

Trade and Navigation between Spain and the Indies: A Re-view—1918-1958

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Séville et l'Atlantique (1504-1650). Première Partie: Partie Statistique. 7 vols. By Huguette and Pierre Chaunu. Preface by Lucien Febvre. Paris, 1955-1957. École Pratique des Hautes Études—VI^e Section, Centre de Recherches Historiques. Ports- Routes- Trafics VI. Vol. I, *Introduction Méthodologique*. Librairie Armand Colin. Maps. Illustrations. Pp. xv, 332. Vols. II-VI. *Le mouvement des navires et des marchandises entre l'Espagne et l'Amérique, de 1504 a 1650*. Librairie Armand Colin (vol. VI, S.E.V.P.E.N.). Pp. 603, 572, 594, 530, 1096. Vol. VII. *Construction Graphique*. S.E.V.P.E.N. Pp. 143.

THE SIGNAL IMPORTANCE of the maritime traffic between Andalusia and the Spanish provinces in America in the sixteenth and seventeenth centuries has long been appreciated by scholars—its importance for Spain and for the world at large. Forty years ago two works appearing almost simultaneously, by Gervasio de Artífano¹ and the reviewer,² were devoted wholly to its description. More recently, in 1943, early developments of the Atlantic trade and navigation were skilfully woven into the subject matter of Ramón Carande's magisterial volume, *Carlos V y sus banqueros*.³ Marginal studies in the interval since 1918 have been fairly numerous, some of them of basic importance. One thinks immediately of the classic investigation by Earl J. Hamilton of the import of American gold and silver and their influence upon the Spanish economy.⁴

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¹ Gervasio de Artífano y de Galdácano, *Historia del comercio con las Indias durante el dominio de los Austrias* (Barcelona, 1917).

² *Trade and Navigation between Spain and the Indies in the Time of the Hapsburgs* (Cambridge, Mass., 1918).

³ *Carlos V y sus banqueros. La vida económica de España en una fase de su hegemonía, 1516-1556* (Madrid, 1943).

⁴ *American Treasure and the Price Revolution in Spain, 1501-1650* (Cambridge, Mass., 1934), which embodies material in important earlier articles. See also "The Decline of Spain," *The Economic History Review*, VIII, 168-179 (May, 1938).

The monumental work of Huguette and Pierre Chaunu is in Hispanic American historiography in a class by itself. It covers the entire range of Spanish trans-Atlantic trade and shipping in every conceivable aspect from 1504 to 1660, securely anchored on an exhaustive examination and analysis of all the voluminous manuscript materials to be found in the archives of Spain.⁵ The authors have done what no one has before attempted, making a fresh start uninhibited by any work that preceded; endeavoring to achieve "une interprétation statistique aussi complète que documents et circonstances l'ont permise"; refusing "de ne rien accepter que ne fût mesurable, ne rien construire que ne vînt s'ordonner autour de la série élaborée." The first volume, Methodological Introduction, prepares the way for five volumes (vol. VI in two parts) of statistical tables and copious annotations that together comprise some 3500 pages. A seventh volume of graphs and charts will be followed by three more in which M. Chaunu promises an interpretation of the statistical complex in the volumes preceding. No other scholar, whether historian or economist, has accomplished a similar project of such magnitude, or revealed more comprehensive discernment or painstaking assiduity. Needless to say, much of the work of Artífano and Haring is entirely superseded.

Contributions in recent years to the general topic of Spanish colonial trade have more often been confined to a single aspect: circumstances in a particular colony, monetary and fiscal problems, the impact of foreign interlopers, etc. Guillermo Céspedes del Castillo published in 1945 the first overall study of the role of the *avería* in overseas trade,⁶ although falling somewhat short of the firm statistical basis achieved by the Chaunus. Abbot Payson Usher's essay, "Spanish Ships and Shipping in the Sixteenth and Seventeenth Centuries"⁷ has some bearing on the *Carrera de Indias*. From the pen of André E. Sayous has come a notable series of articles on partnerships and methods of payment in the early years of the Atlantic trade.⁸ Some thirty years ago Ricardo Levene published a two-

⁵ Reviews of the early volumes have appeared in the *Revista de Historia de América*, no. 39, p. 242 (June, 1955); *The American Historical Review*, LXII, no. 1, p. 128 (Oct., 1956), LXIII, no. 1, p. 111 (Oct., 1957); *Revista de História* (São Paulo), no. 29, p. 105 (Jan-Mar., 1957); *The Economic History Review*, 2nd ser., X, no. 2, p. 305 (Dec., 1957).

