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THE FAMINE THAT WASN'T? 1799-1801 IN IRELAND

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Working Paper 2019-06

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The Famine that Wasn't? 1799-1801 in Ireland*

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Abstract

Strange Times. There were back-to-back harvest failures in 1799-1800, coming fast on the heels of the insurrections of 1798. The result was massive and sustained inflation in food prices. The conundrum is why there was so little excess mortality. Our approach is to begin by discussing the harvest failures of 1799 and 1800, drawing some implications from the price movements of foodstuffs in Ireland and Britain. We then present evidence from our limited sample of parish registers that suggests that excess mortality was probably quite limited, as was the check to births. A further striking feature of the period, and hardly unrelated, was the role of the state. Though heavily absorbed with the “high politics” of the Union, politicians and policy makers took swift and determined action to stave off distress and public disorder. The range and effectiveness of these measures are assessed. We draw attention to a variety of local initiatives to grapple with problems of food scarcity and lack of purchasing power and offer an analytical sketch as to how the relationship between farmers and labourers might have shaped the outcome of the crisis in the countryside. The concluding section reflects on methods of calculating the impact of state-sponsored famine relief – the lives saved in a sense – and argues that a dynamic rather than a static approach is what is required. And second, the limitations of inflated food prices as indicators of famine conditions, at least under certain forms of peasant agriculture, are laid bare. These two sets of argument help unlock the conundrum as to why excess mortality did not give rise to mass mortality under environmental conditions as unpropitious as those of 1800-01. There may be implications here for the understanding of food crises in rural societies with large subsistence sectors elsewhere in the pre-industrial world.

JEL Codes: N33, N54, N94.

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Introduction

The year 1800 is best known in Irish and British history for the passage of the Act of Union, a constitutional change that bound Ireland and Britain together under the one parliament. Yet the common people had more urgent matters on their mind. ‘Mobs’ took to the streets of Dublin, not to protest at the abolition of the Irish parliament in College Green but to protest the hunger that afflicted their stomachs. Similar protests took place in other places, from Clonakilty in west Cork, Killaloe on the Shannon to Drogheda on the east coast. The years 1799 and 1800 witnessed poor harvests, with soaring food prices and widespread distress in 1800 and 1801 in both Ireland and Britain. The rise in potato prices relative to its pre-crisis level was as great in 1799-1801 as in the worst years of the Great Famine a half century later. Indeed the prices of potatoes and oatmeal, the principal means of subsistence for the poorer classes in Ireland, rose more in 1799-1801 than at any time between the mid-eighteenth century and the First World War. Yet the surprising fact is that Irish society somehow side-stepped a full-blown famine. How and why this happened are the subject of this paper.

The 1799-1801 episode came near the middle of a century-long “gap in famines”.¹ Two severe crises in 1740-1 and 1744-5 led the population of Ireland to fall by ten per cent between the early 1730s and the late 1740s.² In the 1840s deaths of about a million Irish and the emigration of another million reduced the population by 20 per cent. In the intervening century the natural rate of growth of the Irish population was about 1.5 per cent per annum, much higher than anywhere in western Europe. Only the beginnings of mass emigration from the late 1820s slowed the observed rate of increase. The rising population was increasingly fed on potatoes, so that by the early 1840s two-fifths ate little else and another two-fifths depended on the potato for at least half of their diet.³ The potato blight, which caused extraordinarily severe and repeated crop failures and a persistent reduction by half of average yields, put an end to the potato-dependent, pre-famine world.⁴

The subsistence crisis of 1800-01 has received little attention, except for an excellent article by Roger Wells.⁵ As in his work on the 1790s crises in wartime England, Wells

¹ K.H. Connell, *The Population of Ireland, 1750-1845* (Oxford: Clarendon Press, 1950), p. 144; David Dickson, “The Gap in Famines: A Useful Myth?” in E. Margaret Crawford, ed. *Famine: The Irish Experience, 900-1900* (Edinburgh: John Donald, 1989), pp. 96-111.

² Stuart Daultrey, David Dickson and Cormac Ó Gráda, “Irish Population: New Perspectives from Old Sources”, *Journal of Economic History*, 41, 3 (1981), 601-628: 624; David Dickson, *Arctic Ireland* (Belfast: White Row Press, 1997).

³ Austin Bourke, *‘The Visitation of God’? The Potato and the Great Irish Famine* (Dublin: Lilliput Press, 1993), p. 99.

⁴ Peter M. Solar, “The Great Famine was No Ordinary Subsistence Crisis”, in E. Margaret Crawford, ed., *Famine: the Irish Experience, 900-1900* (Edinburgh: John Donald, 1989), pp. 112-133.

⁵ Ray Refaüssé, “The Economic Crisis in Ireland in the Early 1780s” (unpublished Ph.D. thesis, University of Dublin, 1982); James Kelly, “Scarcity and Poor Relief in Eighteenth-Century Ireland: the Subsistence Crisis of 1782-1784”, *Irish Historical Studies*, 28, 109 (1992), 38-62; Timothy P. O’Neill, “The Famine of 1822” (unpublished M.A. thesis, University College Dublin, 1966); Timothy P. O’Neill, “The State, Poverty and Distress in Ireland, 1815-45” (unpublished Ph.D. thesis, University College Dublin, 1971); Roger Wells, “The Irish Famine of 1799-1801: Market Culture, Moral Economies and Social Protest”, in Adrian Randall and

was concerned primarily with the interrelationship of markets and the moral economy, and the associated social unrest.⁶ The study of unrest has been taken further by James Kelly in his work on food riots during the eighteenth and nineteenth centuries.⁷ The eighteen riots recorded for 1799-1801 were similar in number to those in 1783-4, 1812, 1840 and 1842, but fewer than the 43 in 1817 and far fewer than the hundreds that took place in 1846 and 1847. Patrick Geoghegan has extended Wells' discussion of government policy by showing how scarcity influenced government decision-making at the time of the passing of the Act of Union.⁸ In this paper we focus on the economic, demographic and welfare aspects of the episode, concentrating particularly on why harvest failures and high food prices resulted in so little excess mortality.

We begin by discussing the harvest failures of 1799 and 1800, drawing some implications from the price movements of foodstuffs in Ireland and Britain. We then present evidence from our limited sample of parish registers that suggests that excess mortality was probably quite limited, as was the check to births. A further striking feature of the period, and hardly unrelated, was the role of the state. Though heavily absorbed with the "high politics" of the Union, politicians and policy makers took swift and determined action to stave off distress and public disorder. The range and effectiveness of these measures are assessed. We draw attention to a variety of local initiatives to grapple with problems of food scarcity and lack of purchasing power and offer an analytical sketch as to how the relationship between farmers and labourers might have shaped the outcome of the crisis in the countryside. The concluding section reflects on methods of calculating the impact of state-sponsored famine relief – the lives saved in a sense – and argues that a dynamic rather than a static approach is what is required. And second, the limitations of inflated food prices as indicators of famine conditions, at least under certain forms of peasant agriculture, are laid bare. These two sets of argument help unlock the conundrum as to why excess mortality did not give rise to mass mortality under environmental conditions as unpropitious as those of 1800-01. There may be implications here for the understanding of food crises in other rural societies with large subsistence sectors.

The Harvests of 1799-1801

Although contemporaries were quick to blame speculators and middlemen – a recurring trope in popular understanding of food crises – movements in agricultural prices are

Andrew Charlesworth, eds., *Markets, Market Culture and Popular Protest in Eighteenth-Century Britain and Ireland* (Liverpool: Liverpool University Press, 1996), pp. 163-193.

⁶ Roger Wells, *Wretched Faces: Famine in Wartime England, 1793-1801* (Gloucester: Sutton, 1988).

⁷ James Kelly, *Food Rioting in Ireland in the Eighteenth and Nineteenth Centuries: The 'Moral Economy' and the Irish Crowd* (Dublin, 2017), pp. 47, 108.

⁸ There is a voluminous literature on the many facets of the political union between Britain and Ireland; several mention scarcity in passing, but only Geoghegan brings it fully into his account. See Daire Keogh and Kevin Whelan eds., *Acts of Union: The Causes, Contexts, and Consequences of the Act of Union* (Dublin, 2001); Alvin Jackson, *The Two Unions: Ireland, Scotland and the Survival of the United Kingdom, 1707-2007* (Oxford, 2012); John Bew, *Castlereagh: The Biography of a Statesman* (London, 2014); James Kelly ed., *The Cambridge History of Ireland. Volume 3, 1730-1880* (Cambridge, 2018).

more likely to have been driven by harvest outcomes.⁹ For want of any agricultural statistics, either in aggregate or at farm level, we can only piece together the outcomes of the 1799 and 1800 harvests from incidental reports in newspapers and other contemporary sources.

In the summer of 1799 there seemed to be every prospect of a good harvest in Ireland. In July, according to the *Cork Advertiser*, “Notwithstanding the unfavourable promise, which the weather for some time back had given us, of a good harvest, we are happy to find that, there is now a prospect of a most abundant one – Wheat is somewhat backward, but barley, oats and potatoes promise astonishingly well”.¹⁰ A correspondent of *Saunders Newsletter* wrote of “a plentiful and abundant crop” in the thirty miles round Dublin.¹¹ However, the wetness of the weather in August and September delayed the harvest and damaged the cereal crops. “In many places the heavy wheat is lodged in such a manner that it is imagined it will be totally lost, and the thin wheat, which fortunately is very general this season, is beaten down in the head, in some parts much injured”.¹² In late September very little oats or barley was “yet fit for the sickle, and the crop of wheat never was so unpromising in the memory of man”; all in all, “the corn harvest throughout this country has been miserably bad”.¹³ Hay dry enough to be stored also seems to have been scarce.¹⁴

As for the potato crop, the newspapers are less forthcoming, though they do testify to the lateness of the crop, again due to wet weather. In November 1799 the Lord Lieutenant was informed “the crops of potatoes have failed generally throughout this kingdom, in consequence of the heavy and continued rains which we have experienced for the last two weeks”.¹⁵ In county Meath “the weather continues very much broken and numbers complaining that they cannot sow their ground or dig out their potatoes, which are a deficient crop...”.¹⁶ Cold weather then further compromised the crop. The Marquis Cornwallis, Lord Lieutenant and Commander-in-Chief, allowed the military to assist in digging potatoes, as “apprehensions were entertained of their being spoiled by the frost ere they could have been got up by the ordinary labourers”.¹⁷ In late December *Saunders Newsletter* gave advice on how to thaw frozen potatoes.¹⁸

⁹ P.T. Bauer and B.S. Yamey, *Markets, Market Control and Marketing Reform* (London, 1968). For a sceptical view on poorly functioning markets and monopoly profits during the Great Famine see Cormac Ó Gráda, *Ireland's Great Famine: Interdisciplinary Perspectives* (Dublin, 2005), pp. 212-3.

