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East and West in the Seventeenth Century: Political Crises in Stuart England, Ottoman Turkey, and Ming China

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For nearly forty years scholars have wrestled with the seventeenth-century “general crisis.” Certain facts are not in dispute. The first half of the seventeenth century saw a widespread slowing and eventual halt to the steady increases in population and prices that had begun around 1500. In addition, rebellions and revolutions shook regimes from England to China. What is contested is the root cause, the connections, and the significance of these events.¹

Some have argued that the seventeenth-century crisis marks a turning point in the history of capitalism, or of the absolutist state. But others have suggested that what occurred was more a series of geopolitical shifts, with trade and economic leadership moving to the North Atlantic from the Mediterranean. Some have maintained that political events were primary in this period; others have claimed that economic trends dominated and brought about the political crises. Certain scholars have found a world-wide depression in the seventeenth century and sought to explain it. Yet others have noted that trade remained strong in certain markets and revived rapidly after 1660, and thus that the claim of a general depression is illusory.²

There seem to me to be two fundamental defects in prior debates over the seventeenth-century crisis. First, they are for the most part Eurocentric. Reflecting the biases of both Karl Marx and Max Weber, they assume that events in the West reflect important structural changes, demonstrating the dynamism of Europe; on the other hand, equally major political rebellions and changes of regime in the East are given only minor attention, and are often dismissed as mere peasant uprisings or dynastic changes. In fact, the political rebellions in the Ottoman Empire and China involved the same broad array of urban,

¹ The modern debate on the general crisis is presented in the collections of essays edited by T. Aston (1967) and by G. Parker and L. Smith (1978).

² In addition to the collections cited in note 1, see Anderson (1974), deVries (1976), Wallerstein (1974, 1980), and Forster and Greene (1970).

elite, cultivator, and heterodox ideological struggles against a fiscally weakened state that characterized Western political crises. Moreover, the Eastern crises resulted in arguably greater changes in state power, class structure, and local government than most Western crises of the period. Thus, at the very least, the history of the general crisis in the East should be given treatment equal with accounts of European changes. At most, and I shall argue this strongly, Eurocentric notions of the seventeenth-century crisis positing a crisis of capitalism that in Europe led to dynamic structural changes, while its ramifications reaching into peripheral areas in Asia caused far less change, should be discarded. To grasp the nature of social change in the seventeenth century, we need instead to conceive of a worldwide crisis of agrarian absolutist states that affected Eastern empires in equal measure with Western monarchies.

Second, the debates artificially isolate elements of the crisis. Joseph Fletcher, Jr., has recently asked, "Is there an early modern history? Or are there only histories? . . . Without a macrohistory . . . the full significance of the historical peculiarities of a given society cannot be seen" (1985:37–38). Thus the disputes over whether the crisis was fundamentally economic or political, over whether popular movements or state and elite actions precipitated the crisis, and over whether the seventeenth century was marked more by change or continuity ultimately cannot be resolved when taken separately, for the answers vary as one examines different parts of this complex historical puzzle. What is needed is an over-all framework that integrates economic, social, and political changes, providing a common background against which we can better discern the peculiarities of each case.

This essay examines three seventeenth-century political crises: the English Revolution of 1640, the urban riots and Anatolian rebellions in the Ottoman Empire (starting roughly in the 1590s, with disorder culminating in the assassination of the sultan in 1648, and ending with the suppression of Abaza Hasan Pasha's revolt in 1658), and the fall of the Ming dynasty in China (c. 1644). Rather than merely list parallels or common trends, I shall argue that behind all of these events lay a common causal framework rooted in a wide-ranging ecological crisis.

THE COMMON CAUSAL FRAMEWORK

The political crises of the seventeenth century are usually either described as unique events reflecting varying conditions in each country, or, if given a common cause, are wrapped in a Marxist view that stresses the growing impact of capitalism.³ I suggest that an alternative explanation better fits the

³ P. Zagorin (1982) in particular presents each crisis as unique; I. Wallerstein (1980), P. Anderson (1974), and E. Hobsbawm (in Aston [1967]) stress the role of capitalism.

historical evidence, and will briefly outline this explanation before presenting the evidence for each case.

Large states of the early modern period, whether monarchies or empires, faced certain common constraints.⁴ They needed to raise sufficient revenue to support their armies and reward their retainers. They needed sufficient allegiance from the elites to provide loyal officials for government service and, perhaps more important, to provide loyal local authority in an era when centrally appointed officialdom rarely penetrated below the county level. And they needed to provide sufficient stability and sustenance for the working and cultivating population that these groups could pay their taxes and other obligations and yet be uninclined to rush to support rebellions. Thus, any train of events that simultaneously led to fiscal deterioration, elite factionalism and disloyalty, and a major decline in popular living standards or the overturning of traditional popular rights threatened the ability of states to maintain their authority.

In the sixteenth century such a train of events did begin, on a world-wide scale. Put simply, large agrarian states of this period were not equipped to deal with the impact of a steady growth of population that was in excess of the productivity of the land. The implications of this ecological shift went far beyond mere issues of poverty and population dislocation. Pressure on resources led to insistent inflation of prices. As the tax systems of most early modern states were based on fixed rates of taxation on people or on land, tax revenues lagged behind prices. States thus had no choice but to seek to expand taxation. This was all the more true as increasing populations led to the expansion of armies, and hence to rising real costs. Yet attempts to enlarge state revenues met resistance from elites and the populace, and thus rarely succeeded in offsetting rapidly spiralling expenses. As a result, although most major states in the seventeenth century were rapidly raising taxes, they still headed toward fiscal crises. Moreover, elites were seeking to secure their own relative positions. Population growth increased the number of aspirants for elite posts and, given the fiscal strains on the state, their demands were difficult to satisfy. Elites thus were riven by increasing rivalry and factionalism as pursuit of positions and resistance to state demands led to the formation of rival patronage networks competing for state rewards. Finally, population growth led not only to rural immiseration but also to urban migration and falling real wages because of the especially rapid expansion of youth cohorts that accompanied the population growth. Thus food riots and wage

⁴ I do not mean to downplay the extent of differences among these states, and I will return to differences, particularly cultural differences, below. I merely wish to note certain cogent similarities that make comparative analysis possible. Similarities between social revolutions in Eastern and Western states have been demonstrated by T. Skocpol (1979), while S. N. Eisenstadt (1963) has suggested some of the structural similarities between feudal-absolutist and imperial states.

protests became more frequent. Both dissident elites and dissatisfied artisans were widely recruited into heterodox religious movements. As all these trends intensified, the results were state bankruptcy and consequent loss of control of the military, elite-led movements of regional and national rebellion, and a combination of elite-mobilized and popular uprisings that manifested the breakdown of central authority.

Naturally, these trends showed national and regional variations. Yet, as I shall try to demonstrate, the evidence for these trends is strong even in diverse settings. This framework thus offers a way to understand the incidence across Eurasia of political crises in the early and mid-seventeenth century, and to explain their common features, without resort to Eurocentric notions of capitalist growth or a rising tide of absolutism.

THE ECOLOGICAL CHANGE

Across Eurasia, recovery from the fourteenth-century plague was slow. But in the sixteenth century, the growth of population accelerated. In Asia Minor, over-all population is estimated to have increased 50–70 percent between 1500 and 1570, while towns commonly showed increases of 200 percent or more. Istanbul, whose population was perhaps 100,000 in 1520, swelled to a metropolis of 700,000 by 1600, including the suburbs beyond the city walls.⁵ China's population appears to have risen from roughly 65 million in the late fourteenth century to 150 million by the late sixteenth century. Market towns increased in number, while major urban centers such as Soochow, Nanking, and Peking experienced substantial growth.⁶ In England, population increased from just over 2 million inhabitants around 1520 to more than 5 million in 1640. London grew from a city of 50,000 in 1500 to embrace a metropolitan population of roughly 400,000 in 1650, while lesser towns such as Norwich, Worcester, Bury St. Edmunds, and hundreds of smaller market towns doubled or tripled in size.⁷ The cause of this spurt in growth is still debated, but evidence is accumulating that the prime reason was a reduction

⁵ There is some controversy over Ottoman population figures. The estimate on Asia Minor is from O. L. Barkan (1970). Problems arise because of incomplete data and uncertainty about the size of households (*hane*), a common unit in Ottoman records. However, local studies based on military counts of all adult males have repeatedly reinforced the finding of rapid sixteenth-century growth. In addition, urban studies confirm the pace of rapid increase. Anatolian population is discussed by M. A. Cook (1972), L. Erder (1975), Erder and S. Faroqhi (1979), and Faroqhi (1977–79). Urban growth is analyzed by Barkan (1970), Jennings (1976, 1983) and Faroqhi (1984). The increase in market towns is described by Faroqhi (1979) and by H. Islamoglu and C. Keyder (1977).

⁶ Chinese population estimates are from P. Ho (1959) and D. D. Perkins (1969). Urban growth is described by M. Marmé (1981), and Y. Shiba (1977).

