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Abstract

This article analyses the transition from bimetallism to the gold standard in Portugal. The research has emphasised that the high percentage of gold coins in circulation and the network externalities were the main reasons for the *de jure* adoption of the gold standard in 1854. However, it has not provided a justification for either the appreciation of gold in the Portuguese market in 1847 which was contrary to the international trend or the reasons behind the decision to continue to circulate British gold sovereigns in 1851 when all other foreign coins were withdrawn. We argue that the political pressure applied by groups with ownership of British gold coins explains the transition from bimetallism to the gold standard.

Keywords: Monetary history, Gold standard, Portugal, nineteenth century

JEL codes: N13; N20; E42

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"(...) all changes that alter the type, value and circulation of metallic money must be thought about very carefully, and not made in haste, in order to avoid the losses that such sudden changes usually cause in credit and transactions"

Debates Parlamentares, 24 April 1851

1. Introduction

This article analyses the early end to bimetallism in Portugal unlike for other European countries. The international conditions only changed in the 1870s and markets had expected bimetallism to last up until 1874 (Flandreau, 1996; Flandreau and Oosterlinck, 2012; Meissner, 2005). However, Portugal adopted the gold standard *de jure* in 1854 and *de facto* in 1847.

Portugal was the second economy after Great Britain to adopt a monetary regime before the rest of Europe (Eichengreen, Flandreau, 1996)[1]. If the golden days of the bimetallic regime continued until the beginning of the 1870s, the aim of this article is to understand why Portugal changed its monetary regime before the other European countries. In this sense the key questions to understand are: why did Portugal not resolve the practical problems of its bimetal regime by changing the legal price? Which reasons can explain the decisions to raise the price of gold in 1847 and to maintain British gold coins in circulation in 1851 after all foreign coins were withdrawn?

[1] As Gallarotti stresses, global studies about the regime change have their own limitations. This author even presents Portugal as one of the case studies that does not fit the general model - "These observations, however, are not free of anomalies. Portugal, a relatively underdeveloped nation with traditional political structures, preempted other Western European nations onto a *de jure* gold standard" (Gallarotti, 1993, p. 47).

The reasons for the shift from bimetallism to the gold standard was one of the liveliest theoretical discussions in the monetary field in the late nineteenth and early twentieth centuries (Fisher, 1894, 1911; Walras, 1898). The debate once again came to the fore when several studies explored monetary regimes after the end of Bretton Woods and before the beginning of the European Monetary Union (Bordo, 1992; Flandreau, 1995, 2003; Friedman, 1990a, 1990b; Gallarotti, 1993; Kindleberger, 1993; Oppers, 1992; Redish, 1990, 1995, 2000). The debate on which exchange rate is better, fixed or floating, can be linked to the literature that discusses the reasons for why countries use the gold standard.

Network externalities of foreign trade and public debt provide two explanations for the change. As money and trade are complements, trading with countries in gold can also explain the shift, and the increase in bilateral trade (Flandreau and Jobst, 2009; Flandreau and Murel, 2001; Meissner, 2005). A second explanation is that the gold standard lowered the cost of borrowing on international capital markets (Bordo and Rockoff, 1996; Obstfeld and Taylor, 2003). Nevertheless, Flandreau and Zummer (2004) demonstrate that the monetary regime is not a significative variable for explaining the behaviour of interest rates. The variable that is the "sustainability of the debt".

Another explanation could be technological innovation. Redish (1990, 1995, 2000) considers the gold standard as a superior monetary regime. If that regime was not adopted before the nineteenth century, that was due to technical reasons. Only following the introduction of the steam engine did minting silver coins and gold coins of small denomination become possible due to the previously high costs of doing so. This new technology also inhibited counterfeiting. With this explanation, Redish justifies the time gap between the adoption of the gold standard in Great Britain and its spread across the European continent. Using France as an example, Redish goes on to demonstrate how the persistence of bimetallism in this country stemmed from the French Mint's incapacity to Mint low-value coins.

The political dimension was another variable stressed by some studies to explain the switch to the gold standard. Nogues-Marco posit an argument against the common belief that England adopted the gold standard because “Sir Isaac Newton Master of the Mint, mistakenly overvalued gold at the Mint in 1717” (Nogues-Marco, 2013, p. 445). She argues that the decision of the English Parliament members not to alter the legal standard in 1718 explained England’s shift to a *de facto* gold standard. This is why the scarcity of silver persisted because its legal price was too low in proportion to the price of gold. Schiltz (2012) analyses Japan and shows that the “imperialist ambition was the defining variable” for an understanding of why this country switched to the gold standard in 1897. More recently, Martínez- Ruiz and Nogues-Marco (2018) have explained how the groups controlled the power by choosing the institutional design that maximised their rents. In this sense, historically a conflict of interests exists between economic and political groups. In these conditions the commitment to gold was more difficult to achieve. Besides this conflict, the trade-off between internal and external objectives spans the history of the political economy of exchange rates. The groups involved in international activities favour external objectives and the opposite for the groups more involved in domestic activities (Broz and Frieden, 2006; Gallarotti, 1993). Price stability represents the main factor in the argument centred on the behaviour of groups such as, bankers, creditors, businessmen, industrialists. For these groups, as gold monometallism is a more stable price system, the external objectives are more important than the domestic ones[2].

Another theoretical explanation consists in the evolution of the prices of precious metals. According to this theory, the fall in the price of silver because of a rise in supply led to its demonetisation, which coincided with the shift in the monetary regime in Germany after political unification in 1871 (Kindleberger, 1993).

[2] For the explanation of this trade-off in the monetary history of the nineteenth and twentieth centuries, see Eichengreen, 1996.

The proposition of the gold standard as a “historical accident” is defended by Flandreau (1995, 1996). The change to the gold standard was not inevitable, because the bimetal ratio stabilised between 1820 and 1870 (1:15.5). The changes introduced from 1870 onwards – the international spread of the gold standard – are explained by the interaction between network externalities and costs. Flandreau distinguishes himself from other authors as, in his approach to the Franco-Prussian conflict, he emphasises French monetary policy as one of the causes and not, as is usually thought, German monetary policy. According to his perspective, the decrease in the price of silver was the consequence of the French decision to limit its daily minting immediately after finishing paying Germany the indemnities arising from the 1871 war. This transitory and precautionary measure was not perceived by the French authorities as a change in the bimetallic regime. Nevertheless, it did give rise to the expectations of international economic actors, in particular investors and bankers. This is the famous *Crime of 1873* that Friedman also analyses (Flandreau, 1996; Friedman, 1990 b).

