

THE BRAZILIAN ECONOMY DURING THE OLD REGIME CRISIS (1750-1807)

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ABSTRACT

While some authors defend the existence of a widespread economic crisis in Brazil during the 18th century, motivated by the fall in the extraction of precious metals, others suggest that the colonial economy maintained a positive performance thanks to the growth of its domestic market. The main goal of this article is to challenge these two explanations, showing that different rhythms of development characterised Brazil's economy in each of its regions. We show that between the 1750s and 1790s, the Amazon region (Maranhão and Pará) experienced uninterrupted growth. Despite some fluctuations, Bahia and Pernambuco showed a tendency towards growth while the centre-south (Rio de Janeiro and Minas

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Gerais) suffered an economic contraction. We conclude that there was a stagnation in the added value of exports from all regions, whilst simultaneous growth for all territories occurred only after 1790.

Keywords: Brazilian colonial economy, slave trade, mining, old regime, commercial agriculture, colonial trade

JEL Classification: N0, N56, F16, J47

RESUMEN

Las visiones tradicionales de la historia colonial de Brasil han generalizado interpretaciones considerando el desarrollo de la economía brasileña en el siglo XVIII desde la caída de la producción de oro. Mientras algunos autores defienden la existencia de una crisis económica general, provocada por la reducción de la extracción de metal precioso, otros sugieren que la economía colonial mantuvo el crecimiento gracias al aumento de su mercado doméstico. El objetivo principal de este artículo es desafiar ambas explicaciones, demostrando que ritmos distintos de desarrollo caracterizaron la economía brasileña en cada una de sus regiones. Buscamos mostrar que entre los años 1750 y 1790 la Amazonía (Maranhão y Pará) presentaron crecimiento ininterrumpido. En el Nordeste (Bahia y Pernambuco) se dieron oscilaciones, aunque con una tendencia al alza. Por el contrario, el Centro-Sur (Rio de Janeiro y Minas Gerais) se enfrentaron a un escenario de depresión. De modo general, concluimos que hubo un estancamiento de los valores agregados de las exportaciones de todas las regiones, pero con crecimiento para todos los territorios después de 1790.

Palabras-clave: economía colonial Brasileña, comercio de esclavos, minería, antiguo régimen, transporte marítimo, comercio colonial

1. INTRODUCTION

The goal of this article is to study the economic conjunctures in Portuguese America from the mid-18th century to the end of the Old Colonial System in 1808. The term «conjuncture» is used in the same sense employed by Braudel (1949) in order to observe economic fluctuations of greater or lesser dimension in the mid-term perspective. We contrast fiscal data with colonial exports and slave imports, with emphasis on the period between two crucial events: the Seven Years' War (1756-63) and the transfer of the Portuguese royal family to Brazil (1807). We frame our

research within the historiographical tradition that stresses the importance of mercantilism and the metropolitan exclusive in the colonisation process during modern times. Regardless of the debate about its significance, effectiveness and economic impact, we consider the opening of ports in 1808 to be a crucial milestone in the transition from, and one of the ramifications of, the crisis of the Old Regime in Europe¹.

The article is divided into four parts. The introduction outlines our research problem and provides a background of Brazil's economic activities in the second half of the 18th century. The second section reconstructs trends in gold production, putting into a critical perspective the concept of a «mining crisis». In the third part, we analyse the fiscal data that allow an approximation of the fluctuations of economic activities, especially those related to import capacity, mining and the agricultural and pastoral sector. Finally, we analyse the colonial trade data, especially slave imports and sugar exports. It is worth underlining that this article makes use of a new series of sugar exports, built from a broad set of sources, which prompts a review of some of the ideas firmly rooted within the historiography regarding the period. By analysing the regions separately under the «economic space» framework, we argue that Brazil's economic performance cannot be seen uniformly throughout this period. However, from the perspective of all regions' aggregate export performance, the final result was stagnation. The increase in agricultural production did not, initially, compensate for the decrease in mining. However, from the 1790s onwards, agricultural exports offset the decline in gold exports due to the high demand in the international market.

Until the 1980s, the dominant explanatory paradigm argued that a decrease in gold production caused a general economic crisis in Brazil. Fiscal pressure, a consequence of the crisis, was associated with the anti-colonial movements which appeared in Brazil after 1789. Simonsen (1937, p. 294), for example, maintained that the decrease in mining produced the first «big crisis» in southern Brazil, even though, as he further claimed, there was some growth in the northern regions at the end of the 18th century. Pinto (1979, pp. 317-323) and Alden (1999, pp. 549-550) also spoke of a crisis caused by the decrease in the production

¹ Regarding the crisis, both in general and specific terms, see Koselleck (1999); Novais (2001); Pedreira (1994); Alexandre (1993). Other highly relevant works include those of Berbel *et al.* (2010), and Fontana Lazaro (1982). Regarding the Portuguese Old Regime and colonization, see Bethencourt (1998, 2007); Pedreira (2014) and the collection of essays in Fragoso *et al.* (2001). For new approaches to colonization, see Ekelund and Tollison (1997). See also Cardoso *et al.* (2010); Cardoso (2013); de Macedo (1951); and Pedreira (2000). As pointed out by Cavalcante (2006), there are many theoretical gaps regarding the concept of metropolitan exclusive, with smuggling as a central counter-argument. Although many nations carried out illegal trade on the Brazilian coast, this was not the economic activity that constituted the benchmark of the colonial system, as postulated by Beer (1912).

of precious metals, not offset by other tropical products (sugar, tobacco, cocoa). Furtado (1976, pp. 80-86) similarly interpreted that the flow of income generated by gold production favoured Europe, especially England, despite claiming that mining had created some conditions for endogenous growth. In the absence of economic diversification, weak gold extraction caused a slow decline in activities linked to the market. However, the collapse of sugar production in Saint-Domingue, together with English industrial growth and phenomena related to Brazil's political independence, produced a «false euphoria» at the end of the colonial period. Novais (2001, p. 96, *passim*) attributed the arrested endogenous growth of the colony to the decrease in mining, which he saw as part of a complex crisis that affected the Old Colonial System.

In the 1990s, several works emerged to re-examine these interpretations. The most influential were those of Fragoso and Florentino, which challenged the existence of any economic crisis in the late 18th and early 19th centuries. For them, the presence of an internal colonial market, controlled by the «resident mercantile capital», produced an autonomous economy not dependent on the European capitalist centre. Due to colonial merchants' ability to invest in the supply of food and slaves, the colonial domestic market maintained a positive performance in the face of an adverse conjuncture (Fragoso 1998, pp. 105-109, 119-120, 159, 179, 291; Fragoso and Florentino 2001, p. 111).

More recent research, such as the work of Menz (2013), although still close to traditional interpretations, emphasises the positive performance of the Amazon region and, to a lesser degree, Pernambuco. Mont Serrath (2013a, 2013b) also questions the applicability of the crisis concept to the period, since he observed a growth trend and positive balances at the Royal Treasury (Erário Régio) in Lisbon. Finally, Pesavento (2012) contends that Rio's economy did not experience a crisis or an economic depression but a «stagnation», as well as «a reinvigoration of agricultural activities».