¹⁰ *Cork Advertiser* (CA) 6 July 1799.

¹¹ *Saunders Newsletter* (SNL) 4 July 1799.

¹² National Library of Ireland (NLI), MS 11877, Copy letter book of Slane Flour Mills, 27 Aug 1799.

¹³ *Finn's Leinster Journal* (FLJ) 2/10/99; 9/10/99; see also Vane, Charles, ed., *Memoirs and Correspondence of Viscount Castlereagh* (1st series, 4 vols, London: Colburn, 1848-9) (hereafter *Castlereagh*), 2, 427.

¹⁴ National Archives (NA), War Office (WO) 63/3, f. 141, Commissary Generals Office to Col Howarth, Mallow, 15 Oct 1799; WO 63/14, f. 37, Handfield to Jas Bradshaw, Hillsborough, 22 Oct 1799.

¹⁵ NA, Home Office (HO) 100/89, ff. 278-81.

¹⁶ NLI, MS 11877, Copy letter book of Slane Flour Mills, 12 Nov 1799.

¹⁷ *Kentish Gazette* 29/11/99.

¹⁸ SNL 28/12/99.

The harvest of the following year again seemed promising. The *Freeman's Journal* reported in early July 1800 that “every day brings accounts of new prospects of an abundant harvest”.¹⁹ Favourable weather ripened the wheat and barley crops by early August, several weeks ahead of the usual time.²⁰ In early September it was reported that the grain harvest “throughout the country, is, thank Heaven, abundant, beyond the most sanguine expectation”.²¹ In December Cornwallis referred to the “goodness of the several crops of wheat, barley, bere and oats”.²²

What of the potato harvest? As late as September, the potato crop was seen as abundant in the newspapers, but private reports from Tipperary, Wexford, Galway and Tyrone found the potatoes small and thin, “not much larger than what was usually given our pigs”.²³ By November the *Cork Advertiser* was reporting a “partial failure” in the southwest, though in Roscommon and Sligo potatoes were said to be “remarkably abundant”.²⁴ This must have been exceptional since in February 1801 fears were being expressed that there would be a want of seed and *Finn's Leinster Journal* spoke of the “lamentable failure of our last year's potatoe crop”.²⁵ In government circles by the end of 1800 the failure was being estimated at a half.²⁶ In the first half of 1801 reports from around the country saw no scarcity of grain, only the serious deficiency of potatoes.²⁷ The harvest of 1801 was clearly a good one. The grain harvest was “uncommonly early” and seems to have been abundant.²⁸ *Finn's Leinster Journal* noted the “largeness and abundance of potatoes produced this present year”.²⁹

Climate scientists have been producing historical series for temperature and precipitation that accord with these contemporary observations of harvest outcomes. Evidence from the Belfast Longitudinal Chronology, which uses tree-ring signals from ancient oaks to capture the impact of climatic variation, marks out 1800 and 1801 as stressful years for growth.³⁰ Monthly temperature and rainfall series from the Armagh Observatory add more detail.³¹ The spring of 1799 was unseasonably cold, with temperatures two degrees or so below average. Temperatures remained about a degree or so below normal from June through August. In addition, rainfall was about 20 per

¹⁹ *Freeman's Journal* (FJ) 5/7/00; FJ 31/7/00.

²⁰ *Belfast Newsletter* (BNL) 5/8/00.

²¹ FJ 4/9/00.

²² NA, HO 100/94, ff. 256-260.

²³ National Archives of Ireland (NAI), Rebellion Papers, 620/57/63, letter from John Collins, Tipperary, 19 Aug 1800; 620/57/107, letter from Frederick Wood, Gorey, 28 Sept 1800; 620/57/123, letter from Lord Galbraith, Barons Court, 23 August 1800; 620/57/124, letter from William Gregory, Coole, 7 Sept 1800.

²⁴ CA 18/11/00; FJ 20/1/01.

²⁵ FJ 7/2/01; FLJ 21/2/02.

²⁶ NA, HO 100/94, ff. ; NAI, OP, series II, 115/11.

²⁷ NA, HO 100/103, ff. 31-58, 109-128.

²⁸ FLJ 12/9/01.

²⁹ FLJ 30/9/01.

³⁰ M. Baillie,

³¹ Butler, C.J., A.D.S. Coughlin, D.J. Johnston, D. Cardwell and C. Morrell, “Meteorological Data recorded at Armagh Observatory: Vol. 6—Daily, Monthly, Seasonal and Annual Air Temperatures at Armagh Observatory from Series I (1796-1882) including the Dunsink Patch (1825-1833) and Series III (1844-1964)”; Murphy, Conor, et al., “A 304-Year Continuous Monthly Rainfall Series for the Island of Ireland (1711-2016)”, *Climate of the Past*, 14 (2018), 413-440.

cent below normal May, June and July. These conditions accord with what contemporaries saw as the backwardness of the crops. But then weather conditions shifted in the opposite direction. Rainfall a third above normal in August 1799 corresponds to the observed difficulties getting in the late cereal harvest. In 1800 temperatures at Armagh were more or less normal throughout the spring and summer, but rainfall was seriously deficient in the summer. In June it was over 50 per cent short and in July and August over 70 per cent. These draught-like conditions seem not to have affected the cereal crop, which was ready for harvest particularly early, but they likely accounted for the smallness of the potatoes.

Prices and the Crisis

The way in which the 1799-1801 crisis played out can be seen in the movements of weekly prices for potatoes and oatmeal at the Belfast market (Figures 2 and 3). Prices started rising steadily from the summer of 1799, with oatmeal prices rising a bit sooner than potato prices. By January 1800 prices for both commodities had already doubled. Between January and mid-May oatmeal and potato prices shot up further, more or less doubling again. They remained at these heights – around four times their pre- or post-crisis levels – until late August. In late June and early July potato prices were not even quoted, and from then until early October prices were only quoted in pottles, a small measure roughly a sixth of a bushel which was the usual measure in the Belfast market.³² It was not unusual for potatoes to be sold by the pottle in the summer, but never for such a long period as in the summer of 1800. During the autumn of 1800 prices fell back to the level that had been reached in the first months of the year, which was still more than double their pre-crisis level.

The crisis deepened from late October and early November 1800 as prices started to rise again, led this time by potato prices. The peaks were reached in February 1801. Potato prices were higher in spring 1801 than in spring 1800, reaching the commanding height of about five times their pre- or post-crisis level. The peak in oatmeal prices was lower than in 1800, at more than three times normal. Prices for both oatmeal and potatoes remained high until early May, before falling off a bit, but only from early August did prices drop off quite sharply. By September 1801 they had returned to the level that had prevailed before the crisis in 1798 and early 1799.

Weekly prices of potatoes also survive for the market at Cork, at the other end of the country. The Cork price series (Figure 4) has been put together from quotations in two Cork newspapers, the *Advertiser* and the *Evening Post*, and there are many gaps in the series, particularly in the summer months. Inertia in price reporting—the same observation repeated week after week—is greater than for the *Belfast Newsletter*. Yet the Cork evidence does show that potato prices rose by more than threefold to the spring of 1800 and by about fivefold to the spring of 1801, confirming the magnitude of both the price peaks seen at Belfast. It also shows that the 1801 peak in potato prices was higher than that of 1800.

What of the rest of the country? No other reasonably complete series for potato or oatmeal prices at weekly, or even monthly, frequency survive for other Irish markets,

³² Note that mid-summer potato prices were not included in the series used to calculate deviations in Figure 1.

but the *Dublin Gazette* published weekly returns for the prices of wheat and oats at sixteen Irish ports. The returns are very incomplete and sometimes the same prices seem to be carried over from week to week, another instance of price inertia. The more complete series, for Drogheda, Newry, Limerick, Kinsale and Youghal, are shown in Figures 5 and 6. (Newry prices, it may be noted, moved closely in line with prices in Belfast as quoted in the *Dublin Gazette*, which might suggest market integration in the east Ulster region.) In the five markets above wheat prices rose by about threefold from their pre-crisis level to the peak in the summer of 1800, while oats prices went up by fourfold. After the harvest the prices of both cereal crops then fell back almost to pre-crisis levels during September 1800 before starting to rise again during the autumn. In 1801 wheat and oats prices reached peaks somewhat lower than in the previous year, two and a half times their normal level for wheat, more than threefold for oats. In May and early June 1801 cereal prices fell off somewhat, but, as with potato and oatmeal prices, only returned to pre-crisis levels in August and September. These monthly prices for unprocessed grains confirm the patterns shown by Belfast oatmeal prices, especially that the spring 1801 peak was less severe than the one in spring 1800.

The movements of cereal prices elsewhere in Ireland thus look very much like the movements of wheat, oats and oatmeal prices in Belfast. This synchronicity might have various causes. Crops throughout Ireland may have been affected by the same weather conditions and thus may have yielded similar outcomes. Or grain markets in Ireland were well integrated and transmitted the results of poor harvests in one part of the country to other parts through trade. Dublin certainly drew in supplies of wheat and oats both by sea and canal. Belfast also imported Irish grain, but the emerging city was still small and had a much more limited impact than did Dublin. Or, a third possible cause, it may be that, given the rise of grain exports during the late eighteenth century, Irish grain markets were integrated not so much with other Irish markets as with British and international markets.

The price evidence tells us a number of things about what happened in 1799-1801. First and foremost, successive harvest failures drove Irish food prices to historically high levels for an extended period. From early January 1800 to early August 1801 potato and oatmeal prices were never less than double their pre- and post-crisis levels, and at the peaks they were three to five times higher. The movements of cereal and potato prices in Ireland correspond well to the evidence on harvest outcomes in these years. In 1799 both cereals and potatoes were poor crops, and through much of late 1799 and early 1800 the price of potatoes relative to that of oatmeal remained close to its pre-crisis level. In 1800 the cereal crops were good, but the potato crop was seriously deficient, and the relative price of potatoes rose to about double its pre-crisis level by August 1801 before dropping sharply back to that level by October.

The pattern of price change offers little evidence that speculators were responsible for keeping prices high. Nonetheless, contemporary newspapers persistently explained price increases, or the failure of prices to fall when news was good or imports became available, by the actions of farmers and traders in keeping back goods from market. Local magistrates acted on such beliefs by inspecting grain stores for excess stocks. But hoarding should have kept prices high early in the harvest year, with only a modest further rise during the spring and early summer. In fact, in both 1799/1800 and 1800/1 prices of potatoes and oatmeal typically doubled between September/October and June/July, more or less the same sort of increase that Cormac Ó Gráda found for the

late 1840s.³³ In normal years Ó Gráda found the average increase to be about 20 per cent, which is consistent with the costs of storage. That prices rose much faster in 1799/1800 and 1800/1 suggests that hoarding could have had only minor effects.

