

The General Crisis of the European Economy in the 17th Century

IN THIS ARTICLE I WISH TO SUGGEST THAT THE EUROPEAN ECONOMY passed through a "general crisis" during the 17th century, the last phase of the general transition from a feudal to a capitalist economy. Since 1300 or so, when something clearly began to go seriously wrong with European feudal society¹ there have been several occasions when parts of Europe trembled on the brink of capitalism. There is a taste of "bourgeois" and "industrial" revolution about 14th-century Tuscany and Flanders or early 16th-century Germany. Yet it is only from the middle of the 17th century that this taste becomes more than a seasoning to an essentially medieval or feudal dish. The earlier urban societies never quite succeeded in the revolutions they foreshadowed. From the early 18th century, however, "bourgeois" society advanced without substantial checks. The 17th century crisis thus differs from its predecessors in that it led to as fundamental a solution of the difficulties which had previously stood in the way of the triumph of capitalism, as that system will permit. In this article I propose to marshal some of the evidence for the existence of a general crisis, which is still disputed by some, and to suggest an explanation of it. In a subsequent article I propose to discuss some of the changes it produced, and how it was overcome. It is very probable that a great deal of historical work will be done on this subject and period in the next few years. Indeed, lately historians in various countries have tentatively suggested something like that "general check to economic development" or general crisis with which this paper deals.² It may therefore be convenient to take a bird's eye view of the field, and to speculate about some sort of working hypothesis, if only to stimulate better ones, or further work.

Evidence for a general crisis

A good deal of evidence for the "general crisis" is available. We must, however, be careful to avoid the argument that a general crisis equals economic retrogression, which has bedevilled much of the discussion about the "feudal crisis" of the 14th and 15th centuries. It is perfectly clear that there *was* a good deal of retrogression in the 17th century. For the first time in history the

Mediterranean ceased to be a major centre of economic and political, and eventually of cultural influence and became an impoverished backwater. The Iberian powers, Italy, Turkey were plainly on the downgrade: Venice was on the way to becoming a tourist centre. With the exception of a few places dependent on the Northwestern states (generally free ports) and the pirate metropolis of Algiers, which also operated in the Atlantic,³ there was little advance. Further north, the decline of Germany is patent, though not wholly unrelieved. In the Baltic Poland, Denmark and the Hanse were on the way down. Though the power and influence of Habsburg Austria increased (perhaps largely because others declined so dramatically), her resources remained poor, her military and political structure rickety even at the period of her greatest glory in the early 18th century. On the other hand in the Maritime Powers and their dependencies — England, the United Provinces, Sweden, and in Russia and some minor areas like Switzerland, the impression is one of advance rather than stagnation; in England, of decisive advance. France occupied an intermediate position, though even here political triumph was not balanced by great economic advance until the end of the century, and then only intermittently. Indeed an atmosphere of gloom and crisis fills the discussions there after 1680, though conditions in the previous half-century can hardly have been superior. (Possibly the huge catastrophe of 1693-4 accounts for this.⁴) It was in the 16th not the 17th century that invading mercenaries marvelled at how much there was to loot in France, and men in Richelieu's and Colbert's era looked back on Henry IV's as a sort of golden age. It is indeed possible that, for some decades in the middle of the century the gains made in the Atlantic did not replace the losses in the Mediterranean, Central European and Baltic, the total proceeds from both stagnating or perhaps declining. Nevertheless what is important is the decisive advance in the progress of capitalism which resulted.

The scattered figures for European *population* suggest, at worst an actual decline, at best a level or slightly rising plateau between the mounting slopes of the population curve in the later 16th and 18th centuries. Except for the Netherlands, Norway and perhaps Sweden and Switzerland and some local areas no major increases in population appear to be recorded. Spain was a by-word for depopulation, Southern Italy may have suffered, and the ravages of the mid-century in Germany and Eastern France are known. Though Pirenne has argued that Belgian population increased, figures for Brabant do not seem to bear him out. Hungarian

population fell; that of Poland even more. English population growth probably slowed down rapidly and may actually have ceased after 1630.⁵ In fact it is not easy to see why Clark concludes that "the 17th century in most of Europe saw, like the 16th, a moderate increase in population."⁶ Mortality was certainly higher than in either the 16th or 18th. No century since the 14th has a worse record for epidemic disease and recent work has demonstrated that its ravages cannot be dissociated from those of famine.⁷ While a handful of court and administrative metropolises or centres of international trade and finance grew to great size the number of great cities, which had risen in the 16th century, remained stable and small and medium towns frequently declined. This appears to apply in part even to the maritime countries.⁸

What happened to *production*? We simply do not know. Some areas were plainly de-industrialized, notably Italy which transformed itself from the most urbanised and industrialized country of Europe into a typical backward peasant area, most of Germany, parts of France and Poland.⁹ On the other hand there was fairly rapid industrial development in some places — Switzerland, and in the extractive industries, England and Sweden, and an important growth of rural out-work at the expense of urban or local craft production in many areas which may or may not have meant a net increase in total output. If prices are any guide we should not expect to find a general decline in production, for the deflationary period which followed the great price-rise of the pre-1640 era is more easily explained by a relative or absolute falling-off in demand rather than by a decline in the supply of money. However, in the basic industry of textiles there may have been not only a shift from "old" to "new" draperies, but a decline of total output for part of the century.¹⁰

The crisis in *commerce* was more general. The two main areas of established international trade, the Mediterranean and the Baltic underwent revolution, and probably temporary decline in the volume of trade. The Baltic — the European colony of the western urbanized countries — changed its staple exports from foodstuffs to products like timber, metals and naval stores, while its traditional imports of western woollens diminished. Trade as measured by the Sound tolls reached its peak in 1590-1620, collapsed in the 1620s, and declined catastrophically after some recovery until the 1650s, remaining in the doldrums until 1680 or so.¹¹ After 1650, the Mediterranean became like the Baltic an area exchanging locally produced goods, mainly raw materials, for the Atlantic manufactures

and the oriental goods now monopolized by the Northwest. By the end of the century the Levant got its spices from the North, not the East. French Levantine trade halved between 1620 and 1635, sank almost to zero by the 1650s and did not really recover from depression levels until after the 1670s. Dutch Levantine trade did poorly from about 1617 to about 1650.¹³ Even then the French hardly exceeded pre-depression levels much before 1700. Did the British and Dutch sales drive in the South make up for losses in the Baltic markets? Probably not. It may barely have made up for the decline in previous sales of Italian products. The international trade in foodstuffs — Baltic corn, Dutch herrings and Newfoundland fish — did not maintain its Jacobean levels. The international trade in woollen cloths may have shrunk; nor was it immediately replaced by other textiles, for the great centres of exportable linen, Silesia and Lusatia, seem to have declined somewhat after 1620. In fact it is not unlikely that a general balance of rising and declining trade would produce export figures which did not rise significantly between 1620 and 1660. Outside the maritime states it is unlikely that sales on the home-markets made up for this.

