Chapter 1

From The Hapsburg Hegemony (1492-1618) to the Thirty Years War (1618-1648)

“Don't write history as poetry, because the weapon is the historian...”

Why was the capitalist world-system born in 1492 and not 1368 (the founding of the Ming dynasty of China) or 1526 (the founding of the Moghul empire of South Asia)? Marx was the first to ask this question, but his location in the middle of the 19th century, an epoch when the proletarianization of the planet had just begun, prevented him from formulating an adequate reply. This is by no means to diminish Marx’s achievement of giving humanity its first working theory of British capital, the necessary prelude to the much more complicated task of theorizing the century of British hegemony and indeed the trajectory of the capitalist world-system as a whole. Rather, Marx would be the first to insist that the first step towards emancipating ourselves from the economic, political and cultural prison-house of capital is to understand how that prison was constructed in the first place.

The foundation of the capitalist world-system did not begin with the first settled agrarian societies which emerged six to seven thousand years ago, or with the vast land empires which emerged approximately five thousand years ago. Nor did it begin with the nomadic empires which intermittently unified parts of the European-Asian landmass, beginning with the Cimmerians in 714 BCE and concluding with the Mongols in 1206. Rather, capitalism as a true world-system began with the Hapsburg hegemony.

This hegemony was always marked by a double paradox. The first paradox is that this hegemony could not -- and did not -- emerge from the Ming, Mughal or Ottoman polities, the superpowers of the 15th and 16th centuries. Instead, it emerged precisely where these empires were weakest, namely two ramshackle monarchies on the edge of an obscure semi-periphery of the 15th century world-system called western Europe.

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The second paradox is that this hegemony emerged in close proximity to the first national capitalisms, but it did not directly administer these capitalisms in the manner of later hegemons. Whereas a variety of local and regional forms of capital (currencies, contractual debts, interest rates, monetary speculations, and mercantile activities of all kinds) had existed for millennia inside the major land empires, the first national capitalisms emerged at a structural distance from these latter. The mystery which needs to be resolved is why the Hapsburg hegemony did not restrain or hold back the development of these national capitalisms, but functioned as their necessary co-producer.

To begin to unravel this paradox, we must first ask why the national capitalisms emerged first on the edge of western Europe, and not Central Asia, China, Eurasia, Korea, Japan, Indonesia, South Asia, or West Africa – all regions with long histories of monetary accumulation, well-developed credit markets, cosmopolitan merchants, and literate elites. In fact, all of the major polities of the pre-1492 era had dynamic economies, long histories of participation in
maritime trade, and significant forms of technological innovation.

Rather than classifying the dynastic empires as the opposite of the earliest national capitalisms, it would be more dialectical still to grasp both as contrapuntal moments of a single larger process. Indeed, it was precisely the superior wealth, administrative capacity, and military effectiveness of the largest 15th and 16th century empires vis-a-vis the smaller, weaker polities of western Europe which drove the single most important geopolitical innovation of the Hapsburg long peace.²

This innovation was maritime colonialism, and its emergence was the fortuitous constellation of a number of preexisting economic preconditions, technological innovations, and ecological and geographical factors.³ The single most important economic precondition was the experience of centuries of long-distance trade along the Silk Road which connected Asia, Europe and Africa. During the 14th and 15th centuries, the Silk Road spawned significant financial innovations in the Italian city-states of Florence, Genoa, Milan and Venice – among other things, the invention of the joint stock company, double-entry accounting, and international financial arbitrage.

The second crucial economic precondition was the economic success and demographic growth of the Ming dynasty of China (1368-1644). Counterintuitive as it may sound, the financial basis of the Hapsburg hegemony ultimately rested on the pinions of Chinese consumer demand. The consensus of contemporary historians is that Ming China comprised approximately one quarter of humanity by 1500, and generated a comparable share of the planet's economic activity.

Under the Ming, China experienced a long period of economic growth and demographic expansion. Most historians estimate the population of China rose from less than 100 million in 1368 to approximately 200 million by 1600. This expansion sparked a number of noteworthy aesthetic achievements, e.g. the writing of the proto-national family drama of *Golden Vase Plum* (1510) and the folkloric proto-nationalism of *Journey to the West* (1570). It also generated a significant increase in demand for silver among China's mercantile elites as a secure storehouse of value. We will see somewhat later how this demand would eventually be satisfied by Hapsburg-owned mines in the Americas.

One of the key technological innovations necessary for the Hapsburg hegemony was the print media revolution inaugurated by Gutenberg in 1450, which dramatically accelerated the dissemination of information and scientific knowledge and opened the door to mass literacy. The other crucial innovations included the Portuguese caravel, the fastest and most maneuverable craft of its day, and the use of the astrolabe for maritime navigation. The first records of the caravel date back to 1451, while Portuguese explorer Diogo de Azambuja navigated by astrolabe in 1481.

Finally, the ecological and geographical factors include the fact that the sailing time between the coast of western Europe and the Americas was significantly shorter than the sailing time between the coast of eastern Asia and the Americas. It was also crucial that the empires indigenous to the Americas – the most powerful were those of the Incas, Mayans, Mexicas and Toltecs – were immunologically vulnerable to Afro-Eurasian diseases, due to the lack of a direct land link with the Afro-European-Asian landmass for the preceding ten thousand years.⁴ This vulnerability would trigger a bacteriological genocide after 1492, as the indigenous American population collapsed from somewhere between 15 to 30 million in 1500 to an estimated 3
million by 1750.\textsuperscript{5}

Thanks to this economic, cultural and geographical constellation, western Europe was just the right semi-periphery at just the right time to invent maritime colonialism. The first phase of this maritime colonialism consisted of the voyages undertaken by the Portuguese monarchy (the House of Aviz which ruled from 1385-1580) along the western coast of Africa. Seeking direct access to the maritime spice trade routes monopolized by the city-state of Venice and unable to challenge the naval might of the Ottoman empire, Portuguese ships turned west and south, reaching present-day Senegal in 1445, rounding the Cape of Good Hope in 1488, and arriving on the western coast of India by 1498.

The Spanish branch of the Hapsburg court had similar motivations when it chartered Columbus’ voyage in 1492 in hopes of finding a short-cut to India. However, the Hapsburg hegemony was ultimately founded not on spices, but on the extraction of significant quantities of silver from Central and South America via a combination of wageless and partly waged labor.\textsuperscript{6} Joseph Inikori, working with data assembled by Ward Barrett, provides these estimates of the flow of bullion from the Americas to the Hapsburgs:

\begin{table}
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
Period & Tons & Kilograms & Pesos & Sterling \\
\hline
1501-1525 & 40 & 41,216 & 1,612,456 & 362,803 \\
1526-1550 & 105 & 108,192 & 4,232,698 & 952,357 \\
1551-1575 & 205 & 211,232 & 8,263,839 & 1,859,364 \\
1576-1600 & 205 & 211,232 & 8,263,839 & 1,859,364 \\
1601-1625 & 245 & 252,448 & 9,876,296 & 2,222,166 \\
1626-1650 & 290 & 298,816 & 11,690,309 & 2,630,319 \\
1651-1675 & 330 & 340,032 & 13,302,765 & 2,993,122 \\
1675-1700 & 370 & 381,248 & 14,915,222 & 3,355,925 \\
1701-1725 & 415 & 427,616 & 16,729,235 & 3,764,078 \\
1726-1750 & 500 & 515,200 & 20,766,657 & 4,672,498 \\
1751-1775 & 590 & 607,936 & 24,504,655 & 5,513,547 \\
1776-1800 & 600 & 618,240 & 24,919,988 & 5,606,997 \\
\hline
\end{tabular}
\caption{Flows of bullion from the Americas to the Hapsburg empire, 1501-1800.\textsuperscript{7}}
\end{table}

The American silver boom kicked into high gear thanks to the discovery of massive silver deposits in Potosi, Bolivia in 1545, the technological innovation of utilizing mercury to refine silver ore in 1555, and the capacity of the Hapsburg colonial regime to extract wageless labor from indigenous Americans. Kendall Brown provides a vivid description of this moment:
The switch to [mercury-based] amalgamation meant an increased demand for labor to extract and refine massive quantities of ore. Viceroy Toledo committed the colonial government to providing the mines and mills with workers. Prior to the Spaniards' arrival, the Incas had required adult males to take turns laboring on public projects. Toledo adapted this custom, called mit’a or 'turn' by the Indians, and created the colonial mita, a system of forced Indian labor. He assigned an annual quota of thirteen thousand mitayos (mita workers) to Potosi, drawing them from a wide area stretching nearly to Cuzco, almost six hundred miles away. Adult male Indians in the mita provinces were to work every seventh year at Potosi. In 1571 at Huancavelica, Toledo had allocated the mercury refiners a mita of 900 workers, a number he raised to 3,280 in 1577 to meet the silver refiners' growing demand for mercury. At both sites, mitayos received a wage, although it was lower than that paid to the free workers who were employed to supplement the mita contingents.

The new [refining] technology, Potosi's ores, and the Spanish government's coercion of indigenous labor caused an amazing surge in silver production. It outstripped anything seen during the earlier bonanza, when the outcroppings had yielded up their treasure. Potosi refiners had officially smelted 63,000 kilograms of silver in 1565. With amalgamation, they refined 194,000 kilograms in 1592. Only once from 1579 to 1610 did official output fall below 130,000 kilograms of silver, double the high point during the initial phase. Whereas many mining districts played out after a brief time, Potosi poured forth a river of silver year after year.\(^8\)

This river of wealth for the Hapsburg crown was a river of sorrow for America's indigenous peoples, who would perish from mercury poisoning, disease and overwork. In a pattern which would be repeated time and again over the next four centuries, the unimaginable wealth of the few was built on ecological despoliation and inconceivable misery for the many.\(^9\)

This flood of American silver generated two significant geopolitical consequences, one obvious and the other unexpected. The obvious consequence was the transformation of the Hapsburgs into the most powerful dynasty in Europe. It should be emphasized that American silver revenues did not directly pay for the costs of Hapsburg expansionism. Instead, these revenues served as collateral for an inflationary credit expansion, mediated primarily by the merchant bankers of Genoa.\(^10\) While the resulting economic boom did little to spur long-term productivity or growth within the Hapsburg realm proper, it enabled the dynasty to significantly expand the territories under its control:
This boom was also crucial to the remarkable efflorescence of the final phase of the Renaissance. The scientific innovations of maritime colonialism are apparent everywhere from the emergence of photographic perspective in painting, e.g. Leonardo da Vinci’s invention of the photographic panorama in *The Last Supper* (1498) and the photographic close-up in *Mona Lisa* (1505), to the adoption of realistic human anatomy in Michelangelo’s *David* (1504) (we will see somewhat later how the Hapsburg hegemony facilitated the emergence of Flemish and Dutch painterly realism beginning in the 1540s).

