A COMPANION TO THE WORLDS OF THE RENAISSANCE

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CHAPTER SIXTEEN

Economic Encounters and the First Stages of a World Economy

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In 1291, two Genoese brothers (Ugolino and Vadino Vivaldi) set out "for India by way of the Ocean," presumably an Atlantic circumnavigation of Africa, never to return.[1] Later in November of that same year 1291, Jaime II of Aragon and Sancho IV of Castile partitioned Morocco into spheres of influence as part of their Reconquest ambitions.[2] Four years later in 1295, two Venetian brothers (Niccolò and Maffeo Polo) with Niccolò's son Marco returned to Venice after a twenty-four-year journey to the court of the Great Khan in China.[3] Such early enterprises found culmination two centuries later in the earth-shattering voyages of Columbus and Vasco da Gama in 1492 and 1498 and in the division of the New World by Spain and Portugal in the 1494 Treaty of Tordesillas. Such exploits in and out of the Mediterranean basin exemplified medieval commercial practices and political experiences, from the eleventh-century rise of the city to the late fifteenth-century emergence of strong centralized states.

During the Renaissance, new maritime contacts with Africa and Asia, the unexpected "discovery" and concerted "invasion" of America, and the establishment of European overseas empires resulted from two main causes: the late-medieval entrepreneurial quest to quench growing consumer demand, and the support of and competition between newly reconstituted monarchies and their bureaucratized states. By the end of the increased economic activity, price inflation, and overseas expansion associated with the "long sixteenth century" (1450–1650), the pre-eminence of the Italian-led Mediterranean world had given way to a new dynamic center in northwestern Europe. English goods and shipping displaced Italian in the Mediterranean itself, Dutch merchants replaced the Portuguese in Asia, and American Indian forced labor (later African slave labor) in the New World was used to extract the silver and refine the sugar that would fuel growth and forge the first stages of a world economy.

Towns, Trade, and Trading Networks in Late Medieval Europe

Long-term demographic movements – a pluri-secular, double wave pattern of rise/decline/stagnation from 1000 to 1450 and rise/relative decline/take-off from 1450 to 1650 – help to explain the trajectory of late medieval and Renaissance economic growth and expansion. The dynamic story of economic expansion outside Europe revolves around what happened inside Europe: the growth of medieval towns to comprise about 7 or 8 percent of the population between the year 1000 and the early fourteenth century. The fourteenth-century crisis, including the 1348 plague and its subsequent recurrences and consequences, reduced Europe's population by about one-third to 52 million people by 1400, where it remained stagnated at that low level through most of the fifteenth century. Slow population growth from the second half of the fifteenth and early sixteenth century only returned European population to its pre-plague level by the 1570s. The end of the long population expansion by the mid-seventeenth century was unlike the sharp and universal decline of the fourteenth century, but instead varied in intensity across Europe, with sharp divergence between northern and southern Europe in population growth profile and in pattern of settlement in large urban centers.[4] This demographic framework mirrored the shift in political and economic power from the Mediterranean to northwest Europe and the three so-called revolutions – urban, commercial, and price – that lie behind European emergence as a dominant player in the world economy by the end of the Renaissance.

The urban context

Towns welcomed immigrants from the countryside because high mortality rates, with half the population never reaching 20 years of age, meant that equally high birth rates could barely maintain stable population levels. To feed their burgeoning immigrant populations, towns also sought to reap agricultural surpluses by controlling their rural hinterland.

The core of the city's dynamism was its division of labor and wage-earning workforce, which produced goods and services in response to consumer demand for food, clothing, and shelter, these items accounting for about 98 percent of private expenditures. Merchants, who were not only specialists in the distribution of goods but also often provided the capital and procured the labor needed in manufacturing, were instrumental in the process of turning independent craftsmen into dependent employees through credit and indebtedness, and by developing the "domestic" or "putting-out" system among seasonally underemployed agricultural laborers, especially women, who worked in their own homes at piece-rates. Skewing at the top and the bottom of the social and economic pyramid (with the richest 10 percent controlling one-half the wealth and the bottom 60 percent only 5 to 20 percent) meant that the wealthy few held sway and commanded the expansion of luxury markets, that the middling sort were relatively few, and that a large number of the poor could suffer during conjunctural downturns and join the ranks of the hard-core poor or "beggars."

The commercial context

Markets and exchange grew with the wealth and diversity of the city. As it drew in people and raw materials from the countryside, the city re-exported finished manufactured goods (especially textiles), promoted organizational and technological innovations, and developed trading networks near and far.[5]

Late medieval and early modern merchants and bankers, who were indistinguishable one from another, controlled production and distribution, capital and credit. Whether northern Italians from the late twelfth century or southern Germans from the late fifteenth to mid-sixteenth centuries, the merchant bankers' need for the efficient exchange and transfer of goods, money, credit, and news required a range of new business techniques that created the fundamental instruments of modern banking and commerce. Italians developed the two most important financial innovations in the twelfth and thirteenth centuries: deposit-and-transfer banking (keeping a fraction of deposits in reserve while lending out the majority of funds) and foreign-exchange or bill-of-exchange banking (a credit or transfer letter that employed a principal/agent system to deliver or remit funds). A whole range of business and accounting mechanisms followed: modern dating, the introduction of Arabic numerals (originally Indic), double-entry bookkeeping, the check, the endorsement, insurance, commerce manuals, partnership contracts, joint stock companies, the stock exchange, and the central bank. Business and commerce not only infused money into the economy, but also fostered the spread of literacy, expertise in mathematics, and entrepreneurial skills.

