	111.6
1869	121.5	117.9	95.7	127.0	123.2
1870	125.0	124.5	97.1	128.7	128.2
1871	126.4	130.5	99.4	127.1	131.2
1872	129.9	136.8	111.7	116.2	122.4
1873	130.6	140.6	103.6	126.0	135.7
1874	130.6	154.1	97.8	133.6	157.6
1875	131.9	158.1	95.8	137.7	165.0
1876	136.8	162.2	92.1	148.5	176.1
1877	138.2	160.7	105.3	131.2	152.6
1878	139.6	159.9	96.1	145.3	166.5
1879	139.6	160.6	99.7	140.0	161.1
1880	141.7	155.1	88.4	160.3	175.5

(1): year

(2): nominal wage index

(3): nominal wage index, adjusted for availability of work

(4): consumer price index

(5): real wage index

(6): real wage index, adjusted for availability of work

Source: O'Rourke (1989).

**Table 4. Counterfactual changes in real wage ratios
1858-1908**
(per annum growth rates in Irish/British wage ratio)

	Actual	Counterfactual			
		<u>Capital immobile</u> lower	upper	<u>Capital mobile</u> lower	upper
Agricultural real wage	0.14	0.02	-0.07	0.10	0.06
Non-agricultural real wage	0.15	0.01	-0.10	0.11	0.07

Note: lower case assumes counterfactual 1908 labour force 49% higher than its actual level; upper case assumes counterfactual labour force 123% higher than its actual level.

Source: Boyer et al. (1994), Table 6.

Table 5. Net external migration rate, 1911-1991

<u>Period</u>	<u>Net external migration rate</u>	<u>Period</u>	<u>Net external migration rate</u>
1911-26	-8.8	1961-66	-5.7
1926-36	-5.6	1966-71	-3.7
1936-46	-6.3	1971-79	4.3
1946-51	-8.2	1979-81	-0.7
1951-56	-13.4	1981-86	-4.1
1956-61	-14.8	1986-91	-7.7

Note: rates are annual averages per 1,000 population.

Source: Ó Gráda and Walsh (1993).

Table 6. Real relative wages, 1926-1939

<u>Year</u>	<u>SB</u>	<u>UB</u>	<u>SE</u>	<u>UE</u>	<u>SP</u>	<u>UP</u>
1926	1.10	1.02	1.26	1.24	0.91	0.81
1927	1.15	1.07	1.27	1.29	1.02	0.85
1928	1.15	1.08	1.24	1.27	1.00	0.83
1929	1.10	1.04	1.22	1.27	0.98	0.78
1930	1.12	1.13	1.21	1.25	0.97	0.77
1931	1.12	1.04	1.22	1.27	0.98	0.81
1932	1.15	1.06	1.22	1.29	0.98	0.88
1933	1.16	1.08	1.19	1.27	0.97	0.87
1934	1.16	1.08	1.19	1.32	0.97	0.87
1935	1.11	1.02	1.14	1.23	1.00	0.78
1936	1.10	1.03	1.13	1.21	1.03	0.80
1937	1.14	1.06	1.14	1.11	1.06	0.88
1938	1.12	1.08	1.12	1.13	1.00	0.83
1939	1.13	1.09	1.12	1.21	1.01	0.84

S: ratio of Irish to British skilled building wages

U: ratio of Irish to British unskilled building wages

SE: ratio of Irish to British skilled engineering wages

UE: ratio of Irish to British unskilled engineering wages

SP: ratio of Irish to British skilled printing wages

UP: ratio of Irish to British unskilled printing wages

Source: O'Rourke (1993), Table 5.

