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Portugal and the Making of the Atlantic World

Sugar Fleets and Gold Fleets, the Seventeenth to the Eighteenth Centuries*

Vitorino Magalhães Godinho

THE CREATION AND ECONOMIC DYNAMISM OF THE ATLANTIC WORLD

The Atlantic world is the novelty of modern times, if ever there was one. Its principal foundations were laid in a century, up to about 1520. The building, still unfinished and completely new, but already very solid, began to be built on these foundations by the end of the seventeenth century.

For millennia the ocean constituted an almost impenetrable barrier. American civilizations may be understood without taking into account European civilizations and vice versa. European civilizations cannot be understood without Asian civilizations. African civilizations can no longer be grasped without taking into account their relations with Europe and the Asian world. It is even undeniable that the civilizations of the American continent were linked through the Pacific to the civilizations of the Far East. In effect, contacts, migrations, always existed between these two parts of the world. Moreover, cultural goods traveled, above all, from Asia to America. Thus, the whole world formed a continuous band, to use Monod's expression. But this band was cut by the Atlantic.

Now, it happens that in the fourteenth and fifteenth centuries an extraordinary adventure began—the discovery of the Ocean and the

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creation of the oceanic routes. What were the causes? In general, this push towards the West has been explained by Mediterranean causes. These problems were linked to the markets of the eastern Mediterranean, the question of silk, the question of spices, the question of the rerouting toward the West of Italian (Genoese and Florentine) capital that the Turkish advance and the Venetian quasi-monopoly made idle in the Levant. For my part, I think that the rise of the Atlantic is to be explained by the conditions particular to the Atlantic countries themselves.

In a word, the voyages of discovery and the first establishments on the Atlantic islands and along the African coast seem to me to flow from an ensemble of forces that may be described under four rubrics. First, and already well known, is the quest for gold by maritime routes that was imposed by the scarcity of precious metals and the fall of seigneurial revenues. Next was the need for labor, and more precisely for slaves for the sugar cane plantations and the sugar mills that were tried in Portugal itself at the beginning of the fifteenth century. Further, we could add the progressive and persistent expansion of the fishing zones, especially if we recall the role that maritime fisheries played in the Portuguese economy in the Middle Ages. Fishermen were often the first to conquer the routes that the so-called “discoverers” then “discovered.” Do we wish to understand the exploration of Newfoundland and Labrador? We should pay less attention to the names and nationalities of the ship captains and think more about the cod. Associated with the maritime fishery is seal hunting. Sealskins were raw material for the shoe industry. Were not the Canaries so frequently visited in the fourteenth and the beginning of the fifteenth centuries because of the skins? Finally, and if one prefers, fourthly, do not forget the demand of the textile industry for dyes and other auxiliary products such as gum, used in the finishing of silk. In the northern Atlantic archipelagos, what cultivation developed but dragon’s blood, archil, and before long (the sixteenth century) pastel?

To give a striking example of how essential the role played by the demands of the dye industry was in the first contacts with the New World, it is enough to recall the very striking fact that the land of the Holy Cross became “Brazil.” “Brazil” is the name of a wood used in the dye industry for a red dye. During the first decades of the sixteenth

century brazil wood was the most sought after commodity in South America. But parallel to it, in Central America, there was the logwood of Yucatan. There was indigo to be found in Dar'a in Saharan Morocco, which strongly drove the relation between the European markets and the Moroccan markets.

Finally, sugar also shared in the conquest of the new worlds. It was introduced early in Madeira. That island, which produced 6,000 arrobas in 1454, already experienced an astonishing rise of sugar production at the end of the fifteenth century. The minimum exported in that epoch was 120,000 arrobas. Toward 1505–10 sugar production rapidly reached the level of 200,000 arrobas annually. A dozen years later it climbed to 300,000 arrobas. From Madeira sugar conquered the Azores and São Tomé. Toward the end of the sixteenth century, it moved to the Canaries. Soon after it reached Brazil and the Lesser Antilles. The genesis of the Atlantic world is, thus, in good measure, linked to what Fernand Braudel quite properly calls the dynamic of sugar.

Is it possible to map the growth of the Atlantic world? Without a doubt, although no one has yet thought about it, or at least has not made any effort in that direction. We will confine ourselves to the major contours and some vital arteries, while emphasizing two or three characteristics of this ensemble at the end of the sixteenth century and during the first three-quarters of the seventeenth century.

It seems that there was in the Atlantic—and it is again Fernand Braudel who calls attention to this point—a necessity of going now from north to south and now from east to west. This crossing—this superposition of routes according the meridians and the parallels outline the woof of the Atlantic network. In the Indian Ocean there is nothing similar. Its southerly semicircle (the curve turns towards the north) is instead a *tanezrouft*, a liquid desert. In contrast, one could almost say that the Atlantic is, on another scale, an inverted Mediterranean. The axis of the meridians becomes that of the parallels and vice versa. And another, perhaps more fruitful, remark is required. It is necessary to distinguish between the primary routes that cross the Ocean, carrying the products of the Americas to Europe, and the routes of redistribution that carry these products to the Mediterranean and to the North Sea and the Baltic.

For example, the Spanish *galeones* and *flottas* carried silver from Mexico and Peru and cochineal and logwood from Central America to Seville, to Cadiz, and sometimes to La Coruña. At the terminus of this primary route for silver and dyes, Dutch and French frigates came to load the coinable metal in order to nourish the Atlantic ports of Holland and of France. Another maritime route of redistribution went to Genoa, while an overland route also enabled silver to enter France. As for Dutch shipping, the route for the redistribution of silver coincided with the salt route (salt from Andalusia and salt from Setúbal), one of the most important routes in the sixteenth-century world-economy.