When the focus is Portugal, some studies discuss the reasons why the country joined the gold standard in 1854. Eichengreen (1996) stresses the variable network externalities by considering the historical importance of Portuguese trade with England. The monetary chaos of the late 1840s and the high percentage of gold coins in circulation in the beginning of the 1850s were the main reasons given by other studies (Duarte and Andrade, 2012; Esteves *et al*., 2015; Reis, 1996). If these theses are considered, none of them explains the appreciation of gold in the Portuguese market in 1847, and the reasons for decision to continue to circulate British gold sovereigns in 1851.

Our explanation of the shift to the gold standard in Portugal considers two preparatory steps, one in 1847 and another in 1851. In 1847 the bimetallic ratio decreased the price of silver, and in 1851 the decision to continue circulating British gold coins was made because of the pressure of groups that negotiated with these coins and was in reaction to the setting up of a Committee to analyse the so-called “monetary situation”. The then Minister of the Treasury, António José d’Ávila, was not in favour of maintaining the circulation of British currency but political pressures forced his decision.

If both domestic and international reasons justify the adoption of a monetary regime, this article aims to provide an explanation of the domestic causes. The balance of several interests had to occur in order to not generate any economic or social unrest but to maintain political stability. Without this balance, the change would have had electoral implications (Broz and Frieden, 2006).

The remainder of the paper is organised as follows: In Section 2, we analyse two different theses concerning the change in the Portuguese monetary regime – network externalities and technological innovation. Section 3 explains the monetary context in 1847, and in Section 4 we discuss the political reasons behind this decision. The last section concludes.

2. Discussion of two theses: network externalities and technological innovation

Eichengreen (1996, p.16) stresses that network externalities were the reason why Portugal joined the gold standard so early. Great Britain had already been a crucial trading partner with the Portuguese economy for several centuries at that time. Therefore, we first analyse the evolution of trading relations during the first half of the nineteenth century to evaluate if the adoption of the gold standard by Portugal changed how it balanced trade payments.

Table 1 presents the information for the years before and after the adoption of the new monetary standard.

Table 1 – Share of Great Britain in Portuguese Foreign Trade

(1826-1866)

	Imports (*contos*)	**% of total imports**	**Exports (*contos*)**	**% of total exports**
1826	6,870	66	3,189	50
1831	5,101	75	3,508	53
1843	6,531	53	3,801	43
1848	5,464	51	5,999	53
1851	7,682	56	4,430	41
1861	14,419	54	8,394	52
1865	12,259	49	13,545	66
1866	15,392	62	11,963	50

Sources: *Balanças Geraes de Commercio* e *Mappas Geraes do Commercio de Portugal com suas Possessões e Nações Estrangeiras*, several years.

In 1843, there was a significant fall in the share of Portuguese exports to Great Britain. This fall was due to the effects of commercial bankruptcies that occurred in London and Hamburg, but which affected the trading conditions in Oporto and across the wine trade in the north of Portugal. This trade crisis continued throughout the first half of the 1840s and required financial assistance from the *Banco Comercial do Porto*, which was established in 1835[3]. The share of exports did recover in 1848 only to fall back once again in 1851. Imports continued to fall through 1848 and oscillated among lower percentages than those recorded in the 1820s and 1830s until as late as 1866. In turn, the percentages obtained for 1861, when Portugal was using the gold standard, do not show any significant shift in the Portuguese-British trade.

In short, with Great Britain remaining not only an important but actually the most important

[3] *Relatórios do Banco Comercial do Porto*, 1836-1855.

trading partner of Portugal, no obvious changes were visible that justified the new direction of Portuguese monetary policy in the early 1850s that eventually led to the 1854 decision[4].

Regarding trade payments no significant change occurred. From the eighteenth century onwards, Portugal balanced a large proportion of its trade payments in gold, and this method did not come as any new practice in the wake of adopting gold monometallism (Fisher, 1971; Sousa, 2006).

The external public debt is the other component of network externalities that we analyse. With the exception of the 40 million franc loan at a 5% interest rate that the absolutist government took out in 1832 and that was later renounced by the government of Queen Maria II following the end of the Portuguese civil war (Mata, 1993), external public debt was always expressed in pounds. Therefore, because Portugal had previously established the exchange rates, the adoption of the gold standard did not bring any additional guarantees to these investors (Esteves, 2005). Nevertheless, currency clauses do not protect investors. In spite of the gold standard, the prevailing short-term interest rates were high, and the standards of the Crédit Lyonnais identified Portugal as a high-risk economy (Flandreau, 2003). Going to gold did not buy any immediate credibility or avoid exchange rate risk over the medium and long run[5] (Bordo, 2003). However, the government had a large public debt and because gold was an inflationary metal during the 1850s due to gold discoveries, it might have been favourable in servicing that debt.

Technological innovations had never been discussed as a potential reason for Portugal adopting the gold standard. We contemplate technological changes because they had taken place in the

[4] The importance of trade in explaining Japan's adoption of the gold standard is the main argument of the Mitchener, Shizume, and Weidenmier, 2010, but Schiltz, 2012, argues against this explanation. See also, Reis, 2007, about possible banking externalities.
[5] About the discount rates in Portugal compared with the U.K., see Bordo, 2003. See also Reis, 2007, about the evolution of discount rates. Concerning credit ratings, see Flandreau, pp. 43-5. Sussman and Yafeh, 2000, consider the "credit rating" a very important variable in explaining Japan's adoption of the gold standard. However, Schiltz, 2012, argues against this explanation.

