Grain Markets in Europe, 1500–1900

Integration and Deregulation

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The baker of last resort and his critics

Provisioning food was a concern for most local and central governments in pre-industrial Europe. Public granaries sought to stabilise prices by strategic purchases when prices were low and by disbursements to urban and rural wage-earners when prices soared. Most governments were also involved in the regulation of foreign trade, imposing export bans and/or stimulating imports of grain when it was in short supply. These ad hoc bans were usually lifted when harvest outcomes and prices returned to normal. Price volatility caused by disruptions in the grain supply imposed large temporary changes in consumption on urban and rural wage-earners and therefore posed a threat to the political order. Those advocating grain supply regulation were aware of the fact that they were continuing a tradition that reached back to antiquity.[1]

Attempts at stabilising grain supply were given a new lease of life with urban growth in medieval Europe. Those attempts grew out of local concerns, but gradually became identified with the nation-state. The most ambitious centralised systems of food provisioning developed in France under Colbert and in Prussia under Frederick the Great. In England these policies were gradually disbanded from the end of the seventeenth century on, but on the Continent they continued in full force well into the eighteenth century. The remark – made by a historian (Steven Kaplan) of the *ancien régime* – that the king was 'the baker of last resort' was not far off the mark.

However, these traditional grain policies began to be challenged, both

[1] See N. Delamare, *Traité de la police*, Paris: P. Cot, 1710–29.Delamare was a contemporary with an impressive knowledge of the 'police' in general and bread and subsistence problems in particular. In his monumental work, book V is devoted to subsistence policies. For France he traces it back to Charlemagne who in 809 banned peasants selling 'en vert' that is, before harvest. Delamare sides with the customary intepretation, arguing that the king's concern was for the peasants who would otherwise be exploited, having no means to support themselves and therefore in a weak bargaining position before harvest. Vol 2, p. 682.

politically and theoretically, from the mid-eighteenth century. The idea that price and consumption stability was a desirable state of affairs was not at stake. It was now argued, however, that price stability was best accomplished by free trade in a world where supply shocks were local but cancelled out globally. Barriers to internal and international trade and the restrictions on entry into the trading professions fostered administrative abuse and obstructed the forces of competition. International and inter-regional trade were seen as the best means of attaining equilibrium between local excess supplies and deficits. A coherent system of liberal ideas, with a strong but not exclusive focus on grain markets, first developed in mid-eighteenth century France, within a few years it had spread to almost every corner of Europe. In nations such as England, where grain markets were already fairly liberalised, debate on the merits of free trade also unfolded, because the advocates of regulation tried to revive the old legislation when grain prices soared in the final decades of the eighteenth century. The advocacy of free internal and external trade, respect for private property, including that in stocks of grain, and the belief in the unrestrained forces of competition, were all ideas associated with the Physiocratic school of economics in France. Yet apart from a shared passionate concern for agriculture, upholders of these ideas had no conceptual or logical connection with other aspects of that body of thought. Nor did Physiocratic thinking much influence them. Indeed, important elements of the new liberal ideology were carried over to the Physiocrats by the 'proto-liberalism' developing in Europe in the eighteenth century. In Prussia – which in other respects was open to Enlightenment – the new ideas gained momentum a little later and by then Physiocratic liberalism had been replaced by the 'Smithian' variety. In England the defence of deregulated grain markets was only marginally influenced by Physiocratic thought, though it was anticipated by another Smith: the English pamphleteer Charles Smith.[2]

This chapter reviews some of the outstanding contributions of the French Enlightenment and its forerunners inside and outside France and then draws attention to similar intellectual currents in other parts of Europe. The political impact of this intellectual assault on the old régime will be discussed in the concluding chapter 6.

One swallow does not bring the summer. But half a century or more before the mid-century assault, Pierre de Boisguilbert, a local official

[2] Charles Smith was an early free-trader and it is clear from his later writing that he was familiar with Physiocratic ideas: see, for example, his *Three tracts on the Corn Trade*, published in 1766. Smith had already developed and published his main ideas in the late 1750s, and he was certainly not alone in voicing a belief in the merits of a free grain trade at that time. See, for example, Anon., *Sentiments of a corn-factor on the present situation of the corn trade*, London, 1758.

based in Normandy, mounted an isolated though intellectually quite innovative and influential criticism of the grain policies perfected by Jean-Baptiste Colbert, minister under *le Roi-Soleil*.[3] In France, the traditional concern for regional self-sufficiency had bred an intricate system of barriers to inter-regional trade. It was this state of affairs that became one of the main targets of Boisguilbert's critique. Systematic criticism, however, gained momentum by the middle of the eighteenth century and dominated the intellectual scene in Paris in the 1760s with its discussion societies, its pamphleteers and its reform-minded journals. However, Boisguilbert's *Le detail de la France, ou la France ruinée sous la règne de Louis XIV*, first printed in Cologne in 1696, introduced themes later to be picked up by the Physiocrats and other liberals. These included radical opposition to market regulation, the idea that grain prices in France were too low because of the isolation of the French market and that price volatility stemmed from a segmentation of the French market which ultimately imposed disincentive effects on producers' efforts.[4] Boisguilbert's booklet is remarkable for its stringent analysis and modernity. A little later, in the 1730s, and under Boisguilbert's influence, the Tuscan writer Salustio Bandini produced another liberal manifesto, *Discorso sopra la Maremma di Siena*, but the *Discorso* circulated only privately until it was published in 1775, fifteen years after its author's death.[5] However, Bandini's influence outlived him and his text later influenced the reform of the grain trade in Tuscany when local reformers popularised his ideas. Although Bandini belonged to the élite, as did most reform-minded activists in these years, his was a dissident voice defending a neglected part of Tuscany, *la Maremma*, the coastal region zone of Siena and around Grosseto, whose potential as a grain-exporting region was stifled, he argued, by rulers who wished to secure an exclusive and stable supply of cheap grain for Florence and Siena. That political intervention in grain markets led to artificially low prices and accompanying disincentive effects later became the standard liberal argument.

The deregulation debate gained momentum both in Tuscany and France in the 1760s, and the pathbreaking role played by Bandini in Tuscany was fulfilled by Claude-Jacques Herbert in France. Herbert

[3] It is possible that Boisguilbert represented an undercurrent of popular anti-mercantilism. Personal communication by Lars Herlitz. See also L.Rothkrug, *Opposition to Louis XIV: The Political and Social Origins of the French Enlightenment*, Princeton: Princeton University Press, 1965.

[4] The isolation of a market can, of course, make the local price higher as well as lower than the world market price. Isolation was generally believed to depress prices, however. A generous interpretation could be that illicit export is easier to control than import, since the public was keen on reporting any grain getting out of the region or country.

