

Brazilian Raw Cotton as a Strategic Factor in Global Textile Manufacturing during the Industrial Revolution

José Jobson de Andrade Arruda *

Historians agree on the importance of the textile industry in the industrialization of England at the end of the eighteenth century. The pace of this industry became a vital reference in determining the acceleration rate that allows us to consider the process of industrialization as revolutionary. Cotton manufacturing was important not just in England, but also in other continental countries such as France and Portugal where, in the early nineteenth century, industrial dynamism became evident and brought about ideas of turning pre-industrial manufacturing into 'modern' productive structures. Raw cotton has always been seen as a strategic factor to make the industrial transformation possible in England. The same can be said of France and Portugal where the early starts of the cotton industry were influenced by the supply of raw cotton. In the case of Portugal, the colony of Brazil was its main supplier of raw cotton and its main market for finished textiles. Brazil was a protected market and only cotton manufactures imported from Portugal or produced in the Portuguese manufactures could be put to sale. The opening of Brazilian ports in 1808, upon the arrival of the Royal family, proved to be a fatal blow for the infant Portuguese cotton textile industry and cause the abrupt interruption of the flow of raw cotton to the French one.

The France textile manufacturing asphyxia

The English maritime power exerted a contradictory effect over the economic growth of France. The blockade of the European ports favored the relocating of the manufacturers towards the center of Europe, resulting in an interiorization of the French economy by the Rhine valley at the expenses of the port areas that started experiencing decline.¹

“This way, we can believe that the relative, but real weakening of the traditional industries found a compensation in the rise of new industries that during the Revolution heralded a new ‘industrial kingdom’ of textiles, totally independent from national agriculture and connected to a growing, massive importation of raw materials”.²

This was the strategic industry, the compelling power behind the economic growth of France at the time. It was seen as unique by its contemporaries who called it “phenomenal”, not only because it was new and was growing but mainly because it responded to the taste of the times, the French adopting cotton fabrics that stimulated enormously national production, the blockade of the ports notwithstanding. Napoleon himself condecorated Oberkampf, pioneer of the cotton industry in France, saying what later became the symbol of the war against the English in two fronts, the military and the industrial: “Both of us are waging a war against the British, but you are waging the best war”.³

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¹ Cfr. O. Viennet, *Napoléon et l’industrie française* (Paris, 1947), p. 43 e segs.

² Cfr. Pierre Leon, ‘Structure du commerce extérieur et évolution industrielle de la France à la fin du XVIII^e siècle’, in *Conjoncture économique, structure sociale. Homage à Ernest Labrousse* (Paris: Mouton, 1974), p. 419.

³ Cfr. Eli F. Heckscher, *The Continental System* (Gloucester: Peter Smith, 1964), p. 272.

In spite of difficulties, the first phase of the French industrialization ended with the rise of the cotton industry. Machines were put in place that tended to evolve technologically, mainly when price rises stimulated cost reduction and, as a consequence, worker's wages.

The cotton industry was the first experiment of the industry in the continent and received its deathblow when the raw material ceased to be provided by cotton suppliers. By mastering the seas after their victory over the French in Trafalgar, the English kept the steady flow of supplies to their textile industry. In 1810, the industrial crisis is turned into a financial crisis and tends to unravel. The disastrous effects caused by the blockade were intensely felt. Revitalized by protectionist measures, the industrial expansionism now had to face the almost insurmountable barriers represented by the lack of essential raw materials.

In this context, the continuation of the flux of raw cotton, on the one hand, and the low prices on the other hand, was the essential condition for the competitiveness of the rising French industry to be minimally preserved in face of England, and even in relation to older manufacturing centers in Europe, especially Hamburg. When in 1807 the first sign of a strong contraction in incoming raw material was felt, prices of raw cotton from the near East rose as high as 127% and of long fiber cotton from Pernambuco rose to 134%. Textile industries closed down and in the region of Troyes alone 10 thousand workers were laid off. The crisis hit the hardest in areas that had great industrial growth and where the supply of raw materials was vital, such as in Mulhausen.⁴

⁴ Cfr. Eli F. Heckscher, *The Continental System*, p. 271.

The problems of the great French cotton textile industry stemmed basically from the lack of control over maritime routes that controlled the world of the colonies. French ships were banished from the Atlantic and Indic oceans by the English. The loss of the Santo Domingo colony represented the destruction of the plantation economy and the total decadence of colonial business. The French ports that were directly linked to those activities, such as Bordeaux, Nantes, Le Havre, Marseille, were ruined to the point of ceasing to be international ports and to become regional references only.⁵ Corso knew fully well what the root of the problem was when in 1809 he said: “It would be best to use only wool, linen and silk, that come from our own land, and get the continent rid of the cotton for ever, because we do not have colonies”.⁶

The systematic English pressure on Portugal, forcing the removal of the royal family to Brazil, had a significance that went beyond the opening of the ports for its products blocked in the European market. It meant a sudden halt in supply of essential raw materials that fed the French industry based on the “new industries”. Table 1 shows beyond doubt the participation, in percentages, of main buyers of Brazilian products via Portugal. From 1800, French imports from Brazil grow, topping Italy, England and Hamburg. In 1800 French shared only 0.6% of the total colonial Brazilian export, rising in 1801 to 4.1%, skyrocketing to 22.5% in 1802, drawing back to 17.4% in 1803 and reaching astounding 31.9% in 1804 when it becomes a leading importing country until

⁵ Cfr. Albert Soboul, ‘La reprise économique e la stabilisation sociale 1797-1815’, in Fernand Braudel and Ernest Labrousse, *Histoire Économique e Sociale de la France* (Paris: PUF, 1976), vol. iii, p. 100.

