ones introducing new innovations but also that they will often resist and try to stop such innovations. Thus society needs newcomers to introduce the most radical innovations, and these newcomers and the creative destruction they wreak must often overcome several sources of resistance, including that from powerful rulers and elites.

Prior to seventeenth-century England, extractive institutions were the norm throughout history. They have at times been able to generate economic growth, as shown in the last two chapters, especially when they've contained inclusive elements, as in Venice and Rome. But they did not permit creative destruction. The growth they generated was not sustained, and came to an end because of the absence of new innovations, because of political infighting generated by the desire to benefit from extraction, or because the nascent inclusive elements were conclusively reversed, as in Venice.

The life expectancy of a resident of the Natufian village of Abu Hureyra was probably not that much different from that of a citizen of Ancient Rome. The life expectancy of a typical Roman was fairly similar to that of an average inhabitant of England in the seventeenth century. In terms of incomes, in 301 AD the Roman emperor Diocletian issued the Edict on Maximum Prices, which set out a schedule of wages that various types of workers would be paid. We don't know exactly how well Diocletian's wages and prices were enforced, but when the economic historian Robert Allen used his edict to calculate the living standards of a typical unskilled worker, he found them to be almost exactly the same as those of an unskilled worker in seventeenth-century Italy. Farther north, in England, wages were higher and increasing, and things were changing. How this came to be is the topic of this chapter.

Ever-present Political Conflict

Conflict over institutions and the distribution of resources has been pervasive throughout history. We saw, for example, how political conflict shaped the evolution of Ancient Rome and Venice, where it was ultimately resolved in favor of the elites, who were able to increase their hold on power.

English history is also full of conflict between the monarchy and its subjects, between different factions fighting for power, and between elites and citizens. The outcome, though, has not always been to strengthen the power of those who held it. In 1215 the barons, the layer of the elite beneath the king, stood up to King John and made him sign the Magna Carta ("the Great Charter") at Runnymede (see Map 9, page 112). This document enacted some basic principles that were significant challenges to the authority of the king. Most important, it established that the king had to consult with the barons in order to raise taxes. The most contentious clause was number 61, which stated that "the barons shall choose any twenty-five barons of the realm they wish, who with all their might are to observe, maintain and cause to be observed the peace and liberties which we have granted and confirmed to them by this our present charter." In essence, the barons created a council to make sure that the king implemented the charter, and if he didn't, these twenty-five barons had the right to seize castles, lands, and possessions "... until, in their judgement, amends have been made." King John didn't like the Magna Carta, and as soon as the barons dispersed, he got the pope to annul it. But both the political power of the barons and the influence of the Magna Carta remained. England had taken its first hesitant step toward pluralism.

Conflict over political institutions continued, and the power of the monarchy was further constrained by the first elected Parliament in 1265. Unlike the Plebeian Assembly in Rome or the elected legislatures of today, its members had originally been feudal nobles, and subsequently were knights and the wealthiest aristocrats of the nation. Despite consisting of elites, the English Parliament developed two distinguishing characteristics. First, it represented not only elites closely allied to the king but also a broad set of interests, including minor aristocrats involved in different walks of life, such as commerce and industry, and later the "gentry," a new class of commercial and upwardly mobile farmers. Thus the Parliament empowered a quite broad section of society—especially by the standards of the time. Second, and largely as a result of the first characteristic, many members of Parliament were consistently opposed to the monarchy's attempts

to increase its power and would become the mainstay of those fighting against the monarchy in the English Civil War and then in the Glorious Revolution.

The Magna Carta and the first elected Parliament notwithstanding, political conflict continued over the powers of the monarchy and who was to be king. This intra-elite conflict ended with the War of the Roses, a long duel between the Houses of Lancaster and York, two families with contenders to be king. The winners were the Lancastrians, whose candidate for king, Henry Tudor, became Henry VII in 1485.