The second and unforeseen consequence of the Hapsburg silver boom was the creation of the world’s first truly integrated financial system. This took the form of the Manila galleon trade between the Hapsburg ports of Manila and Acapulco, whereby Chinese merchants exported a variety of Chinese goods in exchange for American silver. This Pacific trade formed a key link of what Dennis Flynn and Arturo Giráldez termed the “Potosi-Japan silver cycle”, a period wherein both Tokugawa-era Japan and Hapsburg-controlled America exported significant quantities of silver to Ming China during 1545-1640. Flynn and Giráldez describe the cycle as follows:

About ten thousand tons in silver were exported out of Japan and into China in the late sixteenth and early seventeenth centuries, according to Yamamura and Kamiki (1983, 351). And the Manila galleons alone carried over 50 tons of silver annually to China throughout the seventeenth century (including the last
third of that century, after Japanese silver-mine production subsided). Even larger quantities of silver had reached China via the Atlantic and through European intermediaries. The portion passing through the Baltic on its way to the Far East amounted to over 50 tons of silver annually during the seventeenth century, according to Attman's (1983, 12, 103) conservative estimate. Large volumes also passed through the Mediterranean and the Ottoman Empire by land and sea en route to China (Flynn and Giráldez, forthcoming). And of course large quantities of silver rounded the Cape of Good Hope en route to China. The end result of many generations of Chinese accumulation of silver stock was that the value of silver in China finally descended to its value in the rest of the world by the 1640s.\textsuperscript{12}

The financial basis of the Hapsburg hegemony was its ability to extract monopoly rents from three of the five largest arteries of the world silver trade, e.g. the Acapulco-Manila artery, the Baltic artery (the Netherlands was under Hapsburg rule until 1568), and the Cape of Good Hope artery (controlled by the Portuguese). The Ottoman empire exerted a significant degree of control over the Potosi-Mediterranean artery, while Japan's Tokugawa regime controlled the Japanese-Chinese artery.

While the absolute amounts of silver transported by these arteries were comparatively small compared to later flows of goods and capital, their economic and geopolitical effects were immense. Just as Japan's silver exports underwrote the Tokugawa regime's ultimately unsuccessful imperial invasion of Korea from 1592 to 1598, so too did American silver exports underwrite Hapsburg expansionism in Europe and elsewhere. However, Japan's silver mines were exhausted by the early 17\textsuperscript{th} century, forcing the Tokugawa to adopt a policy of strategic isolationism and allowing the Hapsburgs to dominate the world's monetary supply for a century and a half to come. By acquiring control of the Portuguese empire via a dynastic alliance in 1580, the Hapsburgs constructed the world's first truly planetary maritime hegemony:

\textbf{Figure 2.} World possessions of Hapsburg Empire, mid-17\textsuperscript{th} Century (yellow Spain, green Portugal).
The central contradiction of this maritime empire was that its incomparable strength – put bluntly, the fact that the Hapsburgs were the world's most successful criminal syndicate between 1492 and 1618 – was also its greatest weakness. Dynastic expansion is a zero-sum game which generates clear winners and losers at every turn. As a result, the Hapsburgs had every incentive to outspend other nobilitarian elites in order to secure their dynastic claims.

The result was a recurrent cycle of silver-fueled booms, ruinous wars of dynastic expansion, and ensuing debt defaults. A number of scholars have pointed out that these defaults are not comparable to 19th or 20th century sovereign credit crises, but functioned more like episodes of extended debt renegotiation between the Hapsburg court and the mercantile elites of the largest cities of Hapsburg Spain. Far from being a bug in the Hapsburg system, these recurrent defaults were its central feature. The major Hapsburg debt defaults, as well as our best contemporary estimates of total debt as a percent of Hapsburg GDP, are listed below:

Table 2. Hapsburg debt as percentage of Hapsburg GDP and credit defaults, 1560-1647.

<table>
<thead>
<tr>
<th>Year</th>
<th>Hapsburg Debt to GDP Ratio</th>
<th>Financial Event</th>
</tr>
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<tbody>
<tr>
<td>1560</td>
<td>20.15%</td>
<td></td>
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<tr>
<td>1566</td>
<td>24.49%</td>
<td></td>
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<tr>
<td>1575</td>
<td>35.94%</td>
<td>Year of default</td>
</tr>
<tr>
<td>1577</td>
<td>30.51%</td>
<td></td>
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<tr>
<td>1584</td>
<td>31.43%</td>
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</tr>
<tr>
<td>1596</td>
<td>47.85%</td>
<td>Year of default</td>
</tr>
<tr>
<td>1607</td>
<td>N/a</td>
<td>Year of default</td>
</tr>
<tr>
<td>1627</td>
<td>N/a</td>
<td>Year of default</td>
</tr>
<tr>
<td>1647</td>
<td>N/a</td>
<td>Year of default</td>
</tr>
</tbody>
</table>

The Hapsburg dynastic financial cycle was exacerbated by the structural position of the Genoese merchant bankers who financed Hapsburg expansionism. While these merchant bankers had no capacity to enforce financial claims on the Hapsburg court, they earned copious profits during the periods between each default. This meant they had neither the means nor the motive to impose serious constraints on Hapsburg spending. Nor did they have any incentive to invest their profits back into the Hapsburg domestic economy. The inevitable result was that they charged the Hapsburgs inordinately high rates of interest as a means of offsetting the inevitable defaults to come. The world's most successful crime syndicate spawned the world's most criminal bankers.

One of the great ironies of this financial history is that the overall level of Hapsburg indebtedness remained low in comparison to the debt levels of the later Dutch-French, British and American hegemonies. This low debt level was due to the economic limitations of dynastic
rule as a mode of hegemonic governance. The Hapsburgs could expand the territory of their empire, thereby generating fresh recruits for its military and increasing its tax revenues. However, it could not make these newly acquired lands more productive. Nor could the empire compensate for the catastrophic economic losses of European dynastic warfare, or the demographic losses of indigenous Americans due to the post-1492 Afro-Eurasian epidemics.

These fundamental limitations meant that the Hapsburg empire was unable to extend its reach significantly beyond its maritime enclaves overseas, or indeed much beyond its core holdings in southeastern and central Europe. Even at the height of its geopolitical influence, the Hapsburg empire made no headway against the Ottoman empire during the Thirteen Years’ War of 1593-1606. Nor could the Hapsburgs leverage their maritime strength to project geopolitical force vis-a-vis any of the other leading empires of the epoch, e.g. the Ethiopian empire, the Ming empire, the Mughal empire, the Polish-Lithuanian Commonwealth, the Russian empire, the Safavid empire, or the Songhai empire.

Above all, the Hapsburgs could never decisively defeat the kingdom of France, a polity both populous and wealthy enough to pursue its own version of dynastic expansionism. The limitations of the Hapsburg hegemony are equally apparent in its inability to do more than contain the Dutch and English navies. The Spanish Armada launched against England in 1588 was resoundingly defeated, with an estimated loss of 35 out of 130 ships. To be sure, the Hapsburgs just as decisively defeated England’s counter-attack, the English Armada of 1589, by destroying or capturing 40 out of 146 ships.

What ultimately unraveled the Hapsburg hegemony was not imperial rivalry per se so much as the economic dynamism Hapsburg expansionism unwittingly transmitted to the regions located on its borders. These regions included the Hapsburg provinces which later became the Netherlands and Belgium, the principalities of central Europe loosely organized under the rubric of the Holy Roman Empire, and the independent kingdoms of Denmark, England, France and Sweden.

While all of these regions experienced significant economic, political and cultural transformations during the Hapsburg long peace, only one experienced a truly revolutionary change. This was the Netherlands, the birthplace of that strange new thing called Dutch maritime capitalism. What was qualitatively new about this latter was its combination of fiscal and military capacity, or more precisely, the combination of the world-system’s first national capitalist financial sector with the world’s largest merchant fleet. Both were the unforeseen consequence of decades of silver-fueled Hapsburg expansionism.

While the Dutch provinces of the late 16th century did not control significant overseas colonies, they did have an extensive Atlantic coastline, and were strategically located halfway between the grain-exporting kingdoms and principalities located on the North Sea and the leading consumer markets of southern Europe. When these latter economies expanded thanks to the influx of American silver, the result was a shipping boom based primarily on the purchase of Baltic grain by elite southern and central European consumers. Milja van Tielhof describes the significance of this boom as follows:

From the second quarter of the sixteenth to the middle of the seventeenth century, the importance of Baltic cereals for Holland, and for the Netherlands as a whole, experienced a marked upswing as many of the traditional grain suppliers found themselves less able to produce surpluses for export. The growing
population in the Southern Netherlands, France, England, and the German regions adjoining the Dutch provinces, absorbed growing quantities of foodstuffs. Demographic growth exerted an upward effect on grain prices, making imports from relatively farther afield worthwhile. The price revolution of the sixteenth century created a considerable gap in prices between the Baltic and western Europe, making it worthwhile for merchants to incur all the expense involved in bulk trade over long distances. The export of grain from the Baltic region to the west expanded quickly, rising from about 30,000 to 40,000 last annually in the 1550s to 58,000 last in the 1590s and 90,000 last in the 1640s, a peak period (1 last = 30.1 hl).

This trade in low-profit, high-volume goods drove a productivity revolution in Dutch shipping, one of the key preconditions of the post-1595 Dutch expansion into the low-volume, high-profit European-Asian spice trade. Warwick and Robertson summarize this revolution as follows:

The Dutch were unsurpassed in being able to transport cargoes efficiently and effectively and their fleet, which had numbered only 400 large ships in 1532, grew to about 800 ships by 1567, and reached approximately 1,200 merchant ships by 1593 (van Rooyen, 1990, p. 76; Alberts, 1969, p. 71; Braudel, 1972-3, p. 636). In 1540 the Hollanders alone had in excess of 400 oceangoing vessels, more than the fleets of England, France and Brittany combined (Tracy, 1985, p. 195). By the end of the 16th century Holland possessed about 1,800 ships, of which 500 were based in Amsterdam. The rate of the expansion of Holland's maritime trade can be gauged from the change in population in the port cities. A fleet of this size required an estimated 30,000 sailors to man, and thousands more as shore support. In the first quarter of the 16th century, the port cities of Zeeland and Holland together accounted for about 7 or 8 percent of the total population of northern Netherlands. By the mid-17th century the population of these cities accounted for about 20 percent of the Republic's total population (de Vries and van der Woude, 1997, p. 405).