1807, year that marked 38.8% of importations, almost twice as much as second-ranking Italy with 20.6%, and certainly more than twice than the traditional leading consumers of colonial Brazilian products, Hamburg and England, with approximately 17%.

⁶ Cfr. Eli F. Heckscher, *The Continental System*, p. 277.

Table 1. Representation of main consumer countries of Brazilian products (in %).

	1796	1797	1798	1799	1800	1801	1802	1803	1804	1805	1806	1807	1808	1809	1810	1811
Hamburg	51	44,4	32,4	31	39,8	48,4	22,1	22,6	17,8	20,7	17,1	11,8	-	-	-	-
England	22,3	28,1	33,6	41	19,5	17,8	27,8	28,7	21,3	27	17,5	11,6	7,4	50,8	64,9	42,2
Italy	19	16,5	21,7	17,3	25,7	20,7	20,9	21,3	16,8	18,5	20,4	20,6	7,2	32,1	15,1	34,9
France	0,2	0,2	0,2	-	0,6	4,1	22,5	17,4	31,9	23,6	34,8	38,8	77,9	-	-	-
Netherlands	3,6	5,8	0,2	0,9	0,2	0,3	3,6	3,3	8,5	5,1	6	7,4	-	-	-	-
Prussia	1,1	2,1	1,2	0,8	5,2	4,8	0,2	2,5	0,3	1,4	0,04	-	-	-	-	-
Others	2,8	2,93	10,7	9,0	9	3,9	2,9	4,22	3,4	3,7	4,22	9,81	7,53	17,1	20	22,9

Figure 1. Representation of main consumer countries of Brazilian products (in %).