Two other interrelated processes took place. The first was increasing political centralization, put into motion by the Tudors. After 1485 Henry VII disarmed the aristocracy, in effect demilitarizing them and thereby massively expanding the power of the central state. His son, Henry VIII, then implemented through his chief minister, Thomas Cromwell, a revolution in government. In the 1530s, Cromwell introduced a nascent bureaucratic state. Instead of the government being just the private household of the king, it could become a separate set of enduring institutions. This was complemented by Henry VIII's break with the Roman Catholic Church and the "Dissolution of the Monasteries," in which Henry expropriated all the Church lands. The removal of the power of the Church was part of making the state more centralized. This centralization of state institutions meant that for the first time, inclusive political institutions became possible. This process initiated by Henry VII and Henry VIII not only centralized state institutions but also increased the demand for broader-based political representation. The process of political centralization can actually lead to a form of absolutism, as the king and his associates can crush other powerful groups in society. This is indeed one of the reasons why there will be opposition against state centralization, as we saw in chapter 3. However, in opposition to this force, the centralization of state institutions can also mobilize demand for a nascent form of pluralism, as it did in Tudor England. When the barons and local elites recognize that political power will be increasingly more centralized and that this process is hard to stop, they will make demands to have a say in how this centralized power is used. In England during

the late fifteenth and sixteenth centuries, this meant greater efforts by these groups to have Parliament as a counterweight against the Crown and to partially control the way the state functioned. Thus the Tudor project not only initiated political centralization, one pillar of inclusive institutions, but also indirectly contributed to pluralism, the other pillar of inclusive institutions.

These developments in political institutions took place in the context of other major changes in the nature of society. Particularly significant was the widening of political conflict which was broadening the set of groups with the ability to make demands on the monarchy and the political elites. The Peasants' Revolt of 1381 (page 99) was pivotal, after which the English elite were rocked by a long sequence of popular insurrections. Political power was being redistributed not simply from the king to the lords, but also from the elite to the people. These changes, together with the increasing constraints on the king's power, made the emergence of a broad coalition opposed to absolutism possible and thus laid the foundations for pluralistic political institutions.

Though contested, the political and economic institutions the Tudors inherited and sustained were clearly extractive. In 1603 Elizabeth I, Henry VIII's daughter who had acceded to the throne of England in 1558, died without children, and the Tudors were replaced by the Stuart dynasty. The first Stuart king, James I, inherited not only the institutions but the conflicts over them. He desired to be an absolutist ruler. Though the state had become more centralized and social change was redistributing power in society, political institutions were not yet pluralistic. In the economy, extractive institutions manifested themselves not just in the opposition to Lee's invention, but in the form of monopolies, monopolies, and more monopolies. In 1601 a list of these was read out in Parliament, with one member ironically asking, "Is not bread there?" By 1621 there were seven hundred of them. As the English historian Christopher Hill put it, a man lived

in a house built with monopoly bricks, with windows... of monopoly glass; heated by monopoly coal (in Ireland monopoly timber), burning in a grate

made of monopoly iron . . . He washed himself in monopoly soap, his clothes in monopoly starch. He dressed in monopoly lace, monopoly linen, monopoly leather, monopoly gold thread . . . His clothes were held up by monopoly belts, monopoly buttons, monopoly pins. They were dyed with monopoly dyes. He ate monopoly butter, monopoly currants, monopoly red herrings, monopoly salmon, and monopoly lobsters. His food was seasoned with monopoly salt, monopoly pepper, monopoly vinegar . . . He wrote with monopoly pens, on monopoly writing paper; read (through monopoly spectacles, by the light of monopoly candles) monopoly printed books.

These monopolies, and many more, gave individuals or groups the sole right to control the production of many goods. They impeded the type of allocation of talent, which is so crucial to economic prosperity.

