Lecture Two
Mercantilism vs. Laissez-faire

I. “Industrial Enlightenment” in Place?

Mokyr (2004) associates the advent of Industrial Revolution in Europe in general and in Britain in particular with a phenomenon he calls “Industrial Enlightenment”. According to him, the core of this industrial enlightenment was the emergence of a belief in the working of the competitive market system and the accompanying gradual decline of the strength of rent-seeking vested interests.

He also associates such an Enlightenment with the rise of the nation-states in comparison to the pre-modern societies: “The era before the Industrial Revolution witnessed in some areas the rise of a powerful state with a precommitment to a minimum protection of property rights and the ability to solve the contestabilities and coordination failures of pre-modern societies (Epstein, 2000). In other areas the rise of a modern state was more slow and wobbly. Yet the decline of privileges and rent-seeking must also be understood through the changing of the dominant ideology underlying the rulers and the civil servants in those nation states: there was a growing realization that the medieval concept of limiting competition and treating membership in any cartel or entry-limiting arrangement as an asset was as harmful and irrational as it was unfair. This is the institutional element of the Enlightenment that turned out to be crucial to the economic miracle that Europe experienced in the nineteenth century” (italics are mine).1

But as Mokyr points out by citing Greif (2003, ch. XIII, pp. 17-18), the emergence of modern institutions in the late eighteenth century: individualism, man-made formal law, corporatism, self governance, and rules that are determined through an institutionalized process in which those are subject to them can be heard and have an input all already emerged in late medieval Europe. “Yet”, he writes, “these elements did not trigger modern growth. In between, notes Greif, came an interlude of absolutism and mercantilism”.

Thus Mercantilism is seen by him as an impediment to Industrial Enlightenment, and perhaps a remnant from the rent-seeking Medieval societies. He notes: “Foreign trade had always been the pivot of mercantilist thought, in part the result of their misguided obsession with the Balance of Trade, in part because of rent-seeking. Laws, first passed in 1670…were the crowning achievement of rent-seeking landowners”.

But it was the Enlightenment that would have the final say, at least in Britain.2 According to Mokyr (2004), its success can be seen in the following set of actions:

(i) Trade, movement of labor, and monopolies: The monopoly of the East India company was ended by two parliamentary acts in 1813 and 1833; the restriction on the emigration of skilled artisans removed in 1824; the export prohibition on machinery removed in 1843.

(ii) Marine Transportation: the Navigation Acts were repealed in 1849 (“after having

---

1 He also says: “The Enlightenment, much like the Renaissance and the Reformation that preceded it, were based on a foundation of skepticism and rejection. It amounted to a re-examination and eventual rejection of deeply entrenched traditional concepts and beliefs”.

2 According to Mokyr (2004), the prevalence of Mercantilism was a factor explaining why Netherlands did not become the originating region of the Industrial Revolution: “Mercantilist policies were at the heart of the negative institutional feedback that shrunk the commercial profits of the United Provinces”.

---
declined for many decades” according to Mokyr).

(iii) Institutions barring innovations: “The struggle between innovators and those who resisted novelty came to a crashing crescendo during the Industrial Revolution when the old regulations in the wool industry were repealed in 1809, followed by the abolition of the 250-year old Statute of Artificers in 1814. The Luddite rebellion — a complex set of events that involved a variety of grievances, not all of which were related to innovation — was mercilessly suppressed. The debate between old regulations and privileges and the enlightenment forces of laissez faire coincided with the debate between the force opposed to innovation and those that favored it” (Mokyr).

Pictures such as the one painted by Mokyr are in sharp contrast with alternative ones given by scholars who are skeptical of the merits of laissez-faire in the early stage of industrialization. One of the more provocative among these came from Ha-Joon Chang, who in 2002 wrote a book entitled “Kicking Away the Ladder: Development Strategy in Historical Perspective”.

By reviewing the development experiences of eleven developed and newly industrializing economies including Britain, U.S., Germany, France, Sweden, Belgium, the Netherlands, Switzerland, Japan, Korea, and Taiwan, he claims that in most of them “the policies that were used are almost the opposite of what the present orthodoxy says they employed and currently recommends that the currently developing countries should also use” (Chang, 2002, p. 19).