Not only did the number of ships increase in the late 16th and 17th centuries, the average tonnage of the fleet also rose steadily after 1557 and increased markedly around the 1590s (de Haan, p. 45; van Rooyen, 1990, pp. 95-96). During the 14th and 15th centuries the Dutch had improved on the design of the Bretonese caravel, developed the full-rigged ship, and invented the herring bus. By the 16th century, Dutch shipbuilding was the most technically advanced in Europe and continued to be recognised as innovative for much of the 17th and 18th centuries. The staple Dutch cargo vessel of the late 16th and early 17th century, the flute (fluitschip), was a vessel of advanced design that was based on the Dutch herring bus (Voertman, 1954, p. 87). By comparison with the contemporary Portuguese carrack or the Spanish galleon, the flute had a much longer keel in relation to its overall length and width and a much reduced superstructure. This design produced less friction and allowed the ships to sail faster. A range of innovative sails also enhanced the speed and maneuverability of these ships.

The flute's design produced a ship that cost about one third less than the equivalent English ship to construct, was 20 per cent smaller, but was still capable of carrying a similar load to larger, more conventional designs. Furthermore, the traditional 'castle' was eliminated, which made the flute less top-heavy and, therefore, more stable, which reduced the size of the crew needed by between a third and one half. One other significant advantage was that the flutes' design allowed them to be loaded and unloaded more quickly than conventional designs. In practical terms, these innovations enabled the Dutch to complete the transshipment of goods from Iberia to the Baltic, or return, in a single European season instead of storing goods over the winter as had previously been necessary (Tracy, 1985, p. 195; Voertman, 1954, pp. 84-87; Israel, 1990, pp. 21, 27). Superior marine architecture, which allowed the Dutch to dominate European sea freight, undoubtedly paved the way for the Dutch East-India companies and to
allow the Dutch to dispossess the Portuguese and Spanish of their Indian Ocean monopoly, and ensure the dominance of Amsterdam as a centre of world trade.\textsuperscript{18}

The scale of this dominance has been given numerical form by the work of Zanden and Leeuven, who constructed the following chart of total Dutch shipping from 1500 to 1793, expressed in terms of 1,000 tons per kilometer traveled:

**Figure 3.** Total Dutch shipping in 1000 tons/kilometer, 1500-1793.\textsuperscript{19}

What is especially illuminating about this chart is the critical role of the Baltic-Hapsburg trade route in jumpstarting Dutch maritime expansion, followed by the much later trade diversification into Asia and the colonial Americas. This shift in trading patterns marks a geopolitical turning-point. When the Dutch War of Independence (a.k.a. the Eighty Years War) broke out in 1568, a slow-burning conflict with the Hapsburgs which would last until 1648, Dutch naval power enabled a motley group of provinces to resist the land armies of Europe's most powerful empire. Yet what transformed this regional conflict into the conflagration of the Thirty Years War was the emergence of the world's first capitalist nation-state, namely the United Provinces of the Netherlands.

By 1618, the simmering contradiction between a hegemonic but economically somnolent Hapsburg empire and the subaltern but more dynamic economies on its borders (the list includes the Netherlands, post-Valois France, pre-Civil War England, and post-Reformation Sweden and
Denmark) -- between a colonial empire without a national capitalism and national capitalisms without colonial empires, as it were -- finally exploded into open geopolitical conflict.²⁰

One of the key preconditions of this conflict was the transformation of the folkloric, hieratic, and nobilitarian ideologies and identity-politics of the 14th and 15th centuries into the proto-national ones of the 16th and 17th centuries. One of the most striking examples of this transformation is the Reformation inaugurated by Luther's 1517 theses. During the late medieval era, the Catholic church had been racked with internal dissent everywhere from the dueling papacies of the Western schism (1378-1417) to the successful Hussite rebellion against papal authority in the region which later became the Czech Republic (1419-1434).

Yet what was fundamentally new about the Reformation was its emphasis on a new type of mass or proto-national politics linked to the world's first capitalist media revolution, namely the printing press (the first Gutenberg bible, in Latin, had appeared in 1454 or 1455). This new mass politics appealed to everyone from disaffected nobility who converted to Protestantism as a means of increasing their own social status, to the peasantry of southern Germany who employed the discourse of the Reformation as a weapon against feudal elites in the German Peasants' War of 1524-1525.²¹

The emergence of this mass politics contributed significantly to the concurrent rise of proto-national vernacular languages. In the Hapsburg-ruled Netherlands, Jacob van Liesveldt created the first Dutch translation of the Bible in 1526, while Luther published a complete German translation in 1534 (Luther had previously translated the New Testament into German in 1522). The first French translation was produced by Pierre Robert Olivétan in 1535, the first Swedish translation appeared in 1541 under the aegis of Gustav Vasa, while the first authoritative English translation appeared in 1611 thanks to King James.

From a geopolitical perspective, it is extremely suggestive that the Reformation had its greatest impact in the regions which were just outside the zones of direct Hapsburg rule, but close enough to benefit from increased trade with silver-primed Hapsburg consumers. These regions included Hapsburg-controlled regions such as the Dutch provinces and Belgium, Bohemia (the future Czechia), Denmark, England (the United Kingdom would not be officially established until 1707), Sweden, and a multitude of small German states.

For example, Sweden's Gustav Vasa ended papal control of the Swedish church by appointing Laurentius Petri as its head in 1531, formally ushering in the era of Lutheranism. Similarly, Britain's Henry VIII nationalized the Church of England between 1532 and 1534 as a means of strengthening his own power base. In 1536, Christian III formally established Lutheranism in Denmark. France is the exception which proves the rule, in the sense that King Henry IV's House of Bourbon adopted Catholicism in 1589 as a means of consolidating the early modern French nation-state during the French Wars of Religion (1562-1598), thereby replacing the House of Valois which had ruled France since the end of the Hundred Years War in 1453.

This political transformation had a profound influence on the field of post-Renaissance aesthetics. While confessional conflict damaged the financial capacity of the Catholic church to sustain artists, it also opened up new opportunities for patronage from Protestant dynastic and mercantile elites. This is most evident when considering the extraordinary cultural distance between the major works of Hieronymous Bosch, produced between 1485 and 1516, and those of Augsburg-born Hans Holbein the Younger, whose creative period ran from the late 1510s to 1543. Bosch was born somewhere in Hapsburg Brabant (Belgium), while Holbein was born in
Augsburg but emigrated to Basel, and eventually resided in London, England. Both locations were dynamic commercial centers of the emergent Hapsburg hegemony. The key difference is that the 1517 arrival of the Reformation fundamentally changed the nature of artistic patronage.

Holbein began his artistic career by creating woodcuts, illustrations and paintings in the Swiss town of Basel, an early hotbed of Lutheranism, during the late 1510s and early 1520s. Holbein later moved to London, where he became the court painter of Henry VIII from 1532 until the painter's death in 1543. While Holbein's signature achievement, *The Ambassadors* (1533), is most famous for its anamorphic skull, the true significance of the painting is the fact that it depicts various manuscripts and scientific instruments representative of the early Reformation era. These include Peter Apian's arithmetic book, a Lutheran book of psalms, a globe which depicts the geographical boundaries of the 1533 Hapsburg empire, a polyhedral sundial, a horary quadrant, a pillar dial, a torquetum, and a partly disassembled universal equinoctial dial. The two human subjects of the painting, meant to symbolize the unity of nobilitarian and hieratic rule, are not backed by a nobilitarian lineage or a liturgical allegory, but by the rather different collateral of state-of-the-art scientific instruments.

Holbein's reconciliation of the framing techniques of the late Renaissance portrait and the documentary impulse of early painterly realism has its culmination in the work of Pieter Brueghel the Elder. A resident of Antwerp during the city's commercial zenith under Hapsburg rule, Brueghel is most famous for the plebian social content of *The Peasant Wedding* (1567) and *The Land of Cockaigne* (1567), which depict the life-world of Dutch rural laborers with depth and subtlety. This suggests there was significant market demand among Antwerp's elites for paintings which celebrated the values of plebian collectivity, rather than those of nobilitarian grandeur.

Brueghel's location is not an accident. What transformed the local sectarian and nobilitarian conflicts of the early Reformation period into the proto-national ones of the second half of the 16th century was the trade-induced transformation of the Hapsburg Netherlands from a semi-periphery into a key center of capitalist accumulation. The overtly political phase of this transformation began in 1568, when a seemingly minor quarrel broke out between various Dutch Protestant regional elites and the regional Hapsburg authorities. By 1581, it had escalated into the world's first anti-imperial war of national unification – what Dutch historians would call their Eighty Years War of national independence – when seven provinces formally united to create the United Provinces of the Netherlands.

It is one of the most telling ironies of history that the Hapsburgs were crucial to financing this war, and not just in the sense of underwriting the rapid economic growth of the late 16th and early 17th century Dutch economy. By the 1550s, the Hapsburgs financed their imperial expansionism by exchanging American colonial silver for Antwerp gold through the intermediary of Genoese letters of merchant credit. This strategy was disrupted by the Hapsburg occupation of Antwerp in 1585, which sent the city's commercial elites fleeing to Amsterdam. As a result, Antwerp's role in anchoring the Hapsburg credit system was abruptly and permanently supplanted by that of Amsterdam. From 1586 onwards, the Hapsburgs were literally financing their enemies.

In stark contrast to the Genoese merchant bankers, Amsterdam's merchants were compelled by the threat of impending invasion and by the existence of Hapsburg trade monopolies to invest their earnings inside the Dutch economy. Their ingenious solution was to
leverage Dutch naval power to strike where the Hapsburg system was weakest. This was the monopoly of its Portuguese branch over the European-Asian spice trade.

The first Dutch trade voyage to the territories which later became Indonesia occurred in 1595, the result of a sophisticated plan of trade espionage by a group of Dutch merchants.\textsuperscript{25} While the profits from the first voyage just barely recouped its cost, later voyages generated high profit margins and expanded the geographic scope of Dutch trade to a world scale. Over time, this newfound trade wealth began to turn into geopolitical power.

