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Antecedents

Like all the European colonizers of the New World who followed the Spanish, the Portuguese had to obtain a product that was exportable to Europe to sustain their American colonial enterprise. Without precious metals, the Portuguese only had access to Indian slave labor and had to develop new products acceptable to the European market. The solution was the establishment of a slave-based plantation economy producing cane sugar, a product which the Portuguese had already developed in their Atlantic islands in the fifteenth century. First using captured Indian slave labor, the plantations of Brazil by 1600 were already being manned by African slave labor brought by Portuguese slavers from West Africa. By the middle of the sixteenth century Brazil had become the world's largest producer of cane sugar, and the industry provided the funds necessary for the Portuguese to maintain their continental possession in the New World.

The settlement of Brazil occurred in distinct phases. In the first phase the economy and population were concentrated on the northeastern coast. It was here that the sugar plantation economy was first developed on a major scale, and this region continued to dominate the colonial economy and the world sugar market for more than a century. A second center of settlement quickly developed in the southeastern region around the port of Rio de Janeiro and its hinterland and at the coastal ports to the south and in the interior zone around what would become the current city of São Paulo. Here a frontier culture developed with whites, mestizos (*caboclos*) and Indians and this population carried out raiding and exploration expeditions in the western and southern frontiers of the country. It was these raiders, known as *bandeirantes*, who discovered both gold and diamonds in this hinterland in the late seventeenth and early eighteenth century. Brazil then entered an intensive mining phase in areas now belonging to the states of Goiás, Mato Grosso and Minas Gerais. In the latter region the wealth of the alluvial gold deposits drew Africans and Portuguese in large numbers and there rapidly evolved a mosaic of major interior urban centers. The mining activity peaked in the mid-eighteenth century, which led to a long-term decline in what had now become the most populous region of the colony.

But the growth of sugar in the hinterland of Rio de Janeiro and in the highlands near São Paulo counterbalanced the decline of mining and also helped to shift the center of both population and economic activity to the southeastern region. The growth of the French and English Caribbean sugar plantation economies in the eighteenth century led to a decline in the relative importance of Brazilian sugar on the international market. Nevertheless Brazil was still a major exporter to southern Europe, and the sugar economy sustained the growth of the southeastern as well as northeastern regions until the early nineteenth century.

The arrival of coffee as a new slave plantation crop began in earnest in the late colonial and early imperial period. Moreover it was in the southeastern region that this slave plantation economy would be centered and it was to this region that several million African slaves arrived in the period up to 1850. The continued dynamism of Brazil, from sugar and gold cycles through the coffee boom, led to the massive introduction of African slaves over the three centuries of colonial settlement. It had already absorbed more African slaves, currently an estimated 3 million Africans, than any other single region in the Americas to 1850,[1] and with the end of slavery in 1888 it was able to attract an even greater number of free European immigrants. It was one of the few Latin American states able to compete with the North American countries in taking a share of the great European transatlantic migration of the late nineteenth and early twentieth century.

Despite the never-ending expansion into the western and southern frontiers, the population of Brazil was still highly concentrated near the coast even into the nineteenth century. Most of the interior space was lightly populated and consisted primarily of forest and grasslands. But much of this would change in the last quarter of the nineteenth century as the railroads and the coffee plantations moved westward to open the

[1] This is the latest estimate of Africans disembarked in Brazil generated from The Trans-Atlantic Slave Trade Database, accessed May 29, 2017, at www.slavevoyages.org/voyage/search#.

interior to settlement. The expansion of coffee production in the second quarter of the nineteenth century provided Brazil with an international export whose demand systematically grew through increasing adoption of coffee drinking by a growing and ever more urban and richer population in the advanced countries of the world. Given Brazil's exceptional physical conditions for coffee cultivation, the country quickly assumed the position of world leader in the supply of this product, and was easily capable of increasing production adequately to respond to expanding world demand. For more than sixty years, coffee was produced with slave labor, but at end of the nineteenth century slaves were replaced by free wage labor based on the participation of European and Asian immigrants. The concentration of coffee production in the axis formed by the states of Rio de Janeiro, São Paulo and Minas Gerais gave this region an economic and political supremacy within the nation which was maintained until 1930.