II. British Practices in Industrial Policies

In the case of Britain, Chang argues the following. First, he notes by citing the works of Daniel Defoe (1728) that the English had a plan to transform itself “from a country relying heavily on raw wool export to the Low Countries into the most formidable wool-manufacturing nation in the world” (Chang, Ch. 2). According to Defoe, Henry VII (1485-1509) sent missions to identify locations suited to wool manufacturing, poaching skilled workers from the Low Countries, which were commercially and technologically more advanced than England at the time, and “increased duties on, and even temporarily banning the export of, raw wool”. The practices continued into Elizabeth I (1558-1603), when there were legislations to ban the exports of unfinished cloths, except the low-end products. In 1587, Britain banned raw wool export completely. During the process, Chang notes: “In order to open new markets, Elizabeth I dispatched trade envoys to the Pope and the Emperors of Russia, Mogul, and Persia. Britain’s massive investment in building its naval supremacy allowed it to break into new markets and often to colonize them and keep them as captive markets”.

Not only the colonies became captive markets, to be elaborated more below, they were also prevented from competing with England. In 1699, the Wool Act prohibited exports of woollen products from the colonies, killing off the then superior Irish wool industry. In 1700, a ban was imposed on the imports of superior Indian cotton production (“calicoes”), “deliberating what was then arguably the world’s most efficient cotton manufacturing sector. The Indian cotton industry was subsequently destroyed by the ending of the East India Company’s monopoly in international trade in 1813, when Britain had become a more efficient producer.

Chang also points out the 1721 reforms of the mercantile law introduced by Robert Walpole, the Prime Minister during George I (1714-27). “Prior to this”, Chang notes, “the British
government’s policies were in general aimed at capturing trade and at generating government revenue. The promotion of wool manufacturing…was the most important exception to this, but even this was partly motivated by the desire to generate more government revenue. In contrast, the policies introduced after 1721 were deliberately aimed at promoting manufacturing industries”. The policies then adopted included the following:

(i) Import duties on raw materials used for manufactures were lowered or dropped.
(ii) Tariff rebates on imported raw materials for exported manufactures, which had been installed since the days of William and Mary, were increased.
(iii) Export duties on most manufactures were abolished.
(iv) Duties on imported manufactured goods were significantly raised.
(v) Export subsidies, again having had existed for some time, were extended to silk products (1722), gunpowder (1731), while the existing one to sailcloth and refined sugar were increased.
(vi) Regulation was introduced to control the quality of manufactured products to protect the reputation of British exports, particularly textile products.

These policies, Chang argues, are almost exactly the same as the ones used by the Asian industrializing economies in the post-war era, including Japan, Korea, and Taiwan. Given the importance of textile industry (especially woolen and cotton products) during the seventeenth, eighteenth, and nineteenth centuries, and the above-mentioned elaborated protective and promotion activities, it is hard not to link the British industrial revolution with the latter. Chang notes: “without what can only be described as the sixteenth-century equivalent of modern infant industry promotion strategy put in place…, it would have been very difficult, if not necessarily impossible, for Britain to achieve this initial success in industrialization: without this key industry [of wool manufacturing], which accounted for at least half of Britain’s export revenue during the eighteenth century, its Industrial Revolution might have been very difficult, to say the least” (Chang, Ch. 2).

The nineteenth-century German economist Friedrich List had had similar thoughts. Cited by Chang, List argues that the British monarchs perceived that “their newly established native manufactures could never hope to succeed in free competition with the old and long-established manufacturers of foreigners…Hence they sought, by a system of restrictions, privileges, and encouragements, to transplant on to their native soil the wealth, the talents, and the spirit of enterprise of foreigners” (Chang, Ch. 2).

List then argues that the already successful industrialized economies would then tend to “kick away the ladder (of infant industry protection…etc.)” by preaching free trade. He notes: “Any nation which by means of protective duties and restrictions on navigation has raised her manufacturing power and her navigation to such a degree of development that on other nation can sustain free competition with her, can do nothing wiser than to throw away these ladders of her greatness, to preach to other nations the benefits of free trade, and to declare in penitent tones that she has hitherto wandered in the paths of error, and has now for the first time succeeded in discovering the truth” (Chang, Ch. 2).

III. The Age of British and Dutch Mercantilism, 1650-1770

If the arguments given in Chang sound provocative, those given in Ormrod (2003) are less so but equally deafening. Ormrod records in details the commercial competition between England and the Netherlands in the age of mercantilism, 1650-1770, which was a period of time exactly preceding the Industrial Revolution (1760-1830). The general setting is how England, which was
less advanced in both commercial and industrial development than the Netherlands in the seventeenth century, used various policies ranging from military confrontations to mercantilist commercial and industrial policies to come ahead of the latter by the eighteenth century.