As we know from the 19th century, the malaise of business cannot be measured simply by trade and production figures, whatever these may be. (It is nevertheless significant that the whole tone of economic discussion assumed stable markets and profit opportunities. Colbertian mercantilism, it has often been said, was a policy of economic warfare for large slices of a world trade-cake of fixed size. There is no reason why administrators and traders — for economics was not yet an academic subject — should have adopted views which were greatly at variance with appearances). It is certain that even in countries which did not decline there were secular business difficulties. English East India trade languished until the Restoration.¹³ Though that of the Dutch increased handsomely, the average annual dividend of their East India Company fell for each of the ten-year periods from the 1630s to the 1670s (including both), except for a slight rise in the 1660s. Between 1627 and 1687 sixteen years were without dividend; in the rest of the Company's history from 1602 to 1782 none. (The value of its goods remained stable between 1640 and 1660). Similarly the profits of the Amsterdam Wisselbank reached a peak in the 1630s and then declined for a couple of decades.¹⁴ Again, it may not be wholly accidental that the greatest messianic movement of Jewish history occurred at this moment, sweeping the communities of the great trading centres — Smyrna, Leghorn, Venice, Amsterdam, Hamburg — off their feet

with special success in the middle 1660s as prices reached almost their lowest point.

It is also clear that the *expansion of Europe* passed through a crisis. Though the foundations of the fabulous colonial system of the 18th century were laid mainly after 1650¹⁶, earlier there may actually have been some contraction of European influence except in the hinterlands of Siberia and America. The Spanish and Portuguese empires of course contracted, and changed character. But it is also worth noting that the Dutch did not maintain the remarkable rate of expansion of 1600 to 1640 and their Empire actually shrank in the next 30 years.¹⁶ The collapse of the Dutch West India company after the 1640s, and the *simultaneous* winding-up of the English Africa Company and the Dutch West India Company in the early 1670s may be mentioned in passing.

It will be generally agreed that the 17th century was one of *social revolt* both in Western and Eastern Europe. This clustering of revolutions, has led some historians to see something like a general social-revolutionary crisis in the middle of the century.¹⁷ France had its Frondes, which were important social movements; Catalan, Neapolitan and Portuguese revolutions marked the crisis of the Spanish Empire in the 1640s; the Swiss peasant war of 1653 expressed both the post-war crisis and the increasing exploitation of peasant by town, while in England revolution triumphed with portentous results.¹⁸ Though peasant unrest did not cease in the West — the “stamped paper” rising which combined middle class, maritime and peasant unrest in Bordeaux and Brittany occurred in 1675, the Camisard wars even later¹⁹ — those of Eastern Europe were more significant. In the 16th century there had been few revolts against the growing enserfment of peasants. The Ukrainian revolution of 1648-54 may be regarded as a major servile upheaval. So must the various “Kurucz” movements in Hungary, their very name harking back to Dozsa’s peasant rebels of 1514, their memory enshrined in folksongs about Rakoczy as that of the Russian revolt of 1672 is in the song about Stenka Razin. A major Bohemian peasant rising in 1680 opened a period of endemic serf unrest there.²⁰ It would be easy to lengthen this catalogue of major social upheavals — for instance by including the revolts of the Irish in 1641 and 1689.

Only in one respect did the 17th century as a whole overcome rather than experience difficulties. Outside the maritime powers with their new, and experimental bourgeois régimes most of Europe found an efficient and stable form of government in *absolutism* on the French model. (But the rise of absolutism has been taken as a

direct sign of economic weakness.²¹ The question is worth exploring further). The great age of *ad hoc* devices in politics, war and administration vanished with the great world empires of the 16th century, the Spanish and Turkish. For the first time large territorial states seemed capable of solving their three fundamental problems: how to have the orders of government obeyed directly over a large area, how to have enough cash for the large lump-sum payments they periodically needed, and — partly in consequence of this — how to run their own armies. The age of the great independent financial and military sub-contractors faded with the Thirty Years' War. States still had to subcontract, as the practice of selling offices and farming taxes bears witness.²² However, the whole business was now officially controlled by governments, not merely controlled in practice by the fact that, as the Fuggers and Wallenstein had found to their cost, the monopoly buyer can dictate terms as much as the monopoly seller. Perhaps this obvious political success of the absolutist territorial states with their pomp and splendour has in the past distracted attention from the general difficulties of the age.

If only part of this evidence holds water, we are justified in speaking of a "general crisis" in the 17th century; though one of its characteristics was the relative immunity of the states which had undergone "bourgeois revolution." It is probable — though here we venture on the complex territory of price history²² — that the crisis began about 1620; perhaps with the slump period from 1619 into the early 1620s. It seems certain that, after some distortion of price movements by the Thirty Years' War, it reached its most acute phase between 1640 and the 1670s, though precise dates are out of order in the discussion of long-term economic movements. From then on the evidence is conflicting. Probably the signs of revival outweigh those of crisis not only (obviously) in the Maritime States but elsewhere. However, the wild oscillations of boom and depression, the famines, revolts, epidemics and other signs of profound economic trouble in 1680-1720 should warn us against ante-dating the period of full recovery. If the trend was upwards from, say, the 1680s—or even earlier in *individual* countries — it was still liable to disastrous fluctuations.

It may, however, be argued that what I have described as a "general crisis" was merely the result of 17th century wars, particularly of the Thirty Years' War (1618-1648). In the past historians have in fact tended to take (or rather to imply) this view. But the crisis affected many parts of Europe not ravaged by generals and quartermasters; and conversely, some traditional "cockpits of Europe" (e.g. Saxony

and the Low Countries) did notably better than more tranquil regions. Moreover, there has been a persistent tendency to exaggerate the long-term and permanent damage done by 17th century wars. We now know that (other things being equal) the losses of population, production and capital equipment of even 20th century wars, whose destructive capacities are much greater, can be made good within a matter of 20-25 years. If they were not in the 17th century, it was because wars aggravated already existing tendencies of crisis. This is not to deny their importance, though their effects were more complex than appears at first sight. Thus against the ravages of the Thirty Years' War in parts of Central Europe we must set the stimulus it gave to mining and metallurgy in general, and the temporary booms it stimulated in non-combatant countries (to the temporary benefit of Charles I in the 1630s). It is also probable that, but for it, the great "price-rise" would have ended in the 1610s and not the 1640s. The war almost certainly shifted the incidence of the crisis and may, on balance, have aggravated it. Lastly, it is worth considering whether the crisis did not to some extent produce a situation which provoked or prolonged warfare. However, this point, which is not essential to the argument, is perhaps too speculative to be worth pursuing.