Other routes from Brazil and from São Tomé to Lisbon thrived because of the trade in sugar. From the banks of the Tagus ships loaded with sugar departed for Marseille and Genoa on the one hand and for La Rochelle, Nantes, Rouen, London, Amsterdam, and Hamburg on the other. By means of overland routes Spain too was supplied with sugar. The slave routes linked the shores of Guinea and Angola either to Brazil or to the Spanish Indies. Tobacco and pieces of eight, above all, traveled in the opposite direction. The gold route, which begins on the Mina Coast on the Gulf of Guinea, was in the hands of the English and the Dutch. The Portuguese no longer had a piece of the cake.

The northern Atlantic proved to be much less rich. Here the fisheries were the true driving force. Whaling between Iceland and Greenland was firmly in the hands of the Dutch. The cod fishery near Newfoundland was in the grip of competition between the English, Dutch, French, and Biscayans, the Portuguese having been pushed out at the end of the sixteenth century and the beginning of the seventeenth century. It was a bulk trade because cod had become an indispensable element of the diet of the masses in the Iberian Peninsula and the Mediterranean.

But the history of cod, like that of the slave trade, seen from the perspective of the geography of circulation and the mechanisms of exchange, is related, in part, to the system of triangular navigation. Ships, whether leaving from Lisbon, Nantes, or an English port, go to take on a cargo of slaves on the African coast, transport them either to Brazil or to the Antilles, and finally return to their point of departure, rich in sugar, tobacco, or silver. Ships from Viana or Porto departed for São Tomé to take on sugar to sell in the Low Countries, returning to their homeport with a cargo of cotton and linen textiles.

Thus, the Atlantic already had a life of its own. It had not always been so, because vast zones had only been explored in the effort to open gateways to the Asian world. The longest lines of navigation, spreading along the meridians, are still those that, passing by the Cape, link Lisbon, Amsterdam, London, and Lorient to the East Indies. The southern extremities of the African and American continents even now present a very limited economic interest. But even on this great route, the hold of the Atlantic world makes itself felt. Did not Portuguese ships returning from Goa or Macao make Bahia a port of call where they completed their cargoes with Brazilian produce or Spanish pieces of eight while at the same time disposing of Asian merchandise? French vessels often did the same because of the lure of contraband more than because of the needs of the voyage.

The Portuguese economy of the seventeenth century was deeply involved in the entire Atlantic economic ensemble. Trade with the East Indies remained very anemic because of victorious Dutch, English, and French competition. After the collapse of the first company (1628–33), economic thought no longer even bothered with it. But Portugal, or rather the superstructure of great cities, the nobility, and the state, always lived off of maritime relations. Now they did so within the framework of the Atlantic.

In this economic ensemble, sugar from Brazil incontestably played the leading role. Between 1610 and 1620 exports to Lisbon alone were annually between 700,000 to 750,000 arrobas. Brazilian production reached 1,400,000 arrobas in 1645 and did not decline before 1670. It is also necessary to take into account sugar from Madeira and São Tomé, which altogether totaled from 200,000 to 300,000 arrobas. In considering the role of sugar, Portuguese historian Lúcio de Azevedo has called Portuguese economic history during the seventeenth century the “cycle of sugar.” From a certain point of view, he is correct. But this idea of cycles, each dominated by a particular product, can only falsify reality a bit. It creates an image that is too schematic, too simplistic because Brazilian sugar does not explain everything any more than Brazilian gold explains everything in the eighteenth century.

Moreover, Brazil also supplied tobacco, whose role was far from being inferior to that of sugar. Do we then speak of a cycle of sugar

and tobacco? This is an inadequate correction. Because there is also brazil wood, which constituted a very important part of the cargos that arrived at Lisbon, Porto, and Viana from Brazilian ports. And the Portuguese seventeenth century cannot be understood without the salt from Sétubal either. Dutch aid for the War of Portuguese Independence, the War of the Restoration, was purchased with this salt beginning in 1640. The role of salt has not been sufficiently brought to light. It was the commodity that obtained currency for the Portuguese. Thus, to speak of a “sugar cycle” and only emphasize the importance of the sugar cargos is to put to the side tobacco, brazil wood, and other commodities. But it is to forget something else too—the foundation of monetary circulation.

What did capital consist of? How was it invested? Here it is necessary to note carefully that, despite the falling curve of arrivals from Mexico and Peru, the seventeenth century was still a century of silver. And that it was Spain that received this silver from the West Indies. As for gold from Mina, it completely disappeared from the Portuguese economy. How then did the Portuguese obtain the precious metals that were indispensable for monetary circulation? This is a problem that has never been posed. Now, it is essential to resolve it if we wish to grasp the nature of the Portuguese economy of the seventeenth century. Well! The Portuguese obtained silver from Spain. But how? By two routes. One was overland—the exportation of sugar, tobacco, and brazil wood to Spain in exchange for Spanish silver coin, the pieces of eight. The other was a maritime route connecting Lisbon to Seville. Dutch ships (sometimes it was a question of enormous fleets) arrived in ballast at Sétubal to take on salt. At the same time, some warships went to Seville, escorting another Dutch fleet that sold goods from the North in exchange for silver. After this exchange, they returned to Sétubal and to Lisbon where they made their payments in silver rather than merchandise.

Consequently, it was these two routes that obtained for the Portuguese the money that was indispensable for its commerce. The Spanish, at a certain point, even came to say, “but it is with our money that the Portuguese make war against us.” And it was true.

PORTUGAL: SUGAR FLEETS AND GOLD FLEETS (1670–1770)

In the middle of the seventeenth century, the Dutch, expelled from the northeast of Brazil where they had sought to secure sugar, tobacco, and ginger, transferred Brazilian techniques to the Lesser Antilles. The French and English were also settled in that den of piracy. With their weakly hierarchized populations devoted to the cultivation of indigo and some provisions on their smallholdings, they too profited from this transfer of techniques. Moreover, at the end of the seventeenth century and the beginning of the eighteenth century, these techniques, improved and perfected, were to reach Mexico, where, in any case, they had already arrived by land from Peru.