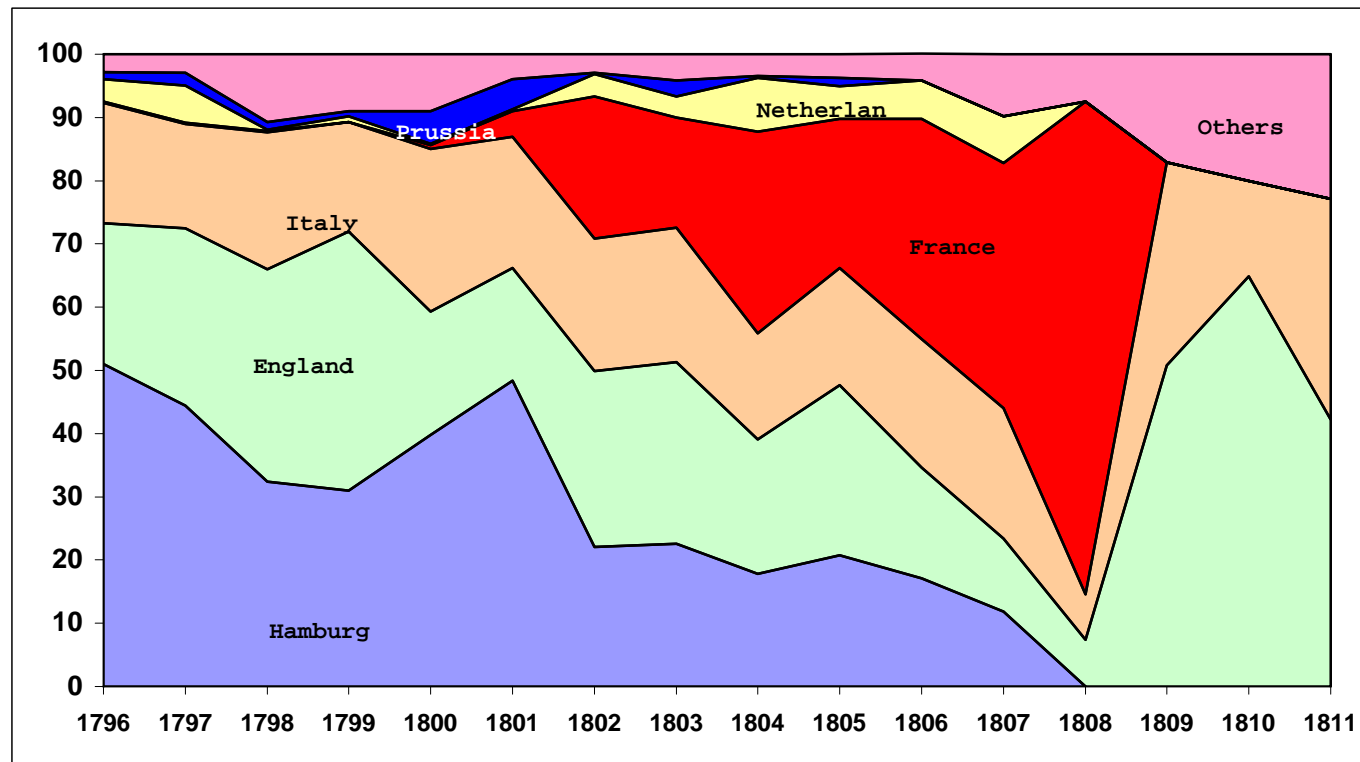


Figure 1 makes the growing French hegemony in the importation of colonial Brazilian products clear. Hamburg is first among importers but presents a declining trend, and France is right opposite when in 1808 takes 77.9% of all colonial exportations directed by Portugal to foreign nations, an absolute hegemony that ends entirely in the years following the opening of the ports. Figure 2 supports this fact and shows again the vertiginous rise of France in the Brazilian colonial products market, a fantastic push in the years 1801-1808, without parallel in the experience of any other European nation, that keeps it for some time, like England and Italy, but that surpasses any other nation in its abrupt fall in 1808-1809, revealing that the progress was related to the start of the industrialization, which is an indirect measurement of the take-off of French economy in the time of the revolution.

Table 2 discloses Brazilian exports of cotton to foreign nations and puts side by side France and England, demonstrating that English importations grow steadily until 1802, and then draw back. In 1804, France leads importations with 323.951 arrobas, leaving England behind with 228.680. The year of the opening of the ports in Brazil, 1808, France imported 139.316 arrobas and then fades away from the Portuguese trade balance in the following years.⁷

⁷ Primary reference is the *Balança Geral do Commercio do Reyno de Portugal com os seus Domínios e Nações Estrangeiras*, 1796-1811, Instituto Nacional de Estatística e Biblioteca Nacional do Rio de Janeiro. Secondary sources are tables and graphs from José Jobson de Andrade Arruda, *O Brasil no Comércio Colonial* (São Paulo: Ática, 1980), p. 300, 301, 304-307, 359 e segs.

Table 2. Brazilian cotton exportations to foreign nations (1796-1821).

YEAR	ENGLAND	CASTILLA	FRANCE	RUSSIA	NETHERLANDS	AUSTRIA	SWEDEN	PRUSSIA	DENMARK	HAMBURG	ITALY	USA	BARBARIA	TOTAL
1796	309504,000	7640,880	---	32,240	8342,100	---	282,100	---	---	230427,340	197913,300	---	153,140	754295,100
1797	1289184,000	6067,200	---	---	14428,800	---	---	1872,000	15676,800	590332,800	147379,200	---	1632,000	2066572,800
1798	2886170,496	9716,459	---	---	1123,357	---	7064,410	---	40730,377	529865,493	30597,002	---	---	3505267,594
1799	4016039,200	19706,400	---	---	12036,000	---	530,400	1917,600	4515,200	105386,400	2733,600	---	---	4162864,800
1800	156777,120	66666,240	22291,200	---	---	---	1879,200	122731,200	2047,680	975823,200	14826,240	---	---	1363042,080
1801	2392827,904	3988,608	255493,504	---	4748,608	---	1479,936	109021,952	5257,984	718743,552	34844,672	---	---	3526406,720
1802	3885701,120	2565,120	1940986,880	---	52449,960	---	839,680	1873,920	---	106099,200	204559,360	---	---	6195075,240
1803	3192060,960	17487,360	1581148,800	30856,320	10179,840	---	---	41659,200	38586,240	172333,920	86713,440	---	285,120	5171311,200
1804	2278184,400	18861,344	3349770,368	2500,000	175219,328	---	5501,808	7901,696	1880,000	87837,496	273313,848	---	---	6200970,288
1805	3312941,360	1740,320	2187328,680	1118,300	57269,200	---	23709,040	22291,840	1351,500	34682,790	57315,040	---	---	5699748,070
1806	2061641,760	59709,800	3563459,520	---	44257,600	---	---	---	---	85579,520	130123,840	---	---	5944772,040
1807	1131186,240	370149,120	3536918,720	---	325290,240	---	1082,880	---	---	17493,120	375793,920	---	---	5757914,240
1809	862405,440	10280,960	---	---	---	---	583,680	---	---	---	12677,120	---	1044,480	886991,680
1810	1197871,040	518195,200	---	---	---	---	---	---	---	---	8990,720	---	---	1725056,960
1811	143979,510	68267,040	---	---	---	---	---	---	---	---	---	3964,800	---	216211,350
1812	204868,320	---	---	---	---	---	---	---	---	---	814,080	---	---	205682,400
1813	146586,240	---	---	---	---	---	---	---	---	---	2825,280	---	---	149411,520
1814	823076,800	29852,000	1232056,000	---	139456,800	---	---	3472,000	---	31964,800	171858,400	---	---	2431736,800
1815	850551,600	581461,600	1068930,560	7883,840	194176,480	---	---	2419,680	---	34812,720	229824,160	---	---	2970060,640
1816	239796,480	322549,920	1436191,680	---	70359,520	---	---	---	---	138735,520	89837,440	---	---	2297470,560
1817	1278667,800	610161,280	567973,840	---	19049,600	35403,040	---	---	---	18205,280	40531,440	---	---	2569992,280
1818	655460,800	571046,240	954403,000	---	8003,120	36487,040	---	---	547,200	125916,080	90752,320	---	---	2442615,800
1819	27421,920	605584,960	484246,880	---	5996,000	91878,400	---	---	---	68313,760	200680,320	---	1007,680	1485129,920
1820	65671,040	753869,568	203681,888	1612,800	1084,544	15105,120	552,192	5026,780	---	30925,184	76584,224	---	---	1154113,340
1821	89767,072	23447,616	253254,336	67328,000	4233,600	55749,696	---	---	---	4249,120	35166,848	---	---	533196,288
TOTAL	33498342,622	4679015,235	22638135,856	111331,500	1147704,697	234623,296	43505,326	320187,868	110592,981	4107727,295	2516655,814	3964,800	4122,420	69415909,710