The causes of the crisis

In discussing the 17th century crisis we are really asking one of the fundamental questions about the rise of capitalism: why did the expansion of the later 15th and 16th centuries not lead straight into the epoch of the 18th and 19th century Industrial Revolution? What, in other words, were the obstacles in the way of capitalist expansion? The answers, it may be suggested, are both general and particular.

The general argument may be summarized as follows. If capitalism is to triumph, the social structure of feudal or agrarian society must be revolutionized. The social division of labour must be greatly elaborated if productivity is to increase; the social labour force must be radically redistributed from agriculture to industry while this happens. The proportion of production which is exchanged in the supra-local market must rise dramatically. So long as there is no large body of wage-workers; so long as most men supply their needs from their own production or by exchange in the multiplicity of more or less autarchic local markets which exist even in primitive societies, there is a limit to the horizon of capitalist profit and very little incentive to undertake what we may loosely call

mass production, the basis of capitalist industrial expansion. Historically, these processes cannot always be separated from one another. We may speak of the "creation of the capitalist home market" or the divorce of the producers from the means of production which Marx called "primitive accumulation"²⁴: the creation of a large and expanding market for goods and a large and available free labour force go together, two aspects of the same process.

It is sometimes assumed that the development of a "capitalist class" and of the elements of the capitalist mode of production within feudal society automatically produce these conditions. In the long run, taking the widest view over the centuries from 1000 to 1800 this is no doubt so. In the shorter run it is not. Unless certain conditions are present — it is by no means yet clear what they are — the scope of capitalist expansion will be limited by the general prevalence of the feudal structure of society, i.e. of the predominant rural sector or perhaps by some other structure which "immobilizes" both the potential labour-force, the potential surplus for productive investment, and the potential demand for capitalistically produced goods, such as the prevalence of tribalism or petty commodity production. Under those conditions, as Marx showed in the case of mercantile enterprise²⁵ business might adapt itself to operating in a generally feudal framework, accepting its limitations and the peculiar demand for its services, and becoming in a sense parasitic on it. That part of it which did so would be unable to overcome the crises of feudal society, and might even aggravate them. For capitalist expansion is blind. The weakness of the old theories which ascribed the triumph of capitalism to the development of the "capitalist spirit" or the "entrepreneurial spirit" is, that the desire to pursue the maximum profit without limit does not automatically produce that social and technical revolution which is required. At the very least there must be mass production (i.e. production for the greatest aggregate profit — large profits, but not necessarily large profits per sale) instead of production for the maximum profit per unit sale. Yet one of the essential difficulties of capitalist development in societies which keep the mass of the population outside its scope (so that they are neither sellers of labour-power nor serious buyers of commodities) is that in the short view the profits of the really "revolutionary" types of capitalist production are almost less, or look less attractive, than those of the other kind; especially when they involve heavy capital investment. Christian Dior then looks a more attractive proposition than Montagu Burton. To corner pepper in the 16th century would seem much sounder than to start sugar-

plantations in the Americas; to sell Bologna silks than to sell Ulm fustian. Yet we know that in subsequent centuries far vaster profits were achieved by sugar and cotton than by pepper and silk; and that sugar and cotton contributed far more to the creation of a world capitalist economy than the other two.

Under certain circumstances such trade could, even under feudal conditions, produce large enough aggregate profits to give rise to large-scale production; for instance if it catered for exceptionally large organizations such as kingdoms or the church; if the thinly spread demand of an entire continent were concentrated into the hands of businessmen in a few specialized centres such as the Italian and Flemish textile towns; if a large "lateral extension" of the field of enterprise took place, e.g. by conquest or colonization. A fair amount of social re-division was also possible without disturbing the fundamentally feudal structure of society — for instance the urbanization of the Netherlands and Italy on the basis of food and raw materials imported from semi-colonial territories. Nevertheless the limits of the market were narrow. Medieval and early modern society was a good deal more like "natural economy" than we care to recall. The 16th and 17th century French peasant is said hardly to have used money except for his transactions with the State; retail trade in German towns was unspecialized, like that in village shops, until the late 16th century.³⁶ Except among a small luxury class (and even there changing fashion in the modern sense probably developed late) the rate of replacement of clothes or household goods was slow. Expansion was possible and took place; but so long as the general structure or rural society had not been revolutionized it was limited, or created its own limits; and when it encountered them, entered a period of crisis.

The expansion of the 15th and 16th centuries was essentially of this sort; and it therefore created its own crisis both within the home market and the overseas market. This crisis the "feudal businessmen" — who were the richest and most powerful just because the best adapted for making big money in a feudal society — were unable to overcome. Their inadaptability intensified it.

Before analysing these things further, it may be worth stressing that the purely *technical* obstacles to capitalist development in the 16th and 17th century were not insuperable. While the 16th century may not have been capable of solving certain fundamental problems of technique, such as that of a compact and mobile source of power which so baffled Leonardo, it was quite capable of at least as much innovation as produced the 18th century revolution.

Nef and others have made us familiar with the innovations which actually occurred, though the phrase "Industrial Revolution" seems less apt for the period 1540-1640 than for the Germany of 1450-1520 which evolved the printing press, effective fire-arms, watches, and the remarkable advance in mining and metallurgy summarized in Agricola's *De Re Metallica* (1556). Nor was there a crippling shortage of capital or capitalist enterprise or of labour, at least in the advanced areas. Sizeable blocks of mobile capital anxious for investment and, especially in the period of rising population, quite important reservoirs of free wage-labour of varying skill existed. The point is, that neither were poured into industry of a potentially modern type. Moreover, methods for overcoming such shortages and rigidities of capital and labour supplies might have been utilized as fully as in the 18th and 19th centuries. The 17th century crisis cannot be explained by the inadequacies of the equipment for Industrial Revolution, in any narrowly technical and organizational sense.

Let us now turn to the main causes of the crisis.

