

IMPORTS OF AMERICAN GOLD AND SILVER INTO SPAIN, 1503-1660¹

SUMMARY

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I

FOR at least a century prior to the discovery of America, stationary production of the precious metals, in conjunction with rapidly expanding industry and commerce, caused a decline in prices which, through its effect on profits, seriously handicapped business enterprise.² The régime of falling prices was ended by the discovery of extremely fertile mines in America a few decades after the memorable voyage of Columbus. A reverse movement set in. The influx of precious metals into Europe precipitated one of the greatest price revolutions occurring on a specie basis in modern times, if not in all history.³

1. The data for this study were collected in 1926-27, while I held a Sheldon Travelling Fellowship from Harvard University.

2. Debasement of the coinage did cause sporadic increases in prices; but they were not dependable and reckonable, for inflation might be followed by deflation.

3. Earl J. Hamilton, "American Treasure and Andalusian Prices, 1503-1660: A Study in the Spanish Price Revolution," *Journal of Economic and Business History*, i, 31-33.

The present paper deals with imports of gold and silver, not with production in the Indies. The reasons for following this course are two. First, all the American treasure that entered Europe legally during the period under investigation passed through Spain. No other colonizing power found significant mines of gold or silver, and trade with the Spanish colonies was jealously restricted to subjects of the motherland.⁴ Second, imports — not production — affected the economic life of Europe.

The amount of treasure drawn by Spain from her American colonies has been a fruitful source of speculation among historians for almost four centuries,⁵ and economists have given some attention to the matter since the time of Bodin. And yet, notwithstanding the persistence and intensity of interest in the subject, the often-admitted guesses and rough approximations of contemporary chroniclers and travelers have been uncritically accepted by most writers. Scant use has been made of the records⁶ of the men who handled the treasure.⁷

4. Of course, there was some interloping. It increased toward the close of the period under investigation; but as late as the beginning of the eighteenth century the anonymous author of *Comercio de Holanda* said (p. 95) that almost all the gold and silver in Europe had been brought to Spain from New Spain and Peru. Manuel Colmeiro estimated that Spain received from 83 to 87 per cent of all the American treasure that reached Europe during the first three centuries after the discovery (*Historia de la Economía Política en España* [Madrid, 1863], ii, 434, 435). In the eighteenth century the Portuguese found rich gold deposits in Brazil (Adolf Soetbeer, *Edelmetall-Produktion* [Gotha, 1879], pp. 83-92).

5. R. B. Merriman, *Rise of the Spanish Empire* (New York, 1925), iii, 636, 637.

6. Now deposited in the *Archivo General de Indias*, — hereafter written A. de I., — the repository of official papers pertaining to the Hispanic colonies.

7. In his admirable study, "American Gold and Silver Production in the First Half of the Sixteenth Century" (*Quarterly Journal of Economics*, xxix, 433-479), Professor C. H. Haring used the records of the

Among the documents utilized in the present study the registers of caravels and galleons, catalogued as *Registros de Oro, Plata, y Mercaderías para Su Majestad y Particulares*, deserve mention. Unfortunately, none of these papers seems to have been preserved for the first quarter of the sixteenth century, and for most of the ensuing twenty-five years they are incomplete. The registers record numerous shipments, many of which are given by weight in annoyingly odd figures,⁸ so that a vast amount of labor is required to add the receipts for a single year.

House of Trade in determining the volume of production in the Indies. In this paper, and in his *Trade and Navigation between Spain and the Indies* (Cambridge, 1918), Professor Haring gives the crown treasure — as shown by the records of the treasurer of the House of Trade — drawn from America, 1503–59. Don Francisco de Laiglesia, in “Los Caudales de Indias en la Primera Mitad del Siglo XVI” (*Nuestro Tiempo*, March, 1904), used the same source in calculating the receipts of public treasure through the reign of Charles V. His work contains errors incompatible with the impeccability which he claimed, and which one would infer from his inclusion of half *maravedís*. Apparently Laiglesia considered that debits were made on the books of the treasurer only on account of American gold and silver. Consequently his figures contain such extraneous items as money borrowed from agents of the Fuggers on “exchange,” sales of caravels in Spain, sums received for licenses to carry slaves to America, and sales of redundant supplies bought by the House of Trade. The papers of the India House pertaining to imports of public treasure during the last hundred years of the period under investigation, when the influx was greatest, have been little used. For the whole period the facilities of the Archivo General de Indias for determining private receipts, — which far outweighed public, — the share of imports contributed by each of the two great producing regions, and the relative importance of gold and silver have remained virtually untouched. It is surprising that the records of the House of Trade concerning gold and silver have not been fully utilized, for in 1629 Alonso de Carranza, in *El Ajustamiento i Proporción de las Monedas* (Madrid, p. 211), pointed out how the quantity of imports might be ascertained; and José de Veitia Linaje's *Norte de la Contratación de las Indias Occidentales*, published in 1672 (Seville), was drawn largely from the correspondence between the House of Trade and the Council of the Indies, the most usable and perhaps most reliable single source of information.

8. In a caravel that came from the Indies in 1544 there were 154 separate shipments, of which the first six — 561, 578, 398, 245, 151, and 188 pesos of gold — may be taken as typical. In 1548 the first six of 324 items in the register of a treasure ship were 297, 329, 101, 64, 107, and 303 marks of silver. (A. de I., *Indiferente General*, 147–2–12.)

The *Cuenta y Razón*, a sort of journal of receipts and disbursements, kept by the treasurer of the House of Trade (Casa de la Contratación), contains a fairly complete record of crown treasure (including shipping point, vessel, captain, weight, fineness, and value), and likewise methods of disposing of the gold and silver — such as sale by contract, auction, coinage in the Seville mint, shipment to another mint, or delivery to an agent of the crown in Seville or some other city. The entries of the journal are posted in *Cargo y Data*, a ledger, found in the same documents. These records proved a valuable source of information from February 14, 1503, when Isabella appointed Sancho de Matienzo treasurer,⁹ until the close of the reign of Charles V. Altho the accounts, which were intended to establish the responsibility of the treasurer for all sums passing into his stewardship, included extraneous items from the beginning, it was feasible to separate receipts of gold and silver until, on December 14, 1560, Philip II ordered the treasurer to receive the *almojarifazgo*, or customs duty, on goods shipped to and from the Indies — to which was added in 1582 the income from the *alcabala*, or sales tax, in Andalusia.¹ About the same time the books commenced to suffer from such defects as faulty summation, entry of receipts more than once, and apparently needless and disorderly transfers of items.²

9. A. de I., Contratación, 46-4-1/30. The first entry in the records of the treasurer was made on February 25, 1503 (A. de I., Contratación, 39-2-1/8). The accounts were well kept until October, 1521, when Sancho de Matienzo died. His work surpassed that of any treasurer or comptroller who followed him.

1. José de Veitia Linaje, op. cit., lib. i, pp. 74, 75.

2. At least in the early years, say before 1555, the books of the treasurer were audited by order of the crown every five or ten years. A summary of the receipts and disbursements was generally made and a balance struck in favor of or against the treasurer. For example, see A. de I., Contratación, 39-2-1/8, 39-2-2/9, 39-3-3/1. The summaries are generally not reliable, but they furnish a rough check on the accuracy of one's work with the journal and ledger.

The summaries of receipts of gold and silver, prepared annually by the comptroller of the House of Trade from the registers of treasure ships arriving from the Indies, proved extremely valuable for the period after 1550.³ Both public and private treasure are listed, together with the name of the vessel, port of shipment, and the like.

Letters from the House of Trade, reporting the annual receipts of gold and silver to the Councils of the Indies and of the Treasury, constitute the most important single source. These reports seem to have been based on the above summaries, but the former have been a great deal better preserved than the latter. Unfortunately, the first letters available are for 1558; the earlier ones were probably destroyed by a fire in 1563, which consumed many documents of the House of Trade.⁴ Reports were doubtless submitted with more or less regularity from the beginning of the sixteenth century, for on June 15, 1510, a pragmatic was sent to the House of Trade reiterating previous orders that detailed reports on public and private gold coming from the Indies be supplied the crown.⁵

A "report on reports," covering the period 1583-1613, filed with the papers of the comptroller (*contador*), proved serviceable in determining the completeness of data and in locating documents. As a rule, no single source listed above has been relied upon without being checked against others.

3. The first summary I was able to locate is for 1550 (A. de I., *Indiferente General*, 147-2-12).

4. José de Veitia Linaje, *op. cit.*, p. vi.

5. *Colección de Documentos Inéditos Relativos al Descubrimiento, Conquista, y Organización de las Antiguas Posesiones Españolas de América y Oceanía* (Madrid, 1869), xxxi, 551-554.

II

An account of Spanish imports of American treasure would hardly be complete without some consideration of the machinery for transporting and handling bullion in Spain and the Indies.