Medieval Europe's economic development and the early commercial and financial leadership of Italians in it must be seen in the broader context of a 60-day "world-economy" (the maximum time needed to hold long-distance trading circuits together),[6] in which western Europe remained a marginal outlier to the two larger, well-developed circuits of exchange in the Middle East and Asia that dominated international trade.[7] In the thirteenth century, the three evolving western European nodes of exchange around the textile producing region of Flanders, around the industrial communes of northern Italy, and at the meeting ground of northern and southern Europeans in the Champagne Fairs to the southeast of Paris were slowly forming into a more integrated, single trading circuit. From the European peripheral circuit, Venice and Genoa especially operated in a trans-Mediterranean subsystem that linked them to the Middle East circuit. There they found themselves in contact with three extended trading subsystems: in western Asia (from Constantinople and the Black Sea to China, depending on the Mongol unification of central Asia and conquests in China); in the Levant (from the Palestinian coast to Baghdad, joining the central Asian caravan route or going south to the Persian Gulf and Indian Ocean); and in Egypt (from Alexandria, Cairo, and Mamluk Egypt via the Red Sea to the Indian Ocean). The powerhouse of this early world economy was the Asian circuit, which was centered in the Indian Ocean and shared by Persians and Arabs in the West, Indians of Islamic faith on the West coast of the subcontinent and of Hindu and Buddhist culture on the east coast, and Chinese in the east between Java and China.

Four Italian maritime communes – Genoa, Pisa, Amalfi, and Venice – vied for power in this medieval trans-Mediterranean trading circuit centered on Constantinople and the Islamic Middle East from the ninth and tenth centuries. By the thirteenth century the commercial, banking, and manufacturing quadrilateral around Venice, Milan, Genoa, and Florence led the way in reaping the profits from price differentials in long-distance trade. Spices for the aristocratic luxury market and more mundane Syrian cotton for cheap, light fabrics were the most important imports from the Levant. In addition, the Italian cities brought raw materials from around the Mediterranean for industrial transformation and re-export as luxury goods – silk and woolen cloth, leather, furs, and glass; or they imported more humdrum commodities for local consumption: salt, wine, fish, cheese, butter, oil, flax, common dyes, non-precious metals, timber, and grain. The widening disparity between rich and poor from war-inspired, debasement-induced, population-loss inflations meant that the high-return luxury markets drove this trade to precocious heights, but at the same time, that demand was relatively inelastic and open to competitors once new products, wider markets, and lower prices took hold in the sixteenth and seventeenth centuries.

Rivalries in the eastern and western Mediterranean shaped the history of the rise and fall of these early European trading empires.[8] In the eastern Mediterranean, the island city of Venice acquired an overseas empire that included large colonial holdings on the Italian mainland, the Dalmatian coast, Corfu, Crete, Cyprus, and a strong role in Constantinople. With the fall of the Venetian-dominated Latin Kingdom of Constantinople (1204–61), the Genoese were able to move in decisively as slave traders and provide slaves from central Asia and the Caucasus for Mamluk military manpower needs in Egypt.[9] The Venetians and Genoese fought a series of inconclusive wars for over a century between 1257 and 1384; but, by managing to survive intact and tie their eastern trade to the Egyptian/Red Sea route to Asia, the Venetians won the long duel. The Genoese were never able to gain the same kind of state-centered control in their eastern Mediterranean and Black Sea strongholds at Pera, Kaffa, Tana, Chios, Cyprus, and Egypt as enjoyed by the Venetians, and Genoa's eastern trade declined to only 20 to 25 percent of that of Venice. The Genoese, for their part, suffered from internal demographic decline and civil strife, with some thirteen urban uprisings between 1413 and 1453, external wars especially the Hundred Years War (1337–1453), and intense foreign competition that disrupted their more important western trade. Because its small population base generated low local demand and few natural resources, the Genoese were not able to compete as a manufacturing center in the production and marketing of textiles (silk, cotton, and woolen cloth) with its western Mediterranean rivals Florence, Milan, Lyon, and Barcelona. With its eastern trade shrinking, its western trade in jeopardy, and less and less able to carry on an independent foreign policy (buffeted as it was between the Aragonese, the Milanese, and the French in the second half of the fifteenth century), Genoa turned more to its skills in banking and finance. In switching sides from France to Spain in 1528 during the Italian Wars, the Genoese gave Charles V a decisive naval advantage; and later from 1557 to 1627, the Genoese served as exclusive bankers to the Spanish empire in Europe and the New World.

In the northern European trading circuit that extended from the Low Countries through the Baltic and North Seas down the rivers of central and eastern Europe, Lübeck merchants took the lead from the mid-twelfth century. The Hanseatic League had become a formal association of towns by 1370 and eventually included as many as one hundred. The post-plague foundation grew out of four regional town-leagues: in the western Baltic led by Lübeck, Hamburg, and Bremen; in the eastern Baltic by Riga; in Prussia by Danzig and the Teutonic Order; and along the Rhine by Cologne. The Hanse exported primarily high-bulk, low-valued foodstuffs and raw materials (rye, barley, forest products, naval stores, copper, and iron) as well as Baltic high-value goods (beer, salt, and herring), and a few luxury items (furs, amber, and wax) from as far east as Novgorod and as far north as Bergen, to London and Bruges in exchange for woolen cloth and silver. As incursions into the German Hanse towns by Holland-Zeeland and English merchants challenged the Hanse monopoly and protectionism, Bruges and Ghent in the Low Countries and later Antwerp through the Brabant Fairs established Flanders as the urbanized center of the northern European trading circuit. In Flanders industrial production flourished and foreign products were transshipped: English woolens (which were dyed and dressed in the Flemish towns), south German metals and Rhineland products, and after 1500 Portuguese-Asian spices. The growth of the Antwerp market into a world market by the end of the fifteenth century gave way after the Dutch Revolt to Amsterdam; from the last third of the sixteenth century, Amsterdam, at the head of the century's most productive agricultural sector and booming industrial towns, became Europe's greatest staple market and financial center.