Crisis, decadence, depression, stagnation or economic growth? How best to describe the Brazilian economy in the 50 years that preceded the collapse of the Portuguese colonial system? To answer this question, we believe it is necessary to overcome two problems found in most of the literature under review. First, there is a tendency to turn the explanatory models into a meta-narrative for the whole of the colonial economy, without considering the productive, demographic and ecological diversity of the regions that comprise Portuguese America. Second, the data used to measure economic activity are sparse; existing research generally covers specific areas or brief periods, limiting a complete view of the situation. No studies, for example, built a comprehensive series of sugar exports from Brazil, the main colonial commodity in the second half of the 18th century. To correct this shortcoming, we provide a largely complete series

of this type, built on more than a thousand published and unpublished sources.

We also assembled and made use of a broad export series for gold and other goods, such as tobacco and cotton, as well as the values of tithes of Minas Gerais, Rio de Janeiro, Pernambuco, Bahia and Maranhão. As tithing was levied on agricultural production as a whole, we believe that the amounts for which this tax was farmed are a reasonable indicator of contractors' expectations of the agricultural product of the various activities carried out in the colony. We follow here several works that have already used this type of source to analyse Brazil's late colonial economy (Mauro 1997, p. 298; Schwartz 1999, p. 154; Sampaio 2002, pp. 85-87; Carrara 2009; Pesavento 2009, pp. 201-203; Lopes 2008, pp. 22-23; Lenk 2013, p. 305).

The Brazilian colony in the second half of the 18th century was intrinsically linked to Portugal by a series of historical, political, social and institutional ties that had been developing since the 16th century. One of the pillars that supported this relationship was the metropolitan exclusive which guaranteed Portuguese exclusive trading privileges with Brazil. At the same time, the Portuguese Empire comprised not only America, but also parts of Africa and Asia, which all had economic ties with one another, not to mention the trans-imperial connections with other imperial colonies and metropolises where legal trade and contraband could take place. Therefore, it is impossible to treat the Brazilian economy as having some «national» or «independent» characteristics.

This imperial framework imposed on Brazil the general contours of its economic activities. First, historically Brazil was driven to produce agricultural, mineral and livestock commodities that were destined for Portugal (and then the rest of Europe) and, to a much lesser extent, Africa (more specifically Angola and the Gold Coast). Each region of Brazil exported a specific set of goods, although several areas produced many of the same commodities. This is the case of sugar, which was cultivated in the second half of the 18th century in the captaincies of Bahia, Pernambuco and Rio de Janeiro, although the quality and the price of sugar differed in the three marketplaces.

Sugar has always played a central role in the Brazilian economy, making up at least half of the total exports of tropical products. The by-product of sugar cane milling, *cachaça*, was often used to buy slaves in Africa. Bahia, besides having the most valuable sugars in Portuguese America, was also its most significant producer of tobacco, which found a vast consumer market in Europe. Additionally, like *cachaça*, tobacco was a bargaining chip for the purchase of slaves. Sugar products, together with cotton, were the primary commodities produced in Pernambuco and Paraíba. Common to almost all these regions along the Brazilian coast was the cutting and transport to Portugal of diverse woods from the

Atlantic Forest. In the north of Brazil, in the regions of Grão-Pará and Maranhão, sugar cane production never thrived. Instead, cotton, rice and, to a lesser extent, extractive activities that took advantage of the natural resources of the Amazon rainforest sustained the region's economy. Mining in Minas Gerais followed a different pattern from the one outlined above for two interrelated reasons. First, it involved new products, such as gold and diamonds, and second, these were not concentrated on the coast. The connection between Minas Gerais and the coast, and therefore with the import and export channels, took place through Rio de Janeiro, a crucial marketplace connecting Brazil with Spanish America. This happened mainly through the re-exporting of slaves from Brazil in exchange for silver.

Traction animals were crucial to moving the colony's export economy. The livestock sector provided energy to cultivate soils, move sugar mills and transport goods. At the same time, the livestock sector was essential for domestic meat consumption. Together with subsistence crops (mainly manioc), cattle were responsible for feeding the colonial population, as well as being the engines of Brazil's internal markets. What is more, the making of hides and tanning developed into a considerable economic sector, exporting different types of leather produced mainly in Bahia, Pernambuco and Rio Grande do Sul to the Portuguese market.

Slavery was a fundamental institution that supported much of the colonial economy. In the last quarter of the 18th century, slaves made up about a third of Brazil's population. Captive labour was present in almost all of the colony's economic activities, but the highest concentration was in the most profitable and labour-intensive sectors, such as sugar and mining production. An active and frequent traffic, which connected the ports of Africa with the ports of Brazil, maintained the proportion of enslaved people². In addition to Brazilian *cachaça* and tobacco, some European and Asian goods were used to purchase slaves in Africa, which activated several trade routes within and beyond the Portuguese Empire. Another form of work common to colonial society was carried out by free and poor farmers who, despite producing for export markets, were more integrated in the commercial chains that linked the Brazilian domestic market, mainly food production.

Naturally, most economic activities were taxed. However, the Portuguese state conceded the right to collect taxes to third parties—tax farmers or contractors—who gained the right to collect taxes through public auctions. The highest bidder paid the Portuguese Crown for the right to collect a particular tax. The revenue collected, minus the bid amount, constituted the tax

² According to the Slave Voyages dataset, between 1551 and 1807, a total of 3,372,112 slaves entered Brazil. Source: <http://www.slavevoyages.org/estimates/gUc4anBM>, consulted on 26/05/2021.

farmer's profit. Tithing (a 10 per cent tax on sold production) and customs duties (a 10 per cent tax on the value of imports) from various regions of Brazil were the main sources of revenue for the Portuguese Crown.

Given the lack of a significant handcrafted production, the import trade was of great importance, since the total population of Brazil was around 1.5 million people in 1780 and almost 2.5 million in 1808. Thus, one of the most significant characteristics of the Brazilian economy, and which is sometimes neglected, was its consumer market³.

As a fundamental assumption of this study is the diversity both among Brazil's economic activities as well as their geographical distribution throughout the period under consideration, we resort to the analytical category of «economic space», widely used by Hispanic-American historiography since its proposal by Carlos Sempat Assadourian. It means the territory delimited by the set of regions with economic production more directly articulated with the zones producing export goods or precious metals⁴. We selected three regional axes that cover approximately 82.2 per cent of the population of Portuguese America (Botelho 2015, p. 99).

Initially, the many intersection points of the economies of Recôncavo Baiano (the hinterlands surrounding Salvador—Brazil's first «capital») and Pernambuco allow us to consider both areas together. The two captaincies occupied most of the territory of the current region of northeast Brazil and shared the same ecological characteristics: a tropical climate on the coast, where sugar cane was cultivated, and a semi-arid inland populated with cattle ranches. In addition, forced labour in Bahia and Pernambuco remained mainly associated with an export economy of tropical goods of earlier colonisation, which impacted the way the system of production functioned in the second half of the 18th century.