The specialization of "feudal capitalists": the case of Italy

The decline of Italy (and the old centres of medieval commerce and manufacture in general) was the most dramatic result of the crisis. It illustrates the weaknesses of "capitalism" parasitic on a feudal world. Thus 16th century Italians probably controlled the greatest agglomerations of capital, but misinvested them flagrantly. They immobilized them in buildings and squandered them in foreign lending during the price-revolution (which naturally favoured debtors) or diverted them from manufacturing activities to various forms of immobile investment. It has been plausibly suggested that the failure of Italian manufacture to maintain itself against Dutch, English and French during the 17th century was due to this diversion of resources.¹⁷ It would be ironic to find that the Medici were Italy's ruin, not only as bankers but as patrons of the expensive arts, and philistine historians are welcome to observe that the only major city state which never produced any art worth mentioning, Genoa, maintained its commerce and finance better than the rest. Yet Italian investors, who had long been aware that too large cathedrals harm business,¹⁸ were acting quite sensibly. The experience of centuries had shown that the highest profits were not to be got in technical progress or even in production. They had adapted themselves to business activities in the comparatively

narrow field which remained for them once one left aside the majority of the population of Europe as "economically neutral." If they spent vast amounts of capital non-productively, it may have been simply because there was no more room to invest it progressively on any scale within the limits of this "capitalist sector." (The 17th century Dutch palliated a similar glut of capital by multiplying household goods and works of art²⁹ though they also discovered the more modern device of a speculative investment boom). Perhaps the Italians would have been shocked into different behaviour by economic adversity; though they had made money for so long by providing the feudal world with its trade and finance that they would not have learned easily. However, the general boom of the later 16th century (like the "Indian summer" of Edwardian Britain) and the suddenly expanded demands of the great absolute monarchies which relied on private contractors, and the unprecedented luxury of their aristocracies, postponed the evil day. When it came, bringing decay to Italian trade and manufacture, it left Italian finance still upright, though no longer dominant. Again, Italian industry might well have maintained some of its old positions by switching more completely from its old high-quality goods to the shoddier and cheaper new draperies of the North. But who, in the great period of luxury buying from 1580-1620 would guess that the future of high-quality textiles was limited? Did not the court of Lorraine, in the first third of the century use more textiles imported from Italy than from all other non-French countries put together?³⁰ (One would like to reserve judgment on the argument that Italy lost ground because of higher production costs for goods of equal quality, until stronger evidence for it is brought forward or until we have a satisfactory explanation for the failure of Italian production, after promising beginnings, to shift as wholeheartedly from towns to countryside as did the textile industries of other countries.³¹)

The case of Italy shows why particular countries went down in the crisis, not necessarily why it occurred. We must therefore consider the contradictions of the very process of 16th century expansion.

The contradictions of expansion: Eastern Europe

The comparative specialization of west-European towns on trade and manufacture was to some extent achieved in the 15th and 16th centuries by the creation of a sizeable surplus of exportable food in Eastern Europe and perhaps by ocean fisheries.³² But in Eastern Europe this was achieved by the creation of serf agriculture on a large scale; i.e. a local strengthening of feudalism. This, we may suggest,

had three effects. It turned the peasant into less of a cash customer than he had been or might have been. (Or else it forced him off good-quality western textiles into cheap locally produced cloth). It diminished the number and wealth of the minor nobility for the benefit of a handful of magnates. In Poland the former controlled 43.8% of ploughs in the mid-15th century, 11.6% in the mid-17th; the share of the latter rose from 13.3 to 30.7 in the same period. Lastly, it sacrificed the livelier market of the towns to the free trade interests of exporting landlords, or else seized much of what trade was going for the benefit of the already bloated lords.³³ The expansion thus had two results. While creating the conditions for the expansion of manufactures in Western Europe, it cut down, for a time at least, the outlets of these manufactures in the Baltic area — perhaps its most important market. The desire to cash in rapidly on the growing demand for corn — the Baltic now began to feed not only Northern Europe but also the Mediterranean — tempted serf-lords into that headlong expansion of their dominions and intensification of exploitation which led to the Ukrainian revolution, and perhaps also to demographic catastrophes.³⁴

The contradictions of expansion: overseas and colonial markets

Much of the trade between Europe and the rest of the world had, as we know, been passive throughout the ages, because Orientals did not need European goods to the same extent as Europe needed theirs. It had been balanced by bullion payments, supplemented from time to time by such exports as slaves, furs, amber or other luxuries. Until the Industrial Revolution the sales of European manufactures were not important. (African trade, which was not deficitary, may be an exception because of the staggeringly favourable terms of trade which European goods commanded among the ignorant local buyers and indeed — almost by definition — because the continent was valued chiefly as a source of bullion until late in the 17th century. In 1665 the Royal African Company still estimated its gain from gold at twice its gain from slaves.³⁵) The European conquest of the main trade-routes and of America did not change this structure fundamentally, for even the Americas exported more than they imported. It greatly diminished the cost of Eastern goods by cutting out middlemen, lessening transport charges and enabling European merchants and armed bands to rob and cheat with impunity. It also greatly increased bullion supplies, presenting us with American and African Peters to be robbed to pay the Asian Pauls. Unquestionably Europe derived immense windfall

gains from this. General business activity was immensely stimulated as well as capital accumulated; but our exports of manufactures were on the whole *not* greatly expanded. Colonial powers — in good medieval business tradition — followed a policy of systematic restriction of output and systematic monopoly. Hence there was no reason why exports of home manufactures should benefit.

The benefit which Europe drew from these initial conquests was thus in the nature of a single bonus rather than a regular dividend. When it was exhausted, crisis was likely to follow. Among the colonial powers costs and overheads rose faster than profits. In both East and West we may distinguish three stages: that of easy profits, that of crisis, and with luck eventually that of a stable and more modest prosperity. In the initial phase conquest or interloping brought temporarily unchallenged profits at low costs. In the East, where profits rested on the monopoly of a restricted output of spices and the like, the crisis was probably brought on by the steep rise in "protection costs" against old and new rivals; rising all the more steeply the more the colonial power tried to screw up the monopoly price. It has been estimated that the Portuguese spice trade barely paid its way for these reasons.³⁶ In the West, where they rested on the cheap bulk production of bullion and other raw materials, protection costs probably played a smaller part, though they also rose with piracy and competition. However, there the technical limits of the primitive "rat-hole" mining of the Spaniards were soon reached (even allowing for the uses of the mercury process), and very possibly the labour force was virtually worked to death, being treated as an expendable asset.³⁷ At any rate American silver exports diminished after 1610 or so. Eventually, of course, in the East colonial powers adjusted themselves to the new level of overheads and perhaps found new sources of local taxation to offset them. In the West the familiar structure of quasi-feudal large estates came into being in the 17th century.³⁸ Since the economic basis of the Spanish colonial system was broader than the Portuguese, the results of crisis would be more far-reaching. Thus the early emigration to the Americas temporarily stimulated the export of goods from the home country; but as, inevitably, many of the colonists' wants came to be supplied locally, the expanded manufactures of Spain had to pay the price. The attempt to tighten the metropolitan monopoly merely made matters worse by discouraging the development, among other things, of the potentially revolutionary plantation economy.³⁹ The effects of the influx of bullion into Spain are too well-known to need discussion.

