# Spanish Colonial Economies: An Overview of the Economy of the Viceroyalty of Peru, 1542-1600 

Denis Hurley

The consolidation of Spanish geopolitical and military preeminence in Central and South America (despite Portuguese pretensions in Brazil) during the $16^{\text {th }}$ century coincided with a period of rapid economic growth in Spain's colonies. The Viceroyalty of Peru, ${ }^{1}$ established in 1542, was an exceptional example of Spanish colonial economic dynamism. From the region's initial settlement, the mining of precious metals, the encomienda system, and the enslavement and exploitation of Native peoples, provided a solid, if somewhat undiversified, foundation for the young Peruvian economy. The Spanish crown's jealous possession of the mineral wealth in the New World colonies engendered a singularly invasive and mercantilist colonial economic policy. As a result, Spanish policy profoundly influenced the development of the Peruvian economy, molding its construction to maximize the colony's utility to the mother country. Spanish policy rarely exerted the full and intended impact envisaged by Spanish administrators, but the effects were sufficient to leave a debilitating legacy of dependence on primary product export, vastly unequal land distribution, and significant socio-economic stratification, often along racial lines.

Eventually, the inflexibility of the Peruvian economy, finite amounts of precious metals, and stifling Spanish policy brought economic stagnation and discontent to the colony while bullion imports

[^0]caused a ruinous period of inflation in Spain. However, during the 16 ${ }^{\text {th }}$ century, Peru's wealth and economic dynamism made the region the most valuable overseas Spanish territory and the foundation of Spain's commercial empire in the Americas.

## The Establishment of the Viceroyalty of Peru

The Spanish crown formally established the Viceroyalty of Peru in 1542 in the midst of significant internal conflict and violence in the colony. ${ }^{2}$ Pizarro's initial conquest of the territory in the early 1530s was incomplete and Spanish pacification of the rebellious Native peoples, especially the Inca, was not effectively completed until the execution of the final Inca emperor in $1572 .{ }^{3}$ Despite the enduring chaos and conflict initiated by the clash of civilizations, the Viceroyalty of Peru's first five decades witnessed a burgeoning colonial population (native populations continued to fall, principally due to disease) and a booming economy. As a result of Spanish mercantilist economic policy and Peru's vast mineral wealth, the viceroyalty developed an economic dependence on primary commodity export to the Old World. Spanish mercantilism, which, in theory, was the most oppressive of the European empires in the $16^{\text {th }}$ and $17^{\text {th }}$ centuries, involved the effective restriction of colonial trade to within Spanish territory. But smuggling was rampant, and for many decades, these restrictions did not apply to direct trade with Asia (this is due to both lapses in policy making and failure of implementation). Only the failure of Spanish policy, combined with the unintended effect of protectionism, permitted diversification into basic manufactured goods, shipping, and commerce. The overwhelmingly dominant economic sectors were mining (especially precious metals) and agriculture - both indirectly state-supported and solidly export-oriented.

[^1]
## Mining

At the conclusion of the $15^{\text {th }}$ century, an increasingly robust and integrated European economy was emerging from the prolonged commercial malaise of the Middle Ages. The expanding economic activity that accompanied the general revival of trade and commerce produced an acute dearth of hard currency in Europe. ${ }^{4}$ Thus, the search for new sources of bullion beyond the increasingly exhausted mines of Europe was a principal motivator of European overseas expansion during the $16^{\text {th }}$ century. The size of colonial Peru's population and the dynamism of its economy were direct consequences of the region's vast mineral wealth. Mining provided the foundation of the Peruvian economy.

Many scholars recognize three distinct stages of colonial silver mining: "accumulation" - commandeering the metal from the Native Americans; "panning" - sifting through the soil for bits of silver; and "vein mining" - which involves digging shafts or adits (horizontal access tunnels, in contrast to vertical shafts) to a given intersection point with the target lode. ${ }^{5}$ In Peru, the conical form of target mountains allowed miners to accomplish extraction through adits, some only a few yards long while others stretched hundreds of yards and branched off in complex tunnel networks. ${ }^{6}$ Because of their horizontal structure, adits were safer and more reliable than vertical shafts, and reduced the human and capital demands of extraction.

Initial precious metal exports from both Peru and New Spain (contemporary Mexico and the southwest United States) were supplied through Spanish expropriation of Native American mineral wealth. Between the start of Pizarro's military expedition in 1531 and 1536, the original conquistadors sent enormous quantities of gold and silver to Europe, and became "the equivalent of [contemporary] multimillionaires." Those who chose to remain in Peru "had already retired to
${ }^{4}$ Clarence Haring. "American Gold and Silver Production in the First Half of the Sixteenth Century." The Quarterly Journal of Economics 29, no. 3 (1915): 433479. http://www.jstor.org/stable/1885462 (accessed November 25, 2010). ${ }^{5}$ Donald J. Mabry. Colonial Latin America. (Coral Springs, FL: Llumina Press, 2002), 25.
${ }^{6}$ D.A. Brading and Harry E. Cross. "Colonial Silver Mining: Mexico and Peru." The Hispanic American Historical Review 52, no. 4 (1972): 551. - This is based on information for the Potosí mines. Primary information regarding mining in other Peruvian centers during the $16^{\text {th }}$ century is scarce. However, one can safely extrapolate that Potosí and other Peruvian mines shared many characteristics based on uniform smelting techniques, similarities cited in works on later centuries, and the relatively uniform geographical and societal composition of the Viceroyalty of Peru
fabulously large estates. ${ }^{7}$ The first Spaniards in Peru sought to attain and preserve a parasitic relationship with Incan society. Pizarro strove to control of the Incan elite through whom he sought to "control everything...- land, labor, gold, silver, women - everything that this obviously rich empire had to offer." 8 At one point, even the Incan Emperor (The Inca), Atahualpa, bargained with Pizarro for his life (and hence de facto political control of the remnants of Incan Empire) with his silver and gold possessions. ${ }^{9}$ However, the combined trends of declining native Peruvian population, falling native production of precious metals, increasing emigration from Spain, and Spanish seizure of all accessible precious metal reserves, eventually terminated Spanish freeloading as a viable sole means of attaining personal wealth. From approximately 1540 onward, the Spanish colonists gradually abandoned sponging and assumed an increasing share of the burden of organically developing and directing commercial enterprises. Nevertheless, the Natives continued to supply cheap labor in Spanish mines and smelting works.