[5] A modern edition edited by Lucia Conenna Bonelli was published by Leo S.Olschki Editore (Florence, 1968).

wrote two influential booklets *Essai sur la police générale des grains, sur leur prix et sur les effets de l'agriculture* (Berlin, 1755) and *Observations sur la liberté du commerce des grains* (Amsterdam, 1759). He introduced a series of themes that would be refined – and sometimes vulgarised – in the following decade. The main theme was that only free grain trade can achieve price stability. Local price stability required exports in times of abundant harvests, moderating the decline in prices. In lean years imports would make price increases less violent than if a region had to rely exclusively on its own supplies. Free entry to the grain trade was vital because with many merchants excess profits in the grain trade would not prevail: they would be arbitraged away by competing merchants.[6] The administrative tradition of giving exclusive rights to some merchants – *les marchands accredités* – only caused monopoly profits, corruption and high prices.[7]

The coherent articulation of the advantages of free intra- and international trade in grain was developed by the Physiocrats. Widely known at the time as *les économistes*, a term which had a derogatory ring to it in some quarters, these influential critics of intervention were close to, or part of, the ruling élite.[8] I will refer to them as *les économistes* for two reasons. The first is that the aspects of their intellectual universe discussed here are *not* those themes uniquely associated with Physiocratic thought, such as the idea of the 'sterility' of the non-agrarian classes. The second is that I wish to stress the collective character of the critique, even while singling out the outstanding individual accomplishment of the Frenchman A.R.J. Turgot. Furthermore I will concentrate on the laissez-faire policies advocated by *les économistes*, and the highly original rationale for these policies. That rationale was not conceptually or theoretically tied to Physiocratic ideology. In fact, a liberal position concerning grain trade was held else-

[6] The risk for collusion became minimal with free entry into the grain trade, as *Ephémérides du citoyen* confidently asserts: 'La liberté multiplierá les Marchands.' EdC 1768: XI, p.24.

[7] JE, February 1760, pp. 60–4. The absence of free entry into the profession favours unsound business methods, see EdC, 1768: I, p.221. See also EdC 1769: I, p.91 and JE, April 1769, pp. 173–4.

[8] The group included François Quesnay (1694–1774), Anne Robert Jacques Turgot (1727–81), Abbé Baudeau (1730–92) editor of *Ephémérides du citoyen* until replaced by Pierre Samuel Dupont de Nemours (1713–1817), Guillaume-François le Trosne (1728–80), Mercier de la Rivière (c. 1720–94), among others. Although they were part of the Enlightenment, not all intellectuals associated with that current shared their views on the liberalisation of the grain trade. Voltaire ridiculed some of them for being narrow-minded and flattered the contemporary critic of liberalisation, Ferdinando Galiani, as combining the minds of Plato and Molière. Diderot, the encyclopedian, was instrumental in getting Galiani's work published. Some of them – for example, Quesnay – as a physician at the Royal court, was at the very centre of power, and Turgot worked as an 'intendent' in the regional administration responsible for, among other things, tax collection and the administration of food supply. L. Rothkrug defended the view that the Enlightenment radicalism can be traced back to seventeenth-century opposition to 'Colbertism', see his *Opposition to Louis XIV* (1965).

where in Europe and by people outside that school in France, such as Claude-Jacques Herbert. Nor was Turgot a dogmatic Physiocrat. Some even claim he paid only lip-service to physiocracy.[9] Be that as it may, Turgot and his associates made lasting contributions which were independent of their Physiocracy.

Most important, *les économistes* shifted the concern of economic policy from consumer protection to that of creating incentives for producers to increase production, which would – in the end – benefit consumers as well. The reason given for this optimistic conclusion was that the larger the normal harvest, the less devastating a future poor harvest – defined as a given proportional deviation from a normal harvest – would be.[10] Despite the radicalism of their project – a complete liberalisation of a hitherto tightly regulated grain trade – they influenced legislation inside and outside France from the 1760s onwards. Hitherto, France had been a country of segmented regional markets, but in 1763 and 1764 internal barriers to trade were abolished – although Paris was still granted privileged access to its hinterland – and foreign trade was partly liberalised. Alas for this experiment, it coincided with a period of bad harvests, which produced the expected popular unrest, and paved the way for a return to the old regulative policies in the early 1770s. There were frequent allegations from *les économistes* that local administrations had sabotaged the liberal legislation and thus contributed to the defeat of grain trade liberalisation.[11] The intellectual scene changed by the end of the 1760s, exhibiting an increasing hostility towards *les économistes*; but the liberal intelligentsia was not purged from the highest levels of administration. In

[9] Joseph Schumpeter, who suggested that Turgot had a more original mind than Adam Smith, conjectured that the Physiocratic orthodoxy in Turgot's work might have been inserted by Dupont de Nemours, with or without Turgot's consent. See Schumpeter, *History of Economic Analysis*, Oxford: Oxford University Press, 1954, pp. 243–4. It is true that Dupont added paragraphs to some of Turgot's controversial writings when editing them. Turgot had an unorthodox view on the origin and the rationale of proprietary rents on land. The customary right to the land was simply a historical fact turned a cultural convention and upheld by the force of the law, see para. XVII in *Réflexions sur la formation et la distribution des richesses*, written in 1766, TO: 2. Furthermore land-ownership was originally acquired through violent expropriation. Turgot traced the origin of the rental charges to a commutation of servitude, see paras. XXIV–XXVI in *Refléxions*. Slavery originated from the fact that a class which once in history possessed means of coercion enslaved those that otherwise would have preferred to till the abundant factor, land, on their own. The EdC version edited by Dupont added several arguments which considerably softened this verdict on the origin and rationale of land-ownership.

[10] There is one way of evading dearth: 'c'est l'abondance habituelle des récoltes'. EdC 1769: XI, p.72.