Lisbon Mint House from the 1830s onwards. Imported from the factory of Boulton Watt & Co. in Birmingham, Great Britain, the Lisbon Mint installed a 16-horsepower steam engine in 1835. The fact that the Mint introduced this innovation some years before the adoption of the gold standard may indicate, as Redish argues, that the shift to this monetary regime only became possible after changes in the minting of metallic money. However, the reports produced by the Lisbon Mint described a multitude of technical problems that happened following the introduction of the new machine. In particular, interruptions in the minting process and the production of coins occurred because the inappropriate weights or purities[6]. Only between 1866 and 1869, did the state acquire a new set of machinery with a 30-horsepower capacity: three rolling mills and three minting presses (Bastien, 1991). Thus, we may conclude that only 15 years after the adoption of the gold standard did the Portuguese Mint have suitable technology for increasing the minting quality of the coins produced, above all the smaller-sized coins. Furthermore, parliament did not discuss the Lisbon Mint's request to get from Britain "some objects that are indispensable for the minting machinery, in order to be able to perform promptly and regularly all the works needed for the reminting of the different coins (…) as a result of the new monetary law" until May 1854 (*Correspondência Expedida*, May 1854, Lisbon Mint Archive). Two years later, the problems with the minting of coins continued. At the beginning of 1856, the Mint Director informed the Minister of the Treasury both of the "irregular service" of the minting machine which made it "impracticable to be able to satisfy the important works that will yet be needed" after the adoption of the gold standard, and of the problem of the "rolls existing in the machine (...) not completely fulfilling the works of rolling the low-value gold coins." (*Correspondência Expedida*, January to March 1856, Lisbon Mint Archive).

[6] At the time the Director of the Lisbon Mint House produced a lot of documents with some information about productivity, costs, and other useful information. About the quality of coins produced at the Lisbon Mint House during the eighteenth and the nineteenth centuries see, Sousa, 2015.

Therefore, there were not enough technological developments prior to the change in the monetary regime that can justify it. This is why after 1854 the Director of the Lisbon Mint was very worried about the mintage of low-value coins.

3. The monetary context in 1847

The changes in the monetary regime can also have a political dimension that we consider to be a key variable in the Portuguese case. Great instability characterised the political context before 1851. In April of that year the *Regeneration* movement took power that created more stability up to the last decade of the century. It was in 1854, during the *Regeneration* government, that Portugal adopted the gold standard. However, the decisions made in 1847 and January of 1851 explained the change of the monetary regime in July of 1854.

The difficulties in minting metals were a constant concern for the political powers during the first half of the nineteenth century (Sousa, 2012). The scarcity of silver in the 1830s and 1840s justified interventions in the bullion market in order to get silver for the Lisbon Mint House[7]. In this period, the market price was the minimum purchase price set for the metal, and between 1831 and 1835 the Mint paid a commission to anyone who delivered silver to it. The percentages of this commission oscillated between 10% and 19%, before reaching 24% in 1835[8]. Other monetary facts were: interventions in the bullion market by the Bank of Lisbon, the first Portuguese Bank; the purchase of metals by the Lisbon Mint at prices above the legal ratio and, sometimes, above the market ratio; the suspension of the rights of seigniorage (1846); and the increase in customs duties (1851) in order

[7] The Lisbon Mint House has been the only mint in Portugal since 1714.
[8] Between 1828 and 1834 a civil war can explain the political instability of the period and the scarcity of precious metals. The importance of silver to pay troops explains these interventions in the bullion market.

to prevent the outflow of metals. These state decisions show how the official institutions did not limit themselves only to fixing the legal ratio (Flandreau, 1995) and how such interventions in the bullion market put into question the functioning of bimetallism just on the basis of arbitrage.

By comparing the mintage of the first half of the nineteenth century with the mintage of the eighteenth century demonstrates this scarcity in monetary emissions in the Lisbon Mint House. While in the first half of the nineteenth century the annual average of total issues was 600 *contos*, between 1688 and 1797 the issues had reached an annual average of 2,963 *contos*[9]. The first represents an issue of 162 *réis* per inhabitant, and the latter an issue of 1,288 *réis* per inhabitant in the previous century[10].

The year of 1846 represented some changes in this Portuguese monetary context. First, it is the year of the end of the Bank of Lisbon and the foundation of the Bank of Portugal[11]. In the decree that set up the bank, article 20 mentions that between 30 June of 1847 and 31 December of 1848, the Bank of Lisbon's notes had to be used only in two-thirds of the payments to the state, and in half of the payments made after the latter date until they were redeemed by the Bank of Portugal[12]. As not all economic agents recognised the Bank of Lisbon's notes, the discount of the banknotes was very high. Figure 1 shows the weekly discounts made between 1846 (July) and 1847 (June).

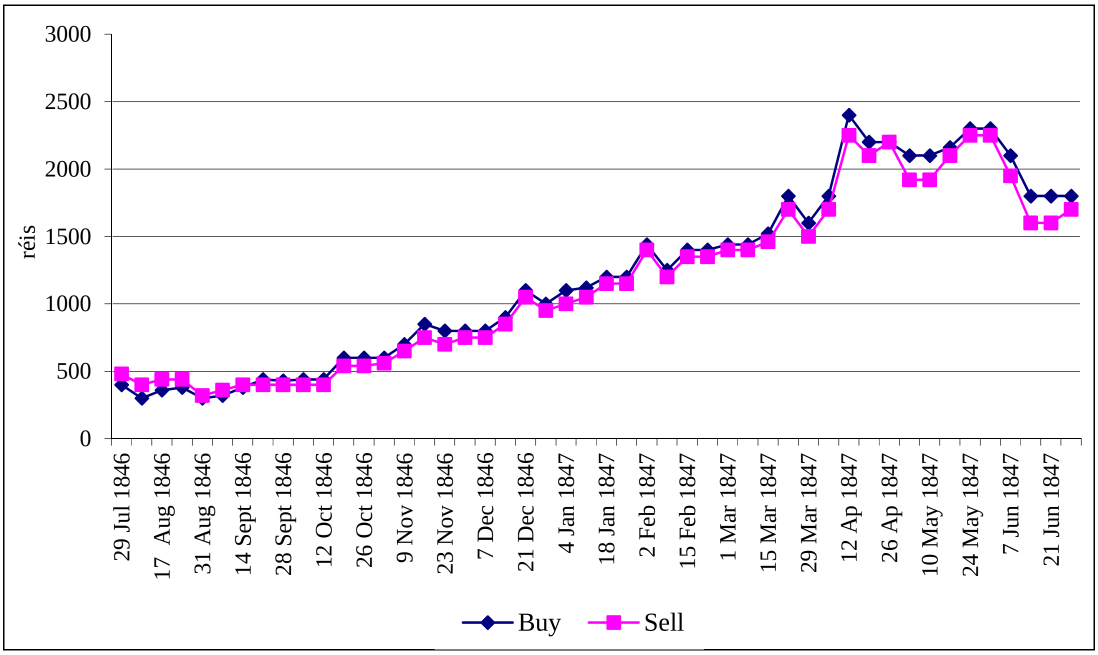
Figure 1 – Discount of the banknotes of the Bank of Lisbon (July 1846 to July 1847)