It is therefore understandable that the "old colonial system" passed through a profound crisis; and that its effects on the general European economy were far-reaching. A new pattern of colonial exploitation which produced steadily rising exports of manufactures from Europe did indeed replace it. (Acting largely on their own the sugar planters of Northern Brazil had shown the way to it from the end of the 16th century). Yet the lure of the old monopoly profits was irresistible to all those who had a chance of capturing them. Even the Dutch remained resolutely "old-fashioned" in their colonialism until the 18th century, though their entrepôt position in Europe saved them from the consequence of colonial inefficiency. Old colonialism did not grow over into new colonialism; it collapsed and was replaced by it.

The contradictions of the home markets

There can be little doubt that the 16th century came nearer to creating the conditions for a really widespread adoption of the capitalist mode of production than any previous age; perhaps because of the impetus given by overseas loot, perhaps because of the encouragement of rapidly growing population and markets and rising prices. (It is not the object of this article to discuss the reasons which caused this expansion to follow the "feudal crisis" of the 14th and 15th centuries). A powerful combination of forces, including even large feudal interests⁴⁰ seriously threatened the resistance of gild-dominated towns. Rural industry, of the "putting-out" type, which had previously been largely confined to textiles, spread in various countries and to new branches of production (e.g. metals), especially towards the end of the period. Yet the expansion bred its own obstacles. We may briefly consider some of them.

Except perhaps in England no "agrarian revolution" of a capitalist type accompanied industrial change, as it was to do in the 18th century; though there was plenty of upheaval in the countryside. Here again we find the generally feudal nature of the social framework distorting and diverting forces which might otherwise have made for a direct advance towards modern capitalism. In the East, where agrarian change took the form of a revival of serfdom by exporting lords, the conditions for such development were inhibited locally, though made possible elsewhere. In other regions the price-rise, the upheavals in landownership, and the growth of demand for agrarian produce might well have led to the emergence of capitalist farming by gentlemen and the kulak-type of peasant on a greater scale than appears to have occurred.⁴¹ Yet what happens?

French lords (often "bourgeois" who had bought themselves into feudal status) reversed the trend to peasant independence from the middle of the 16th century, and increasingly recovered lost ground.⁴² Towns, merchants and local middlemen invested in the land, partly no doubt because of the security of farm produce in an age of inflation, partly because the surplus was easy to draw from it in a feudal manner, their exploitation being all the more effective for being combined with usury; partly perhaps in direct political rivalry with feudalists.⁴³ Indeed, the relationship of towns and their inhabitants as a whole to the surrounding peasantry was still, as always in a generally feudal society, that of a special kind of feudal lord. (The peasants in the town-dominated cantons of Switzerland and in inland Netherlands were not actually emancipated until the French Revolution.⁴⁴) The mere existence of urban investment in agriculture or urban influence over the countryside, therefore, did not imply the creation of rural capitalism. Thus the spread of share-cropping in France, though theoretically marking a step towards capitalism, in fact often produced merely a bourgeoisie parasitic on a peasantry increasingly exhausted by it, and by the rising demands of the State; and consequent decline.⁴⁵ The old social structure predominated still.

Two results may have followed from this. First, it is improbable that there was much technical innovation, though the first (Italian) handbook on crop rotation appeared in the mid-16th century, and certain that the increase in agrarian output did not keep pace with demand.⁴⁶ Hence towards the end of the period there are signs of diminishing returns and foodshortage, of exporting areas using up their crops for local needs etc., preludes to the famines and epidemics of the crisis-period.⁴⁷ Second, the rural population, subject to the double pressure of landlords and townsmen (not to mention the State), and in any case much less capable of protecting itself against famine and war than they, suffered.⁴⁸ In some regions this short-sighted "squeeze" may actually have led to a declining trend in productivity during the 17th century.⁴⁹ The countryside was sacrificed to lord, town and State. Its appalling rate of mortality — if the relatively prosperous Beauvaisis is any guide — was second only to that of the domestic outworkers, also increasingly rural.⁵⁰ Expansion under these conditions bred crisis.

What happened in the non-agricultural sectors depended largely on the agricultural. Costs of manufacture may have been unduly raised by the more rapid rise of agrarian than of industrial prices, thus narrowing the profit-margin of manufacturers.⁵¹ (However,

manufacturers increasingly used the cheap labour of rural outworkers, who were again exploited to the point of debility.) The market also had its difficulties. The rural market as a whole must have proved disappointing. Many freeholding peasants benefited from the price-rise and the demand for their goods, provided they had enough land to feed themselves even in bad years, a regular surplus for sale, and a good head for business.⁵³ But if such yeomen bought much more than before, they bought less than townsmen of equal standing, being more self-sufficient.⁵⁴ The experience of 19th century France shows that a middle and rich peasantry is about as uninviting a market for mass manufactures as may be found, and does not encourage capitalists to revolutionize production. Its wants are traditional; most of its wealth goes into more land and cattle, or into hoards, or into new building, or even into sheer waste, like those gargantuan weddings, funerals, and other feasts which disturbed continental princes at the turn of the 16th century.⁵⁴ The increase in the demand from the non-agricultural sector (towns, luxury market, government demand etc.) may for a time have obscured the fact that it grew less rapidly than productive capacity, and that the persistent decline of the real income of wage-earners in the long inflation may actually, according to Nef, have stopped "the growth of the demand for some industrial products."⁵⁵ However, the slumps in the export markets from the late 1610s on brought the fact home.