The transition to Spanish leadership of mining operations was sporadic and incomplete during the $16^{\text {th }}$ century. Spanish immigrants were relatively ignorant of mining and metallurgy and "drew on native mining and refining techniques." ${ }^{10}$ This was especially true in Peru where the native Andeans were skilled in underground mining, smelting, and refining and "were familiar with gold, silver, copper, and tin." ${ }^{11}$ The native populations proved so adept at producing silver that until " 1570 , Spanish mine owners effectively rented their mines to Indian managers." ${ }^{12}$ Spanish political control afforded Spaniards a nominal role in developing mines, and allowed powerful colonists to claim a share of metal output. However, Indians retained the knowledge and skills necessary to operate the mines and refineries, and, consequently, effective control over Peruvian mineral deposits. The Spanish contributed metal tools to the production process, but otherwise occupied an unproductive, rent-seeking position (slightly modified from its original blatant parasitism) in the mining sector of the economy.

Nevertheless, Spanish colonists hungrily sought out and systematically exploited the mineral wealth of Peru. The initial discoveries of precious metals in Peru brought a wave of speculative investment to the colony, primarily undertaken by members of the upper class seeking quick profits from colonial ventures. Joint stock companies, limited

[^2]liability, and the like, were unheard of. State subsidies through land grants, coerced labor, and the exemption of low-grade silver from taxation further stimulated capital accumulation and investment. Peruvian mineral wealth proved even vaster than that of the Viceroyalty of New Spain. Principal mining hubs developed at Carabaya (1542) and Chachapoyas (c.1550) modern-day Peru; Popayán and Antioquia (1540s) in what is now Columbia; and the iconic center of Potosí (discovered 1545; on-line in the late 1540s) in present day Bolivía. ${ }^{13}$ Estimates of Peruvian silver and gold production through about 1570 diverge wildly among scholars, mainly as a result of the scarce, often inaccurate, and sometimes conflicting accounts kept by Spanish officials, travelers, and historians. ${ }^{14}$ It is likely that the value of total precious metal exports was tremendous relative to the value of the total supply of bullion in Europe, evidenced by rapid, imported-bullion-fueled inflation in the 17th and century.

The 1560s brought profound change to the mining and metallurgy sector of the Peruvian economy. Data for the Potosí mine (a fairly accurate proxy for the overall productivity of Spanish mining operations throughout the Viceroyalty of Peru) ${ }^{15}$ indicate declining ore yields and rising production costs. ${ }^{16}$ Fortunately for the colony's established interests, a new refining process called "the patio process" or "amalgamation", which uses mercury to bind with certain metals (i.e. silver and gold), was imported from Germany and adapted for use on an industrial scale. ${ }^{17}$ The new process was rapidly implemented with support from the colonial government to catalyze a revival of the mining sector in Peru. A state-owned monopoly controlled the mercury supply, which was produced domestically in Peru, but had to be imported by other Spanish colonies. ${ }^{18}$ In this manner, the Spanish Crown exercised indirect control over silver production in the realm. ${ }^{19}$ Combined with additional economic reforms (including the introduction of the mita draft labor system to mines and simplification of the tax regime) implemented during the 1570s by the Viceroy Francisco de Toledo, colonial silver mining experienced a prolonged boom. After a gradual decline from peak
${ }^{13}$ Ibid., 176.
${ }^{14}$ Clarence Haring. "American Gold and Silver Production in the First Half of the Sixteenth Century." The Quarterly Journal of Economics 29, no. 3 (1915) p449450.
${ }^{15}$ Engel Sluiter. The Gold and Silver of Spanish America: c. 1572-1648. (Berkeley, Calif.: Bancroft Library, Univ. of California, 1998), 61.
${ }^{16}$ Bakewell, History of Latin America, 179 - The Potosí mine held the title of the world's largest silver producer for nearly two centuries.
${ }^{17}$ Bakewell, History of Latin America, 178
${ }^{18}$ Mabry, Colonial Latin America, 125.
${ }^{19}$ Ibid., 125.
production achieved in 1565, total amount of silver produced and declared for taxation in 1580 in the Potosí Treasury were triple the 1570 amount. ${ }^{20}$

One of the many significant effects of the adoption of amalgamation refining was the consequent reduction of Spanish reliance on Native American knowledge and skilled laborers. The greater efficiency of the patio process rendered native techniques obsolete. ${ }^{21}$ Moreover, the heavily capital-intensive process afforded the politically dominant and comparatively wealthy Europeans greater de facto control over mining operations. Many of the skilled natives who earned a decent wage working in the mines or smelting works were robbed of their sources of livelihood. Silver output in Potosí continued to grow steadily until leveling off in the 1590s with increasing extraction costs and declining ore quality. ${ }^{22}$ Nevertheless, by the final decade of the $16^{\text {th }}$ century, mining was indisputably the dominant industry in Peru. ${ }^{23}$

The vast mineral wealth in the Viceroyalty of Peru induced invasive and exploitative colonial economic policy from the Spanish government. The Spanish Crown believed precious metal imports from the American colonies would provide an abundant source of tax revenue needed to finance yawning fiscal deficits produced by Spanish military adventurism in Europe. ${ }^{24}$ Early conquistadors and royal officials established auxiliary treasury branches near significant mining operations where total silver output could be immediately declared for taxation. Royal mints soon followed in Lima and Potosí. Throughout the $16^{\text {th }}$ century, the total tax rate on newly mined silver remained a flat $21 \%$. This produced fairly consistent revenue streams from the Potosí treasury alone of approximately 200,000 to 300,000 pesos $^{25}$ annually from 1556 to 1575 ,