By the turn of the 17\textsuperscript{th} century, Dutch merchants had begun to channel their profits into three key economic institutions of early national capitalism. These institutions were the national joint stock corporation, the national stock market, and the national bank. All three were founded during the final phase of the Hapsburg hegemony, namely the sixteen years prior to the Thirty Years War.

The establishment of the Dutch East India Company (VOC) in 1602 was the most significant step, since it provided the key preconditions for the other two. During the late 16\textsuperscript{th} century, it was customary for small groups of western European merchants to create limited partnerships designed to offset the risk of a single voyage. On completion of each voyage, these partnerships would be liquidated and then reestablished for the next voyage. One of the problems this business model generated was short-term looting and infighting between rival merchants, up to and including full-scale piracy. The other main problem with this model was its inability to cover the short-term financing and liquidity needs of a long-distance trade (each round-trip voyage could take years to complete).

The VOC’s solution to both problems was to create a version of the modern limited partnership, by merging a number of smaller partnerships into a single umbrella organization with an initial life-span of twenty-one years. Gelderblom, Jong and Jonker show in convincing detail how this innovation in corporate governance was a pragmatic solution to the problem of paying for short-term ship repairs, armaments, and dividends out of a long-term revenue stream.\textsuperscript{26} The model proved wildly successful, and the VOC’s charter would later be renewed indefinitely (the company would formally exist until 1799).

Yet what was truly revolutionary about the VOC was the fact that its charter endowed the company with a classic Weberian monopoly on armed force.\textsuperscript{27} The company was granted the power to operate its own army and navy, to sign treaties with foreign powers, to establish colonies, and to mint its own coin. The VOC was not just the capitalist world-system’s first transnational corporation, it was also its first rent-seeking monopolist, its first offshore banking and money-laundering center, and its first private military corporation.\textsuperscript{28}

The company wasted no time putting these powers to use, establishing its first trading post in Banten, Indonesia in 1603, before relocating permanently to Jakarta in 1611. Knowing a good deal when they saw one, the merchant elites of the Netherlands responded to the VOC’s initial offering of shares with enthusiasm. The archives indicate 1,143 individuals invested 3,679,915.6 florins in company shares, about $46 million measured in 2016 silver prices.\textsuperscript{29} These shares would later comprise the majority of the shares on the Amsterdam stock market, established in 1609.

Also in 1609, the leading merchants of Amsterdam founded the Bank of Amsterdam in order to provide a secure and reliable source of liquidity to finance maritime trade. The Bank was one of the first institutions to issue bills backed by deposits of gold and silver which could
be used in monetary transactions, and thus functioned as history's first national central bank. By contrast, the Bank of Amsterdam's English equivalent, the Bank of England, would not be founded until 1694. Gelderblom and Jonker provide this exposition of how maritime trading rents were crucial to the whole process:

Between 1585 and 1620 the Amsterdam merchant community grew from less than 500 people to about 1,500. The immigration of Antwerp merchants alone increased the city's capital stock by an estimated 50 percent. Retained earnings from trade were of course the other main source. Indeed, the sheer volume of this flow gives some food for thought. The intra-European trade generated sufficient amounts of money for the early stages of overseas expansion to West Africa, the Caribbean, and Asia, after which the Asian voyages more than paid for themselves (Figure 1). By 1603, returns from the first Asian trips outstripped the capital invested in the VOC by 2.5 million guilders, and five years later the surplus stood at no less than 6.3 million guilders. These figures give some indication as to the scale of Marx's conception of original accumulation.30

For most of the 17th century, the Dutch stock market was dominated by just two companies, namely the VOC and the less successful West Indies Company (WIC), founded in 1621. Despite its limited size, this stock market invented a number of essential features of contemporary financial markets, including liquidity provision through secondary markets, short selling, and options trading. This market was also crucial to the institutionalization of a new type of political rule, or what we will call market despotism, a.k.a. national accumulation through corporate violence. Where the Hapsburg hegemony unconsciously triggered mass bacteriological genocides for the sake of silver extraction, Dutch colonialism consciously exterminated large numbers of human beings on plantations located in Indonesia, Brazil and Angola for the sake of the VOC's 18% average annual dividend.

What transformed these economic innovations into the sinews of geopolitical hegemony was a concomitant institutional revolution. Faced with the threat of Hapsburg invasion, the various Dutch provinces united to construct the world's first comprehensive system of national taxation, or what Fritschy has termed the Dutch financial revolution.31 This system enabled the Netherlands to issue and sustain large quantities of both private as well as public debt. The Dutch thus countered the quantitative military superiority of the Hapsburg empire by means of a qualitatively superior financial mobilization. Leeuwen and Zanden chart the scale of this mobilization as follows:
Large issuances of public debt paid for armies and defensive fortifications, while also financing the most powerful navy and the largest commercial fleet of the 17th century. This debt was sustainable thanks to the lucrative profits of Dutch trade and to the efficiency of the Dutch taxation system. Indeed, Dutch public debt was so financially attractive that the market began to attract significant inflows of capital from English and French elites seeking secure, long-term returns. As a result, the interest rate on Dutch public debt dropped from 8% in 1596 down to 5.5% by 1620.33

The cultural effects of this financial and managerial revolution are most evident in the sudden and startling emergence of proto-national aesthetic realisms during the final three decades of the Hapsburg hegemony. In the genre of epic poetry, Edmund Spenser produced *Faerie Queene* between 1590 and 1596. In the domain of the novel, Miguel Cervantes wrote *Don Quixote* between 1605 and 1615. Meanwhile, William Shakespeare’s greatest plays were written between 1594 and 1612.

All three artists infused a variety of nobilitarian, liturgical and regional forms handed down by the early Reformation era with narrative content designed to appeal to a new kind of urbanized, literate and secular mass audience. Spenser transformed the nobilitarian spoken epic and the peasant fairy tale into poetic realism, Cervantes transformed the prose fable of the knight-errant and the peasant fairy tale into the realistic novel (signaling the moment western Europe finally caught up with the achievement of Murasaki’s *The Tale of Genji*, the world’s first novel, written early in the 11th century), and Shakespeare transformed materials as diverse as the history chronicle and the Christian mystery play into the realistic melodrama.34

The emergence of proto-national realism came with a price tag, namely the intensification of the explosive social antagonisms of the twilight phase of Hapsburg hegemony – the simmering conflict between five proto-national mercantilisms and a stagnant dynastic expansionism, between Dutch mercantile oligarchs and the Hapsburg court, and between

**Figure 4.** Government and military spending as percent of Dutch GDP, 1510 to 1807.32
Elizabethan elites and the raucous groundlings of the Globe Theater – to the breaking point. It is no accident that the most salient symbol of political collectivity for all three artists is not dynastic authority, but rather its absence: Don Quixote is not a real knight, Falstaff is a soldier who does not fight, Hamlet is a prince who does not rule, etc.

That said, it is worth asking why the Hapsburg peace broke down in 1618 and ushered in three decades of global conflict. While Europe had experienced countless sectarian conflicts between Protestant and Catholic communities and polities prior to 1618, ranging from the 1562-1598 French Wars of Religion to the 1583-1588 Cologne War, these were limited in scale and scope. Nor was intra-imperial rivalry the sole cause, given that two of the most powerful empires of Europe – those of the Hapsburgs and the Ottomans – fought a long and inconclusive war between 1591 and 1606. Finally, Dutch merchants benefited enormously from access to Hapsburg markets during the Dutch-Hapsburg Twelve Years Truce (1609-1621).

The key difference in 1618 was the qualitative transformation of state fiscal and military capacity along the northern rim of the Hapsburg empire. Over the course of decades, the Hapsburg model of silver-fueled dynastic expansionism had inadvertently spawned five distinct proto-national expansionist powers on its borders. The most powerful of these expansionisms were those of Denmark, England, France, Sweden and the United Provinces. It is no accident that all five would become the major antagonists of the Hapsburg empire during the Thirty Years War.

The cases of Sweden and Denmark are especially illuminating, due to the historical parallels between Scandinavian maritime imperialism and Portuguese and Hapsburg maritime colonialism. The first geopolitical entity to control the trade routes of the Baltics was the Hanseatic League, a loose confederation of urban guilds headquartered in Lübeck. Between the 14th and 16th centuries, the members of the League operated a trading network stretching from Cologne to Novgorod:
Just as the Mediterranean trading networks of the Italian city-states created the Genoan and Venetian mercantile empires, those indispensable financial and logistical springboards for the later maritime colonialisms of the Portuguese Aviz and the Spanish Hapsburgs, so too did this city-based Baltic trading network serve as the springboard of Danish and Swedish maritime colonialism. The Hanseatic League controlled the Baltic for roughly a century, and was powerful enough to defeat the Danish monarchy twice over, the first time versus Valdemar Atterdag in the Hanseatic-Danish war of 1361-1370 and the second time versus Eric in the Dano-Hanseatic War 1426-1435.

After this high watermark, the power of the League began to decline. The first sign of this was the Dutch-Hanseatic War of 1438-1441. While almost no actual fighting transpired, the outcome was that Dutch ships joined the Baltic trade, the beginning of the end of the Hanseatic monopoly. Baltic Connections, an online history site created by the joint National and State Archives of Denmark, Estonia, Finland, Germany, Latvia, Lithuania, the Netherlands, Poland, Russia and Sweden, describes how the hitherto disparate trading networks of the Italian city-states and the Baltic city-states suddenly converged in the Netherlands, with momentous geopolitical consequences:

Within 150 years, Holland's and Zeeland's seafaring towns had changed from loyal partners offering naval
support in the League's war against Denmark of 1368-1370, into dogged competitors that effectively undermined the traditional Hanseatic monopolies. This shift caused the division of the northern Low Countries into two economic regions, with the towns east of the Zuiderzee integrated into the Hanseatic League, and the County of Holland, with Amsterdam as its emerging zenith, into the territories of the Burgundian and Habsburg princes.36

As late as the early 16th century, the Hanseatic League retained enough power to intervene decisively in Danish politics and to play kingmaker in regional disputes, e.g. when Denmark lost control of Sweden in 1521, the support of Lübeck was crucial to underwriting the new Swedish ruler, Gustav I.