Once the decline had begun, of course, an additional factor increased the difficulties of manufacture: the rise in labour costs. For there is evidence that — in the towns at least — the bargaining power of labour rose sharply during the crisis, perhaps owing to the fall or stagnation in town populations. At any rate real wages rose in England, Italy, Spain and Germany, and the mid-century saw the formation of effective journeymen's organizations in most western countries.⁵⁶ This may not have affected the labour costs of the putting-out industries, as their workers were in a weaker position to benefit from the situation, and their piece-rate wages were more easily cut. However, it is clearly not a negligible factor. Moreover, the slackening of population increase and the stabilization of prices must have depressed manufactures further.

These different aspects of the crisis may be reduced to a single formula: economic expansion took place within a social framework which it was not yet strong enough to burst, and in ways adapted to it rather than to the world of modern capitalism. Specialists in the Jacobean period must determine what actually precipitated the crisis:

the decline in American silver, the collapse of the Baltic market or some of many other possible factors. Once the first crack appeared, the whole unstable structure was bound to totter. It did totter, and in the subsequent period of economic crisis and social upheaval the decisive shift from capitalist enterprise adapted to a generally feudal framework to capitalist enterprise transforming the world in its own pattern took place. The Revolution in England was thus the most dramatic incident in the crisis, and its turning-point. "This nation" wrote Samuel Fortrey in 1663 in his "England's Interest and Improvement" "can expect no less than to become the most great and flourishing of all others." It could and it did; and the effects on the world were to be portentous.

Birkbeck College.

E. J. Hobsbawm

A NOTE ON PRICE HISTORY

Long-term price movements have been deliberately kept outside the main argument, because other discussions of long-term economic development emphasize them so much; perhaps too much. Nevertheless, the course of prices calls for some comment.

The traditional view, as put forward by *Simiand* and accepted by *Labrousse* and others, is that the long price-rise came to an end around 1640 and was followed by a price-fall, or fluctuations round a stable trend until the second quarter of the 18th century. This view seems too simple. There are signs of a change in the price trend between 1605 and 1620; for instance in Spanish wheat prices. *Cipolla* has also noted that Milanese prices cease to rise rapidly after 1605 and continue steady or rising slowly from then until 1630. (*Mouvements monétaires dans l'état de Milan 1580-1700*. 1952). We should expect this, since *Hamilton* shows that the import of American bullion reached its peak in 1590-1610, though it held up quite well until 1620 or so (*American Treasure*, 35). If prices went on rising until 1640 (or 1635, which seems to have been the turning-point in Italy) it was probably due to debasement of coinage, to the demand for scarce goods in the Thirty Years' War, or to a combination of both. Hence it is not unlikely that, but for the war, the period of price-fall or price-stability would have begun in 1610-20. The end of the war intensified the crisis, which undoubtedly reached its most acute phase (and the lowest point of prices) in the 1660s and early 1670s. The effects of drastic post-war deflation may be studied in the typical war-profiteering country of Switzerland, where they led to the peasant war of 1653.

The course of prices differed, of course, according to regions and commodities, and some of the local and sectional phenomena are still very obscure. No attempt can be made here to account for them. In general, however, secular price-movements tally quite well with the periods of the crisis as discussed in the text.

NOTES

¹ Perroy, Boutrucic, Hilton have discussed this in recent years in the *Annales* and elsewhere. See also the discussion among Dobb, Sweezy, Takahashi, Hilton and Hill in *Science and Society* 1950-53, and the general survey by Malowist in *Kwartalnik Historyczny* 1953, I. (I am indebted to the Polish Institute, London for a translation of this).

² Braudel, *La Méditerranée . . . au temps de Philippe II, 1097*. R. Romano, Industries textiles et conjoncture à Florence au 17e s. (*Annales* Oct.-Dec. 1952, 510). French historians regard the "phase de contraction du 17e siècle" as "un fait maintenant établi" (*Rev. Hist.* 428 (1953), 379). In what follows I owe a great deal to discussion with J. Meuvret who confirmed many of my non-specialist guesses. However I doubt whether he would agree with much of this paper.

³ C. A. Julien, *Histoire de l'Afrique du Nord*, 538 ff; the "industrial revolution" in piracy, due to the introduction of Northern sails by English and Dutch after 1604 may be noted.

⁴ J. Meuvret in *Mélanges d'Histoire Sociale* V, 1944, 27-44; in *Population*, 1946, 653-50 and an unpublished paper on the effects of the 1693-4 and 1709-10 famines on French diplomacy.

⁵ There are, of course, no reliable statistics and not always good indirect indices. This paragraph is based, in particular, on: K. Larsen, *History of Norway*, 1948, 304 (figures only for 1665 and after); Mayer, *The Population of Switzerland* (1952), and Patavino's estimate for 1608 which is as great as M's for 1700 in Nabholz, Muralt, Feller, Bonjour, *Gesch. d. Schweiz*, II, 5; H. Wopfner, *Gueterteilung u. Uebervolkerung*, 1938, 202 ff; H. v. z. Muehlen, "Entstehung d. Gutsherrschaft in Oberschlesien", in *Vierteljahrsschrift f. Soz. und Wirtsch. Gesch.* XXXVIII, 334-60; Beloch, *Bevoelkerungsgeschichte Italiens* I, 153, 225 ff; Keyser, *Bevoelkerungsgesch. Deutschlands*, 1941, 361 ff, 304 ff; Roupnel, *La vie et la campagne dijonnaises au 17e s.*; P. Goubert, "Problèmes démographiques du Beauvaisis au 17e s." (*Annales*, Oct.-Dec. 1952, 452-468), for an area which seems to have suffered rather less; G. Debien, *En Haut-Poitou; Défricheurs au Travail* (XV-XVIII s.) and for absence of forest-clearing and recovery of forests *Bull. Soc. Hist. Mod.* Mai-Juillet 1953, 6-9; Pirenne, *Hist. de Belgique* IV, 439-40; A. Cosemans, *Bevolkering v. Brabant en de 17e eeuw* 1939, 220-4; G. N. Clark, *The Seventeenth Century*; Rutkowski, *Hist. Econ. de la Pologne avant les Partages*, 1927, 91-2; Stone in *IX Congrès International des Sciences Historiques* II, 1951, 49-50, Hoskins, "The Rebuilding of Rural England 1570-1640," *Past and Present* 4, 1953.

⁶ *Op. cit.* 6. The same criticism may be made of the estimates of Uralnis, *Rost nasielenia v. Jeuropie* (Moscow 1941) 158 which seem rather optimistic. I am indebted to Mr. A. Jenkin for drawing my attention to these figures.