Cited by Ormrod, William Temple, the British Ambassador in Holland during the 1660s, notes that the Dutch republic had not “grown rich by any native commodities, but by force of Industry; by Improvement and Manufacture of all Foreign Growths; by being the general magazine of all Europe, and furnishing all parts with whatever the Market wants or invites; and by their Sea-men, being, as they have properly been called, the common Carriers of the World” (Ormrod, pp. 33-34). Ormrod goes on to point out that the great surge of overseas trade from 1648-1651, following the lifting of the Spanish embargoes, represented the peak of Dutch commercial expansion, and parts of the expansion even occurred at the expenses of English shipping.

There were some attempts at peaceful negotiations between the two sides, but they ultimately failed. Ormrod notes that “if union with the Dutch was politically impracticable at mid-century, it seemed to many that protracted commercial rivalry and war were unavoidable. English mercantile opinion was substantially united in its desire to reduce the impact of Dutch competition, and the accretion of naval power achieved during the commonwealth period seemed to make this a practical possibility” (Ormrod, p.35).

The actions taken by Britain can be categorized into two stages. From 1651 to 1689 was the period of “piecemeal re-organization”, and the establishment of a new institutional framework emerged in the 1690s. In the former period, the two most important actions were the passage of the Navigation Act in 1651 as well as its subsequent revisions, and the phasing-out of company trading on the regulated pattern, in particular the permanent withdrawal of the Merchant Adventurers’ corporate monopoly in 1689.

The Navigation Acts were passed in a sequence of increasing limitations on navigations. The 1651 Act “forbade the importation of plantation commodities of Asia, Africa, and America except in ships owned by Englishmen. European goods could be brought into England and English possessions only in ships belonging to Englishmen, to people of the country where the cargo was produced, or to people of the country receiving first shipment”. The aim was to bar the Dutch from participating in the carrying trade to English ports.

In 1660, a revision of the Act enumerated such colonial articles as sugar, tobacco, cotton, and indigo; these were to be supplied only to England. The purpose was to make English ports the starting points of carrying trade (to Europe) for all goods from the English colonies. This act was again “expanded and altered by the succeeding Navigation Acts of 1662, 1663, 1670, 1673, and by the Act to Prevent Frauds and Abuses of 1696 [to be explained later]. In the act of 1663 the

---

3 The United Provinces of Netherlands was formally recognized by Spain in 1648, a few months before the English republic or Commonwealth came into being.
4 According to Ormrod, from 1649 to 1651, the number of English ships sailing to the Baltic fell by half, while, in the Mediterranean, they were suddenly outnumbered by Dutch vessels at Leghorn, the chief center for English shipping in the region.
5 Ormrod (2004, p. 32) notes this Act has been said to represent the climax of a process of “conscious economic re-orientation”, dating from the 1620s, which aimed to develop an entrepo system similar to that which had grown up spontaneously at Amsterdam.
important staple principle required that all foreign goods be shipped to the American colonies through English ports. In return for restrictions on manufacturing and the regulation of trade, colonial commodities were often given a monopoly of the English market and preferential tariff treatment”.\(^7\) Thus England wished to play the role of the gate in Europe to its colonies in America thus further enlarging its role in carrying trade.

Immediately after the first passage of the Act, in 1652 a war broke out between England and the Netherlands. In a series of fighting, the English humbled but failed to destroy the Dutch navy. A peace treaty was signed in Apr., 1654. The Dutch agreed to salute the British flag in British seas, to pay compensation for English losses, and to submit territorial claims to arbitration. The second Dutch War was fought in 1664-67 over disputes in African and American colonies. Holland was able to inflict heavy losses on Britain in spite of earlier defeats. Peace was restored by the Treaty of Breda (July 1667), which dictated that the trade laws be modified in favor of the Dutch, and all conquests of war be retained, with the English receiving New Amsterdam (currently New York) and Delaware and the Dutch keeping Suriname.

Some historians questioned the true effectiveness of the Navigation Acts, citing incidences of smuggling and other forms of violations. However, as Ormrod points out, of the two main objectives the legislation was intended to achieve, namely to prevent Dutch shipping from dominating England’s carrying trade, and to break English merchants’ habit of depending on the Dutch staplemarket, the first one was quickly achieved\(^8\), the second one was slower in coming but it ultimately became a reality by the early 1720s and 1730s.