Southeastern Brazil (composed by the provinces of Minas Gerais, Rio de Janeiro and São Paulo) corresponds to another economic space, where gold extraction polarised different areas of food production, stimulating the creation of an interregional transport network. The mining economic space in the mountains was built around slave labour, yet with large areas of peasant agriculture. In Rio de Janeiro, sugar was produced, albeit on a smaller scale than in the northeast.

The last analytical axis, the Portuguese Amazon, stands out as a territory and economic space constituted around the state of Grão-Pará and Maranhão. The massive presence of extractivism with indigenous labour and the relatively late development of plantations based on African slavery determined a distinct economic cycle relative to other regions.

³ For an overview of the various economic activities in Brazil, see Boxer (1969), Godinho (1953), Arruda (1980), Alden (1999), Schwartz (1999), Luna and Klein (2010) and Carrara (2009). Population figures for Brazil, as well as the proportion of enslaved people, are in Botelho (2015).

⁴ See, Assadourian (1979, 1983), Stern (1985), Riquer *et al.* (1995) and Jumar (2014).

The main conclusions of this study, therefore, point to the diversity of economic cycles between regions before the 1790s. The Amazon, a sparsely populated region, experienced uninterrupted growth, and the northeast, a region with a higher population density, tended to grow steadily, despite some fluctuation. In contrast, the centre-south, the most densely populated area, experienced economic decline throughout the period. However, we found that there was stagnation in the exports in constant prices from all regions. Gold production suffered a significant long-term reduction that even the growth in other activities was not enough to compensate for. The disinvestment in gold extraction and agriculture in order to supply mining areas had the effect of increasing agricultural exports in other areas. One of the main consequences of this was the internal redistribution of slaves throughout the colony. Previously concentrated in areas of mineral extraction and related activities, slaves were relocated to plantation areas. Thus, our study partially supports the conclusions of the revisionist works by Fragoso and Florentino (2001), as we show that some sectors of the colonial economy did not suffer a generalised crisis or a process of paralysis. Instead, they adapted to the reduction in mining production by partially reallocating factors of production previously dedicated to the supplying of mines to agricultural activity.

However, the data we have gathered indicate that until the 1790s, in terms of monetary values, Brazil's exports began to decline following the peak of mining production, and at least in the centre-south, the production of agricultural products destined for market was likely lower than at the height of mining production. The period covering these four decades was characterised by a slow decline in mining production and a challenging economic recovery, subject to the vicissitudes of competition on the international market. In turn, the economic growth witnessed mainly in the 1790s was due to conflicts in the North Atlantic that drove the demand for exports from the Portuguese Empire.

2. THE ECONOMY OF GOLD: CONCEPTS AND PERIODISATION

Perhaps one of the most recurrent (mis)conceptions is that of crisis, specifically the continuous fall in mineral production in Minas Gerais from the 1750s onwards. The term «mining crisis» has been widely used in the historiographical sense of a straightforward decline in the production of gold and, to a much lesser extent, of diamonds.

Although there are different definitions, an economic crisis, in general, is seen as a significant and relatively rapid drop in supply or demand. The production of gold and diamonds in Brazil did not suffer a sudden reduction, but a prolonged decline. Thus, the term mining crisis used to define the performance of Minas Gerais' economy in the second half of the

century is incorrect. In fact, what happened was depression or stagnation, depending on the sector and the nature of the activity concerned⁵. In the long run, the slave market created by mining suffered a depression, while subsistence agriculture remained stagnant. This distinction is central in explaining the overall demographic growth during this period in Minas Gerais. While the mining districts' population declined or stagnated after 1780, the parishes of frontier areas, stimulated by coastal markets, grew sharply. These facts show that different economic sectors in Minas Gerais were driven by economic considerations with minor links to the mining activity (Carrara 2007).

Moreover, the very periodisation of gold production must be corrected. Indeed, the production peak coincided with the 1720s and 1730s. A phase of slow but continuous decline in gold production started in 1741 and lasted until the first decades of the 19th century (Costa *et al.* 2013, pp. 192-194). To call this a crisis, as the traditional narrative has tended to do, is incorrect. The decline from 1741 onwards occurred at minimal annual rates, and although in the medium and long term there was a reduction in gold production, there were years which witnessed better results, according to the Dutch gazettes, the reports of the French consuls, and the 1 per cent manifests⁶. This also gives some legitimacy to the arguments presented to His Majesty by the city councils against the capitation system in the first half of the 1740s, although some of them were flagrant verbal exaggerations (de Vasconcelos 1901-1902, pp. 855-965; Carrara 2016, pp. 837-60).

However, a distorted image of a crisis developed, especially after 1761, when the annual quota of 100 arrobas owed to the Portuguese Crown was no longer fulfilled. The perception of crisis also seems to be associated with the slow deterioration in the financial conditions of economic agents more directly linked to the market, as measured by the debt accumulation that tax farmers in Minas Gerais accrued from the late 1740s together with a decrease in imports. This scenario occurred concurrently with the tithing of Rio de Janeiro's customs, a port where at least 85 per cent of all goods imported by Minas Gerais arrived during the 18th century (Appendix A, Figure A2). These data are an essential indicator of the captaincy's import capacity (Carrara 2007, pp, 121-123; 2009, pp. 58-59; 2016, p. 20)⁷.

⁵ Looking at Rio's tax collection in the second half of the 18th century, Pesavento (2009, pp. 202, 204, 210) came to a similar conclusion. «Crisis» is a word that the author is reluctant to use to describe the period. According to him, «deceleration» is a better fit to define Rio's economy at that time.

⁶ The manifests recorded the fees paid (1 per cent *ad valorem*) for all gold shipments that officially arrived in Portugal. See Costa and Rocha (2007).

⁷ Two types of tithes are frequently mentioned in this article: the *dízimos* (tithing), which was a tax of 10 per cent on sold production, and the *dízima da alfândega* (import duties), which was a 10 per cent tax on the value of imported goods. The tithe series were assembled using the values for

Considering that the major importers were the largest owners of both land and slaves, the discourse of crisis and decay found greater support in the sector of slave-labour based production. The contraction in mercantile activities was reflected in the insolvency of the tax farmers, which markedly increased from the mid-1760s. Accounts held for 1766 reveal that between 1722 and 1750, tax farmers still received a little over 123 *contos de réis*⁸, and from 1751 to 1765 the debts reached 1,085 *contos*, 80 per cent of which had accrued in the previous 5 years. According to the governors, because the revenue had not entered the coffers as before, there was no way to pay off the *provedores* (the superintendents of the treasury), particularly the diamond contract costs⁹. The failure to reach the limit of 100 arrobas, established as a fixed contribution to the Royal Fifths, demanded the use of the *derrama* for the first time¹⁰.