⁷ S. Peller, "Studies in mortality since the Renaissance" (*Bull. Inst. Hist. of Medicine*) 1943, 443, 445, 452, and esp. 456; *ibid* 1947, 67, 79. Meuvret and Goubert *op. cit.* and the literature quoted in Habbakuk, *English Population in the 18th Century* (*Econ. Hist. Rev.* 2dS. VI, 2, 1953). For the epidemiology of the century, in addition to innumerable local studies, Haeser, *Gesch. d. Medizin u. d. epidem. Krankheiten* (Jena 1882), C. Creighton, *Hist. of Epidemics in Britain* (1891, 1894), L. F. Hirst, *The Conquest of Plague* (1953); Prinzing, *Epidemics resulting from wars* (1916); Brownlee, "Epidemiology of Phthisis in Great Britain and Ireland (*Medical Research Council* 1918); Campbell, "The Epidemiology of influenza (*Bull. Inst. Hist. Medicine* 13, 1943); W. J. Simpson, *A Treatise on the Plague* (1905).

⁸ Sombart, *Luxus u. Kapitalismus*, 26-7; Schmollér, *Deutsches Staedtwesen in aelterer Zeit*, 1922, 60-95; B. Bretholz, *Gesch. Boehmens u. Maehrens* 1924, III, 61-3; Baasch, *Hollaendische Wirtschaftsgeschichte*, 24-5.

⁹ Cipolla, "The Decline of Italy" (*Econ. Hist. Rev.* 2 S.V., 2, 1952); Roupnel, *op. cit.* for reversion of Burgundy to autarky; Reuss, *Hist. de Strasbourg*, 1922, 280-6; P. Boissonade, "La crise de l'industrie languedocienne 1600-1660" (*Annales du Midi*, 1909); G. Aubin and H. Kunze, *Leinenerzeugung . . . im oestl. Mitteleuropa*, 1940.

¹⁰ For figures of the Dutch and Florentine production, N. W. Posthumus, *Gesch. v. d. Leidsche Lakenindustrie* III, 932; Romano in *Annales*, *loc. cit.*

¹¹ Bang and Korst, *Tabeller over Skibsfart*; A. Christensen, *Dutch Trade and the Baltic about 1600* (Copenhagen 1940).

¹² G. Tongas, *Relations entre la France et l'Empire Ottoman durant la première moitié du 17^e s.*, 1942; P. Masson, *Le Commerce Français dans le Levant au 17^e s.*, 1892, esp. 130-4, App. XV, 236; H. Wätjen, *D. Niederlander im Mittelmeergebiet*, 1909, 145, 149.

¹³ Bal Krishna, *Commercial Relations between India and England 1601-1757*, caps ii-v; S. A. Khan, *East India Trade in the 17th C.*, 1923, 74, ff.

¹⁴ C. de Lannoy and H. Van der Linden, *Hist. de l'Expansion des Peuples Européens: Néerlande et Danemark (XVII et XVIII ss.)*, 1911, 334, 344-5, 363. The indebtedness of the Company was also higher than before or after.

J. G. Van Dillen, *Bronnen tot d. Geschiedenis d. Wisselbanken*, 1925, II, 971 ff.

¹⁵ Barbados began to export sugar in 1646, Jamaica started planting in 1664, Haiti re-established plantation in 1655, Martinique began it in the same year, St. Kitts' sugar exports passed its indigo exports in 1660. (Lippman, *Gesch. d. Zuckers*, 1929).

¹⁶ For a comparison of its size in 1641 and 1667, J. Saintoyant, *La Colonisation Européenne*, 1947, 271-3.

¹⁷ B. Porshnev in Biryukovitch, Porshnev, Skazkin etc., *Novaya Istoriya 1640-1789* (Moscow 1951), 444. This follows a suggestion of Marx in 1850 (*Sel. Essays*, ed. Stenning, 1926, 203). The coincidence has often been noted, e.g. Merriman, *Six Contemporaneous Revolutions*, 1938.

¹⁸ Merriman, *op. cit.*, Porshnev, *Narodnie vospitaniya vo Frantsii pered Frondoi 1623-1648* (Moscow 1948); O. Schiff, *D. deutschen Bauernaufstände 1525-1789* (*Hist. Ztschr.* CXXX 189 ff). Feller, *Gesch. Berns* II (1953), cap. iv and v.

¹⁹ J. Lemoine, *La revolte du Papier Timbré*, 1898 prints numerous documents.

²⁰ Marczali, *Hungary in the 18th C.*, 1910, p. xxxvii; Bretholz *loc cit.* 57-61.

²¹ A. Nielsen, *Daemische Wirtschaftsgeschichte*, 1933, 94-5.

²² R. Mousnier, *La venalité des offices sous Henri IV et Louis XIII*, 1945; K. W. Swart, *Sale of offices in the 17 c.*, 1949.

²³ See the Note on Price History.

²⁴ V. I. Lenin, *The Development of Capitalism in Russia*, cap. I (conclusions), cap. II (conclusions), cap. VIII (the formation of the Home Market). *Capital I* (1938 ed.) 738, 772-4. That Marx did not think primarily of the actual accumulation of resources is shown, I think, by a preparatory draft to the Critique of Political Economy: "Eigen ist dem Kapital nichts als die Vereinigung von Haenden und Instrumenten, die es vorfindet. Es agglomeriert sie unter seiner Botmaessigkeit. Das ist sein wirkliches Anhaeuften; das Anhaeuften von Arbeitern auf Punkten nebst ihren Instrumenten." (*Formen die der kapitalistischen Produktion vorhergehen*, pp. 49-50, Berlin 1952).

²⁵ *Capital III* pt. IV (Merchant's Capital); and esp. *vol. II*, 63. See also R. H. Hilton, "Capitalism, What's in a Name" (*Past and Present* I, 1952).

²⁶ J. Meuvret, "Circulation monétaire et utilisation économique de la monnaie dans la France du 16^e et du 17^e s." (*Etudes d'Histoire Moderne et Contemp.* tome I, 1947, 14-29); R. Latouche, *La vie au Bas-Quercy*, 1923; E. Koehler, *Der Einzelhandel im Mittelalter*, 1938, 55-60.

²⁷ A. Fanfani, *Storia del Lavoro in Italia dalla fine del secolo XV agli inizi del XVIII*, 1943, 42-9.

²⁸ R. S. Lopez, "Economie et architecture médiévales" (*Annales* Oct.-Dec. 1952, 443-8).

²⁹ G. Renier, *The Dutch Nation*, 1944, 97-9.