Both James I and his son and successor Charles I aspired to strengthen the monarchy, reduce the influence of Parliament, and establish absolutist institutions similar to those being constructed in Spain and France to further their and the elite's control of the economy, making institutions more extractive. The conflict between James I and Parliament came to a head in the 1620s. Central in this conflict was the control of trade both overseas and within the British Isles. The Crown's ability to grant monopolies was a key source of revenue for the state, and was used frequently as a way of granting exclusive rights to supporters of the king. Not surprisingly, this extractive institution blocking entry and inhibiting the functioning of the market was also highly damaging to economic activity and to the interests of many members of Parliament. In 1623 Parliament scored a notable victory by managing to pass the Statute of Monopolies, which prohibited James I from creating new domestic monopolies. He would still be able to grant monopolies on international trade, however, since the authority of Parliament did not extend to international affairs. Existing monopolies, international or otherwise, stood untouched.

Parliament did not sit regularly and had to be called into session by the king. The convention that emerged after the Magna Carta was that the king was required to convene Parliament to get assent for new taxes. Charles I came to the throne in 1625, declined to call Parliament after 1629, and intensified James I's efforts to build a more solidly absolutist regime. He induced forced loans, meaning that people had to "lend" him money, and he unilaterally changed the terms of loans and refused to repay his debts. He created and sold monopolies in the one dimension that the Statute of Monopolies had left to him: overseas trading ventures. He also undermined the independence of the judiciary and attempted to intervene to influence the outcome of legal cases. He levied many fines and charges, the most contentious of which was "ship money"-in 1634 taxing the coastal counties to pay for the support of the Royal Navy and, in 1635, extending the levy to the inland counties. Ship money was levied each year until 1640.

Charles's increasingly absolutist behavior and extractive policies created resentment and resistance throughout the country. In 1640 he faced conflict with Scotland and, without enough money to put a proper army into the field, was forced to call Parliament to ask for more taxes. The so-called Short Parliament sat for only three weeks. The parliamentarians who came to London refused to talk about taxes, but aired many grievances, until Charles dismissed them. The Scots realized that Charles did not have the support of the nation and invaded England, occupying the city of Newcastle. Charles opened negotiations, and the Scots demanded that Parliament be involved. This induced Charles to call what then became known as the Long Parliament, because it continued to sit until 1648, refusing to dissolve even when Charles demanded it do so.

In 1642 the Civil War broke out between Charles and Parliament, even though there were many in Parliament who sided with the Crown. The pattern of conflicts reflected the struggle over economic and political institutions. Parliament wanted an end to absolutist political institutions; the king wanted them strengthened. These conflicts were rooted in economics. Many supported the Crown because they had been granted lucrative monopolies. For example, the local

monopolies controlled by the rich and powerful merchants of Shrewsbury and Oswestry were protected by the Crown from competition by London merchants. These merchants sided with Charles I. On the other side, the metallurgical industry had flourished around Birmingham because monopolies were weak there and newcomers to the industry did not have to serve a seven-year apprenticeship, as they did in other parts of the country. During the Civil War, they made swords and produced volunteers for the parliamentary side. Similarly, the lack of guild regulation in the county of Lancashire allowed for the development before 1640 of the "New Draperies," a new style of lighter cloth. The area where the production of these cloths was concentrated was the only part of Lancashire to support Parliament.

Under the leadership of Oliver Cromwell, the Parliamentarians known as the Roundheads after the style in which their hair was cropped—defeated the royalists, known as Cavaliers. Charles was tried and executed in 1649. His defeat and the abolition of the monarchy did not, however, result in inclusive institutions. Instead, monarchy was replaced by the dictatorship of Oliver Cromwell. Following Cromwell's death, the monarchy was restored in 1660 and clawed back many of the privileges that had been stripped from it in 1649. Charles's son, Charles II, then set about the same program of creating absolutism in England. These attempts were only intensified by his brother James II, who ascended to the throne after Charles's death in 1685. In 1688 James's attempt to reestablish absolutism created another crisis and another civil war. Parliament this time was more united and organized. They invited the Dutch Statholder, William of Orange, and his wife, Mary, James's Protestant daughter, to replace James. William would bring an army and claim the throne, to rule not as an absolutist monarch but under a constitutional monarchy forged by Parliament. Two months after William's landing in the British Isles at Brixham in Devon (see Map 9, page 112), James's army disintegrated and he fled to France.