[9] For the nineteeth century see *Estatística das moedas de ouro, prata, cobre e bronze, que se cunharam na Casa da Moeda de Lisboa desde o 1.º de Janeiro de 1752 até 31 de Dezembro de 1871*, Lisbon Mint House. For the period between 1688 and 1797 see Sousa, 2006.

[10] *Réis* is the plural of *real*. The *real* was the Portuguese unit of account between 1435 and 1911.

[11] Decree of 19 November 1846.

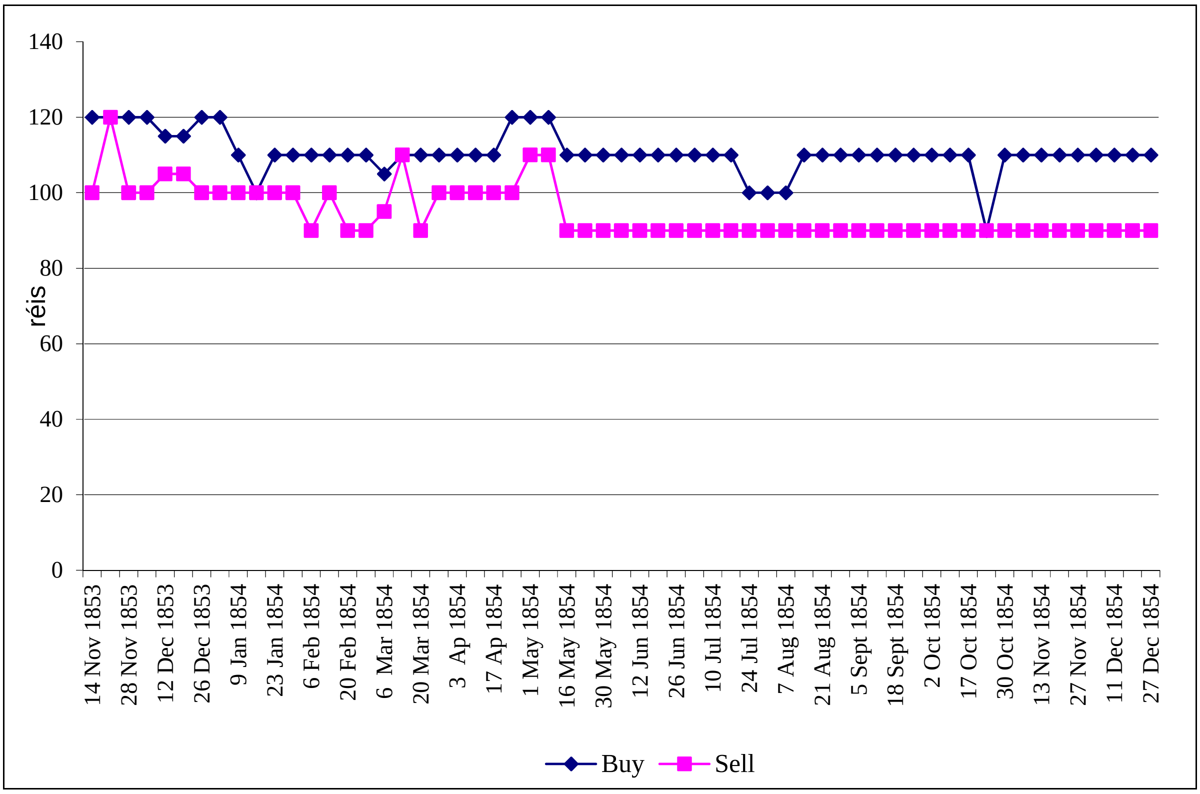
[12] It was established in several decrees that the Bank of Lisbon's notes would be considered as legal tender. The first dates from 23 May 1846 and afforded the notes legal tender only for a three-month period. Nevertheless, this period was successively extended.



Source: *Diário do Governo*.

The discount of the Bank of Lisbon's notes continued over the following years and, at the end of 1854, these banknotes were still accepted in circulation with a discount despite the fall recorded between 1853 (November) and 1854 (December) (Figure 2).

Figure 2 - Discount of the banknotes of the Bank of Lisbon (November 1853 to December 1854)



Source: *Diário do Governo*.