⁶ *La Avería en el comercio de Indias* (Sevilla, 1945).

⁷ *Facts and Factors in Economic History* (Cambridge, Mass., 1932), 189-213.

⁸ "Les Changes de l'Espagne sur l'Amérique au xvi^e siècle," *Revue d'économie politique*, 41^e année, no. 6, 1417-43; "La Circulation de métaux et de monnaies au Pérou pendant le xvi^e siècle," *ibidem*, 42^e année, no. 5, 1300-17; "Les Procédés de paiement et la monnaie dans l'Amérique espagnole pendant la première moitié du xvi^e siècle," *Revue économique internationale*, 19^e année, vol.

volume investigation of the colonial economy of Argentina,⁹ but devoted chiefly to commercial relations with the metropolis. Most of the first volume, confined to the sixteenth century, reviews Spanish economic policies in general, and emphasis in the second is on the period of the viceroyalty after 1776. Interest is centered on Buenos Aires, and the interior provinces receive scant attention. Emilio Romero's *Historia económica del Perú* (Buenos Aires, 1949) is a very competent summary, but remains an outline awaiting fuller amplification.¹⁰

Important aspects of the economic life of colonial Venezuela, especially in the eighteenth century, have been illuminated by the writings of Roland D. Hussey¹¹ and Eduardo Arcila Farías.¹² Professor Hussey's book on the Caracas Company has long been accepted as the most satisfactory study of the Spanish privileged trading companies of the eighteenth century, based upon a comprehensive examination of manuscript and printed sources. The volumes by Arcila Farías are also scholarly contributions to the sparsely cultivated field of Spanish American economic history, reflecting a careful archival research rare in historical bibliography in South America. In *Economía colonial de Venezuela* the emphasis is upon commerce, both overseas and intercolonial, and the agrarian activities and administrative contrivances that hindered it or contributed to it. Its sequel, on the trade between Venezuela and New Spain, is a meticulously documented monograph on intercolonial economic relations, highlighting the rivalry of Caracas and Guayaquil for control of the trade in cacao, Venezuela's most valued product. Its principal thesis is that intercolonial trade was for most of the American provinces more important than that with Spain.

An equally substantial monograph on intercolonial trade is Woodrow Borah's study of economic contacts in the sixteenth century be-

iv, 271-304; "Partnerships in the Trade between Spain and America and also in the Spanish Colonies in the Sixteenth Century," *Journal of Economic and Business History*, I, 282-301 (Feb., 1929).

⁹ *Investigaciones acerca de la historia económica del virreinato del Plata* (Biblioteca Humanidades, VIII, 2 vols., La Plata, 1927-8; new edition, "corregida y ampliada," Buenos Aires, 1952).

¹⁰ Earlier version: *Historia económica y financiera del Perú; antiguo Perú y virreynato* (Lima, 1937). The *Historia económica de la República Argentina* (Buenos Aires, 1943), by Luis Roque Gondra, is padded with political history and adds little not found in standard history textbooks.

¹¹ *The Caracas Company, 1728-1782* (Cambridge, Mass., 1934); "Antecedents of the Spanish Monopolistic Overseas Trading Companies (1624-1728)," *Hispanic American Historical Review*, IX, 1-29 (Feb., 1929).

¹² *Economía colonial de Venezuela* (México, 1946); *Comercio entre Venezuela y México en los siglos xvii y xviii* (México, 1950); *El Régimen de la encomienda en Venezuela* (Sevilla, 1957).

tween New Spain and Peru,¹³ a subject that has long called for closer attention by historians. From Guillermo Céspedes del Castillo we have an investigation of the perennial conflict of mercantile interests between Buenos Aires and Lima as it came to a head toward the close of the colonial era;¹⁴ and from Manuel Moreyra y Paz Soldán an informative essay on the trade of Callao with other Pacific seaports in the early years of the eighteenth century.¹⁵ A scrutiny of Spanish policies regarding industrial activities in the colonies, especially in the time of Charles III, appeared in an article by José M. Mariluz Urquijo, "Supresión de fábricas en los virreinos del Río de la Plata y del Perú."¹⁶

The circumvention of the Spanish monopoly by foreign interlopers, both at Seville and Cadiz and directly in seaports of the Indies, was a crucial aspect of the Spanish economy that has often engaged the historian's attention. Britain's role in the Spanish American trade appears in two capital volumes by Richard Pares¹⁷ and Jean O. McLachlan,¹⁸ covering the interval 1667-1763; also in important articles on the eighteenth century by Vera Lee Brown, Allan Christelow, George Nelson and Curtis Nettels.¹⁹ The great interest of in-

¹³ *Early Colonial Trade and Navigation between Mexico and Peru* (Ibero-Americana, 38, Berkeley, 1954).