It is not surprising that the implantation of this new economy of sugar and tobacco in the American Mediterranean between 1650 and 1670, together with Colbert's economic policy had disastrous consequences for Portuguese Atlantic commerce. Portuguese products were expelled from French, Dutch, and English markets. To be sure, the English, Dutch, and French still took on cargoes of sugar and tobacco at Lisbon, but they did so in order to sell them elsewhere. Their national markets themselves were lost to the Portuguese. About 1670 this eviction from foreign markets began to be felt in Lisbon. Stocks accumulated in the warehouses. Products could not be sold. They were sold below cost. Not only was there a slump, but also prices fell because supply increased much more rapidly than demand.

Here is sugar. In 1650, an arroba of sugar sold in Lisbon for 3,800 reis. The first decline was in 1659: 3,600 reis, in 1668: 2,400 reis. Thus there was a fall of 33% in nine years. And 20 years later, in 1688, an arroba of sugar was worth 1,300 or 1,400 reis, this time a fall of 41.6% (but the rhythm is already slower).

Let us pass to tobacco. In 1650 the price in Lisbon was 260 reis per arratel. In 1668 it had already fallen to 200 reis, and in 1688, it fell to 70 reis, that is, a fall of 65% in 20 years—a decline greater than that of sugar.

A still more disturbing decline was that of cloves. In 1688, a quintal sold for 18,000 reis in Lisbon, and 20 years later it was only 5,000. In this interval the price fell 72 percent.

Here, a question arises. The research of Beveridge, Hamilton, and Meuvret demonstrates that from 1620–40 to 1680 prices everywhere declined in a continuous and steady manner. Is not the history of Portuguese prices only one more case of the general long-term down-

ward movement—a gradual weakening, decline, or lowering of prices and not a fall, a crash, a crisis? But the percentages recorded at the time lead one toward the dramatic interpretation. It imposes itself if these data are compared with the curve of the price of wheat. Here are the five-year averages (for wheat) for the Azores market, which was closely bound up with the Lisbon market:

1659–63	7,200 reis
1664–68	7,840 reis
1669–73	6,280 reis
1674–78	6,960 reis
1679–83	7,680 reis
1684–88	7,680 reis

Furthermore, it can be established that the Portuguese costs of production did not diminish. An increase in some of them, notably of slaves, may even be registered because the development of Antillean cultivation made competition fiercer for the purchase of slaves on the African coasts.¹

At the same time, the influx of silver underwent a second crisis. The first occurred around 1625–30. The second took place around 1670–80. Not only did arrivals of silver in Seville diminish, but also Dutch trade developed in directions other than Sétubal and Lisbon. Thus, the flow of silver that ran from Seville to Lisbon was in part diverted and in part diminished because the source gave out.

And thus it is that this crisis was simultaneously a crisis of sugar, a crisis of tobacco, and a crisis of silver. And that naturally the government of Portugal would try to stop it. But how?

It is surprising that, until now, Portuguese historians have spoken of a Colbertian policy in Portugal at the end of the seventeenth century without ever looking for the reason for it. For my part, I think that this policy to develop manufactures is explained precisely by the

¹ In the Gulf of Guinea, the Dutch successfully harried the Portuguese. In Angola, the human resources of the coast were exhausted. The hunt for men in the interior raised the cost of slaves. Portuguese profits were squeezed by the vise of falling prices at markets because of Antillean competition and rising, or, at the least, constant costs due either to competition in the slave markets or to the excessive number of producers in relation to the possibilities for development, which increased the costs of wood, oxen, cauldrons, etc. Thus, the disjunction of prices, carried along by two contradictory movements.

crisis. Furthermore, there are texts that state this explicitly.² That is to say, the Portuguese were clearly conscious of a commercial crisis and of the necessity of developing manufactures as the means to stop it. In effect, if the exchanges with the French were made with sugar, tobacco, Spanish wool, and brazil wood, and if the French no longer wished to buy these goods, the Portuguese (who continued to buy the silks, cloth, ribbons, eaux de vie, and other products that they needed from France) found themselves obliged to choose between three solutions: either pay for the merchandise in money, or develop other lines of trade that would enable them to continue to buy these goods, or undertake to produce for themselves the articles that up until then they had imported. Now, at that moment, it was impossible to open new trade. The second solution was thus ruled out. There was a crisis of silver imports. Thus, the exportation of money could not be expanded. There remained only one solution, the development of manufactures. The texts are clear. Portuguese statesmen had ably taken account of the situation and of the means to resolve these difficulties.

There is another observation that has never been made. One of the essential works of Portuguese economic thought in the eighteenth century, the *Introdução das artes e ofícios no reino* [*The Introduction of Applied Arts into the Kingdom*], was written by Duarte Ribeiro de Macedo, who was ambassador to Paris. Being fed on Colbertian thought, he knew very well the manufacturing policy, the policy of colonial monopoly, etc. In this report (which bore the date 1675), he invoked the example of France. The crisis began in 1670. In 1671, its character and the solutions that would be required were already clearly perceived. In 1675, the theoretical response was completed, and by none other than Ribeiro de Macedo.

Thus, the attempt would be made to establish in Portugal several factories—*fabriques*, as one said in the language of the day. That is to say, workers from France were brought to Portugal, and it was none

² Here, for example, is a letter from the French Consul in Lisbon (July 27, 1671), who says that:

I learned a while ago that the Portuguese, alarmed by the new duties that we have placed on sugar, think with more determination than ever, about the means to establish in Portugal factories for ribbon and the majority of other products that come to them from France, and that Duarte Ribeiro has orders to seek and send [to Portugal] as many workers in all types of manufactures as he can.

And there are many other texts that point in the same direction.

other than Ribeiro de Macedo who arranged for them to embark in Le Havre on Dutch or English ships, and sometimes even French ships, destined for Portugal. The factories that were established competed with the French factories. That is one of the reasons that accounts for the rise of English trade with Portugal and the decline of French commerce. The Portuguese economy and the French economy became competitive economies. The English economy, not.