Economic cycles, conjunctures, and change

The path to northwest Europe's hegemony in the first stages of a global world economy was far from inevitable. Instead of a direct line of succession from Venice to Antwerp to Genoa to Amsterdam, we must understand the contingencies and discontinuities, the overlapping and intertwining of multiple nodes or the polynuclear clustering of commercial circuits in late medieval Europe.

Even before the plague of 1348, population pressures mounted as agricultural yields declined, little new arable land was available for new planting, rents increased, real wages fell, and famines became more common. Military expenses from increased warfare taxed already hard-pressed citizens, increased the public debt, and caused the English monarchy to default on its loans, which bankrupted the Florentine banking houses in the 1340s. After the plague, the decline of the Mongol Empire in central Asia and closure of the land routes to Asia, the rise of the Ottoman Turks in the eastern Mediterranean, the social dislocations that concentrated greater wealth in fewer hands, the decreased labor supply that led to peasants' and artisans' rebellions, the abandonment of hundreds of depopulated villages and the scurrying of displaced rural people to the towns, all contributed to a reconfiguration of internal power relations within the towns and of international relations between towns and states, to a reorganization of production and the profile of demand, and to a rethinking of values, confidence, and priorities.

Europe's internal restructuring as a consequence of the century-long crisis of the fourteenth century set the terms for development in the next economic cycle, which began in the third quarter of the fifteenth century. Despite the setbacks, the Hanseatic League expanded; German towns with large quantities of newly mined silver, such as Nuremberg and Augsburg, became financial centers; Portugal embarked on its explorations and expansion; and the Italian states, because of the absence of intruding foreigners, were free to establish new political and economic relationships. Agricultural productivity increased with the abandonment of marginal lands, income redistribution allowed for large expenditures from the new super-rich, workers' real salaries increased, and living conditions improved. Finally, an era of New Monarchies ruling over large, centralized states in England, France, and Iberia ushered in new economies of scale in both military affairs and commercial endeavors. (See the essays above by Edward Muir and below by Thomas Arnold.)

The sixteenth-century inflation that extended up to the 1640s, the so-called European price revolution, is, thus, really another name for economic growth and expansion. Monetary forces (the central European silver-mining boom from the mid-1520s, Portuguese imports of African gold, currency debasements, and the exponential increase in private and public credit) played an important role in this five- or six-fold price rise long before American silver shipments after 1570 greatly increased the European money supply. Demographic growth also played its part in the story, since prices rose because rising demand from the increased population and the increased money supply far exceeded real national income or the aggregate output of goods and services.[10] As a consequence, Holland and England gained with the relative decline of the Italian and south German, Spanish, and Antwerp markets.

Three new technologies of Chinese origin – the compass, gunpowder, and printing – transformed trade and transport in the sixteenth century as a new "world economy" (an *expanded* 60-day world) was established. From the thirteenth through the fifteenth centuries, technological changes in shipping, navigation, and armaments created the large, heavily-armed, full-rigged carrack as the dominating long-distance tool at the center of European trade, expansion, and empire. Ship design and production, through shipyard division of labor, sail and hull changes to allow exploitation of following or contrary winds in open ocean or coastal waters, improvements in instrumental or mathematical reckoning with the magnetic compass, water clock, astrolabe, portolan or naval chart, trigonometric tables, and sternpost rudder, and finally, artillery and gunpowder already developed in land and siege warfare, all contributed to the European maritime reconnaissance. Likewise, print culture – with the adaptation of Chinese technology for the appearance of paper in the thirteenth century, water mills to pulp rags into paper, and printing and moveable type by the mid-fifteenth century – so formative for the intellectual culture of the Renaissance, Reformation, and scientific revolution, found new markets: travel literature, accounts of overseas adventures, maps and atlases.[11] At the same time it facilitated business practices by greatly aiding the dissemination of news and information. "Asia in the making of modern Europe" is no exaggeration.[12]

How to explain European growth and innovation, its rise from marginal participation in the Asian-centered "world-economy," and how to determine whether the agrarian or urban sector led the transformation, has attracted serious attention, from Adam Smith (market expansion and the division of labor) and Karl Marx (specific economic, political, and legal changes creating new relationships between owners/controllers of the means of production and workers) up to the late twentieth century. The 1950s had the Sweezy/Dobb's debates on the "transition from feudalism to capitalism," the 1970s–80s Wallerstein–Brenner–Mendels/Kriedte models on world-systems, class structure, or proto-industrialization, and the 1990s research on consumption, women's work, and work experience as well as Asia-oriented comparisons and reformulations.[13] Very simply, if one assumes an evolving and expanding system rather than a cyclical or static one before the Industrial Revolution (1780–1850), the fifteenth/sixteenth-century growth cycle (1450/70–1620/50) can be seen as the first phase of a process that accelerated during the second phase (1620/50–1780/1800). During the first phase, which corresponds to the Renaissance in Italy and its spread beyond, there is general consensus that the Europeans narrowed the gap between themselves and Asia, but that from about 1600 to 1800 a rough parity existed among a number of "gunpowder empires" across Eurasia, from the English, Dutch, French, Portuguese, and Spanish in the West to the Ottoman Turks, Safavid Persians, Mughul Indians, Ming and Ch'ing Chinese, and Tokagawa Japanese. How the Europeans did it – whether through some endogenous advantages and absence of impediments or through some exogenous colonial extraction – has been hotly contested in two basic Eurocentric models. These emphasize either the quantitative benefits of available resources garnered through demography, ecology, and overseas accumulation (Jones) or the qualitative transformation of new mechanisms for accumulation through the emergence of efficient markets and property rights and of strong firms and institutions, either through class struggle (Brenner) or coercion and collusion (Wallerstein).[14] Whatever the line of argument one follows, the variables in the mix – land, labor, and capital – remain the same; but what unit led the transformation – the state, private enterprises, regions, or world-systems – is at issue. An alternative tradition from Max Weber's thesis on ideology, culture, or religion to explain the origins of capitalist mentalities seems much less viable today in light of what we now know about Europe's long economic gestation period, the similarities rather than the differences between Catholics and Protestants in trade, and the details of capitalist accumulation and market mechanisms in Asia.