[^3]and approximately 700,000 to $1,000,000$ pesos from 1576 to $1600 .{ }^{26}$ The crown jealously sought to protect this handsome revenue stream and soon developed a heavy reliance upon the American mines to finance government spending. Silver bullion that was not earmarked for export was either fashioned into various consumer goods or minted into coins. The Spanish government established an effective monopoly on silver imports to the home country by licensing a single merchant company, the Casa de Contratacion, to receive all imports from, and dispatch exports to, the American colonies in 1503. The crown implemented a similar monopolistic arrangement in a single port city of each Viceroyalty. (In Peru this was the El Callao port in Lima). This method of organization, (together with the regularized oceanic colonial trade schedules impressed by the compulsory convoy system) allowed the Spanish government to profit from the consequent trade bottleneck and (theoretically) ensure payment of the "royal fifth" on all silver. ${ }^{27}$ The state's monopoly on mercury also allowed the Crown to indirectly control the supply, and thus the price, of silver. However, the government often required immediate revenue from mined silver, and these short-run fiscal necessities always trumped long run economic interests. Finally, government policy provided massive incentives for smuggling and corruption, which were rampant within the private sector and civil service. Illicit trade with foreign colonists and profiteering public office holders were accepted aspects of Peruvian commerce and administration. The Crown's attempts at total control over colonial precious metals could be accurately construed as futile.

Peru's vibrant mining sector provided a solid foundation for the colonial economy as a whole. Large industrial boom-towns sprang to life near precious metal mines. ${ }^{28}$ Mining provided an outlet for savings by affording the wealthy opportunities for profitable capital investment. Investment by the middle and lower classes was all but unheard of. The labor-intensive extraction and refining process absorbed politicallytroublesome native laborers, some as virtual wage slaves, some (especially those with relevant skill sets) for competitive pay. The mines and their employees stimulated demand for agriculture, metal and leather goods, and housing, among goods and services. ${ }^{29}$ Prosperous commercial hubs developed to serve the materials industry. As the sole port legally involved in transatlantic trade, Lima expanded particularly rapidly. The military presence of the Spanish in Lima also stimulated demand for colonial goods. In addition, the mining sector provided a large market for

[^4]contemporary industrial technology and capital goods. The industry exhibited advanced specialization of labor and significant utilization of technology by contemporary standards. ${ }^{30}$

The long-term effects of massive bullion imports and reckless fiscal expenditure by the Spanish government were the combined debacles of ruinous hyperinflation and fiscal ruin. However, these adverse consequences of bullion imports only materialized after the $16^{\text {th }}$ century, and contemporary economic theory was insufficient to allow foresight of the eventual inflation, or to establish a causal relationship when the price increases occurred. The fiscal calamity was largely a result of the Spanish Crown's addiction to silver revenues and fondness for military expeditions and expenditure. The silver bullion fueled the Spanish economy's shift to unproductive military output. Moreover, defense of the mines and treasure fleets from pirates and privateers placed a considerable burden on the government, and depressed shipping overall. Although they were the backbone of Peru's economy in the $16^{\text {th }}$ century, Spanish mining enterprises were far from economically efficient. They were often poorly managed, stifled by regulation, and became longterm liabilities.

## Agriculture

When Francisco Pizarro, gained a sufficient degree of effective control over what would, in the 1530 s, become the Viceroyalty of Peru he immediately began exercising unofficially assumed dictatorial powers over the territory to grant tracts of land (mercedes) to other conquistadors and settlers. ${ }^{31}$ He also began assigning encomiendas, often arbitrarily or based on his opinion of the receiver. ${ }^{32}$ Although this seems to be a blatantly illegal, even treasonous, assumption of royal power by Pizarro, the employment of de facto political power by a conquistador under such circumstances was fairly common. Generally, such grants by royal agents were subsequently endorsed by the crown, or an appropriately vested representative of the Spanish government, and only then made permanent. ${ }^{33}$ The grants were rarely invalidated. Encomenderos were the first to apply for royal mercedes because their grants of native laborers did not include an estate. ${ }^{34}$ The encomenderos were given quasi-feudal powers over their respective populations of Native Americans, including the

[^5]ability to exact tribute in goods or labor. Many encomenderos chose to employ their coerced labor forces in mining, prospecting, building urban structures in colonial cities, or in other enterprises, but a large fraction chose agriculture. ${ }^{35}$ The resulting combination of encomienda and mercedes was the concentration of landholding in massive estates called baciendas or estancias (both terms are descended from the Roman term and policy of latifundia). ${ }^{36}$ Strangely, both the merced and encomienda systems were discontinued and in some cases forcibly abolished by the Spanish Crown in the 1560 s and 1570 s. ${ }^{37}$ Nevertheless, many huge estates owned by Spanish proprietors and fueled by coerced native or slave labor endured and prospered. Thus, from the initial settlement of Peru, an oligarchic distribution of arable land was institutionalized in colonial society.