First, let attention be directed to the House of Trade at Seville,⁶ a government bureau instituted for the regulation and development of trade and travel between Spain and the colonies of the New World.⁷ The affairs of the House of Trade, itself under the supervision of the Council of the Indies,⁸ were controlled by three judge-officials (*jueces oficiales*) — the factor, treasurer, and comptroller — who were in effect chiefs of divisions as well as councilors who helped to formulate policies, and a president,⁹ whose principal duties were to coordinate the work of the judge-officials and to represent the India House in external matters.

The Merchant Gild of Seville, established by the Emperor in 1543, was intimately connected with the

6. The compass of the present paper permits only the barest outline of the organization and functions of the India House. For a comprehensive treatment, see C. H. Haring, 'Trade and Navigation between Spain and the Indies, or Gervasio de Artinaño, *Historia del Comercio con las Indias* (Barcelona, 1917).

7. The activities of the House of Trade consisted of the enforcement of decrees affecting the India trade; the assembling, outfitting, provisioning, inspecting, and dispatching of treasure fleets; the control of travel to and from America; the maintenance of postal service with the Indies; the promotion of the science and art of navigation; and the development of pure and applied geography.

8. Merriman, *op. cit.*, iii, 619.

9. After 1579. According to Haring (*Trade and Navigation*, p. 46), Philip II created the office of president in October, 1557, but it was permitted to lapse for two decades on the death of the first incumbent, who served little more than a year. Gervasio de Artinaño (*op. cit.*, p. 59) says that Charles V named the first president and adduces instructions given the first appointee by the Emperor.

House in the governance of the India trade.¹ Furthermore, it was often called upon for voluntary or compulsory advances to the crown, sometimes to finance the convoys of treasure fleets and at other times to meet urgent needs of the government. In fact, the House of Trade and Sevillan Merchant Gild stood in about the same relationship to the crown as did Thomas Gresham and the Merchant Adventurers to the English government during the reign of Elizabeth.²

Only in the case of Huancavélica, the famous mercury mine in Peru, did the crown engage in mining. As soon as it had been definitely determined that precious metals could be extracted in the Antilles, royal decrees permitting private individuals to stake claims were promulgated.³ Upon filing claims, prospectors were bound by oath to bring all bullion to the royal assay offices, where it was assayed,⁴ cast in bars or plate,⁵ marked, and

1. The Merchant Gild relieved the House of Trade of hearing suits between members of the Gild arising from the India trade. The prior and consuls of the Gild met with the officials of the House, to draw up budgets for the convoying of treasure fleets (A. de I., Contratación, 30-3-3/9). The Gild constantly furnished expert counsel concerning financial and commercial matters. For example, see A. de I., Contratación, 42-6-12/16.

2. To be exact, between the years 1551 or 1552 (before the accession of Elizabeth) and 1574.

3. *Recopilación de Leyes de Indias* (Madrid, 1681), — hereafter written *Recopilación*, — lib. iv, tit. xix, leyes i-xvi. The decrees stated specifically that the rights of Indians to exploit mines were in no way inferior to those of Spaniards and expressly forbade Spaniards to infringe upon the rights of natives.

4. An ordinance of 1537 required crown officials personally to supervise the smelting and assaying of bullion (*Recopilación*, lib. iv, tit. xxii, ley xi). The offices were ordered to be open for business three hours on every Monday and Thursday morning (*Ibid.*, ley xii). Legislative measures were taken to insure honesty in the analyses. On November 4, 1535, the mixing of base metals with gold, with fraudulent intent, was made punishable by death and the confiscation of the offender's goods (*Ibid.*, ley iv). On July 1, 1646, these penalties were extended to silver (*Ibid.*, ley v). The decree of July 1, 1646, also directed assayers to halve all pieces of bullion presented for analysis; in case any foreign substance was found, the gold or silver was confiscated and its possessor fined four times its value (*Ibid.*, ley xv). Yet fraudulent and perfunctory assays were not unknown.

5. Each piece was numbered and stamped with its weight, fineness,

quinted.⁶ Mercury, which became of the utmost importance after the discovery of the amalgamation process for silver,⁷ was a crown monopoly, for which the royal assay officers served as distributing agencies.

Altho the law required all bullion to be carried directly to the royal assay offices and expressly forbade Spaniards and Indians to buy, sell, lend, or pawn treasure that had not been assayed and quinted,⁸ not all bullion paid the royal quint. The wild and unsettled character of the country, especially in Peru, facilitated evasion of the law. Only well-to-do miners carried their own metals to the assay offices; others generally delivered them at the mine to capitalists, who, through advances of subsistence and equipment for mining, financed their operations. Furthermore, gold and silver dealers made the rounds of the mines, buying unquinted treasure and sending it to the assay offices.⁹ These middlemen doubtless furnished a genuine economic service. They could establish regular routes and thereby provide transportation more economically than small producers, each of whom, in order to transport his own metal, would have required facilities used only at infrequent intervals. Moreover, the specialists could protect treasure at much less cost, for this item did not vary proportionately with the treasure.

and date of assay (Antonio de Ulloa, *Noticias Americanas* [Madrid, 1792], p. 215). Colonial officials were instructed not to send crown silver in small pieces (José de Veitia Linaje, *op. cit.*, lib. i, p. 274). But neither were they to be too large. In December, 1635, Philip IV ordered the institution of criminal procedure against the smelter (*fundidor*) making a bar of silver weighing more than 120 marks (Recopilación, lib. iv, tit. xxii, ley ix).

6. The quint was a severance tax on mining. It was usually, tho not always, — as its name suggests, — a fifth; under special circumstances, such as infertile or badly situated mines, it was as low as a tenth. In 1552, the fees for assaying, smelting, and marking were fixed at 1½ per cent (Recopilación, lib. iv, tit. xxii, ley xiii).

7. About the middle of the sixteenth century.

8. Recopilación, lib. iv, tit. xxiv, ley i.

9. Antonio de Ulloa, *op. cit.*, pp. 215, 216.

To transport bullion from the mines to the royal assay offices in Peru, the llama, the only animal able to work in the Andean altitudes or to follow trails through the mountain wilderness that had to be traversed, was used as a pack animal. Certain tribes of Indians gained their livelihood by making bags and cords, with which treasure was secured to the backs of the llamas.¹

Treasure bearing the official seal of the assay office could be shipped to other parts of the Indies² or to Castile, provided it was listed in the name of its owner³ in the register of mines, kept by the chief notary of mines (*escribano mayor de minas*), and in the books of a royal official at the port of shipment.⁴ Unquinted bullion was contraband throughout the Indies, and its coinage in colonial mints was punishable by death and the loss of the offender's goods;⁵ if found on board a vessel, it was confiscated and the man in charge fined four times its value.⁶

III

From the following American ports gold and silver were sent to Spain: Vera Cruz (sometimes called San Juan de Ulúa) in New Spain,⁷ Cartagena in New Granada (Colombia), Amatique and Truxillo in Honduras, and Nombre de Dios and Porto Bello in Panama,⁸ where

1. Antonio de Ulloa, op. cit., p. 217.

2. The privilege of intercolonial shipment was restricted after trade between New Spain and the Far East had commenced to drain away, through the port of Acapulco, Peruvian treasure that had been carried thither. See *Recopilación*, lib. ix, tit. xlv.

3. Ibid., tit. xlv, ley x.

4. Ibid., lib. iv, tit. xxii, ley i.

5. Ibid., tit. xxiii, ley vi.

6. Ibid., lib. ix, tit. xxxiii, ley lxiv.

7. Except as used on p. 469 below, where a special definition is given, "New Spain" means all of Spanish North America west of the Mississippi River and north of Honduras.

8. Nombre de Dios was the principal port of Panama until about 1594, when it was supplanted by Porto Bello.

Peruvian treasure, shipped originally from Callao, was placed on the *Tierra Firme*⁹ galleons.

Specie was carried from Peru to Panama, for transshipment to the motherland, on the Pacific (*Mar del Sur*) fleet, which was modeled after the treasure fleets plying between Spain and the Indies. The registers of ships were kept in the same manner, and the fleet was served by the same classes of officers. These officers were appointed by the viceroy of Peru, who was also responsible for taking all precautions, such as the provision of adequate artillery and ammunition, making for the safety of public and private treasure.¹ Upon the arrival of the fleet at the Isthmus, it was thoroly inspected by treasury officials accompanied by an *oidor* named by the president of the Audiencia of Panama.² The governor of Panama was instructed to supervise the transportation of treasure from the Pacific to the Atlantic port; upon him devolved the selection of guides to lead the caravan over the roads and trails and on the Chagres River. Gold and silver were not moved to Porto Bello until news of the arrival of the treasure fleet had been received, for it was feared that large amounts of specie on the Atlantic might invite attack, and that private treasure intended for shipment to Spain might be diverted to other uses, or make its way to a foreign country.³

For a time single vessels, relying upon their own arms for protection, carried private goods and government supplies to the Indies, and took on return cargoes of gold and other products, such as Brazil wood; but early in the twenties of the sixteenth century, pirates, especi-

9. "*Tierra Firme*" means the mainland of South America. Cf. p. 469 below.