The crisis or end point of this first phase of economic encounters and expansion in the world economy, the so-called "seventeenth-century crisis," is now understood to be a period (roughly 1620–80) of reconfiguration and consolidation. Ruinous wars, faltering public finances and overextended credit, failures and famines in agriculture, inflationary pressures from bullion flows, and cheaper goods from abroad led to an economic slowdown for Spain and Italy by the 1590s. With the independence of the United Provinces in 1609, the economic crisis of 1619–22 after a decade of uncertainty, and then the devastation of Germany in the Thirty Years War (1618–48), the Mediterranean states experienced a relative decline *vis-à-vis* their former inordinate success and earlier economic dominance over the states of northwest Europe.

Contact, Conquest, and Colonization

The political-economic ties between Italy and Iberia long preceded the Spanish "conquest" of Italy in the sixteenth century, the subsequent Genoese "century" of financing the Spanish Empire, and the Mediterranean's relative decline in the seventeenth century. The late medieval/Renaissance story of the Iberian–Italian rise is grounded in commercial capital, African gold, the slave trade, the Reconquest of Muslim Iberia and the rim of Africa, exploration, exploitation, and exportation from the Mediterranean to the Atlantic world and beyond. The success of the two Iberian trade routes – Spanish to America and Portuguese to Asia – led to a conflation of the medieval trading circuits in the Mediterranean and the Hanse with a new, truly global world economy forming around the Low Countries at Antwerp.

Iberian–Italian models and experience

By the end of the thirteenth century, Aragonese conquests extended to an island empire of Majorca (1229), Ibiza (1235), Sicily (1282), Malta and Gozo (1283), Djerba and Kerkennah (1284–6), Minorca (1287), Sardinia (1290s), and in 1311 out to Athens with aspirations for Jerusalem: a stepping-stone network of maritime outposts that would serve as a model for later Atlantic expansion. At the same time, the Aragonese also expanded south to Valencia and Murcia to incorporate a Mediterranean land empire thought to be richer even than its Catalan homeland. Also during the thirteenth century, the Castilian Reconquest gained an Atlantic-facing empire that increased the Crown's territories by 50 percent as it metabolized Cordova and Seville and colonized Andalusia. In 1251 the Genoese were given commercial privileges and their own quarter in Seville, which would grow into the main entrepôt of the Genoese diaspora and Genoa's entry to the Atlantic. Genoese capital, commercialization, and experience with the establishment of a network of centers of production and exchange put the Genoese in competition and cooperation with the Catalans, Castilians, and Portuguese for the riches of North Africa. Wool and woolens dominated the early trade of the western Mediterranean, with gold, iron, saffron, pitch, canvas, and leather also important. Gold, above all, was the high-value commodity sought in the towns along the Maghrib coast, the northern terminus of Saharan caravans to the source of gold in the West African interior. Lured by gold, Mediterranean merchants seeking to secure a base at the other end of the Saharan gold road ventured into the Atlantic in the late thirteenth and early fourteenth centuries, where they reached the Canary Islands by the 1330s.

Bounded by the Azores in the north and the Canaries in the south, by the western island archipelagoes and by the Iberian and African coasts in the east, was a new zone of exploration, a kind of "middle sea" or "Atlantic Mediterranean." It became the focus for a new round of navigational experimentation and colonial expansion through the early fifteenth century. Portugal, which like Castile had grown dramatically (some 70 percent) during the thirteenth-century Reconquest, joined the competition with a pre-1339 joint Portuguese-Italian enterprise, the first chronicled expedition to the Canaries. With its political unification under the Aviz dynasty, independence from Castile in 1385, and fortified with an English alliance in 1386, Portugal exported wine, olive oil, citrus fruits, cork, salt, and salted fish to England and Flanders. In the first half of the fifteenth century under the mistakenly lauded Infante Dom Henrique, expanding trade and experiments in ship design led to Portuguese settlement in the Madeira Islands and the Azores, but also to failure in their primary objectives, conquest of the Canaries and the quest for the gold source in West Africa. From the 1440s, gold (17 metric tons shipped between 1470 and 1500 with another 19 tons by 1550), slaves (some 150,000 Africans sold into European slavery between 1450 and 1500), sugar, *malaguetta* pepper, and ivory dominated the Portuguese trade with West Africa and the Atlantic islands. A foreign commercial/industrial/financial elite who made the colonial economy possible – Genoese in Madeira and the Canaries, Flemish in the Azores – acted as middlemen between the Portuguese colonial island society's aristocratic lords and settler peasants. From the 1460s with the development of the Cape Verde Islands (and later in the 1490s on the islands of the Gulf of Guinea), the Genoese–Portuguese enterprise introduced a new model of colonial power, the slave-based plantation economy that linked slave traders and sugar planters in the importation of black slaves from West Africa for work in sugar production. Gold, slaves, and sugar were the motives and the motor of the Genoese-financed, Portuguese-controlled imperial expansion.