From the outset, the colonists stubbornly attempted to preserve the traditional Spanish diet in their new, alien surroundings. The astronomical cost of importing European products impeded the rate of the transition, but the long-term trend of transplantation persisted. ${ }^{38}$ Nevertheless, the initially abundant varieties of local food led to a partial adoption of native foods; a Spanish-American fusion diet developed. European and native livestock mingled in fields. The transplantation of grapes to the Pacific coastal plain enabled a large domestic wine market to develop. Maize and potatoes were staples of the colonial diet. Maize and wheat became the Spanish colonial equivalent of "agro industries" due to their universality and oligarchic industry structure (increasing returns to scale allowed baciendas to dominate markets). ${ }^{39}$ Other foods such as chocolate, avocados, tomatoes, and chilis were unevenly adopted by the Spanish. ${ }^{40}$ Despite tacit adoption of native crops, the Spanish newcomers almost uniformly spurned high crop concentration and human labor-intensive native farming techniques, preferring European methods based on decentralized large-scale cultivation, and reliance on plough and draught animals. ${ }^{41}$

The internal turmoil of the 1540s civil war significantly impeded Spanish efforts to construct a sustainable domestic food supply. The Native American agricultural system was irreparably damaged by the Spanish conquest, the subsequent civil war, and the societal upheaval caused by the growing toll of European diseases on the native populations. Prices of wheat and maize quadrupled between 1544 and

[^6]1547.42 The end of civil war in 1548 brought relative peace (sporadic conflicts with the native populations continued until 1572) and economic and immigration booms, which further stimulated demand for foodstuffs. ${ }^{43}$

By the 1560 s, the original agricultural economienda model was fast losing economic viability. ${ }^{44}$ The Native American depopulation (mainly the result of European diseases) steadily increased the per capita tribute burden on natives living under encomienda. Evidence suggests that the more onerous tribute burdens caused a wave of migration from the Peruvian coastal plain, exacerbating the demographic issue. ${ }^{45}$ Falling productivity on tribute dependent baciendas, combined with increased food demand as a result of the mining boom, caused a shift away from encomenderos' feudal exaction of rents and toward profitable sales of agricultural products. ${ }^{46}$

The population loss also contributed to land redistribution as many colonists simply occupied abandoned land. ${ }^{47}$ This allowed small, rural landholders to stake claims and establish livelihoods in agriculture. There is some inconsistency among scholars regarding the prevalence of small landholdings in colonial Peru. Bakewell claims that "the [16th] century saw the bases of the rural hacienda laid down in smallholdings." ${ }^{48}$ Davies declares that in the 1540s and early 1550s, land distribution was relatively equitable but scarcity of arable land, increasing real estate prices, increasing returns to scale, and greater capital costs for farms squeezed small holders so that by "the mid 1550s, arable tracts increasingly came under the control of the wealthier, the better connected, and the more enterprising colonists." ${ }^{49}$ Yet, Rex Hudson asserts that two landholding sectors existed: one consisted of large, Spanish-owned baciendas worked by mainly native wage slaves while the other was made up small farms, which became increasingly uncompetitive, operated by indigenous peoples. He continues: "This left Peru with a legacy of one of the most unequal landholding arrangements in all of Latin America." ${ }^{50}$ Assadourian seems to agree with Davies that early decentralization gave
${ }^{42}$ Davies, Landowners in Colonial Peru, 21.
${ }^{43}$ Ibid., 22.
${ }^{44}$ Ibid., 23-24.
${ }^{45}$ Ibid., 24. Depopulation estimates vary widely. Figures for the Peruvian coastal plain for 1540 to 1570 range from around $30 \%$ to almost $90 \%$.
${ }^{46}$ Bakewell, History of Latin America, 191.
${ }^{47}$ Ibid., , 191.
${ }^{48}$ Ibid., 192.
${ }^{49}$ Davies, Landowners in Colonial Peru, 44-46.
${ }^{50}$ Hudson, Rex A. Peru: A Country Study. 4th ed. (Washington, D.C.: Claitor's Law Books and Publishing Division): 1993. Accessed online at
http://countrystudies.us/peru/7.htm (Dec. 5, 2010)
way to consolidation. ${ }^{51}$ Most historians agree that by the mid- $17^{\text {th }}$ century, centralized landholding was the norm.

The structures of agricultural production and markets were no more fluid or efficient than those of precious metal production. Although land consolidation and coerced labor forces aided farm output, Spanish insistence on European methods, inefficient land use, a shortage of arable land, and internal political conflict all hampered the productivity of the agricultural sector. Trade restrictions caused wide domestic price differentials among geographic areas and even greater discrepancies between Peru and other countries, not to mention Spain itself. Poor transportation and the vastness of Spanish holdings also contributed to the incomplete formation of markets. These factors caused most agricultural products to be consumed in the Viceroyalty itself, in Mexico, or in foreign American colonies such as Brazil and non-Spanish Caribbean Islands (the final grouping would not become a significant market until well into the $17^{\text {th }}$ century).

## Shipping, Trade, and Transportation

The expanding mining sector of the Peruvian economy demanded new trade links and transportation routes for efficient movement of goods and people across the vast distances of the Viceroyalty. Like agriculture, shipping and transport were mining dependencies, and like agriculture and mining, shipping felt the invasive and heavy hand of government control and regulation in everyday operations.

Government policy granted the Casa de Contratacion complete control over legal shipping to and from Spain's American colonies in $1503 .{ }^{52}$ The Casa created the consulado (merchants' guild) which attained rights to the American colonial trade in Seville. A similar arrangement existed in Lima. ${ }^{53}$ The flow of trade through Lima (port of El Callao) and Seville concentrated commerce, wealth, administration, and influence in the two metropolises. Merchants headquartered in Lima. Encomenderos and other members of Peru's upper class purchased urban homes in Lima. Individuals in the service industry (lawyers, artisans, teachers, merchants, estate managers, etc.) set up shop in there. ${ }^{54}$ The Church, colonial administrators, and eventually cultural institutions such as a printing press, a university, and a theater followed suit as the colony expanded.