[11] See for example a complaint by a reader in JE, September 1766, pp. 387–9. Turgot, as an 'intendent' in Limoges was certainly aware of the problem of local negligence or sabotage and issued a 'Circulaire aux officiers de police des villes' which not only explained the content of the legislative texts of the 1763 and 1764 grain trade liberalisation but also tried to persuade his subordinates of the wisdom in the new laws, TO: II, pp. 471–5.

the mid-1770s Turgot moved from the provincial administration that he had served from the early 1760s, Limoges, to the centre. As *Controlleur Général* he reintroduced free trade, though again without much luck in the face of natural calamities. Turgot was soon ousted and the liberal legislation was not revived – and then, again, only for a short spell – until the French Revolution.[12]

The debate in these turbulent years provoked a response from adherents of the traditional management of food supply, and the dispute was in a sense a very modern one. On the one hand, there was the elegant and sometimes arrogant abstraction of *les économistes* and, on the other hand, the down-to-earth reasoning of their adversaries. While the former discussed how markets worked in principle and showed the force of deductive reasoning, the latter concentrated on the many imperfections and the problems of a 'big bang' transition to a market economy when much of the needed infrastructure was lacking.[13] Faced with these problems *les économistes* were not entirely at a loss, however. First of all, they blamed poor harvests rather than middlemen; secondly, they blamed the reluctance of many regional parliaments and local authorities to follow the new liberal instruction. Finally, they stressed the ambiguities of the 1763–64 legislation, specifically the legal uncertainties surrounding international trade.[14] This problem was admitted by Jacques Necker, a spokesman for the opposing camp (see n. 13), who replaced Turgot as *Controlleur Général*. As an administrator Turgot, the most brilliant thinker among *les économistes*, had shown great skill and compassion in handling the subsistence crisis in Limoges. He was in no way insensitive to the distress caused by a bad harvest, but nonetheless true to his liberal convictions when he bombarded the royal court with demands for support for his poverty-stricken region.[15] Rather than working against the market he

[12] See Steven Kaplan's *Bread, Politics and Political Economy in the Reign of Louis XV*, 2 vols., The Hague: Martinus Nijhoff, 1976, for a penetrating history of this period.

[13] This point is made explicitly by F. Galiani in *Dialogues sur le commerce des blés*, London, 1770, which was a widely read critique of *les économistes*.Turgot admitted it was simply the best defence that could be made for a bad cause. One of Galiani's points is echoed in recent French historiography by Jean Meuvret, see chapter 5 below. Both argue that market integration might destroy well functioning local market networks (Meuvret, *Le problème* . . ., Paris, 1977, pp. 259–64). A more restrained type of grain trade regulation is proposed by Jacques Necker in *Sur la legislation et le commerce des grains*, Paris, 1775. Some of those which were in favour of deregulation of the grain trade still advocated a gradual – allons pas à pas – transition, see GdC 1764: XVII, p. 141.

[14] See Dupont de Nemours, Observations sur les effets de la liberté du commerce des grains, EdC 1770: 6, pp. 36–136, specifically pp. 61–3 and 86–7. Le Trosne vigorously defended the rights of foreign ships to engage in the export–import trade, which aroused much opposition from his contemporaries. GdC 1765: XVI and XVIII.

[15] See 'Lettre au Controlleur Général 16 decembre 1769' and letter of 27 February 1770, TO: III, pp. 111–28 and 132–6, and letter of 25 October 1770, TO: III, pp. 141–53, in which Turgot advocates income maintenance through public works and subsidies to mer-

advocated what modern studies of poverty and famines call 'entitlement protection' – that is, income creation by means of public works or income support.[16]

Although *les économistes* only temporarily influenced legislation in their intellectual heyday, they had a lasting impact. As a consequence of their penetrating critique the adherents of regulation moderated their policy proposals and abandoned their belief in a strict and comprehensive regulation of markets. They ended up advocating a mixed-economy approach with a balance of state regulation and market principles. However this effort was based more on common sense and pragmatic thinking, and did not stimulate the intellectual rigour and theoretical innovations for which *les économistes* should rightly be remembered.

A theory of price stabilisation

The contribution of *les économistes* to the analysis of the process of price formation in grain markets had several original features which have not as yet been sufficiently appreciated. One of these accomplishments was the claim that price volatility created not only welfare losses for consumers, which was part of the traditional motive for the management of food supply, but also had disincentive effects on investment and effort in agriculture. The critics made price volatility a prime cause for the distressed state of agriculture. But their theory of price formation boldly suggested that the volatility was unnecessary. Price fluctuations could be tempered provided that an adequate institutional innovation was permitted.[17] Their best and favoured remedy against price fluctuations was market integration, and its prerequisite was free trade in grain.[18]

The arguments developed to underpin these strong and, for contemporaries, unconventional views formed a fairly consistent set of propositions. Deviations from normal price reflected uncontrollable supply or output shocks. The key issue was how markets might mitigate the effect of

chants to encourage them to open up new supply lines. See also Emma Rothschild's 'Commerce and the state: Turgot, Condorcet, and Smith', *Economic Journal*, 102, 1992, pp. 197–210, in which it is argued that these early economists were less hostile to state intervention than usually believed.

[16] See Jean Drèze and Amartya Sen, *Hunger and Public Action*, part 2, Oxford: Clarendon Press, 1989.

[17] L.-P. Abeille makes that point most explicitly by asserting that famines were actually products of institutional failures, including misconceived governmental regulation, rather than a lack of grain. See his *Faits qui ont influencé sur la cherté des grains en France & Angleterre*, 1768, also in JE, July and August 1768.

[18] *Les économistes* also adhered to a natural right argument against governmental infringements on private access to own property. That included the right to trade grain at any price.

such shocks on prices. The explanation offered focused on supply rather than demand shocks – rightly so, given the income and price inelasticity of demand. However, it was assumed that these supply shocks were local, in the sense that if one nation or region had a disastrous harvest there was always some other nation or region that had a bumper one. The idea was made quite explicit and amounted to the argument, using modern jargon, that natural shocks – *accidents* – to local harvests were independent, normally distributed and with a zero mean. For example, it was stressed that a similar natural shock, such as an increase in humidity, might cause very different responses – some favourable, some deficient – in different parts of Europe, because of differing soil conditions. So even in the unlikely event that the whole of Europe was experiencing a similar change in weather conditions, the impact on the aggregate harvest need not be great because local effects would cancel out. The general belief was that harvest disturbances were caused by a multitude of factors – *par milles raisons de tout genre* – which differed locally. As a consequence, in a large area such as Europe the aggregate harvest did not change much from one year to the next.[19] This being the case, the local dearth was an institutional failure caused by inadequate trade. The point made was not only an abstract idea that *les économistes* pursued. There were frequent references to different outcomes at any one time in Tuscany, in France or in parts of it and in the Baltic area to the effect that '*les accidents se compensent entre les Royaumes*'. The merits of free grain trade were often evoked by the example of Holland, which had a reputation for stable prices.[20] This line of thought was also present in the economic debates in other countries, of course, although it was developed with more rigour in France.[21] It should come as no surprise that Adam Smith later dwelt upon the peculiarities of local harvest shocks cancelling out in a large nation, in the digression on the corn trade in *The Wealth of Nations*. More interestingly, however, the argument also crops up almost a century earlier in the English economist, C. Davenant. Davenant observed that 'we enjoy the benefits of such different soils, viz. High Lands and Low Lands, where one hits when the other fails'[22] and a stable price would reign if these markets were permit-

[19] See, for example, Abbé Baudeau, 'De l'entière et parfaite liberté du commerce des bleds', EdC 1768: I, pp. 81–224, but specifically pp. 96–105.