THE GLORIOUS REVOLUTION

After victory in the Glorious Revolution, Parliament and William negotiated a new constitution. The changes were foreshadowed by William's "Declaration," made shortly prior to his invasion. They were further enshrined in the Declaration of Rights, produced by Parliament in February 1689. The Declaration was read out to William at the same session where he was offered the crown. In many ways the Declaration, which would be called the Bill of Rights after its signing into law, was vague. Crucially, however, it did establish some central constitutional principles. It determined the succession to the throne, and did so in a way that departed significantly from the then-received hereditary principles. If Parliament could remove a monarch and replace him with one more to their liking once, then why not again? The Declaration of Rights also asserted that the monarch could not suspend or dispense with laws, and it reiterated the illegality of taxation without parliamentary consent. In addition, it stated that there could be no standing army in England without parliamentary consent. Vagueness entered into such clauses as number 8, which stated, "The election of members of Parliament ought to be free," but did not specify how "free" was to be determined. Even vaguer was clause 13, whose main point was that Parliaments ought to be held frequently. Since when and whether Parliament would be held had been such a contentious issue for the entire century, one might have expected much more specificity in this clause. Nevertheless, the reason for this vague wording is clear. Clauses have to be enforced. During the reign of Charles II, a Triennial Act had been in place that asserted that Parliaments had to be called at least once every three years. But Charles ignored it, and nothing happened, because there was no method of enforcing it. After 1688, Parliament could have tried to introduce a method for enforcing this clause, as the barons had done with their council after King John signed the Magna Carta. They did not do so because they did not need to. This was because authority and decision-making power switched to Parliament after 1688. Even without specific constitutional rules or laws, William simply gave up on many of the practices of previous kings. He stopped interfering in legal decisions and gave up previous "rights," such as getting the customs revenues for life. Taken together, these changes in political institutions represented the triumph of Parliament over the king, and thus the end of absolutism in England and subsequently Great Britain-as England and Scotland were united by the Act of Union in 1707. From then on Parliament was firmly in control of state policy. This made a huge difference, because the interests of Parliament were very different from those of the Stuart kings. Since many of those in Parliament had important investments in trade and industry, they had a strong stake in enforcing property rights. The Stuarts had frequently infringed on property rights; now they would be upheld. Moreover, when the Stuarts controlled how the government spent money, Parliament opposed greater taxes and balked at strengthening the power of the state. Now that Parliament itself controlled spending, it was happy to raise taxes and spend the money on activities that it deemed valuable. Chief among them was the strengthening of the navy, which would protect the overseas mercantile interests of many of the members of Parliament.

Even more important than the interest of parliamentarians was the emerging pluralistic nature of political institutions. The English people now had access to Parliament, and the policy and economic institutions made in Parliament, in a way they never had when policy was driven by the king. This was partially, of course, because members of Parliament were elected. But since England was far from being a democracy in this period, this access provided only a modest amount of responsiveness. Among its many inequities was that less than 2 percent of the population could vote in the eighteenth century, and these had to be men. The cities where the Industrial Revolution took place, Birmingham, Leeds, Manchester, and Sheffield, had no independent representation in Parliament. Instead, rural areas were overrepresented. Just as bad, the right to vote in the rural areas, the "counties," was based on ownership of land, and many urban areas, the "boroughs," were controlled by a small elite who did not allow the new industrialists to vote or run for office. In the borough of Buckingham, for instance, thirteen burgesses had the exclusive right to vote. On top of this there were the "rotten boroughs," which had historically had the right to vote but had "rotted away," either because their population had moved over time or, in the case on Dunwich on the east coast of England, had actually fallen into the ocean as a result of coastal erosion. In each of these rotten boroughs, a small number of voters elected two members of Parliament. Old Sarum had seven voters, Dunwich thirty-two, and each elected two members of Parliament.