¹⁴ *Lima y Buenos Aires; repercusiones económicas y políticas de la creación del virreinato del Plata* (Sevilla, 1947).

¹⁵ "El Comercio de exportación en el Pacífico a principios del siglo xviii," (Univ. católica del Peru, Instit. de invest. hist., Cuadernos de estudios, II, no. 5, 248-85, Lima, 1943). Reprinted in *Estudios sobre el tráfico marítimo en la época colonial* (Lima, 1954). A principal work on intercolonial trade in the Pacific area, although somewhat removed from the Atlantic sphere of interest, is by William Schurz, *The Manila Galleon* (New York, 1939).

Among miscellaneous items of interest for the trans-Atlantic trade may be noted the following: F. de Castro y Bravo, *Las naos españolas en la carrera de las Indias. Armadas y flotas en la segunda mitad del siglo xvi* (Madrid, 1927); Francois Chevalier, "Les cargaisons des flottes de la Nouvelle Espagne vers 1600," *Revista de Indias*, año IV, no. 12, 323-330 (April-June, 1943); Roland D. Hussey, "Spanish Colonial Trails in Panama," *Revista de historia de América*, no. 6, 47-74 (Aug., 1939); José Torre Revello, "Puertos habilitados en España en el siglo xvi para comerciar con las Indias occidentales," *Humanidades*, XXV, pt. 2, 353-362 (La Plata, 1936).

¹⁶ *Revista de la facultad de ciencias económicas* (Buenos Aires), año III, no. 28 (Oct., 1950).

¹⁷ *War and Trade in the West Indies, 1739-1763* (New York, 1936).

¹⁸ *Trade and Peace with Old Spain, 1667-1750* (Cambridge, 1940).

¹⁹ Vera Lee Brown, "Anglo-Spanish Relations in America in the Closing Years of the Colonial Era," *Hispanic American Historical Review*, V, no. 3, 327-483 (Aug., 1922); "The South Sea Company and Contraband Trade," *ibid.*, XXI, no. 2, 662-78 (May, 1945). Allan Christelow, "Contraband Trade between Jamaica and the Spanish Main, and the Free Port Act of 1766," *ibid.*, XXII, no. 2, 309-43 (May, 1942); "Great Britain and the Trades from Cadiz and Lisbon to Spanish America and Brazil, 1759-1783," *ibid.*, XXVII, no. 1, 2-29 (Feb., 1947). George H. Nelson, "Contraband Trade under the Asiento, 1730-1739,"

dustrial France in the trade through Seville and Cadiz is reflected in an outstanding volume for the sixteenth and seventeenth centuries by Albert Girard,²⁰ and for the eighteenth in perceptive articles by Henri Sée and Léon Vignols.²¹

Portuguese participation in the contraband game was chiefly from Brazil through the closed port of Buenos Aires. Portuguese residents were numerous in Buenos Aires, especially while the two crowns were united (1580-1640), and thence they easily penetrated inland to Córdoba, Upper Peru, and even to Lima, where for a time they seemed to dominate the retail trade. Illegal entry of Brazilian and European commodities inevitably followed, in exchange for the coveted silver of Potosí. In a recent monograph²² Alice P. Canabrava has covered the subject very adequately from the Brazilian angle, and Ricardo de Lafuente Machain has gathered what information remains of the Portuguese living in the Río de la Plata area.²³ Marie Helmer also has an engagingly written article on the beginnings of the contraband trade with the Río de la Plata.²⁴ For the slave trade from west Africa to Hispanic America, in which the Portuguese were more generally involved, the standard work till now has been by Georges Scelle, *La Traite négrière aux Indes de Castille*, published back in 1906. To it must be added the massive compilation by Elizabeth Donnan, *Documents Illustrative of the History of the Slave Trade to America* (4 vols., Washington, 1930-1935). Note should also be made of monographic articles by James F. King and A. P. Thornton.²⁵

American Historical Review, LI, no. 1, 55-67 (Oct. 1945). Curtis Nettels, "England and the Spanish American Trade, 1680-1715," *Journal of Modern History*, III, no. 1, 1-32 (Mar., 1931).