Table 3. Absolute and percent values of main Brazilian products exported to France.

Year	White Sugar	%	Cotton	%	Brown Sugar	%	Tobacco	%	Leathers and Tans	%	Rice, Cocoa, Coffee	%
1796	---	---	---	---	---	---	23260,800	0,4	---	---	---	---
1797	---	---	---	---	1888,450	0,02	---	---	14631,660	0,1	---	---
1798	6154,500	0,01	---	---	---	---	---	---	8236,400	0,1	1890,000	0,01
1799	---	---	---	---	---	---	---	---	---	---	---	---
1800	47508,000	0,1	22291,200	0,1	15552,000	0,14	---	---	---	---	1760,000	0,01
1801	82005,904	0,2	234335,232	0,6	12825,100	0,12	---	---	141303,000	1,0	32486,000	0,2
1802	559054,600	1,3	1922211,840	5,1	219638,100	1,97	28821,000	0,5	312973,220	2,3	104457,019	0,8
1803	131816,760	0,3	1581360,000	4,2	51114,750	0,46	49462,400	0,8	119943,800	0,9	102767,812	0,8
1804	102456,450	0,2	3814846,976	10,2	223200,312	2,00	45892,600	0,8	246495,100	1,8	142676,600	1,1
1805	128652,090	0,3	2120286,200	5,6	207854,530	1,87	24367,500	0,4	452543,865	3,3	213682,160	1,6
1806	102286,890	0,2	3887374,400	10,4	112119,250	1,01	26553,600	0,4	849657,925	6,1	263392,200	2,0
1807	99912,450	0,2	3779400,960	10,1	92757,000	0,83	13399,400	0,2	509921,100	3,7	85175,800	0,7
1808	2520,000	0,01	1604920,320	4,3	---	---	---	---	6879,600	0,05	---	---
1809	---	---	---	---	---	---	---	---	---	---	---	---
1810	---	---	---	---	---	---	---	---	---	---	---	---
1811	---	---	---	---	23786,815	0,21	---	---	---	---	---	---
Total	1262367,64	3,0	18967027,128	50,5	960736,307	8,62	211757,300	3,6	2662585,670	19,2	948287,591	7,2

Figure 3. Representation of main Brazilian products exported to France (in %).