[20] See for example JE, June 1768, pp. 260–2. But this is not an isolated case. In fact the peculiarity of the conditions in Holland had been stressed half a century earlier by C. Davenant, suggesting that the stable prices had to do with the stocks held by Amsterdam merchants.

[21] Nothing is new under the sun. A similar observation was made – for the Mediterranean world – by Aristotle as quoted by P.Garnsey, *Famine and Food Supply in the Graeco-Roman World: Response to Risk and Crisis*, Cambridge: Cambridge University Press, 1988, p. 8.

[22] See Davenant, *An essay upon the probable methods of making people gainers in the balance of trade*, London, 1699, p. 82.

ted to trade since price differences would make traders move grain from surplus to deficit regions or nations. In other words, the law of one price applied – i.e. the price difference between two markets would not exceed the transport costs between them, since larger price differentials would invite profit-seeking merchants to trade.[23] The arbitrage establishing the law of one price also secured price stability.

A spatial cancelling out of harvest disturbances was not the only result. This process also applied over time within a single locality, although, as Turgot remarked, 'les vicissitudes ne se compensent que dans une assez longue suite d'années'.[24] *Les économistes* generally believed that spatial redistribution was preferable to intertemporal redistribution because the former was less risky, although they were concerned with creating favourable conditions for both.[25] They advanced the argument that intertemporal redistribution – i.e. inventory adjustments, positive or negative – should be left to merchants, since if they were handled by the state or the local authorities their very size might easily foster panic-inducing rumours. Rumours, it was repeatedly stressed, fostered speculative bubbles, causing prices to over-react.[26] However, seasonal price differences would have been even greater if it had not been for merchants buying when prices were low and selling when prices were high. For that reason intertemporal arbitrage was defended as a socially beneficial activity.[27] This argument had to be advanced with considerable care because grain merchants were a favourite target in popular agitation in lean years.

The English debate in the last decades of the eighteenth century

[23] EdC, 1768: 8, p. 146 contains an admirably clear statement:

> Il est egalement manifeste que quand la difference du prix surpasse la depense des frais de transport, il y a du profit à porter du lieu ou'est l'abondance dans celui ou est la disette.

See also Herbert, C.-J., *Observations sur la liberté du commerce des grains*, Amsterdam, 1759, pp. 8–9, 50. [24] TO: II, p. 125.

[25] There were frequent references to the fact that the surplus grain in the North (of Europe) was distilled – which was a sort of intertemporal redistribution of calories in grain – rather than exported to southern Europe. *Les économistes* believed that a more rational international division of labour would have been attained if eau-de-vie made of grapes from grain-deficient regions in France was exchanged with Northern grain. See, for example, EdC 1767: II, p. 45.

[26] On this issue, as in many other cases, Herbert had outlined the argument already in the 1750s. See *Essai sur la police générale des grains, sur leurs-prix et sur les effets de l'agriculture*, Berlin, 1755, pp. 23–5, 51.

[27] That argument has had a renaissance in the modern analysis of famines. Since intertemporal redistribution of food halts the fall of prices at harvest time it also reduces the risk of excessive consumption – at too low prices – in the early autumn and scarcity – at too high prices – before next harvest. There are welfare gains in a stable level of consumption compared to oscillations between high and low intake of food. See M.Ravallion, *Markets and Famines*, Oxford: Clarendon Press, 1987 and chapter 2 below for an elaboration of this point.

reflects the inertia of tradition. What was at stake here was not the deregulation of grain markets but rather the defence of a reasonably liberal status quo from attempts to revive the old legislation against 'regrating, engrossing and forestalling'. There was, however, in England as on the Continent a widespread sentiment that 'the present dearness must be owing to the wicked combination of the forestallers'.[28] Others pointed out that the number of sellers was so great that *combination* could not persist for long periods.[29] But there were also the numerous pamphlets by liberals such as Charles Smith and Arthur Young. The former opposed public intervention in much the same way as his French contemporaries did. He believed in the price-stabilising effect of intertemporal 'transport' of grain and therefore defended the private hoarding of large farmers because it served 'at their own private Expence the same purpose as public Magazines, and without ill Consequences which might attain such Magazines'.[30] A similar argument had been anticipated by Davenant, who was in favour of publicly subsidised private granaries to stabilise prices. The private gains were motivated by the services rendered by private granaries, in his view.[31] On both sides of *la Manche* a much more positive assessment of the merits of markets and competition had developed during the eighteenth century, especially its latter half. The simultaneous existence of deficit and surplus regions provided the rationale for trade and the multitude of merchants involved in gainful arbitrage effectively arrested the abuse of market power. Market regulation was not necessary for price stability to obtain, in fact it could be counter-productive. This in a nutshell was the new ideology, and it was repeated, rephrased, and reinterpreted to suit local audiences all over Europe by the likes of a Verri in Milan or a Kryger in Stockholm.[32]

[28] Quoted from Anon., *Considerations on the present dearness of corn*, London, 1757, pp. 4–5. See also S.Browne, *The laws against ingrossing, forestalling, regrating and monopolizing*, London, 1765 and Anon., *A compendium of the corn trade*, London, 1757. There are also arguments for establishing, in the continental tradition, public 'magazines' to stabilise prices. See, for example, Anon., *A letter from Richard in the Country to Dick in the City on the Subject of Publick Granaries*, Dublin, 1766.

[29] A. Dickson, *An essay on the causes of the present high prices of provisions*, London, 1773, pp. 17–18.

[30] See Smith, *A short essay on the corn trade and the corn laws*, London, 1758, p. 12.

[31] See Davenant, *An essay upon the probable methods . . .* , London, 1699, pp. 85–7.

[32] Both authors were familiar with the French debate and were explicitly referring to it without adding much originality. Intellectual currents travelled as fast as the books and journals and the cosmopolitan élite toured Europe. From the number of references given in their works Pietro Verri seems to be the most well read of the two but interestingly most of the references in his *Riflessioni sulle Leggi vincolanti principalmente nel commercio de'-grani*, written in 1769 but not published until 1797, were available in Stockholm at that date as revealed by lists of books auctioned publicly. Cf. *Förteckning på en samling af wäl conditionerade fransyska, ängelska och andra böcker*, Stockholm, 1765; *Förteckning på en samling af wackra och wälconditionerade böcker, mest om handel*, Stockholm, 1765; and