During the first half of the fifteenth century, the Aragonese Empire reached its greatest extent with Alfonso of Aragon's 1443 conquest of the Kingdom of Naples, which despite its loss on the division of Alfonso's states among his heirs, later provided the justification for the Catholic Kings Ferdinand and Isabella to invade Italy in defense of their Neapolitan Aragonese cousins. The Genoese Christopher Columbus sailed as a pirate in 1472–3 in the service of René of Anjou, the Angevin pretender who contested Aragonese kingship in Naples. In the following year, Columbus's Genoese roots took him to Chios in the eastern Mediterranean, but by 1474 he was fighting with the Portuguese against the Genoese off Cape St. Vincent, became a resident of Porto Santo in the Portuguese Madeira Islands in 1480, and visited São Jorge de Mina (Elmina), the Portuguese fort on the Gold Coast (Ghana) in 1483. Columbus unsuccessfully presented his proposed western voyage to the Portuguese king in 1484, later received similar rejection from the Catholic kings in Castile, and again was turned down by the Portuguese who lost interest after rounding the southern tip of Africa in 1488. With their Reconquest of Granada complete in January 1492, the Castilians finally commissioned Columbus that same month in order to catch up with their Portuguese rivals in gold and trade as part of their ongoing strategy for conquest of the Canaries (1478–96). Indeed, Columbus's letter on his return (February 15th, 1493) emphasized the hoped for commercial rewards: gold, slaves, spices, cotton, mastic, rhubarb, cinnamon and "a thousand other valuable things."[15]

Castilian arms soon established a series of Portuguese-like settlements as stepping-stones to wider conquest: Santo Domingo on Haiti (1496), Panama (1509) on to Nicaragua, Cuba (1511), Mexico (1519) on to Guatemala, the Yucatan, and Honduras, Peru (1534) on to Ecuador, Columbia, and Chile. But the real prize came as colonial settlement brought regular trade, with nearly a hundred ships sailing annually from Spain in the 1520s and increasing to twice that number of ships and four times the carrying capacity (because of larger ships) by the late sixteenth century.

From Vasco da Gama's 1497–9 voyage, meanwhile, the Portuguese realized their ambition to reach Calicut, the greatest spice market in the Indian Ocean, for pepper (85 percent of Asian exports to Lisbon in the first half of the sixteenth century), ginger (6 percent), cinnamon (2 percent), and other spices: nutmeg, cloves, and mace (6 percent).[16] Not content to share the Asian trade with other merchants, the Portuguese sought to create a monopoly through military force to exclude the Mamluk, Gujurati, Turkish middlemen and above all the Venetians from these profits – as much as 90 to 150 percent on pepper! A string of forts controlled trade along the coast of East Africa at Sofala (1505), along the western coast of India at Cochin (1503) and Goa (1510), at Malacca in the eastern straights (1511), at Hormuz in the Persian Gulf (1515), in Ceylon at Colombo (1518), and on Ternate in the Moluccas (1522). Aden in 1513 at the entrance to the Red Sea and the Venetian spice route through Ottoman Egypt was the only setback, so that later by mid-century the Venetians had recovered more than half of the European spice trade. Between 1500 and 1635, the Portuguese Cape route between Asia and Europe sent about seven ships of 400 to 2,000 tons annually from Lisbon to India and four in return.

On the second voyage to India in 1500, Pedro Álvares Cabral's thirteen-ship mission (ten ships outfitted by the king, three by Portuguese noblemen–Italian financier companies) sighted Brazil. Initially Brazil remained a small part of the early Portuguese enterprise by exporting the red dye-wood brazilwood, but it began to be colonized by Portuguese Atlantic islands settlers in response to French competition in the 1530s. The new colonists established a fast-growing, slave-labor, sugar-plantation economy, with the first sugar mill in 1533. The sensational story of sugar, like that of the quest for gold and spices, reveals how the first global world economy brought Europe, Africa, and America together as unequal partners in an interlocking system.

Exchange in the first global world economy

Sugar, although known in ancient and medieval times, did not become a European staple until its intensive production in the New World linked it with the newly introduced crops of coffee, tea, and chocolate – bitter drugs enhanced by sugar – as well as with the related imports of rum, molasses, and syrup.[17] In Brazil sugar production rose four-fold between the 1560s and 1610, when African slave labor (between 10,000 to 15,000 slaves brought in annually) was exploited in some 130 sugar plantations and 210 mills. When England entered sugar production in the West Indies in the 1640s, British sugar consumption grew exponentially. Although British population barely doubled by the end of the early modern period, sugar consumption grew twenty-five-fold between1650 and 1800, far more rapidly than the use of bread, meat, and dairy products.

The rise of sugar is part of the tragic story of what later in the eighteenth century developed into two well-known triangular trade networks: Britain shipped finished goods to Africa for slaves to be sold in the Americas where tropical commodities – especially sugar – were sent back to the mother country; and similarly, New England rum went to Africa for slaves sent to the West Indies where molasses to make rum was shipped back up to New England. The sharp juxtaposition of black Africans sold into Caribbean slavery to produce sugar and European free laborers working in mines and factories hooked on sugar-infused drugs for empty calories and cheap pleasure points to a well-nourished capitalist class reaping the profits of agro-industrial enterprise built on the back of human exploitation. Before 1700 over a million and a half African slaves had been brought to America; and by the slave trade's nineteenth-century abolition, some 12 million African slaves had been shipped to the Americas and 14 million east to Islam. While still a luxury at the end of the sixteenth century, sugar (like tobacco by the end of the seventeenth century) had been produced and exported by the Portuguese in a slave-plantation system that would serve as a forerunner to the triangular trade and a model to the Spanish, French, Dutch, and English.

Tobacco, introduced to Europe in the 1560s, was also initially a luxury good, whose market grew chiefly from its purported therapeutic powers and mutated from a cure-all to an all-consuming addiction.[18] When the price of tobacco plummeted 97 percent from 3 shillings to a penny per pound in the 1630s owing to increased supply, cheap tobacco was on its way to mass consumption. Slavery would take root in the Chesapeake in the 1660s and Virginia would become a slave society based on race by the 1680s and 1690s.