If the British used the above extreme measures to promote shipping and trade, they were no less enthusiastic with industrial development, especially towards the end of the seventeenth century. Ormrod notes “the years 1670-1 seem to mark a turning point in parliament’s attitude to the balance of trade. Hitherto, fiscal and commercial interests had run parallel, but henceforth, the Commons

\(^7\) See the same source as in the previous footnote. The same source indicates that although the British colonies in America were given some privileges in the English markets, the restrictive nature of the Act caused the development of resentments. According to the source, the “Molasses Act of 1733, which raised duties on French West Indian sugar, angered Americans by forcing them to buy the more expensive British West Indian sugar. Extensive smuggling resulted. American historians disagree on whether or not the advantages of the acts outweighed the disadvantages from a colonial point of view. It is clear, however, that the acts hindered the development of manufacturing in the colonies and were a focus of the agitation preceding the American Revolution. Vigorous attempts to prevent smuggling in the American colonies after 1765 led to arbitrary seizures of ships and aroused hostility...Shaken by the American Revolution, the system, along with mercantilism, fell into decline. The acts were finally repealed in 1849”. The source refers to G. L. Beer (1907–13), The English Navigation Laws (1939, repr. 1964: L. A. Harper), and O. M. Dickerson, The Navigation Acts and the American Revolution (1951, repr. 1974) for further studies.

\(^8\) Ormrod (2004, p. 41) notes that studies of port records show that the role of the Dutch as third-party carriers in England’s trade with other countries was substantially undermined by the Act. “In the direct trade between England and Holland, too”, says he, “the proportion of English shipping increased...from 57% prior to 1651 to 92% after 1660, in the case of the incoming trade of the outports”. He also notes (2004, p. 311) that the volume of Dutch-controlled transatlantic traffic “declined substantially during the 1660s and ’70s. By the late ’60s in fact, Amsterdam’s imports of colonial tobacco amounted to no more than one-tenth of London’s, while its imports of sugar were about one third the London level”, in spite of the various claims that the Act was ineffective because there had been a lot of illegal traffic going on. The taking of New Amsterdam and its reinvention as New York under British control after the second War also improved the enforcement of the Act regarding inter-colonial and transatlantic commerce.
became more concerned with the balance of trade and the *encouragement of native manufactures*” (my italics).

Following the Glorious Revolution, the Parliament rose in power, and even more fundamental changes took place in Britain. Ormrod (2003, pp. 43-45) marks the 1690s as a period of “internal ‘free trade’ and external protection”. Internally, “the Lockean emphasis on natural liberty and individual freedom was paralleled by a more inclusive approach to economic matters”. Examples included the liberalization of regulations regarding apprenticeship, and the gradual abolition of monopolistic privileges, such as those enjoyed by the Merchant Adventurers and the East India Company. The latter especially can be understood in terms of the struggle of political power between the monarch and the legislature, as “both companies had gone out of their way to secure concessions from the Crown and its Tory supporters”.

The establishment of internal free trade, argues Omrod (2004, p. 45), “was linked indissolubly with external protection, at two distinct levels: the tightening-up of the navigation code, and the raising of protective duties on a range of manufactured imports”. The former included the 1696 re-affirmation of the Act, mentioned above, that confined colonial trade in its entirety to English-built shipping and substantially strengthened enforcements”. The latter saw the general rise in tariff: the average level roughly quadrupled during 1690-1704. Fiscal necessity was an important factor, as Britain was engaging in a war with France (1689-1713), but as Ormrod (2003, p. 43) points out, if fiscal matter were the only concern, it probably would have made more sense to raise the excise taxes rather than import duties, as “[t]he customs revenue, it could be plausibly be argued, had already reaped the gains of the commercial revolution, and the discouragement of particular imports by high duties might actually damage the revenue in the long term”.

Moreover, the British did more than raising tariff rates. It also embarked on policies ranging from import substitution to export promotions, in the forms of subsidies, tariff rebates, prohibiting imports of some finished products, and prohibiting the export of some raw materials, as explained in the last Section. Specifically, Ormrod points out that “[l]inen, canvas and sailcloth formed perhaps the most important single group of import substitution industries, to which this entire range of policy instruments was applied” (2004, p. 143). As can be seen from Figure 2.1, which compiles data from Ormrod’s Table 5.5, these policies were very successful in boosting English production of linen. While in 1700, estimated minimum English production was only 12.9 million yards, compared to 22.1 million yards of retained linen imports from Europe, by 1770 the former had reached 42.8 million, while the latter fell to 18.6 million yards.