Market integration, profits and incentives

After centuries of mercantilist protection and subsidies to the manufacturing sectors *les économistes* suggested a new agenda for economic policy in which a prosperous agriculture evolved as the main goal. They were preoccupied with what they believed to be an under-utilisation of land and labour in French agriculture – amidst poverty. The output restraint stemmed, they argued, from the isolation of the national market from the rest of Europe, which kept grain prices and farming profits at an artificially low level, but also from the detrimental effects of price volatility. Price volatility created uncertainty, it blurred the link between effort and profitability and it activated governments and angry crowds often to the disadvantage of farmers and the landed interests.[33] Sallustio Bandini, in *la Maremma di Siena*, had articulated a similar diagnosis several decades earlier and in the English debate Arthur Young, among others, argued that low prices discouraged the farmer from sowing, while high prices activated governments into making life hard for the farmer: 'Thus a great crop or a bad one operates equally against him.'[34] In a speech to the Royal Swedish Academy of Science, which in these years was a tribune for enlightened thought, Carl Carleson, like many of his contemporaries across Europe, also stressed the disincentive effects of good harvests. But his diagnosis of the effects of a poor harvest did not mention the dangers of political pricing. The main problem in his view was that in a year of a poor harvest peasants, lacking in grain, had to buy seedcorn at inflated prices. The implication was that peasants could not exploit the potential merits of the high prices because they did not possess a marketable surplus, in fact they did not even have enough for their own consumption.[35] In the pamphlets and journals of *les économistes* there were also repeated references to this peculiarity of grain markets – i.e. that agrarian producers and labourers lost out in times of both dearth and plenty.[36]

Förteckning på en samling af medicinska, oeconomiska och diverse andra böcker, Stockholm, 1765, Royal Library collection. There is more about Kryger and Verri in chapter 6.

[33] It was a widely held view that the general level of grain prices were below international prices, often assumed to be reflected in Amsterdam prices. You can trace the idea back to Boisguilbert and find it later with Herbert, Quesnay and Turgot. See also GdC 1764: VI, p. 45; Dupont de Nemours in EdC 1770: VI, pp. 51–8. Sallustio Bandini also had an intellectual debt to Boisguilbert and transferred the validity of the argument to *La Maremma di Siena.* See his *Discorso Sopra la Maremma di Siena* (L.C. Bonelli edn), Florence: Leo S. Olschki Editore, 1968.

[34] See his *Political arithmetic*, London, 1775, p 195.

[35] *Tal om spannemålsbristens afhjelpande*, Stockholm, 1759.

[36] Supplement to EdC 1768: XI, pp. 72–89. See also the critical review of F. Galiani, *Dialogues sur la commerce des blés*, in EdC 1769: XII, pp. 193–247, and Abbé Baudeau, 'De l'entière et parfaite liberté du commerce des bleds', published in EdC 1768: I, pp. 81–224, see pp. 91–2.

The contemporary discussion about the peculiarities of grain markets reveals two distinct explanations. In the first, the *politics* of grain market intervention were singled out as the main cause, while in the second, the emphasis was on the *economics* of price formation. Let us start with the former. In the absence of regular export markets an abundant harvest drove prices down to the extent that total revenue for the typical cultivator actually decreased. As a consequence labourers were laid off when cultivators did not even bother to harvest, process or market all their grain. But there was an asymmetry because, it was argued, when poor harvests drove prices up cultivators were denied the profits from the sales by arbitrary requisitions and price controls imposed by the authorities and *taxations populaires* by angry crowds. Urban crowds often dictated the ruling price with or without the consent of the city councils. These actions did not last long because supply dried up as a response. Nonetheless rural employment suffered because there was less need for day-labourers in lean years. The thrust of the argument was that the combined effect of export prohibitions and price controls lowered the price level to the extent that production suffered, which made temporary harvest failures even more damaging. In the French – and, for that matter, Swedish – debate the English bounty on grain export, introduced late in the seventeenth century, was often looked upon with admiration and as worth imitating for exactly the same reason as Arthur Young and others defended it: it made England less vulnerable to famines because it stimulated the general or normal level of production. The bounty was, however, not uncontroversial. It was in fact opposed on perfectly liberal grounds: there was no reason to reverse the direction of mercantilist subsidies and give export subsidies to agrarian producers; these subsidies would only penalise the manufacturing sector through higher subsistence costs or real wages.[37]

The argument referred to so far is based on the observation that the demand for grain is price-inelastic. Furthermore in a segmented market an increase in local output would generate a proportionate decline in prices *larger* than the output shock. A representative farmer who experienced an increase in output would consequently see his total revenue decline, total revenue being equal to price times quantity. But if demand was inelastic a local decline in output should have the reverse effect – that is, it should *increase* total revenue, had it not been for the political interventions in price formation. However, it is highly doubtful whether the incidence of the *taxations populaires* – i.e. politically dictated prices – were frequent and long-lived enough to explain Arthur Young's observation

[37] See Anon., *Considerations on the exportation of corn*, London, 1770, pp. 40–3.

that 'a great crop or a bad one operates equally against . . . [the farmer]'.

Turgot offered a more ingenious explanation for Young's paradox that good and bad harvests were equally harmful. It is economic rather than political because, implicitly, it makes use of the plausible idea that point elasticities *change* along a downward-sloping demand curve for grain. He thereby transcended the ad hoc explanations used by his contemporaries. The argument identified price volatility as a barrier to a prosperous agriculture because it reduced average long-term profits – and, as a consequence, investment – which was assumed to be proportional to profits. Turgot presented this persuasive and innovative interpretation of the perennial problem why cultivators were helped neither by good nor by bad harvests in a letter to Abbé Terray, then *Controlleur Général*.[38] The letter was one in a series written when the first period of liberal grain trade was about to be halted after only a few years of existence. Turgot and many local parliaments lobbied for a continuation of the liberal experiment but in the end they failed to keep the liberal spirit alive. Not surprisingly, Turgot identified the root of the problem as the continued segmentation of markets and the half-hearted implementation of liberal legislation.

Turgot's interesting results appear in two tables which try to estimate the effects of harvest fluctuations on total earnings or revenue of identical output shocks in two different market regimes. On the one hand, there was England, illustrating the favourable consequences of relatively stable prices typical of an open economy integrated into the European market. On the other, there was France, considered a segmented and isolated market with larger price fluctuations. No doubt Turgot was indebted to Quesnay on this particular point, but a closer look at Turgot's examples shows that the implications of the latter's were radically different and anticipated modern economic analysis. These insights have, however, so far been neglected in the rich secondary literature on Turgot's economics.