⁷ English population estimates are from G. A. Wrigley and R. S. Schofield (1981) and J. Cornwall (1970). Town growth is uneven, as older medieval cathedral towns, such as Coventry, declined. However, it appears that the growth of London, new provincial capitals, and smaller market towns overwhelmed the few cases of urban decline (Clark and Slack 1976; Dyer 1979; Finlay 1981; Gottfried 1982; Pythian-Adams 1979).

in mortality from infectious disease, perhaps linked to favorable trends in climate.⁸

The increase in population was not accompanied by comparable growth in agriculture. In Anatolia, cultivated acreage appears to have increased by only 20 percent from 1500 to 1570. Local studies find a marked decline in productivity per capita. In the districts of Konya and Aksehir, for example, the number of rural taxpayers roughly doubled in the sixteenth century while the wheat harvest rose merely 15 percent. Increases in barley cultivation and gardening slightly alleviated, but hardly compensated for, the resulting deficit.⁹ In China, the amount of land under cultivation is estimated to have risen less than 50 percent between the late fourteenth and mid-seventeenth centuries. Adoption of high-yielding American crops, such as maize and sweet potatoes, plus the elimination of rice from the diet of the poor in favor of flour and potato products, sustained population growth, but at a lower standard of living. P. Liu and K. Hwang estimate that the average acreage per head tilled in China fell by 33 percent from 1480 to 1600.¹⁰ County-level studies in England similarly show population increasing in excess of increases in arable land, resulting in emigration and changes in diet and landholding.¹¹

These changes made the sixteenth and early seventeenth centuries exceptional, for after 1650 these trends reversed; population declined in all three regions, most markedly in China and eastern Anatolia,¹² and agricultural expansion overtook now stagnant populations. In China, the average of land cultivated per head rose perhaps 50 percent from 1600 to 1730, while England, as a result of substantial increases in output, changed from a net importer of grain to a major exporter by the late seventeenth century.¹³

THE PRICE REVOLUTION

Few world events have been more fundamentally misunderstood than the great inflation of 1500–1650. Fernand Braudel (1966), E. Hamilton (1934), and H. and P. Chauu (1953), among others, noting the growth in silver

⁸ The impact of disease is discussed by A. Appleby (1975c), M. W. Dols (1979), R. S. Gottfried (1978), J. Hatcher (1977), and W. McNeill (1977). Possible climatic causes are surveyed by G. Parker (1979) and P. Galloway (1986).

⁹ Data are from Barkan (1970) and Faroghi (1984). Population pressure is also discussed by Barkan (1975), Cook (1972), and Jennings (1983).

¹⁰ Data are from Perkins (1969) and Liu and Hwang (1977).

¹¹ Appleby (1975a, 1975b), Skipp (1978), Spufford (1974), Underdown (1981).

¹² In addition to the sources in notes 4–10, population stagnation after 1650 is noted for the Ottoman Empire by B. McGowan (1981), R. Owen (1977), and Sugar (1977); and for China by J. Shang (1981–82) and P. Huang (1985:115). Istanbul stagnated as well, its population in 1700 being only 15–20 percent greater than in 1600 (Mantran 1962).

¹³ The estimate for China is from Liu and Hwang (1977). On English grain exports, see D. C. Coleman (1977). We have little data on the Ottoman economy in the late seventeenth and eighteenth centuries, but for a well-reasoned discussion of the signs of Ottoman recovery after 1650, see T. Naff (1977).

imports from America in the sixteenth century, have attributed the bulk of the rise in prices to the inflow of silver.¹⁴ Yet this attribution rests on no more than a brief coincidence of rising trends, and ignores the fundamental structure of markets and demand.

The equation that relates money supply and prices is $MV = PQ$, where M is the money supply, V the velocity of circulation of money, P the price level, and Q the quantity of goods and services marketed. A direct relationship between the money supply and the price level occurs therefore only when the velocity of circulation and the quantity of goods marketed are either constant or change in the same proportion. But in the sixteenth and early seventeenth centuries monetary velocity changed rapidly relative to economic output.

As population increased, many of those unable to secure land to farm turned to rural crafts, or migrated to the burgeoning cities and towns. In Anatolia, China, and England, not only did the large cities grow, but the countryside exhibited a vigorous growth of smaller market towns and a subdivision of economic tasks leading to greater occupational specialization (Faroqhi 1984; Zurndorfer 1983; Goldstone 1984). I have shown elsewhere how these changes can create a dramatic rise in the velocity of circulation, as the increased scope and density of trading networks encouraged a more rapid turnover of money.¹⁵ In addition, merchants and monarchs sought to extend their purchasing power by doing more business on credit; monarchs also turned to debasement of the coinage. As Miskimin (1975) notes, both expansion of credit and debasement augment the velocity of money. Thus, from a variety of sources, velocity grew rapidly, financing the expanding demand of a rising population. Yet the output of agriculture, which provided both food and the raw materials for most manufactures, grew only modestly, leading to steady upward pressure on prices. From 1500 to 1650, grain prices in the Ottoman Empire, China, and England rose by roughly 500 percent.¹⁶

Silver imports from the New World can have played only a small role in this rise. Though prices escalated by several hundred percent, the best estimate of the increment in England's coinage in the sixteenth century, taking into account the debasement of the silver content, shows an increase in the

¹⁴ F. Wakeman (1986), M. Cartier (1981), and W. S. Atwell (1982) also emphasize the role of silver imports on Chinese prices. H. Inalcik (1978) and Wallerstein (1980) do the same for the Ottoman Empire and Europe.

¹⁵ I discuss the mechanisms and evidence for increased velocity of circulation in Goldstone (1984). P. Lindert (1985) provides further evidence for increased velocity in England during 1500–1650. Velocity increase was also aided by the availability of credit. In China, use of credit was common from the twelfth century (Elvin 1973:146ff). Evidence for widespread use of credit in the sixteenth century is provided for England by H. A. Miskimin (1975), and for the Ottoman Empire by Jennings (1973) and B. Cvetkova (1983).

¹⁶ Price data are best for England, fair for the Ottoman Empire, and spotty for China. However, price rises appear to be of the same order in all three areas during this period. Data on English prices are from Coleman (1977), on Ottoman prices from Barkan (1975) and Faroqhi (1984), and on Chinese prices from Cartier (1969, 1981), A. Chan (1982:234), and E. P. Wilkinson (1980:27).

volume of silver in circulation of *only 33 percent* (Challis 1978).¹⁷ Even if we double this estimate to allow for smuggling and foreign coins entering circulation, only a fraction of the rise in English prices can be attributed to augmentation of the money supply by added silver. Moreover, chemical assays of silver coins from the sixteenth century Ottoman Empire find that this silver is markedly different in composition from that characteristic of the New World silver deposits (Gordus and Gordus 1981). Thus it appears that Ottoman coinage did not reflect a movement of New World silver into the Levant. And, as I shall discuss further below, the scale of silver imports from the New World to China was insignificant compared to the vastness of the Chinese economy.

That prices rose more rapidly than the volume of silver available is evident in all three countries from the complaints in the late sixteenth and early seventeenth centuries by monarchs, urban merchants, and rural artisans that they *lacked* the hard coin they needed for purchases. After all, if a surfeit of silver was driving prices upward, monarchs could have contained inflation merely by reminting their coinage with a higher silver content. Yet states debased their coinage in this period, and both the mints and merchants complained that a shortage of silver was hampering their operations.¹⁸ In both England and China, there was an increasing reliance on copper coinage, or even lead tokens, to meet the demand for a medium of exchange (Goldstone 1984:1136; Chan 1982:282).

Moreover, the coincidence of trends between silver flows and price movements vanished after 1650. In the later seventeenth century, silver exports from America and their flow through Europe surpassed those of the late sixteenth century; yet prices were stable or declining in most nations (Moreneau 1968; Chaudhuri 1963).

In short, between 1500 and 1700 price movements across Eurasia corresponded closely to the balance between population and food supply. In the sixteenth and early seventeenth centuries, population growth, accompanied by increasing urbanization and velocity of monetary circulation, pressed on limited food supplies and led to steadily rising prices. As the Ming minister of the Board of Works noted in 1638, "The vital problem lay in the production of grain, and it was the shortage of grain that had caused the rise of prices in all commodities" (cited in Chan 1982:284). By contrast, in the late seventeenth century, despite a rising volume of silver imports, prices stabilized as food supplies grew while population levels stagnated; money sought other

¹⁷ Much of the silver imported to England went into ornaments and plate. Silver also drove gold coinage out of circulation. As a result, the increase in the bullion in circulation in England was quite modest (Challis 1978; Attman 1981).

¹⁸ Problems and complaints of currency shortages in the early seventeenth century are discussed for England by B. Supple (1959), for China by Wakeman (1986), Marks (1984:9), Huang (1974:80–81), and W. Peterson (1979:69), and for the Ottoman Empire by Inalcik (1969:139; 1970a:215).

outlets (for example, manufactured goods, whose prices did rise; investment in housing and trade; and hoarding) instead of bidding up the price of food. Thus, as J. D. Chambers has remarked, “the price revolution of the sixteenth century, which used to be fathered on the import of bullion to Spanish ports, is now firmly placed on the doorstep of a demographic boom” (1972:27).

In the late sixteenth and early seventeenth centuries, the joint impact of these population and price changes undermined government finances, reshaped elite social mobility and competition, and precipitated popular uprisings.

FISCAL DECAY

The Ottoman, Ming, and Stuart states all drew part of their incomes from varied trade and customs duties. Yet, as essentially agrarian states, they derived most of their revenues from land taxes. In all these states, land taxes were generally assessments based on estimates of the value of cultivated acreage. Such tax systems were extremely vulnerable to the effects of ecological change. First, as populations grew, new land was brought into cultivation, old land was more intensively farmed, and a larger proportion of the population, lacking land, turned to commerce and handicrafts to make a living. None of these new sources of wealth were effectively brought under assessment. Local officials, whether English Justices of the Peace or Chinese gentry, when called on to update land registers, simply resubmitted past registers or made only minor changes (Huang 1969:87; Schofield 1964:158, 190–94). Thus, as population grew, the tax systems became more and more out of touch with the composition of the economy; taxes shrank as a proportion of total output. Second, as families multiplied, individual peasant land holdings dwindled into uneconomical plots, with the poorest becoming landless laborers. As continued population pressure raised rents and drove down real wages, holders of miniscule plots and the landless had little choice but to sell or to seek the aid and protection of large landlords. More and more land and labor thus passed under the control of local magnates, who managed to evade or pay greatly reduced taxes on their land. Finally, as population pressure forced prices up, the costs of government—particularly the pay and provisioning of armies, always the largest and most crucial item of government expenditure—steadily escalated. The long-range effect of ecological change on government finance was to create an ever-widening gap between increasing costs and the decreasing efficiency of taxation.