The extent to which prices seem to have moved in a similar way at many places in Ireland suggests that attempts to prevent the transport of grain and potatoes away from where they were grown were also largely ineffective. It is true that Kelly and Wells found many instances of local residents trying to stop shipments by road, canal or coasting vessel or threatening those who might transport provisions. The government was certainly highly sensitive to interregional movements of foodstuffs, and in some areas the military authorities even restricted them. The price data are not of sufficient quantity or quality to test formally for market integration in Ireland at the turn of the nineteenth century, not to speak of changes in the degree of integration during the period of high prices. Yet the evidence, such as it is, does not reveal major discrepancies in prices across regions that would have arisen from effective limitations on internal trade.

The Demographic Consequences of the 1799-1801 Crisis

As Alfani and Ó Gráda remind us, ‘Famine refers to a shortage of food or purchasing power that leads directly to excess mortality from starvation or hunger-induced diseases’.³⁴ Food prices are an important but indirect indicator of hardship and in themselves tell us little about excess mortality during seasons of dearth. Evidence from eighteenth- and early nineteenth-century Sweden for instance shows that high food prices could coexist with very limited excess mortality.³⁵ So, we need to turn to demographic evidence. Such evidence is particularly scarce for pre-famine Ireland. In 1800 roughly three-quarters of the population was Roman Catholic; more than half the remainder belonged to the Church of Ireland. There were over a thousand Catholic parishes, but few kept registers in the late eighteenth century, and even fewer of these recorded burials accurately or at all. We have been able to assemble information on burials from a necessarily small number of Catholic registers, a sample only in the sense that it comprises all the extant registers with useable data. These are complemented by a sample of Church of Ireland registers, which may be less instructive about crisis mortality since Anglicans tended to be relatively better-off than the population in general.

Ideally we would wish to calculate the excess deaths that occurred due to hunger and hunger-related diseases as distinct from those due to normal mortality. We may approximate this by comparing burials (deaths) in ‘normal’ times with burials (deaths) during the crisis years. The exercise is complicated, however, by problems with the source materials. First some ministers of religion did not record infant and child deaths.³⁶ In normal times, assuming this neglect operated consistently across time, the

³³ Cormac Ó Gráda, *Ireland Before and After the Famine* (2nd ed., Manchester: Manchester University Press, 1993), pp. 118-121.

³⁴ Alfani and Ó Gráda, *Famine*, p. 2.

³⁵ Martin Dribe, Mats Olsson and Patrick Svensson, ‘Nordic Europe’ in Alfani and Ó Gráda eds., *Famine*, pp. 199-203.

³⁶ David Dickson, ‘The Gap in Famines: A Useful Myth’ in E. Margaret Crawford, ed., *Famine in Ireland: The Irish Experience* (Edinburgh, 1989), p. 102.

course and, if necessary, the levels of mortality can be tracked with reasonable accuracy. But during food crises infants and children are typically overrepresented among the dead, hence crisis mortality may be understated. Second, ministers charged fees for burials. Crisis mortality might also be understated if the poor were more likely to die, as was surely the case, or if they became less able to afford a Christian burial. Third, we are very much at the mercy of the priest or minister for the degree of diligence he exercised in recording vital events of this kind (though the need to record fees probably helped). On a more positive note, some of the parish registers reach into parts of the Irish countryside that usually lay beyond the gaze of newspapers and official reports.

The 'normal' burial level is defined here as the average number of burials for the five years preceding the first really bad year of 1800. We experimented with a ten-year time frame, reaching back to 1790, but most local populations at the end of the eighteenth century were experiencing rapid population growth, so an upward incline in burials is to be expected. In the following tables we show the number of burials per year during 1795-99, followed by burials expressed as an index in the following four years.³⁷

The surviving evidence on burials in Catholic parishes is shown in Table 1. Twelve of these parishes come from north Leinster, with another two from south Leinster. One is from Munster and three lie west of the river Shannon in Connacht. There is considerable variation between parishes, as might be expected given the small number of burials to be observed in any one parish during a given year. We might expect higher mortality in the second year of a subsistence crisis, as was painfully evident during the Great Famine in Ireland half a century later. However, there is no clear pattern either across these years or across parishes. Sometimes there are more burials in 1800 than in 1801; sometimes just the opposite. Taking the sample of Catholic parishes as a whole we see excess mortality of 20-25 per cent in these years, that is, as indicated by recorded burials.

The burials in twelve, mostly urban Church of Ireland parishes (Table 2) show even fewer signs of famine mortality.³⁸ The contrast is intriguing. Living standards were on average higher for the Protestant Irish but these congregations also contained considerable numbers of artisans and rural and town labourers. Random factors may be at play but Anglican overrepresentation among the gentry and nobility and possibly more effective redistribution of resources though the medium of church vestries might help explain the apparently differing experiences. In a few Church of Ireland parishes burials were sometimes 20-30 per cent above normal, but for the sample as a whole there was virtually the same number of burials in 1800 and 1801 as in the pre-crisis years.

The figures on burials may well understate the extent of excess mortality for several reasons. As noted above, deaths of infants and children may be under-recorded to a greater extent in times of crisis, as may the deaths of those too poor to afford a burial. In addition, the sample of parishes comes largely from the more prosperous eastern half of Ireland. Still, the three West of Ireland parishes do not show high mortality across the two years of crisis.

³⁷ Some judgement was occasionally necessary where obvious gaps in the registers had led to under-recording. In addition, in a small number of cases usable time series for burials or baptisms began a year or two later than 1795.

³⁸ These are mainly urban parishes; rural Church of Ireland congregations tended to be small and scattered and give rise to small-number problems.

Likely biases apart, the results accord reasonably well with the only contemporary estimate of excess mortality. Writing in 1805, Thomas Newenham put the extra deaths at no more than 40,000.³⁹ The population of Ireland in 1800 must have been close to 5 million souls. Assuming a death rate of 24 per thousand – Mokyr’s estimate for Ireland for 1821-41 is of 23.8 deaths per 1,000 inhabitants – implies 120,000 deaths in a ‘normal’ year. If burials in 1800 and 1801 were 20-25% above average, then excess mortality would have amounted to 24,000-30,000 in each of these two crisis years. Wells adopts 40,000 as the number of excess deaths, but his speculation that ‘more extensive parish register analysis could double this figure’ is not borne out here.⁴⁰

Do excess burials of 20-25 per cent constitute evidence of a famine? If not, how much would these have had to be understated before we could say that there had been a famine? There is no widely-accepted threshold, but we can refer to the criteria employed by other scholars. Alfani, Mocarelli and Strangio use a threshold of 50 per cent excess mortality to locate what they term the mild end of a range of famine experiences. Dribe, Olsson and Svensson adopt a lower value of 35 per cent in their study of Sweden. Béaur and Chevet provide evidence that the French famines they have identified by price movements involved excess mortality ranging from 22 to 113 per cent. By these standards 1799-1801 in Ireland, taking no account of any understatement, would hardly count as a famine at all, and it would take considerable adjustment upward to make it a major one. By way of comparison, burials in the harder hit parts of south Munster increased fourfold in the early 1740s.⁴¹ During the first years of the Great Famine increases of three-, four- and fivefold were not uncommon.⁴²

The findings from Irish parish registers may also be compared to the much larger sample of 392 English parishes collected by the Cambridge Group. Indices comparable to those in Tables 1 and 2 are 105 in 1800, 110 in 1801, 104 in 1802 and 105 in 1803, showing little sign of a mortality crisis in England.⁴³ The English data also provide a warning against inferring too much from the small Irish sample. In each of these years about ten per cent of parishes had indices of more than 150 and about 25 per cent had indices of more than 125.

The message from the burial records receives some confirmation from the movements in baptisms. A decline in fertility is a characteristic outcome of subsistence crises and famines.⁴⁴ Hunger reduces libido, reduces the probability of conception and increases the risk of miscarriage. As economic prospects darken, marriage tends to be deferred

³⁹ Thomas Newenham, *A Statistical and Historical Enquiry into the Progress and Magnitude of the Population of Ireland* (London, 1805), pp. 131-2.

⁴⁰ Wells, “Irish Famine”, p. 169; Dickson, “Gap”, p. 107.

⁴¹ Dickson, *Arctic Ireland*, pp. 66-7.

⁴² Unpublished dataset compiled by Liam Kennedy, D.M. MacRaild, Brian Gurrin, Lewis Darren, University of Roehampton, 2019, as part of a Leverhulme-funded project on Ireland’s Great Famine.

⁴³ E A Wrigley, R S Schofield and Cambridge Group for the History of Population and Social Structure. 1998, restructured 2015. 404 English Parish Register Aggregate Baptisms, Marriages and Burials 1538-1837. [Dataset in tab-delimited text format; see also UK Data Archive SN 4491]. We are grateful to the Cambridge Group for making these data available to us.

⁴⁴ Joel Mokyr, “The Deadly Fungus: An Econometric Investigation into the Short-Term Demographic Impact of the Irish Famine, 1846-51”, *Research in Population Economics*, II (1980), 237-77.

which also serves to dampen fertility, at least in the short run.⁴⁵ Any effect on baptisms should become apparent with a short time lag.

Parish records of baptisms, it has to be acknowledged, are also scarce in Ireland, and they, too, have their defects. Births are almost certainly higher than baptisms, despite the fact that the practice of baptism seems to have been almost universal. This is because still-births and some neo-natal deaths would typically not be baptised and hence would not feature in the baptism register. The Catholic Church did not permit the burial of unbaptised infants in consecrated ground and so would have had no reason to record such births (or deaths).⁴⁶ The proportion is likely to be higher in famine times. Still, as baptism was a vital sacrament within the Catholic Church in particular and as the priest was obliged by canon law to make it available to all believers, the discrepancy between births and baptisms is not likely to be large. In that sense, the baptism data are likely to be superior to burial data.

The evidence on baptisms (Tables 3 and 4) is mixed but some social stress is indicated, particularly during the second year of the crisis. For Catholic congregations there are suggestions of a decline in births in 1801, though the effect was short-lived. In half the Church of Ireland parishes the number of births also appears to be curtailed, though again the effect was of short duration. We might compare these results with the experience of the Great Famine that lay some decades in the future. A sample of 32 Catholic parishes for the period 1841-51, containing some 66,000 baptisms, shows a steep decline of 40% in baptisms during the famine years of 1847-51 by comparison with the pre-Famine years of 1841-45.⁴⁷ Moreover, this decline was a sustained one. The temporary check to births in 1800-01 seems mild by comparison.