²⁰ *Le Commerce français à Séville et Cadix au temps des Hapsbourg; contribution à l'étude du commerce étranger en Espagne aux xvi^e et xvii^e siècles* (Paris, 1932). See also its sequel: *La Rivalité commerciale et maritime entre Séville et Cadix jusqu'à la fin du xviii^e siècle* (Paris, 1932).

²¹ Henri Sée, *Documents sur le commerce de Cadix* (Paris, 1927). Léon Vignols, "Le commerce interlope français à la mer du sud au début du xviii^e siècle," *Revue d'histoire économique et sociale*, xiii^e année, no. 3, 239-99 (1925); "L'Asiento français (1701-1713) et anglais (1713-1750) et le commerce franco-espagnol vers 1700 à 1730. Avec deux mémoires françaises de 1728 sur ces sujets," *ibid.*, xvii^e année, nos. 3 & 4, 403-36 (1929). Vignols and Sée, "La Fin du commerce interlope dans l'Amérique espagnole," *ibid.*, xiii^e année, no. 3, 300-13 (1925).

²² *O Comércio português no Rio da Prata, 1580-1640* (Faculdade de filosofia, ciências e letras, Boletim xxxv, São Paulo, 1944).

²³ *Los portugueses en Buenos Aires (siglo xvii)* (Madrid, 1931).

²⁴ "Comércio e contrabando entre Bahia e Potosi no século xvi," *Revista de História* (São Paulo), no. 15, 195-212 (Julho-Set., 1953).

²⁵ James F. King, "Evolution of the Free Slave Trade Principle in Spanish Colonial Administration," *Hispanic American Historical Review*, XXII, no. 1, 34-56 (Feb., 1942); A. P. Thornton, "Spanish slave-ships in the English West Indies, 1660-1685," *ibid.*, XXXV, no. 3, 374-85 (Aug., 1955).

Holland and the Hanseatic cities likewise developed important interests in the Spanish American traffic, the Dutch chiefly from their entrepot on the island of Curaçao in the West Indies, the Germans by way of Seville and Cadiz. Recent Dutch scholarship, however, seems to have concentrated on the history of the Dutch West India Company,²⁶ and its spectacular seizure for twenty five years of the eastern "bulge" of Brazil from Pernambuco to Maranhão. Despite the long military struggle between Spain and the revolted Dutch provinces, the Hollanders retained an important share of the American trade via Seville until harassment by Philip II drove them to deal directly with America and the Orient. As early as 1580 Dutch vessels were reported on the coast of Venezuela trading for salt, a traffic that soon expanded to a hundred ships a year and that Spain tried in vain to stop. At the same time (1599-1624) short-lived Dutch factories were established on the lower Amazon River, and more permanent settlements on the coast of what is now British Guiana.²⁷ The islands of St. Eustatius (1632) and Curaçao (1634) soon became the headquarters for a vast contraband trade with the Spanish mainland and the larger islands of Hispaniola and Puerto Rico that continued into the nineteenth century.

A much needed study of German participation in the American trade is the pioneer work of Hermann Kellenbenz²⁸ on the enterprise of Hamburg merchants in the early years of the seventeenth century. The importance of Hamburg is also reflected in an interesting contribution by Ernst Schäfer, "Internationaler Schiffsverkehr in Sevilla (San Lucar) auf Grund einer spanischen Schiffahrtsstatistik vom Ende des 16. Jahrhunderts."²⁹

The economic activities and material interests of the Spanish American colonies, so often handicapped by the restrictive policies of the metropolis, had important bearings, of course, upon both local and overseas trade. Agriculture, mining, the pastoral industry, organization of labor in the craft guilds and of merchants in the *consulados*, have come in for a modicum of attention in the way of monographic research and publication. Their consideration lies mostly

²⁶ A recent general survey is in W. Menkman, *De West-Indische Compagnie* (Amsterdam, 1947).

²⁷ George Edmundson, "The Dutch on the Amazon and Negro in the Seventeenth Century," *English Historical Review*, XVIII, no. 72, 642-63 (Oct., 1903). For the rich opportunities for research in Dutch archives, see the article by Engel Sluiter, "The Dutch Archives and American Historical Research," *Pacific Historical Review*, VI, 21-35 (March, 1937).