To further complicate the periodisation commonly found in the historiography, gold remittances to the Portuguese Crown remained high until the late 1760s. It is from 1770 onwards that the numbers persistently declined, which led the Royal Treasury in Minas Gerais in 1772, for the first time, to include the fifths as an income item in the «general income» of its accounting (Carrara 2009, p. 59; Costa *et al.* 2013, pp. 72-75). Thus, a royal right was definitively converted into a tax; that is, the income from the fifths that had previously been destined for the king's coffers now became part of the revenues of the captaincy of Minas Gerais. This might have caused alarm. However, the annual gold production and the savings rates still in force made it possible to think that the last *derrama*, collected in the captaincy between 1769 and 1771, could gather the necessary sum to fill the quota previously established. The failure of this measure and the consequent introduction of the royal fifth as a source of ordinary revenue made it clear to the royal administrators that they were already in a state of decay. Yet, if we want to identify the precise date of an abrupt drop in gold remittances, both to the Portuguese Crown and to private agents, this would be the year of 1784, when no gold arrived in Lisbon—at least as recorded in the 1 per cent manifests.

which these contracts were auctioned. In turn, the series of import duties were built using the amounts collected.

⁸ Due to the stability of the exchange rate between the *mil-réis* and the pound sterling or the weight of silver (*peso*), we chose to keep all monetary values in *réis*. See McCusker (1978, pp. 300-312), de Moura Filho (2010), Denzel (2010) and de Sousa (2006). However, the values in *réis* were converted to *pesos* and pounds sterling in Appendix B.

⁹ *Arquivo Histórico Ultramarino*, Minas Gerais, 16 September 1766 [cx. 88, doc. 46], hereafter designated AHU. Other examples: AHU, Minas Gerais, 12 July 1769 [cx. 95, doc. 63]; AHU, Minas Gerais, 3 December 1769 [cx. 96, doc. 44].

¹⁰ *Derrama* was the complementary tax charged by the government to the local inhabitants, to reach the minimum revenue stipulated by the Crown, that is, the 100 arrobas of gold (1 arroba=approx. 15 kilos).

If what has been described so far indicates a downturn for the economies of Minas Gerais and Rio de Janeiro, other factors complicated the situation. There was continuous and persistent growth throughout the second half of the 18th century. Concerning the captaincy of Minas Gerais as a whole, the growth of the slave population between 1742 and 1786 was followed by a decrease from 1786 until 1808. At the same time, the second half of the 18th century saw an increase in the proportion of free people to the total population of Minas Gerais. The decline in mineral production did not affect everyone in the society equally. As has been demonstrated previously (Carrara 2007, pp. 219-271), the social and economic sectors of Minas Gerais maintained independent trajectories, depending on their specific situations. If the slave sector was immediately affected by the decline in gold production, the peasant sector, which depended to a lesser degree on the circulation of precious metal, followed a trajectory of uninterrupted expansion into the 19th century. The impact, therefore, was not the same for everyone; and in the case of Minas Gerais, peasants were less affected.

Finally, all these variables reflect the economic vicissitudes that were most directly related to mineral production, especially in some areas of Minas Gerais, São Paulo and Rio de Janeiro. These regions of Portuguese America were subject to other factors, which means that generalizing about the whole of Brazil can be misleading. Nevertheless, there are some signs that the gold depression combined with the accumulation of tax farmers' debts produced a short-term commercial (and fiscal) crisis in the state of Brazil. Yet, the end of the Seven Years' War and the losses at Rio Grande and the Colônia do Sacramento as a result of the Castilian invasion in 1763 may have also contributed to this decline. We thus have a decline in gold production that was slow, by way of the continued disinvestment in mining, and the end of a positive short-term trade environment shaped by Portuguese neutrality until the end of the Seven Years' War (1756-63). The tax farmers' struggle to pay their debts points to a shortage of credit engendered by all these economic problems.

As a result, the concept of mining crisis is not appropriate. Rather than an acute crisis, a slow decline in gold exports persisted until the late 18th century. Given these conclusions, how did customs and tax collection indicators respond in the face of this lengthy retraction in the mining sector? The next section shows that for Rio de Janeiro and Minas Gerais, there were parallels between the mining depression and the stagnant fiscal performance. Yet for the rest of Brazil and for the Amazon region, the panorama is more diverse.

3. THE FISCAL INDICATORS

3.1. Mining and its Impact in Rio de Janeiro

The performance of the agricultural sector and the circulation of goods in Minas Gerais during the mining depression have been analysed extensively (Carrara 2007, also de Paiva 2016). In summary, the tithes of the captaincy show a significant decrease. After the value of the auctions reached more than 100 *contos* per year between the decades of the 1740s and 1750s, they fell to a range close to 65 *contos*, recovering only in the 1790s. In the same way, the customs (*entradas*) contracts of the captaincy were drastically reduced, mainly towards the end of the 1760s (Appendix A, Figure A1).

For Rio de Janeiro, the best indicator regarding the impact of changes in gold production rhythms is the import duties revenues. The general picture clearly shows that the tithing boom between 1712 and 1802 coincided with the prosperous period of gold production (Appendix A, Figure A2). A stage of high incomes carried on to the mid-1760s, with several years exceeding the figure of 200 *contos de réis*, followed by a period of a slight downward trend of between 100 and 200 *contos* until 1793, after which there may have been a recovery. In the absence of customs numbers between 1803 and 1807, it is impossible to state this with any certainty. There was a rapid increase in the volume of gold shipments to Lisbon from 1795 to 1803, but this did not impact customs revenues. This fluctuation, moreover, cannot be attributed to a rise of gold prices since the ratio between the pound sterling and the *mil-réis* between 1717 and 1817 remained at the rate of 67.32 pence per *mil-réis*. The end of the Napoleonic wars in 1814 and the ensuing era of peace in the Atlantic produced a sharp increase in customs income from 1815 onwards¹¹.

Agricultural activity was more complex (Appendix A, Figure A3). It should be noted that the decline in mining does not seem to have had any effect on agricultural output as measured by tithes contracts. The values of these contracts remained stable during the 1750s and 1760s, around 25 *contos de réis*, with a very slight increase to 32 *contos* in the early 1780s. This slow growth contrasts with the abrupt rise in the 1790s, peaking at 45 *contos*¹². It should be noted that during this period, the Portuguese currency did not suffer significant exchange rate changes.

¹¹ If a troy ounce is equivalent to 31.1 grams, 1 gram was 30.04 pence. Therefore, 1 gram of gold was equal to 446.18 *réis*. So, 1\$000 *réis* (*mil-réis*) corresponded to 67.32 pence. To this effect, see Carrara (2008). For the years 1802-1803, see *Arquivo Histórico do Tribunal de Contas de Lisboa/ Erário Régio*/volumes 4059 e 4060 (hereafter AHTC); for 1808-1820, see de Freycinet (1827: I, 297313).

¹² AHTC, *códices* 4132 e 4059.