1. Recopilación, lib. ix, tit. xli, ley viii; tit. xlv, ley xv; tit. xlv, ley v.

2. Ibid., ley xiv.

3. Ibid., tit. xxxiii, ley ix; tit. xxxiv, ley xxix.

ally French and Moorish, menaced the ships to such an extent that war vessels, fitted out from the proceeds of the *avería* — a special convoy tax levied on goods carried to and from the Indies — were used to police the waters around Andalusia, as well as certain parts of the Indies, where the caravels were peculiarly susceptible to attack. Later, strict regulation of the armaments of vessels engaged in the India trade was instituted, and each ship was expected to defend itself in case of attack. About the middle of the sixteenth century, however, the bold aggression of pirates, and the danger of capture by enemy ships during the perpetual wars of the house of Austria, again caused a change in the methods of protecting treasure ships. Merchant vessels began to sail in fleets convoyed by war ships, the expenses of which were borne by the *avería*. Sporadic sailings of fleets, adequately protected by men-of-war, were maintained until about 1565, when the service was regularized.⁴

At first, single armadas, one sailing in January and the other in April, served all parts of the Indies. The fleet divided in the Antilles, the captain general going to Tierra Firme with part of the vessels, and the admiral to New Spain with the others. But this plan was of short duration. A pragmatic issued on October 18, 1564, ordered the fleets to sail separately, the New Spain fleet departing in April and that of Tierra Firme in August.⁵ As might be expected, however, the inveterate propensity of the Spaniard to procrastinate defeated the laws regulating the dates of sailing. But there was a limit to the possible delay: the New Spain fleet had

4. Miguel Alvarez Osorio, *Extensión Política y Económica* (1687–88), reprinted in *Educación Popular* (Madrid, 1775), p. 435; José de Veitia Linaje, *op. cit.*, lib. ii, pp. 60–85; *Recopilación*, lib. ix, tit. xxxiv, ley i.

5. José de Veitia Linaje, *op. cit.*, lib. ii, p. 82.

to sail before August in order to avoid the hurricanes that sweep the Gulf of Mexico in September.⁶

In view of the popular misconception concerning the amounts of treasure taken by the English, French, and Dutch, one who works with the records is impressed by the paucity rather than the plethora of the specie that fell prey to foreign powers.⁷ What Adam Smith said about the failure of gold to cover its cost of production is strikingly applicable to the efforts of foreigners to plunder Spanish treasure fleets. The records of the House of Trade abound with accounts of abortive attempts of pirates and foreign powers to capture these vessels; yet few fell into their hands. In only two years were significant portions of a treasure fleet seized by enemies; in 1628 the Dutch took the fleet returning from New Spain, and in 1656 the English prevented most of the specie on the *Tierra Firme* fleet from reaching the motherland. For the most part, the *flotas*, teeming with men and bristling with arms, sailed at regular intervals over usual courses, almost, if not absolutely, without regard to the operations of enemies.⁸

Every effort was made to check the receipts of public and private treasure with the amounts shipped from the Indies. The royal assay offices were required to submit to the crown annual reports on the sums collected from the quint and fees for smelting, assaying, and marking.⁹ Colonial officials also reported to the House

6. Anonymous, *Comercio de Holanda* (translated from French into Spanish by Francisco Xavier de Goyeneche in 1717), pp. 100, 101.

7. See especially A. de I., *Contratación*, 42-6-1/5 to 42-6-13/17.

8. This statement needs qualification as regards the closing years of the reign of Philip IV, when the administration became exceedingly lax. Along with other things, the fighting equipment of the galleons deteriorated. In 1656, 1657, and 1658, English men-of-war bottled up the fleets in Spain and delayed or prevented their sailing (A. de I., *Contratación*, 42-6-12/16, 42-6-13/17). It is worthy of note that the disasters of 1628 and 1656 occurred during the reign of the weak Philip IV.

9. *Recopilación*, lib. iv, tit. xxii, ley xi.

of Trade the number, weight, and fineness¹ of each piece of gold and silver sent to the crown, as well as the number of people and the amount of gold, silver, and merchandise on every ship returning to Spain. The registers of vessels, showing the quantities of public and private treasure carried, were deposited in the House of Trade. To guard against the loss of registers, every vessel leaving an American port was required to carry its own and a copy of that of another ship sailing at the same time.² The House of Trade was required to report to the proper colonial officials the amount of crown treasure received, in order that any discrepancy between it and the quantity dispatched might be ascertained.³

From the beginning, smuggling was punished by confiscation, and in 1593 this penalty was supplemented by four years' suspension from office in the case of a captain or minister, and four years' sentence in the galleys for a man of lower rank. In 1634 the severity of the measures was still further enhanced: men of high station in life became subject to perpetual exile from the Indies and the withdrawal of the privilege of engaging in the India trade, while men of lower status might be sentenced to ten years in the galleys.⁴

1. The fineness was expressed by stating in *maravedís* the value of a mark of silver or peso of gold (A. de I., Contratación, 41-2-5 to 41-2-9).

2. Recopilación, lib. ix, tit. xxxiii, ley xliii.

3. Ibid., tit. 1, ley lvii.

4. José de Veitia Linaje, op. cit., lib. ii, p. 196. In theory, gold and silver brought to Spain by soldiers and sailors, including their salaries, were not exempt from registration in the usual manner. In practice, however, since it was virtually impossible to prevent it, the soldiers and sailors were always permitted to bring small amounts of unregistered gold and silver without penalty. But the abuse of this privilege caused it to be circumscribed. An ordinance of May 20, 1646, fixed the amounts which they might bring unregistered at a sum not in excess of their salaries. Passengers were permitted to bring in like manner enough money to defray traveling expenses for themselves and families, provided the funds brought in this way did not exceed the sums they registered (Recopilación, lib. ix, tit. xxxiii, ley lxi).

Royal officials in the Indies and on the treasure fleets were instructed to take special precaution against smuggling.⁵ To encourage the detection of smuggled treasure, the denouncer was promised one third of all small sums, and a sufficient reward, to be fixed by the trial judge, in the case of large sums.⁶ The captains general were directed to make every possible effort to ferret out men who embarked as soldiers, sailors, or passengers for the purpose of carrying treasure out of register.

Officers and seamen were instructed to take special precautions against the removal of gold and silver during the course of the voyage, and fruitful methods of perpetrating this act were called to their attention. For instance, they were cautioned against permitting other vessels to tie on to the treasure ships while at sea and against permitting a boat to go to the rescue of a vessel in distress without carrying some man worthy of trust appointed by the captain general.⁷

Efforts to stifle smuggling were redoubled when the fleets approached land. Boats were forbidden to land from the vessels comprising the flota or from galleys that went out to escort it into port. Each sailor in a boat violating this ordinance, even with permission of the captain general, was subject to a penalty of two hundred lashes and ten years as a galley slave.⁸ Fishing boats were forbidden to sail out to meet incoming fleets, or to take on board any man who left a treasure

5. Recopilación, lib. viii, tit. xvii, ley i.

6. Ibid. Between 1635 and 1640 the rewards varied from $\frac{1}{6}$ to $\frac{1}{3}$ of the treasure denounced. There seems to have been little correlation between the amount of specie and the reward. For instance, in 1637 the man who detected 2,614,481 *maravedís* was paid a third, while in 1636 the denouncer of 133,100 *maravedís* was given only a sixth (A. de I., Contratación, 41-1-2/13).

7. Recopilación, lib. ix, tit. xxxvi, ley xviii.

8. Ibid., ley xlv.

ship.⁹ By an ordinance of September 14, 1614, the dispatch of messenger boats (*barcos de aviso*) to ports other than San Lucar de Barrameda and the firing of salutes were interdicted, since these practices merely served to apprise fishing boats and pirates of the approach of the fleets.¹

Upon the arrival of a fleet at San Lucar de Barrameda, the captain general was required to notify the Council of the Indies and the House of Trade, and he was forbidden to permit anyone — passenger, soldier, or sailor — to leave a ship before the fleet had been inspected by an official of the House.² The officials were ordered not to allow more than one day to elapse between the receipt of notification and the inspection³ and to do the work in person, not by proxy.⁴ It was intended that this inspection should be thoro, as is attested by the fact that the law ordered the official to require every passenger and seaman to declare under oath whether he had any knowledge of anyone's carrying unregistered or unquinted gold, silver, or pearls; taking anything from a vessel during the voyage or after arrival; or registering in his name treasure belonging to another. Then the inspector had to open all chests to ascertain whether they contained contraband or unregistered goods.⁵

9. Ibid., leyes xlv–xlv. It was alleged that fishing boats had made it a practice to meet treasure fleets for the ostensible purpose of showering hospitality upon them, but for the real purpose of serving as receptacles for smuggled specie.