²⁸ *Unternehmerkräfte im Hamburger Portugal- und Spanienhandel, 1590-1625* (Hamburg, 1954).

²⁹ *Hansischen Geschichtsblättern* 59, Jahrgang 1934.

outside the compass of this review. At best the harvest has been meagre and the laborers few. Only in Mexico and Argentina has much time or thought been expended on these questions. In most of the South American countries the field is almost virgin. For the economic historian here are vast opportunities for pioneer work.

The vast research project of M. and Mme. Chaunu is in reality oriented more toward Spain than toward the trans-Atlantic dependencies. But it is of equal importance for America and for Europe, and for the historian as well as the economist. The copious annotations to the tables in volumes II-V are replete with information about the economic evolution of the overseas communities. The project was prepared as a contribution to the program of economic history conducted by Lucien Febvre and Fernand Braudel in the Centre de Recherches Historiques of Paris, and is in effect a sequel to M. Braudel's equally noteworthy work, *La Méditerranée et le monde méditerranéen à l'époque de Philippe II* (Paris, 1949).³⁰ Opportunity for an analogous study with much wider significance for the economic history of western Europe was afforded by the vast documentary resources concentrated in Seville, in the Archivo General de Indias.

Volume I on the methodology employed is a masterpiece of its kind. It should be read and pondered by every student preparing to do research in the colonial documentation of Spain. As a description and critique of the principal resources of the Sevillian archives it appears to the reviewer to be without equal. Although perhaps at times too painstaking in explanatory details, it is written with grace and charm, and often with an eloquence unlooked-for in a scientific work of this character.³¹

In an illuminating introduction M. Chaunu offers an *apologia* for the enterprise: a contribution to an "economic, dynamic and quantitative history" of the centuries before the nineteenth, notwithstanding the fragmentary and complicated character of available sources of information and the "poco mas o menos" mentality of men of that time. Inspired by the relative success of others in achieving a history of prices, he elects to attempt a history of traffics, of exchange of commodities, as the best approach to a quantitative measure of production in modern economy. And he fixes upon the maritime traffic between Spain and America as the most important of its time in volume, value, variety of merchandise, and distances covered. Also

³⁰ Doubtless also inspired by the pioneer statistical work of Nina Ellinger Bang and Knud Korst, *Tabeller over Skibsfart og Varetransport gennem Øresund, 1749-1783* (Copenhagen, 1906-1933).

³¹ As in the evocation of the city of Seville, vol. I, 22.

because investigation is facilitated by the circumstance of monopoly centralized in the Casa de la Contratación in Seville and the unusual preservation of Spanish archives; and because of the marginal participation by Europe outside Spain, by the Mediterranean, and even by Asia and Africa. Here is a key, perhaps, to the rhythm of a world economy.³²

There follows a review of the basic bibliography, and a general description of the plan of the work. The emphasis is upon four publications: the *Cedulario*³³ of Diego de Encinas, the *Norte de la contratación de las Indias occidentales* (Sevilla, 1672) by José de Veitia Linaje, the *Recopilación de leyes de los reynos de las Indias*, and the *Memorias históricas* of Rafael Antúnez y Acevedo.³⁴ In his remarks about my own book M. Chaunu is more than indulgent, for no one has been more conscious than its author of the shortcomings of this doctoral dissertation of 1916.

The greater part of the first volume is devoted to three topics: registers of ships (129 p.), records of the *Contaduría* and general correspondence of the Casa de la Contratación (94 p.), and statistical construction of the tables that follow in the later volumes (60 p.). The *Libro de registros*, of primary importance as a reference base for this statistical project, is shown to be complete as an archival catalogue. This established, there follows a detailed discussion of the formalities of registration of ships and cargoes to and from the Indies, of the frauds perpetrated,³⁵ and of the all-important matter of tonnage and its measurement. Among the *Contaduría* papers consideration is given chiefly to the assessment called the *avería*,³⁶ its origins and administration, and its progressive abandonment in the middle of the seventeenth century for a fixed composition or *indulto* paid annually by the merchants of Spain and the Indies engaged in the trade. The story of the struggle over this issue between the crown and the *consulado* or merchants' guild, in the face of the fraudulent practices of the Seville merchants, is one of the most engrossing topics in the chapter (p. 224-237). Part III of the volume is given over to a description of the subsequent tables, and the laborious pro-

³² Vol. I, 14.