As the crisis also presented a monetary face, we must ask ourselves if this manufacturing policy was not bound up with a monetary policy. Now, in 1688, the value of money was changed. The nominal value was increased by 20% while keeping stable the real value, the intrinsic value, because this is always the means of attracting money from other countries. Since there was a decrease in the influx of money from Spain, this nominal reevaluation would once again permit the hemorrhage of completely indispensable Spanish silver to take effect. How did the opinion of the time view this operation? In Lisbon, the French understood nothing. They thought that the Portuguese government was crazy. A year later they became aware of the abundance of specie on the Lisbon market. Thus, in 1688, it was impossible to make payments. In 1689, coins circulated normally in Lisbon. Thus, the operation succeeded, at least up to a certain point, because it could only be an emergency measure. Indeed, soon other countries took analogous measures, raising prices in order to stop this devaluation of money. Henceforth, it would be necessary to consider other solutions. But which ones?

There is another fact which, apparently, has nothing to do with what we have just discussed, at least if we believe the Portuguese historians who have been concerned with it. In 1685, a joint stock company was founded to engage in the slave trade on the Guinea coast. What relation does it have with our subject? But what if the goal of this entity was nothing less than that of obtaining Spanish pieces of eight? Everything would then be explained and we would arrive at a coherent whole, because this Company obtained the privilege of exporting slaves to the Spanish Indies. The *asiento* was in the hands of the Portuguese before the English ousted them from that esteemed trade. We have proof of this goal in the fact that the ships of the Cacheu Company arrived in Lisbon with pieces of eight. Leaving for Guinea to buy slaves, these ships transported them to the Spanish Indies to sell them there in exchange for pieces of eight, because the Company had the privilege, granted by the King of Spain, of importing pieces of eight

directly from the Spanish Indies to Lisbon. The formation of this Company was thus integrated into the coherent ensemble of solutions to the crisis.

Other aspects of this policy are better known. We will not dwell on them. The pragmatics, for example, were more prohibitions against imports than a struggle against luxurious dress. The entry of ribbons, of fabrics of silk, gold, and silver, and of all luxury cloth was prohibited in Portuguese ports. It was the need to reduce imports that required these measures inasmuch as the trade deficit was so bad.³

This industrial policy faltered abruptly. The Count of Ericeira, under whose aegis it had always been placed, committed suicide in 1692. The Marquis of Fronteira—who is never spoken of—in fact the first promoter of a coherent policy of naval construction on the one hand, and of the establishment of workshops [*ateliers*] on the other, continued to be one of the *Vedores de Fazenda*, but his influence faded. The government passed into other hands that made it turn so as to go back to different paths.

Here, it is certainly not the Treaty of Methuen, so debated by posterity, which should be called into question. Above all, the Methuen Treaty registered a *de facto* situation. Already before 1703, English contraband introduced [into Portugal] a great quantity of prohibited English cloth, a situation from which the Dutch profited by doing the same. And the Port wine trade developed before 1703. Now the Treaty of Methuen stipulated two simple things: Portugal authorized the introduction of English textiles, the legalization of a *de facto* situation, and England granted a preferential duty for Portuguese wines over French wines. This sanctioned another *de facto* situation because Portuguese wines only paid half the duty that French wines paid, and up until about 1770 they always paid half instead of the two-thirds that the Treaty allowed. Furthermore, we should be wary of not attaching any importance to this legislation against contraband; the figures would refute us. But when the Treaty is explained by a *de facto* situation, the problem is only displaced because, at bottom, what is important is to

³ In 1675, Duarte Ribeiro de Macedo evaluated the balance of trade in the following manner: one-third of imports paid in cash. Such a situation would only worsen, to the detriment of Portugal, in the course of the first half of the eighteenth century.

explain the economic evolution from which it follows and which it reveals. Thus, this change still is to be explained because, if the Treaty of Methuen did not innovate, it nonetheless sanctioned a *de facto* innovation, that is to say, the halt of the expansion of manufactures. This forgotten policy is put aside in 1670. Why? That is the heart of the question. And up until now it has not been explained.

Three successive conditions reversed the flow.

First, in 1690, the commercial crisis began to subside. Stocks were sold. Prices rose again. One has the feeling that the consumption of sugar and tobacco received a sharp stimulus and grew rapidly and widely because Portuguese commerce did not conquer new outlets. From then on, they were the same ones, but they purchased more and did not allow the goods to fill up the warehouses and deteriorate. On the other hand, it was Holland's turn to experience serious difficulties, and the Portuguese profited from it admirably. Their trade with the East Indies revived, encroaching on the markets that their competitors had kept them away from. The years 1690 to 1705 were a period of incontestable recovery and mercantile prosperity for Portugal. Having been a response to the commercial crisis, the industrial policy lost its *raison d'être* once the latter had come to an end.

Such a commercial recovery, in addition to the agricultural development that we will speak about below, set in motion new social and economic forces.

On the banks of the Douro since the Late Middle Ages, mainly since the eleventh century, men have planted vineyards which have never ceased to advance over its slopes. However, only in the seventeenth century did that specialty that is today called "Port wine" really take shape and develop. The English were to buy more and more of this wine. At first its taste seemed pretty bad to them, but then they began to like it. Did not this preference go along with their sense of commercial war with France?⁴

But it was not only Porto, this newcomer, which gathered force economically and politically. Viticulture gained ground in Portugal. English ships destined for the Americas stopped at Madeira to take on malmsey. If we recall the place of wines from the Canaries and the Azores, and that of French wines, in the cargos bound for the West a

⁴ Bottles of Port wine were also shipped to Holland and to Hamburg; however, these markets remained infinitely more modest.

characteristic appears: The enormous growth in the production and trade in wine in relation to the development of outlets in the Americas during the last quarter of the seventeenth century and the beginning of the eighteenth century.

Well then, Portugal still bought wine and *eaux-de-vie* from abroad, especially from Bordeaux and Catalonia. French wines and *eaux-de-vie* were held to be superior in quality to the Portuguese. Portuguese producers and merchants thus operated in a competitive market where their products were regarded unfavorably. At the just right time, a new administration came to power.