1. Recopilación, lib. ix, tit. xxxvi, ley xlviii.

2. Ibid., ley lvii.

3. Ibid., tit. xxxv, ley lxv. These inspections were made by one of the judge-officials of the House accompanied by a sheriff, prosecuting attorney, and guards.

4. Ibid., ley lxiv. Upon the arrival of the inspecting officer, all foreign vessels were required to withdraw from the general vicinity of the treasure fleet (Ibid., tit. xxxvi, ley lv).

5. Ibid., tit. xxxvi, ley lv.

The laws against smuggling were not always strictly enforced. In some years — such as 1560, 1593, 1595, and 1597 — when it was suspected that significant amounts of unregistered gold and silver had arrived, pardons were granted to all who confessed and paid the *avería*.⁶ On September 14, 1594, the reason for this procedure was set forth in a letter from the House of Trade to the Council of the Indies. The Council was requested to permit the delivery of unregistered specie, less the *avería*, to all owners who confessed before a specified date. Enforcement of the laws against smuggling and the rigorous prohibition against the purchase of smuggled gold and silver by silver merchants and silversmiths, it was argued, had occasioned heavy losses in the *avería*, and, what was worse, the export of large amounts of treasure.⁷ Realizing that the granting of amnesty encouraged smuggling, Philip III declared on October 10, 1618, that in the future no pardons would be forthcoming.⁸ Nevertheless, they were resorted to more than ever in the closing years of the reign of his successor, Philip IV, when receipts of treasure fell off and the proportion of the actual receipts registered declined, thus causing the *avería* to weigh heavily upon the crown and honest private shippers.⁹

In the beginning, treasure came to Spain in charge of the captains of vessels, and later, in charge of the captains general of armadas. With the increase in the volume of shipments, it became necessary to have a special officer, the silver master (*maestre de plata*), to perform this function.¹ The silver master was originally

6. In 1595 one fourth of the smuggled treasure was confiscated (A. de I., Contratación, 42-6-3/7).

7. Ibid., 42-6-3/7.

8. José de Veitia Linaje, op. cit., lib. ii, pp. 199-201.

9. A. de I., Contratación, 42-6-12/16.

1. Ibid., 36-2-1/9.

named by the captain general of the armada; but on October 10, 1592, because of past abuses and the opportunities for fraud inherent in the position, the power of appointment was vested in the officials of the House of Trade, with the advice and consent of the prior and consuls of the Merchant Gild.²

Silver masters were required to give bond, satisfactory to the officials of the House of Trade, for 25,000 ducats in silver.³ Colonial officials were instructed to examine the silver master's bond before delivering treasure to him, and private individuals were expected to take the same precaution.⁴

A letter written to the Council of the Indies by the House of Trade on January 11, 1605, furnishes valuable information concerning the duties and remuneration of the silver master, and the type of man selected for the position. Usually captains of infantry or ex-admirals were appointed; always the appointee came from the upper strata of society. For instance, Tomás de Cardona, for years a commanding figure in the India trade, served at times as a silver master.⁵ The remuneration consisted of a fee amounting to one per cent of all registered treasure. In appearance the office was a lucrative sinecure. Lucrative it was, but no sinecure. The fees collected by the silver master on the flagship (*capitana*) of the Tierra Firme armada sometimes amounted to almost seven million *maravedis*. But from this gross income the silver master had to meet the following expenses involved in handling treasure: paying a notary and two helpers of irreproachable probity;

2. José de Veitia Linaje, op. cit., lib. ii, pp. 134, 135; Recopilación, lib. ix, tit. xxiv, ley i.

3. Recopilación, lib. ix, tit. xxiv, ley iii.

4. José de Veitia Linaje, op. cit., lib. ii, pp. 134, 135.

5. Alonso de Carranza, op. cit., pp. i-xvi. Tomás de Cardona furnished a factual basis for this monumental treatise, from which a wealth of first-hand information concerning the India trade can be gathered.

providing bags and boxes for packing; loading in the Indies, as well as unloading and reloading when occasion arose; transferring, when necessary, to other vessels in San Lucar de Barrameda; unloading at Seville; and transporting to the House of Trade. Furthermore, the silver master ran the risk of theft during the voyage.⁶

Notwithstanding the care exercised in their selection, silver masters did not always measure up to the standard of honor requisite for the position. In 1614 Estevan de Arce, silver master of the *almiranta* of the Tierra Firme armada in charge of General Lope Díaz de Al-mendáriz, absconded with a large amount of treasure on the day announced for the beginning of delivery to private owners. All the loss fell upon private individuals, presumably because the treasure of the crown had been delivered prior to the theft.⁷ An ordinance of 1593 — repeated in 1631, 1634, and 1640 — charged the silver masters with complicity in, or responsibility for, the major part of smuggling, and provided for either offense a penalty of loss of office and four years of exile.⁸

No matter what unusual circumstances arose, the House of Trade at Seville was the goal of all Indian treasure.⁹ When vessels in distress or in danger of attack were forced to put in at other ports, such as Málaga or Lisbon, the treasure was immediately carried to the

6. A. de I., Contratación, 42-6-4/8.

7. José de Veitia Linaje, op. cit., lib. ii, pp. 135, 136.

8. Recopilación, lib. ix, tit. xxxiii, ley lvii.

9. The pragmatic of 1529 authorizing sailings to the Indies from divers ports provided a death penalty and the loss of all of his goods for the captain of a ship failing to return to Seville (Manuel Colmeiro, op. cit., ii, 402; José de Veitia Linaje, op. cit., lib. ii, p. 136). That control of the shipment of treasure was the aim of this regulation is shown by the fact that vessels returning from Hispaniola or Porto Rico with cargoes of hides, dyes, and other colonial products were permitted to land and unload at Cadiz, provided any gold, silver, money, or precious stones carried were sent unpacked to Seville and delivered to the officials of the House of Trade (Recopilación, lib. ix, tit. xlii, ley xxvii).

House of Trade. No exception occurred until 1659, when the Tierra Firme fleet, fearing contact with British men-of-war, veered to the north and put in at Santander. Apparently the treasure was not shipped to Seville, but was disposed of by an agent of the Council of the Indies.¹ Passengers, civil or ecclesiastical, were required to carry their treasure to Seville. When the treasure fleets were forced to stop at any port *en route*, passengers were forbidden, under penalty of confiscation of all treasure brought from the Indies, to sell or barter gold, silver, or precious stones, except in case of dire necessity attested by the affidavit of a second party, and then only to the extent of a hundred ducats.²

When the treasure arrived at Seville, it was immediately taken to the House of Trade, where it was weighed by an official weigher (*balanzario*)³ and placed in chests in the treasure chamber, and, occasionally, in the chambers of the Audiencia and Merchant Guild. In normal times the substantial walls, strong doors, and double iron bars over the windows afforded ample protection, but on certain occasions special guards were kept on duty at night.⁴ The treasure chamber and chests were provided with triple locks, so that three keys, one of which was carried by each of the three officials of the House, were required to open them.⁵

When gold and silver entered the House of Trade, the duties of the silver master did not end. After permission had been received by the House from the Council of

1. A. de I., Contratación, 42-6-13/17.

2. Recopilación, lib. ix, tit. xxxiii, ley xxxvi.

3. José de Veitia Linaje, op. cit., lib. i, p. 268.

4. A. de I., Patronato, 3-3-15. Treasure that came in the New Spain fleet of 1582 was guarded at night. Twelve watchmen were on duty at a time, and three shifts were used. The men were paid three reals each.

5. A green treasure chest, probably the *arca verde* frequently mentioned in the sixteenth- and seventeenth-century records of the House of Trade, is on display in the Archivo General de Indias at Seville.

the Indies, he had to deliver treasure to private owners, who might be required to prove that the laws governing registration had been obeyed.⁶ Barring orders for delay in delivery, or sequestration, this task had to be completed within four months after the arrival of the fleet, and under all circumstances before the silver master could embark on another voyage.⁷

In the early years the officials of the House of Trade undertook to supervise the refinement and coinage, for the most part in the Seville mint, of gold received by the crown.⁸ With this end in view, special equipment for smelting and refining was bought.⁹ But not all crown bullion was coined in the first instance.¹ All told, significant quantities of bullion were delivered to the creditors of the crown, especially the Fuggers, Shetz, Welsers, Esquetes, Centurións, and Dorias.² As was indicated in connection with the sources of this study, the records of the House of Trade do not reveal the disposition made of private treasure in the early years.

The fact that Castilian mints worked only bullion of the fineness requisite for coinage,³ which necessitated the refinement of treasure by its possessor, together

6. Alonso de Carranza, op. cit., p. 377.

7. José de Veitia Linaje, op. cit., lib. ii, p. 136; Recopilación, lib. ix, tit. xxiv, ley xii.

8. A. de I., Contratación, 41-2-5. Not all bullion was coined at Seville. For instance, early in 1524 gold was sent to be coined in the mint at Burgos (Archivo General de Simancas, Contaduría Mayor, Primera Época, 400).