Thus, considering Figures A1, A2, and A3, and other data explored below, we conclude that production in both Rio de Janeiro and Minas Gerais, in an aggregate perspective, experienced an unequivocal contraction. Obviously, in this more general context, there were some islands of prosperity favoured by the rise of export goods, such as sugar in Campo dos Goytacazes (northeast of Rio de Janeiro), from the end of 1760, and cotton in Minas Novas (north of Minas Gerais), especially from the 1790s onwards (Carrara 2007, pp. 140-141). In summary, fiscal data representative of economic activities in the 1750s lay bare the limits imposed by their linkage to mining.

3.2. Northeast Agricultural Production

In the initial period of mining, Bahia was one of the captaincies most favoured by Minas Gerais' supply trade. By the 1720s, the problems generated by the gold rush had already been overcome, and the period was marked by a rise in tithing contracts and slave imports. From the 1720s onwards, its agricultural production, measured strictly in tithes, displayed clear stability. The values of the tithing contracts ranged between 50 and 60 *contos* per year until about 1777. These values were affected by a reduction in gold production (which was felt in Bahia earlier), a result of the expansion of the mining frontier towards the south and the Crown's measures that favoured Rio de Janeiro as a supply centre. However, Pernambuco was less influenced by the gold expansion. There, tithing contracts, after a leap in the 1730s, stagnated between 14 and 20 *contos* until the 1770s (Appendix A, Figure A4)¹³.

The customs records of the two captaincies reveal a growth trend from 1770 onwards, but the starting dates and the growth duration were very different (Appendix A, Figures A5 and A6). The fiscal data produced by the Royal Treasury in Bahia should however be considered with caution, given their glaring accounting deficiencies (Carrara 2009, pp. 211-216, 253). Furthermore, if we examine the flow of Salvador's import duties between 1773 and 1804, it reveals three different trends: high until 1784 (reaching almost 80 *contos de réis*); low between 1784 and 1796 (the minimum was less than 20 *contos*); and a resumption of growth from 1796 to 1804 (the maximum was more than 100 *contos*). Data for the following two years indicated a decline but are insufficient to characterise it as the beginning of a new trend. In Pernambuco, however, there was an increase in import duties (*dízima*), customs donation, royal tithes (*dízimo*) and the

¹³ For Pernambuco, see Carrara (2009, p. 253); AHU, Pernambuco, cx. 130, doc. 9823, 13 July 1778; de Paiva (2012). For Bahia, see Carrara (2009, pp. 214-216); de Paiva (2016).

subsidy of cotton fibres. The rise, however, seems to have begun in the 1780s¹⁴.

3.3. The Amazon

The Amazon region's economic performance during the first half of the 18th century had little to do with the mining phenomenon, and its growth patterns throughout the whole century were different from those of the state of Brazil. To be more exact, it is only from the 1760s that export-oriented agriculture developed, with extracted products dominating foreign trade. The series of values of Maranhão's tithe contracts indicates a completely stagnant agriculture until 1758, with values between two and four *contos de réis*; the same should be true for the province of Grão Pará. This is not to say that the region's commercial activity was negligible. In the early 1750s, Maranhão and Pará sent a handful of vessels to Lisbon each year, but the cargoes were primarily leather and cocoa. In addition, the hinterland drugs trade (*drogas do sertão*) and extensive livestock production were linked to the production of foodstuffs and *cachaça* for the riverside markets (Chambouleyron 2010).

From the 1750s onwards, there was a trend towards sustained and nearly uninterrupted growth in Maranhão's agriculture; the tithes, which were farmed for almost 10 *contos* between 1751 and 1753, reached 73 *contos* in 1805 (Appendix A, Figure A7). Pará likely followed a similar trend, but certainly not as positive. Throughout the 18th century, cocoa remained its main export product, and its slave population remained small (de Martins 2015, p. 126; da Mota and da Cunha 2017).

Yet fiscal data alone are not enough to discern the impact of the long gold depression. It is, therefore, necessary to look at the analysis of data on slave imports and colonial exports. By adding these new indicators and comparing them with the indicators already noted, we uncover new problems and draw new conclusions.

4. COLONIAL TRADE

4.1. Slave Imports and Sugar Exports

When examining Brazil's slave imports between 1710 and 1808, we find a trend towards growth. Mining activity required roughly 20,000 imported slaves per year in the 1710s, yet in the 1780s a substantial leap occurred,

¹⁴ *Arquivo Nacional da Torre do Tombo, Fundo Erário Régio/Série Capitánias do Brasil*, volumes 404-433 (hereafter referenced as ANTT).

with 25,000 Africans entering Brazil each year. In the case of Rio de Janeiro, numbers peaked around 1781, while in Bahia the upward trend began in 1770 (Appendix A, Figure B1)¹⁵.

Regarding the fiscal data analysis, Rio de Janeiro maintained minimal growth during the 1770s and 1780s. One might call it stagnation if we consider the performance of the import duties together, but from 1790 there was an increase in the value of tithes. Rio de Janeiro was a marginal sugar producer in the first half of the century, with annual shipments close to 1,500 metric tons, approximately a third of Pernambuco's and a quarter of Bahia's yields. However, in the 1770s, there was considerable growth (5,015 metric tons per year), followed by a significant drop in the 1780s (4,105 tons), and a robust recovery after 1790 (8,000 tons) when Rio overtook Pernambuco (Appendix A, Table B4). Interestingly, there is a clear mismatch between the increases in sugar production (1770) and slave imports (1780).

On the whole, Rio's growth was the result of a successful conversion to sugar during the downturn in gold production, favoured by the opening of sugar cane fields, and a relative deceleration of the northeast captaincies. Nevertheless, the losses incurred because the reduction in gold production ended up affecting its fiscal performance. The contradiction between the expansion of sugar and other products for export, on one hand, and the retraction of gold and supply activities linked to mining, on the other, explain the stability of tithes¹⁶.

In Bahia's case, customs and total fiscal revenues oscillated, while sugar exports grew decisively only in the 1790s. Yet there was an increase in annual averages in the 1760s, as the «sugar reconversion» in Bahia began before the other regions, following the movement of the mining frontier to the south¹⁷. Besides, the economically favourable environment for tropical products during the Seven Years' War stimulated local sugar production (1756-63). In the 1750s, Bahia exported an annual average of 6,000 tons, increasing to 9,000 tons in the following decade (Appendix A, Table B4).

The end of the Seven Years' War reduced international sugar prices along with overproduction in Bahia. In the 1770s, average sugar exports dropped to 8,000 tons, a decline not offset by agricultural diversification.

¹⁵ All data on slave trades, unless otherwise noted, were obtained from David Eltis *et al.* «Voyages: The Trans-Atlantic Slave Trade Database» (2008), www.slavevoyages.org, accessed on 12 November 2012 (hereafter TASTD). See also Curto (2002).

¹⁶ An anonymous document on the sale of the tithes from Rio de Janeiro states: «The Campos branch has always been the most expensive to collect, but in the present time, on account of the inhabitants wanting to abandon cattle raising and apply themselves to the sugars, it's the best of all (...)». AHU, RJ, cx. 88, doc. 7753, Post-1769.