Policies

Despite sustained high food prices, famine in Ireland seems to have been averted in 1799-1801. During these two years governments in Ireland, national and local, employed a panoply of measures to deal with potential shortages and to mitigate pressure on food prices. Some had legal force, others relied on exhortation. One of the Irish government's first measures sought to draw in more supplies from abroad. In May 1799 prices had already risen sufficiently that under Foster's Corn Law, in part a response to scarcity in 1782-4, the ports were automatically opened to the duty-free importation of foreign corn until early August.⁴⁸ What is surprising and potentially significant is that prices rose before the state of the 1799 harvest could have been known with any certainty. Moreover, as noted above, that year's harvest had at first seemed to be satisfactory. This suggests that stocks of grain from the 1798 harvest were low. The large Slane flour mills in county Meath had already by May 1799 turned to England to

⁴⁵ A rise in illegitimacy is a possibility but finds little support in the literature. See Liam Kennedy, "Bastardy and the Great Famine: Ireland 1845-50", *Continuity & Change*, XIV, 1999), pp. 429-52.

⁴⁶ S.J. Connolly, *Priests and People in Pre-Famine Ireland, 1780-1845* (Dublin, 2001); Liam Kennedy, "Afterlives: Testimonies of Irish Catholic Mothers on Infant Death and the Fate of the Unbaptised", Working Paper, Centre for Economic History, Queen's University, Belfast. <http://www.quceh.org.uk/working-papers-2019.html>

⁴⁷ Unpublished dataset from the Leverhulme Famine project (see fn 42).

⁴⁸ *FJ* 6/6/99; James Kelly and Mary Ann Lyons, *The Proclamations of Ireland, 1660-1820* (Volume 5, George III, part 2, 1791-1820, Dublin, 2014) (hereafter *Proclamations*), 16/5/99.

buy wheat.⁴⁹ Any shortage of stocks was probably not a direct legacy of the 1798 rebellion. The rebellion, which was largely confined to east Ulster and south Leinster, does not seem to have given rise to significant disruption in production and markets, though there were residues of banditry and lawlessness in some localities.⁵⁰

In November 1799, after the state of the harvest became known, the government reopened the ports to duty-free imports of foreign (i.e., not British) corn, rice and Indian corn until the following September. In addition, the first 40,000 barrels of wheat imported would receive a bounty of 10 shillings per barrel and the next 20,000 barrels 5 shillings.⁵¹ Further bounties were proposed in March 1800, but the proposed bounty was not deemed sufficient to attract foreign grain.⁵² Duty-free importation seems to have lapsed in the autumn of 1800, but it was again authorized from late January until late March 1801, then extended first until late June and later to August and October of 1801.⁵³

Further bounties on imports seem to have been used subsequently. In March 1801, as ships with meal and rice from America were arriving in Irish ports but continuing to Britain to take advantage of the bounty there, the *Freeman's Journal* reported that "a bill is introduced into the Imperial Parliament renewing the bounty in Ireland".⁵⁴ The measure was delayed by the King's illness, with the Royal Assent finally obtained in late April.⁵⁵ However, British bounties continued to divert supplies to Britain.

The government went beyond offering bounties to importing provisions on its own account. It first considered doing so in October 1799, and may have made loans to merchants.⁵⁶ In the summer of 1800 the mayor of Cork was requesting corn, ordered on account of Government.⁵⁷ In December 1800 the *Belfast Newsletter* reported that "a large supply of grain has been commissioned by Government for this country, a considerable proportion of which is destined for this port".⁵⁸ In January 1801 rice was consigned to the Belfast Committee of the Charitable Loan for sale to the poor.⁵⁹ In March the *Cork Advertiser* reported that "a very large quantity of Indian and rye meal, has by this time been bought up in America, on account of the government, of which upwards of one thousand tons will probably be ordered for this port".⁶⁰ Some had arrived by early May, and by July was being sold in the western parts of County Cork.⁶¹ In July falling prices in Dublin were ascribed to the "great importation made by

⁴⁹ NLI, MS 11877, Copy letter book of Slane Flour Mills, 7 May 1799.

⁵⁰ See James G. Patterson, *In the Wake of the Great Rebellion: Republicanism, Agrarianism and Banditry in Ireland after 1798* (Manchester, 2008). On the houghing of cattle see the *Dublin Gazette*, 28 July 1801.

⁵¹ *Proclamations*, 11/11/99, 19/11/99.

⁵² Castlereagh, 3, 247.

⁵³ *FLJ* 28/1/01, 25/3/01; *Proclamations*, 20/1/01, 17/3/01, 4/8/01.

⁵⁴ *FJ* 5/3/01; *FLJ* 21/3/01; *FLJ* 8/4/01.

⁵⁵ *FLJ* 21/3/01; *Parliamentary Register*, vol. 14 p. 184, 30 April 1801.

⁵⁶ Castlereagh, 2, 427; 3, 392.

⁵⁷ Castlereagh, 3, 372.

⁵⁸ *BNL* 2/12/00.

⁵⁹ *BNL* 6/1/01.

⁶⁰ *CA* 7/3/01.

⁶¹ *CA* 5/5/01; 11/7/01.

Government” and were alleged to have sent several corn dealers into bankruptcy.⁶² As late as September 1801, after prices had fallen, imports of provisions on government account were still arriving in Waterford.⁶³

In March 1801 Sir John Parnell asked Parliament for a temporary suspension of the provision in the charter of the East India Company that prohibited the landing of cargoes directly in Ireland.⁶⁴ He argued that this would allow imports of rice to reach Ireland two to three months earlier. It is not known, however, whether this measure was ever adopted or whether any East India Company ships ever landed first in Ireland.

Besides encouraging imports, the government also acted on the export of provisions. As early as July 1799 the *Freeman's Journal* was worried about the effects on conditions in Ireland of “prodigious” quantities of corn being sent to Britain.⁶⁵ But not until November did the government prohibit the exportation first of potatoes, then of “all manner of corn or grain, ground or unground, meal, malt, flour, bread, biscuit, starch, or hair powder”.⁶⁶ These prohibitions ran to September 1800; they were re-imposed in January 1801 and prolonged in March 1801.⁶⁷

The effect of these measures was to transform Ireland from a net exporter of cereals to a modest net importer (Table 5). This was true in 1800 and 1801, and almost certainly true in the second half of 1799. That said, exports of cereals generally accounted for only 15 per cent or so of all Irish agricultural exports in the late eighteenth century. The impact of the crisis on total net exports was a fall of about a third (the 1800 figure overstates the fall because as a result of a change in the customs year it refers to just over nine months). Exports of livestock and dairy products, which accounted for about two-thirds of agricultural exports, fell off a bit in these years. Smallholder exports, essentially pigs and pigmeat in these years, were also somewhat lower in 1799 and 1800. In 1801, after the poor potato harvest of 1800, they had fallen heavily to about half their normal level. They were also low in 1802 because exports of salt pork and bacon were concentrated in the winter months and there would have been fewer pigs raised in 1800-1801.

The government took several other measures to free up grain for human consumption. Already in October 1799 the government was considering putting a stop to distilling, but worried about how it might affect the revenue and whether an act of parliament was necessary.⁶⁸ In November 1799 it forbade the baking of cakes and muffins as well as any kind of bread other than “household”. Several months later, in March 1800, it did finally forbid both the use of grain in the distilleries and the malting of barley.⁶⁹ The prohibitions on the use of grain in distilling and on malting were further extended in September 1800 and December 1800, respectively.⁷⁰

⁶² *FLJ* 11/7/01.

⁶³ *FLJ* 12/9/01.

⁶⁴ *FLJ* 18/3/01; *Parliamentary Register*, vol. 14, p. 398, 16 Mar 1801.

⁶⁵ *FJ* 18/7/99.

⁶⁶ *Proclamations*, 7/11/99, 11/11/99.

⁶⁷ *Proclamations*, 20/1/01, 17/3/01.

⁶⁸ *Castlereagh*, 2, 427.

⁶⁹ *Proclamations*, P 281, 6 March 1800; P 282, 8 March 1800.

⁷⁰ *Proclamations*; 28 Sept 1800; 30 Dec 1800.

A contemporary calculation brings out the importance of prohibiting distilling from grain. The Castlereagh papers contain a document that sought to explain why Ireland's balance of trade for the year ending 25 March 1801 had an unusual £2.5m excess of imports.⁷¹ It compared the values of various items imported and exported in that year to the average of the three years ending 25 March 1799. The change in the corn and meal trade contributed about £600,000, whilst increased imports of spirits came to £280,000 and increased imports of sugar, assumed to supply the distillers with an alternative raw material, amounted to a remarkable £781,000.

After the 1798 rebellion the army had a major presence in Ireland. The total force came to over 100,000, but since the Yeomanry was locally based, the Army was only responsible for feeding the Regular, Fencible and Militia regiments that amounted to 40,000-50,000 men. In January 1800 Cornwallis, as Lord Lieutenant and commander in chief, issued orders "to open the magazines of flour which had been stored for the use of the troops in the depots of Cork, Athlone, Tullamore, &c with directions for public exposure of such a large stock in Government's hands, at the markets of this city".⁷² However, this may exaggerate government generosity since it seems that what was actually done was to sell off condemned biscuit in army stores.⁷³ In January 1801 a correspondent of the *Morning Chronicle* proposed that "if the army of that country, which consists, regulars and militia, of about seventy thousand men, were obliged to confine themselves for a few months to bread, and restrain the use of potatoes, it would be no great hardship, and might contribute to prevent a similar calamity next year".⁷⁴ Two days later Charles Ross, the army commander in eastern Munster, directed his officers "to promote as much as possible the use of rice, barley meal and oatmeal amongst the troops".⁷⁵

The government also used its bully pulpit to urge prudence in the use of grain and potatoes. In January 1801 it published a proclamation discouraging the feeding of oats to horses and the use of potatoes by the upper classes.⁷⁶ This echoed the *Belfast Newsletter's* suggestion the previous year that the upper classes be encouraged to abstain from second courses, substitute teas and evening parties for dinners, and substitute straw and hay for oats in feeding saddle and carriage horses.⁷⁷ In March 1800 the Corporation of Dublin recommended, on the basis of experiments, that oats fed to horses be reduced by half.⁷⁸

The military set an example. In August 1799 the basic ration of oats for army horses was reduced from 12 to 10 lbs, with the hay ration increased to 14 lbs. In March 1800 the oats ration was further cut to 8 lbs and in February 1801 to 6 lbs, by which time the hay ration had grown to 20 lbs. By April 1801 the Commissary General issued an order allowing for the substitution of bran for oats at the rate of 9 lbs bran to 6 lbs oats. In

⁷¹ PRONI D3030/1683.

⁷² FJ 25/1/00.

⁷³ NA, WO 63/4, ff. 64-5, 71, Ch Handfield to Lt Col Littlehales, 31 May 1800, 25 June 1800.

⁷⁴ *Morning Chronicle* 31/1/01.

⁷⁵ NA, HO 100/103, ff. 45-46, Ch Ross, Youghall to Lt Col Littlehales, Dublin Castle, 2 Feb 1801.