9. A. de I., Contratación, 39-2-1/8. Workmen were paid on a piece-rate basis.

1. In 1552 twenty-one million *maravedis* worth of bullion brought from Peru was turned over to creditors of Charles V because the officials of the House of Trade thought that the price offered exceeded its mint value (A. de I., Indiferente General, 147-2-12).

2. A. de I., Contratación, 39-3-3/1, 41-1-1/12, 41-1-3/4, 42-6-1/5, 42-6-5/9, 42-6-7/11; Indiferente General, 147-2-12.

3. Juan Surrá y Rull, "Breve Reseña Histórica de la Organización y Régimen de las Casas de Moneda de España" in Autores Españoles (Madrid, 1869), pp. 1023-1024.

with swelling imports, soon led to the emergence of special machinery, in the form of silver merchants (*compradores de oro y plata*, literally "gold and silver buyers"), for handling Indian treasure. Since the government was desirous of profiting by the services of a specialized middleman and of avoiding fraud and collusion, sale at public auction to silver merchants became the normal method of disposing of crown treasure. As early as 1531, spirited bidding, such as would make for a "fair" price, took place. On August 14 of that year a shipment of bullion sold in the treasure chamber of the House of Trade, where subsequent auctions took place, brought forth twenty-four bids by seven silver merchants.⁴ This is a typical case for that period. Though at times the House of Trade was paid for crown treasure in cash, the usual method was for the stipulated sum to be paid by the mint, usually that of Seville,⁵ to which

4. A. de I., Contratación, 41-2-5.

5. The Seville mint was not the only one used. In the late thirties of the sixteenth century the Emperor became so exasperated by what he considered inexcusable delay in coining about 290,000 ducats' worth of bullion sequestered from private treasure brought from Tierra Firme (originally from Peru), that he improvised a mint in Barcelona and sent most of the treasure thither (Archivo General de Simancas, Diversos de Castilla, 1-27; A. de I., Contratación, 39-3-3/1). The famous water-driven mint of Segovia, the pride of Spanish governors and financial administrators, coined a substantial part of crown treasure, especially between 1585 and 1590. The following table, showing the amounts of crown bullion the House was ordered to send to the Segovian mint, may prove instructive (A. de I., Contratación, 41-2-6).

Date	Marks of Silver	Date	Marks of Silver
Nov. 2, 1585	80,000	Dec. 17, 1588	100,000
Dec. 8, 1586	35,000	May 3, 1589	50,000
Dec. 4, 1587	100,000	Feb. 29, 1590	100,000

This mint was still used in 1606, for on December 14 of that year the House was ordered to send 200,000 ducats' worth of gold and silver to Segovia "to be coined in reals and escudos" (A. de I., Contratación, 32-5-34). On Nov. 27, 1620, 400,000 ducats' worth of silver bullion was sent to Madrid, presumably for coinage there (A. de I., Contratación, 39-4-16/7). In July, 1639, fifty bars of silver were shipped to the mint at Toledo (A. de I., Contratación, 32-5-34).

the silver merchant contracted to deliver the bullion.⁶

Schemes for saving the crown the profits of silver merchants were not wanting, and occasionally they won favor. In 1563 the Council of the Indies ordered the House of Trade to refine and coin, without the aid of silver merchants, the bullion brought from Tierra Firme in the armada of Pedro Menéndez de Áviles. The House replied, in a letter of June 20, 1563, that it would be far more profitable and expeditious to sell the treasure at auction to the highest bidder among fifteen or sixteen able and experienced silver merchants than to attempt to refine and coin it. The silver merchants, it was argued, were qualified to perform the service, and their wives, children, and servants would help them do all the work; while the officials of the India House were not competent to handle bullion, and everyone who touched it would have to be paid a salary. On September 15, 1563, the House rendered the further objection that a host of

6. The following translation of an entry in the accounts of Receipts and Sales (*Recibo y Venta*) illustrates the methods employed by the House of Trade in disposing of crown treasure. "On May 10, 1591, we received from Marcos Rodríguez, captain of the caravel named [break in manuscript], the gold herein described, which was brought — registered on folio 98 of the register — for his Majesty. We offered the said gold for sale at public auction in the treasure chamber in the presence of many merchants of gold and silver, and sold it to Luís Hernández, the highest bidder, at $25\frac{1}{2}$ *maravedís* per carat plus one ducat distributed over the amount offered for sale. The value of the gold is to be delivered to the treasurer of the mint of this city, in gold of the fineness for coining escudos, within six days. We protect ourselves and collect by the aforementioned duty of the treasurer to deliver [money], and we hand over the gold weighed by Luís de Castro, assayer of the House of Trade, in the following manner" (A. de I., Contratación, 41-2-6). This statement was followed by a description of the gold, setting forth the weight and fineness of each piece. Sales of silver differed from the above only in the requirement that silver of the fineness for coining reals be delivered at the mint. In a few cases the silver merchant was required to "deliver the value of the silver in reals in the treasure chamber of the House" (A. de I., Contratación, 41-2-6). In 1581 this practice was fairly common, especially in minor transactions. Contracts calling for payment in another city were not unknown (José de Veitia Linaje, op. cit., lib. i, p. 254).

guards would be necessary to prevent embezzlement by the workmen who refined the treasure, and that the expense entailed would more than absorb any possible profit.⁷ The remonstrance of the House of Trade was successful, for the treasure was sold to silver merchants. In 1609 the Council of the Indies again must have entertained notions of "eliminating the middleman," for in that year the House wrote the Council that it would be far more profitable to sell treasure at auction than to attempt to coin it without the aid of silver merchants.⁸ In 1621 crown bullion was actually handled by the House of Trade, the factor being in charge of the work. As the House had anticipated, the experiment proved disastrous. Veitia Linaje tells us that up to his day (1672) the government did not again venture upon such a course.⁹

Altho the law did not require it, Carranza, long a student and close observer of the India trade, tells us that almost all private treasure was sold to silver merchants;¹ and we know that in 1620 they bought all the private bullion that was not sequestered.² The explanation of this phenomenon probably lies in the fact that silver merchants developed considerable skill in supervising the refining of bullion. In fact, Veitia Linaje was especially impressed by the circumstance that they relieved private owners of this burden.³

Before silver masters could deliver private treasure to its original owners, or to silver merchants who had bought it, it was necessary for them to obligate the recipient to coin the bullion in one of the mints of Cas-

7. A. de I., *Contratación*, 42-6-1/5.

8. *Ibid.*

9. *Op. cit.*, lib. i, p. 91.

1. *Op. cit.*, p. 189.

2. A. de I., *Contratación*, 39-4-16/7.

3. *Op. cit.*, i, 254.

tile.⁴ On December 4, 1620, the Council of the Treasury (*Consejo de Hacienda*) ordered the House of Trade to withhold one eighth of the private treasure received that year⁵ as punishment for surreptitious exportation of bullion in the past, and to require the private owners, or purchasing silver merchants, to present to the House, within six months of the date of delivery, a certificate from the mint of their choice to the effect that the bullion had been delivered for coinage.⁶ In 1659 the House of Trade and Sevillian Merchant Gild agreed that one of the three functions of registration was to provide a means of enforcing coinage within the realm.⁷

As one would expect from the fact that the Seville mint was literally in the shadow of the House of Trade, a significant portion of private treasure was coined there. In the period 1585-95, 55 per cent, and in 1620, 52 per cent, of private bullion was carried to the local mint.⁸

In the beginning, not companies, but individuals were silver merchants. For the most part, individuals formed banks in their homes and casually engaged in buying treasure, the magnitude of their operations depending on the extent of the funds entrusted to them.⁹ But an

4. Recopilación, lib. ix, tit. xxiv, ley xiii.

5. On October 24, 1620, the House received orders not to deliver private treasure pending further notice (A. de I., Contratación, 39-4-16/7).

6. A. de I., Contratación, 39-4-16/7. A report of the president of the House of Trade on September 2, 1622, showed that 1,277,371,800 *maravedís* worth of private bullion was delivered to the following mints before June 16, 1621 (A. de I., Contratación, 39-4-16/7).

Seville.....	663,735,465 <i>maravedís</i> , or 52 per cent
Segovia.....	163,881,445 <i>maravedís</i> , or 13 per cent
Toledo.....	322,613,590 <i>maravedís</i> , or 25 per cent
Madrid.....	127,141,300 <i>maravedís</i> , or 10 per cent

7. A. de I., Contratación, 42-6-12/16.

8. These percentages have been calculated from the figures in A. de I., Contratación, 39-4-16/7, 42-6-3/7, and the documents — too numerous to mention — used in determining the receipts of private treasure.