Along with the substitution of slaves by free wage workers in 1888, the monarchy was replaced by a republic a year later. The emergence of the republic led to a fundamental reorganization of the locus of national power, which shifted from a centralized state to a more federal one, and their appeared new regional political actors who would consolidate their position throughout the period of the so-called Old Republic to 1930. São Paulo state emerged as the leading economic center of the country as coffee production moved west to the interior of the state of São Paulo, and this allowed São Paulo to become the leading state within the national economy.[2]

The initial expansion of coffee occurred in the Paraíba Valley, first in the part pertaining to Rio de Janeiro in the region of Vassouras. Coffee plantations then moved north and west into the region called the *zona da mata* in the southwestern part of the province of Minas Gerais and the areas around the counties (or *municípios*) of Areias and Bananal in the northeastern part of the province of São Paulo. Until the middle decades of the century the Paraíba Valley was the world's single largest producer of coffee. By 1850 Brazil accounted for half of world production, and coffee in turn accounted for half the value of national exports. As world demand increased, Brazilian coffee production expanded at an even faster pace,

[2] On the evolution of coffee see the two-volume survey by Francisco Vidal Luna and Herbert S. Klein, *Slavery and the Economy of São Paulo, 1750–1850* (Stanford, Calif.: Stanford University Press, 2003); and *The Economic and Demographic History of São Paulo 1850–1950* (Stanford, Calif.: Stanford University Press, 2018).

and in the last five years of the century Brazil accounted for 70% of world production. Land was abundant and cheap, and thus labor was the principal factor limiting the expansion of coffee. Initially the end of the slave trade in 1850 put at risk the expansion of coffee, but this was resolved by importing slaves from the non-coffee-producing regions. The result was that the coffee areas steadily increased their share of slaves after 1850.

Although planters as early as the 1850s began to experiment with using salaried European workers in the coffee fields, these initial attempts failed as free workers did not accept the conditions offered nor were they willing to work alongside slaves. Eventually government subsidization was needed to attract free laborers. In 1884, under pressure from the coffee growers, the government of the state of São Paulo assumed the entire cost of the travel of all immigrants from Europe to the farms of São Paulo.[3] It was this law which definitely established the basis for a massive introduction of European immigrants to São Paulo. The formal abolition of slavery in 1888 removed the last obstacle. There now occurred a major flow of immigration to the state of São Paulo. Between 1827 and 1884, only 37,000 foreign immigrants had arrived to São Paulo, but in the decade after 1884 half a million immigrants reached the state. Of the 2.3 million immigrants who came to São Paulo between 1887 and 1928, half were subsidized by the government. Other states also received immigrants in this same period, and in total some 4 million foreign-born immigrants arrived in Brazil between 1884 and 1940.[4] Thus despite the progressive dismantling and final abolition of slavery in the decade of the 1880s, there was no discontinuity in the production of coffee.

In this new free labor era, the west of São Paulo became the hegemonic producer of coffee within Brazil. The movement of coffee toward the west paulista plains was initiated in the 1870s following the introduction of railroads. The paulista western zone and other newly evolving areas of the state were developed on virgin lands with high soil productivity, and local planters were more open to experimenting with new labor regimes. In contrast, the lower-productivity coffee plantations of the Paraiba Valley went into decline and were no longer competitive without slave labor.

[3] Law 28 of 29 March 1884. www.al.sp.gov.br/portal/site/Internet/
[4] For São Paulo see *Anuário Estatístico do Brasil* (hereafter cited as *AEB*), *1939–1940*, 1307, and for all Brazil *AEB*, 1950, 55.

Along with labor, the other obstacle to the expansion of coffee production was transport. From the middle of the nineteenth century the necessity of creating an efficient rail transportation system to ship coffee to the coast was recognized as a fundamental necessity. The traditional system of transporting the crop by mules created high costs and limited the potential expansion of the system. The solution came in 1853 when the government guaranteed interest on the funds invested in railroad construction.[5] The *Estrada de Ferro D. Pedro II*, which went from the port of Rio de Janeiro to Cachoeira in the state of São Paulo, was the first railroad to be successfully built. It served the coffee region of the Paraiba Valley, permitting the export of coffee to the port of Rio de Janeiro.