The Ottoman state, in its heyday in the early sixteenth century, had relied on prebendal *tumar* cavalry as the backbone of its army. Provincial lands were divided into estates (*tumars*) of various sizes, which were graded according to the value of their production. The income from larger estates was devoted to the use of the sultan and the chief provincial officials; the smaller estates were granted to members of the cavalry, who also served as local officials and were responsible for providing their own equipment plus light horse and infantry to

accompany them on campaign.¹⁹ *Timar* incomes were set on the basis of a fixed cash-value assessment, but were collected in kind. The army was thus theoretically self-sufficient from the local collection of revenues.

By the late sixteenth century, rising prices had destroyed this system. "Squeezed between the millstone of set stipends and rising prices," *timar* holders could not afford to equip themselves for campaigning. Their *timars* were then revoked, and the income reassigned to the court or to imperial favorites (Itzkowitz 1972:89). Most important, as lands fell into the hands of courtiers and tax-farmers, they became de facto private estates (*vakıfs* and *malikânes*) and were kept off the tax rolls (Inalcik 1972:350–53; Shaw 1976:173).²⁰ Tax collections lagged further and further behind, with the tax burden falling ever more heavily upon the peasantry of the remaining state lands.

The ranks of the army, however, had to be maintained, and this was accomplished in part through the permanent expansion of the imperial troops—janissaries and palace *sipahis*—and in part through the temporary recruitment and training of landless peasants as musketeers. These latter mercenary troops (*sekbans*) were recruited for specific campaigns, then returned to the provinces, where they served in the retinues of provincial governors and landowners or formed independent bands of bandits. Expanding the imperial troops, who received salaries from the imperial treasury, and supplementing them with mercenaries entailed an enormous increase in the burden of cash payments borne by the central government. While the number of *timar* cavalry fell from 87,000 in the 1560s to 8,000 in 1630, the janissaries and palace *sipahis* increased from 12,900 in 1527 to 67,500 in 1669, with the total of their annual salaries growing tenfold (Barkan 1975:20). From the 1580s janissary revolts repeatedly demanded pay increases to help keep pace with inflation, and protested payments in debased coin. Climbing military costs severely unbalanced the Ottoman budget: The treasury surplus of 71 million *akçes* of 1527–28 had shrunk to nothing by 1581–82, and turned into a 44 million *akçes* deficit by 1669–70 (Barkan 1975:17).²¹

¹⁹ The *timar* system has sometimes been likened to feudal vassalage. However, as Weber first pointed out, it was a system of prebends, not fiefs. The *timar*-holder had no land rights; he received only a temporary land grant from the sultan, from whom were due no reciprocal obligations. Subinfeudation was not allowed; all *timars* were held directly and solely from the sultan (Weber 1978:1074–75).

²⁰ In addition to *timar* lands being converted to private estates (*çiflik*), newly cleared and cultivated lands (*mavai*) and lands devoted to religious foundations (*vakıfs*) but managed by particular families were treated as private, rather than state, lands. All of these expanded in the sixteenth and seventeenth centuries, so that the proportion of Ottoman landholdings directly controlled and fully taxed by the state steadily decreased (Inalcik 1973, 1985).

²¹ As firearms grew in importance in the sixteenth century, an expansion of the musket-wielding janissaries and mercenary infantry was needed for defense of the empire, particularly against the Austrians (Inalcik 1980:286–88; Jennings 1980:339–42), and was thus perhaps a necessary evil. Still, the decay of the *timar* system of revenue collection was an unmitigated internal problem for Ottoman fiscal and provincial administration.

It has sometimes been suggested that the Ottoman fiscal crisis was tied to a critical fall in trade with the West in the late sixteenth or early seventeenth century. Yet R. Davis's (1970) research on the English trade with the Levant argues otherwise. The Persian wars of the 1570s and 1580s hurt the Ottoman silk trade, but in the 1590s peace and trade were restored. The spice trade still flourished, bringing in customs revenues in 1582 of four times what they had been a century earlier. The over-all value of the Levant trade did not diminish in the early seventeenth century; indeed, England, the largest Western importer in the Levant, nearly doubled the value of her imports from the Ottoman Empire from the 1630s to the 1660s. R. Mantran (1977:217–18) observes that during the sixteenth century “the Cape route scarcely affected [Ottoman] trade”; the transformation of trade structures is not apparent until the later seventeenth century (Inalcik 1970a:213, 1973:125–27; Davis 1970:195, 202; Islamoglu and Keyder 1977:43; De Groot 1978:10; Steensgaard 1973:189–91). The Ottoman fiscal crisis stemmed from causes more fundamental than a short-term dip in trade.

By the end of the sixteenth century, fiscal strains had led the central government to seek extraordinary remedies. The *avariz*, an irregular tax previously used only for special cases of military emergency, became “an annual levy, made heavier from year to year” (Inalcik 1970b:345), while the capitation tax on Christians rose sixfold from 1560 to 1590. To extract revenues formerly collected by local *umar* holders, resort was had to tax-farmers, but their abuses inflamed the provinces (McGowan 1981:58; Itzkowitz 1972:294). “Heavy taxes, corruption and insecurity led to the first large-scale rebellion of the populace” in the 1590s (Inalcik 1973:50). Thus the failure of the Ottoman tax system laid the foundation for popular uprisings; we shall see a strikingly similar pattern in the fiscal decay and government response that occurred in late Ming China.

The ultimate failure of the Ming tax system was literally chiseled in stone when the founding Hung-wu emperor had the land-tax quota carved in stone tablets in 1385. From that date, the land tax, which supplied roughly two thirds of imperial revenues, remained unchanged “regardless of increases in population and land brought under cultivation” (Huang 1969:86–87, 1974:46–47). Local gentry concealed population increases from the central government by simply resubmitting past enumerations as current. The result, as S. Yim notes in his careful study of official population data from sixteenth-century Honan province (1978:15), was “under-registration of the population on a gigantic scale,” and a consequent fossilization of the official tax base.

In addition to land taxes, corvee labor and supplies of manufactures to the imperial court were organized by dividing the population into work teams, organized according to a system known as *lijia*. But “the *lijia* system was created for a static society. . . . The tax and corvee system of the early years of the dynasty was designed for a society with a stable population and very

little circulation of reliable currency'' (Littrup 1981:60, 66). Population growth increased the administrative difficulties of this system, while its effectiveness declined.

The most graphic example of this process was the decay of the army. In the early Ming, the military was intended to support itself by farming when not engaged in combat. Yet the self-sufficiency plan always fell short, and the army—consisting of men drawn from families chosen for hereditary military service—subsisted on revenues drawn from their locales, supplemented by payment in paper money. However, as population growth cut into the ability of local prefectures to support a local garrison and provisions were often in short supply, the authorities simply suspended payment of rations and salaries. The result was massive desertion by the soldiers. By the sixteenth century, army units composed of military families—the *wei-so* soldiery—had been reduced to little more than skeletons, often with a force of only 10 percent of their prescribed strength (Huang 1974:64–67; Chan 1982:189–201).

As in the Ottoman Empire, the hereditary local military in China became supplanted by a recruited mercenary force. Paying and supplying this army—concentrated on the northern frontier—became the critical issue of the Ministry of Revenue. The required revenues were prodigious: Annual costs of the military force rose from less than 500,000 taels of silver in the late fifteenth century to nearly four million taels in the early seventeenth (Chan 1982:127; Huang 1974:xiv, 285).²²

This problem was met in part by commutation of levies in kind to taxes paid in silver. In the early Ming, taxes had been paid in goods—grain, tea, charcoal, silk cloth—and in services—*corvée* labor in irrigation works, transport, postal service, and menial work in government offices. Cash played only a modest economic role, as paper and copper currencies were easily counterfeited or inflated and hence unreliable media of payment. However, all these goods and services were assessed on the basis of land-tax quotas in a region, and were thus virtually fixed and increasingly obsolete as populations grew and as handicrafts and commerce and more intensive cultivation extended their economic roles. In a series of reforms known as the Single Whip, which were designed to give the government more control over its income, the complicated requisitions for materials, grain, and labor were gradually consolidated and commuted to payments in silver. Yet the reforms, carried out over more than a century, were in many ways more of a burden than an aid to the Ming throne.

In 1436 seven southern districts that provided 15 percent of total land-tax revenues had their grain taxes commuted to silver, ostensibly to ease the burden of transportation costs. In fact, the commutation rate was set well

²² One tael of silver was roughly equal to 1.3 ounces.

below the market price of grain, and commutation thus produced a tax reduction for wealthy landowners in the region. Under the Wan-Li emperor, the grand secretary Chang Chu-cheng (in office 1572–82) attempted to restore the Ming treasury by further commutations. Taking advantage of a temporary peace with the Mongols on the northern frontier, Chang reduced the army and prosecuted corrupt officials and tax delinquents as well. More important, he ordered government use of *corvée* labor reduced by two thirds, but without reducing the *corvée* tax. Instead, the remainder was commuted to silver and hoarded in the imperial treasury (Huang 1974:295).

Over the course of a century the tax system thus gradually became more monetized; but the reforms failed to address the basic problems of Ming finance. Whether collected in kind or in cash, over-all revenues were basically fixed, while expenses, particularly military expenses, continued to rise as steady inflation pushed costs upward: The basic annual pay of a soldier in the Ming armies rose from six taels in the 1550s to eighteen taels by the early seventeenth century (Huang 1974:285).