9. José de Veitia Linaje, op. cit., lib. i, p. 252.

ordinance of October 11, 1608, providing that only firms composed of two or more partners could buy bullion, wrought a fundamental change in the financial organization of silver merchants, and incidentally led to one of the first appearances in Spain of the limited partnership, or *société en commandite*, on a large scale. The contract forming the partnership, which had to state the names of the partners, the name of the active partner, the length of time the partnership was to endure, and so forth, became operative on the approval of the prior and consuls of the Merchant Guild and the officials of the House of Trade. A bond for forty thousand ducats, likewise subject to the approval of the Guild and House, was also required. When copies of a duly approved partnership agreement and bond had been deposited with the comptroller of the House, where anyone who chose might examine them, the concern was privileged to deal in bullion. But additional security was required before a firm was permitted to buy treasure belonging to the crown or to persons deceased (*difuntos*).¹

A more precarious business than that of the silver merchant could hardly be conceived. Paraphrasing John Stuart Mill, one can say that their profits were a function of three variables: first, the price paid for treasure; second, the correctness and probity of the assay in the Indies; and, third, the honesty of the workmen who refined the bullion. In 1615 the officials of the House of Trade stated that the usual profit on a *castellano* (1/50 mark) of gold was three *maravedís*, or one half of one per cent.² Veitia Linaje tells us that, when silver merchants had good fortune regarding all three variables, they could clear not more than four *maravedís* (about .18 per cent) on a mark of silver, and one *mara-*

1. José de Veitia Linaje, op. cit., lib. i, pp. 253-255.

2. A. de I., Contratación, 42-6-6/10.

vedi (about .20 per cent) on a *castellano* of gold.³ Considering the great risk entailed, the margin of profits was perilously slender; and, as might be expected, there were many failures. On June 20, 1563, the House of Trade wrote the Council of the Indies that there were fifteen or sixteen silver merchants.⁴ A few years before 1615, eight companies were in operation, but by July 14, 1615, failures had reduced the number to four.⁵ Only three companies — Alonso de Medina y Compañía, Lope de Olloqui y Compañía, and Juan de Olarte y Compañía — bought the private treasure that came from the Indies in 1620.⁶

Since the government was very solicitous regarding the national stock of specie, silver merchants were obsequiously treated. Their accounts could be examined or their homes searched only with the consent of the

3. Op. cit., lib. i, p. 251. Since man has always had a vague feeling that dealing in the precious metals conveys an unrivaled opportunity for profit, the silver merchants doubtless had to bid so much for bullion that only a slender margin of gain was possible in any case. Furthermore, the integrity of the American assays left much to be desired. On several occasions fraud and inexcusable negligence were discovered in the Peruvian analyses. Finally, about the middle of the seventeenth century, the abuses became intolerable, and vigorous measures were employed to eradicate the evil. Some assayers were hanged; others were arrested and sent to Spain, along with all of their goods, which had been confiscated. One of the assayers "died in the jail of the House of Trade, and another went mad in it." The analysis of bullion in New Spain never gave evidence of fraud, but the integrity of the assay was counterbalanced by flagrant corruption in smelting. In 1621, for example, "it was discovered that the centers and souls of many bars of silver were of copper, more than a fifth of the bars being of this metal, which was placed so that the assayers could not discover it, no matter how large the sample taken to analyze" (Ibid., pp. 263, 264). On account of errors in American assays, which had been noticed for some time, it became customary after 1603 to sell gold on the basis of analyses made in Castile (Ibid., p. 250).

4. A. de I., Contratación, 42-6-1/5.

5. José de Veitia Linaje, op. cit., lib. i, p. 250. Yet in 1615 the silver merchants advanced funds to outfit the treasure fleets (A. de I., Contratación, 41-1-1/2).

6. A. de I., Contratación, 39-4-16/7.

president of the House of Trade. Such consent was rarely or never forthcoming. Neither could treasure held by a silver merchant be embargoed without the president's permission. Smuggled gold and silver that reached the home of a silver merchant were accorded the full status of registered treasure. On August 27, 1667, a royal commission, formed to seize French goods as a retaliatory measure, was instructed to examine the papers and search the home of everyone suspected of holding French property, but it was enjoined not to molest any silver merchant.⁷

IV

Table A shows in pesos ⁸ the average annual imports of registered treasure for ten-year periods, public, private, and total receipts being listed separately. As has been stated, the data for this table came entirely from the records of the men who handled the gold and silver. The figures for private treasure before 1536, for which original records are not available, have been derived from those for public treasure for the same period. From 1536 to 1660, public receipts were 26.2 per cent of the total; so this figure has been used in estimating private treasure for the period 1503-36. The remainder of the table has been compiled without resort to conjecture or estimate.

Crown receipts consisted mainly of the royal quint, but also of tribute levied on Indian tribes, sale of papal indulgences, fines and confiscations, profit on token

7. José de Veitia Linaje, *op. cit.*, lib. ii, pp. 265, 266.

8. In this case *peso* means 450 *maravedis*' worth of gold or silver. It was equivalent to 652.635 grains of pure silver until December 23, 1642, when its "silver content" was reduced to 522.09 grains. *Peso* also had various other meanings, a good account of which can be found in Haring, "American Gold and Silver Production in the First Half of the Sixteenth Century," *Quarterly Journal of Economics*, xxix, 476-479.

money (before about 1540), and sale of miscellaneous goods. To some extent private treasure consisted of emigrants' remittances and the savings of passengers returning to Spain, but the bulk of it arose from the motherland's favorable balance of trade with the Indies. The colonists, having at their disposal silver mines like Guanajuato and Potosí — the former the richest of all time, the latter throughout the centuries a synonym of great wealth — found it to their advantage to specialize in mining and to export specie in exchange for importable commodities.⁹ The treasure fleets sailed from Spain laden with provisions, wares, and all sorts of merchandise.¹ At first these products were largely Spanish, but later they were ever increasingly drawn from other European countries. The return cargo comprised small quantities of colonial produce — such as hides, copper, tobacco, sugar, indigo, and cochineal — and vast sums of silver. The European goods were exchanged for produce and specie in the fairs of Porto Bello,² Vera Cruz, and Cartagena.³ In 1594 gold and silver formed 95.62 per cent of the return cargo, cochineal 2.82 per cent, hides 1.16 per cent, indigo .29 per cent, and miscellaneous .11 per cent. In 1609, 84 per cent

9. In other words, the colonists had a comparative advantage in mining the precious metals. Consequently, they neglected the production of many commodities to which their resources and aptitudes were suited. Cairnes pointed out that a similar episode occurred in Australia following the gold discoveries in the middle of the nineteenth century ("The Australian Episode," *Essays in Political Economy*, pp. 20-53).

1. Tomás de Mercado (*Suma de Tratos y Contratos*, Seville, 1571, fol. 90) and Alonso de Morgado (*Historia de Sevilla*, 1587, p. 166) ascribed the rise in prices in the sixteenth century largely to the heavy export of goods to the Indies.

2. On October 28, 1659, the prior and consuls of the Sevillian Merchant Guild said: "The fair of Porto Bello is the greatest in the world." A few days later, the officials of the House of Trade said, "The fair of Porto Bello used to be the greatest in the world." (A. de I., *Contratación*, 42-6-12/16.)

3. A. de I., *Contratación*, 42-6-12/16.

consisted of treasure and 16 per cent of other products.⁴

TABLE A

AVERAGE ANNUAL IMPORTS OF TREASURE IN PESOS BY TEN-YEAR PERIODS

Period	Public	Private	Total
1503-1510	75,176.3	211,756.2	286,932.5
1511-1520	114,690.5	323,059.4	437,749.9
1521-1530	61,444.6	173,076.6	234,521.2
1531-1540	356,649.1	760,975.7	1,117,624.9
1541-1550	470,092.0	1,622,451.2	2,092,543.2
1551-1560	1,039,400.4	2,533,505.5	3,572,905.9
1561-1570	1,120,855.2	3,948,895.0	5,069,750.2
1571-1580	1,989,667.8	3,842,042.2	5,831,710.0
1581-1590	3,118,763.3	7,522,685.2	10,641,448.5
1591-1600	4,199,533.3	9,723,139.3	13,922,672.6
1601-1610	3,013,912.9	8,147,794.1	11,161,707.0
1611-1620	2,312,141.9	8,615,974.2	10,928,116.1
1621-1630	1,901,991.4	8,491,049.6	10,393,041.0
1631-1640	1,885,025.5	4,800,065.7	6,685,091.2
1641-1650	1,261,754.9	3,845,115.0	5,106,869.9
1651-1660	569,080.4	1,561,896.1	2,130,976.5

How important this treasure was, how large it loomed in the lives of the Spanish people, can perhaps best be shown by stating that, at the rate prevailing for unskilled labor in Andalusia, the average annual receipts for 1591-95 would have paid for $21\frac{1}{3}$ days' work of all the persons in the country employed for salaries and wages.⁵