Who were the ministers in 1703? There was the Duke of Cadaval, the president of the Council of Justice and perhaps the most important minister, a great landed proprietor. There was also the Marquis d'Alegrete, president of the Council of Finance, also a great landed proprietor. But what did they produce on their properties? Wine. Their rise to power at the end of the seventeenth century exactly coincided with the death of Count Ericeira, promoter of the development of manufactures, and the eclipse of the Marquis of Fronteira, the other promoter of naval and manufacturing development. The "industrials" ceded their place to the great seigneurs of the vineyards.

More important than the Treaty of Methuen, and by far, was a whole series of laws prohibiting the importation of foreign wines and *eaux-de-vie* into Portugal. These measures struck a rude blow to French commerce. They were taken by none other than the Duke of Cadaval and the Marquis d'Alegrete, that is, the two great proprietors of vineyards, because they were having trouble selling their wine due to French competition. The cycle of the vineyard proprietors was about to begin.

At the same time, Brazilian gold became more and more of a temptation. As an indirect consequence, sugar cultivation began to contract because labor was diverted to the mines and because gold was more profitable. The belief that gold was more profitable was a mirage, a myth, but myths exercise an influence on collective attitudes that is not negligible. Whatever the truth may be in reality, if men believe that gold is more profitable than sugar, it is enough to turn them from sugar towards gold. Thanks to gold coin, goods that otherwise one would have to produce for oneself or forego having could be obtained from abroad. The balance of trade deficit in 1713 greatly surpassed the one-third deficit that it had already shown in 1675. Specie filled a hole that was almost equal to half the total imports.

In sum, the development of manufactures was the turning point between two clearly defined periods of Portuguese economic history. For the sake of convenience, let us call them the “cycle of sugar, tobacco, and salt,” and the “cycle of Brazilian gold, and Port and Madeira wine.”

If the arrivals of gold brought relief to the balance of trade deficit, they were far from being the solution to all problems. The everyday money was still silver, gold coin having too high a value for ordinary purchases in the market place. Gold coin was important for international commerce and not for regional or local trade. Pirenne has clearly shown this truth for the Middle Ages. It remains valid for the eighteenth century. Portuguese theorists of that period were aware of it too. They said: “We have gold, but it is silver that we lack. . . . How can it be obtained?” I do not know the curve of the salt trade. Nonetheless, I shall risk a hypothesis. It is that trade declined in the beginning of the eighteenth century and that was one of the reasons that there was a shortage of silver in Portugal. And here is another hypothesis, one that is much better defined. The renewal of sugar production in Motril and the setting up by Portuguese of tobacco manufacture in Seville weakened one of the means employed by Portuguese commerce to supply itself with silver. In any case, it was no longer possible to obtain silver in sufficient quantities from Seville or Cadiz. What was to be done?

Now, in Brazil at that time there was a push towards the interior. Also, the Rio de la Plata and Buenos Aires was a market for silver, because already in the sixteenth century, about 1570–80, a route was created that linked Peru to the mouth of the river. Already (as the work of Brazilian historian Alicia Canabrava demonstrates) about the date of the annexation of Portugal by Philip II, Portuguese trade began to develop in Buenos Aires. Why? Because the Portuguese needed silver. For the moment, I will not look for an explanation of the fact. This trade would have stopped around 1635–40.⁵ There were several

⁵ But not exactly as Alicia Piffer Canabrava supposes. Charles R. Boxer, Professor at the University of London, has studied documents at the Colonial Archives in Lisbon that demonstrate many efforts at renewal, and even effective contacts. Salvador Correia

decades of interruption, and as it happens, about 1670, the date of the start of the crisis, the Portuguese again become interested in Buenos Aires and the Rio de la Plata. Timid efforts at first, contraband ventures, but at the beginning of the eighteenth century they become more systematic and regular. Was not the Rio de la Plata trade one of the important stakes of the War of the Spanish Succession? For my part, I think so.

What did the Treaty of Utrecht recognize? The loss by the Portuguese to the English, ten years after the Treaty of Methuen, of the slave *asiento*. Yet another reason that the scarcity of silver was aggravated in Portugal precisely in 1713. In compensation, the Treaty of Utrecht granted to the Portuguese the colony of Sacramento. And soon after there were encroachments—Portuguese attempts on Montevideo. Indeed, the Spanish never willingly granted that concession of the Treaty of Utrecht. There were always armed conflicts between Spaniards and Portuguese on the two banks of the Rio de la Plata, and, at the same time, in fact, there were amicable relations between the two because contraband between the two sides of the river could only take place with the agreement of the other party. Sometimes even the governors were involved.

From the beginning of the eighteenth century, the fleets arriving in Lisbon from Rio de Janeiro always carried pieces of eight and hides from Buenos Aires. Leather was an important presence in the eighteenth-century Atlantic. Its volume, if not its value, was comparable to that of sugar. It is necessary to take it into account. Stockraising expanded tremendously in the area around Buenos Aires in order to supply the export trade in hides and the development of European leather industries. At the same time, the northern regions of Brazil developed. The fleets coming from the regions of the North of Brazil were, up to a point, leather fleets. Consequently, the Portuguese obtained silver and hides in the colony of Sacramento, which is to say, really, from Buenos Aires.

In order to clearly see the development of the Atlantic economy in the eighteenth century, it would be necessary to proceed to a statistical analysis of the fleets from Brazil. Up until now, that has not been attempted. Thus nothing, absolutely nothing precise—nothing quantita-

de Sá, the restorer of Angola, was himself interested in this trade. But the general assertion remains true.

tive—is known about the commercial movement of the Atlantic during this period. I have found in the holdings of the French Consul in Lisbon and the National Archives in Paris several cargo inventories for the fleets from Brazil. That file clarified quite a few points, but unfortunately it is not complete. Nevertheless, we can already glimpse a difference between the seventeenth and the eighteenth centuries.

In the seventeenth century, up until 1680–90, the fleet from Brazil was composed of 70 to 90 vessels that arrived simultaneously in Lisbon from several Brazilian ports. Thus, it was a single fleet.