**Figure 2.1**

If Chang put emphasis on the woolen manufacturing, Ormrod points to the importance of cotton manufacturing. He notes the British targeted such linen products as sailcloth, and printed, stained, striped and chequered fabrics aimed at replacing the banned (in 1700, mentioned above) calicoes, and awarded them strong protective and encouragement measures, including high tariff and export subsidies (then called “bounties”). “The freedom to wear and use domestically manufactured printed linens and cottons, in some doubt since the second prohibition of printed East Indian calicoes in 1721, was clarified in the ‘Manchester Act’ of 1736. Although it could hardly

---

9 Ormrod (2004, p. 46) sees the strengthening of the Navigation Act in 1696 as one of a number of measures which served to consolidate a closer relationship between the merchant and the state. “The navigation code was nationalist...”, says he, “Although the interests of individual merchants frequently diverged, economic thought and administrative practice were shifting towards the establishment of public institutions which might reflect the national interest in commercial matters”.
have been foreseen, this group of import saving measures played a central role in establishing a niche for England’s future leading industry, the cotton manufacture” (2003, p. 172).

In 1751, Ormrod notes (2004, p. 309) that the leading Amsterdam’s merchants concluded that one of the principal causes of the long-term decline of the Republic’s trade “was the adoption of protectionist policies by neighboring states…England, France, Sweden, Norway, Russia and Prussia all deployed mercantilist measures against the United Provinces, but only the English were able to implement and enforce a series of protectionist measures aimed at the four main sectors of the Dutch economy: shipping, trade, industry and agriculture. “The principal areas of legislation in each of these four sectors”, writes he, “comprised measures designed: (1) to protect the carrying trade and English shipping – principally the navigation laws; (2) to develop the trade of the English entrepot…(3) to encourage and protect home industry – especially import substitution and import prohibitions; and, (4) to support English farming through the Corn Laws [of 1672 and 1689], involving duties on grain imports and subsidized export…England’s…long-term ‘success’ was largely the result of political advantages comprising a strong machinery of state, internal security and the use of naval power”.

Although it is quite normal for different historians to interpret history differently, one really has to be very blind not to notice the fact that during the one hundred some years before the Industrial Revolution (1760-1830) took place, England adopted pro-active policies to promote its cotton and woolen industries as well as shipping, and that these textile industries happened to be the leading sectors in England during the entire duration of the Industrial Revolution.

There are at least two remarks which can be made regarding Mokyr’s view of “Industrial Enlightenment”. The first remark is timing. It seems most of the evidence he gives (cited above) about the ultimate victory of laissez-faire in the sphere of international trade took place well after the Industrial Revolution was already in place, when England already acquired a superior place in shipping and in manufacturing productivity. It seems that their occurrence was too late to qualify them as the “causes”, or even as simultaneous indicators. On the other hand, almost all of the measures Chang and Ormrod mention, took place before the Industrial Revolution.

Of course, the path of economic development is a complicated phenomenon. Ormrod already says England in mercantilist periods saw the duality of increasingly protective foreign trade but freer domestic trade. So it would not be hard to find “evidences” of de-regulation and freer competition, if search is confined to the domestic economy. And it might well be that a de-regulated domestic economy was an important factor contributing to the advent of Industrial Revolution. However, to wrap up history in its entirety in the grand phrase of “laissez-faire” could be quite misleading.

The same can be said of “rent-seeking”. To say medieval Europe was characterized by such activities but the pre-Industrial Revolution England was characterized by their subsidence is probably an over- or even possibly misleading simplification. Rent-seeking activities were probably no less intensive in Britain in the seventeenth and eighteenth centuries than in the Middle Ages, but they took different forms and applied to different “players”. In the earlier period, as Ormrod has pointed out, it was the traditional big merchant houses courting the monarchs, in the later period it was the newly emerging enterprise groups, sometimes with opposite interests, lobbying Members of the Parliament.10 If higher import duties could be interpreted as

---

10 For an example, Ormrod (2003, pp. 171-172) notes the following: “The makers of printed fustians and linens, along with textile printers themselves, were forced to defend their expanding share of the market against repeated attacks from the woolen and silk industries, but succeeded in maintaining the high levels of protection embodied in the prohibitive import duties of 1711 and 1713.”
“successful” outcomes of rent-seeking, then Britain could be said to have had seen the rise, not the subsidence of such activities in the two centuries prior to and during almost the entire period of the Industrial Revolution.