The newer São Paulo coffee zones continued to rely on mule transport to reach their natural export port of Santos, located some 60 km from the city of São Paulo. But in 1867 the São Paulo Railway was inaugurated which connected Santos to the city of Jundiaí, which was the traditional entrance to the western paulista region. Using local planter capital, a complex railroad network was created which spread through the interior of the province and reached into the unexplored backlands. The railroads permitted the exploitation of lands of exceptional quality, particularly apt for coffee cultivation. Thus by the second half of the century Brazilian coffee planters resolved the two crucial blockages that limited the expansion of coffee: the insufficiency of labor and the lack of a cheap transport system. These railroads also moved other types of goods between ports and between different regions, creating a more integrated regional market, both for domestic production as well as for imports and exports.

Given its extensive agricultural frontier and virgin lands, São Paulo could now meet the increasing world demand for coffee. Between 1852 and 1900 the rate of growth of world coffee consumption was 2.5% per annum. In this period world consumption went from 4.6 million sacks of coffee to 18.1 million sacks, of which 73% was produced by Brazil.[6] There were also important changes in the regional base of coffee production in this period. The state of São Paulo surpassed Rio de Janeiro as the dominant coffee region in the 1890s. This growth continued into the next

[5] Subsidies were essential since private financiers feared that their profits would prove insufficient. William R. Summerhill, *Order against Progress: Government, Foreign Investment, and Railroads in Brazil, 1854–1913* (Stanford, Calif., Stanford University Press, 2003), 40.

[6] Edmar L. Bacha and Robert Greenhill, *150 Anos de Café* (2nd edn. rev.; Rio de Janeiro: Marcellino Martins & E. Johnston Exportadores, 1993), tables 1.1 and 1.2.

century, and by the 1910s São Paulo alone accounted for 70% of total Brazilian production.

But the special characteristics of supply and demand for coffee created an unstable market with great fluctuations in price. World demand grew steadily due to the growth of population, urbanization and income in the consuming countries, but at the same time was seriously affected by periodic crises in the economies of Europe and the United States.[7] Although plantings were influenced by prices, other exogenous factors sometimes delayed this price influence for several years. Coffee trees, for example, only began to produce at four years of age and continued to produce for some twenty to thirty years, and sometimes even as much as fifty years. Finally, a factor of major importance was the exchange rate. Prices were quoted in English pounds but the relevant price for the producer was in national currency. Thus, beyond the internal costs in national money, fluctuations in the exchange rate influenced the decisions of producers as much as changing international prices. All of these factors led to delayed responses to changes in demand in the coffee market.[8]

Until the 1890s there was a stability between demand and supply. In 1892, however, the international price of coffee began a long secular decline. But given the strong devaluation of local currency these falling international prices did not lead to a decline in national production or new plantings, which created a structural excess of supply. This paradox of continued expansion and falling prices and profitability was the result of earlier coffee plantings gradually entering into production, thus leading to overproduction.[9]

Given the growing coffee overproduction crisis characterized by low coffee prices and the accumulation of stocks of coffee, there was increasing pressure on the government to intervene. By 1902 the state of São Paulo was forced to prohibit the planting of new trees for a five-year period. Even after this state intervention, there was another major harvest in 1906/1907.[10] By now Brazil alone in one year produced more than the

[7] On this theme see the seminal work of Antonio Delfim Netto, *O Problema do Café no Brasil* (São Paulo: IPE-USP, 1981), chap. I a IV. In various parts of this section devoted to interventions in the coffee market, we have used the work of Delfim Netto.

[8] Ibid., chap. I a IV. [9] Ibid., chap. II.

[10] The stockpile of coffee bags was 11 million bags for a consumption of 16 million. And the initial estimate of the 1906/1907 harvest was 16 million, but production reached 20 million bags. There was no place to offer a crop of this magnitude. As previously noted, coffee trees began to produce only at 4 years of age and continued to produce for some 20 to 30 years, and sometimes even as much as 50 years. Thus, although the crisis was evident, the production did not depend on current decisions, but plantings made at

world consumed in that year. At a meeting of the Brazilian producers in 1906, the Taubaté Agreement was signed in which the government agreed to buy the excess coffee production at a minimum pre-established price. It was also decided to restrict the production of low-quality coffee, and stimulate internal consumption and promote the product abroad.[11]