¹⁷ On the growing articulation of Minas with Rio de Janeiro, see Carrara (2007, p. 119).

Paradoxically, the import of slaves grew¹⁸. After this period of weak exports, the following decades saw an upward trend, reaching 15,000 tons annually for the interval between 1801 and 1807. It should be noted that the same phenomenon was observed in Rio de Janeiro. In essence, the «sugar reconversion» occurred in a decade (the 1760s) in which imports of African workers were relatively low¹⁹.

The fiscal (tithes and customs) and commercial series of Pernambuco maintained a positive trend after the 1770s. However, Pernambuco's sugar output was not outstanding, especially when compared to the two other sugar regions. In 1750, 4,300 tons were exported annually, whereas, in the following four decades, the annual amounts oscillated between 6,300 and 6,700 tons. Accordingly, the growth recorded by fiscal data was the result of the most successful process of agricultural diversification, especially in the case of cotton production. In this captaincy, slave imports dropped in the 1770s and 1780s, only rebounding from 1790 onwards (Appendix A, Table B4).

In turn, the Amazon economy grew throughout the whole period, boosted mainly by Maranhão. Exports from Pará experienced dramatic volatility until the 1780s when the trend becomes positive. The growth dynamic of the Amazon region differed from the rest of Brazil, its main products (cocoa, rice, and cotton) competing very little with the other economies of Portuguese America. Rice shipments increased during the 1770s, as a result of the consolidation of large slave plantations in some areas of Maranhão (da Mota and da Cunha 2017, pp. 465-484). Cocoa sales, based on extraction, remained virtually stagnant throughout the period. From 1760 onwards, slave imports followed the rice trend (Appendix A, Figure B2).

¹⁸ In 1764, following the end of the Seven Years' War, there was no interest in tax-farming the tithes. See AHU, Bahia/CA, 27 June 1764, doc. 6562, an annex to n. 6551.

¹⁹ Another indicator that we could use to validate our arguments is the performance of the credit market in Brazilian marketplaces. Regarding the credit market in Salvador (Bahia), the research carried out by Ribeiro (2009, table 3.1, p. 121) points to a decrease in the values of loans in the 1760s (79,569,291 réis) when compared to the values traded in the previous decade (216,141,678 réis). The volume of loans in Salvador increased in the 1770s (159,145,612 réis), and in the 1780s (205,202,486 réis). However, it was only in the 1790s, with 303,622,507 réis, that the loan amounts would exceed figures from the 1750s. For Rio de Janeiro, the credit market studied by Pesavento and Marques (2020) is different from the scenario in Bahia. The peak of nominal loan values in Rio, in annual averages, occurred in the 1740s. The volume of loans fell in the 1750s and 1760s, rose slightly in the 1770s, and fell again in the 1780s. The author's hypothesis to explain this is similar to our interpretation. In line with it, mining depression/stagnation most likely had negative impacts on Rio's credit market. In short, the recovery of the credit market in Bahia began to take shape in the 1770s, but the values negotiated during the mining boom were only exceeded in the 1790s. Concerning Rio, in spite of a sketchy recovery in the 1770s, everything indicates that between 1741 and 1790 its credit market was drastically affected by the vicissitudes of mining.

4.2. The Aggregate Analysis

We argue, therefore, that there was no synchrony between the different regions in the tendencies of their economic indicators until the 1790s. Yet, overall, we contend that the fall in gold production and related activities has a counterpart in the growth of export agriculture. For Rio de Janeiro, Bahia and Pernambuco, annual sugar exports averaged 11,500 tons in the 1750s; 17,000 tons in the 1760s (47 per cent growth); 20,000 tons in the 1770s (16 per cent growth); 19,000 tons in the 1780s (down 4 per cent); 27,000 tons in the 1790s (44 per cent growth); 38,000 tons between 1801 and 1807 (42 per cent growth). The expansion was disrupted only in the 1780s, due to a significant drop in Rio de Janeiro's production. This fall may be due to distortions generated by our estimates²⁰. However, it is more likely that there was stagnation or very discrete growth during this period, following Lisbon's prices (Appendix A, Table B4). Yet, one must ask: did the growth of sugar production offset the decline in gold production?

When we multiply the average value of sugar exports with the average consumer prices in Portugal and compare them with gold remittances, we see that in the 1750s Brazil exported 1,483 *contos de réis* in sugar and 4,405 *contos* in gold annually, totalling 5,888 *contos*. In the next three decades, the sums of the two products maintained a downward trend, although the value of sugar production continued to grow. It was only in the 1790s that the expansion provided by sugar was able to overcome the slow gold depression. In this period, annual sugar shipments reached 5,674 *contos*; added to the gold shipments (766 *contos*) we arrive at yearly exports of 6,440 *contos* (Appendix A, Table B5; Figure B6).

We did not include in our calculation the Amazon region's exports and dozens of tropical products that were part of Brazilian trade. Still, even when adding the values of products for which we have relatively complete series (cotton and rice from the Amazon, tobacco from Brazil and cotton from Pernambuco), the overall picture does not change, and the 1780s continued to record values (5,037 *contos*) lower than the previous periods (1750: 6,049 *contos*; 1760: 6,163 *contos*). Therefore, even without counting the total volume of exports and considering the possible distortion of the sugar series, it is unlikely that the performance of total Brazilian exports during the 1780s was much higher than that of the previous decades (Appendix A, Table B5 and Figure B6). Gold shipments had fallen so much that the total amount of exports is negative when compared to previous periods. In short, during this period, «archipelagos of prosperity»,

²⁰ See the explanation in Appendix A. Most of the sugar exports from Bahia and Rio de Janeiro in the 1770s and 1780s were based on the «*Marco dos Navios*» numbers, corrected by the exports from Pernambuco.

that is, regions with sustained economic growth, such as southern Minas Gerais, were established during the great depression in the mining sectors²¹.

There is a contrast between the data presented above and the series put together by Morineau that showed an important recovery in the global exports (gold added to the colonial goods) of Brazil at the end of the 1770s (Morineau 1985, pp. 484, 488). Morineau's series of commodity exports is a pure estimation; yet, he shows that, on average, Brazil exported less in the 1780s than between 1726 and 1750. His data also support our argument that the global performance of the Brazilian economy in the 1780s was inferior to that at the peak of mining²².

Nevertheless, in total slave imports between 1751 and 1807, there are decades of clear disparity with the performance of Brazilian exports. By the 1760s and 1770s, forced labour imports fell in contrast with an increase in sugar exports. In Bahia and Rio de Janeiro, this gap is more visible, indicating that the expansion of sugar production occurred thanks to the redistribution of that labour force within the colonial space and, mainly, the disinvestment in activities related to mining. This apparent inconsistency is even more explicit in the case of Rio de Janeiro, where less sugar was produced in the 1780s than in the previous decade. At the same time, 35 per cent more forced labour was imported. How can we explain the divergence between sugar production and the acquisition of slaves?