Ormrod citing the works of O’Brien-Griffiths-Hunt (1991) and Wilson (1969) notes: “The form and content of the legislation which fostered the cotton textile industry, it has been suggested, can best be explained ‘as the product of bargaining among interest groups, constrained by Parliament’s perception of strategic and political necessities and conditioned by the ideological preconceptions of a mercantilist age’” (2003, p. 50).

So what really strikes the readers of the British history the most, it seems, is not the change in the pattern of rent-seeking, but the persistent efforts to promote “national interests” in the form of the expansion of commerce and industries in the centuries leading to the Industrial Revolution. Some de-regulation did take place, in an effort to make the domestic market more open and competitive, but foreign trade became increasingly restrictive. The two are not contradictory, because they serve the same purpose: to enhance national economic power. That was the objective of mercantilism. In such an interpretation, mercantilism has bred Industrial Revolution, not that Industrial Revolution took place in spite of the “interruption” from mercantilism. What is surprising and needs to be explained is that national coherence had been strong in Britain all along, aiming at the same goal of enhancing national economic power either in the earlier period of ruling by the monarchs, or in the later period of the rise of Parliamentary power. In both periods, history was not short of the continuous presence of private interests lobbying for attention and privilege.

References


In 1588 the Spanish King launched an attack on Britain “as a result of religious feud”, according to the appearance at least. To prepare for the attack, it constructed a huge fleet called The Armada, otherwise known as the “Invincible”. After fierce battles, the British was able to defend its fleet, which is smaller in size but more nimble and more effective in the use of gunpower, successfully and the Armada suffered a defeat. The Britain, under the new Queen Elizabeth, then entered a new era of fast development both militarily and economically.

“We found that many of the enemy’s ships held great advantage over us in combat, both in their design and in their guns, gunners and crews ... so that they could do with us as they wished. But in spite of all this, the duke [Medina Sidonia] managed to bring his fleet to anchor in Calais roads, just seven leagues from Dunkirk... and if, on the day we arrived there, Parma had come out with his forces, we should have carried out the invasion.”

Don Francisco de Bobadilla, the Armada’s senior military officer, 20 August 1588


The defeat of the Spanish Armada marked a major turning point in world history. To be sure, the popular view that the Armada marked the beginning of England's rise and Spanish decline is over-stated, but if Philip II’s grand design had succeeded we would be living in a very different world. Beyond its immediate consequences — which were considerable — the Armada tells us a great deal about warfare at sea during a pivotal period of change.

The first link in the chain of proximate causation that led to the Armada was forged in April of 1572 when Queen Elizabeth, bowing to Spanish pressure, ordered Dutch privateers expelled from English ports. With good intelligence of Spanish dispositions and nowhere else to go, they returned home and seized the port of Brill (在現在的荷蘭). Welcomed by their fellow Protestants and finding the Duke of Alba’s army over-extended they seized Flushing and Enkhuizen in May,
re-igniting the rebellion the Duke thought he had snuffed out in 1567-68.

Unable to stand up to the Spanish in the field, the Dutch proved tenacious in sieges and quickly learned the value of their waterways. Alive to the advantages of water transport in a land with more canals than roads, Alba created a navy to support his endeavors but could not sustain it. Its only success was in cutting off Haarlem from resupply in the Spring of 1573 and from that point Dutch control of inland waters did much to counter the skill and fortitude of the Army of Flanders. The high point of Spanish fortunes came in the summer of 1585 under the captain-generalcy of Alexander Farnese, Prince of Parma. Perhaps the finest general of his day, Parma had confined the rebellion to Holland, Zealand and Utrecht with a relentless campaign of sieges and took Antwerp in August. That May the Spanish had embargoed all northern vessels in Spanish ports. All but Dutch ships were eventually released, but the act gave Elizabeth casus belli.

To that point Elizabeth had condoned private war against Spain, but stopped short of openly-declared hostilities. Now, facing the very real possibility that Protestantism would be throttled in the Netherlands with England next, she reacted aggressively, allying herself with the Dutch, dispatching an expeditionary force to Flanders, and sending a fleet under Francis Drake to ravage the Canaries and the Caribbean. That gave Philip the excuse he needed: When Bazán offered to plan an invasion of England he responded positively and asked Parma to do the same.