³³ *Provisiones, cédulas, capítulos de ordenanzas, instrucciones y cartas . . . tocante al buen gobierno de las Indias y administración de la justicia en ellas* (4 vols., Madrid, 1596; new edition, Madrid, 1945).

³⁴ *Memorias históricas sobre la legislación y gobierno del comercio de los españoles con sus colonias en las Indias occidentales* (Madrid, 1797).

³⁵ Including a masterly description of the role of the captains general of the *armadas de la carrera*, pp. 114-121.

³⁶ With a brief section on the *almojarifazgo de Indias* collected at Vera Cruz and Nombre de Dios-Puerto Bello.

cedures by which from the incomplete and discontinuous documentation in Spanish archives a continuous statistical construction was achieved.

The tables in volumes II-V cover chronologically the movements of all ships between Spanish and American ports from 1504 to 1660, with the names of ships and masters and, if possible, of the owners, the type, tonnage, and age of the ships, composition of the crews, and the American ports to which and from which the ships sailed, with source references in the margin. Sources other than the Book of Registers are also indicated in voluminous notes that covers in detail the vicissitudes in the preparation and voyage of the fleets, conflicts of interest between merchants and the crown, prices and the state of the market, résumés of outstanding events of the year whether economic, political or meteorological, and any other background information pertinent to an understanding of the Atlantic traffic as reflected in the papers of the Casa de la Contratación. These annotations provide a fascinating running commentary on the progressive Spanish occupation of the New World, and on the increasing activities of foreign corsairs, especially the French. Some of them are complete essays in themselves extending over pages of fine print.³⁷ In volume VI is systematized the material of the preceding tables, showing by years, decades or half-decades the movements in volume and value among Spanish and American ports, as well as a tabular analysis on a geographical basis of maritime losses by sinking at sea, enemy capture, and stranding by storm, and of the importation and prices of the principal commodities from the Spanish colonies.

A stupendous accomplishment, of extraordinary patience and industry, and of outstanding technical competence! The result is the most continuous and relatively complete statistical elaboration ever made for a period so remote, a mine of information of incredible richness and variety, covering nearly 18,000 voyages in the maritime-mercantile current across the Atlantic, a signal contribution to the history of the Spanish empire in America, and of indispensable importance for future research. Taken all together, tables, graphs and annotations provide an impressive and moving picture of the rise and decline of Spanish sea power in the sixteenth and seventeenth centuries.

Given the massive size of the work, typographical errors appear to be remarkably few. On only one matter does the reviewer question

³⁷ See, for instance, the six pages discussing the effects of the appearance of the Dutch fleet of Jacques l'Hermite on the Pacific shores of South America in 1624 (Vol. V, 74-79); and the copious notes on the year 1643, critical in trans-Atlantic communications (*ibid.* 406-421).

the authors. The *tomín* is described (vol. I, 270) as one-twentieth of a peso, whatever the peso's value. The *tomín* in reality was one-eighth of a peso, whether the *peso de oro de minas* (or *peso de plata ensayado*) of 450 maravedís,³⁸ the crude unit of value by weight in general use throughout the colonies in the sixteenth century, especially in bullion and large commercial transactions, or the later coined *peso fuerte* or *duro*, the "piece of eight" of 272 maravedís, when the term *tomín* became interchangeable with *real*. So it appears in the records of royal treasurers in Seville and in the colonies from the earliest years.³⁹

The truly significant part of this gigantic endeavor, the interpretation and conclusions to appear in three more volumes, is not yet at hand. We eagerly await it as a new diagnosis and synthesis of Spanish economic history in the first two centuries of the modern era, and as an important contribution to the elucidation of the cyclical element in economic history in general.

³⁸ With the increase in the ratio of gold to silver, its value was in 1578 advanced for gold bullion to 556 maravedís, and later to 589 maravedís.

³⁹ Although the first mint was established in Mexico City in 1535, the *peso fuerte* apparently was not coined in Mexico or Peru until the time of Philip II, and thereafter came slowly into general use. In the seventeenth century it apparently did come to be worth twenty *reales* (or *tomines*) *de vellón*, but remained the equivalent of eight *reales de plata*. For the sixteenth century see the Appendix to my article, "American Gold and Silver Production in the First Half of the Sixteenth Century," *The Quarterly Journal of Economics*, XXIX, 475-79 (May, 1915).