[38] Turgot developed his view in a series of letters from his provincial office to Abbé Terray, then Minister of Finance, during the autumn of 1770. The fourth of these letters is of particular interest: 'Quatrième lettre', in G. Schelle (ed.), *Oeuvres de Turgot*, vol. 3, Paris: Felix Alcan, 1919, pp. 277–85. The original of this letter has not been found but there was a summary in Dupont de Nemours' first edition of Turgot's work published in the early nineteenth century, and that summary was reproduced in the Schelle edition. To my knowledge no doubts as to the authenticity of Turgot's tables have been voiced. Dupont was primarily a vulgariser of Physiocratic thought, a devoted disciple but not an original thinker. When he independently reflected on these matters in *De l'exportation et de l'importation des grains*, Paris 1764 he merely reproduced Quesnay's tables, which are quite different in content and implication from Turgot's. However, he later adopted Turgot's views, see EdC, 6, 1770, pp. 114–15. This is part of the correspondence already referred to, see n. 15 above, from the autumn and early winter of 1770. Not all of these letters remain in their original state but have been reconstructed, probably by Dupont de Nemours, first editor of Turgot's collected work and a close friend. The fourth and the fifth letters, TO: III, have particular interest to us here.

Both Quesnay and Turgot elaborated examples involving a representative cultivator who had chosen a target production per *arpent (arpent* being a unit of land). Exactly how that target production was determined was left unexplained: we are told only about the total costs at that particular level of production. Turgot – as is pointed out on p. 21 – was one of the first to formulate what we now call the law of diminishing returns. The fact that production is expressed in output per unit of the fixed factor of production – land – is noteworthy. It provides a basis for the conjecture that the particular level of production chosen in his example was a level where marginal cost equalled price. Be that as it may, Turgot nonetheless offers some new and interesting insights into a mechanism that might have had detrimental effects on profits, investments and production.

The actual output varied from year to year around the target output because of local uncontrollable climatic events and other natural '*accidents*'. These events, being local, affected all producers' output more or less equally. If markets were segmented the price would be influenced by these output shocks because they were large relative to the size of the (local) market demand. A small aggregate local output would increase price, and vice versa. While consumers' demand curve for food will always be downward-sloping – buying more the cheaper it is – it is only in a segmented market that producers can affect the price they get by regulating the output sold. In an integrated market the price is exogenously given, but in a segmented market it is endogenously given by the slope of the demand curve and the output that farmers have available, or want to sell. Turgot's important, although implicit, insight was that point elasticities change along a downward-sloping demand curve from being very inelastic at abundant harvests to becoming less so when grain is in short supply. The reason for this was not discussed explicitly by Turgot, and he did not, of course, refer to a demand curve or elasticities as such. His observation is consistent with basic economic principles, however. We are accustomed to associate necessities with low price elasticity: we have to have them irrespective of their price. The inelasticity stems from the lack of suitable substitutes; it implies that a change in price will not affect demand much. Since demand was very inelastic when grain was in abundant supply, prices fell more than the increase in output and total revenue declined. When wheat became scarce prices soared and there was an intensified search for substitutes such as rye or chestnuts. That would necessarily generate a change in the price elasticities of demand: demand can be expected to become less inelastic when prices are high. The important implication was that the increase in total revenue from a harvest failure would not fully compensate the farmer for the losses incurred in a year with a good harvest. The producers' total revenue curve across a

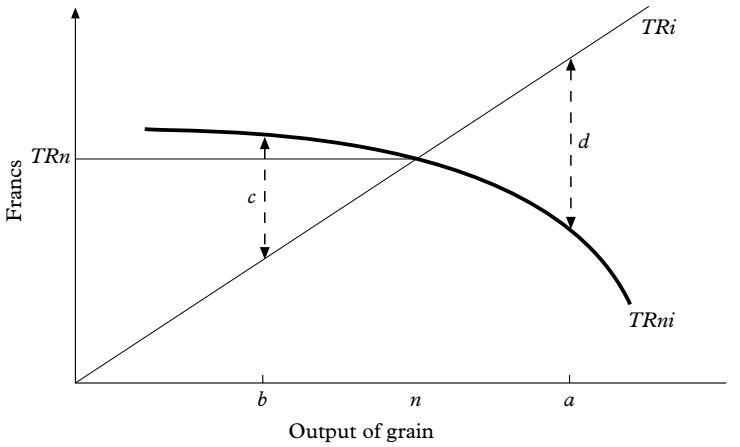

Figure 1.1 Total revenue of a representative farmer in an integrated and a non-integrated market with unexpected changes in output of grain

sequence from bad to good harvests would be concave, like an inverted U in a non-integrated market (the *TRni* schedule in figure 1.1), and total revenue would be smaller than if prices remained stable over a sequence of bad and good harvests. It should be pointed out that Turgot's example implied that the demand actually became elastic when grain was scarce and expensive. However, his argument does not require this strong assumption; it suffices that demand becomes *less* inelastic when the price soars.

Turgot then continued his exposition by exemplifying the advantages of market integration, a state of affairs characterised by stable prices. In other words, the local community was small relative to the market so that a local supply shock would not affect prices at all, or very little. Consequently the total revenue curve would be an upward-sloping straight line, the *TRi* schedule in figure 1.1. A deviation in output would produce a proportional change in total revenue. The implications of different degrees of market integration for the shape of the total revenue schedules are demonstrated in figure 1.1.

But why should long-run profits be greater if the local economy was integrated into a larger one, so that prices remained stable? Turgot assumed that production costs were tied to planned output and not to realised output, the latter being influenced by unforseen natural *accidents.* (The plausibility of that assumption will be discussed on p. 20 below). He then showed that total revenue increased through integration. If price remained stable while output varied stochastically from year to year,

producers' income would vary directly with output along a straight upward-sloping total revenue curve, implying an increase in income when harvests were good, and vice versa. This is the *TRi* schedule in figure 1.1, which reflects the fact that in an integrated market the price is exogenously given and not influenced at all by local supply shocks. The total revenue schedule in a non-integrated market is concave because point elasticities change along a downward-sloping demand curve for grain, being less inelastic at high prices than at low prices.

If we consider a producer who is subject to output shocks such as *b* from a bad harvest, and *a* from an abundant one, and faces an average or normal harvest, *n*, then the long-run average total revenue will be at *TRn*.[39] The long-run average total revenue for a cultivator in a non- integrated market will necessarily be below that level. An easy way to see this is to investigate what a cultivator gains from being in a non-integrated market – i.e. along the *TRni* schedule, in a bad harvest rather than in a perfectly integrated environment. That gain is the vertical distance, the dotted line *c*, in figure 1.1. The income forgone will always be greater from an abundant harvest however, equal to the vertical distance, the dotted line *d*.[40]

A series of numerical examples in table 1.1 illustrate the point just made. What we have here are the effects on total revenue, measured as proportional changes from the revenue accruing from a normal harvest, of identical changes in output of (say) wheat, but with different assumptions regarding the price elasticity of demand. In column *A* we have the case of a perfectly integrated market for which changes in total revenue are proportional to changes in output, this being so because local output shocks do not affect prices at all. That means that the above-average revenue from a good harvest is exactly offset by the below-average revenue from a bad harvest. Next, in column *B*, a case is reproduced which is the case Turgot had in mind, where demand actually becomes elastic at high grain prices. The total revenue is lower than the revenue

[39] If price is constant, changes in total revenue, *TR*, will be determined by changes in output only. Since $TR = PQ$, with P being the price per unit and Q units of output, the proportional change in total revenue is $TR^{\star} = P^{\star} + Q^{\star}$, with * denoting a proportional change in a variable. If price remains constant $TR^{\star} = Q^{\star}$. Perfect market integration has the property of making the total revenue change strictly proportional to the output deviation. Over an extended period of output deviations the summation of yearly total revenues would yield the same sum as if output did not deviate from mean output.