In the eighteenth century, there were the “fleets” from Brazil, each in keeping with the economic specialization of the region from which it came. There was the fleet from Rio de Janeiro. It carried gold and also pieces of eight from Buenos Aires and hides from the Spanish colonies of the South. But, before anything else, it was gold that was important. There was the fleet from Bahia, the fleet of sugar, tobacco, and brazil wood. There was the fleet from Pernambuco. Above all, this fleet brought wood for naval construction and building. In the eighteenth century, it also became, and each year more so, a sugar fleet, which it had not been in the second half of the seventeenth century.⁶

Finally, there were the fleets from the North, from Grão Pará and Maranhão. These could be called “fleets of cocoa” while waiting for the time when they would become “cotton fleets,” because cotton production was to expand rapidly there after 1750–60 due to the policy of the Marquis of Pombal. It was a prelude to the Industrial Revolution.

But can the shipments of gold be evaluated? More than a century ago, the Viscount of Santarém wrote the only work that until today attempts to do this. He lived in Paris and based his work on the holdings of the French Embassy in Lisbon and the National Archives in Paris. Until today, Portuguese historians have accepted his conclusions without any criticism. But a careful examination of this list leads to the conclusion that it is incomplete and inexact. It gives a false idea of the movement of gold from Brazil. On the basis of such a table, Lucio de Azevedo only accumulated misunderstandings, besides making a gross mistake in his attempt to calculate an average. How can we

⁶ In the seventeenth century, Bahia and Rio shipped the same amount of sugar. In the eighteenth century, shipments of sugar from Rio were minimal, while on the other hand, those from Pernambuco grew. The decline of Pernambuco from the perspective of the production and sale of sugar during the second half of the seventeenth century, in contrast to its prosperity before and after, is related to the Dutch war.

establish a complete and exact list and interpret it correctly? The “inventory of the cargo of the fleets” [*état des chargements des flottes*] sent by the consuls and by the ambassadors in Lisbon, taken together offer a clearer picture (the Viscount of Santarém only considered the latter), although one that is still very imperfect. But happily more pure and certain sources have reached us in a continuous series from 1713 to 1807. They are the books or registers where all the declarations of gold sent to Portugal (and legally it could not be sent elsewhere) were recorded. They are preserved in the Mint in Lisbon. Moreover, the French sources retain their value, because, occasionally, they reveal to us the figures for contraband. It is now possible to sketch the general contours of this history of gold.

The arrivals in Lisbon of gold from Brazil start off around 1695, with a very rapid increase during the last two years of the century and the first decade of the following century. From 725 kilograms in 1699, they passed 1,785 kilograms two years later, and 4,350 kilograms in 1703. They reached their first ceiling of 14,500 kilograms in 1712. A decline of 50% in the following year was followed by a recovery that reached close to 9,000 kilograms in 1714 and 12,400 kilograms in 1715. There was a new collapse during the two following years, falling to 3,000 and 1,000 kilograms respectively. A new recovery in 1718 and 1719 reached the level of 7,500 and 8,000 kilograms. A new ceiling of more than 25,000 kilograms in 1720 greatly surpassed all these figures. If the years 1721 and 1722 still maintained the credible level of 11,000 kilograms, the two following years experienced crisis again. First falling to 6,000 kilograms, gold consignments dropped again to only 4,000 kilograms the following year. Of course, this loss was partly recuperated the following year when no less than 20,000 kilograms were unloaded in Lisbon. But from then until 1731 only figures between 6,000 and 8,000 kilograms were registered. The third decade of the century thus did not mark progress, but instead was a period of stagnation. In contrast, beginning in 1731, arrivals did not fall below 11,000 kilograms except in the two crisis years of 1732 and 1736. This second year was compensated by the exceptional figure for the shipment brought by the fleet in the following year. The decade that began in 1740 registered new progress that was steady but not sensational. The Brazilian fleets brought at least 14,000 kilograms a year and sometimes as much as 16,000 until 1755. There were only two exceptions, 1744 (6,000 kg.) and 1754 (10,500 kg.).

Of course, it would be mad not to take into account contraband, the coefficient of which is difficult to establish and not uniform. In 1699, for example, 34 arrobas of gold were registered, against more than 20 that were introduced clandestinely. The vessels of the King of England generally arrived in Lisbon at the same time as the fleets from Brazil, of course completely by chance. They had to rest, they had take on water, etc., etc. Often, they anchored among the ships that had come from the other side of the Atlantic. During the night, a good part of the undeclared gold was unloaded onto the English vessels. Many times too, other ships, either English or French, would make a call in Brazilian ports, and, in spite of all surveillance, find it easy to obtain to obtain several kilos of gold. Trade between the Northern countries and Brazil was sometimes even able to operate in the open, tolerated by governors who were soon dismissed. It soon reached the point that all the foreign merchant houses from Brazil were expelled.

What did this supply of gold mean in the eighteenth century? Very soon (from 1703 at the latest), it surpassed, and by a great deal, all of the gold taken together annually by Portugal from El Mina and Guinea, or Spain from the Indies during the seventeenth century. During the second decade of the eighteenth century the annual totals for Brazilian gold left far behind them the contributions of those two Atlantic sources as well as those of the two Indian Ocean sources (Sofala and Sumatra) taken together during the 1500's. Ten to fifteen years during the eighteenth century represented as much gold as the American shipments to Seville during the century and a half up to 1660.

Beyond such comparisons, which give the scale of magnitude, it would be necessary to retrace our steps back to the crucial problem, the analysis of the structural dynamic of the economy. That is, to measure the correlations between the curves of the influx of gold, the price curves, the curve for wages, and the curve for revenues. First, on the Portuguese market, of course, but also on the foreign markets that were the beneficiaries of that river of gold: the English above all, the Hamburg market [*le hambourgeois*] and the Dutch, and even the French. The curves for price, wages, and revenues established for France by Labrousse reveal the fluctuations and cycles of prosperity and depression. Is there a relation with the fluctuations of the movements of gold? Let us recall that "gold crises" occurred in 1713, 1716-17, 1722-24, 1732, 1736, 1744, and 1754, that is at intervals of three, six, eight, and ten years. In the course of this half century, they

became less frequent and their virulence diminished (the crisis of 1735 even being compensated by the arrivals the following year).