What ultimately displaced Hanseatic commercial power was the rise of proto-national Protestantism, as both Denmark and Sweden became hotbeds of the Reformation during the 1520s. In Sweden, this shift is typified by the career of Olaus Petri, a Swedish bishop who had studied at German universities and had met Luther in person in Heidelberg. After witnessing – and just barely surviving – Danish king Christian II's massacre of unruly Swedish nobility in 1520, an event known as the Stockholm Massacre, Petri became Gustav I's chancellor and one of the leaders of the Swedish Reformation.

It is striking that proto-national Protestantism arrived in Sweden as early as 1527, in the form of the Council of Västerås which authorized Gustav I to expropriate Church property. This was four years in advance of Henry VIII's convocation of the Church of England in 1531. In Denmark proper, Lutheran forces under King Christian III triumphed in a sectarian battle against Catholic forces during the Count's Feud of 1534-1536.

After its separation from Denmark in 1521, Sweden began its own program of mercantile-fueled dynastic expansionism. The first moment of this expansionism can be dated to 1535, when Gustav Vasa's naval forces defeated those of Lübeck in the Battle of Bornholm, formally ending Sweden's economic dependence on the Hanseatic traders. Over the next century, Sweden waged a series of wars against its neighbors, resulting in the inconclusive 1554-1557 Russo-Swedish War and the largely inconclusive 1558-1583 Livonian War, a conflict over the territory of present-day Estonia and Latvia waged by Sweden, Denmark and the Polish-Lithuanian Commonwealth (founded in 1569) against Russia. Partly overlapping with this latter conflict, Sweden fought the Northern Seven Years' War from 1563-1570 against a coalition of Denmark, the Commonwealth, and the city of Lübeck, a war with no significant gains for any side. This was followed by the Russo-Swedish War of 1590-1595, a minor victory for Russia and a limited defeat for Sweden.

A somewhat more significant conflict occurred in 1598, when Swedish Protestant forces under Duke Charles (later crowned Charles IX) defeated Swedish Catholic forces under King Sigismund (titular head of Sweden as well as the Polish-Lithuanian Commonwealth) at the Battle of Stångåbro. While this reconfirmed the primacy of Lutheranism in Sweden, it also ensured that the Swedish empire would face off against the Commonwealth in a series of intermittent wars lasting from 1600-1611 and 1617-1618, and finally from 1620-1625.

These wars expanded the hold of the Swedish empire over the coast of the eastern Baltic, allowing the monarchy to finance its war machine by taxing grain exports. The maximum geographic extent of Swedish expansionism is as follows:37
Figure 6. Swedish expansionism, 1560-1815.

That said, one of the little-known preconditions of the Thirty Years War was Sweden's loss to Denmark during the 1611-1613 Kalmar War. The Kalmar conflict was triggered by a Swedish attempt to circumvent Denmark's monopoly over the Baltic trade. Leos Müller describes the fateful long-term consequences of the war:

Denmark's control of the Baltic Sea was confirmed and Sweden even lost its only western seaport, Ålvsborg. The Danish dominance of the Baltic Sea, together with the control of the Sound was, of course, against Dutch commercial interests. To balance the Danish influence the Dutch opted for cooperation with Sweden. The first result of this cooperation was the defence treaty signed in 1614. It opened a period of four decades of Swedish-Dutch cooperation in military and diplomatic issues. However, the treaty also brought with it much broader economic consequences.

Part of the Swedish peace agreement of 1613 with Denmark was the payment of a huge levy to free the occupied port of Ålvsborg. The payment was partly financed by a Dutch state loan which the Swedish Crown intended to repay in copper. The loan contract was finalized in 1616 and in the next two decades Swedish copper sales in Amsterdam became a very important part of the economic exchange between the two countries.38
Between the 1620s and the 1640s, notes Müller, Swedish trade shifted decisively away from the Baltic cities of Danzig and Lübeck and towards Amsterdam. This economic trade was also military and geopolitical in nature, as Dutch entrepreneurs began to invest heavily in Sweden's metal-working and armaments industries.

When a Protestant uprising occurred in 1618 in Bohemia (today's Czechia), the European stage was set for a chain reaction of conflicts. There were now five proto-national states on the borders of the Hapsburg empire, each with sufficient state-fiscal capacity to wage their own wars of mercantile expansionism (Denmark, England, Sweden), or to pay someone else to fight such wars (the Netherlands and France) – or both (France).

This helps to explain why the main battlefields of the Thirty Years War were comprised of two intermediary or semi-peripheral zones in the Hapsburg world-system. These zones had two distinguishing qualities. First, they were not under the direct control of a powerful empire such as the Ottomans, the Polish-Lithuanian Commonwealth or Russia. Second, they had to be either wealthy or strategic enough to be inviting targets for mercantile expansionism.

The first and most obvious of these zones was central Europe, particularly the German-speaking states of the Holy Roman Empire. While the economy of central Europe had expanded somewhat thanks to the export of grain and other commodities to the Hapsburg region, its approximately 15 million people were divided into a patchwork quilt of dozens of states and multiple confessional identities.

The second and perhaps less obvious of these zones was the globe-spanning maritime archipelago of the Hapsburg empire, the target of thirty years of warfare by Dutch, English and French privateers. While these maritime battles involved far smaller forces and generated far fewer casualties than those of the land armies, their outcome was just as significant for the evolution of the Thirty Years War.

While it makes a certain intuitive sense that privateers would battle over maritime holdings, it is worth asking why central Europe was subject to such horrific and sustained violence over this period. The reason is that the mercantile expansionisms of Denmark, France, Sweden and the United Provinces (England had a significant navy but was still outclassed by the Dutch fleet, and would not be able to project significant military power onto mainland Europe until the late 18th century) all converged in central Europe and the Hapsburg maritime archipelago, all at once.

Put another way, the diachronic carnage of the Thirty Years War was the result of a striking geopolitical synchronicity. This synchronicity can be summed up as follows: the Dutch had the financial means to resist the Hapsburg hegemony but not the military might to overthrow it, the French had the necessary military might but only gradually developed the motive and financial means, while Denmark and Sweden saw a unique window of opportunity to expand their dynastic power at the expense of smaller, weaker Central European states – all at once.

What united these powers in a common anti-Hapsburg coalition was not the sectarian politics of religion. After all, Protestant Sweden and Denmark waged numerous wars against each other, while Catholic France eventually became the mightiest antagonist of the Catholic Hapsburgs. The true basis for the coalition was a common agenda of mercantile expansionism. This latter was halfway between the dynastic expansionisms of the most powerful 15th century
land empires, and the commercial expansionisms of the 18th century empires – the moment when wars over commerce began to turn into commercialized wars.

One of the most striking expressions of the rising tide of mercantile expansionism was a steady increase in state-chartered violence, a.k.a. the dramatic intensification of mercenary war by land and flag piracy by sea. This intensification was visible everywhere from the dramatic growth in the size of standing armies (the combatants numbered in the low tens of thousands in the 1620s, and the low hundreds of thousands by the 1640s) to the increasing ferocity of military campaigns. Over the course of three decades, successive waves of anti-Hapsburg and Hapsburg armies ransacked large parts of central Europe, resulting in catastrophic losses of life due to battlefield violence, pillaging and disease. While no exact figures are available, the consensus of modern historians is that approximately 1.5 to 2 million human beings perished in the conflict, resulting in the loss of 10% to 15% of Central Europe’s population.

The first warning signs of this intensified state violence was the witch-hunting craze which began in the Renaissance era, but crested in Europe between 1580 and 1630. The most significant episodes of persecution occurred in Trier (1581-1593), Fulda (1603-1606), the Basque region (1609-1611), Wurzburg (1626-1631) and Bamberg (1626-1631). Maria Mies has provided the classic account of how early mercantilism’s agenda of colonial plunder was built on the internal policing of the manual and reproductive labor of partly waged and wageless women. Consider the career of French state official Jean Bodin (1530-1596):

Jean Bodin was the founder of the quantitative theory of money, of the modern concept of sovereignty and of mercantilist populationism. He was a staunch defender of modern rationalism, and was at the same time one of the most vocal proponents of state-ordained tortures and massacres of the witches. He held the view that, for the development of new wealth after the medieval agrarian crisis, the modern state had to be invested with absolute sovereignty. This state had, moreover, the duty to provide for enough workers for the new economy. In order to do so, he demanded a strong police which above all would fight against witches and midwives who, according to him, were responsible for so many abortions, the infertility of couples, or sexual intercourse without conception. Anyone who prevented the conception or the birth of children he considered as a murderer, who should be persecuted by the state. Bodin worked as a consultant of the French government in the persecution of the witches, and advocated torture and the pyre to eradicate the witches. His tract on witchcraft [published in 1580] was one of the most brutal and sadistic of all pamphlets written against witches at the time.

What was historically new about the violence of the witch hunts was that it was not based on the blood-lust of dynastic conquest or the purging of nobilitarian rivals. It was generated by a system of coercive accumulation based on the extraction of resources. “The blood-money of the witch-hunt,” concludes Mies, “was used for the private enrichment of bankrupt princes, of lawyers, doctors, judges and professors, but also for such public affairs as financing wars, building up a bureaucracy, infrastructural measures, and finally the new absolute state.”

Conversely, the necessity to organize and sustain increased levels of state-chartered violence over the course of the Thirty Years War pushed existing nobilitarian and dynastic forms of rule to the breaking point. For the most part, these structures bent but did not fully break. By 1626 Denmark had lost its capacity for mercantile expansionism but retained its independence
from Hapsburg rule, while Swedish expansionism bogged down by 1633 and was henceforth dependent on Dutch and French support. On the other hand, Portugal's João IV rebelled against Hapsburg rule in 1640, inaugurating a successful 28-year struggle for dynastic independence which also involved reconquering many of Portugal's key maritime holdings from the Dutch (Portuguese forces recaptured Angola in 1648, São Tomé in 1649, and northeast Brazil in 1654). In France, the drastic increase in royal taxation necessary to pay for the war was one of the major causes of the civil conflict of the Fronde (1648-1653).

In one case, however, the structure of dynastic authority broke down completely. This was in England, where a combination of onerous war expenditures and sectarian religious conflicts sparked the immolation of the English monarchy in the 1641-1652 Civil War. It is nonetheless suggestive that this war and its eventual aftermath replicated the political trajectory of the Dutch uprising against the Hapsburgs.