But these programs were only partially successful and could not be maintained by the individual states. At the end of the 1906/1907 harvest the world stocks of coffee were 16.4 million tons, half of which pertained to the state of São Paulo. At this point the federal government decided to support the government of the state of São Paulo and took out international loans which it then passed on to the state government for its coffee control (valorization) program. This first valorization scheme was a success, prices recuperated on the international market and the state was able to gradually sell stockpiled coffee in the market. This first intervention in the coffee market was followed by two more successful programs, one in 1914 and another in the early 1920s.[12]

These three interventions were quite temporary, relating to short market crises and an annual overproduction. Part of the inventory was taken off the market. There were also temporary controls of planting and natural fluctuations in coffee production which led to a rebalance in the coffee market. The success of these intervention schemes promoted the idea of establishing a permanent defense of coffee. When stocks of the third recovery operation were sold, the federal government transferred operation of the defense of coffee to the state of São Paulo, which created the Institute for the Permanent Defense of Coffee which subsequently became the Coffee Institute of São Paulo.

The crisis of 1929 hit the coffee market at a moment of local overproduction, a natural result of the policies of long-term protection which had been adopted. Maintaining the policy of regulating total shipments of coffee to the ports, the exceptional harvests of the late 1920s created ever-increasing stocks in the warehouses, and also increased demand for credit both to purchase the stocks and to finance the time they remained warehoused. Given the system of convertibility then in place, the increase in credit would depend on the reserves of gold in the financial system. But as soon as signs of an international crisis appeared, there was an immediate

least five years earlier. Delfim Netto affirms that the regime of exploitation in São Paulo, based on the *colonato* regime, made the crisis more acute in São Paulo, in relation to other producing states. Ibid., 44–45.

[11] Ibid., chaps. II and III. [12] Luna and Klein, *Slavery and the Economy*, chap.1.

restriction of credit in the international market. As in all such crises, there was also a flight of capital to the more developed countries. This crisis of confidence thus stimulated the demand for foreign currency and simultaneously reduced the gold reserves and dramatically decreased the money supply. In this situation it was practically impossible to expand credit and to maintain convertibility of the national currency.

The government of Getúlio Vargas, installed after a 1930 revolution, faced the same crisis of coffee overproduction and was obliged to support the coffee sector in order to avoid a more profound crisis. It created a mechanism which pardoned part of the debts of the coffee growers, and then it restricted production. The extraordinarily large harvest of 1929 was repeated in the two following years, reaching maximum levels in 1933. To maintain prices at a profitable level for producers, the government began destroying the stocks of reserve that existed which could not be sold. In 1933 the debts of the coffee growers were reduced by half and the remaining debt financed over a ten-year period. It prohibited not only new plantings, but re-plantings of old trees, and created a program which divided all the coffee being sent to the ports in three parts: 30% would be exported, 30% placed in stocks and 40% would be destroyed. With periodic adaptations, this system would be maintained until 1944, resulting in the burning of 78.2 million sacks of coffee, the equivalent of three times annual world consumption. This program of control succeeded in gradually diminishing national production. World prices remained low until the end of the 1930s, only recuperating after the beginning of World War II. This control scheme also helped Brazil's competitors who continued to export at even very low prices, and Brazil by the end of the decade lost 10% of its world market share.[13]

In spite of the importance of coffee production to the national economy, other agricultural crops were produced throughout Brazil, some of which entered both the international and internal markets. In the export market, sugar was the leading crop after coffee. As late as the 1820s, sugar accounted for a third of the value of Brazilian exports, as compared to a fourth of the value obtained by cotton and just a fifth for coffee exports But coffee soon dominated and progressively led mid and late nineteenth-century imperial exports, and throughout the period of the Old Republic it accounted for an average of some 65% of the value of exports (see Table 1.1).

[13] Ibid., 142–157.

