



## To What Extent have Economists Progressed Our Understanding of the Causes & Prevention of Famines?



**T**his article presents a consideration of the contributions of various economists to aid our understanding of the causes and prevention of famines. This is a serious endeavour with significant consequences; the total number of deaths attributed to famines in the 20th century alone has been estimated at upwards of 70 million, roughly the same as those who died as a result of the two World Wars (Ó Gráda, 2007). A concrete understanding of the causes and effects of these phenomena would, presumably, go some way in mitigating their occurrence and intensity in the future.

Famines are traditionally explained as a result of the lack of availability of food. However, this approach is oblivious to a more nuanced reality. As Sen (1981) highlights, dramatic reductions in the supply

of food are neither a necessary nor sufficient condition for famine. Nonetheless, as Ó Gráda (2007) explains, crop failures have been responsible for significant famines in the past, and are even attributable to the “man-made” famines in the Soviet Union in 1932-3. Moreover, Ó Gráda suggests that the impact of crop failure is dramatically greater if it happens back-to-back in consecutive years and if it happens to a staple crop. The *Phytophthora infestans*, according to this author, provides an illuminating example; had this crop infection not struck the potato crop twice in the past, and are even attributable to the “man-made” famines in the Soviet Union in 1932-3. Moreover, Ó Gráda suggests that the impact of crop failure is dramatically greater if it happens back-to-back in consecutive years and if it happens to a staple crop. The *Phytophthora*

infestans, according to this author, provides an illuminating example; had this crop infection not struck the potato crop twice in a row, the Great Irish Famine might have been significantly mitigated. On the whole, however, a failure in the supply of food is an elementary explanation for many famines, and economists and others made great strides in exploring other causal mechanisms.

Poverty and backwardness are naturally such explanations for famines – after all, the majority of famine occurrences in the past eighty years appear to have taken place in ‘developing’ countries. Indeed, Ó Gráda points out that United Nations output and welfare indices suggest a close correlation between famine and underdevelopment are associated with weak infrastructure and coping mechanisms against harvest failure – such as crop insurance, trade and storage – as well as the fact that breakdowns in communication and transportation are more likely. This poverty is also dually linked to poor hygiene and sanitation, meaning that the infectious diseases that are often associated with outbreaks of famine are exacerbated in the absence of the capable technologies to prevent and treat diseases. A natural implication of this kind of approach to famines is that it suggests they can be prevented in the future through economic development, which would strengthen the infrastructure and institutions required to successfully deal with issues in the food supply.

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Another important area of interest for economists has been the role of markets in exacerbating famines – in particular, failures of the market to mitigate or reduce their costs. Sen (1981) describes how famines in Bengal in 1942-44 have been exacerbated by the failures of markets to adequately reconcile the supply and demand of food. He found that farmers and grain merchants speculatively withdrew the supply of rice stocks on the assumption that prices would rise inexorably, leading to panic purchases, rising prices and a deterioration of the exchange entitlements of the poor. Ravallion (2007), meanwhile, considers the famine in Bangladesh in 1974-5, and finds similar conclusions; rice prices shot up as farmers underestimated a harvest that turned out to be unremarkable. Ravallion (2007) alongside others have also explored how the variation of food prices in different parts of the same country changes during a famine. Significant increases in standard deviation have been found, which the authors attribute to substantial regional impediments to trade, such as roadblocks and bans on private sellers. This weak spatial market integration, according to Patrick Webb and Joachim von

Braun (1994), exacerbated famines in Sudan and Ethiopia in the mid-1980s. Interestingly, by contrast, these same conclusions about the role of the market in producing or exacerbating famines are not reached when famines in nineteenth-century Ireland and Finland are considered. Studies in these cases found that variation in prices during a famine actually fell or, at most, rose a little, and there is little evidence to support the view that producers held back supplies early in the season in hopes that prices would rise later on. Ó Gráda suggests that this disparity might be due to political context; Bangladesh was emerging from a civil war in 1974-5, and its markets and associated infrastructure was, therefore, probably more fragile. Sen (1981) emphasises, however, that well-functioning, integrated markets do not always benefit the poor, and that dogmatic generalizations are therefore not warranted. Indeed, such markets might allow residents of areas that are less affected by famines to attract food away from famine-threatened regions. Nonetheless, Ó Gráda (2007) outlines two further ways that free markets can mitigate the impact of famines. The first is migration, which can reduce the pressure on scarce food and medical resources where the crisis is at its worst point. In Ireland in the 1840s, for instance, Ó Gráda suggests that emigration to America and other cities in Great Britain was a particularly significant source of famine relief. The second is an economic argument. Free trade causes improvements in aggregate output and a consequent regional specialisation, which Ó Gráda argues reduces the risks on any proportionate harvest shortfall.

The final area to examine is the role of government intervention in preventing and mitigating famines. This is an area that is naturally contentious; the principal-agent problem is especially pertinent when it comes to the best ways of mitigating famines, and assistance from central government is often susceptible to accusations of corruption and slow, inefficient bureaucracy. During episodes of famine in Qing China, for instance, it transpired that the provinces receiving the most relief were most likely the richest (Carol H. Shiue, 2004). These issues have been the subject of much analysis, for example by Dreze and Sen (1989). One proposed solution is that, since transfers of food at below market prices can risk corruption, there should be an emphasis on the provision of non-tradable and highly perishable food rations (Ravallion, 1997).

To conclude, economists have made great progress in our understanding of the causes and prevention of famines. However, that is not to say that our progress in understanding famines comes solely from economics. On the contrary, social and political considerations are crucial to a holistic understanding of the causal mechanisms behind famines.

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