At the beginning of the Dutch revolt, the rebellious provinces attempted to find a dynastic figure willing to nominally lead them in their anti-Hapsburg war, while granting the merchant elites of each province significant local autonomy. When no candidate could be found, the provinces provisionally united under the 1579 Union of Utrecht. This treaty mandated a common fund for defense, a common system of taxation, some measure of religious toleration, and monetary unification for all participating provinces, features which anticipate much of the language of the future English Bill of Rights (1689), the US Declaration of Independence (1776) and the French Declaration of the Rights of Man and Citizen (1789).44

However, this proto-national framework did not yet have a truly post-dynastic form of governance at its disposal. To administer the terms of the Union, the provinces created the executive office of the “stadtholter” (the original Dutch term literally meant “placeholder”), which functioned as the rough equivalent of a constitutional monarch. The stadtholter system was occupied by a series of Orangist princes, who ruled the provinces during the Thirty Years War as well as the period after 1672.45 In the context of western and northern European nation-state formation, the stadtholter system was the crucial bridge between the nobilitarian regimes of the 15th and 16th centuries, and the constitutional monarchies of the 18th and 19th centuries.

Shades of the stadtholter are visible in almost every leading diplomatic and military figure of the Thirty Years War. The Hapsburg military leader Albrecht von Wallenstein was half mercenary, half national general, France's Cardinal Richelieu was half ecclesiastical functionary, half national secretary of state, the Dutch naval commander Piet Hein was half pirate, half national admiral, Sweden's king Gustavus Adolphus was half Viking raider and half absolutist institution-builder, while Sweden's second-in-command, chancellor Axel Oxenstierna, was half royal councilor and (following Gustavus' death in 1632) half President pro tem.

We have noted previously that the politics of the first supercycle began with sectarianism and ended with the establishment of mercantile nationalism. It is significant that a parallel transformation took place in the phenomenon of state-chartered violence, namely the evolution of short-term looting into the long-term conquest of trade routes and colonial territories. The key driver of this evolution was sheer necessity. The United Provinces had a population of an estimated 1.5 million in 1600, less than one-tenth the size of the 18 million inhabitants of the Hapsburg empire, which meant the Dutch could not hope to defeat the Hapsburgs in land warfare.46 Instead, the Dutch waged a primarily defensive struggle on their borders, while countering Hapsburg numerical superiority with superior financial mobilization.
This mobilization rested on two strategies, namely the bankrolling of anti-Hapsburg armies, and the expansion of Dutch naval power. Both rested on a massive increase in Dutch public debt. Between 1621 and 1648, this debt skyrocketed from 19.2 million guilders to 128.9 million guilders.\textsuperscript{47} This mountain of debt enabled the Dutch to finance the Protestant uprising of Bohemia in 1619 and 1620, the armies of Mansfeld and Christian of Brunswick in the Rheinland Palatinate during 1622-1623, and the army of Denmark during its attempt to conquer Lower Saxony from 1625-1629.

While all three armies were defeated by the Hapsburgs, the burden of financing a constant stream of wars with no compensating territorial or dynastic gains was a serious strain on Hapsburg finances. This strain would increased dramatically, as the size of the contending armies grew over the course of the Thirty Years War. Michiel de Jong has calculated that total war expenditures and foreign subsidies of the Netherlands tripled from 1615 to 1630:

\begin{table}[h!]
\centering
\caption{Dutch military expenditures and subsidies, 1615-1630.\textsuperscript{48}}
\begin{tabular}{|c|c|c|}
\hline
Year & Dutch Expenditures (in carolus guilders) & Dutch Subsidies and Recipient (in carolus guilders) \\
\hline
1615 & 8,485,044 & none \\
1616 & 9,893,985 & none \\
1617 & 9,231,980 & 50,000 to Savoy \\
1618 & 13,303,186 & 80,000 to Sweden \\
1619 & 13,685,183 & 440,000 to Bohemia \\
1620 & 10,123,312 & 600,000 to Bohemia \\
1621 & 15,907,411 & none \\
1622 & 18,217,487 & 600,000 to England, 500,000 to Bohemia, 30,000 to Geneva \\
1623 & 18,137,487 & 300,000 to Brunswick-Lunenburg \\
1624 & 17,539,010 & none \\
1625 & 20,129,010 & 600,000 to England \\
1626 & 20,098,417 & 450,000 to Denmark, 600,000 to England \\
1627 & 14,264,577 & 600,000 to Denmark \\
1628 & 14,591,513 & 600,000 to Denmark, 30,000 to Stralsund \\
1629 & 20,009,958 & 200,000 to Denmark \\
1630 & 17,450,662 & none \\
\hline
\end{tabular}
\end{table}
Since the Dutch had the wealthiest economy in per capita terms in 17th century Europe, they could sustain this burden indefinitely by means of a comprehensive system of mass taxation and public debt. By contrast, the Hapsburgs did not have a comparably robust revenue structure at their disposal. Fiscal crises became a permanent feature of the Hapsburg economy, preventing the empire from mobilizing its full military resources and triggering large-scale defaults in 1627 and 1647.

The second half of this strategy was unrestricted maritime warfare against the Hapsburgs. In 1621, the Dutch founded the West Indies Company (WIC), a chartered company meant to seize Spain's silver fleets and annex Portugal's West Africa slave trade. But whereas the VOC was a lucrative economic project which only later became a tool of geopolitical power, the WIC was always a geopolitical project in search of an economic return. Amsterdam's merchants were not enthusiastic about financing the WIC, forcing the Estates-General and the VOC to spend 1 million guilders in 1623 to complete the company's initial offering of shares. The only noteworthy achievement of the WIC was Piet Heyn's seizure of a Spanish treasure fleet in 1628, a haul worth 11.5 million guilders. However, the Hapsburgs responded effectively to the loss by protecting their treasure ships with heavily armed convoys, and the WIC proved to be financially unviable.

The WIC failed for the simple reason that there was not yet a regular Atlantic triangular trade (i.e. the flow of slaves from Africa, cotton and sugar from the Americas, and manufactured goods from Western Europe typical of the 18th century) to extract surplus-rents from. This failure was not for lack of trying. In 1629, a group of Dutch merchants launched New Netherlands, an initiative to found settlements in North America, to capture Portuguese fortresses along the African coast, and to annex Portugal's Brazilian colony.

Dutch privateers did succeed in founding a permanent colony on Indonesia, and even managed to overrun northeastern Brazil between 1630 and 1654 (the WIC even established its headquarters in the Brazilian city of Recife). Their overall track record, however, showcased the inherent limitations of state-chartered piracy as a geopolitical strategy. The Hapsburgs remained formidable foes at sea, American silver shipments continued unabated, and Spanish forces crushed a Dutch attempt to occupy Manila during the Battles of La Naval de Manila in 1646.49

While the United Provinces could conquer the lesser outposts of the Portuguese empire, it lacked the one element necessary for long-term success, namely a sufficiently large demographic base to secure its maritime conquests.50 In 1600, Denmark had around 1 million inhabitants, Sweden had about 0.85 million, while the United Provinces had about 1.8 million. All three were far outnumbered by England's 5.3 million, and only the Netherlands and Sweden made any attempt at establishing settler colonies (Sweden launched New Sweden in 1638, a small colony in southern Delaware which lasted until 1655).

The only possible demographic peer competitor with England was France, which had 20 million inhabitants. However, Richelieu and Louis XIII were focused on dynastic European acquisitions, and chose not to waste scarce resources on securing a seemingly empty American wilderness devoid of peasants to draft or silver to extract.

It is true that the Dutch strategy did succeed in temporarily damaging the slave trade between Portuguese Africa and Brazil. As the following chart illustrates, this led to a significant fall in the Portuguese branch of the Atlantic slave trade, and opened the door for Dutch and
English slavers.\textsuperscript{51} It did not, however, fundamentally alter the course of the Thirty Years War.

\textbf{Figure 7.} Slave voyage disembarkations by national flag, 1501-1648.

![Slave Voyage Disembarkations 1501-1648](image)

What ultimately determined the outcome of the Thirty Years War was the alliance of Dutch finance and French demographics. Bourbon France, thanks to its population of 20.5 million and its centralized dynastic state, was the only power which could deploy decisive military force against the Hapsburgs. Louis XIII and Richelieu were initially cautious about playing their hand, however, for the simple reason that France had a vast land border to defend against the Hapsburgs, and also had significant cultural affinities to the Hapsburg world by virtue of its majority Catholic population.

This began to change when Richelieu unleashed the Bourbon version of dynastic expansionism in 1624. The opening gambit of this latter was the loan of significant French funds to the Dutch war effort via the Treaty of Compiègne, the first step towards a broad anti-Hapsburg coalition. The next step was the Anglo-French War (1627-1629), wherein French forces expelled the English from La Rochelle, followed by the minor intervention of the War of the Mantuan Succession (1628-1631). France subsequently subsidized Sweden's entry into the war with the 1631 Treaty of Bärwalde, guaranteeing 400,000 daler per annum. This amount was amended to 484,000 daler per annum by the Treaty of Hamburg in 1641. Collectively, France and the Netherlands managed to keep the Hapsburgs busy fighting proxy armies for seventeen years before a single French soldier joined the fray.\textsuperscript{52}

The scale of the French mobilization for war was remarkable, and quickly catapulted
France into the status of a first-rank European power. Richard Lachmann has provided the following estimates of government expenditure for the leading military powers of the Thirty Years War:

**Table 4.** First long peace and first supercycle, total government expenditure in millions of British pounds.\(^{53}\)

<table>
<thead>
<tr>
<th>Period</th>
<th>England</th>
<th>France</th>
<th>Netherlands</th>
<th>Hapsburg Spain</th>
<th>Percent Anti-Hapsburg vs. Hapsburg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1560s</td>
<td>0.251</td>
<td>1.28</td>
<td>N/a</td>
<td>2.154</td>
<td>71%</td>
</tr>
<tr>
<td>1580s</td>
<td>0.293</td>
<td>3.04</td>
<td>0.302</td>
<td>3.654</td>
<td>99%</td>
</tr>
<tr>
<td>1600s</td>
<td>0.594</td>
<td>2.43</td>
<td>0.867</td>
<td>4.808</td>
<td>81%</td>
</tr>
<tr>
<td>1610s</td>
<td>N/a</td>
<td>3.07</td>
<td>0.788</td>
<td>N/a</td>
<td>N/a</td>
</tr>
<tr>
<td>1620s</td>
<td>N/a</td>
<td>4.31</td>
<td>1.516</td>
<td>4.5</td>
<td>129%</td>
</tr>
<tr>
<td>1630s</td>
<td>0.605</td>
<td>8.4</td>
<td>1.958</td>
<td>4.5</td>
<td>244%</td>
</tr>
<tr>
<td>1640s</td>
<td>N/a</td>
<td>9.58</td>
<td>1.799</td>
<td>5.263</td>
<td>216%</td>
</tr>
</tbody>
</table>

In spite of Denmark and England's retreat from active participation in the anti-Hapsburg alliance, France and the Netherlands were able to outspend the Hapsburg war machine by more than two to one during the final decade of the war. The tipping point of this preponderance of resources occurred in 1640, when Portugal defected to the anti-Hapsburg cause. This reduced Hapsburg maritime holdings by almost half, and put intolerable strains on Philip IV's already overstretched forces.