Some of these slave imports may be linked to the slave trade itself, to the production of *cachaça* for the purchase of Africans, and to transport activities. Yet it is essential to highlight that sugar cane brandy paid for a small part of these imports, given the preference for the use of textiles from Asia and Europe in these transactions²³. The excess of slave imports could also have been sustained by the economic diversification that Brazil as a whole experienced in the last quarter of the 18th century. Rio de Janeiro practically tripled the volume of its secondary products exports to Lisbon during the 1780s, despite the slowdown in sugar production²⁴.

²¹ For values in *pesos* and pounds sterling, see Appendix B.

²² Morineau calculates an average annual export of 5,250 *contos de réis* in goods for the 1780s, while we reached 4,349 *contos de réis*.

²³ The argument of the use of *cachaça* to support the slave imports from Angola was developed by de Alencastro (2000, pp. 323-325; 375-380) for the second half of the 17th century. But data for the late 18th century show that the beverage accounted for less than 20 per cent of slave imports. See Lopes and Menz (2008). For a different interpretation, see Ferreira (2001) and Curto (2002). On the use of slaves in the transportation industry, see Luna and Klein (2010, pp. 76-77).

²⁴ Between 1772 and 1780, sugar filled 48 per cent of the space on ships from Rio de Janeiro arriving in the port of Lisbon. As early as the period between 1781 and 1790, only 26 per cent of the cargo was destined for sugar. The calculation was made with the uncorrected tons of sugar collected in the register of the *Marco dos Navios* (Lisbon's tonnage tax on vessels) kept in the Lisbon's Municipal Historical Archive (AHCML, *Fundo Marco dos Navios, Livro de Entradas dos Navios*

The calculations presented in Appendix A (Table B5 and Figure B6) reinforce the idea that diversification did not compensate for the decline in gold extraction in that decade, even though agricultural production on the coast of Rio de Janeiro was growing.

Hence, it is necessary to consider the growth of domestic markets that seems to have taken place around the centre-south. The economies of Minas Gerais and São Paulo turned to supplying food for sugar agriculture on the coast, a process that accelerated in the 1780s. The demographic growth that occurred throughout Portuguese America during the 18th century, stimulated by the constitution of peasant economies relatively independent from slavery, also favoured a marginal increase in agricultural production and generated demands for other activities²⁵.

The pacification of the extreme southern frontier of Portuguese America by the Treaty of Santo Ildefonso (1777) promoted an increase in cattle production in the region's agricultural sector and in leather and wheat exports to Rio de Janeiro. This growth was supported by the notable increase in the slave population in Rio Grande do Sul and São Paulo²⁶.

In summary, with sugar production in Rio de Janeiro in the 1780s remaining at the same level as in the previous period, demand for workers to export secondary products (diversification) and internal markets would have had to grow to absorb people from the sharply declining mining sectors and still necessitate the 35 per cent increase in Africans imported by the captaincy during the decade. This does not account for the possibility of natural population growth among Creole slaves, which was likely. Still, one might assume that European textile imports into the Brazilian market would accompany purchases of forced labourers. Stagnation in Rio's import duties during the period suggests that this did not occur (Appendix A, Figure A2).²⁷

In order to explain the massive slave imports in Rio de Janeiro during the 1780s, careful attention must be paid to the expansion of smuggling into the River Plate. The end of the Cadiz monopoly and the opening of River Plate trade in 1778 produced a steady increase in local exports, generating demand for captive labour in agricultural activities. Many slaves

Portugueses, livros 01 a 22) and compared with the general tons published by Frutuoso *et al.* (2001). On sugar and other exports for the 16th and 17th centuries, see Costa (2002).

²⁵ The contribution of peasant economies to mercantile activity was small, and the pace of Brazilian demographic growth slowed with the mining depression. Carrara (2007, p. 144); Botelho (2015). See also Fragoso (1998).

²⁶ On São Paulo and tithing values, see Araújo (2009) and de Paiva (2016, pp. 128-130, tables 9 and 10). On the growth of the food trade and the slave population in the Rio Grande, see Osório (1999) and Menz (2009).

²⁷ On the vegetative growth among the captive creole populations, see Luna and Klein (2010, pp. 182-183).

were also sent to the Viceroyalty of Peru, where there was a resumption of silver production in the late 18th century.

Borucki (2011, 2015) estimates that at least 3,697 Africans landed in the River Plate region from Rio de Janeiro during the 1780s, little more than 10 per cent of the surplus imported during the period. However, a variety of sources, such as the qualitative accounts of the slave trade in Rio Grande de São Pedro, the significant leather exports of Rio de Janeiro, and the growth of silver coinage in Lisbon during the 1780s, suggest that the percentage was much higher²⁸. We conclude that Brazil imported so many slaves in the 1780s in order to re-export them to Spanish America.

In the early 1790s, the main fiscal and economic data tended towards growth. The explanation lies in the international situation. The crisis in French colonial trade, the increase in prices of tropical products produced by the maritime war, and the blockades and counter-blockades in Europe favoured the trade of the «neutrals», particularly Portugal (Moreira and Eloranta 2011; Muller 2012; Eloranta *et al.* 2015). Sugar production in Brazil rose sharply, with Rio de Janeiro at the forefront, favoured by the opening of a new sugar frontier now in the region of São Paulo (Appendix A, Table B4)²⁹.

The period between 1801 and 1807 does not require a methodical appraisal. Almost all the indicators describe a growth trajectory, although sugar and slaves slowed down the progress. Shipments of other colonial goods to Portugal continued to increase. Even gold remittances rebounded in the period, despite the surpluses that the colony earned in this commerce, signalling that shipments of precious metals no longer depended mainly on imports. Freight payments, purchases of slaves, remittances of profits and investments of residents in Brazil may be causes of these shipments. For the post-1808 period, the quality of data declines sharply. Still, the leap in total slave imports and the increase in the values of Rio de Janeiro's import duties suggest that the end of the exclusive metropolitan rule had a strongly positive effect on the Brazilian economy³⁰.

²⁸ See de Studer (1984, annexed tables); de Sousa (2006, p. 122, graph 10). See also dos Santos (1989); Tejerina (2001); Villalobos (1965); Fisher (1985); Bauss (1977, pp. 202-210); de Sousa (2006, pp. 271-273). On the growth of smuggling in the late 18th century, Villalobos (1965); Izard (1974); Coatsworth (1967). On smuggling within the slave trade itself, Miller (1988); Capela (2016); de Studer (1984). de Martins (2019) found that the General Company of Grão Pará and Maranhão smuggled slaves into Spanish America.

²⁹ Although São Paulo sent some vessels through Santos directly to Portugal, most of the sugar exports from the São Paulo plateau were exported through Rio de Janeiro. Throughout the decade of the 1790s, the tithes of São Paulo grew to a great extent because of sugar. See Luna and Klein (2005, p. 58); de Paiva (2016, pp. 128-129).