[^7]Long distance trade primarily occurred through oceanic shipping. Slower, more expensive, and more onerous overland transport by carts, oxen, horses, and mules, occurred only when absolutely necessary. ${ }^{55}$ Additionally, roads were in chronically poor condition. Although apparently difficult because of sheer distance traversed, trade among the various far-flung realms of the Spanish empire encouraged enterprising Spaniards to capitalize on geographic comparative advantages. According to Bakewell, "large and specialized zones of production [existed] across the empire before 1600." ${ }^{56}$ Peruvian wine was often shipped to other Spanish colonies, as was surplus grain on a less regular basis. Evidence suggests that a significant amount of the bullion produced in the colonies was used to purchase colonial goods, including basic manufactures and agricultural goods, further energizing New World trade. ${ }^{57}$ Despite many official, nationalistic trade restrictions, smuggling was rare during the mid-16 ${ }^{\text {th }}$ century simply because no other European nations established significant colonies prior to the 1600s (with the exception of Portugal in Brazil). As more European countries established New World colonies, smuggling increased astronomically.

In the 1570 s, adventurous merchants started a small but growing commercial network linking the Spanish American colonies with Manila and East Asia. American silver was exchanged for ivory, porcelain, perfumes, gems, and spices. Throughout most of the $16^{\text {th }}$ century, American-Asian commerce lay outside the effective jurisdiction of the alarmed monopolists in Seville, allowing market forces to equate supply and demand and create much larger mutual gains. ${ }^{58}$ In addition, foreign merchants were allowed to partake in the trade, which drove shipping prices down and further increased absolute trade volume.

Trade between Peru and Europe was significantly more complicated, dangerous, and restricted than colonial trade or AmericanAsian trade. Nevertheless, exchange between Spain and the American colonies increased every year from 1505 to 1610 due to rising colonial populations, rising bullion production, and economic expansion. ${ }^{59}$ Starting in 1526, individual ships were prohibited from traveling between Spain and the colonies; the convoy system was officially mandated to protect cargoes from pirates and privateers. The convoy system imposed numerous costs on the shipping industry, which, together with the Casa's effective monopoly, distorted transoceanic trade markets. Because regular fleets departed each port only twice annually, ships would often moor at

[^8]their destination port for months at a time, causing capital depreciation and imposing opportunity costs related to idling the ships, despite market demand. The merchant monopoly allowed members of the consulado to simply raise prices in response to increased costs, but this had the effect of reducing the overall volume of trade to the detriment of all involved except the monopolists. The colonists gleaned a certain advantage from the chronic and officially endorsed dysfunction of Spanish shipping effective protection from imports that stimulated local industry. ${ }^{60}$ High shipping costs caused Spanish merchants to focus on manufactured goods with a high value relative to bulk; this opened a significant portion of the lower value-added manufacturing sub-sector to colonial producers.

## Manufacturing

As a proportion of total output, manufacturing composed a miniscule fraction of Peru's colonial economy in the $16^{\text {th }}$ century, yet several important craft and artisan sectors developed healthy markets during that period. The most substantial manufacturing sub-sector in the Viceroyalty was cloth-making. For centuries, Native Americans in Peru spun and wove llama, alpaca, and vicuña cloth using hand-held spindles and backstrap looms. ${ }^{61}$ Initially, the Spanish drew on these native legacies, but enterprising colonists, seeking greater profitability, eventually imported novel European technological innovations, notably spinning wheels and treadle looms, to increase production. ${ }^{62}$ The new machines allowed production of cloth (carding, spinning, and weaving) within a single location, workshops referred to as obrajes (modern Andean Spanish translation literally "a textile plant"). ${ }^{63}$ Obrajes appeared in Peru around 1560, with many established in native villages by encomenderos. ${ }^{64}$
Subsequent shops clustered around colonial cities and towns for access to large labor forces, domestic markets, and export firms. Most remained dependent on native labor and many were ingrained in the encomienda system. At the conclusion of the $17^{\text {th }}$ century, the largest obrajes boasted over 200 workers. ${ }^{65}$

The efficiency and differentiated products of the Peruvian cloth industry permitted limited exports to neighboring colonies, despite

[^9]European competition. ${ }^{66}$ However, the industry primarily provided goods for Peruvian colonists at lower prices than comparable imports. ${ }^{67}$ The cloth industry grew to become more or less counter-cyclical relative to mining; a bulwark for the colonial economy when mining output fell. Cloth production was the only "true" non-mining-related industry in the Viceroyalty of Peru in the 1500s.

Other industries with much less economic clout existed in $16^{\text {th }}$ century Peru, as well. Bakewell suggests that up to 1560 , "probably a tenth of [Spanish settlers] were craftsmen, eight hundred or more.""68 Before the turn of the $17^{\text {th }}$ century, immigrants included types of skilled workers immigrated to Peru: tailors, shoemakers, ironsmiths, builders, silversmiths, goldsmiths, arms-makers, pharmacists, musicians, and candle makers. ${ }^{69}$ The overwhelming majority of these skilled individuals lived and worked in cities, especially the metropolises of Lima and Potosí.

## The Labor Force

In the initial decades of Spanish settlement in Peru, conquistadors and colonists coerced the relatively large native populations into supplying much-needed labor for Spanish enterprises. The Spanish utilized a variety of arrangements in order to geographically concentrate and most efficiently exploit the indigenous labor force. The most notable configuration of Spanish design was the encomienda system, under which the Spanish encomendero assumed theoretical responsibility for the material and spiritual welfare of an assigned grouping of natives in return for the right to exact tribute from his "subjects" in the form of goods or labor. ${ }^{70}$ The Spanish also adapted the Incan mita public labor system (originally intended for obligatory military service and public works) to serve the colonial administration as well as some private enterprises. ${ }^{71}$ The first large-scale Spanish mita scheme was established in 1572 and refined several times throughout Spanish colonial rule. ${ }^{72}$ The mita system was utilized in agriculture and public works, but following Viceroy de Toledo's reforms in the 1570s, most indigenous victims of this draftlabor system worked in Peru's mines. Mine proprietors preferred mita workers to voluntary laborers because the former were paid a
${ }^{66}$ Ibid., 183.
${ }^{67}$ Assadourian, "Transfer of the European System of Production," 65.
${ }^{68}$ Bakewell, History of Latin America, 186.
${ }^{69}$ Ibid., 187.
${ }^{70}$ Ibid., 193.
${ }^{71}$ Hudson, Peru.
${ }^{72}$ Brading and Cross, "Colonial Silver Mining," 558.
significantly lower wage. ${ }^{73}$ Skilled laborers were paid more for their services and often applied for positions voluntarily. (As technological innovation displaced skilled laborers, this trend fell steeply).