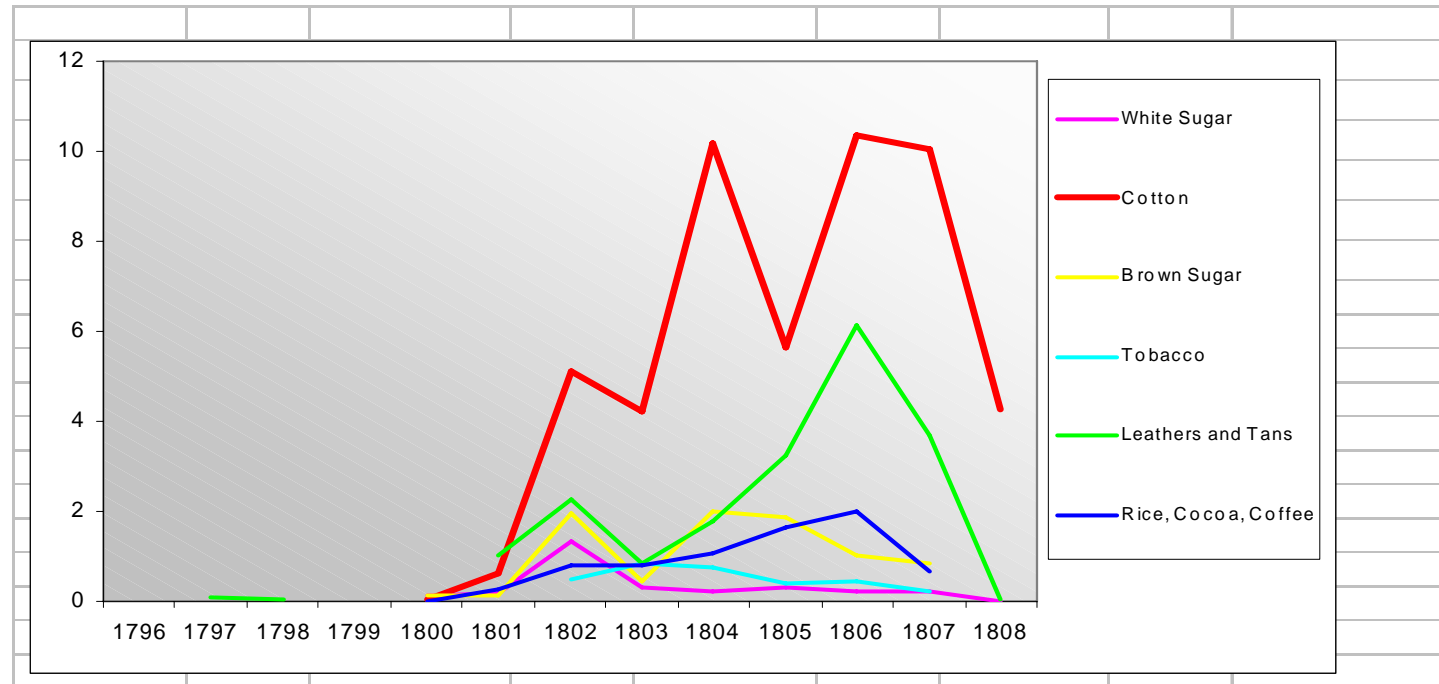


Table 3 and figure 3 are even more telling, giving out totals of French importations in thousands of *réis*, placing together products that added up to 92.12% of the total French purchases, the same ones that were on the list of the 13 main exportation products of the colony, small values being ignored. The results are revealing: the main product is raw cotton which amounts to half (50.5%) of all French purchases, followed by tans (19.2%), white and brown sugar (11.62%), rice, cacao and coffee (7.2%) and tobacco (3.6%). Industrial raw-materials add up to 69.7% and food products, 18.82%.

French historians consider the year of 1807 as the final hallmark of the development of cotton industry in France, by the interruption of the flux of American cotton, and assert this is to be credited to the continental blockage.⁸ They seem to overlook the fact that, deep down, it is the sea empire created by England that explains the fatal blow, as is demonstrated by the statistics previously mentioned. This fact, however, was indirectly taken into account by Pierre Leon when he said that “in every field and world market, English textiles and Albion junk made the competition harder for French products, from the Far East to the Mediterranean, from Europe to countries across the Atlantic”.⁹ A consumer’s market of 200 million people that the English knew how to get hold of after the victory over the French in Trafalgar. Claude Fohlen is not as certain. He believes that the French Revolution is to be credited with the interruption of this first phase of industrialization – for all the liberal climate it had given rise to – the inability to protect the colonial empire preserved along the centuries, starting with the loss of Santo Domingo, of the US canals, of the disappearance of the French fleet after 1793, all this

⁸ We would like to point out specialists Jacques Godochot, François Crouzet. Cfr. Godochot, Jacques, ‘L’industrialisation en Europe e l’époque révolutionnaire’, in Pierre Leon; François Crouzet; Richard Gascon (Dirs.). *L’industrialisation en Europe au XIX^e siècle* (Paris: Édition du CNRS, 1972). Cfr. François Crouzet, *Napoleón et l’industrie française* (Paris: 1964).

⁹ Cfr. Pierre Leon, op. cit., p. 421.

representing a permanent loss of the European market to the French industry;¹⁰ thus, a true catastrophic national event brought about by the French Revolution, in the words of François Crouzet,¹¹ causing immediate damage in the trade balance with the colonies, that represented 18% in the end of the 18th century and the decline inexorably afterwards.¹²

That is how the history of the distant colony in the South Atlantic takes up new meanings and a new density by directly participating in a process of the highest importance to the ulterior history of the western civilization. Colonies are assigned a central role in the discussions about the start of industrializations either as suppliers and consumers that opened spaces for experiences, or as hinderers of the processes they were linked to because of their integration in the world market. Their contribution to the economic growth of the metropolis that monopolizes them into passive intermediaries of the mercantile circuit still remains to be seen.

The Portuguese Industrial Blockade

Only recently did the discussions around of industrialization, understood as a significant economic growth for the country to be accepted in the group of developed countries emerged in the history studies in Portugal. The history of the Portuguese industry in the

¹⁰ Cfr. Claude Fohlen, 'France 1700-1914', in Carlo Maria Cipolla (ed.), *The Fontana Economic History of Europe, The Emergence of Industrial Societies* (London: Collins/Fontana Books, 1973), pp. 19-20.

¹¹ 'The "national catastrophe" to the French economy represented by the Revolution and twenty years of wars'. Cfr. François Crouzet, 'Angleterre et France au XVIII^e siècle; essai d'analyse comparée de deux croissances économiques'. Op. cit., p. 291.