Moreover, the wealthiest areas, particularly the lower Yang-tze delta, were also those in which the concentration of influential gentry made it difficult for the central government to enforce taxation (Fu 1981–82:75–76). False registrations and collusion with local officials allowed wealthy landowners to evade taxes (Liang 1956; Tsurumi 1984; Marks 1984:6–7), and the resources that could have averted disaster flowed out of reach of government taxation. The tax burden then fell more heavily on the poorer regions of the northwest and on the poorer peasants of the south, while government revenues became ever more inadequate to meet current expenses (Huang 1969:110).

From the 1590s, the government incurred annual deficits. Through the end of the sixteenth century, the cash reserves accumulated under Chang's administration staved off disaster, but these reserves were soon exhausted by renewed wars with Japan and the Manchus. In the seventeenth century the government responded with a series of special tax surcharges. Eunuchs were sent to the provinces to collect the special revenues (Yang 1969:13), which, by the 1640s, amounted to a doubling or tripling of the local tax burden (Hucker 1957:135; Rossabi 1979:187). But it is doubtful if these nominal increases were ever realized. Provincial administrations had been exhausted by poverty, while rising prices and fixed state revenues had led local administrators to rely on personal influence and corruption to salvage their own futures (Parsons 1970:xiii; Wakeman 1979:43–44). By the 1640s, several provinces had been lost to rebels, and the imperial treasury was empty. Unable to pay its own troops or to command the allegiance of local elites, the Ming dynasty succumbed first to the internal revolt of deserting soldiers and rebellious peasants, and second to the desertion of the Chinese gentry, whose invitation to the Manchus revealed their preference for even a barbarian

Confucian regime, if strong enough to restore order, over the corrupt and impotent Ming or the rule of popular rebels.

It is sometimes suggested that in addition to internal factors a collapse in China's silver trade with Europe contributed to the Ming decline in the early seventeenth century. Thus Chaunu's famous comment on the Ming crisis: "Unknown to itself, China was responding to the rhythms of Mexico and Peru" (cited in Adshead 1973:276). But however tempting it may be to link China's fortunes to Europe's via the silver trade, attributing Chinese economic difficulties to a fall in the number of European ships and bullion shipments reaching Manila and Macao is quite hyperbolic, for it ignores the vast scale of the Chinese economy. W. S. Atwell (1977:2) has estimated the volume of silver reaching China via European trade as generally two to three million ounces per year in the late sixteenth and early seventeenth centuries, with an extreme peak year in 1597 of perhaps thirteen million ounces. But recent estimates of China's total income in the mid-sixteenth century suggest a volume of economic activity equivalent to roughly 825 million to 1.1 billion ounces of silver (Feuerwerker 1984:300). Thus the total volume of European trade was never more than just over 1 percent of China's economy, and was generally 0.2–0.3 percent. The complete cessation of such trade would hardly have been noticeable in the over-all economy.

Still, it may be suggested that because the European trade was in silver bullion it played a role far out of proportion to its scale in the economy, for it provided the crucial lubricant of economic activity—hard cash. This assumption, too, bends under the vast weight of the Chinese economy. We have no idea of the total amount of silver circulating in late Ming China, and therefore no precise idea of how significant the fall in silver bullion imports from Europe might have been. However, we can compare the volume of silver imports with some specific figures from the Chinese economy. J. Needham and R. Huang note that "before the end of the sixteenth century, the carrying of something like thirty thousand ounces of silver by an individual on a business trip appears to have been quite common" (Needham and Huang 1974:11). M. Elvin (1972:168) cites a seventeenth-century source remarking that the "poorest" cloth merchants in Shang-hai possessed capital of ten thousand ounces of silver, the richest several hundred thousand. For further comparison, Huang reports that a superintendant of the salt tax in the 1560s could make a personal income of nearly forty thousand ounces of silver a year, and that richer families in the Yang-tze basin often kept hoards of several hundred thousand ounces of buried silver (Huang 1974:81, 215). Finally, Huang estimates that the annual tax revenue of the imperial government in the last quarter of the sixteenth century was forty-five million ounces of silver (Huang 1974:275). Remembering that the annual volume of silver imports in the late sixteenth and early seventeenth centuries was generally two

to three million ounces, we may now project a better sense of what this meant relative to China's monetary circulation. The total of a year's trade with European bullion ships would have provided enough silver to (1) provide capital for a hundred substantial merchants or businessmen (in a population of 150 million persons!), *or* (2) finance the annual income of twenty-five superintendants of the salt tax or equivalent officials, *or* (3) provide the hoarded savings of ten wealthy families in the Yang-tze basin, *or* (4) finance 5 percent of the government's annual tax collection.

Perhaps most important to recall, China was importing more silver from Japan than she was from European sources, and the Japanese volume grew steadily in the first half of the seventeenth century, offsetting the European decline (Atwell 1977:1, 9; Iwao 1976:11). This is not to say that a shortfall in the total silver imports from Japan and Europe would not have had a significant impact, and such a shortfall did occur in the late 1630s and early 1640s (Atwell 1986). However, by this time the decay of imperial administration, provincial rebellions, and popular unrest had already disrupted China's economy, and it may well be that the decline in trade at this time merely reflected, rather than caused, the Ming crisis. There are two reasons to favor this interpretation. First, in the 1630s and 1640s the value of silver relative to copper, gold, and rice fell: In 1630–33 it took from 236 to 250 copper coins to purchase 16.875 grams of silver, while in 1635–39, it took only 188 (Atwell 1986); similarly, the value of silver relative to gold fell from one-fourth in 1580 to one-fourteenth in 1650. Rice prices in silver also peaked in the 1640s, at double the late-sixteenth-century level (Cartier 1969). All of these trends are hard to reconcile with a sharp fall in the supply of silver in circulation which should have driven silver's value up; instead, they suggest that the 1630s and 1640s saw a dishoarding of silver and shortages of rice, both signs of internal economic disruption. Second, after the Manchus restored order, the silver trade with Japan quickly resumed: From 1648 to 1667 Japan exported over one million kilograms of silver to China, an average of almost two million ounces per year (Kobata 1981:273). In short, the decline in China's silver trade appears to follow upon the decay of the Ming, rather than the other way around. Thus cumulating internal disorder, not an external interruption of silver supplies, seems to be the crucial cause of the Ming crisis.

The critical problem was that rising military costs collided with a decreasingly effective tax system. As Albert Feuerwerker remarks, "the Ming financial problem was less one of an unbearable tax burden than that the tax structure and administration could not raise enough revenue to meet critical expenses and collected what it did with a good deal of inefficiency and inequity" (1984:306).

It is widely recognized that the English Revolution of 1640 began with a financial crisis. What is striking is that the development of this crisis reflects processes quite similar to those in the East—the impact of an expanding

population and inflation on a highly vulnerable system of taxation. The key fact about the financial crisis of 1640 was that it was not a short-term crisis faced by a monarchy that was otherwise fiscally sound. A financially strong monarchy could always survive a short-term crisis through loans or sale of assets. The severity of the fiscal problem in 1640 arose from its coming at the end of an extended period in which the Crown had gradually exhausted its assets and credit.

In theory, the regular expenses of the Crown—support of the royal household and officials, pensions, and the administration of justice—were met out of rentals of Crown lands, customs duties, and court fees and fines. However, the amounts of most of these “ordinary” revenues remained unchanged or were adjusted only at long intervals; inflation thus created recurrent shortfalls. A tightening of customs collection in the last years of Elizabeth’s reign, combined with severe cutbacks in court expenses, briefly produced a substantial surplus in the ordinary accounts. But for most of the period from 1540 to 1650 inflation raised expenses faster than revenues, leaving at best a declining margin in ordinary expenses to meet extraordinary needs, and more commonly a deficit (Alsop 1982:2, 16–17).

The most common “extraordinary” expense for the Crown was war, in which the chief cost from early Tudor times onward was the provisioning of armies. Under the Tudors, the counties were responsible for mustering the militia and supplying their equipment; but providing them with pay and food during campaign was a royal responsibility. “The main burden of victualling then fell on the government” (Davies 1964:234; see also Corvisier 1979:33–36). Armies of fifteen or twenty thousand men were frequently sent to northern France, Ireland, or the Scottish border. These armies did not live off the land, but were expected to buy their food out of their wages (Pearce 1942; Davies 1964:234–36). And as prices rose, the cost of putting an armed man in the field escalated accordingly. To wage war, or even to prepare for it, the Tudors and Stuarts depended on Parliament for additional taxes.

Henry VII found the land taxes voted by Parliament more than adequate to pay for his wars, and indeed made a slight profit. However, the yield of land taxes was steadily shrinking. Henry VIII spent two million pounds sterling in the European wars of the 1540s, while collecting just over one million in taxes; the deficit was made up by massive land sales. At the end of the century, Elizabeth balanced military expenditures of two and a half million pounds against collections of only slightly more than a million during 1598–1603, and met the difference from land taxes collected during the peaceful early years of her reign and from a short-lived surplus in ordinary revenues from tightening the customs administration (Schofield 1964:178). In the seventeenth century, income from land taxes shrank still further, until by the 1620s the land tax was unable to meet the Crown’s peacetime expenses (Sharpe 1978; Hill 1961:54; Russell 1979:51).