But there were other ways to influence Parliament and thus economic institutions. The most important was via petitioning, and this was much more significant than the limited extent of democracy for the emergence of pluralism after the Glorious Revolution. Anybody could petition Parliament, and petition they did. Significantly, when people petitioned, Parliament listened. It is this more than anything that reflects the defeat of absolutism, the empowerment of a fairly broad segment of society, and the rise of pluralism in England after 1688. The frantic petitioning activity shows that it was indeed such a broad group in society, far beyond those sitting or even being represented in Parliament, that had the power to influence the way the state worked. And they used it.

The case of monopolies best illustrates this. We saw above how monopolies were at the heart of extractive economic institutions in the seventeenth century. They came under attack in 1623 with the Statute of Monopolies, and were a serious bone of contention during the English Civil War. The Long Parliament abolished all the domestic monopolies that so impinged on people's lives. Though Charles II and James II could not bring these back, they managed to maintain the ability to grant overseas monopolies. One was the Royal African Company, whose monopoly charter was issued by Charles II in 1660. This company held a monopoly on the lucrative African slave trade, and its governor and major shareholder was Charles's brother James, soon to become James II. After 1688 the Company lost not just its governor, but its main supporter. James had assiduously protected the monopoly of the company against "interlopers," the independent traders who tried to buy slaves in West Africa and sell them in the Americas. This was a very profitable trade, and the Royal African Company faced a lot of challenges, since all other English trade in the Atlantic was free. In 1689 the Company seized the cargo of an interloper, one Nightingale. Nightingale sued the Company for illegal seizure of goods, and Chief Justice Holt ruled that the Company's seizure was unlawful because it was exercising a monopoly right created by royal prerogative. Holt reasoned that monopoly privileges could be created only by statute, and this had to be done by Parliament. So Holt pushed all future monopolies, not just of the Royal Africa Company, into the hands of Parliament. Before 1688 James II would quickly have removed any judge who made such a ruling. After 1688 things were different.

Parliament now had to decide what to do with the monopoly, and the petitions began to fly. One hundred and thirty-five came from interlopers demanding free access to trade in the Atlantic. Though the Royal African Company responded in kind, it could not hope to match the number or scope of the petitions demanding its demise. The interlopers succeeded in framing their opposition in terms not just of narrow self-interest, but of national interest, which indeed it was. As a result, only 5 of the 135 petitions were signed by the interlopers themselves, and 73 of the interlopers' petitions came from the provinces outside London, as against 8 for the Company. From the colonies, where petitioning was also allowed, the interlopers gathered 27 petitions, the Company 11. The interlopers also gathered far more signatures for their petitions, in total 8,000, as opposed to 2,500 for the Company. The struggle continued until 1698, when the Royal African Company monopoly was abolished.

Along with this new locus for the determination of economic institutions and the new responsiveness after 1688, parliamentarians started making a series of key changes in economic institutions and government policy that would ultimately pave the way for the Industrial Revolution. Property rights eroded under the Stuarts were strengthened. Parliament began a process of reform in economic institutions to promote manufacturing, rather than taxing and impeding it. The "hearth tax"—an annual tax for each fireplace or stove, which fell most heavily on manufacturers, who were bitterly opposed to it—was abolished in 1689, soon after William and Mary ascended the

throne. Instead of taxing hearths, Parliament moved to start taxing land.

Redistributing the tax burden was not the only pro-manufacturing policy that Parliament supported. A whole series of acts and legislations that would expand the market and the profitability of woolen textiles was passed. This all made political sense, since many of the parliamentarians who opposed James were heavily invested in these nascent manufacturing enterprises. Parliament also passed legislation that allowed for a complete reorganization of property rights in land, permitting the consolidation and elimination of many archaic forms of property and user rights.

Another priority of Parliament was reforming finance. Though there had been an expansion of banking and finance in the period leading up to the Glorious Revolution, this process was further cemented by the creation of the Bank of England in 1694, as a source of funds for industry. It was another direct consequence of the Glorious Revolution. The foundation of the Bank of England paved the way for a much more extensive "financial revolution," which led to a great expansion of financial markets and banking. By the early eighteenth century, loans would be available to everyone who could put up the necessary collateral. The records of a relatively small bank, C. Hoare & Co. in London, which have survived intact from the period 1702–1724, illustrate this point. Though the bank did lend money to aristocrats and lords, fully two-thirds of the biggest borrowers from Hoare's over this period were not from the privileged social classes. Instead they were merchants and businessmen, including one John Smith, a man with the name of the eponymous average Englishman, who was loaned £2,600 by the bank during the period 1715–1719.