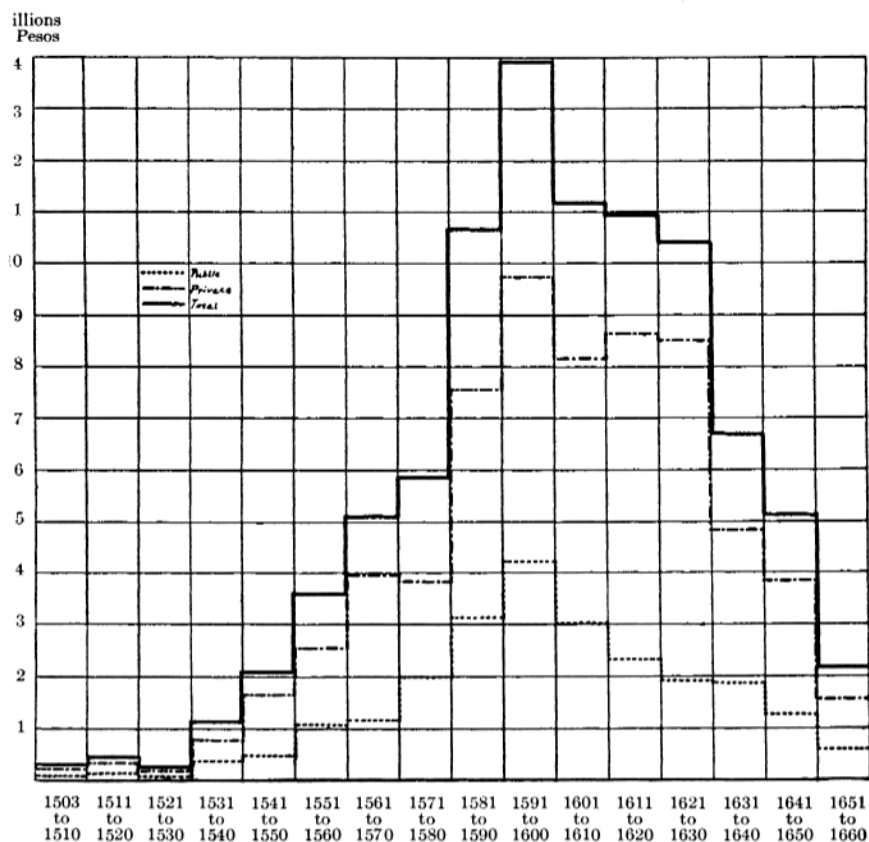
4. A. de I., *Indiferente General*, 147-2-16. Treasure so far outweighed other colonial products in the eyes of contemporaries, because of both its absolute amount and mercantilist preconceptions, that the fleets plying between Spain and the Indies were always spoken of as the "fleets going to the Indies to bring back the gold and silver of his Majesty and private individuals."

5. There is considerable chance for error in these figures. The data on population have been taken from Tomás González, *Censo de Población de las Provincias y Partidos de la Corona de Castilla en el Siglo XVI* (Madrid, 1829), the most reliable source known to me, but their accuracy is far below that of a modern census. The percentage of population working for hire has been arbitrarily taken at that for the United

Chart I presents graphically the data contained in Table A.

CHART I

AVERAGE ANNUAL RECEIPTS OF SPECIE: TEN-YEAR PERIODS



States shown by the census of 1920. Furthermore, all employees were not unskilled laborers. Presumably, wages in Andalusia, the region first flooded with American gold and silver, were higher than in the remainder of the country. But all these sources of error do not destroy, tho they impair, the significance of the estimate for the purpose in hand.

From 1503-10 to 1591-1600 there was a steady increase in the receipts of treasure. The period 1600-30 showed a marked decline, and the period 1630-60 a precipitous drop, in registered gold and silver. Altho the scope of the present paper does not permit a complete explanation of the dwindling receipts of specie, the following causes may be named: an increase in interloping;⁶ a rise in the expenses of mining together with fixed prices of the precious metals;⁷ a decrease in the fertility of the mines;⁸ an increase in the *avería*, which in certain years became confiscatory;⁹ decimation of

6. In 1659 the House of Trade and Sevillan Merchant Gild estimated that a million pesos of Peruvian treasure annually crossed the Andes and made their way to interlopers in the port of Buenos Aires. On this account the Gild and House recommended that this excellent port be closed. (A. de I., *Contratación*, 42-6-12/16.)

7. That this was a handicap was understood by contemporaries. See Alonso de Carranza, *op. cit.*, pp. 371-375.

8. This condition seems to have obtained both in New Spain and in the then Peru. In 1600 Alonso de Oñate, "procurador general de los mineros de la Nueva España, Nueva Galicia, y Nueva Vizcaya," wrote to the Council of the Indies that formerly mines produced from 10 to 50 marks of silver per quintal of earth; whereas the mines then yielding 2 marks per quintal, and with the use of 2 ounces of mercury, were accounted good (A. de I., *Audiencia de Méjico*, 60-5-45). Antonio de Ulloa, apparently drawing upon a pamphlet, *Pretensiones del Potosí*, published by Sandoval in 1634, contended that in 1545-71 the mines of Potosí produced a mark of silver per pound of mercury, while in 1634 mines yielding one mark of silver per 1250 pounds were considered good and those yielding more were thought excellent (*op. cit.*, p. 210). This is manifestly an exaggeration, but to admit of such an exaggeration the decline must have been very great. In 1629 Alonso de Carranza asserted that the decadence of Potosí had become so great that even the Chinese, fully aware of it, were making and burying huge balls of silver (*op. cit.*, pp. 371-375). According to Colmeiro, Potosí commenced to decline in fertility after 1606 (*op. cit.*, ii, 427, 428). Soetbeer put it about six years earlier (*op. cit.*, p. 78).

9. In 1630, near the beginning of the precipitous decline in registered receipts, the *avería* amounted to 31.5 per cent. In 1653 it reached 99 per cent, and in 1656 it was 49 per cent (A. de I., *Contratación*, 42-6-12/16). It should be borne in mind that these figures are not normal; in fact, they are given in order to show abnormal yearly *averías* for an abnormal period. From 1620 to 1628 the convoys were financed by the merchants of Seville, who were able to keep the *avería* at 6 per cent. In 1629 it rose to 17 per cent. In 1635 and 1636 the merchants again con-

the labor supply by rude work in the mines;¹ an increase in trade with the Orient;² unnecessary delay in the delivery of private treasure;³ delivery of private bullion in vellon at more than its market value;⁴ a revival of the practice of sequestration in the closing years of the reign of Philip IV;⁵ and an increase in the wealth and population of the Indies, which caused more treasure to be retained in the colonies.

In conjunction with the documents already mentioned as sources for this study, a few records of the treasurer of the Seville mint and *Relaciones de los Caudales y Efectos que Venían de Indias en Armadas, Flotas, y Naos Sueltas* — all of the Archivo General de Indias —

tracted for the outfitting of the treasure fleets; expenses were kept low enough for the *avería* to be 12 per cent. In 1641 and 1642 it was 14 per cent, but in 1643 it rose to 23.4 per cent. (A. de I., Contratación, 30-5-66/18, 42-6-12/16.)

1. José de Acosta, *Historia Natural y Moral de las Indias* (Madrid, 1591), fol. 131; José del Campillo y Costo, *Nuevo Sistema de Gobierno Económico para la América* (Madrid, 1789), pp. 2-17; William Robertson, *Works* (Edinburgh, 1829), i, 368.

2. Immediately after the permanent settlement of the Philippines, the Spanish colonists began to trade with the Orient through the port of Acapulco in New Spain. Realizing that significant quantities of bullion were filtering out of the realm, the government subjected the trade to many vexatious restrictions. (See *Recopilación*, lib. ix, tit. xlv.) As early as 1594, raw silk (presumably Chinese) was carried to Spain on the New Spain fleet; and the accounts for the New Spain fleet of 1609 stated specifically that Chinese silk ("seda que viene de la China") was brought to the motherland. It is significant that the value of the silk increased from 18,233 ducats in 1594 to 88,687 ducats in 1609 (A. de I., *Indiferente General*, 147-2-16). In 1659 the House of Trade and Sevillian Merchant Guild estimated that 500,000 pesos of Peruvian treasure annually made their way to China through the port of Acapulco in New Spain (A. de I., Contratación, 42-6-12/16).

3. In the closing years of the reign of Philip IV, registers were sometimes sent to Madrid for examination before delivery was made (A. de I., Contratación, 42-6-12/16).

4. A. de I., Contratación, 42-6-9/13.

5. In 1637, for instance, the crown sequestered 500,000 ducats' worth of private treasure. In 1659 the House of Trade and Sevillian Merchant Guild attributed the decline in registered receipts largely to this flagitious practice. (A. de I., Contratación, 42-6-12/16.)

have enabled me to calculate ⁶ the ratio between imports of gold and silver. Table B shows the results by ten-year periods. Since no silver, except possibly as a sample, came before November 5, 1519,⁷ the table begins with 1521-30.