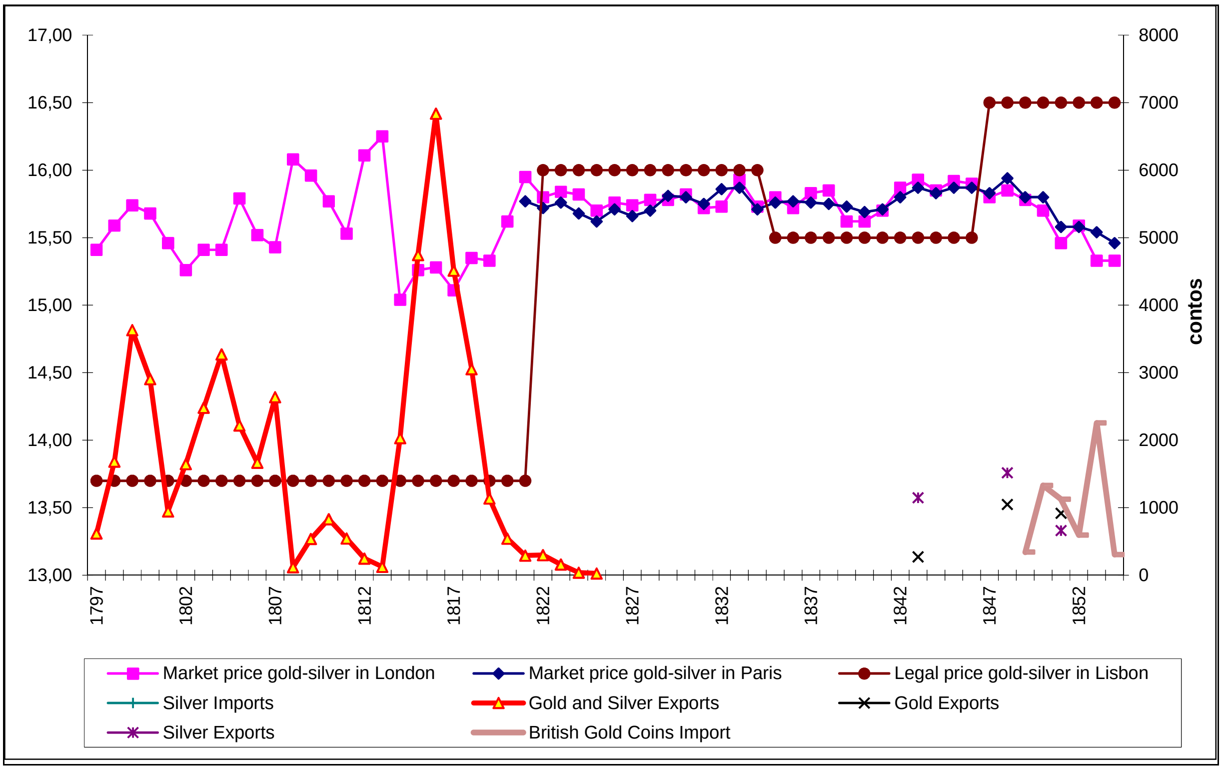
The other legislative measure introduced with significant monetary consequences was the Decree of the 3 March in 1847[13]. The legal ratio became 1:16.5 that increased the gold price. This legal change was decided by the Minister of Finance (João Gualberto de Oliveira, Conde de Tojal) who was a man with British networks, in particular, with the Baring Brothers House (Martins, 1979, p. 202).

[13] This decree was published after some inspections at the Lisbon Mint. However, there was no parliamentary discussion of this matter as, in 1846, due to the Maria da Fonte revolution parliament was only in session between 2 January and 23 May. Parliament only reopened in 1848 with its first ordinary session sitting on 2 January of that year.

Why this legal change? During the 1830s and 1840s, a large quantity of British currency came into Portugal. The legal tender granted in the provinces to notes issued by the Bank of London and the poor quality of the coinage in circulation justified these exports (Challis, 1992, p. 484). In 1847, the gold Portuguese coins, *peças*, of 7,500 *réis* became worth 8,000 *réis*, which meant that these gold coins acquired the mint price of 128,000 *réis*/mark (120,000 *réis*/mark in bullion), whereas silver maintained the mint price of 7,750 *réis*/mark (7,280 *réis*/mark in bullion). Therefore, the reason for this legal change was to prevent the exclusion of Portuguese coins from circulation. However, when we compare Portuguese and British coins these were overvalued. Why? Both Portuguese and English coins had a fineness of 22 carats, but if each *sovereign* weighed 2 *oitavas* (eighths of an ounce) and 16 *grãos* (80 grams) and was worth 4,500 *réis*, then each *peça* weighed 4 *oitavas* and was worth 7,500 *réis*. Thus, considering their intrinsic value, the *sovereign* was not worth 128,000 *réis*/mark, but 129,600 *réis*/mark. Consequently, *sovereigns* were overvalued which indicates that the legal change was not enough to prevent economic agents from hoarding Portuguese coins and circulating British gold coins.

Considering international prices, the price of gold was higher in Portugal. If we compare the Portuguese legal ratio with the market price in London and Paris, we find that it was relatively higher than the market price in those financial centres (Figure 3).

Figure 3 – Prices of precious metals and trade



Sources: Market prices in London and Paris – calculations of the author from Boyer-Xambeu, Deleplace and Gillard, "Régimes monétaires, points d'or et «serpent bimétallique» de 1770 à 1870", *Revue Économique*, 5, 1994. Silver imports and exports, gold and silver exports and gold exports - *Mappas Geraes do Commercio de Portugal com suas Possessões e Nações Estrangeiras*, several years. British gold coins imports – House of Commons PP.

On the other hand, not only silver was more valued in London and Paris than in Lisbon, but also foreign currencies were accepted in transactions. The consequence was that economic agents did not take bullion to the Mint House to avoid paying the 6% seigniorage for silver. This is why in spite of this change in the legal ratio, the lack of metals (silver and gold) continued for the Mint House. The institutional solution was to approve a set of decrees that granted the status of legal tender to foreign gold and silver coins[14].

Considering the monetary circulation, neither silver or gold Portuguese coins circulated, *sovereigns* were overvalued and remained in circulation accepted by tale (Aragão, 1877, pp. 226-230). The Greshman law can explain this situation. The circulation of overvalued British gold coins can be seen as another rise in the price of gold in the Portuguese economy.

Internationally, the movement in precious metal prices was heading in the opposite direction. The supply of gold increased as a consequence of the discovery of mines in Siberia and California. On the other hand, the supply of silver had fallen due to the conflict in one of the key producer countries (Mexico) and the demand increased to pay the troops of the great armies in Prussia, Austria, and Russia. The result was the outflow of silver to Europe, especially, to the London market.

In this domestic and international context, the political Portuguese authorities focused their monetary decisions on the appreciation of gold over silver, because compared to international prices, gold appreciated more in Portugal. Indeed, 1847 represents the first stage in understanding why Portugal joined the gold standard a few years later. However, the open question remains: why were only British gold coins kept in circulation in 1851?