Tudor and Stuart land taxes consisted of the “subsidies” and “fifteenths and tenths.” Though they were voted at irregular intervals by Parliament and collected by unpaid landlords acting as justices of the peace rather than being collected annually by a central bureaucracy, their value steadily declined because they were subject to the same problems of unresponsiveness and evasion in the face of inflation as the Ottoman and Ming land taxes. The fifteenths and tenths were taxes assessed on villages at fixed amounts and therefore had no capacity to respond to inflation. The subsidies were in theory a different matter. A proportional tax on landed wealth and movable goods, with a small levy on wages of the landless, the subsidy was meant to fall chiefly on the rich, and to rise with their incomes. Yet from the 1540s county gentry consistently underassessed their lands. Sharply rising rent levels—rent records show a rise of 600 percent from the 1540s to the 1640s (Kerridge 1962)—rarely appeared in the tax-assessed value of gentry estates. As the value of the subsidies fell more and more out of line with gentry wealth, the smaller yeoman and relatively poor bore increasing burdens. In the 1540s, subsidy assessments may have been at 80 percent of the market value of landed estates; late in the century they were often at levels of 3 percent or lower. Sir Walter Raleigh noted that the amounts entered in the subsidy books represented “not the hundredth part of our wealth,” and Lord Burghley, one of Elizabeth’s favorites, was assessed at one fortieth of his estimated worth. In 1628 a subsidy’s real value was one sixth what it had been in the mid-sixteenth century (Schofield 1964:185–94; Williams 1979:74; Hill 1961:52). What had been the means to sustain extraordinary military expenditure in the early sixteenth century had so declined in value that, by the 1620s, it could no longer be relied on to meet the state’s needs.

Although there was recourse to debasement of the coinage, sale of Crown lands, and loans from the City of London and international money markets, repeated use of these expedients was exhausting them. The Crown held some 25–30 percent of England’s land after seizing the monasteries in the 1530s, but as of 1600 these holdings had dwindled to 5–10 percent (Mingay 1976:59). With capital shrinking and ordinary deficits growing after Elizabeth’s death, more extensive and regular borrowing became necessary. By 1615 international lenders were beginning to refuse further credit, and the government kept afloat only through loans from the City of London (Kenyon 1978:71). Within five years the City was refusing to lend on the security of the customs duties, as had been past practice, and insisted that remaining Crown lands be offered as security (Ashton 1960).

As Parliamentary land taxes became increasingly inadequate to tap the incomes of the landed gentry, the Crown sought alternative means. In the early seventeenth century honors and ranks were sold, royal claims to the forests were revived for the sake of fining users of these lands, and funds were

raised from various grants of monopoly. Money was extorted from merchant associations and the City of London by declaring their royal charters invalid or expired and then demanding fees in return for renewed grants of chartered privileges (Stone 1965:93–94, 1972:122; Ashton 1961). In the 1630s, Charles I expanded the special naval levy known as Ship Money. In Tudor times, there had been a small tax levied on port towns for naval support during war; Charles turned this into a regular levy on land, to be collected annually throughout the nation.

Crown finances of the late 1630s made up a fragile and tottering structure. The expedients of Ship Money, monopolies, and sale of honors, combined with heavy indebtedness, kept the monarchy afloat, but only so long as there was peace. Crown debt had exceeded a million pounds by the 1630s, and only constant extensions, rescheduling of debt, and the assignment of future revenues enabled the government to continue interest and current borrowing. Late in the decade half the Crown's ordinary revenue was hypothecated to cover current debt obligations. The Crown was now living on credit to cover its peacetime costs; any extraordinary expense meant instant financial disaster (Ashton 1960:43).

Scotland, provoked by Charles' attempts to increase economic and religious control (Stevenson 1973:37–53), rose against England in 1637, rapidly creating a military and fiscal crisis. Although the Scottish rebellion was the occasion of the collapse of the monarchy, it was not the crucial cause. "No seventeenth century state could avoid war indefinitely, and even if [Charles] had avoided the self-inflicted wound of the Scottish rebellion the first breath of war from any other quarter would have blown down the whole house of cards" (Woolrych 1980:240). Taxes on landed assets at old valuations would not provide sufficient funds; a massive rise in tax rates, based on current gentry incomes, was needed. But this was not likely to be voluntarily or easily achieved. By the seventeenth century, the lines were so drawn that the Stuarts could achieve financial solvency only at the cost of a political crisis. As with Turkey and China, the downfall of Stuart finances lay in their inability to meet military costs as inflation eroded the value of their revenues, while the growing wealth of landlords remained beyond their grasp.

In summary, the growing inadequacy of tax revenues in each case undermined the state's ability to support its armed forces—the essential resource for enforcement and survival. Moreover, efforts to close the gap between costs and revenues led in the short term to numerous abuses—corruption, sale of offices and influence, illegal or unprecedented tax surcharges and other unpopular levies—that antagonized leading social groups. The outcome was a political crisis compounded of fiscal bankruptcy, elite disaffection, and popular antitax resentment. The crisis was not due to excessive taxation, relative to the available resources of the society. Rather, the government's share of

wealth diminished. The crisis was due to an over-all level of taxation that was too low, that was punctuated by ad hoc measures that alienated the influential, and that, because of evasion by the rich, weighed most heavily on the poor.

Yet fiscal decay was not the sole source of political crisis; it was foreshadowed and complemented by conflicts and disaffection among the social and political elites.

ELITE COMPETITION AND CONFLICT

The ecological shifts of the sixteenth and early seventeenth centuries created havoc in the traditional social orders. In Ottoman Turkey, Ming China, and Stuart England, population growth and rising prices led to increased social mobility, to the breakdown of the educational system because ever larger numbers of students met diminishing resources to employ them, and to the disintegration of normal channels of elite recruitment. There arose among the elite a fierce competition, division, and disaffection that dissipated resources and paralyzed the government.

Population growth affected the stability of the elite by two means—directly through changes in family size and indirectly through changes in prices. When population had been stable, families could provide for their sons by direct succession; little population increase meant few or no additional sons surviving to adulthood, and thus few individuals of elite background for whom succession did not provide a ready place in society. However, population growth meant increasing numbers of surviving younger sons and daughters, the latter requiring expensive dowries. Among parents, the problem of providing adequately for younger children depleted resources and led to competition for increasingly scarce places in the elite hierarchy; among young adults, there grew an increasingly competitive scramble for possessions or official positions that would conserve status. Moreover, steadily rising prices affected families differently according to their market positions, luck, and entrepreneurial skill. Inflation made it difficult for some elite families, conservative in habit or bound to assets with fixed returns, to conserve wealth, while at the same time providing opportunities for others, both elite and nonelite, to accumulate fortunes. The result was substantial turnover of land, increased insecurity as to status, and the emergence of additional claimants (from nonelite and lesser elite families who had capitalized on rising prices by intelligent investment and marketing to increase their resources) for elite positions. These claimants competed with increasing numbers of elite younger sons in a divisive rush for positions, and the state, as chief arbiter and provider of elite employment, thus was torn by heightened and competing demands for service to its elites.

In Ottoman Turkey, the decay of the *timar* system led to the stationing of janissaries in the provinces. There, janissary officers married into local landholding families, while their troops engaged in commerce and intermarried

with local artisans. Using their political influence, high-ranking janissaries expanded their holdings through acquisition of government lands and tax evasion, while government tax-farmers similarly made local alliances and also invested their gains in land. These holdings grew richer by exploiting the rising price of grain, and created new wealth and new aspirations among the estate-holders. From the ruins of the old *umar* system there arose in the sixteenth and seventeenth centuries a class of landed magnates (*ayans*), many of whom founded local dynasties, maintained personal armies, and sought to influence the imperial government (Inalcik 1955:224–25, 1972:350–54; Itzkowitz 1972:91; Shaw 1976:173–74).

The ensuing three-cornered struggle over authority, status, and wealth pitted palace officials, the central military (janissaries and *sipahis*, who themselves were often in competition and conflict), and local magnates against each other. Once-clear lines of authority and promotion lapsed as newcomers infiltrated the palace and local aristocracy: “the measured flexibility of the [Ottoman administrative] system in the mid-sixteenth century had turned into a non-system with no regular lines because almost anybody could move to almost any part of the [administrative] structure” (Kunt 1983:67). Indeed, “the erosion of the system of military tenure at so many points led to ever growing confusion and litigation over rights to fiefs, a process which sapped . . . military effectiveness” (Cvetkova 1977:167). H. Inalcik notes that “in the seventeenth century, the rivalry between the *kapıkullari* [the sultan’s official servants] and the so called ‘upstarts’ (*türedi*) emerged as one of the most important internal political issues” (1977:39). The growth of social mobility, reflected in the number of “persons from new channels [who] kept flooding the system,” combined with the diminished resources of the Ottoman state to create “a greater competition among an increasingly greater number of candidates for not many more, maybe even fewer, offices” (Kunt 1983:76–77).

One of the most visible consequences was the rapid turnover of officials, a problem which some contemporaries cited as a major factor in the Ottoman decline. In the early sixteenth century, district commanders stayed in office for several years at a time; as late as the 1568–74 period, 43 percent held the same post for three or more years. By 1632–41, however, that figure had fallen to 11 percent, with 55 percent having tenures of one year or less. The frequent rotation also involved substantial periods out of office as officials waited for reassignment; this impoverished some and led others to augment their fortunes by unofficial means (Kunt 1983:70–72). B. Lewis remarks that by the early seventeenth century “bureaucratic and religious institutions all over the Empire . . . suffered a catastrophic fall in efficiency and integrity . . . accentuated by the growing change in methods of recruitment, training, and promotion” (1958:113).

Competition often led to open revolt by provincial officials and magnates,

as well as by janissary and *sipahi* groups. Most serious were the janissary revolts of 1622 and 1631–32, which caused the sultan to flee Istanbul, and the Anatolian revolts of the *celalis* (1596–1610), of Abaza Mehemmed (1622–28), and of Abaza Hasan Pasha (1657–58). Under the strain of the Anatolian uprisings, the Ottomans lost control of several eastern provinces—including Iraq, Syria, and the Crimea—for varying periods (Griswold 1985; Shaw 1976:190–96; Cook 1976:142, 164–65). In addition to these rebellions, the central administration was plagued by factional divisions that often produced assassinations of viziers and even sultans (Shaw 1976:170). The entire 1617–48 era “can be described [as] a period of intrigue, of shifting alliances, and of spasmodic violence at the center of affairs” (Cook 1976:135).