TABLE 1.1: *Participation of principal crops in total exports, 1821–1939*

	Coffee	Sugar	Cocoa	Yerba mate	Tobacco	Cotton	Rubber	Leather & skins
1821–30	21%	34%	1%	0%	3%	25%	0%	16%
1831–40	49%	27%	1%	1%	2%	12%	0%	9%
1941–50	47%	30%	1%	1%	2%	9%	0%	10%
1851–60	54%	23%	1%	2%	3%	7%	2%	8%
1861–70	50%	14%	1%	1%	3%	20%	3%	7%
1871–80	59%	12%	1%	2%	4%	10%	6%	6%
1881–90	67%	11%	2%	1%	3%	5%	9%	4%
1891–1900	67%	6%	2%	1%	2%	3%	16%	3%
1901–10	54%	1%	3%	3%	3%	2%	30%	5%
1911–20	62%	3%	4%	4%	3%	2%	14%	7%
1921–30	79%	2%	4%	3%	2%	3%	3%	5%
1931–39	69%	1%	5%	2%	2%	15%	1%	5%

Source: IBGE, *Anuário* (1939–1940)

Although sugar lost its supremacy in the 1830s, it maintained its importance as the second most import export crop until the 1890s, only being temporarily displaced by cotton during the period of the US Civil War. Brazilian sugar had been produced in traditional mills until the 1870s. As other competitors introduced new milling technology with the so-called central mills, Brazilian influence in the world market declined, even though local production increased to meet the growing needs of the internal market. From the 1880s Brazil's sugar exports declined systematically, with only a temporary short recovery in the 1920s. But in general, Brazilian sugar was of little importance in the international market until after World War II .[14] The key factor here was the late development of a modern sugar milling industry in Brazil, compared to the earlier adoption of such technology by its competitors.[15] It was not until the first years

[14] Noel Deerr, *The History of Sugar* (London: Chapman and Hall Ltd., 1949).

[15] Eisenberg examined the technological backwardness of production in Pernambuco. Peter Eisenberg, *The Sugar Industry in Pernambuco: Modernization without Change, 1840–1910* (Berkeley: University of California Press, 1974), 42–43. On the evolution of the sugar-producing process see also Gileno de Carli, *O Açúcar na Formação Econômica do Brasil* (Rio de Janeiro: Annuário Açucareiro, 1937); Eisenberg, *The Sugar Industry in Pernambuco*; and Alice P. Canabrava, "A grande Lavoura," in Sérgio Buarque de

of the twentieth century that, with government support, the first *Usinas* (or sugar factories) were established. These were modern milling operations with their own vast fields of cane production, which only partially depended on the cane production of others.[16] Once transformation of the industry began, change was rapid. In 1917 there already existed 215 *usinas* and they now produced half of the national sugar output.[17] In that year Pernambuco accounted for 40% of national production, Rio de Janeiro for 20% and Alagoas for 10%. São Paulo, with just 8% of national output could only supply 40% of its own sugar needs and had to import the rest from other parts of Brazil.[18] As of 1939 there were 345 *usinas* and 18,000 *engenhos*, with the *usinas* now producing 70% of the sugar. The survival of the old mills despite the rapid growth of the modern mills shows how delayed was the transition to the new technology, especially compared with Cuba and other international producers who had all made a complete transition to the new system by this time. But the rise of the *usinas* did have an impact on national production as older zones declined in importance and new zones which were using the new mills rose in importance. By the end of the Old Republic, the Northeastern share of output had declined significantly and the Southeastern states had increased their importance.[19]

Cotton had two periods of major importance in the history of Brazilian exports. The first occurred at the beginning of the nineteenth century when European wars favored exports, and the second during the "cotton famine" of the US Civil War period when US cotton exports were drastically reduced, giving a new space for Brazilian production. But once this war was resolved, international sales were reduced and during the Old Republic period cotton was a relatively minor Brazilian export.[20] But cotton production continued to evolve in the twentieth century when Brazilian industrialization created a growing internal market for its

Holanda, ed., *História da Civilização Brasileira* (São Paulo: Difusão Europeia do Livro, 1971), II, no. 4, 85–140.

16 Eisenberg, *The Sugar Industry in Pernambuco*, chap. 5.

17 Carli, O *Açúcar na Formação Econômica do Brasil*, 32–33.

18 Ministério da Agricultura, Indústria e Comércio, *Indústria Assucareira no Brazil* (Rio de Janeiro: Directoria Geral de Estatística, 1919), 44 and 68.

19 *Anuário Estatístico do Brasil, 1939–40*, 198–203. This activity employed 134,000 persons, being 98,000 in agriculture, 25,000 in factories, 3,000 specialized work and 8,000 in the railroads.

20 On this theme see Alice P. Canabrava, *O Algodão no Brasil, 1861–1875* (São Paulo: T. A. Queiróz Editor, 1984).