4. The political discussion in 1851

In 1851 (Law of 30 January), foreign gold coins ceased to be legal tender. The exceptions were English *sovereigns* (4$500) and *half sovereigns* (2$250) which continued to circulate with the same value. Furthermore, the Law of 15 February introduced new gold coins into circulation in accordance with the definition of the *real*, which was established in 1847 (1 *real* = 1.643 mg of fine

[14] Cf. Decrees of 24 February, 10 March, 21 April, 20 May and 24 May 1847.

gold). This definition also established that the total value of minted gold coins could not exceed the gold coins withdrawn from circulation. The objective was to avoid the general circulation of gold coins at a time when the international price of gold was falling**.**

The government's aim was to prevent the export of silver, so it raised the duties levied on the export of this metal from 100 to 1000 *réis*/mark on wrought silver, bullion, pieces, and broken objects[15]. This protectionist law did not prevent silver from leaving the country even though legal exports fell (Figure 3), nor did it attract this metal to the Mint. In 1853, the Director of the Mint stated that between 1848 and 1850, roughly 62 *contos* of silver had been minted, whereas in the two years from 1851 to 1852, this figure rose only to 79 *contos*. The measures adopted had had little or no effect on the mintage. Silver was simply getting drawn to the external markets where prices were higher.

The circulation of British gold coins and the almost complete absence of silver characterised the monetary situation in 1851. In this context, the then Minister of the Treasury, António José d'Ávila, formally set up a committee to study the so-called monetary question[16]. The decree justified the creation of this committee as due to the prices of precious metals, and its purpose was "to make the changes required by the current monetary system, and to be better advised in order to harmonise the relative price of gold and silver". The initial target was to change the bimetallic ratio (to increase the price of silver) and to withdraw *sovereigns* from circulation. The committee was supposed to meet at the Lisbon Mint to obtain the details related to the movements of precious metals and information about the market situation. The increase in requests addressed to the Mint demonstrated the

[15] It was only on 5 August 1854 (already under the regime of the gold standard) that the duty levied on silver exports returned once again to the level of 100 *réis*/mark.

[16] The committee had seven members: Rodrigo da Fonseca Magalhães and Francisco Simões Margiochi, both Peers of the Realm; Agostinho Albano da Silveira Pinto and José Isidoro Guedes, both Members of Parliament; Joaquim Larcher and Filipe Folque, both Counsellors; and Júlio Máximo de Oliveira Pimentel, a Professor at the Escola Politécnica de Lisboa.

concerns that several governments had in ascertaining the prevailing monetary situation and in deciding on just how to increase the amount of Portuguese metallic money in circulation[17].

Nevertheless, the creation of that committee caused economic and social turmoil in the Lisbon market and became a political concern for the parliament. The government was obliged by the opposition not to harm the interests of those who held foreign gold currency, that is, those who possessed *sovereigns*. The public interest was thus identified as the interests of the British currency holders in the Lisbon market.

The appointment of this committee was published in the Diário do Governo[18], with its setting up identified by parliament as the cause of the panic that spread across the Lisbon money market. According to the members of parliament, this panic caused the refusal to accept sovereigns for payments and the rush to obtain banknotes from the Bank of Portugal. The members of the opposition even voiced suspicions alleging that Ávila wished to harm the Bank's interests. The recent conflicts between the two institutions and the fact that the Treasurer had not called representatives of the Bank of Portugal to serve on the committee explained their mistrust[19]. The relations between government and the Bank were not the best and the shareholders refused to loan to the state during this same period (January of 1851) (Reis, 1996). The Bank was a creditor of the government and, certainly, exerted political pressure. According to the opponents of Ávila in the parliament, the institutional credibility would be badly damaged if the Bank exchanged banknotes for gold which meant that private citizens were not accepting this devalued metal.

Therefore, in the parliamentary debates, the main concern was the scope of the committee to

[17] Livro de Registo Geral, Livros da Correspondência Recebida, Livros da Correspondência Expedida, *Lisbon Mint Archive*.
[18] Decree of 15 January 1851, published in *Diário do Governo* on 17 January.
[19] On the conflicts between the government, in particular Minister Ávila, and the Bank of Portugal, see Reis, pp. 354-362.

decide to withdraw foreign gold coins from circulation, in particular, the British gold coins. The then member of parliament Fontes Pereira de Melo, who became the future Minister of the Treasury in the Regeneration period, gave a most enlightening speech about the interests that required defending in the session on 21 January 1851. First of all, Fontes explained the suspicions: "Mr. President, the panic is a fact (…) And it does so justifiably: if I were a very rich man, and had a great deal of foreign gold, I would be even more frightened today than I was yesterday". Thus, in order to calm the market, and according Fontes, the parliament had to approve a proposal binding the committee to respect the holders of sovereigns. And he went on to state that "the interests of the owners of gold can be said to be the general concerns of the country itself." This statement meant that Fontes Pereira de Melo defended in the parliamentary interests of exporters by considering that the benefits of this group coincided with those of the nation. Certainly, this defence constituted a question of property rights and the political support of Fontes (Broz and Frieden, 2006).

The government, through the voice of the President of the Council of Ministers, ended up committing itself to safeguarding the interests of the owners of foreign gold currency, and so that there should remain no further doubts, he repeated that "whatever measures the government may present to parliament, sovereigns will not cease to have the legal value that they currently have and the owners of foreign gold currency will not suffer any loss." (*Debates Parlamentares*, session of 21 January 1851).

The pressure on the government became so intense that at this same session, António José d'Ávila presented a bill and the members of parliament elected a special committee to analyse it[20.] The composition of this committee was not the same as the previous one and now included a member of the Bank of Portugal - José Lourenço da Luz, a Director of the Bank from 1848 to 1857 and a

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[20] This bill was published in the *Diário do Governo* on 22 of January of 1851with the explanation that the Committee approved the government's proposal.

supporter of the political movement *Regeneração* (Reis, 2011). If a lobby between Fontes and the shareholders of the Bank did not exist (Stasavage, 2002) in January of 1851, he defended the owners of sovereigns and, probably, the position of the Bank of Portugal. Some months later the relationship between Fontes and the Bank was not so friendly (Reis, 1996).

In the debate on the gold standard that took place three years later, Ávila explained how it had not been his intention to maintain sovereigns in circulation in 1851. Ávila stated: "In 1851, it was my opinion that the sovereigns should not be maintained in circulation. (...) If, on the question of gold, I had received the support that I am now ready to give the government, I would have withdrawn sovereigns from circulation" (*Debates Parlamentares*, session of 2 May 1854, p. 34). The 30 January 1851 Decree brought an end to the legal tender of foreign gold coins with the exception of *sovereigns*.