⁷⁶ CA 17/1/01.

⁷⁷ BNL 4/4/00.

⁷⁸ BNL 18/3/00.

November 1800, in a gesture more symbolic than material, the Army instructed its officers to discontinue using powder or flour in their hair.⁷⁹

Both national and local authorities were concerned with the supply of grain and potatoes to Ireland's cities. Dublin was supplied with grain and potatoes by coastal shipping, from Kinsale, Baltimore and Dungarvan along the south coast and from the north by the port of Strangford in County Down.⁸⁰ Potatoes also reached Dublin by canal, and in December 1799 the Grand Canal Company reduced its toll on potatoes and vegetables to 2s-6d per ton for shipments of any distance.⁸¹ Potatoes were brought to Belfast by canal from the area around Lough Neagh and grain come coastwise.⁸² Coastwise shipments were expressly excluded from the embargo on potato exports.⁸³ The Lord Lieutenant also protected the crews of boats in the provisions trade from impressment.⁸⁴ In February 1800 the mayor of Cork even offered bounties for boats bringing potatoes to the town's markets.⁸⁵ At the small town of Fermoy, north of Cork city, its proprietor offered weekly premiums for the greatest quantity of potatoes sold at the public market.⁸⁶ Voluntary restraints on the use of grain also made some difference. In November 1799 the distillers came forward with resolutions declaring that they would not use oats and offering a reward for information on any violator.⁸⁷ In November 1800 "the principal porter brewers...have come to a resolution to purchase no more barley for the purpose of malting".⁸⁸

The policies adopted in 1799-1801 had a significant effect on available food supplies and combatting hunger. Some rough calculations, shown in Table 6, indicate that in terms of securing food supplies in Ireland the most important measure was the prohibition on grain exports. Imports of foodstuffs amounted to only a fifth of the foregone exports, though it may be that grain and rice imported on government account were not recorded by the customs authorities. The prohibition on distilling from grain, the effects of which are evident from increased imports both of spirits and of sugar to replace grain in distilling, made a lesser, but still significant contribution to food supplies. Altogether these policies made available enough food to relieve the equivalent of 300,000 persons for an entire year, a significant contribution to a population of about five million, bearing in mind that most people would have needed supplementary rations *only*. Table 6 shows, in addition, that the traditional buffer – feeding fewer pigs – would have freed up potatoes for another 100,000 full-year rations. Moreover, these calculations do not take account of the savings made from other policies, such as reducing the consumption of oats by horses and of barley by the brewing industry.

⁷⁹ NA, WO 63/85, ff. 118, 128, 137, 163, letters from G Nugent to Charles Handfield, 13 Aug 1799, 12 Nov 1799, 19 Mar 1800, 24 Feb 1801; WO 63/35, f. 49, letters from Charles Handfield to all depots, 8 Apr 1801.

⁸⁰ SNL 16/2/99; FJ 22/3/00; Wells, "Irish Famine", p. 166.

⁸¹ SNL 5/12/99.

⁸² BNL 14/2/00.

⁸³ *Proclamations*, 7/11/99.

⁸⁴ FJ 6/5/00.

⁸⁵ *Cork Evening Post (CEP)* 3/2/00.

⁸⁶ NAI, Rebellion Papers, 620/57/51, Letter from John Anderson, Cork, 19 Oct 1800, including printed notice.

⁸⁷ FJ 9/11/99.

⁸⁸ CA 27/11/00.

The calculations in Table 6 are similar to those made by Cornwallis in December 1800 when replying to a request from Westminster that Ireland supply grain and flour to the Navy. In emphasizing the scarcity of grain in Ireland, he calculated that from prohibiting exports and restricting the use of grain in distilling and brewing “It is hoped that 1,000,000 of barrels of corn may be procured, which would supply a million of inhabitants of all ages at the consummation of one barrel the year to the individual”.⁸⁹ The million to be relieved coincided exactly with his estimate of the need, which was based on the supposition that half of what he took to be Ireland’s four million inhabitants depended on potatoes and that the potato crop was deficient by half. The difference between Cornwallis’ and our estimates arises in part because his calculation of grain savings exceeds ours by 50-100 per cent. In addition, his assumption that a barrel of grain (2-2.5 cwt) provided a subsistence ration for a person for a year was less than half the required quantity.

Relief

Government policies managed to divert significant quantities of grain to human consumption in Ireland, yet food prices remained very high during 1799-1801. Without the policies prices would have been even higher. If the savings from policies in Table 6 are taken to be about five per cent of total supplies, then, given the inelasticity of demand for basic foodstuffs, potato and oatmeal prices might have been even higher, by perhaps 10 to 15 per cent. So, how did the poor manage to deal with the actual prices? What measures were put in place to help them so do?

Ireland differed from England in that it had no statutory, tax-financed system of poor relief. Hence efforts to mitigate the effects of high food prices were primarily local and voluntary. Urban relief measures began with soup kitchens. In November 1799 an advertisement in the *Belfast Newsletter* proposed that one be created based on weekly subscriptions of 2d for six months.⁹⁰ The Belfast soup kitchen opened in December and was serving 250-300 persons daily.⁹¹ Additional subscriptions were raised in July 1800.⁹² In August 1800 the subscribers considered closing the “soup house”, but in October it was still feeding 900 persons a day when it did close.⁹³ In October 1800 soup shops were supplying 1500 persons in Cork.⁹⁴ At the other end of the island, during the summer of 1800 the Charitable Society of Londonderry was distributing meal and rice to the poor of that city.⁹⁵

In Dublin the House of Industry organized the distribution of soup to the poor and its formula for soup was “so effectual that parochial regulations are about to be adopted for feeding the numerous poor of the city, under the immediate inspection of the Ministers and Churchwardens”.⁹⁶ It also provided parishes with “Public Kitchens, so ready for erection forthwith, and cheap of construction”.⁹⁷ In late March 1800

⁸⁹ NA, HO 100/94, f. 258, Cornwallis to Portland, 3 December 1800.

⁹⁰ *BNL* 5/11/99.

⁹¹ *BNL* 24/12/99, 27/12/99.

⁹² *BNL* 1/7/00.

⁹³ *BNL* 12/8/00; 10/10/00.

⁹⁴ *CA* 16/10/00.

⁹⁵ *Limerick Journal (LJ)* 5/8/00.

⁹⁶ *FJ* 4/1/00.

⁹⁷ *FJ* 1/2/00.

Castlereagh ordered an inspection of the public “soup-shops” and directed that they add peas and rice, mixed with finely ground barley, to their soup.⁹⁸ The Dublin soup kitchens seem to have operated until at least June 1801, when the *Freeman’s Journal* commended them as having been “the happy means of saving numbers from perishing by want” and “managed and conducted with an economy, accuracy, and attention highly meritorious to those to whom their superintendence was committed”.⁹⁹

In early 1801 the *Cork Advertiser* listed the persons who supplied meal or subscribed money for relief; about £6,000 had been raised.¹⁰⁰ In April 70-80 tons of potatoes were distributed among the poor of Dublin.¹⁰¹ Besides soup, other necessities were distributed to the poor. In January 1800 the Charitable Institution of Belfast was distributing coals and flannel vests, and in March oatmeal.¹⁰²

By March 1800 the *Freeman’s Journal* claimed that more than 9,000 individuals in three Dublin parishes were famishing. But it observed that “The humane institution of soup-shops, salutary and well-managed as they have been, is but a temporary relief – the sure mode of banishing famine and misery from those unfortunate people, would be to devise some means of giving them employment”.¹⁰³ There is no evidence that public works, a mainstay of later famine relief, were taken up in 1799-1801.¹⁰⁴

In smaller towns significant sums were raised for relief. At Lisburn £1,250 had already been raised for relief by November 1799.¹⁰⁵ In February 1800 a meeting was held to raise £1,000 at Carrick-on-Suir in county Tipperary.¹⁰⁶ The Corporation of Drogheda voted £300 toward a subscription being raised to purchase and distribute provisions.¹⁰⁷ The vestry minutes for Newcastle, County Wicklow record an early and local initiative in food subsidy, which may have had its counterparts in other localities:

At a meeting of the parishioners of the parish of Newcastle at the Church of Newcastle on the 14th day of April 1800, pursuant to public notice, to take into consideration the state of the poor of said parish & the probable means of relieving their necessities during the present scarcity, it was agreed that a committee be appointed to make application to the several persons resident in or having property in said parish in order to raise a sum for the purpose of buying corn to sell at reduced price to the poor.¹⁰⁸

⁹⁸ *FJ* 3/4/00. At Mount Stewart, the family home of Lord Castlereagh, the Stewarts imported at their own cost provisions for their tenants in 1800 and 1801. Bew, *Castlereagh*, p. 8

⁹⁹ *FJ* 27/6/01.

¹⁰⁰ *CA* 25/4/01.

¹⁰¹ *FLJ* 15/4/01.

¹⁰² *BNL* 24/1/00, 21/3/00.

¹⁰³ *FJ* 20/3/00.

¹⁰⁴ The subsistence crisis of 1822, mainly affecting districts in the west and south-west of Ireland, saw extensive resort to employment on public works as a means of famine relief, as was also the case during the Great Famine of the 1840s. See Timothy P. O’Neill, *The Famine of 1822* (unpublished M.A. thesis, University College, Dublin, 1965).

¹⁰⁵ *BNL* 19/11/99.

¹⁰⁶ *Limerick Chronicle (LC)* 22/2/00.

¹⁰⁷ *BNL* 18/2/00.

¹⁰⁸ Representative Church Body, Dublin, Vestry records, Parish of Newcastle. Our thanks to Brian Gurrin for this reference.

In 1801 the government came to the aid of local relief efforts. From March it promised to top up by a third the amounts raised by charities since the beginning of the year.¹⁰⁹

The Quakers, as in the Great Famine, were heavily involved in relief efforts. Early in the crisis, in February 1800, they worked through the Army's Commissary General to arrange shipments of potatoes to Dublin from north Tipperary and Sligo.¹¹⁰ Toward the end of the crisis, in August 1801 they were selling Indian meal and rye flour cheaply to the poor in Dublin. *Finn's Leinster Journal* noted approvingly that "the benevolence of that respectable body has been uniformly conspicuous and exemplary ever since real or artificial scarcity commenced in this city".¹¹¹

Soup kitchens and sales of food at subsidized prices were primarily observed in cities and towns. These measures were typical of relief throughout the eighteenth century and reflected what Dickson has called its "urban bias".¹¹² But most people lived in the countryside. During the eighteenth and early nineteenth centuries only about 8 per cent of the population lived in cities of 5,000 inhabitants or more.¹¹³ For want of sources that document the nature and effects of charity in rural Ireland, we can only speculate on how the rural poor survived on the basis of an understanding of how the Irish rural economy worked.¹¹⁴

As in Britain, the ownership of land in Ireland was highly concentrated and the owners rarely farmed the land directly. They typically let it in economically viable parcels of 10-15 acres and upward at fixed rents on long-term leases. During the inflation of the French Wars landlords generally lost out to their tenant farmers, except in the small number of cases where leases fell in and could be renewed at higher rates. In the years of especially high prices in 1799-1801 tenant farmers were the main beneficiaries, and estate records show rents being paid regularly.