New World sugar and tobacco production and their slave-labor system fueled the expanding Atlantic economy, but silver and gold were the most valuable New World exports and the first global market commodities. The Americas provided 85 percent of the world's silver and 70 percent of its gold from 1493 to 1800. By 1650 some 181 tons of gold had been exported from the Indies in an uneven flow (the vast majority in the first half of the sixteenth century), and almost 90 times that amount of silver, 16,000 tons (with exports becoming more important after the great discovery at Potosí (Bolivia) in 1545 and at Zacatecas (Mexico) in 1546). With the discovery of mercury mines in Peru, the new mercury amalgamation method of refining silver caused silver production to triple after 1573 and then double again in the late 1580s. In 1611 Potosí's boom-town population of 160,000 inhabitants was the largest in the Americas. Simultaneously, a direct route linked Spanish America to Asia in the 1560s; Manilla was founded in 1571 and a convoy of "Manilla galleons" made annual voyages between Acapulco and Manilla. Throughout the seventeenth century, more than 50 tons of silver annually was exchanged via the Pacific route for Chinese silks and luxury goods. Bullion flows – American silver to Europe in support of Spain's Genoese creditors and its imperial wars as well as American silver to Asia and Asian gold to Europe – were primary drivers of the first world economy from the 1540s to the 1640s.[19] Divergent bimetallic ratios (the cheap production and shipment of American silver for sale at a higher price in China) rather than the oft-repeated erroneous explanation of a European trade deficit *vis-à-vis* Asia determined the silver bullion flows. Europe, then, was one axis in a four-cornered, not just a triangular trade, with arenas in Africa, America, and Asia.

During the early stages of the global world economy, non-bullion goods from the New World fell into two categories: high-value commodities (wine, oil, sugar, and later tobacco) and bulky, low-priced industrial raw materials (hides, Mexican cochineal – a red dye from insects, indigo – a blue vegetable dye, and exotic woods). Among these goods, only cochineal, native woods, and tobacco were indigenous New World products. Over time, other American contributions to the Columbian exchange would prove to be extremely valuable: potatoes, sweet potatoes, maize, chile peppers, tomatoes, cacao (chocolate), cassava, cinchona trees for quinine, peanuts, kidney and lima beans, pineapples, avocadoes, and papayas. Spanish colonial goods were intended to support, not compete with, the home economy, which in return sent finished products such as wine, liquor, textiles, and manufactured goods from Spain.

The circle of the Columbian exchange was completed by three Old World movements into the Americas: the devastation of disease, the immigration of people (both settlers and slaves), and the problematic conversion to Christianity. Hispaniola (Haiti), the site of Columbus's first large base, had an estimated population of 3.7 million in 1496, but only 250 native Americans still alive in 1540. Mexico, which may have had a pre-Conquest population between 20 and 25 million in 1519, had only one million Indians a century later in 1608; Peru's probable population of 9 million in 1520 had fallen to less than 700,000 Indians by 1620. Endemic European diseases, smallpox and measles above all, found no immunities among the native people, almost eradicated the Indian population; and a depopulated Americas made it easier for conquest and colonization. Migrants to Spanish America, 90 percent Castilian, numbered about 450,000 people between 1506 and 1650.[20] By 1650, the Spanish colonies had about half a million people who could pass as Spaniards, an equal number of acknowledged mixed blood, and nearly as many Africans living with the remaining 2 million Indians. Portuguese emigration to Brazil, Africa, the Atlantic islands and Asia from 1500 to 1640 has been estimated to be about 600,000 migrants, with about 100,000 to 150,000 residents overseas in the late sixteenth century, but only a very small number, about 15,000, resident in Asia by 1600.[21] Escape from poverty, the call to command, status, or service were among the motives that led these voluntary migrants to leave their old society or to be attracted by the prospects of the new. Without question, the supply of labor was the central problem of the colonial economy, and solutions ranged from forced labor of the natives on a model inherited from the indigenous societies themselves to the importation of African slaves, a monopoly in Spanish America controlled by the Portuguese on and off from 1573 to 1676.

Finally, Christian conversion in Asia and America was directly tied to the world economy. The Jesuit mission in China and Japan, financed in the last quarter of the sixteenth century by its participation in the silk trade from China on the annual "black ships" from Goa via Macao to Japan, may be the most famous Asian example. In the Americas, although complicity in Spanish-Conquest cruelties and colonial policies of Indian forced labor or slavery may have been the majority position, the Dominicans were the first to denounce and condemn native exploitation on Hispaniola in 1511.[22] The result of disease, migration, and proselytism in the Americas was the destruction of its people and the creation of a new complex, multiracial society.

Colonial systems in theory and practice

Two models of colonial administration emerged from the late Middle Ages: a Venetian statist model with colonial settlements and local government control, and a Genoese trading-post/entrepôt model with strong military coercion through strings of forts. In practice, these simplistic models often became mixed forms, depending on time and place. In Asia, the Portuguese fortress model was implemented differently west of India and east of Malacca. Later in the Americas, the settlement model would have significant variants between Spanish and English according to their laws and customs of possession.[23] The Spanish arrived with the native population at its height, and because the Spanish saw their mission as commercial and religious, the Spanish Conquest aimed to rule the natives, control their labor, and Christianize them. The English, on the other hand, arrived over a century later in less densely populated areas, and they were interested in a territorial conquest to gain land for themselves, their commercial enterprises, and against their European rivals.