What interests can we find for keeping of British currency in circulation? What were the groups that were trading in silver and gold? They were not necessarily different groups, but the businesses could be different.

Silver coins, the *cruzados novos*, were melted into bars and exported to Great Britain. In parliament, two Lisbon workshops were mentioned as places where silver coins were melted[21]. Although the location of the other workshop remains unknown, its denunciation was not disputed. Meanwhile, the price of precious metals in bullion ceased to be published in the Diário do Governo, precisely on 20 January 1851, which was the date of the parliamentary debate, and this information remained absent until 1854 (the year of Portugal adopting the gold standard). Coincidence? We do not have any information why this happened. The bullion market certainly did not stop operating but, without the publication of these prices, the market became less transparent and less competitive.

[21] This situation was denounced by a Member of Parliament Correia Leal in the session of 20 January 1851 (*Debates Parlamentares*).

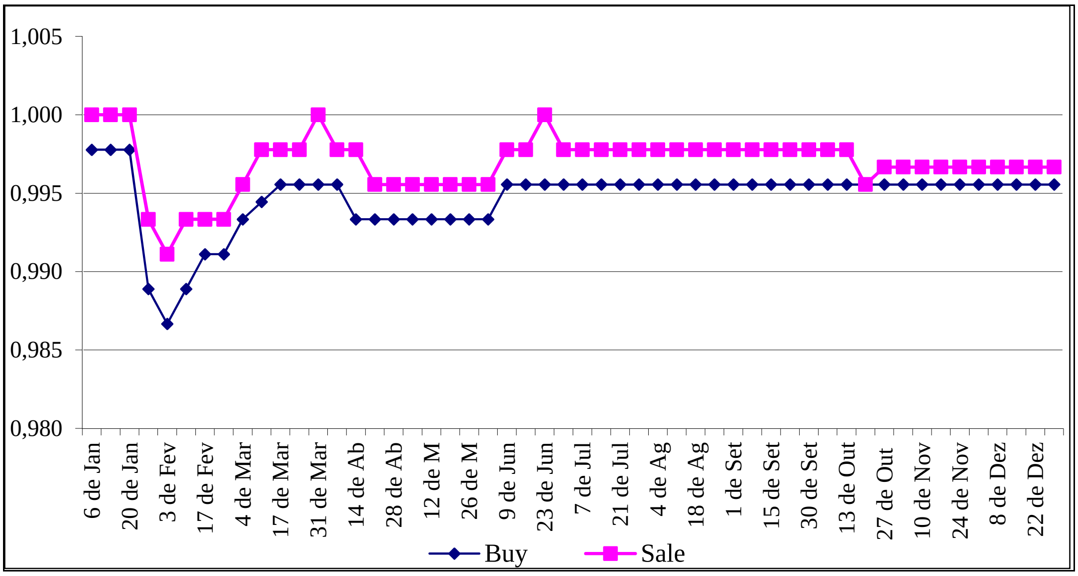
The social groups that operated in the silver market then became still more protected as they were able to negotiate silver prices in accordance with their respective market power.

Considering the gold market, gold imports arrived, above all from Southampton that was the port through which Portuguese products, such as wine, oranges and corn as well as sheep and cattle, entered Great Britain. The same port also handled the products such as cotton, wool and linen, and "crates with money" that went to Portugal[22]. If we follow the route taken by these ships, their destination was Gibraltar, which was the "great store of products from Asia" to use the expression of José da Silva Carvalho in a letter sent to the Duke of Palmela in 1833[23]. This situation remained in effect throughout the 1850s. In turn, in 1861, Carlos Morato Roma underlined how the trade with Asia led by Britain was taking a large quantity of silver from Europe (Roma, 1861, p. 69). The trade circuit was in place – gold coins came in and silver bullion and foreign silver coins went out as demonstrated by the years for which there are statistics on foreign trade[24]. The port of Southampton dominated this trade circuit for metals, followed by the port of London. The demonetisation of silver that took place in Great Britain in 1816 left the price of this metal floating freely and the fact that the par value of silver was not very different from the par value of gold justified how the market must have absorbed a large amount of silver during the first half of the nineteenth century.

In the Portuguese metals market, studying the price of gold and silver coinage also enables us to support these same conclusion.

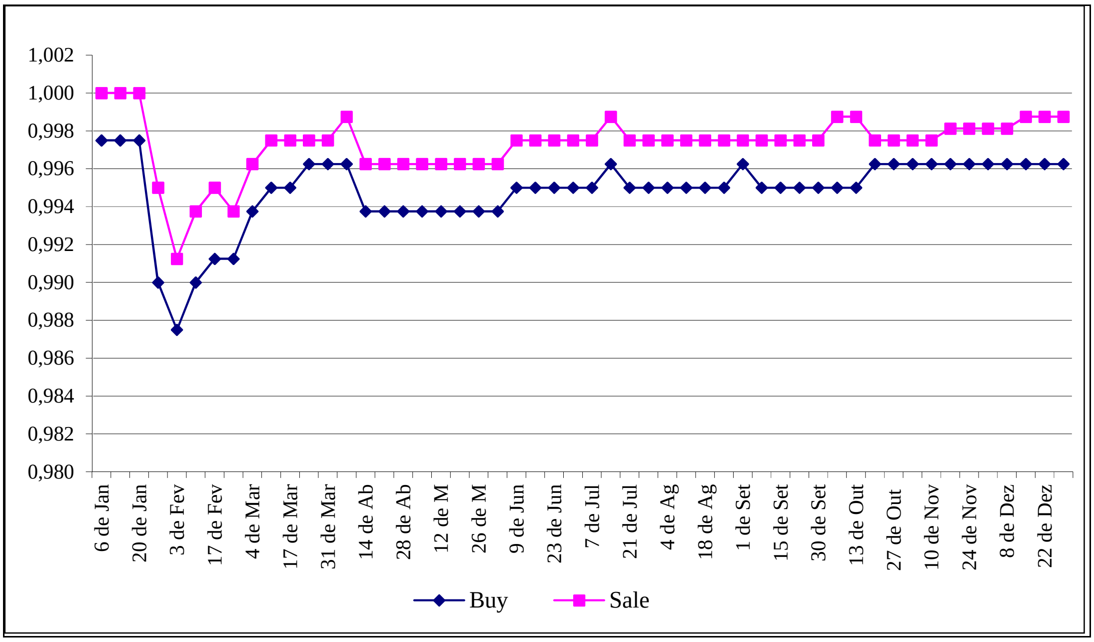
Figure 4 – Discount of *Sovereigns* (1851)

[22] *Mappas do Commercio … e Folha Commercial de Lisboa, 1849-1854*.
[23] Livro de Registo da Correspondência com a Câmara dos Deputados, *Instituto dos Arquivos Nacionais / Torre do Tombo*, MFF, livro 3649.
[24] The years that allow us to achieve these conclusions are: 1843, 1848, and 1851.