Bazán, no doubt overstating his requirements out of caution, advocated a massive expedition launched from Lisbon. Parma (after extended delay, for he was unenthusiastic about diverting his forces) proposed a less costly but more daring plan: a surprise crossing of the Channel in local shipping. Philip, no doubt recoiling from the cost of Bazan’s proposal, settled on a hybrid plan: Bazán would take a fleet into the Channel, rendezvous with Parma and convoy him to England. Orders to that effect were dispatched to Bazán and Parma in July 1586. In tonnage of ships, numbers of troops, quantities of arms, munitions and provisions, and distance covered, it would be the most ambitious European naval enterprise to date, ultimately numbering 130-140 ships, over 90 of them of 200 tons displacement or more, carrying some 7,000 sailors and 19,000 soldiers. Parma would assemble 27,000 troops at their embarkation ports along with 270 vessels to carry them to England. These things were not done easily.

Galleons aside, the only purpose-built warships available were three Portuguese galleons, survivors of those seized in 1580, and four Neapolitan galleasses. To these, we can add 17 galleons, including 10 of the Indies Guard, designed to haul bullion and protect treasure convoys. The bulk of the Armada’s carrying capacity consisted of impressed merchantmen armed with whatever could be found and lightly armed hulks (the generic term for large merchantmen).

A fleet under Drake raided Cadiz in April 1587, destroying 24 ships and immense quantities of supplies. Drake’s presence put the Indies convoys at risk. Bazán sailed for the Azores to bring them
home and did, but at considerable cost in wear and tear on ships and crews. A November storm beat up the Armada in harbor. Bazán died in February 1588.

His replacement was the Duke of Medina Sidonia, short on combat experience afloat but a superb administrator. Recognizing the enormity of his task, he begged to be excused. His pleas and subsequent arguments against the wisdom of the enterprise fell on deaf ears, for Philip knew that God approved. Due largely to the Duke’s competence, the Armada finally cleared the Tagus on 30 May 1588... with bad cooperage and putrefying provisions — partly a consequence of Drake’s destruction of barrel staves in Cadiz the previous year. Scattered by a storm while putting into Coruña for fresh supplies, the Armada was further delayed, departing on 21 July. After yet another storm on the 27th that cost it two days and its four galleys, the Armada entered the Channel on the 30th.5 Formed in a deep line abreast with rearward-curving wings tipped by its most capable warships to discourage attacks from the flanks and rear, it seemed unstoppable.

To face this juggernaut England could muster 23 large royal warships, almost all race-built galleons, some 30 large private warships and a host of smaller vessels. High Admiral Lord Howard of Effingham had been persuaded by Drake, his newly-appointed vice admiral, to bring the bulk of his force west to Plymouth, leaving a small squadron under Lord Henry Seymour in the Downs to watch Parma.6 Informed of the Armada’s approach by a watchful pinnace, the English warped out of Plymouth during the night and gained the wind. Medina Sidonia had already missed his first and probably best chance of victory two days earlier by rejecting suggestions to sail directly for Plymouth and blockade the English in port rather than wait to assemble his entire fleet.

<table>
<thead>
<tr>
<th>The Strengths of the Spanish and English Fleets</th>
<th>30 May 1588²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spanish</strong></td>
<td><strong>English</strong></td>
</tr>
<tr>
<td>20 Galleons averaging 600 tons displacement, including three former Portuguese royal warships and ten galleons of the Indies Guard</td>
<td>23 royal warships displacing from 250 to 1,500 tons each, the bulk of them race-built galleons</td>
</tr>
<tr>
<td>47 armed merchantmen averaging 680 tons displacement each</td>
<td>30 private warships displacing 300-600 tons each, the more heavily armed of them equivalent to royal warships of like size</td>
</tr>
<tr>
<td>21 hulks, large merchantmen impressed to haul troops and supplies, many of them Mediterranean vessels poorly suited for the Atlantic</td>
<td>30 private warships displacing 200-250 tons</td>
</tr>
<tr>
<td>4 galleasses, displacing about 1000 tons each</td>
<td>10 small royal vessels, pinnaces and the like</td>
</tr>
<tr>
<td>4 galleys</td>
<td>1 galley</td>
</tr>
<tr>
<td>31 small ships for dispatch vessels and scouts</td>
<td>162 small private ships</td>
</tr>
</tbody>
</table>
The Spanish superiority in a boarding fight was evident as was the English advantage in stand-off gunnery. Indeed, Philip had warned Medina Sidonia in April that “the enemy’s intention will be to fight at long range on account of his advantage in artillery.... to fire low and sink his opponent’s ships” and so it was, though not as anticipated. The English formed line and passed alongside the Spanish, harrying them with broadsides, though to no discernible effect. The only advantage came from accidents among the Spanish, a powder explosion and a series of collisions on the 31st that delivered two ships to the English the next day — one of them the powerful galleon *Nuestra Señora del Rosario* — along with several tons of gunpowder.