In China, inflation led more and more of the gentry to concern themselves with finance and profit-making activities to maintain their wealth (Brook 1981:198; Peterson 1979:64–80). During the sixteenth and early seventeenth centuries, as the contemporary Kuei Yu-kuang (1506–71) notes, “the status distinctions among scholars, peasants, and merchants became blurred” (deBary 1970:173). Opportunities provided by greater commercialization of the economy and rising prices allowed fortunate nonelite families to accumulate wealth, while posing problems for the others. “The increase in trade, the use of silver . . . were resented and denounced by men whose interests rested on landholding and office-holding” (Peterson 1979:70).

By the sixteenth century, commercial success could be translated into official status. Though the early Ming had strictly limited the number of holders of lower degrees, the later Ming, in order to raise money, took to selling lower degrees and places in the Imperial Academy (Ho 1962:175; Chan 1982:290; Sakai 1970:337). Money invested in training, or occasionally in bribery, could bring higher degrees; Evelyn Rawski (1972:89) demonstrates that the commercial wealth of Chang-chou prefecture in Fukien province allowed it to go from producing 3 percent of the higher degree holders in the province during 1513–41 to 22 percent during 1544–1601. J. Dennerline, in his study of elite families in Chia-ting prefecture, a district transformed by the rise of commercial cotton growing, notes that most of the elite households in the seventeenth century were from lines that first began office holding in the sixteenth century (1981:112–13). H. J. Beattie’s study of Anhwei (1979) similarly finds that most elite families of the later Ming and Ch’ing arose in the mid-to-late sixteenth century with the commercialization of the local economy. In sum, “the sixteenth and early seventeenth centuries saw the apogee of upward mobility from the merchant families into the bureaucracy” (deBary 1970:172). The result was a vast swelling of the lower levels of the official gentry, as from 1400 to 1600 the number of holders of the lowest (*sheng-yuan*) degree increased perhaps twentyfold (Atwell 1975:338).

As in Turkey, increased social mobility led to increased social competition and factionalism. “As the pool of literate men grew, a fierce competition

developed, as there was only a slow increase in the quotas which had been imposed to keep the numbers who passed in the provincial and national examinations at levels commensurate with the bureaucracy's staffing requirements" (Peterson 1979:54). Organized factions, such as the Tung-lin party and the Restoration Society, sought both to increase their representation among the officials and to build local power bases among provincial gentry (Busch 1949–55; Atwell 1975). In doing so, however, they competed both with palace groups that coalesced around particular emperors, ministers, or imperial favorites, and with local commercial interests. The struggle among local interests, state officials, and gentry- or eunuch-led elements appears increasingly incendiary from the late sixteenth century. "Intense jockeying for power by rival factions and families in the late Ming countryside" grew with the "intense factionalism of court politics" (McDermott 1981:700; Taniguchi 1980). Disgruntled gentry, rudely ousted in factional battles in the 1620s and 1630s, supported the northern and western revolts that toppled the dynasty in the 1640s, while factional divisions led to executions and assassinations of able ministers and to the paralysis of the bureaucracy (Wakeman 1985:I, 229–37).

Here, as in Turkey, the turnover of key officials led to "general bureaucratic chaos with officials . . . being replaced with bewildering rapidity" (Parsons 1969:225). Fifty grand secretaries (equivalent to a grand vizier or prime minister) served the Ming from 1628 to 1644. The length of tenure for most officials decreased by two thirds from the early to later Ming reigns, from an average of 10 years for county officials and 3.5–4.5 years for palace officials to 3.0–3.5 years in the counties and 0.8–1.2 years at the top (Dennerline 1981:25; Parsons 1969:178).

What is perhaps most striking in the fall of the Ming, and in the failures of restoration attempts, is the inability of gentry, officials, and commercial interests to find common ground on which to mobilize for defense. Support for the central government declined in favor of private mobilization to protect local areas, and by the mid-seventeenth century the integration of local gentry and state officials was nonexistent (Dennerline 1981:346; Chan 1982:301; Struve 1984). Fiscal and military difficulties were thus fatally compounded by the lack of elite integration and the paralyzing factionalism that followed the sixteenth-century increases in social mobility.

In England, too, rapid population growth meant more social competition among the gentry, whose reproduction rate outpaced that of the population as a whole (Hollingsworth 1965). In addition, rising prices and the Crown's needs resulted in vast land sales, providing opportunities for newcomers to acquire land and gentry status. The century from 1540 to 1640 became one of exceptional social mobility: The number of households claiming gentry status tripled while the population as a whole merely doubled (Stone 1965; 1976). L. Stone (1972:110) has described this period as one in which more indi-

viduals and families were rising and falling “than at almost any other time in English history.”

County studies have documented striking examples of change in the composition of local elites. In Shropshire, the gentry grew from 48 families in 1423 to 470 in 1623, and in Staffordshire, from 200 families in 1583 to 1,100 by 1660. In Yorkshire, there occurred a disappearance and replacement of more than one gentry family in four in the forty years between 1603 and 1642; in Northamptonshire, barely a quarter of the 335 local gentry of 1640 had been resident in the county before 1500, and more than a third had settled there since 1600 (Everitt 1968:57; Stone 1965:38, 67–71; Mingay 1976:7).

Increased numbers and social mobility among the gentry collided with a relatively limited amount of land, civil and ecclesiastical offices, and royal patronage; the result was a sharp increase in the competitiveness of elite society. County histories record a burgeoning factionalism over such issues as representation in Parliament, disposal of Crown and former chantry and monastic lands, and membership among the justices of the peace (Morrill 1974; Clark 1977; Smith 1974; Fletcher 1975; Gleason 1969; Hirst 1975). The rate of turnover of officials increased; in Norfolk, for example, where once it was so customary “for son to succeed father on the commission of the peace that the absence of the next generation [indicated] failure of the line . . . or failure of fortune,” by the late sixteenth century “nearly half the magisterial families . . . provided a justice for only one generation” (Smith 1974:59). The famous division of England into court and country is more aptly described as a division into procourt and procounty interest factions that arose throughout the elite and appeared at every level of governance (Russell 1979:6–11). Stone has gone so far as to assert that “the hostility of the majority of the Peers to Charles I in 1640 can be ascribed in large measure to the failure of the King to multiply jobs to keep pace with the increase of titles” (Stone 1965:743; Russell 1979:15).

The Scots invasion and royal bankruptcy constituted a political crisis, but one not greatly different from the crises occasioned by past wars with Scotland and France, or previous Irish rebellions and popular tumults, and arguably less severe than the crisis posed by Henry VIII’s conflict with the pope. But the 1640s were exceptional in that consensus among the elite as to how, and by whom, the crisis should be contained could not be achieved. As J. S. Morrill (1974:34) notes, many county gentry saw the crisis “as the ideal moment for a trial of strength between those who claimed pre-eminence for themselves in the community.” Yet the English state, lacking a written constitution and an established bureaucracy, depended on precisely such a consensus to operate. Confronted with pressing problems of the Scots war, inadequate state finances, popular unrest in London, and rebellion in Ireland, the myriad schisms among the elite gave rise to adversary politics that paralyzed the government (Kishlansky 1977). A reluctant recourse to open conflict thus

became necessary to cut the Gordian knot of elite divisions. As in Turkey and in China, conflicts *within* the elite, stemming from three generations of exceptional social mobility and the competition it produced, compounded the military and fiscal crisis.

Attention should also be paid to problems in the customary channels of education and elite recruitment. The Ottomans had traditionally staffed their bureaucracy and military elite with slaves (*kuls*) especially selected and trained in the palace for state service. The palace schools trained both the janissary troops and the chief bureaucratic officials. The legal system and religious institutions were staffed by graduates of the Muslim seminaries. By the late sixteenth century, however, both palace schools and seminaries were overburdened. The vast expansion of the janissaries and palace *sipahis* diluted the quality of the palace studentry; as janissaries moved to the provinces and became allied with local magnates, wealth and family connection took precedence over education and merit in access to the palace schools and janissary ranks (Inalcik 1973:47; Itzkowitz 1972:91–92). At the same time, poor peasants flooded the Muslim seminaries, and “a crisis of religious institutions [became] unavoidable, because the religious schools had overexpanded and enrolled far too many students for the number of jobs that were available” (Itzkowitz 1972:96; Faroqhi 1973:217). Unemployed students and seminarians demanded, and often seized, supplies from local peasants. Many student groups became little better than bandits, and joined in the revolts of the early seventeenth century (Cook 1972:40; Barkan 1975:28).

In China, population growth also led to a vast overexpansion of the student population relative to official jobs. There arose “a glut of candidates at higher level examinations [that] engendered an increasing amount of social frustration,” as well as a “deterioration of student quality” (Ho 1962:179, 182). The problem was exacerbated by the sale of studentships in the Imperial Academy; one witness suggests that by the early seventeenth century, two thirds of the places in the academy went to purchasers (Chan 1982:291). Those who crowded the lower ranks but “who failed to climb the upper rungs constituted a literate body whose capacity for discontent alarmed . . . imperial authorities toward the end of the Ming. Prominently involved in the urban demonstrations and ‘party’ movements of the late Ming, [students and lower degree holders] were also frequently associated with peasant rebellions” (Wakeman 1975:3).

In England, too, a flood of applicants to the universities and the Inns of Court appeared, hoping to qualify for posts in the Church or state administration and to acquire the polish required for social acceptance in the ranks of the gentry. Enrollments at Oxford and Cambridge rose fivefold from the early sixteenth to the mid-seventeenth century, as increased social mobility swelled the ranks of aspirants to elite status (Stone 1974). However, as in China and Turkey, the universities “prepared too many men for too few places” (Curtis

1962:27). Stone states the problem succinctly, and with a clear parallelism to F. Wakeman's account of China:

The extraordinary expansion of enrollments in Oxford and Cambridge meant the creation of a small army of unemployed or underemployed gentry whose training had equipped them for positions of responsibility, but for whom the avenues of opportunity were clogged. . . . Embittered by their failure to break into the fat pastures . . . for which their education and talent fitted them . . . all were resentful of a society which had overtrained them and could not employ them; . . . many naturally drifted into religious and political radicalism (1972:113).