Tenant farmers typically practiced mixed farming, with much of the land devoted to dairying or the rearing or fattening of cattle. Most employed labour to cultivate part of their land in crop rotations involving potatoes, two or three crops of cereals, then reversion to pasture. An outstanding feature of Irish agriculture was the way in which tenant farmers contracted with labourers. The potato field in the crop rotation was divided up into parcels to be worked by labourers and their families. The potatoes went to feed the families as well as pigs and chickens that were usually sold for cash. In exchange for this temporary access to potato ground, labourers worked on the farmer's cereal crops. Two implications of this relationship between farmers and labourers are important. First, the amount of employment depended on the quantity of potato ground on offer. Second, once the farmer made potato ground available, he entered into a relationship with the labourer that lasted through at least the harvest year.

¹⁰⁹ Wells, "Irish Famine", p. 176.

¹¹⁰ NA, WO 63/33, ff. 152, 155, letters from Charles Handfield to Wm Dillon, Birr and Mr Goldrish, Enniskillen, 27 Feb 1800.

¹¹¹ *FLJ* 12/8/01.

¹¹² Dickson, *Arctic Ireland*, p. 73.

¹¹³ Peter M. Solar, "Occupation, Poverty and Social Class in pre-Famine Ireland, 1740-1850", in Eugenio, F. Biagini and Mary E. Daly, eds., *The Cambridge Social History of Modern Ireland* (Cambridge: Cambridge University Press, 2017), pp. 25-37.

¹¹⁴ The following analysis draws on Solar, "Occupation".

The shortfall in the 1799/1800 harvest seems to have prompted an extension of potato cultivation. This is highly significant for the welfare of the rural poor. Attractive cereal prices created an incentive for farmers to expand cereal production and, by implication, the potato acreage. In July 1800 a farming correspondent of the *Freeman's Journal* said that there were "more potatoes at this time in the ground in Ireland, than can possibly be consumed in two years, could that annual esculant be preserved so long".¹¹⁵ Consistent with this, there were reports also of an unusually large acreage planted in cereals in 1801. An "extraordinary quantity" of wheat was sown, and "throughout the whole of this country...there is a much larger proportion of ground under tillage than has been customary in former years".¹¹⁶ In April 1801 the *Freeman's Journal* reported that "From the abundance of seed that will be sown this season for potatoes, greater crops are likely to be had of them in a few months, than ever was known in Ireland; hundreds of acres that never had been broken by the spade, are now laid down with them, so great have been the exertions to prevent such a scarcity of that article, as occurred last year".¹¹⁷ In July the paper confirmed that "potatoes...have been planted to an extent unprecedented".¹¹⁸

These extraordinarily large acreages planted in potatoes gave labourers two chances at subsistence. First, labourers had their own potato crops, but the yields in both 1799 and 1800 turned out to be deficient. Second, labourers had their work on farmers' cereal crops. In principle, labourers had already been paid or part-paid for this through the grant of the potato plot. But farmers still needed labour and would have been reluctant to see labourers and their families become enfeebled or leave in search of relief. And unlike later nineteenth-century relief schemes there were no public works that might have tempted labourers into alternative paid employment. Thus one suspects that informal charity from farmers constituted the rural poor's main insurance against high prices.

But it must be recognized that such enlightened self-interest was often not entirely voluntary. Farmers were under pressure to break up pasture land for potatoes. In March 1800 it was reported: "The Croppies are now turning up grounds in several parts of the County of Limerick, for the purpose of getting Potatooe ground, and have posted up notices for the above purpose".¹¹⁹ In neighbouring Tipperary:

Last Wednesday night a party of men (sayd to be 400) turned up a quantity of ground...held by a farmer of the name of Devereux—they had given him a notice to give out a certain quantity of ground for potatoes, which he not attending to they turned up the ground so as to make it fit for nothing else---and last Sunday they put up a notice at the chapel of Clonoulty, that certain farmers, whom they named, should give out so much ground each for potatoes, at six pounds an acre—or they would destroy their property---and such is the effect of terror, that I understand they intend complying—

¹¹⁵ *FJ* 24/7/00.

¹¹⁶ *FLJ* 4/2/01; NA, HO 100/103, f. 149, Wm Gardiner, Loughgall to Capt Aldridge, 4 May 1801.

¹¹⁷ *FJ* 11/4/01.

¹¹⁸ *FJ* 4/7/01.

¹¹⁹ *Limerick Chronicle* 29/3/00.

this plan of turning up lay ground, by night, prevails all through the western part of this county and to Limerick.¹²⁰

In February 1801 this threatening notice was posted at Portarlinton in the Queen's County:

Gentlemen farmers of this parish take notice that from this there is not a night nor day but we will use the same means as they do in the county Kildare and take cattle and provisions from every one of you that has it forcibly, if you don't do as they do by subscribing to the support of the poor of this parish and give employment and such as does not we will burn their place destroy themselves, and watch all opportunity to do so, this place being so peaceable they are used the worse be not disappointed while it is in your power or you will be sorry when too late, God prosper Mr Trench he is of great service he keeps a large quantity of people at work, but he gives small hire, he gave them meal last summer, I hope he will do the same now any person who we find to take this down shall be put to death, so let every one be cautious of what they do.¹²¹

Although farmers were at times coerced into providing potato ground, and hence more employment by extending tillage, it may be mistaken to overemphasize coercion. Tenant farmers in Ireland were not generally the holders of hundreds of acres, as in Britain, and would have not been so socially distant from their labourers. Ties of family and community may have been an important motive both for the granting of potato ground and for any provision of grain when the potato failed. Unfortunately, such informal relief has left little trace in the historical record.

Conclusion

There was reason to fear widespread destitution and death following back-to-back harvest failures in 1799 and 1800. The shortfalls in food supply translated into massive price rises that persisted for the best part of two years. At moments the cost of the principal foodstuffs of potatoes and oatmeal was of the order of four times the pre-crisis levels. So, as the proposed union of Britain and Ireland was winding its tortuous path through the Irish parliament, hungry crowds in different parts of Ireland, including the capital, were articulating a more fundamental demand, that of the right to sustenance and life itself. Yet, if the argument of this paper is correct, relatively few people died of hunger or hunger-related diseases.

In part the explanation for a less unhappy outcome lies with timely and extensive state intervention. According to our calculations, the consequent increase in the supply of basic foodstuffs would have fed the equivalent of 300,000 souls for a full year. The numbers safeguarded would have been far higher of course as few were absolutely destitute of food for the whole year. Organised charitable initiatives from soup kitchens to subsidised rations fed unknown numbers, particularly in the towns and at vulnerable periods during the harvest year. But this still underestimates the power of state and

¹²⁰ NAI, Rebellion Papers, 620/57/78, letter from Samuel Cooper, Cashel, 21 March 1800.

¹²¹ NAI, Rebellion Papers, SOCO 120/37, Richard Dowdall, Portarlinton to A Marsden, 27 Feb. 1801.

voluntary initiatives in saving lives, that is, by comparison with a world of non-intervention. A more textured understanding is required. Famine is a dynamic process with negative feedback mechanisms. Acute malnutrition paves the way for hunger-related diseases such as typhus and typhoid which were endemic in pre-industrial European society. Once these and other hunger-related diseases get a grip on a debilitated population, high levels of mortality are almost inevitable. A downward spiral of hunger and disease, accompanied by demoralisation, falling standards of personal hygiene, overcrowding, consumption of inferior and sometimes dangerous foods – these are the typical stages facilitating the spread of lethal infection and further sapping resilience.¹²² In desperation some take to the roads, congregate in villages and towns or at port cities in the hope of relief or refuge of some kind. Under certain conditions disease spreads like wildfire within and between communities and the death toll rises.

The critical issue for famine relief in an era when medical interventions were of limited value is the provision of food supplies before human immune systems become compromised by prolonged malnutrition. In other words, not only the supply but the timing of intervention is of the essence. The government orders for grain, even before signs of a poor harvest in 1799, indicate an alert governmental response to which later measures also testify. With the benefit of hindsight we may say it was fortunate that these policies were being formulated at a time before (but not long before) the ideology of *laissez faire* came to place a dead hand on state ‘interference’ in food markets. Charitable initiatives at local level also suggest in-time responsiveness.

These observations have more force in relation to urban Ireland. But the vast, populous rural hinterlands are something of a black box in all of this. Our speculative sketch lays emphasis on the peculiar social relations of production found in the Irish countryside.¹²³ Hundreds of thousands of households were engaged in subsistence production. So, even severe failure of the potato crop or the oat crop meant that some food stocks were still available at household level. Moreover, a larger proportion of food production was retained for home consumption by smaller farmers who in normal years would have had some marketable surplus, and hence supplies to market were squeezed. In any case, there were relatively few transactions at abnormally high prices, the rural poor and the not-so poor finding themselves excluded from the market place as prices rose. Beyond the market, the diversion of potatoes from animal to human consumption was an emergency resource of the rural poor in times of hunger.

Subsistence crises do not affect all social strata equally, and not necessarily in the same direction. Irish farmers benefited greatly from inflated cereal prices and thus had an incentive both to increase tillage *and* retain farm labour, perhaps at the cost of informal and temporary subventions of oatmeal, skimmed milk and small potatoes. This all means that the price signals in the market place bore a distorted relationship to the condition of labourers and cottiers, and so must be interpreted with caution. Indeed, in

¹²² Robert Dirks, ‘Social responses during severe food shortages and famine’, *Current Anthropology*, 21 (1980), 21-32. Stephen Devereux, *Theories of Famine* (London, 1993), pp. 16-18, 77, 157.

¹²³ The symbiotic relationship between farmers and labourers, embodied in the bartering of labour for access to potato-growing land, was taken to extremes in Ireland but payments in kind were a feature even of advanced agricultural regions in other parts of the United Kingdom. For the Scottish Lowlands see T.M. Devine, *The Scottish Clearances: A History of the Dispossessed 1600-1900* (London, 2018), p. 204

view of the doubling of the cost of subsistence for much of 1800-01, and bearing in mind Engel's Law, it is virtually impossible to see how a pre-industrial community could have coped with price shocks of these magnitudes, that is, if the market truly reflected the fortunes of the rural poor. In short, in the Ireland of 1800 we are dealing with multiple forms of economy and social organisation of a kind that are only roughly susceptible to conventional economic analysis.