¹² At the end of the 18th century, France's Trade Balance registered 70% of the trade with Europe, 12% with Eastern countries and 18% with the colonies. See R. Romano, 'Documenti e

18th century is missing in the great interpretations of the economic history in general and those of the industrializations in general. In consequence, there is not one single chapter about the Portuguese experience in the *Fontana Economic History of Europe*, although one about the Spanish experience can be found, even if it was not successful. A new meaning has been added to the concept of Industrial Revolution since its inception if the industrial revolution and it should now be revisited.

Industrialization efforts led by Pombal are more solidly established than the short-lived experiences of the century previous. Pombal's project revealed more integration and includes industry, agriculture and the trade circuit.¹³ The emphasis on agriculture became essential to the new economical politics with surprising results in Brazil. The kingdom's reexportation products (sugar, cocoa, tobacco), foods for metropolis residents (rice) and raw-materials for manufactures (cotton, tans and leathers) bond agriculture and industry, and industrialization becomes a very palpable possibility. The foundation of privileged trade companies completed the process by filling the gaps among metropolitan colonial spaces redesigning the Luso-Brazilian empire. These are not circumstantial measures, but objective actions that make Portugal even more dependent on the colonial space.

The diversification of the agriculture in the colony is a fact.¹⁴ If the exportation to the metropolis resulted in a *deficit* in favor of the colony, the reexportation to other countries

Prime Considerazioni Intorno alla 'Balance du Commerce' della Francia dal 1716 a 1780', in *Studi in Onore di Armando Saporì* (Milano-Varese, 1957), p. 1278.

¹³ This interpretation diverges from the classical diagnosis about the pombalin politics, such as the one supported by Jorge Borges Macedo, *O Marquês de Pombal, 1699-1782* (Lisbon: Biblioteca Nacional, 1982), p. 26.

¹⁴ Cfr. José Jobson de Andrade Arruda, *O Brasil no Comércio Colonial* (São Paulo: Ática, 1980).

guaranteed Portugal's balance,¹⁵ which in practice meant financial resources, credits, exchange drafts, payment of importations and certainly investments in the industrial park. Such resources were so valued that for the first time in the 18th century, from 1790, the Portuguese trade balance became surplused in relation to England, forcing them to send gold to Portugal in order to rebalance the situation. England had long been accustomed to receiving precious metals from Portugal and this historical inversion caught English officials by surprise.¹⁶ Most importantly, a substantial part of raw materials sent to Portugal started being processed by Portuguese manufacturers, and consequently much new industrial activity emerged as the colony itself was a safe consumer market, because it was monopolized. A perfect market for a country like Portugal, in the initial stages of industrialization.

Importation of products from the Portuguese by the Brazilian colony in 1796-1821 is the best evidence of the existence of manufacturers in Portugal which, without a doubt, could transform itself and start an irreversible process of industrialization. The raw materials shipped to Portugal came back reshaped and with aggregated value to Brazil. TABLE IV reveals that in every Brazilian region the products from the Portuguese manufacturers rivaled with those coming from foreign nations, bought by Portugal in order to supply the colonies. The percentages indicate only industrialized products coming from industrially more advanced countries, like England, that stand for 35% of the total colonial importations (Portuguese reexportations) on average in all Brazilian regions as follows: Rio de Janeiro, Bahia, Pernambuco, Maranhão and Pará, excluding Paraíba, Ceará and Santos because of incomplete series up to the year 1807. Products

¹⁵ First verified by Fernando Antonio Novais, 'Notas para o estudo do Brasil no Comércio Internacional do fim do século XVIII e início do século XIX (1796-1808)', in *L'Histoire quantitative du Brésil de 1800 à 1930* (Paris: Édition du CNRS, 1973), p. 59-75.

¹⁶ Cfr. Kenneth Maxwell, 'The Atlantic in the Eighteenth Century: A Southern Perspective on the Need to Return to the 'Big Picture'', *Transaction of the Royal Historical Society*, 3 (1993), p. 229.

from Portuguese manufacturers correspond to 28.2% of the total importation. These indexes are extremely telling for the reason that they indicate that almost half of all importation of manufactured or industrialized products that enter the colonial market come from Portuguese manufacturers.

Table 4. Brazilian regions and imports from Portugal (in %).