The problems posed by the overburdened and disintegrating educational systems in these states reached much further than the discontent among the ranks of students and underemployed degree holders. In the Chinese and Ottoman empires, the system of elite education and recruitment had served as the circulatory system through which the talented among the local elites and central officials moved together, absorbed a common tradition, and channelled their aspirations. In England, household education in the homes of great lords had served the same purpose, and the expansion of the universities marked the decline of traditional elite education there as well. The breakdown of these traditional systems alienated local elites, turned talented men to the pursuit of private wealth rather than public honor, and destroyed the allegiance of ruling elites, who saw responsible positions coming under the sway of purchasers and royal favorites. The overburdening of traditional elite education in the Ottoman state, in Ming China, and in Stuart England was therefore a major factor in the alienation of the elites.

POPULAR UPRISINGS

The decay of central government and the disaffection of elites paved the way for the success of the popular uprisings that brought the collapse of the Ming empire and wrested Asia Minor from the Ottomans in the mid-seventeenth century. In part, these revolts can be traced directly to the increase in the number of landless and impoverished peasants; created by population growth, this class served as the raw material for rebel armies. Yet to characterize these episodes as simple peasant uprisings or antitax revolts is an error that ignores their leadership and their origins.

In Asia Minor, the seventeenth-century rebellions, known as the *celali* revolts, found leaders among unpaid mercenary soldiers and even provincial magnates seeking to enhance their status. Deserting soldiers and mercenaries formed bandit groups; in the absence of strong government opposition these grew into local power centers which—with the cooperation of local magnates, religious students, and corrupt officials—could grow into semiautonomous regional power centers (Griswold 1985; Itzkowitz 1972:92–93). The

largest such rising was that of Abaza Hasan in 1657–58, which included a substantial number of officials and founded a rebel government that posed a severe threat to the Ottoman state (Cook 1976:165). The effectiveness of the rural revolts was also aided by urban insurrections prompted by declining real wages in the face of inflation (Naff 1977:14; Faroqi 1984:295–98; Murphy 1980:167). Not only did the janissaries of the capital frequently rebel against the sultan, urban artisans staged protests as well, including a demonstration in Istanbul of 150,000 who rose against price manipulations in 1651 (Inalcik 1973:161).

Similarly, in China it was unpaid mercenaries turning to banditry who initiated the rebel uprisings (Dardess 1972:106). They were joined by postal attendants whom the Ming had left unpaid and then fired as an economy move; these mounted postal attendants became an effective cavalry when they joined the rebel armies (Rossabi 1979). Peasants were often driven by hardship, particularly the drought of 1628, to cast their lot with the rebels, but it was the deserting soldiery of the northern armies that formed the core of the revolts. These were complemented by urban riots involving artisans, laborers, and students and members of the gentry (Tanaka 1984; Yuan 1979:283, 311–12) that recurred throughout the early seventeenth century. The Soochow riot of 1626 was “an event of national significance; . . . it . . . drew the attention of the court and . . . gave a powerful display of gentry-commoner cooperation” (Yuan 1979:292). As in Turkey, revolts dominated by cultivators, which thus could be described as true peasant revolts, were few, and limited largely to the uprisings of bonded laborers in the Yang-tze region (Beattie 1979:250–51; Chan 1982:238; Adshead 1973:274).

The uprisings of bonded laborers in the Yang-tze delta, however, deserve attention for the distinctive social character of their revolts. This was an area where extensive commercialization had been accompanied by the growth of popular literacy and a thriving circulation of popular encyclopedic and morality texts (Sakai 1970:336–77; Handlin 1983). It was also an area influenced by the “left” radical Confucianism of Wang Yang-ming as transmitted by his follower Wang Ken, who preached the equality of all men (deBary 1970:168–73). It is therefore interesting that accounts of these uprisings have a strong social-revolutionary flavor, reminiscent of those of Western revolutions. A contemporary report of one rising in Kiangsi relates:

Hundreds or thousands of them under rebel leaders . . . ripped up pairs of trousers to serve as flags. They sharpened their hoes into swords, and took to themselves the title of “Levelling Kings” declaring that they were levelling the distinction between masters and serfs, titled and mean, rich and poor. The tenants . . . broke into the homes of important families [and] would order the master to kneel. “We are all of us equally men. What right had you to call us serfs.”²³

²³ The translation is from M. Elvin (1973:245–46).

M. Wiens (1979, 1980) adds that this tendency was quite common, and that rather than being a mere objection to the level of taxation or rents, "the revolt of poor bondservants was in most cases aimed at overthrowing the existing order and abolishing the hereditary servility of bondservantry" (1980:27). It was not such bond-servant revolts, concentrated in southern China, that brought down the Ming, however. That task was begun by the rebel armies of Li Tzu-Ch'eng, spearheaded by deserting soldiers and government employees, assisted by defections of the gentry elite, and completed by the Manchus.

In both China and Turkey, it was thus chiefly the breakdown of government mercenary forces and of the allegiance of provincial elites, and not mere peasant suffering, that allowed popular uprisings to pose a fatal threat. Popular misery provided raw material, but it was unpaid soldiers and disaffected local officials who provided the leading and most dangerous elements.

The English revolution has generally been seen as one in which popular uprisings played a minor role. However, this is true primarily of agrarian cultivators; recent studies have shown that disturbances by rural artisans facing high prices made a significant contribution to elite fears of disorder in the early seventeenth century (Manning 1976; Hill 1980; Fletcher 1981; Sharp 1980). And, of course, popular groups in London played an important role in the early stages of the revolution, from gatherings of apprentices numbering in the tens of thousands, to the artisans and merchants who staged an urban revolution in London in 1641 (Smith 1979; Manning 1976; Pearl 1961).

Nonetheless, agrarian revolts played no more than a modest role in any of the three crises. In all three countries, rural cultivators lacked the autonomous village organization generally critical to widespread, sustained peasant revolts (Skocpol 1979). In China and Anatolia it was chiefly deserting soldiers and unpaid mercenaries, in combination with disaffected provincial elites exploiting the breakdown of central power, that spearheaded rural popular disturbances. Purely peasant rebellions were limited to the lower Yang-tze basin revolts in China, as they were confined to the Midlands revolts in early seventeenth-century England. No doubt the scale of peasant elements recruited into the rebel armies in China and Turkey exceeds that of cultivators conscripted into the Parliamentary forces. Still, to label the Eastern unrest as peasant revolt, and thus completely different from the English revolution, is a serious distortion of the facts. Popular involvement in all three cases was highly varied, but in no case did primarily peasant revolts play a leading role. Instead, typical of all three is a combination of urban disorder, popular heterodox religious movements led by products of the overcrowded school systems, and revolts involving leadership or allegiance of disaffected provincial elites, often including former or current state officials. The particular mix of these elements, and their relative importance, varied, but in each case popular

uprisings reflected the broader breakdowns in the social order, not merely popular discontent with rising prices and landlessness.

IDEOLOGICAL CHANGE: RELIGIOUS HETERODOXY AND RADICALISM

The English Revolution of 1640 has at times been so strongly associated with religious heterodoxy as to be labeled a Puritan revolution. Yet heterodox religious movements were not a merely English phenomenon, but were an element common to all the seventeenth-century crises.

In the Ottoman Empire, the seventeenth century witnessed the spread of Turkish popular literature, which implies the growth of a popular audience and the spread of literacy beyond the official class. Popular religion frequently took a heterodox turn, and struggles between orthodox and Sufi religious orders gained intensity and “rose to plague Ottoman society” (Shaw 1976:206–7). The mystic orders were successfully suppressed, although “their personal religion and extensive organization had provided a refuge for the mass of the people during periods of political anarchy.” Moreover, the state’s attack on religious heterodox groups proved a spur to rebellion, for “as the mystic *tekkes* were closed and their dervishes imprisoned, in desperation people accepted the leadership of the *celali* rebels” (Shaw 1976:207). Thus the period of social breakdown was accompanied by an increase in conflict between orthodox and heterodox strains of Islam, a conflict with links to political rebellion.

In China, the late Ming period was a time of extensive religious heterodoxy, reflecting both populist radical movements and elite movements associated with attempts at political reform through moral regeneration (deBary 1970, 1975). Sixteenth- and early-seventeenth-century China was marked by an expansion of elementary schooling and a rise in literacy, accompanied by a vigorous blossoming of popular literature, from morality tales to novels (Ho 1962:211–13; Atwell 1975; Sakai 1970:336–37; Chan 1982:101). This period also saw the growth of the T’ai-chou school of neo-Confucianism, “a kind of protest movement against the establishment, striking for its popular character and the revolutionary nature of its ideas” (deBary 1970:168; Dennerline 1981:155). The leaders of this school, Wang Ken and Han Chen, traced their intellectual heritage to Wang Yang-ming, who advocated a moral purification of the individual based on self-examination. The T’ai-chou school, espousing the equality of all men, “carried the intellectual torch to the masses. . . . In Kiangsu and Anhwei . . . we find agricultural tenants, firewood gatherers, potters, brick burners, stone masons, and men from other humble walks of life attending public lectures and chanting classics. Never before and never afterward, in traditional China, were so many people willing to accept their fellowmen for their intrinsic worth” (Atwell 1975:336). deBary observes that “the growth of commerce and economic strength of the middle classes con-

tributed to the self-confidence and optimism that is characteristic of T'ai-chou thought" (1970:173). The movement combined officials, merchants, and commoners in radical activism, whose most spectacular issue was the Yangtze bond-servant revolts discussed above.