³⁰ H. Roy, *La vie, la mode et le costume au 17^e s.*, 1924, prints a full list of all the types of textile used at this court.

³¹ Cipolla, *The decline of Italy* (*loc cit.*) for the high-cost argument.

³² M. Malowist in Report of *IX Congrès International des Sciences Historiques I*, 1950, 305-22.

³³ For the extent of this increasing exploitation, J. Rutkowski, "Le régime agraire en Pologne au 18^e s." (*Rev. Hist. Econ. and Soc.* 1926 and 1927, esp. 1927, 92 ff); J. Rutkowski, "Les bases économiques des partages de l'ancienne

Pologne" (*Rev. Hist. Moderne* N.S. IV, 1932); J. Rosdolsky, "The distribution of the agrarian product in feudalism" (*Journ. Econ. Hist.* 1951, 247 ff). For unimportance of cash payments, Rutkowski 1927, 71. Rutkowski 1926, 501; Malowist, 317 ff. An example of town impoverishment due to this, F. Tremel, Handel d. Stadt Judenburg im 16 Jh. (*Ztschr. d. hist. Vereins fuer Steiermark*, 1947, 103-6).

An expansion of the total area of serf exporting agriculture — e.g. in the Black Sea area might have offset this. But this did not take place until the 18th century, possibly owing to Turkish strength and grain policy earlier. D. Ionescu, *Agrarverfassung Rumaeniens*, 1909, 10-19, A. Mehlan, "D. grossen Balkanmessen in der Tuerkenzeit" (*Vierteljahrschrift f. Soz. und Wirtsch. Gesch.* 1938, 2-7).

²² Cal. St. P. Col. 1661-8, 266.

²³ F. C. Lane, "National Wealth and Protection Costs" (in Clarkson and Cochran ed., *War as a Social Institution*, 1941, 36 ff).

²⁴ C. G. Motten, *Mexican Silver and the Enlightenment*, 1950, caps. 2-3.

²⁵ Thus from the end of the 17th century the Dutch East India Company expanded the income from colonial taxes, previously about 9% of its revenue, much more rapidly than trading profits. Lannoy and Linden *op. cit.* 266-7. F. Chevalier, *La formation des grands domaines au Mexique. Terres et Société au XVI-XVIIe s.*, 1952. I have only seen the summary of this in *Rev. Hist.* 428, 1953, 376 ff.

²⁶ For the ending of sugar-plantations in the early 17th century, E. O. v. Lippmann, *Gesch. d. Zuckers*, 1929.

²⁷ Cf. the import H. Aubin, "D. Anfaenge d. grossen schlesischen Leineweberei" (*Vierteljahrschr. f. Soz. und Wirtsch. Gesch.* XXXV, 154-73).

²⁸ Raveau: *L'agriculture . . . en Haut-Poitou au 16 s.*, 127; Marc Bloch, *Caractères Originaux de l'histoire rurale française*, 148-9); but the "gentilhomme campagnard" is not ipso facto a capitalist farmer.

²⁹ Bloch *op. cit.* Braudel 624 ff.

³⁰ Bloch, *op. cit.* 145-6; P. Raveau, *op. cit.*, 249 ff; A. Kraemer, *D. wechselnde . . . Bedeutung d. Landbesitzes d. Stadt Breslau* (1927) for systematic buying of land 1500 — Thirty Years' War.

³¹ Baasch, *Hollaend. Wirtschaftsgeschichte*, 50; Roupnel *op. cit.*

³² Marx, *Capital* III, xlviij, sec. v on *métayage*; G. de Falguérolles, *Décadence de l'économie agricole à Lempaut (Languedoc)* (*Annales du Midi* 53, 1941, 142-) — an important article.

³³ Raveau, *op. cit.*, cap. III. For non-innovating character of French agricultural handbooks, G. Lizerand, *Le régime rural de l'ancienne France*, 1941, 79-81. M. J. Elsas, *Umriss einer Geschichte c. Preise u. Loehne in Deutschland*, 1949 for stable agric. productivity.

³⁴ G. Coniglio, *Il regno di Napoli al tempo de Carlo V*, 1951 and Braudel, *op. cit.* V. Barbour, *Capitalism in Amsterdam*, 1949, 26-7; A. Juergens, *Z. schleswig-holsteinschen Handelsgeschichte im 16. u. 17. Jh.*, 1914, 10-12 for change from an exporting to an importing area at end of 16th century.

³⁵ Because they relied on local food supplies, while towns imported in any case, often from great distances. Meuvret, "La géographie du prix des céréales," (*Revista de Economia*, Lisbon 1951, 63-9). Falguérolles, *loc cit.* for peasants ceasing to eat wheat, which they have to sell to pay taxes.

³⁶ Falguérolles, *loc cit.* argues so.

³⁷ Goubert, *loc cit.*

³⁸ Elsas, *op. cit.* O. Roehlk, *Hansisch-Norwegische Handelspolitik im 16. Jh.* 1935, 74-5 for an excellent discussion of this, though relating to the "price-scissors" between corn and fish-prices. Report of Royal Commission on Cloth Industry, 1640 (*E.H.R.* 1942, 485-6).

³⁹ Bloch, *op. cit.* 145 on this important last point.

⁴⁰ M. Campbell, *The English Yeoman*, 1942, 186-7, cap. vi passim, and Hoskins, *Past and Present* 4, 1953.

¹⁴ H. Widmann, *Geschichte Salzburgs*, 1914, III, 354; Feller, *op. cit.* II, 368; H. Schnell, *Mecklenburg im Ztalter d. Reformation* (1900) 201.

¹⁵ "Prices and Industrial Capitalism" (*Econ. Hist. Rev.* VII, 184-5).

¹⁶ Knoop and Jones, *The Medieval Mason*, 1949, 207-12, Cipolla in *Econ. Hist. Rev.*, *loc cit.* 184, Elsas, *op. cit.*, E. J. Hamilton, *War and Prices in Spain 1650-1800*, 1947, 219. G. Unwin, *Industrial Organisation in the 16th and 17th Centuries*, 1904, cap. VIII; G. Des Marez, *Le Compagnonnage des Chapeliers Bruxellois*, 1909, 17-21; M. St. Léon, *Le Compagnonnage*, 1902; L. Guéneau, *L'organisation de travail à Nevers au 17e s.* 1919, 79 ff; J. Gebauer, *Gesch. d. Stadt Hildesheim*, 1925, 221 ff; etc.