The fifteenth-century Portuguese expansion around Africa saw three permutations of the Venetian and Genoese models: in North Africa, a network of control fortresses that held trade together by military force in a constant state of war that was later applied in the western Indian Ocean; on the Atlantic islands, an agrarian territorial colonization and settlement that was later exported to the sugar, slave-plantation economy of Brazil; and in Guinea, a coastal network with a more commercial and

peaceful profile and less territorial occupation, settlement, or direct control of the means of production that was later employed east of Malacca.[24] Portuguese imperial ideology also changed over time so that the early sixteenth-century crown monopoly ("monarchic capitalism") and a messianic crusading impulse both gave way by the 1580s to the king's disengagement from commerce in favor of trading *fidalgos*, and German-Italian consortia of mercantile capitalist middlemen. Portuguese New Christians (Jews and crypto-Jews) also played significant roles in imperial trade and later in the rise of Amsterdam. By the end of the sixteenth century, the Portuguese Empire, then under Philip II (who rejected the idea of moving his capital from Castile to Lisbon), showed increased interest in creating territorial holdings in Asia.

Spanish imperial practice in the Americas followed the statist model and was grounded in territorial rule in the viceroyalty of New Spain (Mexico) and the viceroyalty of Peru with about 200 colonial municipalities exercising administrative and legal control. Direct authority over the native people was exercised through two institutions. Under the *encomienda*, a method of providing a pension/reward for royal service first developed in the Canary Islands, Indian villages were "entrusted" to Spanish settlers, who protected and oversaw the Christianization of Indians in exchange for their labor and tribute. The *repartimiento* used forced Indian labor due to the Crown in private enterprises deemed essential for the public good, and eventually, after 1609, used such Indian forced labor for the mines and public works. From the beginning, private enterprise and royal concessions controlled Spanish colonial commerce, although the king took his royal fifth off the top. Hotly contested by circles within the Spanish court, the theory of universal monarchy and legal claims to the American imperium were vexed issues that had profound implications for conquest and settlement; but, whatever the moral conclusions or victories enacted as in the 1542 New Laws providing for Indian protection and rights, practice trumped theory, as the pressure for Indian labor and American bullion only increased over time.[25]

Extra-legal trade (unregistered production or unregistered remittances of treasure) probably amounted to 10 percent above registered trade. Smuggling such as that of Potosí silver brought down from the Andes to Atlantic ports and exchanged for smuggled African slaves would not have been unusual. Privateering was a common threat to the Spanish and Portuguese monopolies. Englishmen such as Drake and Hawkins ranged from the Guinea coast to Brazil and the Caribbean, the Dutch attacked Portuguese bases in the Moluccas, Amboina, and the Banda Islands, Piet Heyn captured the Spanish silver fleet in 1628, the French temporarily established themselves in Rio de Janeiro from 1555 to 1560 and in Florida from 1562 to 1565, and in the Huguenot republic of La Rochelle also engaged in privateering. These exploits presaged the northwestern European powers' entrance into overseas empire in the Mediterranean, Asia, and the Americas.

Dutch maritime superiority rested on their newly developed all-purpose cargo ship, the flute, a fully-rigged carrack without cannon, a much faster, more maneuverable, smaller-crewed ship built for trade, while the English entered international competition with joint stock trading companies, which pioneered a new kind of colonialism that accumulated vast capital resources and operated on strict commercial rationality. English new draperies – cheap, coarse, light semi-worsted fabrics – conquered textile markets in Spain, Italy, and the Levant, which paved the way for English take-over of the Mediterranean carrying trade. English success in the Mediterranean spurred interest in founding the English East India Company (1600) to break into the spice trade, while the Dutch, who had been disrupting the Portuguese Asia monopoly since 1595, unified a number of different Dutch companies in their own East India Company (VOC) in 1602. The Dutch set up a trading base in Java in 1619, gained exclusive trading rights in Japan, occupied Formosa, captured the Ceylon coast, took Malacca in 1641, and with the English replaced the Portuguese in Asia (except in Goa and Macao).

In the Americas, the Dutch and French established trading stations, while the English followed the colonial settlement model. The French founded forts in Nova Scotia and finally at Quebec in 1608, a small foothold for trade in furs. The Dutch set up trading posts at Albany in 1624 and New Amsterdam the following year, but the small trading colony was taken over by the English in 1664 and renamed New York. By the mid-seventeenth century, the French settlements had about 300 inhabitants; to the south in the Hudson valley, the Dutch numbered about 4,000. In Brazil, the Dutch could not hold their captured Portuguese territory in the northeastern sugar-producing areas (1624–54), but they took and held Elmina in 1637 for a slaving base on the Guinea coast. From 1623, the Dutch along with the French and English were able to seize islands in the West Indies to compete with the Portuguese in the triangular trade of European goods for African slaves for sugar back to Europe. The English settlements were established by chartered commercial companies on three models: the first permanent settlement in Virginia in 1607 by a joint stock company financed by merchants for exportation of New World products; proprietary colonies such as Maryland (1633) and the West Indies (1630s) by court favorites who made grants of land in exchange for cash or rent from settlers who came to farm their own land; and the Massachusetts Bay Company by religious foundations such as the Plymouth colony of radical Protestants (1620), who likewise came to settle and farm their own land. By 1650 the English colonies were a small foothold of 42,000 whites and 1,100 blacks in comparison to the vast empire of Spanish America, but they were poised to take off in the second phase of the world economy, from the 1660s, with Caribbean sugar, Virginia tobacco, spices from India, and intra-Asian commerce leading the way.

Renaissance colonial practice and its rationalizing ideology should not pass without comment. An ethnocentric comparative ethnology denigrated new peoples and cultures as inferior,[26] and such European preconceptions and prejudices determined policies imposed through force and fear. (Sée the essays of Matthew Restall and Linda Darling above.) Yet misunderstanding cannot excuse the militant regimes that were enforced.