Historians have pointed to the 1648 Treaty of Westphalia (in actuality, a series of three separate but interconnected treaties between the contending parties) as one of the seminal moments of nation-state formation, in the sense that legitimacy was henceforth accorded to sovereign nation-states as well as dynastic regimes. This is true, but the deeper meaning of Westphalia was also its legitimation of mercantile expansionism as a hegemonic mode of geopolitical governance. Three decades of state-chartered wars had gradually but inexorably turned into the wars of chartered states, and the two prime movers among these latter – the United Provinces and France – set the ground rules of geopolitical competition for the next 127 years. Dutch mercantilism would dominate maritime trade and commerce, precisely where French mercantilism would dominate the spheres of military conflict and continental territorial acquisition. Together, they would transform the world-system. Neither could know that their combined interaction would generate an unexpected third rival, whose wealth and power would eventually surpass them both.
**Appendix 1. Major Geopolitical Conflicts of the Hapsburg Long Peace.**

<table>
<thead>
<tr>
<th>Conflicts</th>
<th>Period</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>France vs. Hapsburg empire (Italian War, the Hapsburg-Valois War)</td>
<td>1551-1559</td>
<td>Draw</td>
</tr>
<tr>
<td>Ottoman empire vs. Safavid empire</td>
<td>1532-1555</td>
<td>Ottoman victory, acquisition of Mesopotamia and part of Caucasus</td>
</tr>
<tr>
<td>Mughal empire vs. Sur empire</td>
<td>1555</td>
<td>Mughal victory, end of Sur empire</td>
</tr>
<tr>
<td>Burma vs. Thailand</td>
<td>1547-1549</td>
<td>Draw</td>
</tr>
<tr>
<td>Russian empire vs. Sweden</td>
<td>1554-1557</td>
<td>Draw</td>
</tr>
<tr>
<td>Russian empire vs. Denmark-Norway, Livonian Confederation, Polish-Lithuanian Commonwealth, Sweden, Transylvania (after 1577) (Livonian War)</td>
<td>1558-1583</td>
<td>Victory for Livonian alliance, Denmark-Norway acquires Osel, Polish-Lithuanian Commonwealth acquires Courland, Sweden acquires Estonia</td>
</tr>
<tr>
<td>Sweden vs. Denmark-Norway, Lübeck, Polish-Lithuanian Commonwealth</td>
<td>1563-1570</td>
<td>Draw</td>
</tr>
<tr>
<td>Burma vs. Thailand</td>
<td>1563-1564</td>
<td>Burmese victory, acquires Thailand</td>
</tr>
<tr>
<td>Burma vs. Thailand</td>
<td>1568-1570</td>
<td>Burmese victory, defeat of Thai rebellion</td>
</tr>
<tr>
<td>Ottoman empire vs. Venice</td>
<td>1570-1573</td>
<td>Ottoman victory, acquires Cyprus</td>
</tr>
<tr>
<td>Ottoman empire vs. Russian empire</td>
<td>1570-1572</td>
<td>Ottoman victory, no acquisition of territory</td>
</tr>
<tr>
<td>Mughal empire vs. Gujarat</td>
<td>1572-1573</td>
<td>Mughal victory</td>
</tr>
<tr>
<td>Mughal empire vs. Bengal</td>
<td>1574-1575</td>
<td>Mughal victory</td>
</tr>
<tr>
<td>Ottoman empire (Khanate of Crimea) vs. Safavid empire</td>
<td>1578-1590</td>
<td>Ottoman victory</td>
</tr>
<tr>
<td>Hapsburg empire vs. Portugal (War of the Portuguese Succession)</td>
<td>1580-1583</td>
<td>Hapsburg victory</td>
</tr>
<tr>
<td>Ottoman empire vs. Portuguese empire (after 1583, Hapsburg empire)</td>
<td>1580-1589</td>
<td>Hapsburg victory, Portuguese retain control of Indian Ocean</td>
</tr>
<tr>
<td>Cologne War (local Catholic powers supported by Hapsburg empire vs. Protestant local powers supported by France and Britain)</td>
<td>1583-1588</td>
<td>Hapsburg victory</td>
</tr>
<tr>
<td>Burma vs. Thailand</td>
<td>1584-1605</td>
<td>Thai victory, achieves independence</td>
</tr>
<tr>
<td>Conflict</td>
<td>Duration</td>
<td>Result</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Mughal empire vs. Kashmir</td>
<td>1585-1589</td>
<td>Mughal victory</td>
</tr>
<tr>
<td>England vs. Hapsburg empire</td>
<td>1585-1604</td>
<td>Draw</td>
</tr>
<tr>
<td>Hapsburg empire vs. Netherlands</td>
<td>1568-1609</td>
<td>Draw</td>
</tr>
<tr>
<td>England vs. Ireland</td>
<td>1594-1603</td>
<td>English victory</td>
</tr>
<tr>
<td>Russian empire vs. Sweden</td>
<td>1590-1595</td>
<td>Draw</td>
</tr>
<tr>
<td>Hapsburg empire vs. Ottoman empire</td>
<td>1591-1606</td>
<td>Draw</td>
</tr>
<tr>
<td>Japan vs. Korea</td>
<td>1592-1598</td>
<td>Draw, Japanese invasion of Korea defeated</td>
</tr>
<tr>
<td>Polish-Lithuanian Commonwealth vs. Sweden</td>
<td>1600-1611</td>
<td>Draw</td>
</tr>
<tr>
<td>Ottoman empire vs. Safavid empire</td>
<td>1603-1618</td>
<td>Safavid victory, acquisition of part of Caucasus and eastern Turkey</td>
</tr>
<tr>
<td>Burma vs. Thailand</td>
<td>1613-1614</td>
<td>Burmese victory, regains Lan Na and upper Tenasserim coast</td>
</tr>
<tr>
<td>Polish-Lithuanian Commonwealth vs. Sweden</td>
<td>1617-1618</td>
<td>Draw</td>
</tr>
</tbody>
</table>

**Appendix 2. The First Supercycle: Contestants Of The Thirty Years War, 1618-1648.**

<table>
<thead>
<tr>
<th>Geopolitical Power</th>
<th>1618</th>
<th>1648</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hapsburg empire</td>
<td>World hegemon</td>
<td>Loss of hegemony, empire splits into western (Spanish) and eastern (Austrian) branches</td>
</tr>
<tr>
<td>Core Population</td>
<td>8.1 million Spain, 1.3 million Belgium, 7 million Austrian regions, 1.5 million Portugal = 17.9 million in 1600</td>
<td>7.5 million Spain, 1.9 million Belgium, 8 million Austrian regions = 17.4 million in 1700</td>
</tr>
<tr>
<td>Colonial Population</td>
<td>20 million Americans in 1519, possibly 9 million by 1600</td>
<td>8 million (5.5 million in 1800)</td>
</tr>
<tr>
<td>Economy</td>
<td>892 per cap Spain in 1600 = $7.23 billion, 1589 per cap Belgium = $2.07 billion, 500 per cap Americas = $4.5 billion, 700 per cap Austro-</td>
<td>687 per cap in 1650 = $5.15 billion Spain, 1445 per cap = $2.75 billion Belgium, 700 per cap Austro-Hapsburg = $5.6 billion, 500 per cap Americans</td>
</tr>
</tbody>
</table>
### Appendix 3. The First Supercycle: Geopolitical Alliances of the Thirty Years War, 1618-1648.

<table>
<thead>
<tr>
<th>Geopolitical group</th>
<th>Population 1618</th>
<th>GDP 1618</th>
<th>Population 1648</th>
<th>GDP 1648</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Hapsburg powers, core population</td>
<td>17.9 million</td>
<td>$19.8 billion</td>
<td>17.4 million</td>
<td>$17.5 billion</td>
</tr>
<tr>
<td>All Hapsburg powers,</td>
<td>9 million</td>
<td>$4.5 billion</td>
<td>8 million</td>
<td>$4 billion</td>
</tr>
</tbody>
</table>
The total manpower pool of the Hapsburgs was only 62% of the eventual anti-Hapsburg coalition, and rose slightly to 71% by the end (this was due to the neutrality of Denmark after 1629 and England after 1630, which was partly counterbalanced by Portugal's entrance into the anti-Hapsburg alliance after 1640). More decisively, Hapsburg GDP was 79% of the anti-Hapsburg powers at the beginning of the conflict, but only 63% by its end. France and the Netherlands did not just have superior economic resources, they also mobilized their resources more effectively, outspending the Hapsburgs by a ratio of of two to one in the field. Finally, it is worth noting that the limited transportation technologies of the day meant neither side could effectively mobilize their colonial populations to supply soldiers for European wars.

Appendix 4. Major Conflicts of the First Supercycle.