In its first year, the Potosí mita drafted about one seventh of the indigenous population (approximately 13,500 individuals) in the region roughly bounded by Potosí and Cuzco for work in the mines. ${ }^{74}$ Individual workers were divided into three groups with each group working only one week of every three. However, nearly all hired themselves out as "free workers" during the other two weeks of the cycle, receiving higher wages and a small share of their output contribution. ${ }^{75}$ Conflicting evidence and opinions exist regarding the degree of oppression and brutality experienced by indigenous workers under the mita system and as free laborers. Scholars disagree on the point, and the moral question is beyond the scope of this examination. From a purely economic perspective the mita system was not essential to the operation of the mines; it merely supplied abundant labor at cheaper rates than would have prevailed in free labor markets. Additionally, the labor system was inefficient, achieved low levels of productivity, and consisted mostly of unskilled workers. ${ }^{76}$

The integration of Native Americans into the colonial labor force, whether by desire or coercion, profoundly influenced the Peruvian economy. The massive labor supply allowed for increased output while the greater number of consumers stimulated demand for consumer goods - most domestic or colonial production due to the prohibitively high prices of European imports. However, the major depopulation of Native Americans as a result of European diseases drastically reduced the labor supply and the mass-market consumer base. The effects of the population decline on economic expansion were relieved largely by importation of African slaves toward the conclusion of the $16^{\text {th }}$ century and the substantial increase in silver output as a result of the adoption of amalgamation in the 1570s through the 1590s. Amalgamation also reduced the necessary number of labor hours per unit of output. The drop in the labor supply had the morbidly beneficial effect of increasing the real wage for indigenous and Spanish workers alike. ${ }^{77}$ Skilled Spanish

[^10]workers generally practiced their various trades in the cities and mining towns where they, in addition to merchants, composed the colonies' middle class. Bakewell estimates that at least one tenth of all settlers through 1560 were skilled craftsmen or artisans. ${ }^{78}$ The native depopulation opened vast tracts of land to settlers of little means who would attain deeds for abandoned property or simply become squatters and establish small, mainly subsistence farms. ${ }^{79}$ The upper class was usually employed in proprietorships of mines and baciendas, or entered the civil service where numerous profiteering opportunities - usually at the expense of the Spanish government, the indigenous population, or the colonists themselves - often presented themselves, and corruption and rent-seeking were common.

## Religious Orders

As in Europe, religious orders in Peru were major economic participants. Individual parishes and dioceses sought land for churches, schools, missions, charities, etc. and operated a wide variety of commercial enterprises (purportedly) in order to finance these endeavors. ${ }^{80}$ All profits were theoretically destined to fund "the work of God". The Society of Jesus (the Jesuits) in colonial Peru during the 16 th century is a fairly representative example of an influential and widelyinvested religious order. In fact, many scholars are of the opinion that the Jesuits were the most powerful religious organization in Peru (prior to the order's official expulsion in 1767). ${ }^{81}$

Critics of Jesuit influence in Peru allege that commercial profits benefited members of the order rather than the "work of God", while apologists believe the level of corruption was infinitesimal. Additionally, critics claim that religious orders enjoyed inherent economic privileges awarded by a sympathetic government, and unduly dominated regional economies while defenders claim that such institutions did not possess (or chose not to exercise) much economic sway. ${ }^{82}$ Evidence suggests that although the Jesuits owned vast amounts of land and enjoyed significant economic advantages, the Society was considerably less influential and domineering than it could have been. The order punched below its weight in economic influence. The Jesuits enjoyed easy access to credit,

[^11]the sympathies of the state and populace (excluding non-Christian natives), the benefits of economies of scale, and the potential to leverage its holdings to drive out competitors. ${ }^{83}$ In many respects, the various orders and branches of the Catholic Church resembled a multinational corporation of the Gilded Age - huge, unbridled by governments, and potentially excessively powerful. Yet, the Society of Jesus and other religious orders fundamentally differed from the voracious, profit-seeking private managers of the Viceroyalty. Evidence suggests that religious orders sought only sufficient income to sustain their religious activities (for the most part) and thus, declined to pursue a profit-maximizing business strategy, despite ample opportunity. ${ }^{84}$

Religious orders maintained a heavily favored position in colonial society, a reflection of official piety and alleged subservience to God and the Catholic Church in Spain. Yet the unique aspects of religious-owned business ventures made economic dominance untenable. Moreover, religious groups would not reach the height of their economic power until a century or more later. Neither the Church nor religious orders established excessively dominant economic positions in the Viceroyalty of Peru during the $16^{\text {th }}$ century, but both played large roles in civil society and operated commercial enterprises alongside the private sector on relatively equal terms.

## Conclusion

The period between the establishment of the Viceroyalty of Peru in 1542 and the turn of the $17^{\text {th }}$ century was one of rapid development, profound societal change, and construction of a solid, enduring economic foundation in colonial Peru. However, the arduous and disruptive mercantilist policies of Spanish colonial administration aimed at exploiting the wealth of Peru, routinely hampered growth and efficiency. Additionally, state influence distorted shipping and labor markets, allowing employers to pay sub-equilibrium wages, reducing the massmarket consumption base, and prohibitively raising the cost of imports, which paradoxically stimulated low value-added domestic manufacturing. The heavily-corrupted economic relationship between Peru and Spain can only be defined as dysfunctional; neither benefited disproportionately or developed natural interdependence. Any mutual reliance was more or less dictated by the whims of Spanish officials. Spain attempted to cast Peru as a dutiful supplier of bullion and warped the colonial economy to that end. Despite the distortions of state policy, private enterprise flourished, especially in sectors where the administration neglected to

[^12]enact and/or enforce regulations. As a result of colonial entrepreneurship and the region's vast mineral wealth, Peru was jewel of the Spanish commercial empire in North America; a vital cornerstone of the Spanish Empire's economy.