³⁰ The entire historical trajectory of the Portuguese American economy that we present contrasts with that of Hispanic America. While in Brazil mining decreased during the second half of the 18th century, it prospered in Spanish domains in America; mining represented about 56 per cent of the values exported between 1782 and 1796. The remaining 44 per cent comprised a series

5. CONCLUSION

The joint analysis of taxation, slave imports and Brazilian exports presented in this article leads to four key conclusions. First, the formation of a mining economy and the end of the Portuguese mercantilist colonial system are decisive milestones of what we might call the «long 18th century». Mining inaugurated a baseline of slave imports, demographic growth and wealth generation that was overcome only in the early 19th century when the growth of the Brazilian plantation became directly associated with the industrial expansion of the European capitalist centres. Naturally, within these developments, we identified economic contexts that suggested ruptures and anticipated the model of growth that characterised the post-1808 period. Second, the gold depression dragged on between the 1750s and 1780s. At the same time, this slow decline was accompanied by the revival of the sugar economy, which seems to have started in Bahia and then reached Rio de Janeiro. Third, the advance in sugar production in Rio and Bahia was counterbalanced by relative stagnation in Pernambuco, which was offset by cotton production and agricultural diversification; this diversification also occurred in Bahia and Rio, but more so in the 1780s. Finally, these facts indicate that, between 1750 and 1790, the economies of the northeastern and Amazonian axes were growing, while the centre-south suffered from a depression in mining and agricultural production on the Brazilian plateau. This is not to say that there were no areas of prosperity close to the coast and in less tired lands. However, the calculation presented in section 3.2 (Appendix A, Table B5, Figure B6) points out that the best characterisation of Portuguese America's economic performance in this period is stagnation.

of agricultural and pastoral goods. In New Spain, the richest and most productive region of the Spanish Empire, the expansion of mining was more evident due to new mine discoveries, tax incentives, institutional changes and demographic growth. The River Plate region showed good results in its pastoral economy, mainly in the export of leathers. However, Montevideo and Buenos Aires achieved further relevance within the Spanish Empire as a silver entrepôt that left Potosí towards Spain. Cuba was the second most important region of the Empire at the end of the 18th century: both the number of sugar mills and slave imports increased. The lucrative case of Cuba was closely linked to the collapse of sugar production in Santo Domingo. The general growth of the last quarter of the 18th century also stimulated the production of cochineal, cocoa and tobacco. All activities were accompanied by a notable increase in the domestic market, mostly linked to the supply of mining regions. From 1797 until the time when the regions of Spanish America were fighting for their independence, the Atlantic trade changed dramatically. The wars caused Spain to abdicate exclusive trade with its colonies in America. This would only happen with Portuguese America in 1808, showing the different impacts that the revolutionary wars had on the Iberian colonies. There was an even more crucial difference between the two colonies: the composition of the workforce. While in Brazil slave labour was crucial in almost all activities, whether in mining or agriculture, in Spanish America it was of minor importance. In the latter, indigenous work, and mostly free labour, predominated. For Spanish America, see Fisher (1998, pp. 169-205) and Grafe and Pedreira (2019, pp. 595-608).

This reallocation of production factors supported the growth of food producers in the centre-south, which supplied the new areas that started to produce sugar for export, such as Campos de Goytacazes. Older colonial territories also adjusted to this new economic geography, as was the case of the south of Minas Gerais that began to provide food for coastal cities. These «internal» adjustments to the American colonial space partially balanced the long-term losses in mining. In this sense, the 1780s are particularly important. Although gold exports reached their lowest point and sugar production was stagnant when compared to the previous decade, agricultural diversification, new domestic markets and trade with the River Plate emerged as colonial alternatives for investment. Even so, the value of Brazilian exports in the 1780s was less than in the «golden age». Likewise, at least in the centre-south, the agricultural output destined for the market was likely lower than at the peak of gold production, as the tithes from Minas Gerais and Rio de Janeiro suggest (Appendix A, Figures A1 and A3).

It was in the 1790s and especially at the beginning of the 19th century that Brazilian sugar production reached comparable values to those of the French and English Caribbean. Cotton also peaked at this time. This expansion was the result of an extremely favourable situation in which the most competitive producers were excluded or were experiencing severe difficulties; the pattern of land use, capital, and labour was less intensive in Brazil at this point. Even so, this growth at the end of the century, mainly underpinned by the expansion of the sugar frontier towards the south, was decisive for the transition towards the «second slavery» which consolidated in the Paraíba Valley (the region between Rio de Janeiro and São Paulo) in the first half of the 19th century³¹. The international market also favoured the older sugar zones, but at the beginning of the 19th century, they were already suffering from a fall in sugar production, hence the greater importance of the diversification process in the north-east. According to our data, it seems that the 1790s were the real turning point. From that point on, a period of sustainable growth began that lasted at least until the end of the colonial period.

In contrast, the performance of the Amazon economy had little relation with that of the captaincies of Brazil: stagnation in the first half of the 18th century and sustainable growth in the second half. The region was favoured by the increase in slave imports (a result of post-Pombal institutional changes) which allowed the consolidation of large-scale slave plantations in some areas of Maranhão. In Pará, agricultural and extractive

³¹ The «second slavery» is a concept that explains the new type of slavery that took place between the end of the 18th century and the end of the 19th century: a modern and large-scale production of tropical cash crops such as cotton, coffee and sugar in America to meet the demands of industrialization. See Tomich (2004, pp. 56-71).

activities required less investment, and small slaveholding and poor free men maintained some prominence in the economic growth in the second half of the 18th century. Here, perhaps, there was some similarity between the Amazon and Pernambuco. The eastern captaincy also possessed a small proportion of slaves, the result of a long-lasting economic depression due to the Dutch invasion in the 17th century, and growth occurred mainly thanks to low-capitalisation products such as cotton (Palacios 1998; Melo 2017).

This complex picture of the economic situation of the Brazilian economy in the 50 years that preceded the collapse of the Portuguese colonial system shows that the historiography has hitherto presented very general and incomplete analyses. We found that the mining depression did not result in a generalised crisis in the colonial economy and that the counterpart to the reduction in the extraction of gold veins was the growth of the production of tropical products for export. This indicates that the revisionist reading of Frago and Florentino (2001) was correct in emphasizing the adaptation of the colonial economy in the face of an adverse scenario. The increase in exports of agricultural products was not able to compensate, overall, for the losses in mining before 1789. Given the demographic growth that occurred, the period between 1750 and 1789 was characterised by a slight decrease in income per capita and productivity. On the eve of the price revolution that marked the 1790s, Brazil's agricultural landscape should be characterised by the coexistence of «prosperity archipelagos» on the coast, based on the exploitation of slave labour, and wide ranges of peasant economy in the interior and in some old colonisation zones³². This is not the scenario described by Celso Furtado and the other historians who favour the «mining crisis». Nevertheless, Brazil remained dependent on productive colonial activities for consumer markets in European metropolises.

SUPPLEMENTARY MATERIAL

The supplementary material for this article can be found at <https://doi.org/10.1017/S0212610921000185>.

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³² Carrara (2007) and Palacios (1998) noted the importance of the growth of peasant populations in Minas and Pernambuco, but the phenomenon must have been wider.

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