Year	Wool, Linen, Silk, Metals, Others					Products from Portuguese manufacturers					Foods, Products from Asia, Drugs					Gold-Silver				
	RJ	BA	PE	MA	PA	RJ	BA	PE	MA	PA	RJ	BA	PE	MA	PA	RJ	BA	PE	MA	PA
1796	45,1	42,5	35,7	30,6	36,7	29,4	21,8	23,6	27,5	20,3	25,5	35,7	31,1	35,7	41,0	—	—	9,6	6,2	2,0
1797	38,9	29,1	27,3	38,3	29,5	33,8	31,3	36,6	23,5	31,1	27,4	39,6	34,5	37,2	39,2	—	—	1,5	0,9	0,3
1798	30,8	31,0	32,4	32,4	30,5	42,2	32,2	30,3	30,3	36,3	26,8	36,5	34,9	34,9	32,5	0,2	0,2	2,4	2,4	0,6
1799	39,9	32,0	35,8	34,9	33,7	36,4	31,9	36,7	34,9	26,2	23,7	36,2	27,6	28,4	39,0	—	—	—	1,8	1,1
1800	38,0	34,8	32,5	40,0	44,0	39,4	39,1	43,1	40,5	28,9	22,3	26,2	24,3	16,8	25,4	0,2	—	—	2,7	1,7
1801	36,5	31,7	31,0	39,6	22,5	36,9	39,0	39,1	23,5	30,7	26,5	28,9	29,4	34,7	45,1	0,1	0,4	0,6	2,2	1,7
1802	40,5	33,6	31,7	34,5	36,6	37,2	30,4	33,8	23,3	29,4	22,1	35,7	27,3	28,6	32,6	0,3	0,3	7,2	13,6	1,3
1803	29,7	35,9	24,8	27,8	28,0	40,4	26,7	25,2	14,1	20,8	29,3	33,4	23,1	24,5	50,4	0,5	4,0	26,8	33,6	0,9
1804	35,0	33,6	23,9	25,4	31,0	32,5	27,6	27,8	20,6	22,2	32,1	34,7	21,1	30,1	37,4	0,3	4,1	27,2	23,8	9,3
1805	41,4	37,7	30,8	35,8	35,6	25,2	27,9	29,0	16,3	16,7	33,2	31,0	18,2	34,9	40,7	0,2	3,5	22,0	13,0	7,1
1806	43,1	36,1	32,7	44,8	38,2	18,3	24,0	30,0	13,4	17,2	38,3	39,6	31,2	38,5	44,1	0,3	0,3	6,1	3,3	0,5
1807	46,0	44,5	36,5	41,1	47,1	15,4	14,4	18,5	10,8	27,8	38,3	39,9	33,7	35,0	24,5	0,3	1,2	11,3	13,1	0,6
Average	38,7	35,2	31,3	35,4	34,5	32,3	28,9	31,1	23,2	25,6	28,8	34,8	28,0	31,6	37,7	0,3	1,7	11,5	9,7	2,3
1808	52,7	52,0	47,3	17,0	26,7	16,9	13,7	12,2	11,5	16,3	30,1	33,7	18,6	54,2	57,0	0,4	0,5	21,9	17,4	—
1809	46,1	44,0	30,3	33,2	31,1	16,3	13,8	10,1	7,6	8,8	27,0	38,2	34,9	34,2	56,9	10,5	4,0	24,6	25,0	3,2
1810	40,5	42,5	26,8	26,8	27,0	16,6	17,6	7,6	7,6	10,6	41,8	35,3	34,3	34,3	62,4	1,0	4,6	31,3	31,3	1,2
1811	40,8	48,9	51,8	46,8	82,4	19,0	12,5	10,6	10,5	3,4	34,7	36,8	22,5	32,1	14,1	5,5	1,7	15,1	10,6	0,1
Average	45,0	46,9	39,1	30,9	41,8	17,2	14,4	10,1	9,3	9,8	33,4	36,0	27,6	38,7	47,6	4,4	2,7	23,3	21,1	1,5
Total average	41,9	41,0	35,2	33,2	38,1	24,7	21,6	20,6	16,3	17,7	31,1	35,4	27,8	35,2	42,6	2,3	2,2	17,4	15,4	1,9

Total average of Brazilian imports

Products	1796	1797	1798	1799	1800	1801	1802	1803	1804	1805	1806	1807	1796-1807	1808	1809	1810	1811	1808 - 1811
Wool, Linen, Silk, Metals, Others	38,1	32,6	31,4	35,2	37,9	32,2	35,4	29,2	29,8	36,3	39,0	43,1	35,0	39,1	36,9	32,7	54,1	40,7
Products from Portuguese manufacturers	24,5	31,3	34,3	33,2	38,2	33,8	30,8	25,5	26,1	23,0	20,6	17,4	28,2	14,1	11,3	12,0	11,2	12,2
Foods, Products from Asia, Drugs	33,8	35,6	33,1	31,0	23,0	32,9	29,3	32,2	31,1	31,6	38,3	34,3	32,2	38,7	38,3	41,6	28,0	36,7
Gold-Silver	5,9	0,9	1,2	1,5	1,5	1,0	4,5	13,2	13,0	9,1	2,1	5,3	5,1	10,1	13,5	13,9	6,6	10,6

According to Valentim Alexandre, an unknown quantity of products on the products list imported from England were, in truth, produced in Portugal, and the numbers regarding the Portuguese manufacturers would be even more impressive.¹⁷ Even more important, if we add all the importations of industrialized products, Portuguese or foreign, this would reach 63.2%, bringing to light the strength of the consumer market of the colony at the time. The other rubrics, Foods, Products of Asia, Drugs and Various added up to 32.2%, being that only Foods and Products from Asia had greater expression. It should be noted that food purchases mirror purchase power because they were destined mainly to free white men possessing higher purchase power.