Table 7. Real relative wages, 1950-1983

<u>Year</u>	<u>SB</u>	<u>UB</u>	<u>SE</u>	<u>UE</u>	<u>SP</u>	<u>UP</u>
1950	1.19	1.13	1.33	1.17	1.12	1.07
1951	1.23	1.18	1.43	1.31	1.14	1.04
1952	1.24	1.18	1.43	1.28	1.16	1.04
1953	1.19	1.13	1.36	1.23	1.14	1.02
1954	1.13	1.06	1.29	1.16	1.13	1.01
1955	1.15	1.11	1.34	1.21	1.23	1.09
1956	1.14	1.09	1.27	1.19	1.07	0.97
1957	1.03	0.99	1.14	1.07	1.01	0.91
1958	1.04	1.00	1.10	1.10	1.02	0.93
1959	1.11	1.07	1.27	1.20	1.03	0.97
1960	1.06	1.04	1.21	1.15	1.02	0.96
1961	1.11	1.09	1.35	1.29	0.99	0.93
1962	1.11	1.06	1.31	1.26	0.99	0.90
1963	1.11	1.07	1.33	1.28	1.05	0.95
1964	1.13	1.12	1.37	1.25	1.11	1.01
1965	1.06	1.06	1.23	1.19	1.06	0.96
1966	1.14	1.16	1.34	1.31	1.17	1.08
1967	1.11	1.14	1.28	1.22	1.10	1.02
1968	1.10	1.14	1.33	1.32	1.14	1.06
1969	1.25	1.27	1.38	1.45	1.15	1.07
1970	1.19	1.22	1.38	1.48	1.13	1.10
1971	1.21	1.26	1.41	1.54	1.13	1.08
1972	1.09	1.14	1.30	1.45	1.08	1.06
1973	0.95	1.00	1.23	1.37	1.15	1.15
1974	1.01	1.08	1.25		1.14	1.15
1975	1.23	1.31	1.28		1.32	1.32
1976	1.01	1.05	1.19		1.28	1.26
1977	1.13	1.18	1.33		1.34	1.33
1978	1.17	1.23	1.03		1.31	1.30
1979	1.21	1.29	1.38		1.28	1.28
1980	1.22	1.30	1.36		1.54	1.55
1981	1.13	1.13	1.25		1.26	1.13
1982	1.09	1.17	1.22	1.70	1.23	1.10
1983	1.03	1.10	1.25	1.47	1.14	1.03

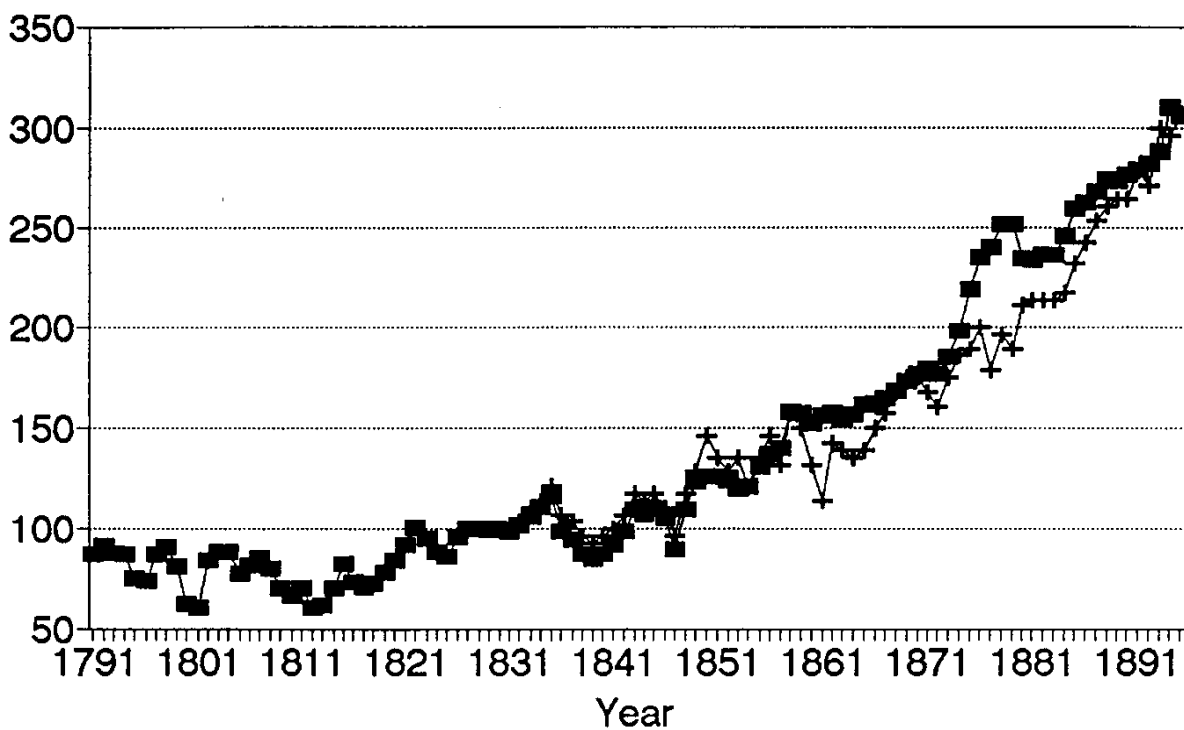
B: ratio of Irish to British skilled building wages
 B: ratio of Irish to British unskilled building wages

E: ratio of Irish to British skilled engineering wages
 E: ratio of Irish to British unskilled engineering wages

SP: ratio of Irish to British skilled printing/publishing wages
 SP: ratio of Irish to British unskilled printing/publishing wages

Source: O'Rourke (1993), Table 4.

Figure 1. Real wages, 1791-1895
1830=100



—■— Agriculture —+— Unskilled urban