The analysis of the gold curve should be supplemented by the analysis of the movement of the great ports, and I naturally think of the port of Lisbon because, if there are economic crises in the eighteenth century—and there were—they certainly influenced oceanic navigation. The nature of these fluctuations could perhaps be grasped at their very root, whether it be agricultural, monetary, commercial, or industrial (the least likely hypothesis).

Perhaps it is not too risky to suspect that the gold crises do not account for the economic crises of the eighteenth century, whatever their relation may be. We should be on guard against the attractions of a monetary theory of economic evolution, and not less so against those of the quantity theory of money. They are rich schemas, but only on first approximation. If gold production increases, a rise in prices should be expected according to classical quantitative theory. Contemporary economic theorists do not accept that point of view at all. They say “Everything depends upon investment, on capital formation [*thesaurisación*], and even saving.” We have a very clear example of this with mining development of Brazil. There was not a rise in prices. Instead, there was a fall because goods from Europe arrived in such quantity that they flooded the market. Consequently, the overabundance of supply caused prices to collapse. There was a rise in the price of slaves. There was a rise in the price of provisions. But it is not the monetary circulation of gold that explains these rises. It is the greater and greater demand for slaves that increased the price. There were new sugar plantations. There were the mines that attracted masses of slaves by the tens of thousands. In 1720, for example, the number of slaves working in the mines in Brazil is estimated at 60,000. There was an increase in the price of provisions because, quite simply, there was an increase in population. Prices did not accompany the movement of money. Certainly, there is a relation, but one that is much more complex than the classical quantitative theory allows us to see.

Beginning in 1754, with the enlightened despotism of the Marquis of Pombal, there was a new policy for the creation of companies, a quite coherent commercial policy. Several privileged commercial companies were created between the end of the seventeenth century

and 1755: the Company for trade with Macau in 1714, another Company for the slave trade, and the Corisco Company (named for a Frenchman who was its promoter in 1720). In 1740, the Diamond Company was formed, and not only for diamonds from Brazil, but also for diamonds from Asia.

These were simple endeavors. The Government never dreamed of intervening directly in economic life. It enjoyed the profits of the mines and that was just about enough to cover the public expenses, or rather the expenses of the nobility and the Crown. In addition, there was the export of Port wine.

But towards 1755 the new facts asserted themselves. Jean Macedo, a young Portuguese historian, has demonstrated this in a remarkable work that unfortunately is unpublished. One of the most unexpected consequences of the Treaty of Methuen was the development of exports, not of Port wine, but of other Portuguese wines. These wines belonged to the great houses, such those of Cadaval and Alegrete, but they were not in any way Port wines. A quite bitter competition between the proprietors of the vineyards of the Douro and the others took place during the eighteenth century. Further, there was the wine from Madeira. Incontestably, one of the great facts of Atlantic history during the eighteenth century is that English ships bound for the Americas always stopped at Madeira.⁷ There they took aboard wine for the new continent instead of taking French wines. Madeira thus experienced a boom because of this detour in the British route to the New World. In Portugal itself, where there was competition between vineyards, the proprietors of the Douro, threatened by the exportation of other Portuguese wines, assumed power at about that date. The Marquis of Pombal was basically the man of the vineyard owners of the Douro and the big tobacco farmers. The Company of the "Upper Douro," that is, the backcountry of the Douro, which had commercial relations with Brazil, was formed at this time. All of this culminated in the creation of a monopoly that favored the wine of the Douro and Portuguese trade to the detriment of some English interests.⁸ The

⁷ For Madeira in the eighteenth century see the study of Albert Silbert (1954).

⁸ There were efforts to eradicate the cultivation of vineyards in the south of the country. There were even quite violent efforts to replace them by wheat lands, not only for the purpose of stopping the chronic scarcity of cereals, but also because of the competition that these wines offered for Port wines. All the trades between the metropolis and the colonies were organized in companies, the most famous of which was that of

Crown, resuming its old merchant tradition, and the Marquis of Pombal gladly got involved in the biggest deals.

This was the first stage in the policy of enlightened despotism. But soon the arrivals of gold began to diminish, especially after 1765. Coinage at the Lisbon Mint diminished.⁹ The tithes from Brazil fell. The profits of the Grão Pará and Para Company, which were at first very high, dipped and then quickly almost disappeared. A new phase of manufactures was about to begin that, like the preceding one, was prompted by a commercial crisis. The second period of the Pombal government was completely different than the first one, which had been mercantile. Moreover, this policy was part of the tradition. Even during the half-century from 1700 to 1750 there were efforts to establish factories in Portugal, generally by Frenchmen or Portuguese who had been in France.¹⁰

Beginning in 1770, that is, after the beginning of the crisis of gold and of all overseas trade, there was a new expansion of manufactures¹¹ and another commercial transformation. Then (and it was the epoch of the American War of Independence) Portuguese commerce with the East Indies, profiting from the misfortunes of others, experienced an unexpected and quite intense expansion. Suddenly, in place of the two vessels that were sent there during the seventeenth century and the first half of the eighteenth century, eight or ten were sent. And Portuguese vessels carried the major part of English and Dutch trade with China and India. A new economic cycle was opening—a cycle of trade with China and India, of cotton and rice from Brazil, and of manufactures in the metropolis. At the end of the century, the Portuguese balance of trade would even become favorable.

Grão Pará and Maranhão, while the relations between the colonies were left free.

⁹ According to the table published by Teixeira de Aragão (1874–80) (*Descrição geral e histórica das moedas cunhadas em nome dos reis de Portugal*).

¹⁰ For example, from Paris the Count of Ribeira, who was ambassador in France, sent dozens of workers to the Azores, which belonged to him. There he had established factories for silk, ribbon, lace, cloth, etc. French agents in Lisbon received instructions to wreck these developments. Furthermore, these attempts were only isolated efforts.