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Table 1. Burials in Catholic Parishes, 1795-1803

	average 1795-99	1800	1801 (1795-99=100)	1802	1803
New Ross, Co. Wexford	81.4	77	131	91	79
Haggardstown, Co. Louth	35.0	134	91	134	109
Oldcastle, Co. Meath	39.8	166	166	75	113
Kells, Co. Meath	59.8	129	112	94	57
Dunshauglin, Co. Meath	32.4	111	148	77	52
Dunboyne, Co. Meath	20.2	99	139	99	59
Delvin, Co. Meath	32.8	122	88	67	76
Ratoath, Co. Meath	16.5	115	170	127	54
Clonmellon, Co. Westmeath	40.0	177	135	112	80
Collinstown, Co. Westmeath	38.2	123	144	131	99
Castlepollard, Co. Westmeath	50.2	108	94	76	82
Milltown, Co. Westmeath	33.4	132	132	120	96
Granard, Co. Longford	41.0	110	71	93	71
Ballinakill, Queen's County	99.2	166	129	109	98
Newport, Co. Tipperary	55.3	109	109	69	83
Moycullen, Co. Galway	25.8	128	97	101	132
Athlone, Co. Roscommon	32.0	147	109	87	106
Ahamlish, Co. Sligo	41.7	103	96	60	86
18 Parishes	774.7	126	119	94	86

Source: Micro-filmed images of the original manuscripts are available online from the website of the National Library of Ireland.

Table 2. Burials in Church of Ireland parishes, 1795-1803

		average	1800	1801	1802	1803
		for 1795-99		(1795-99=100)		
Delgany, Co. Wicklow		16.4	91	91	67	110
Newcastle, Co. Wicklow		20.4	118	108	118	54
St Mark, Dublin		108.0	76	111	95	134
St Luke, Dublin		51.4	76	86	39	76
St Werburgh, Dublin		17.2	99	110	64	93
St Mary, Dublin		90.4	128	117	104	142
St Nicholas, Cork		139.2	131	92	55	50
St Peter, Cork		35.6	132	107	93	107
Holy Trinity, Cork		23.6	81	85	81	102
Kinsale, Co. Cork		55.3	104	121	96	143
St John, Limerick		54.0	78	63	63	76
St Mary, Limerick		17.0	124	154	88	153
12 Parishes		628.5	105	102	79	101

Sources: Microfilm copies of the burial registers for St John's (MFCI 14) and St Mary's (MFCI 15), Limerick City, are kept at the National Archives, Dublin; the other registers, or copies thereof, are from the Representative Church Body Library, Dublin.

Table 3. Baptisms in Catholic Parishes, 1795-1803

		average	1800	1801	1802	1803
		for 1795-99		(1795-99=100)		
Dunshaughlin, Co. Meath		86.4	108	81	91	86
Delvin, Co. Meath		90.2	85	83	101	59
Nobber, Co. Meath		124.6	108	87	83	71
Castlepollard, Co. Westmeath		221	87	58	98	78
Athlone, Co. Roscommon		196.2	92	94	111	102
Ahamlish, Co. Sligo		170	105	94	118	110
Six Parishes		888.4	96	82	102	87

Source: as for Table 1.

Table 4. Baptisms in Church of Ireland Parishes, 1795-1803

		average					
		for 1795-99		1800	1801	1802	1803
					(1795-99=100)		
Newcastle, Co. Wicklow		14		143	79	157	107
Delgany, Co. Wicklow		25		124	112	120	116
Tullow, Co Carlow		10.2		137	167	196	196
Derryloran, Co. Tyrone		44.7		116	72	103	114
St Mary, Dublin		131		106	79	94	85
St Werburg, Dublin		53.2		103	117	147	186
Six Parishes		278.1		112	91	115	117

Source: Representative Church Body Library, Dublin.

Table 5
Net Agricultural Exports, 1796-1803
(average 1796-1797 = 100)

	Tillage	Pasture	Smallholding	Total
1796	92	102	98	100
1797	108	98	102	100
1798	105	85	90	89
1799	6	80	87	72
1800	-20	58	82	52
1801	-15	91	52	68
1802	136	115	70	108
1803	92	95	92	94

Note: until 1799: years ending 25 March; 1800: 26 March-5 January; from 1801: years ending 5 January.

Sources: NA (Kew), CUST15.

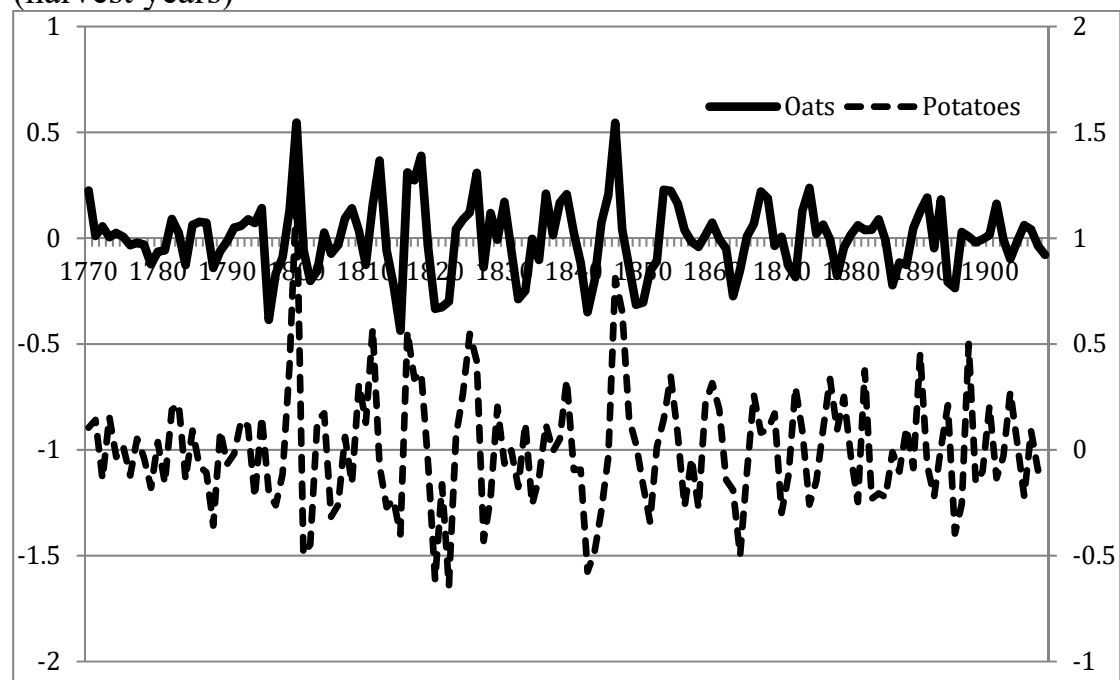
Table 6
Effects of Policies

	Exports 1795-8	Trade Imports 1800-1	Net Change	Grain equivalents (1000 cwt)
<i>Grain (1000 cwts per year)</i>				
Wheat	71	29	100	100
Flour	9	52	61	62
Oats	855	1	856	856
Oatmeal	144	2	146	146
Barley	49	1	49	49
Indian Corn	0	32	32	32
Indian Meal	0	92	92	92
Rice	0	20	20	20
Subtotal grain	1128	208	1336	1336
<i>Spirits (1000 gals)</i>				
Spirits trade	-149	1214	1066	213
Spirits from sugar			630	126
Subtotal spirits			1696	339
Policy total				1675
<i>Pigmeat trade (100 live pig equivalents)</i>				
Live pigs	53	22	32	
Salt pork	2065	1345	720	
Bacon	415	417	-2	
Subtotal pigs	2534	1784	750	641
Buffer total				641
Total				2316

Notes: Milled grain converted to unmilled equivalents at the rates in Bourke 1993, p. 160-2, 166. Potato equivalent of unmilled grain (3.51 lbs potatoes per 1 lb grain) from Bourke, *Visitation*, p. 165. Grain required for spirit production (1 ton grain per 100 gallons spirits). Feeding requirement for pigs (1.5 tons potatoes per pig).

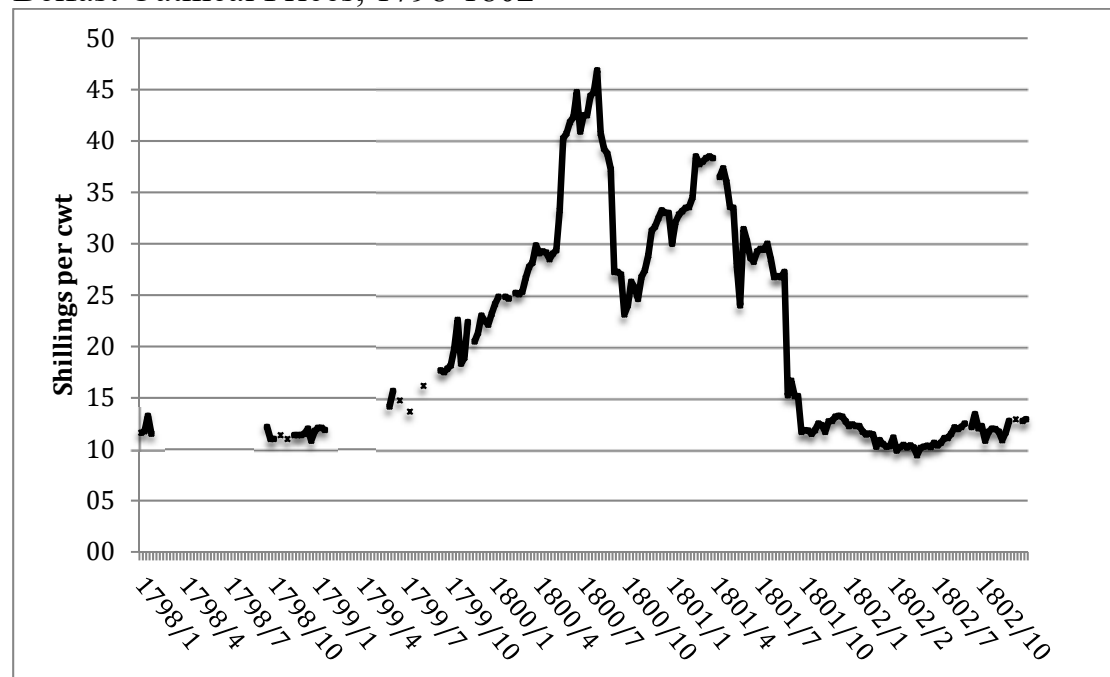
Sources: trade in grain, spirits and pigmeat: NLI, MSS, Customs accounts; spirits distilled from sugar (1260605 gallons), PRONI D3030/1685, Draft account of the quantity of spirits distilled from sugar from the time the malt distilleries were stopped to 16 September 1801) divided by two for annual effect

Figure 1
Oats and Potato Prices, 1770-1908
Deviations from Eleven-Year Centred Moving Average
(harvest years)