<table>
<thead>
<tr>
<th>Conflicts</th>
<th>Period</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bohemia (1618-1620), Britain (1625-1630), Brandenburg-Prussia, Brunswick-Lüneburg, Denmark-Norway (1625-1629), Electorate of the Palatinate, France (from 1635), Netherlands (from 1621), Saxony, Sweden, Transylvania vs. Bohemia (after 1620), Catholic League, Croatia, Denmark (1643-1645), Hapsburg empire, Holy Roman empire, Hungary (Thirty Years War)</td>
<td>1618-1648</td>
<td>Dutch independence and co-hegemony with France, Hapsburg decline, widespread destruction in Central Europe</td>
</tr>
<tr>
<td>Polish-Lithuanian Commonwealth vs. Ottoman empire</td>
<td>1620-1621</td>
<td>Draw</td>
</tr>
<tr>
<td>Polish-Lithuanian Commonwealth vs. Sweden</td>
<td>1621-1625</td>
<td>Swedish victory, acquisition of Livonia (Latvia and Estonia)</td>
</tr>
<tr>
<td>Ottoman Empire vs. Safavid empire</td>
<td>1623-1639</td>
<td>Ottoman victory, retains control of Mesopotamia</td>
</tr>
<tr>
<td>Polish-Lithuanian Commonwealth vs.</td>
<td>1626-1629</td>
<td>Swedish victory</td>
</tr>
<tr>
<td>Country/Region vs. Country/Region</td>
<td>Year(s)</td>
<td>Outcome</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Sweden vs. Korea vs. Qing empire</td>
<td>1627</td>
<td>Limited Qing victory</td>
</tr>
<tr>
<td>England vs. France</td>
<td>1627-1629</td>
<td>French victory, acquisition of La Rochelle</td>
</tr>
<tr>
<td>Polish-Lithuanian Commonwealth vs. Ottoman empire</td>
<td>1633-1634</td>
<td>Draw</td>
</tr>
<tr>
<td>Polish-Lithuanian Commonwealth vs. Russia</td>
<td>1632-1634</td>
<td>Commonwealth victory, retains control of Smolensk</td>
</tr>
<tr>
<td>Korea vs. Qing empire</td>
<td>1636</td>
<td>Qing victory</td>
</tr>
<tr>
<td>Denmark-Norway vs. Sweden</td>
<td>1643-1644</td>
<td>Swedish victory, Swedish acquisitions of territory and Dutch exemption from Sound tolls</td>
</tr>
<tr>
<td>Qing empire vs. Ming empire</td>
<td>1644</td>
<td>Qing victory</td>
</tr>
<tr>
<td>Khmelnytsky Uprising (Ukrainian Cossacks) vs. Polish-Lithuanian Commonwealth</td>
<td>1648-1657</td>
<td>Defeat of uprising, but beginning of geopolitical decline of Polish-Lithuanian Commonwealth</td>
</tr>
<tr>
<td>Hapsburg empire vs. Portugal</td>
<td>1640-1668</td>
<td>Portuguese independence</td>
</tr>
<tr>
<td>Britain, Civil War</td>
<td>1642-1651</td>
<td>Victory of New Model Army, defeat of royalists</td>
</tr>
<tr>
<td>Ottoman empire vs. Venice</td>
<td>1645-1649</td>
<td>Ottoman victory, acquisition of Crete</td>
</tr>
</tbody>
</table>


3. Technological innovations did not spur the Hapsburg hegemony, but were the unforeseen byproducts of the operation of this hegemony, e.g. both China's ship-building and firearms technologies were superior to those of the Hapsburgs, but China did not develop into a maritime colonial power. This would not be the case with later hegemons, which did indeed rely on specific technological innovations which we will describe in future chapters.


5. It is worth noting that after this holocaust, the survivors had roughly the same level of immunity as the colonists, and a demographic recovery set in. It is estimated that approximately 30 million citizens of the Americas today are descendants of this 3 million.

6. Ivan Berend estimates that 36 million pounds of silver and 400,000 pounds of gold were extracted from the Americas during the 16th and 17th centuries, or roughly 180,000 pounds of silver and 2,000 pounds of gold per year. Ivan Berend. *An Economic History of Nineteenth-Century Europe*. Cambridge: Cambridge University Press, 2013 (27).


10. “The genius of 16th century Genoese finance was to use the silver inflows from the New World to make profits, through their deep expertise of the international monetary and credit flows, in interest rate spreads and trading bills of exchange. The system was quite complex and worked as follows. The Spanish Crown sold silver spot in Spain to the Genoese in exchange for future delivery of
gold in Antwerp, where the gold was used to pay Spanish troops fighting in the Low Countries. The Genoese cost to deliver gold up north, through bills, was a fraction of the cost of shipping specie, including the high risk of piracy, from Spain to Antwerp. The Genoese acquired this advantage through 'increasing returns to scale in international financial services' (Conklin 1998, p. 499). The silver was shipped to Venice and from there to the Far East to settle a trade deficit. In exchange, the Genoese received bills drawn on Antwerp where they were used to buy gold.” Fratianni, Michele U. “The Evolutionary Chain of International Financial Centers” (October 2007). SSRN: http://ssrn.com/abstract=1006590 or http://dx.doi.org/10.2139/ssrn.1006590


18. Funnell Warwick and Jeffrey Robertson. Accounting by the First Public


23. “...all of the instruments in the painting, with the exception of the pillar dial, are of new and innovative design. The polyhedral dial and the universal equinoctial dial (or dial-maker) are also relatively experimental in their design. Furthermore, these new instruments are all specifically German in their manufacture: one of the globes is connected with certainty to Schöner; the second can be traced to Nuremberg; the torquetum is linked to Apian in Ingolstadt; and the universal equinoctial dial can be associated with earlier designs found on German instruments.” Ibid. (123).


27. This differentiates it from the early history of the English East India
Company (EIC), which was founded two years before the VOC, but which was not granted the right to operate its own army and navy until 1661: https://sites.google.com/site/durhammaps/india/1661Charter.pdf.

28. For additional insight into the foundation of the VOC, see this overview of the company archives preserved at the National Archive of the Netherlands: http://www.gahetna.nl/sites/default/files/afbeeldingen/toegangen/NL-HaNA_1.04.02_introduction-VOC.pdf. The main site of the National Archives is available here: http://www.gahetna.nl/en.


30. Ibid, 664.


33. “The creation of a vigorous market in VOC shares coincided with falling interest rates on short-term borrowing (Figure 5). Standing at 8 percent a year between 1596 and 1602, short rates dropped to 6.75 percent by 1608, at which they remained more or less stable for the next seven years. After 1616 another 1.25 percent drop occurred, pushing the interest rate slightly below 5.5 percent in 1619 and 1620. The declining interest rates are remarkable because Amsterdam experienced a prolonged commercial boom from 1590 to 1620.” Oscar Gelderblom and Joost Jonker (2004). “Completing a Financial Revolution: The Finance of the Dutch East India Trade and the Rise of the Amsterdam Capital Market, 1595-1612.” The Journal of Economic History, Volume 64, Number 3 (663).

34. Murasaki Shikibu's The Tale of Genji transformed the materials of the clan lineage, the Buddhist parable, and the nobilitarian chronicle into what might be called the realist palace novel.

35. For a useful comparative analysis of the emergence of state fiscal capacity across several early modern European and Asian states, see: Bartolomé Yun-Casalilla and Patrick K. O'Brien, editors. The Rise of Fiscal States: A Global

37. Note that the Swedish monarchy acquired nominal authority over Norway in 1814 after a brief border war. In practice, Norway practiced its own version of local parliamentary self-rule and retained extensive autonomy over its own affairs, eventually winning its formal independence from Sweden in 1905.


40. As part of their role as Baltic hegemon, the Dutch would join Sweden in the latter's war against Denmark in 1644, defeating the Danish fleet at the Battle of Femern. Thanks to the second Treaty of Brömsebro (1645), Sweden acquired fresh territory while Dutch ships were exempted from paying the Sound Duty, ending Denmark's ability to extract rents from the Baltic trade.


43. Ibid (87).

44. Articles 4 and 5 of the Treaty state the following: “Item, in order to assure the aforesaid provinces, cities and members thereof more effectively against all violence, the frontier cities and others where this shall be found necessary in any provinces, shall be maintained and fortified at the cost of the cities and provinces in which they are situated, with the Generality providing one-half of the costs...  

   And to provide for the expenses which shall be found necessary in such cases as the above for the defense of the aforesaid Provinces, it is agreed that there will be introduced, raised, and leased to the highest bidder every three months or at other convenient time, in all the provinces upon the same footing for their common defense, various taxes upon all kinds of wines, beers of domestic and foreign brew, the grinding of corn and grain, salt, gold, silver, silk and woollen cloth, livestock and cultivated land, slaughtered beasts, horses, oxen sold or exchanged, goods weighed at public scales, and all other goods which it
shall be unanimously agreed hereafter to tax.”
http://www.constitution.org/cons/dutch/Union_Utrecht_1579.html

45. The stadtholders consisted of a series of Orangist princes who ruled between 1618 to 1650. Between 1650 and 1672 the office was vacant, and the United Provinces were ruled by Johannes de Witt, Grand Pensionary of the Holland province, under a slightly modified variation of the stadtholder strategy. This was followed by a return to overt Orangist rule under William III, who was named stadtholder following the French invasion of the Netherlands in 1672. William III would subsequently export the stadtholder model to England in the form of the 1688 Glorious Revolution, one of history’s few examples of two successful coup d’etats in two different nations. While the Orangist stadtholders exercised significant executive authority over the entire United Provinces, daily governance of the Dutch cities was largely in the hands of oligarchic groups of wealthy Dutch merchants, the Regents.

46. These numbers are a conservative extrapolation of Charles Ingrao’s estimate that the eastern branch of the Austro-Hapsburg empire (i.e. excluding Spain, Portugal and the territories which became Belgium) contained 17 million inhabitants in 1713. See: Charles Ingrao, The Habsburg Monarchy, 1618-1815. Cambridge: Cambridge University Press, 2000 (121).


49. The same phenomenon of maritime overstretch can be discerned in the fate of Fort Zeelandia, a trading post the Dutch established in Taiwan in 1624. The Dutch succeeded largely because mainland China was in the throes of a transition away from the Ming and towards Qing dynastic rule in 1644. After the Qing reestablished central power, one of their proxy rulers captured the trading post in 1662.

50. The reason the Dutch lost their foothold in northeastern Brazil was demographics. Simply, the Portuguese Brazilian population reached an estimated 100,000 by 1600, and would rise to 184,000 by 1660. This was a population far too numerous and well-organized to be controlled by a few thousand Dutch soldiers dependent on a tenuous Atlantic supply line. Eventually, the Brazilians organized themselves into an army and defeated the Dutch in the 1649 Second
Battle of Guararapes, a prescient anticipation of the defeat of the British and French expeditionary armies at the hands of poorly armed but highly motivated and demographically powerful American and Haitian revolutionaries a century and a half later.

51. Approximately seven hundred thousand slaves disembarked in the Americas during this period, or a minute 6.6% of all disembarkations over the lifetime of colonial slavery. The true importance of slavery to the development capitalist world-system, however, would not become manifest until the Dutch-French long peace of 1648-1775 – a theme we will examine more closely in the next essay.

52. De Jong notes that financial subsidies from Venice, routed through Dutch merchants, also played a role in sustaining the anti-Hapsburg war effort.