Nor can the end results of the first stages of the world economy justify the means of their establishment. While Adam Smith may have been correct in his 1776 judgment that, "the discovery of America, and that of a passage to the East Indies by the Cape of Good Hope, are the two greatest and most important events recorded in the history of mankind,"[27] the still contested inequalities between the First and Third Worlds leave the pursuit of justice and the problem of an uncertain impact open-ended. In economic terms, the value of growth and complexity (is bigger better; and what are its limits?), the meaning of affluence (is there an equilibrium between needs and wants?), and the importance of incentives, competition, and taste (how do we

understand production, distribution, and consumption?) must all be re-examined. In socio-political terms, the problem of inequality highlights the tension between individuals and the community, vying castes or classes, and the monarchy and society. In religious terms, the embarrassment of riches may have been the Dutch Protestant motive; but much earlier, in the medieval economic expansion, Franciscan poverty and the indictment of riches created equally ambivalent mentalities. Wealth derived from trade, religious scruples over usury or the "just price," the scapegoating of Jews, and the contradiction of forced conversions or forced labor had to be debated and rationalized. And philosophy was closely tied to religion, so that as old cosmographic certainties were disproved and the diffusionism of biblical stories such as the expulsion from the Garden of Eden or Noah's universal flood were questioned, the nature of the American Indians, the degeneration or progress of civilization, the existence of a universal natural law or only relativist principles had to be addressed. Utopian dreams of the Terrestrial Paradise and of a new Arcadia had to give way to the bitter realities of New World peoples and colonial exploitation. The ambiguities and responsibilities of imperium are a Renaissance legacy.

Most descriptions of the origins of the modern world economy carry with them an ideological commitment or policy implications, for the problems of our time are never far from view. Steve Stern's quincentenary essay "Paradigms of Conquest," welcomes such ethical engagement, because this "darker side of the Renaissance" – slavery, colonization, and world hegemony – was forged, as much as Machiavelli's politics, in the crucible of power and struggle.[28] European dominance in the first stages of the world economy during the economic cycle of 1450–1650 grew out of the late medieval crisis of agricultural productivity, urban demography, the division of labor, the rise of the centralized state, commercial and financial capitalism, and resulted in the seventeenth-century divergence between northern and southern Europe. Competition for the control of land, labor, and capital drove the Renaissance European states to contact and conquests in Africa, America, and Asia, with the janus-face of empire: "expansion abroad, security of property at home; plunderers, slavers and extortioners abroad, law-abiding businessmen at home."[29] The imposition of European market mechanisms and mentalities on subject peoples was much more than the comparative advantage of transaction costs, market-driven growth, ecological constraints, or colonial extraction. The first stages of a world economy also embodied the range of Renaissance dilemmas and divisions; it was as much a result of fortune as force, as much about the past as the future, and reveals as much about ourselves as about others.

NOTES

1 Epstein, *Genoa*, pp. 181–2.
2 Fernández-Armesto, *Before Columbus*, pp. 127–8.
3 Larner, *Marco Polo*, pp. 31–43.
4 Jan de Vries, "Population," in Brady et al., *Handbook* I, pp. 13–15.
5 John H. Munro, "Patterns of Trade, Money, and Credit," in Brady et al., *Handbook* I, pp. 147–95.

6 Wallerstein, *The Modern World-System*, I, pp. 16–17.
7 Abu-Lughod, *Before European Hegemony*, pp. 32–8.
8 Kedar, *Merchants in Crisis*, p. 76.
9 Epstein, *Genoa*, pp. 101–2, 267–70, 281–3.
10 Munro, "Patterns of Trade, Money, and Credit," in Brady et al., *Handbook* I, pp. 172–5.
11 Rudolf Hirsch, "Printed Reports on the Early Discoveries and Their Reception," in Chiappelli, *First Images*, II, pp. 537–58.
12 Lach, *Asia*.
13 Duplessis, *Transitions*, pp. 3–13.
14 Pomeranz, *The Great Divergence*, pp. 3–27. See Jones, *European Miracle* and Wallerstein, *Modern World-System*.
15 Jane, *Selected Documents*, no. 65, pp. 2–19.
16 Sanjay Subrahmanyam and Luís Filipe F. R. Thomaz, "Evolution of Empire: The Portuguese in the Indian Ocean during the Sixteenth Century," in Tracy, *Political Economy*, p. 309.
17 Mintz, *Sweetness and Power*, pp. 57–73, 197.
18 Earl J. Hamilton, "What the New World Gave the Economy of the Old," in Chiappelli, *First Images*, II, p. 862.
19 Ward Barrett, "World Bullion Flows, 1450–1800," in Tracy, *Rise of Merchant Empires*, pp. 224–54.
20 Magnus Mörner, "Spanish Migration to the New World prior to 1810: A Report on the State of Research," in Chiappelli, *First Images*, II, pp. 737–82.
21 Sanjay Subrahmanyam and Luís Filipe F. R. Thomaz, "Evolution of Empire," in Tracy, *Political Economy*, p. 318.
22 Hanke, *Spanish Struggle* and Pagden, *Fall of Natural Man*.
23 Seed, *Ceremonies of Possession*.
24 Sanjay Subrahmanyam and Luís Filipe F. R. Thomaz, "Evolution of Empire," in Tracy, *Political Economy*, pp. 298–305 and José Jobson de Andrade Arruda, "Colonies as Mercantile Investments: The Luso-Brazilian Empire, 1500–1808," in ibid., pp. 360–73.
25 Pagden, *Lords of All the World*, pp. 47–73.
26 Pagden, *Fall of Natural Man*.
27 Elliott, *Old World*, p. 1, quotes Adam Smith, *Wealth of Nations*, ii, p. 141.
28 Stern, "Paradigms of Conquest" and Mignolo, *Darker Side*.
29 Thomas A. Brady Jr., "The Rise of Merchant Empires, 1400–1700: A European Counterpoint," in Tracy, *Political Economy*, p. 160.

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