But although the economy of the Viceroyalty of Peru experienced rapid growth and prosperity throughout the $16^{\text {th }}$ century, and despite sporadic internal conflict and the best efforts of Spanish policymakers, the expansion was based on weak foundations. During the formative period before 1600, government policy created a colonial economy that suffered from a narrow mass-market consumer base, overreliance on mining, highly stratified social groups, and limited and inefficient commercial networks. Peru exhibited economic dynamism in the 1500 s, but the cornerstone of Spain's commercial empire was less durable than it seemed. With time, the region became trapped in an economic prison of stubborn inequality, primary product export dependence, labor-intensive production, low productivity, and a dearth of long term investment - an enduring legacy which inhibited balanced economic development for centuries.

## Sources

Arestegui, Efrain. Lucas Martinez Vegazo: Funcionamiento de una Encomienda Peruana Inicial. Lima: Pontificia Universidad Católica del Perú, 1980.
Assadourian, Carlos. "The Colonial Economy: The Transfer of the European System of Production to New Spain and Peru." Journal of Latin American Studies. vol. 24 (1992): 55-
68. http://www.jstor.org/stable/156945 (accessed December 2, 2010)

Batres, Carlos, Daniel Chocano, Teodoro Martínez, and Ruben Ugarte. Compendio Historico del Peru. 1. ed. Lima: Milla Batres, 1993. Bakewell, Peter. A History of Latin America. Oxford: Blackwell, 1997.
Brading, D.A., and Harry E. Cross. "Colonial Silver Mining: Mexico and Peru." The Hispanic American Historical Review 52, no. 4 (1972): 545579. http://www.jstor.org/stable/2512781 (accessed November 25, 2010).
Brown, Kendall W. "Jesuit Wealth and Economic Activity within the Peruvian Economy: The Case of Colonial Southern Peru." The Americas 44, no. 1 (1987): 23-43.
http://www.jstor.org/stable/1006847 (accessed November 25, 2010).

Cross, Harry E. "Commerce and Orthodoxy: A Spanish Response to Portuguese Commercial Penetration in the Viceroyalty of Peru, 1580-1640." The Americas 35, no. 2 (1978): 151-167.
http://www.jstor.org/stable/980901 (accessed November 25, 2010).

Danson, J.T. "Of the Quantity of Gold and Silver Supposed to Have Passed from America to Europe, From the Discovery of the Former Country to the Present Time." Journal of the Statistical Society of London14, no. 1 (1851): 11-44.
http://www.jstor.org/stable/2338110 (accessed November 25, 2010).

Davies, Keith. Landowners in Colonial Peru . Austin: University of Texas Press, 1984.
Gardner, Richard L. "Economic History Data Desk: Data Files: Economic History of Latin America, United States, and New World, 1500-1900." Comcast.net: Personal Web Pages. http://home.comcast.net/~richardgarner04/datafiles.html (accessed November 23, 2010).
Haring, Clarence. "American Gold and Silver Production in the First Half of the Sixteenth Century." The Quarterly Journal of Economics 29, no. 3 (1915): 433-479. http://www.jstor.org/stable/1885462 (accessed November 25, 2010).

Hudson, Rex A. Peru: A Country Study. 4th ed. Washington, D.C.: Claitor's Law Books and Publishing Division, 1993. Accessed online at http://countrystudies.us/peru/7.htm on Dec. 5, 2010
Mabry, Donald J. Colonial Latin America. Coral Springs, FL.: Llumina Press, 2002.
Mabry, Donald. "Economy in Colonial Spanish America."Historical Text Archive: Electronic History Resources, online since 1990 . N.p., n.d. Web. 6 Dec. 2010. <http://historicaltextarchive.com/sections.php?action=read\&artid =295>.
MacQuarrie, Kim. The Last Days of the Incas. New York: Simon \& Schuster, 2007.
Mo, Charles. Splendors of the New W orld: Spanish Colonial Masterworks from the Viceroyalty of Peru. Charlotte, N.C.: Mint Museum of Art, 1992.
Roscher, Wilhelm, and Edward Gaylord Bourne. The Spanish Colonial System. Reprint ed. New York: G.E. Stechert, 1944.
Sluiter, Engel. The Gold and Silver of Spanish America: c. 1572-1648. Berkeley, Calif.: Bancroft Library, Univ. of California, 1998.
Three Centuries of Peruvian Silver: Objects from The Viceroyalty Through Early Independence, An Exbibition Sponsored By The Government of Peru. Washington, D.C.: Smithsonian Institution, 1967.
University of Notre Dame. "Spanish Silver: General Introduction." Coin and Currency Collections at Notre Dame. http://www.coins.nd.edu/ColCoin/ColCoinIntros/SpSilver.intro.html (accessed December 3, 2010).


[^0]:    ${ }^{1}$ Note: when I refer to "Peru" I am referring to the geographical region known as the Viceroyalty of Peru during the $16^{\text {th }}$ century not the contemporary state named Peru. I will use Peru and Viceroyalty of Peru interchangeably. When I refer to the present-day nation of Peru, I will express this reference in text.