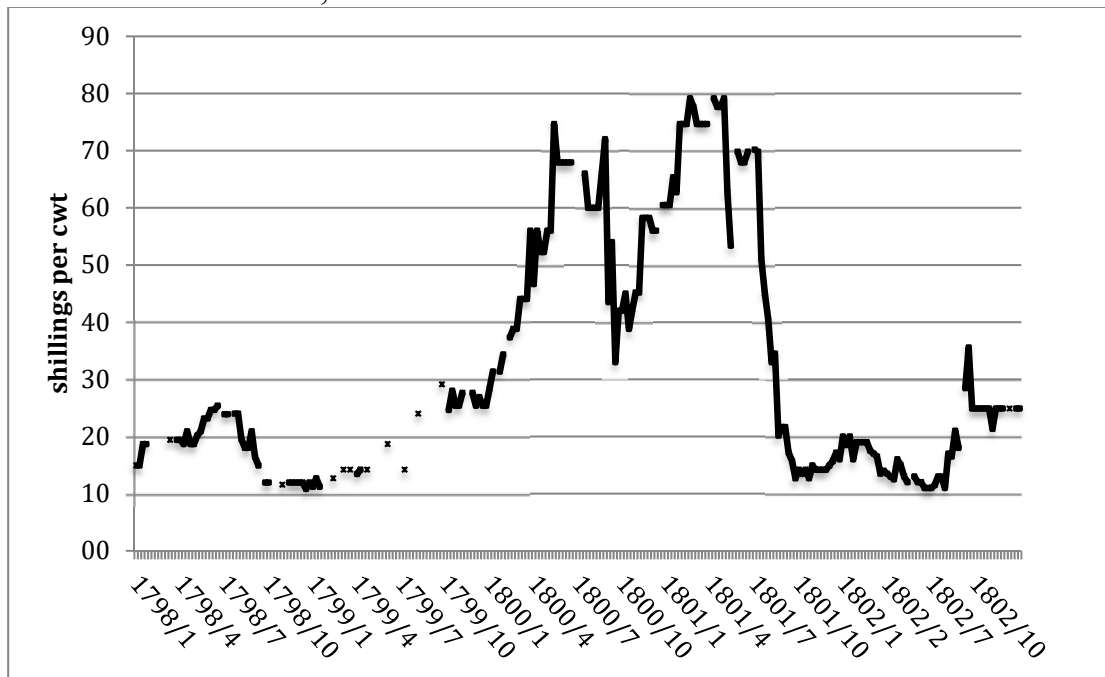
Source: Liam Kennedy and Peter M. Solar, *Irish Agriculture: A Price History* (Dublin: Royal Irish Academy, 2007), Appendices A.3 and A.6

Figure 2
Belfast Oatmeal Prices, 1798-1802



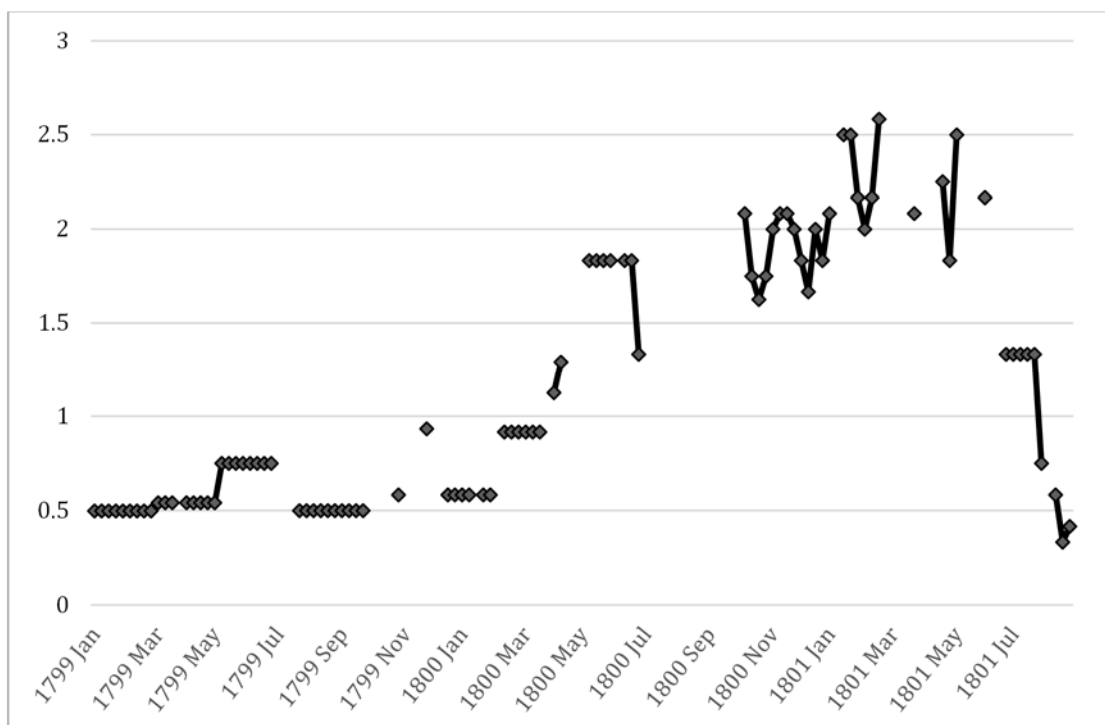
Source: *Belfast Newsletter*

Figure 3
Belfast Potato Prices, 1798-1802



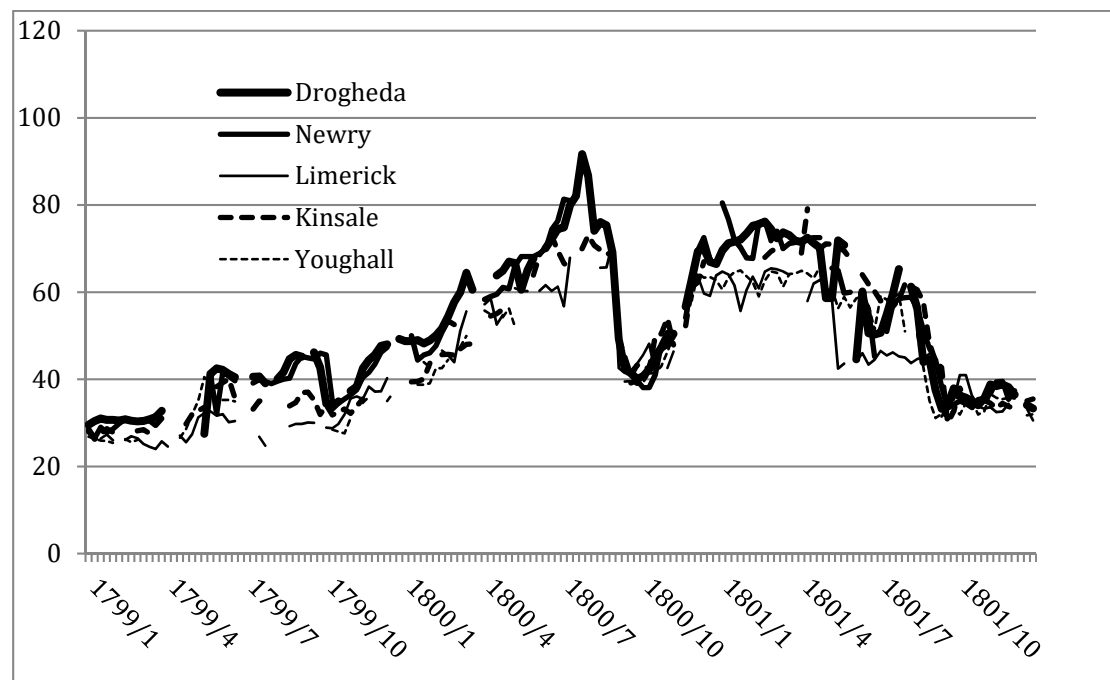
Source: *Belfast Newsletter*

Figure 4
Cork Potato Prices, 1799-1801
(shillings per 21 lbs)



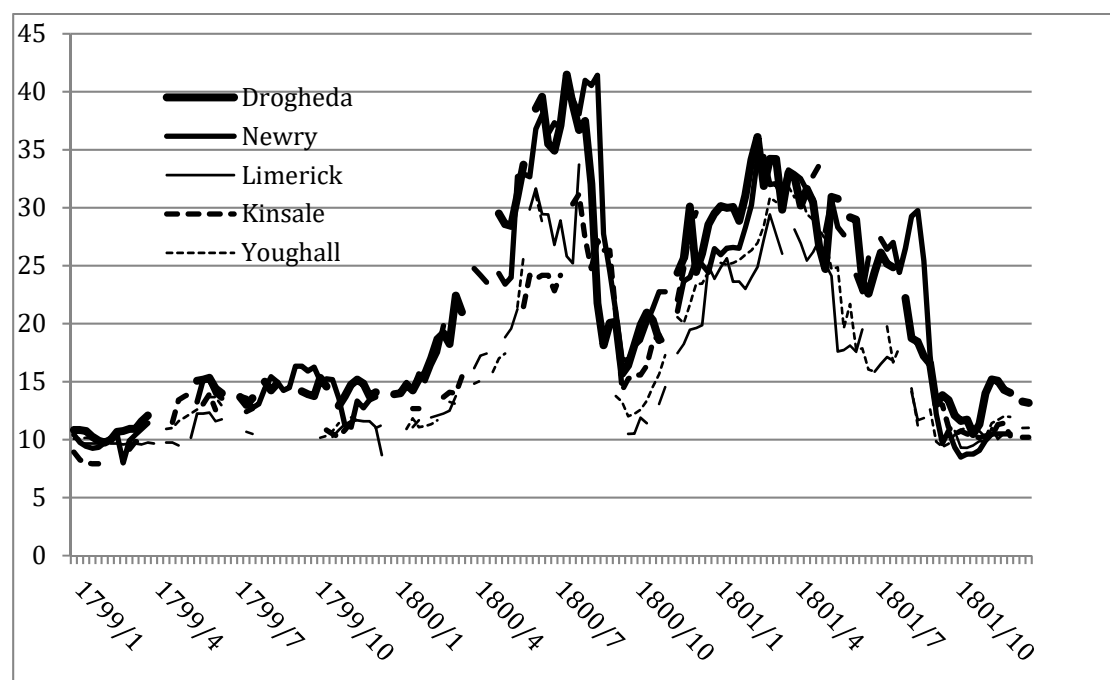
Sources: *Cork Advertiser*; *Cork Evening Post*

Figure 5
Irish Wheat Prices, 1799-1801
(shillings)



Source: *Dublin Gazette*, 1799-1801

Figure 6
Irish Oats Prices, 1799-1801
(shillings)



Source: *Dublin Gazette*, 1799-180