¹¹ Studied remarkably well by Jorge de Macedo.

Gold from Brazil still arrived, but its role was no longer the same. The gold that arrived only amounted to 5,000 and at the most 8,000 kilograms. It already nurtured England to which it easily flowed. The Industrial Revolution—Sombart's idea should be taken up again—certainly owes much to Brazilian gold. Of course, the export of gold was always forbidden in Portugal. Nevertheless, we have already seen English warships come, as if by chance, to anchor in the midst of the merchantmen arriving from Brazil. In addition, there were the pack boats that arrived in Lisbon and left every two weeks on the pretext of bringing and taking the news. In reality, they regularly engaged in this esteemed contraband. Why should it be surprising if the figures for gold coinage in England agree with the figures that are established for contraband? In comparison with gold imports, English silver imports were inconsequential, and they flowed, above all to the East Indies. But Brazilian gold followed the road to Hamburg, Amsterdam, and—we should not be surprised—Genoa, the Genoa that was so active in international trade and so careful to take its share of the silver that arrived in Seville and Cadiz and the gold that arrived on the Tagus.

France, in contrast, in spite of all of the admonitions of its consuls, never sent warships or pack boats to Lisbon. If they came, it really was by chance. All of France's efforts were directed towards Spain and the silver from America. In contrast to England, it did not have a policy of capturing gold.

From which derives this crucial difference in monetary history at the end of the eighteenth century and the beginning of the nineteenth: The Bank of France, silver,¹² the Bank of England, gold.

Complementary Note

This essay, which originated in a lecture given at the Ecole Pratique des Hautes Études in Paris, was published as two separate articles in the journal *Annales—Économies, Sociétés, Civilisations* in 1950, V, 1, 32–36 and V, 2, 184–97.

¹² On this question, the research of Desaunay has led to striking results.

Translated into Portuguese, it has been published as a single article three times in Portugal and twice in Brazil.

In *Prix et monnaies au Portugal, 1750–1850* (Godinho, 1955; Preface by Lucien Febvre), we have again taken up some of its ideas and some of its data in a broader framework, extending and widening the analysis of Portuguese economy and society from 1750 to 1850. Furthermore, we have presented the sources and, in integrating the different contributions and the results of a reflection on the realities that we examined, we have posed the problem of a general theory inspired by Schumpeter, Kondratieff, and Jean Lescure.

These works have enjoyed a very broad circulation among the international scientific community. And they have been used profitably in a considerable number of works of research and of synthesis. It is necessary to pass to a more complete and systematic study of the sources and a deeper statistical reconstruction without lacuna. Unfortunately, research has been carried out at the individual level and without collaboration among diverse researchers. The mass of documents in the archives of the Mint in Lisbon requires the construction of an integral database for this holding of 1,340 registers and its analysis by computer. This, in turn, requires an entire team. Portuguese governments have never understood the overriding necessity of creating an Institute for the History of the Great Discoveries and Expansion, and nothing has been done along these lines. In spite of that, important contributions have been made to the questions that we have raised. But these, in their turn, should require the rethinking and refinement of hypotheses that have barely been advanced. Nevertheless, we think that the general lines that we have advanced remain valid, but they must be situated in a framework that links them to other structural aspects and processes of evolution. Here are some other works that appeared subsequently:

- Charles R. Boxer, *The Golden Age of Brazil, 1650–1750*, Berkeley and Los Angeles, University of California Press, 1962.
- Virgilio Noya Pinto, *O Ouro brasileiro e o comércio anglo-português: Uma contribuição ao estudo da economia atlântica no século XVIII*, San Paulo, Companhia Editora Nacional, 2nd edition, 1979. This covers the entire aspect of gold production and the conditions that surrounded it.
- Michel Morineau, *Incroyables gazettes et fabuleux métaux: Les Retours des trésors américains d'après le gazettes hollandaises*

(XVIe–XVIIIe siècles). Paris, Maison des Sciences de l'Homme & London, Cambridge University Press, 1985. Fundamental. A fine long-term statistical series of Brazilian gold crossing the Atlantic. It is fundamental because of the correction of the figures concerning the arrival of silver in Europe, a curve that differs from the accepted one.

- Numerous articles by Michel Morineau on the arrival of precious metals in France, the Low countries, and England as well as on coinage.
- Corsino Medeiros dos Santos, *A Produção das minas do Alto Peru e a evasão da prata para o Brasil*. Brasília, Thesaurus Editora Brasileira, 1998. Expanded and contributes new aspects to the old contribution of Alicia Piffer Canabrava on contraband in the Rio de la Plata.
- Rita Martins de Sousa, *Moeda e metais preciosos no Portugal setecentista (1688–1767)*. Lisbon, R. C. Martins de Sousa, 1999.
- “O Brasil e as emissões monetárias de ouro em Portugal (1700–97),” in *Penelope*, 22 (Lisbon, 2000), 89–107.
- Paulo A. Marques Lopes, *Minas Gerais setecentistas: Uma “sociedade aurífera.”* Mémoire de maîtrise, Faculdade de Letras de Coimbra (mimeographed). Volume II contains a large reproduction of sources.

We have constituted a rather thick file of the cargo inventories of the fleets arriving from Brazil. In completing it (for example, by a complete study of the *Gazeta de Lisboa*) illuminating statistical tables could be prepared on the maritime commercial movement that was crucial for the two economies, the Portuguese and the Brazilian—and thus for the Atlantic world. This documentation is available to researchers and we challenge them to get down to work on it.

We insist, as Lucien Febvre and Fernand Braudel have often done, that it is essential to organize teams of researchers or face the danger of turning in circles. The historical way of thinking—research in the sources linked to theoretical reflection—is becoming more and more decisive in the effort to save the social sciences, which are engulfed by the (one-dimensional) “*pensée unique*” that imposes a so-called pragmatist ideology, which in fact leads to a chaotic-totalitarian society—to nought.

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