[40] I have for expositional reasons simplified Turgot's argument by assuming that market integration implies constant prices, despite the local output shock, while Turgot just assumed much less volatility in prices. However, the same qualitative implications hold if the implied total revenue schedule converges – as market integration proceeds – symmetrically towards the total revenue schedule in the perfectly integrated market – that is the straight upward-sloping schedule in figure 1.1.

Table 1.1 *Effects on total revenue of output shocks under different market conditions*

	A Integrated market	*B* The Turgot case	*C* 'The plausible case'
Percentage change in total revenue at a 10 per cent decline in wheat output	−10	−5[a]	2.5[b]
Percentage change in total revenue at a 10 per cent increase in wheat output	10	−10[c]	−10[c]

Notes:
[a] Assuming an elasticity of −2.
[b] Assuming an elasticity of −0.8.
[c] Assuming an elasticity of −0.5.

from a normal harvest, irrespective of whether the harvest is above or below average. The more plausible characterisation of a segmented market is that of decreasing but still inelastic demand when grain becomes scarce, and that case is demonstrated in column *C*. Column *A* displays the fact that perfect integration would make long-run total revenue constant – including profits if total costs were fixed – over a sequence of bad and good harvests. The segmented market with price volatility is less successful in this respect. The difference between the original Turgot case (column *B*), and *C* is that the story told in column *C* admits an increase in total revenue when a harvest fails, but an increase too small to offset the losses in total revenue during an abundant harvest.

While total revenue and profits – assuming fixed production costs – would be higher in an integrated market, nominal income *volatility* would actually increase. Would that condition not undermine the general thrust of the argument stressing the advantages of market integration? It would not – as will be shown below – because the majority of peasants will be able to increase their consumption of food in years of bumper harvests, *without* being worse in years of failure than they would have been in a segmented market. For the majority of peasants, for whom a normal harvest was just about sufficient to pay rents and taxes and to afford a small expenditure on manufactured goods after deductions for own consumption and seedcorn, the decisive advantages of integrated markets were that they could benefit from a good harvest. Contemporaries both in and outside France described the typical consequences of a poor harvest as a decline in urban employment and the accumulation of peasants' arrears in rents and taxes. The obvious interpretation is that in periods of harvest

failure peasants had to consume most or all of their shrinking output, having nothing to bring to the market. They would not, in other words, be able to benefit at all from the rise in prices.[41] To the extent that they were forced to buy seedcorn during spring, they were actually victimised by the high prices, as repeatedly pointed out in the contemporary debates. The crucial difference is thus the favourable consequences of a good harvest on consumption possibilities in an integrated as compared to a non-integrated market. Peasants then had a marketable surplus, but with stable rather than declining prices of grain that surplus commanded more manufactured goods, and less output had to be exchanged for rents and taxes. Households would therefore increase both their consumption of food and manufactured goods and be better prepared to get rid of the burden of arrears. The effects of an abundant harvest on the consumption of food when markets are poorly integrated and prices fall are indeterminate.[42]

Uncertainty and effort

The economic debates of the eighteenth century diagnosed the failings in the economy and society and suggested radical remedies which appear familiar to a modern mind. The potential disincentive effects of uncertainty about political interference in market processes and the violation of property rights was, as discussed already, a central theme among the reformers. That theme has had a revival in modern interpretations of the uniqueness of the growth experience of the western world. There is also an extensive discussion about the way in which price volatility disguises the link between effort and reward. This argument associates a reluctance to invest and to increase production with the frequent experience among producers of a coincidence between good harvests and low prices.

One of the reasons why market integration was considered preferable was that it generated a clear relationship between output and total

[41] There is the possibility of substitution of the expensive variety of grain for a cheaper nutrient, but in practice that possibility was quite restricted, as will be shown in chapter 2, since prices of all nutrients moved rather closely together.

[42] Technically speaking, an increase in output, prices remaining stable, increases income and therefore consumption of all (normal) goods through what in consumption theory is called the '(positive) income effect'. If, on the other hand, markets are poorly integrated and grain prices decrease proportionally more than the increase in output then income declines and there will be a negative income effect on the consumption of all normal goods. There will also be a negative effect on the consumption of manufactured goods via the so-called 'substitution effect', because manufactured goods have become relatively more expensive in terms of grain. The same substitution effect will consequently boost grain consumption. It cannot be determined *a priori* whether or not the positive substitution effect will dominate the negative income effect for grain, however.

revenue. A decrease in output implied a proportional decrease in revenue, while an increase in output caused a proportional increase in revenue. There was an urgent need, it was argued, to establish a direct link between effort and reward. The contemporary literature contained colourful descriptions of the idleness generated by abundant harvests and desperation when harvest failed. Did these complexities foster a sort of effort illusion to the effect that little effort was believed to be preferable to greater?[43] It would be too facile to dismiss this argument as a fallacy of composition. The fact that an increase in output, when experienced by all producers and due to a natural *accident*, will cause prices to fall does not imply that a good harvest experienced by a single cultivator produces the same result. All other things being equal, it would always be advantageous for a single producer to have a larger product. It is my impression that most of *les économistes* understood that. What they wished to highlight, admittedly in a vague way, was the demoralising effect of an excessively risky and uncertain environment. However, there is a series of hints of a more precise economic interpretation of the effects of risk and uncertainty. A plausible clarification is that the frequently depressed price and profit levels made cultivators react in an overly short-sighted manner.[44] The structure of the argument is clear. Low profits and uncertainty about future prices and earnings discouraged producers from fixed investments in improvements of land, implements and buildings and thus caused the allegedly depressed output. The most obvious link between harvest outcomes and disincentive effects on investment was of course that the relative price of investment goods increased on those rare occasions when peasants had a marketable surplus – that is, when good harvests depressed prices of grain. If on top of that nominal incomes decreased, there is an additional cause for restrained investments. This interpretation gains additional strength from the fact that it is reasonable to expect the short-run marginal cost curve to be steeper than the long-run marginal cost curve. The implication would be that output would be lower if short-term adjustments predominated. In the short run, adaptations will mainly consist of increased input of labour to land and implements already in use, and the law of diminishing returns will immediately be

[43] Dupont de Nemours also refers to this idea, but without the detailed and consistent argument found in Turgot, cf. EdC 1770: VI, p. 114–15.