If we isolate certain Brazilian regions at certain years the growth potential of Portuguese manufactures as is reflected in the colonial consumption becomes even more eloquent. In Rio de Janeiro, in 1798, imports from Portuguese manufactures superseded imports from other countries at 42.2% to 30.8%, and in 1803 at 40.4% to 29.7%. If in Bahia the importation of products from other nations beats systematically Portuguese products, excepting in 1800-1801, when percentages definitely favor Portugal, Pernambuco clearly chooses products from Portugal over others, as the percentages in 1797 and 1800 through 1804 show us, with some variance, as in 1800 when Pernambuco consumed only 32.5% of foreign products against 43.1% of Portuguese production. This can be seen in TABLE IV as importations from foreign nations reexported to the colony, the products by the Portuguese manufactures, the foods, the products from Asia and drugs are put in perspective, as well as charts indicating gold-silver importations that were considered as compensatory shipments of the colonial exportations under money form or as pieces of decoration.

¹⁷ Cfr. Valentim Aldexandre, *Os sentidos do império: questão nacional e questão colonial na crise do Antigo Regime Português* (Porto: Afrontamento, 1993), p. 30.

The profile of the economic relations underlying such evidence reveal a new pattern of relationship, a new level of accumulation that in turn points to a new form of colonization, the traces of which would become clearly recognizable on the occasion of the European neocolonialism in Asia and Africa, in the second half of the nineteenth century. The Brazilian colony thus became the Prometheus that could unchain Portugal's industry, were it not for the opening of the Brazilian ports to friendly nations, decreed in 1808 by the regent of the Portuguese throne that had relocated with the entire royal family to Brazil, supported and escorted by English admirals from the port of Lisbon to Bahia and Rio de Janeiro. The importance of this fact is beyond discussion: it was the fatal blow that reduced Portugal's industrializing dreams to shambles. It interrupted a process resumed after the frustrating experience of the seventeenth century and that had not yet come to fruition.

Final Considerations

Theory is an essential tool to the historical knowledge. The reflection about the connections among European countries in the fight of industrialization necessarily includes the world of the colonies. The end of the eighteenth century marks a crucial time of the colonial history for it characterizes the beginning of a direct attachment with the rapidly developing countries, its first true integration into the world market,¹⁸ that can be clearly seeing: the United States, whose market was decisive for the start of the English industrialization;¹⁹ the sugar islands of the Antilles that gave the Dutch

¹⁸ Cfr. José Jobson de Andrade Arruda, 'Commercial Trends with the Luso-Brazilian Empire: Brazil's Integration in the World Market', in Wolfram Fisher (ed.), *The Emergence of a World Economy 1500-1914* (Stuttgart: Int. Econ. Hist. Ass., 1986), p. 301.

¹⁹ Cfr. Jacob M. Price, 'Colonial Trade and British Economic Development 1660-1775', in *La Révolution Américaine et L'Europe* (Paris: Éditions de CNRS, 1979), p. 225.

leadership in the second Atlantic system;²⁰ Brazil, that path the way for Portugal to approach the thresholds of industrialization and the new form of colonial exploitation of the neocolonialism;²¹ Africa, whose contribution was central to the origin of Industrial Revolution in England for its strategic participation in the Atlantic commerce;²² or even India, for its role in the triangular commerce and heavy credit transference to Britain that helped financing the warfare with France in the crucial moment of industrialization²³ and, in a negative sense, of the hardships suffered by France in the economic development caused by the loss of its colonial empire.²⁴

Thus, it is unthinkable to explore the economic growth experiences in isolation, for metropolises and colonies alike are part of a single process of capitalistic accumulation, that tends to transform every available space into a market, ever more integrated through the capital,²⁵ whereby accumulation tend to be carried to hegemonic poles, causing inevitably the difference to arise between the *first comers* and the *late comers* in relation to the *never comers*, areas that are eternally emerging and may never find a place among the developed countries.

²⁰ Cfr. Pieter Emmer, 'The Dutch in the Atlantic Economy 1580-1888', in Pieter Emmer, *The Dutch in the Atlantic Economy, 1580-1880* (Aldershot: Ashgate/Variation, 1998), p. 10.

²¹ Cfr. Valentim Alexandre, *Os sentidos do Império*, op. cit., p. 73.

²² Cfr. Joseph E. Inikori, *Africans and the Industrial Revolution in England. A Study in International Trade Economics Development* (Cambridge: Cambridge University Press, 2002), p. 482.

²³ Cfr. Javier Cuenca Esteban, 'The British Balance of Payments, 1772-1820: India Transfers and War Finance', *Economic History Review*, 58 – 1 (2001), p. 58.

²⁴ Cfr. Patrick O'Brien, 'A Global Perspective on Industrialization', *Economic and Business Review*, 25- 2 (1988), p. 29.

²⁵ Cfr. José Jobson de Andrade Arruda, 'Colonies as Mercantile Investments: the Luso-Brazilian Empire, 1500-1808', in James D. Tracy (ed.), *The Political Economy of Merchant Empires* (Cambridge: Cambridge University Press, 1991), p. 420.

The chain that underlies the process of industrialization in its first phase, commonly known as the Epoch of the Industrial Revolution, links singularly colonies and metropolises, thickening the terms of its historical experiences that include, *ex ante* or *ex post*, a political movement of social and political nature, that sends us back again to the debate on the dialectics between revolutions and economic growth.