On 2 August, the English tried penetrate the Armada’s interior, only to be met by powerful warships detailed by Medina Sidonia to protect the merchantmen and hulks. The wind dropped for a time, enabling the galleasses to bring their powerful guns briefly to bear, threatening to close and board. Medina Sidonia reorganized the Armada, placing the hulks and merchantmen in the vanguard, protected by a rearguard of his best warships.

On the 3rd, the English, newly formed into four squadrons led by Howard, Drake, John Hawkins and Martin Frobisher, blocked the Spanish from the Solent preventing a descent on the Isle of Wight. By now it was clear that the English could bring their guns to bear at will, but that they were doing little harm.

The 3rd and 4th saw several hot actions, notably by Drake in his flagship *Revenge*, in which the English closed to substantially shorter ranges than previously, perhaps experimenting to see if they could inflict serious damage. The experiments, if they were that — the hypothesis is Colin Martin’s and Geoffrey Parker’s, and convincing — were successful. Having learned that close-in gunnery was effective, the English backed off to conserve powder.

The fleets disengaged on the 5th, the Armada ploughing stolidly ahead and the English shadowing, low on powder and frantically resupplying. On the 6th, Medina Sidonia, not having heard from Parma and fearful of overshooting, his rendezvous, brought the
Armada to anchor off Calais, within 25 miles of Parma’s embarkation ports. That evening, he received his first word from Parma.

Parma had thoroughly out-foxed the Dutch, avoiding the attentions of a blockading squadron under Justin of Nassau and successfully concealing his intentions, but for reasons of deception had held his men back from their ports. This detail revealed a fatal flaw in Philip’s plan: lacking a deep water port in Flanders or control of the Channel, it required precise coordination, something exceedingly difficult to achieve with large and heterogeneous forces, then or now. In fact, Parma ordered embarkation to proceed as soon as he learned that the Armada was at Calais. Within forty-eight hours he was ready, poised to strike.  

Meanwhile Howard anchored within sight of the Armada and received reinforcements by the hour, Seymour among them. A council of war decided to send in fireships and preparations were made accordingly. Caught in an exposed roadstead and with an offshore breeze, Medina Sidonia ordered his captains to set a second anchor.

Around midnight, eight small ships stuffed with combustibles warped in with the tide. Medina Sidonia had posted a screen of small craft as a precaution and their crews managed to tow two of the fireships clear. The rest proceeded on course, their crews taking to the boats; it was perfectly timed and executed. At the sight of the approaching flames the Spanish panicked, chopping cables and leaving anchors behind. No ship was burned, but the attack succeeded beyond expectations. Dawn found the Armada scattered and the flag galleass aground,

The ensuing battle, named for nearby Gravelines, was intense and confused. Medina Sidonia’s flagship San Martin and four of his best galleons sought to interpose themselves between the rest of the Armada and the English. They fought with admirable fortitude and were generally successful, but the English, using their agility and firepower to full advantage for the first time, closed and inflicted terrible damage. The wind drove the battle north. One galleon was sunk outright and Medina Sidonia’s five stalwarts mauled. By day’s end, the flag galleass was destroyed and the Armada driven so far to windward that any hope of rendezvous with Parma was gone. Medina Sidonia gave orders to proceed home the long way round. Most of the galleons made it, a tribute to their design and construction. Many of the rest did not, driven against the Scottish or Irish coasts and wrecked, their anchors on the bottom off Calais and not available when needed.

It was close. Had one of Medina Sidonia’s numerous messages to Parma announcing his intentions and progress arrived in time — a real possibility — Parma could have been ready when the Armada arrived. The English had been unable to stop the Armada and Parma would have had his escort. Had his veterans made it ashore there can be no doubt that they would have made mincemeat of Elizabeth’s militia.
It did not happen. England remained Protestant and Elizabeth queen. The Dutch Revolt prospered. The Royal Navy was vindicated as the core of England’s defense, but that same navy proved incapable of offensive strategic decision. English raids could be highly destructive — that on Cadiz in 1596 far surpassed Drake’s earlier attack — but accomplished little beyond increasing Spanish defense expenditures. Those included the creation of a navy which, though unable to succeed where the Armada had failed, effectively protected the treasure fleets. The war wore on in inconclusive attrition until Elizabeth’s death in 1603 and the truce called by her successor James I the next year.

[playing VCD: The Invincible Armada, 1388]