TABLE B
GOLD AND SILVER

Period	Silver percentage by weight	Gold percentage by weight	Period	Silver percentage by weight	Gold percentage by weight
1521-1530	2.949	97.051	1591-1600	99.287	.713
1531-1540	89.602	10.398	1601-1610	99.466	.534
1541-1550	87.677	12.323	1611-1620	99.598	.402
1551-1560	87.672	12.328	1621-1630	99.819	.181
1561-1570	98.803	1.197	1631-1640	99.911	.089
1571-1580	99.164	.836	1641-1650	99.848	.152
1581-1590	99.428	.572	1651-1660	99.890	.110

In absolute amounts, 16,632,648.20 kilograms of pure silver and 181,234.95 kilograms of pure gold came registered from the Indies.⁸ Of course, there was smuggled specie also. From the nature of the case, no one can say how much. The amount of smuggled treasure has

6. The data are not as complete as one would desire. In about 50 per cent of the years the figures used comprised all the imports; for about 35 per cent the records do not permit the separation of gold and silver, and for the remaining 15 per cent one can be certain only as regards a part of the receipts.

7. A. de I., Contratación, 39-2-1/8.

8. The estimates of previous writers, a good summary of which is given by Colmeiro (op. cit., ii, 431-434), vary from a little less than two to almost ten times my figures. The glamour of romance surrounding the exploits of the discoverers and conquerors of a new world, and the inordinate esteem in which the precious metals were then held, doubtless played a part in the overestimation by contemporaries of the imports of gold and silver. But perhaps the largest factor was the wide divergence between the marginal uses of treasure in America and Europe. When the booty derived from the spoliation of Indians arrived, and it was learned that gold had been used by the Aztecs for such trivial purposes as the adornment of Indian slippers with nineteen bells of gold (A. de I., Contratación, 39-2-1/8), it was inevitable that the Spaniards should fancy that the Indians possessed as much gold as they themselves would have required before pushing its marginal use so low.

been estimated at from ten to fifty per cent of the registered, but there is reason to believe that it was rather nearer the former than the latter figure. Smuggling was fraught with danger and expense.⁹ Probably it was really significant only when there was grave danger of sequestration or of an inordinate *avería*.

Until about 1515 most of the treasure came from Hispaniola. From 1516 to 1530 Porto Rican exports almost equaled those of Hispaniola, and Cuban exports became about half as great. Before 1531-35 Tierra Firme and New Spain did not take the predominant positions they were destined to occupy.

Chart II shows the relative amounts of imports drawn from New Spain and Tierra Firme between 1531 and 1660. With the receipts from New Spain I have included those from Honduras; so *Tierra Firme* means South America and *New Spain* North America. It is impossible to distinguish for the whole period the treasure that came from the Antilles, but one can say that it was not of moment after the middle of the sixteenth century. Figures are given in the periods for which I have data.

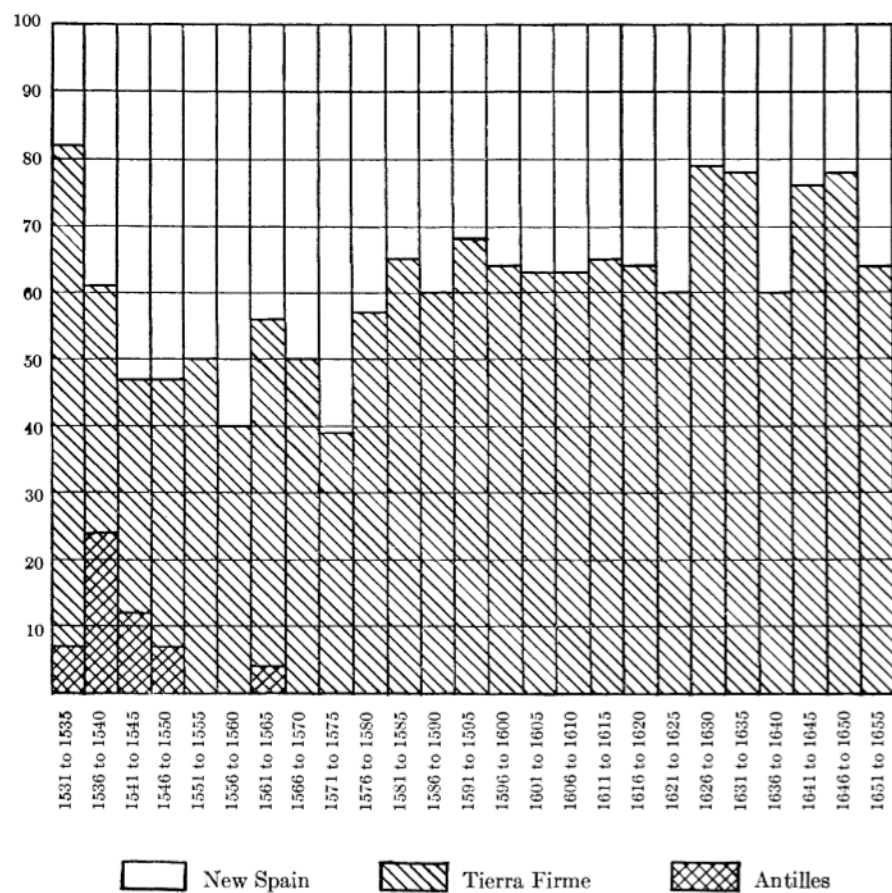
After 1545, the year that marked the discovery of Potosí, the percentage of receipts coming from Tierra Firme showed a steady increase. From 1581 to 1660, about half the period under investigation, Tierra Firme furnished roughly two thirds and New Spain one third of the total Spanish imports.

V

Let us examine briefly the effects of American treasure upon the motherland. For a season industry seems to have responded to the rise in prices precipitated by the influx of treasure. The resultant material prosperity,

9. A. de I., Contratación, 42-6-12/16.

CHART II
PERCENTAGES OF RECEIPTS BY EXPORTING REGIONS



together with the effect of the specie on national psychology, played a part in the passage of Spain through her golden age of literature and art.¹ But ultimately the importation of treasure (the exportation of which was retarded by legal restrictions) in exchange for goods sapped the economic vitality of the country and augmented the price revolution, which handicapped export industry. Historians have generally agreed that American gold and silver fanned the flames of Hapsburg imperialism, added to the zeal with which Spanish rulers defended the Catholic faith against Protestant and Moham-medan, furnished sinews of war, and, in short, constituted an important factor in Spain's aggressive foreign policy.² Both the absolute amounts of crown treasure and the stability of the receipts, which made them dependable and reckonable, indicate that this thesis is tenable. Furthermore, private treasure, through sequestration upon arrival, contributed very largely to public revenue. And it should be remembered that, because of the relatively undeveloped state of international finance, specie was then highly prized as a means of supporting military operations in distant countries.³ So gold and silver from the Indies were a factor in the shedding of the blood of Spain — sacrificed on altars of imperialism and religious fanaticism — on distant European battle-

1. That Spanish life was directly influenced by American gold and silver is attested by the use Cervantes made of treasure and treasure fleets in *Rinconete y Cortadillo* and *El Celoso Extremeño*, two of his "Novelas Ejemplares," which contain the best descriptions extant of Spanish life and customs.

2. Professor Merriman, perhaps the greatest recent student of Spanish history, seems to share this opinion (*op. cit.*, iii, 45, 255). Laiglesia, tho he recognized the general acceptance of this view (*Caudales de Indias*), opposed it as regards the Emperor on grounds that do not seem convincing.

3. Cf. Adam Smith, *Wealth of Nations*, i (Cannan ed., London, 1904), 407-412; F. W. Taussig, *International Trade* (New York, 1927), pp. 274-278. This is one reason why the mercantilists placed great emphasis upon the accumulation of gold and silver.

fields. Other hordes of men, lured by the El Dorados of New Spain and the then Peru, emigrated at their most productive age. American treasure doubtless created the illusion of prosperity and thus fostered extravagance and vagrancy. One cannot escape the conclusion that the gold and silver drawn from the Indies had baneful effects upon the mother country.

Next let us turn to the effects of Spanish imports of gold and silver upon Hispanic America. One who examines the records of the House of Trade, especially for the early years, cannot fail to be impressed by the enormous part played by American gold in the exploration and development of the New World. The sailors who accompanied Columbus on his first voyage, including the heirs of the men left on Hispaniola, were paid in part with gold brought to Spain between 1513 and 1519.⁴ Treasure drawn from the Indies financed the memorable voyage of Magellan, which proved rich in scientific discovery and demonstrated to the lay mind the sphericity of the earth.⁵ It paid the salaries of such notable servants of Spain as Amerigo Vespucci, chief pilot of the House of Trade, and Sebastian Cabot; and it provided the means to purchase and to carry to America the seeds, plants, animals, tools, books, and scientific instruments of the Old World.

4. A. de I., *Contratación*, 39-2-1/8, 39-2-2/9. In the debates over the financing of the first voyage of the Admiral, I have never seen this matter mentioned. It is evident that the sailors themselves made "advances" for a substantial part of the cost of the voyage.

5. *Ibid.*, 39-2-2/9.

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