More important for Ming politics, however, was the academy movement. Former officials and scholars, repelled by the corruption and the failures of the state and the official educational system, set up academies for alternative training of Confucian scholars. Far more than mere educational institutions, the academies became the center of political movements that sought to reform the state through a return to "pure" Confucian practices.

The rate at which new academies were established accelerated sharply in the later Ming, the average rising from 1.4 per year prior to the sixteenth century to 7.5 per year between 1506 and 1572 (Meskill 1982:66). From the mid-sixteenth to the mid-seventeenth century, the academies were increasingly drawn into political conflict as they sought to support reformist court factions, and there were repeated suppressions by the Ming state. The most famous academy was the Tung-lin, whose insistence on greater public morality in and out of government was an overt "moral crusade" that drew severe persecutions (Busch 1949-55; Hucker 1957). In 1625-26 it was brutally suppressed by the eunuch Wei Chung-hsien, who dominated the emperor in these years, and whom the Tung-lin had often attacked. Seven hundred Tung-lin sympathizers were purged from the government; the Tung-lin leaders were tortured and imprisoned and the academy buildings torn down. After Wei's removal by the new emperor in 1627, the Tung-lin was succeeded by the Fu She, a "study group" that resembled a formal political organization, with a published creed, membership list, national headquarters, and fund-raising and recruitment activities. Like the Tung-lin, the Fu She opposed corruption in government, supported reforming officials, and even sought to aid its candidates in examinations and in obtaining office. In addition, the group "demonstrated its social commitment by championing education for the poor, . . . sponsoring public lectures, and accepting large numbers of members from humble backgrounds. The people responded by giving the group active support in several political battles" (Atwell 1975:358). Though the Fu She occasionally placed several members in high posts, the Ming government of the 1630s was too torn by factionalism to mount a successful program of reform.

Parallels to the history of Puritanism are striking. Like the academy movement, Puritanism began as a movement for moral regeneration, and its political aims were limited to purification of religious practice and public and private morals. Moreover, the reasons for the appeal of Puritanism and the heterodox Confucian movements appear similar. M. Walzer suggests that much of Puritanism's appeal to the gentry stemmed from the disordered social structure brought by increased mobility, Calvinism being "an appropriate

option for anxiety ridden individuals [seeking a sense of order]. Given the breakdown of the old order, it is predictable that some Englishmen would make that choice" (1974:308–10). deBary in turn notes that the appeal of heterodox Confucian movements to Chinese gentry resulted from "the search for identity at a time when traditional roles have been obscured by rapid change and new energies can no longer be channeled along established lines" (1970:173). One may add that both movements were fed by the products of greatly expanded educational systems—the English universities and Chinese academies and imperial schools—who had no other outlet. And last, the fate of both movements following resolution of the political crisis was similar. In Walzer's words, "Puritan ideology was a response to real experience . . . a practical effort to cope with personal and social problems. [But] the conditions of crisis and upheaval . . . did not endure, [leading to] the disappearance of the militant saints from English politics in the years after the Restoration. . . . After the Restoration, [Puritanism's] energy was drawn inward, its political aspirations forgotten; the saint gave way to the non-conformist" (Walzer 1974:302, 312, 320). Similarly, after the Manchu restoration, the academies, though continuing as centers of study, lost their political aspirations and reformist activism. Wakeman notes that under the Manchus "ethical philosophers became scholarly academicians and political leaders turned into bureaucratic administrators" (1986:16–17). By the later seventeenth century, the academies were focusing strictly on the classics (Meskill 1982:156–58); though richly endowed, they had become politically passive.

In sum, the contemporary and parallel careers of Puritanism and the academy movement, and to a lesser degree Sufism, are highly suggestive. In England and China especially, it appears that movements for moral regeneration were an attractive option in times of rapid social mobility and of state corruption and failure, and that divisions among local and court interests made it likely that such moral reform efforts would become enmeshed in political struggle. Moreover, when the underlying social and political crisis passed, the attractions of heterodoxy diminished, and its activist aspects waned.

CONCLUSION

The preceding analysis provides the basis for the following four hypotheses:

1. *The various elements of the seventeenth-century crisis are not autonomous causal factors, but aspects of an integrated, multifaceted process.* Historians have long debated whether the seventeenth-century crisis should be characterized as arising from primarily political, or social, or religious cleavages. It should be apparent that such distinctions are illusory. Political cleavage, social conflict, and religious heterodoxy intertwined with political factionalism were related aspects of a deeper underlying pattern. Rapid popula-

tion growth in the context of relatively stable agricultural productivity manifested itself through inflation, heightened competition for status, and deterioration of popular living standards. These in turn undermined state finances, gave birth to intraelite factionalism and to elite adherence to religious heterodoxy, and provided the raw recruits for urban, provincial, and sectarian disorders. In each society, the mid-seventeenth-century crisis was rooted in the simultaneous decline of traditional systems of taxation, of elite training and recruitment, and popular living standards under the pressure of ecological change.

2. *The English Revolution of 1640 was not due to a uniquely Western crisis of capitalism or absolutism. It shared its basic causes with profoundly similar crises in the Eastern states of Ottoman Turkey and Ming China.* The contemporaneity of political crises among varied states across seventeenth-century Eurasia poses a paradox, but one that can be resolved by appreciating the diverse impacts of rapid population growth on agrarian societies predicated on land taxes and landed elites. Insofar as a reduction in mortality from the high levels of the fourteenth and fifteenth centuries produced a population boom across Eurasia in the sixteenth century, a changing ecological balance came at roughly the same time to otherwise widely separated states. In the late sixteenth and early seventeenth centuries, therefore, all these states display the characteristic, increasing strains of that imbalance on their social, economic, and administrative institutions, culminating in the mid-seventeenth-century breakdowns of state power.

3. *The divergence of Eastern and Western civilizations after the mid-seventeenth century cannot be attributed to a structural difference between Western "revolutions" and Eastern "peasant rebellions" or "dynastic crises."* In terms of institutional changes, particularly those in the local class structure, more extensive changes followed the crises in Ottoman Turkey and Ming China than followed the English revolution. Considerations of space permit only a brief mention of these changes: In China, large landed estates worked by bonded labor virtually disappeared, replaced by medium-sized holdings worked by free tenants (Dennerline 1981:324–26; Elvin 1973:249; Wiens 1980:4–5; Beattie 1979:15). As R. Marks comments, "a new class structure had emerged, quite different from that of Ming times, that created new patterns of rural life" (1984:44–45). In Turkey, the prebendal *umar* system of military landholding and local authority was replaced by the rise of commercial estates (*çiftliks*) whose holders dominated local government (Inalcik 1977:29–32; Cvetkova 1977:167–69). This was "a structural change [that] altered the relationship between the central authority and the provinces" (Naff 1977:9). In England, by contrast, the local landlord class remained entrenched, while relations between king and Parliament were largely returned in the Restoration to their Tudor balance (Miller 1982; McInnes 1982). The entire question of the divergence of Eastern and Western economic and politi-

cal development, of Western dynamism and Eastern stagnation in the early modern period, thus needs re-examination. In particular, the manner in which Western Europe forged ahead of the advanced Eastern civilizations of Islam and China needs to be explained in a way that encounters the similarity of the seventeenth-century crises in each.

4. *Ideological differences governing state reconstruction after the seventeenth-century crises profoundly influenced the later divergence of East and West.* I can only suggest here a point I have developed at greater length elsewhere (Goldstone [1989]). Given that the structural causes of state breakdown were similar in all three cases, and that institutional change was arguably greater in the Eastern states, we need to look closely at what differentiated their succeeding state reconstructions. A major difference appears in the area of ideology. Puritan ideology was *apocalyptic* (Christianson 1978); political change was to create a new, Protestant, world. Though the Puritans faded after the revolution, a part of their view of England remained in the notion of England as an imperial Protestant power. State reconstruction, particularly after 1688–89, embodied this concept and was open to novelties in government and finance designed to protect and expand England's international role.

By contrast, the Ottoman and Ming revolts were governed by an ideology that was *cyclical*. What appears in contemporary diagnoses of their ills was not the idea that the state should be redesigned for new challenges; instead, all that was needed was a purging of corruption, a return to the institutions as they had operated at the height of empire. (Inalcik 1985:95, 281; Wakeman 1985:1, 448–49). Thus, after 1650, the Ottoman and Chinese empires became more rigidly orthodox and conservative than they had been earlier; they turned inward and eschewed novelty, while rewarding conformity to past habits (Itzkowitz 1972:96–97, 1977; Sugar 1977:251; Hamilton 1984; Ho 1967; Kessler 1976; Plaks 1985:551; Welch 1980:92). State reconstruction on these terms was successful in restoring a measure of prosperity and prolonging the life of these states, but they entered the late-seventeenth and eighteenth centuries without the dynamism of England.

Studies of ideology or culture that contrast East and West have frequently focused on how culture constrains the attitudes of individuals (Weber 1958). Yet the preceding arguments suggest that more attention needs to be paid to the role of culture in constraining state structure, particularly during reconstruction after a crisis.

Clearly, “class conflict” or “peasant rebellion” fails to capture the complex dynamics of these events. The framework sketched here highlights their *multi-causal* nature, with state fiscal decay, elite alienation and factional conflict, and popular distress all playing a role. Understanding how these causes were activated by worldwide ecological pressures further helps to explain certain parallel features, and why these crises occurred at nearly the same time. Differences in state reconstruction call for further explanation. But

historians of Stuart England, Ottoman Turkey, and Ming China, though working in different regions, need not lack a shared theoretical framework. They are examining parallel processes of state breakdown and reconstruction. The questions they ask may be quite similar, and their answers may be enlivened by a realization of common patterns and problems.

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