[44] See, for example, EdC 1769: I, pp. 73–9. In these years, when there was a mounting opposition to free grain trade, some regional parliaments wrote petitions in support of the existing legislation presenting the supply-side advantages. See, for example, 'Lettre du Parlement de Provence au Roi sur le commerce des bleds' in EdC 1769: II. It was also repeatedly asserted that the new legislation stimulated long-term adaptations such as clearing of new land. See EdC 1770: IV, pp. 72–6; EdC 1770: VIII, pp. 41–52. EdC 1770: XII, pp. 39–41.

effective. The very characteristics of *ancien régime* agriculture, so often and vividly described by *les économistes* inside and outside France as a state of under-utilisation of land, low investments, misuse of land and neglect of maintenance, lend support to the idea that short-run adaptations prevailed. And for good reason: facing great uncertainty as to future prices, risk-averse producers would not dare to invest in land improvements and new equipment. Output variability remained, of course, but integration might in fact stimulate diversification. If different products were not greatly correlated in output shocks diversification was a means of stabilising income, as will be discussed in chapter 2. Here, then, we have additional arguments for price stability, which furthermore explains why market performance was made the pivotal case of economic reform at the end of the *ancien régime*. In chapter 2 we will scrutinise the robustness of the analysis provided by the Enlightenment economists, although our main interest will be in the welfare implications of price instability and improved market performance. Before that, however, a digression on some of the finer points in Turgot's economics is in order.

A short digression on Turgot

In order to derive the result that long-run profits would increase in an integrated market with stable prices Turgot argued that total costs were fixed – i.e. they did not vary, for example, in anticipation of a bad harvest. The rent and interest component can reasonably be seen as fixed in nominal terms irrespective of the real value, at least within the year. Here Turgot was on solid ground. Wage costs vary somewhat, but the weight attached to this argument has to do with the importance of hired labour for cultivators, which might not have been very great for most of them. Part of the wage bill is rightly seen as a fixed cost, at least until the quality and quantity of the coming harvest is known. But after that date, it is plausible that nominal wages were affected. However, taking that into consideration the outcome need not be damaging for the argument. Turgot, like many of *les économistes*, subscribed to the theory of a backward-bending supply curve as an adequate description of labour-supply responses to real wage changes. So as corn prices drop labour supply also drops because real wages increase. This decline in the supply of labour halts the fall in nominal wages; when prices rise and real wages decline the expected catching-up of nominal wages is arrested by the increase in labour supply.[45]

The intuition behind the claim that higher prices for agricultural goods would boost production is self-evident, but Turgot's comments were far

[45] Letter to the *Controlleur Général*, 2 December, TO: III, p. 336.

from trivial. His was a world of idle labour and under-utilised land. He furthermore pointed out that increased expenses on a piece of land would ultimately yield smaller and smaller increases in output. In other words, the law of diminishing returns, as it is now called, would apply. But as he was keen on pointing out, as long as there was a net marginal gain (*produit net*) it was worth increasing outlays on land.[46] From that perspective it is easy to see that an increase in the price of grain would increase effort, expenses and production. That the desired effect actually occurred as a response to the grain trade liberalisation was also repeatedly and triumphantly reported in the reform-minded press following the reforms in France and Tuscany in the 1760s.[47]

The increase in the price level of necessities admittedly affected real wages negatively but, since under-employment was endemic, this effect was compensated – partly, at least – by increasing employment prospects in rural areas. The rural under-employed were correctly identified as most vulnerable to price increases: if employment improved they would be much better off.[48]

So much for short-term effects. But what about the long-run effects on production, employment and investments of higher prices for agrarian goods? The question whether higher prices would permanently increase profits for cultivators or not was explicitly addressed. It was admitted that cultivators faced the risk of both higher agricultural wages and rents. Wages, it was generally believed, adapted in the long run to the prices of necessities. That implied that costs increased, though admittedly with a delay. Unless the increase in grain prices did not permanently affect the terms of trade in favour of agriculture relative to urban trades there need not be much long-term effect on agrarian output since the French price level increased relative to other European nations. If, however, prices on manufactured goods lagged behind then real wages in agriculture could be restored by a nominally smaller proportionate increase in wages than in prices, since part – although a small part – of rural consumption consisted of manufactured goods.[49] This was a desirable outcome from the point of view of *les économistes*. They did not hide their dislike of the favours and subsidies given to urban trades which inflated urban income and distracted resources from agriculture.[50] But it was also argued that

[46] TO: II, pp. 644–6.

[47] See for example JdA, October 1768, pp. 10–12; JE, June 1768, pp. 260–2.; EdC 1770: V, pp. 22– 3 and 1770: VI, p. 50.

[48] EdC, 1768: XI, p.11. Cf. also GdC 1764: XXVI.

[49] That there actually was a change in the rural–urban terms of trade in favour of agriculture is sometimes argued. See EdC 1771: VIII, pp. 39–42.

[50] Sometimes, but not always, authors were frank about this. Paris – cette grande et opulente ville – had to accept somewhat higher prices, it was argued. That was, after all a slight disadvantage compared to the gains for the rest of the country. GdC 1764: IV, p. 29.

increased agrarian demand for manufactured goods when agriculture prospered would stimulate urban employment.

This supply-side vision of economic regeneration also included a detailed discussion on whether cultivators could actually resist attempts from owners of land to increase rents when earnings for cultivators were augmented. Turgot here developed an ingenious argument for the assertion that cultivators could permanently boost earnings but it presupposed that they increased their investments.[51] First, Turgot noted, there was an asymmetry of information. The cultivator was better informed than the owner about actual or potential earnings, and would benefit from that informational advantage when renegotiating the rent. Other cultivators were, of course, equally well informed, Turgot conceded, and they would therefore be able to bid down excess earnings to the particular peasant now cultivating the land. But there was a lower limit to this bidding process. Turgot argued that even a temporary increase in profits – before wages caught up – increased investments so that capital per cultivator, and hence output and income, increased. Turgot's second point was that an equally endowed cultivator would not under-bid the original tenant because there was an opportunity cost in capital endowment. Turgot estimated the opportunity cost to the prevailing rent at 10 per cent. Of course an even better endowed (i.e. more productive) cultivator might offer the owner of land a higher rent but that would only be in the interest of economic progress, as the ousted tenant replaced someone else further down the productivity ladder.

[51] See the sixth of these letters, TO: III, pp. 301–10.