So far we have emphasized how the Glorious Revolution transformed English political institutions, making them more pluralistic, and also started laying the foundations for inclusive economic institutions. There is one more significant change in institutions that emerged from the Glorious Revolution: Parliament continued the process of political centralization that was initiated by the Tudors. It was not just that constraints increased, or that the state regulated the economy in a different way, or that the English state spent money on different

things; but also the capability and capacity of the state increased in all directions. This again illustrates the linkages between political centralization and pluralism: Parliament had opposed making the state more effective and better resourced prior to 1688 because it could not control it. After 1688 it was a different story.

The state started expanding, with expenditures soon reaching around 10 percent of national income. This was underpinned by an expansion of the tax base, particularly with respect to the excise tax, which was levied on the production of a long list of domestically produced commodities. This was a very large state budget for the period, and is in fact larger than what we see today in many parts of the world. The state budgets in Colombia, for example, reached this relative size only in the 1980s. In many parts of sub-Saharan Africa—for example, in Sierra Leone—the state budget even today would be far smaller relative to the size of the economy without the large inflows of foreign aid.

But the expansion of the size of the state is only part of the process of political centralization. More important than this was the qualitative way the state functioned and the way those who controlled it and those who worked in it behaved. The construction of state institutions in England reached back into the Middle Ages, but as we've seen (page 186), steps toward political centralization and the development of modern administration were decisively taken by Henry VII and Henry VIII. Yet the state was still far from the modern form that would emerge after 1688. For example, many appointees were made on political grounds, not because of merit or talent, and the state still had a very limited capacity to raise taxes.

After 1688 Parliament began to improve the ability to raise revenue through taxation, a development well illustrated by the excise tax bureaucracy, which expanded rapidly from 1,211 people in 1690 to 4,800 by 1780. Excise tax inspectors were stationed throughout the country, supervised by collectors who engaged in tours of inspection to measure and check the amount of bread, beer, and other goods subject to the excise tax. The extent of this operation is illustrated by the reconstruction of the excise rounds of Supervisor George Cowperthwaite by the historian John Brewer. Between June 12 and July 5,

1710, Supervisor Cowperthwaite traveled 290 miles in the Richmond district of Yorkshire. During this period he visited 263 victualers, 71 maltsters, 20 chandlers, and one common brewer. In all, he took 81 different measurements of production and checked the work of 9 different excisemen who worked for him. Eight years later we find him working just as hard, but now in the Wakefield district, in a different part of Yorkshire. In Wakefield, he traveled more than nineteen miles a day on average and worked six days a week, normally inspecting four or five premises. On his day off, Sunday, he made up his books, so we have a complete record of his activities. Indeed, the excise tax system had very elaborate record keeping. Officers kept three different types of records, all of which were supposed to match one another, and any tampering with these records was a serious offense. This remarkable level of state supervision of society exceeds what the governments of most poor countries can achieve today, and this in 1710. Also significantly, after 1688 the state began to rely more on talent and less on political appointees, and developed a powerful infrastructure to run the country.

THE INDUSTRIAL REVOLUTION

The Industrial Revolution was manifested in every aspect of the English economy. There were major improvements in transportation, metallurgy, and steam power. But the most significant area of innovation was the mechanization of textile production and the development of factories to produce these manufactured textiles. This dynamic process was unleashed by the institutional changes that flowed from the Glorious Revolution. This was not just about the abolition of domestic monopolies, which had been achieved by 1640, or about different taxes or access to finance. It was about a fundamental reorganization of economic institutions in favor of innovators and entrepreneurs, based on the emergence of more secure and efficient property rights.

Improvements in the security and efficiency of property rights, for example, played a central role in the "transportation revolution," paving the way for the Industrial Revolution. Investment in canals and