[^1]:    ${ }^{2}$ Kim MacQuarrie. The Last Days of the Incas. (New York: Simon \& Schuster, 2007), map 2. - The territory of the viceroyalty theoretically extended from roughly the current location of the Panama Canal in the north, to the [disputed] line of demarcation established by the Treaty of Tordesillas [1494] in the east, to Cape Horn in the south, and to the Pacific Ocean in the west. However, Spanish control never extended beyond the contemporary southern border of Uruguay in the south nor into the Andes Mountains and the Amazon rainforest in the east. Moreover, Spanish colonists settled mainly in the region composed of contemporary northern Chile, Peru, Ecuador, Colombia, and Bolivia ${ }^{3}$ Carlos Batreas, Daniel Chocano, Teodoro Martinez, and Ruben Ugarte. Compendio Historico del Peru. (Lima: Milla Batres, 1993), 16; 390-391.

[^2]:    ${ }^{7}$ Kim MacQuarrie. Last Days of the Incas, 17.
    ${ }^{8}$ Ibid., 88.
    ${ }^{9}$ Ibid., 95-96.
    ${ }^{10}$ Peter Bakewell. A History of Latin America. (Oxford: Blackwell, 1997), 176.
    ${ }^{11}$ Ibid., 176.
    ${ }^{12}$ Ibid., 176.

[^3]:    ${ }^{20}$ Sluiter, Gold and Silver of Latin America, 69 Table B-VII.
    ${ }^{21}$ Bakewell, History of Latin America, 179.
    ${ }^{22}$ Sluiter, Gold and Silver of Latin America, 69 Table B-VII.
    ${ }^{23}$ Bakewell, History of Latin America, 180.
    ${ }^{24}$ Carlos Assadourian. "The Colonial Economy: The Transfer of the European System of Production to New Spain and Peru." Journal of Latin American Studies. vol. 24 (1992): 56.
    ${ }^{25}$ A peso in this case refers to the silver coin minted at the various Spanish colonial mints worth 8 reales. An 8 real coin had a set weight of 423.9 grains ( 27.47 grams) of . 9305 fine silver (source: University of Notre Dame, "Spanish Silver: General Introduction (URL:
    http://www.coins.nd.edu/ColCoin/ColCoinIntros/Sp-Silver.intro.html)). I will examine the colonial money supply in greater detail in the subsequent section titled "Currency and Money Supply". For more detailed information regarding silver declared and tax collected see the tables in the Appendix (source Sluiter, p 69, 71, 73 - Table B- VII)

[^4]:    ${ }^{26}$ Sluiter, Gold and Silver of Latin America, 69.
    ${ }^{27}$ Bakewell, History of Latin America, 200.
    ${ }^{28}$ Ibid., 181.
    ${ }^{29}$ Mabry, Colonial Latin America, 125.

[^5]:    ${ }^{30}$ Bakewell, History of Latin America, 181.
    ${ }^{31}$ Ibid., 191.
    ${ }^{32}$ Keith Davies. Landowners in Colonial Peru. (Austin: University of Texas Press, 1984), 12-18.
    ${ }^{33}$ Bakewell, History of Latin America, 191.
    ${ }^{34}$ Ibid., 191.

[^6]:    ${ }_{35}$ Davies, Landowners in Colonial Peru, 20.
    ${ }^{36}$ Assadourian, "Transfer of the European System of Production," 60.
    ${ }^{37}$ Ibid., 56.
    ${ }^{38}$ Davies, Landowners in Colonial Peru, 22.
    ${ }^{39}$ Assadourian, "Transfer of the European System of Production," 61.
    ${ }^{40}$ Bakewell, History of Latin America, 190.
    ${ }^{41}$ Assadourian, "Transfer of the European System of Production," 62.

[^7]:    ${ }^{51}$ Assadourian, "Transfer of the European System of Production, 60.
    ${ }^{52}$ Mabry, Colonial Latin America, 89.
    ${ }^{53}$ Ibid., 89.
    ${ }^{54}$ Hudson, Peru.

[^8]:    ${ }^{55}$ Bakewell, History of Latin America, 197.
    ${ }^{56}$ Ibid., 198.
    ${ }^{57}$ Brading and Cross, "Colonial Silver Mining," 546.
    ${ }^{58}$ Bakewell, History of Latin America, 201.
    ${ }^{59}$ Ibid., 200.

[^9]:    ${ }^{60}$ Brading and Cross, "Colonial Silver Mining," 570.
    ${ }^{61}$ Bakewell, History of Latin America, 181. The author describes the loom as a simple "arrangement in which the warp is simply stretched between pegs set in the ground.
    ${ }^{62}$ Bakewell, History of Latin America, 182.
    ${ }^{63}$ Assadourian, "Transfer of the European System of Production," 64.
    ${ }^{64}$ Bakewell, History of Latin America, 183.
    ${ }^{65}$ Ibid., 183.

[^10]:    ${ }^{73}$ Richard L. Gardner. "Economic History Data Desk: Data Files: Economic History of Latin America, United States, and New World, 1500-1900." Comcast.net: Personal Web Pages.
    http://home.comcast.net/~richardgarner04/datafiles.html (accessed November 23, 2010), 899.
    ${ }^{74}$ Brading and Cross, "Colonial Silver Mining," 588.
    ${ }^{75}$ Ibid., 588.
    ${ }^{76}$ Donald Mabry. "Economy in Colonial Spanish America."Historical Text Archive: Electronic History Resources, online since 1990. Web. 6 Dec. 2010.
    ${ }^{77}$ Bakewell, History of Latin America, 195.

[^11]:    ${ }^{78}$ Ibid., 186.
    ${ }^{79}$ Mabry, Historical Text Archive.
    ${ }^{80}$ Kendall Brown. "Jesuit Wealth and Economic Activity within the Peruvian Economy: The Case of Colonial Southern Peru." The Americas 44, no. 1 (1987): 24.
    ${ }^{81}$ Ibid., 24.
    ${ }^{82}$ Ibid., 24.

[^12]:    ${ }^{83}$ Ibid., 42.
    ${ }^{84}$ Ibid., 42.