Source: *Diário do Governo*.

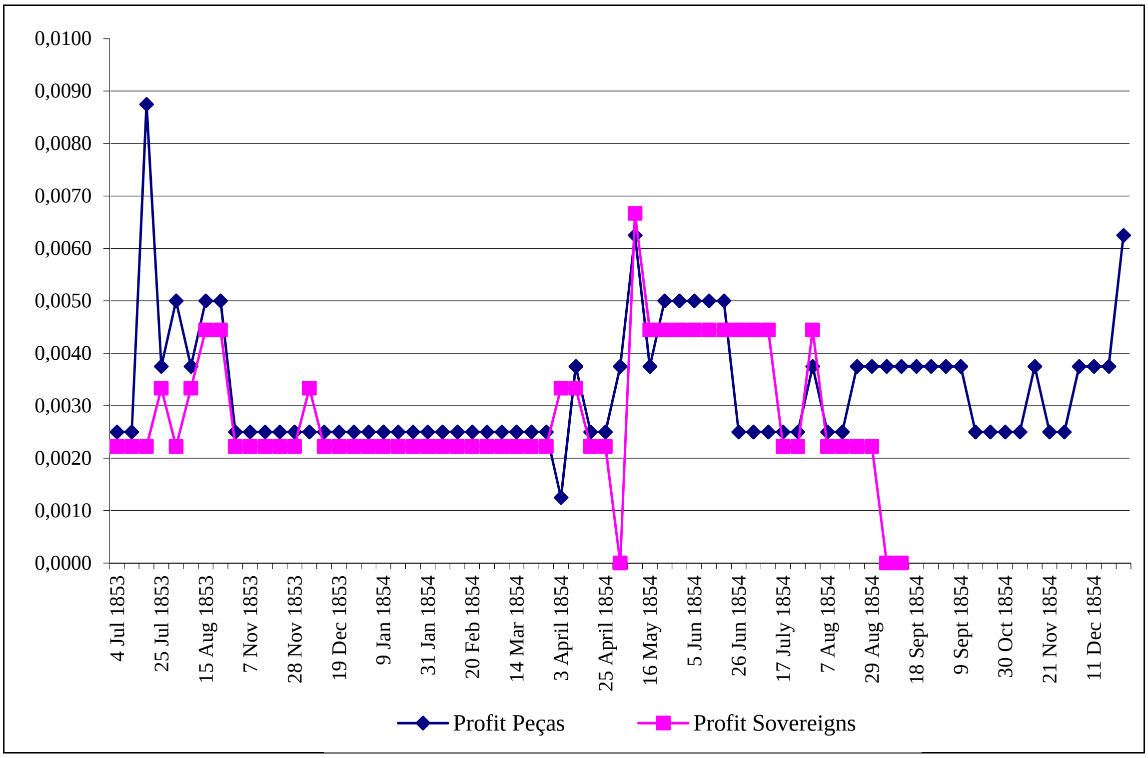
Figure 5 – Discount of *Peças* (1851)



Source: *Diário do Governo*.

By analysing the Lisbon market discount for the price of coins, which reflects their intrinsic value, we can identify how, during 1851, a discount was charged both for *sovereigns* and for *peças* (Figures 4 and 5) with the differential between the purchase and the sales premiums proving higher in the case of the British coins in 1851 and lower in 1853 and 1854 (Figures 4 and 6).

Figure 6 – Profit *Peças* and *Sovereigns* (1853-1854)



Source: *Diário do Governo*.

In short, the monetary situation of 1851 was for two reasons. The first was that *sovereigns* were not withdrawn from circulation because they returned a profit in the Lisbon market. Comparing the market values of gold coins, the British currency recorded a higher profit than Portuguese coins. Second, the importance of silver in the London market explains the absence of any change in the bimetallic ratio. The intention of the Minister of the Treasury, António José d'Ávila, had been to change the price between the two metals, something he did not manage to achieve because importing *sovereigns* and exporting silver bullion represented a profitable monetary business for the Lisbon market. The problem of silver exports was discussed frequently in parliament so that the solution involved increasing these duties, albeit with scarce results. In studying the two ratios, we still need to ascertain just which interests received the greatest protection; whether it was the interests of that group who held assets in *sovereigns* or the group trading in silver. Probably these groups did not prove so different and Fontes Pereira de Melo understood that. Ávila, however, held weaker links with these lobbying groups (Sardica, 2005, p. 643), and only political pressure changed his opinion. At this point, it was the eve of the rise of *Regeneração* to power in which Fontes would serve as the Minister of Finance for several long years.

5. Conclusions

During the first half of the nineteenth century, the market interventions made by the Portuguese state stressed its concerns to ensure the circulation of both metals. However, private economic agents showed little interest in using the Mint for coining metal. Not even measures such as the suspension of the rights of seigniorage which was adopted in 1846 succeeded in changing this behaviour of economic agents. The advantages of trading in bullion explained the absence of metals in the Lisbon Mint House. The change in the legal ratio in 1847 lowered the price of silver, increased the price of gold, and overvalued the *sovereigns* in the Portuguese market. Therefore, Portuguese coins almost disappeared from circulation. Economic agents negotiated silver in the bullion market, and arbitrageurs stood to make gains whenever negotiating with British gold coins.

The predominant means of payment in the Lisbon market was gold currency which meant that the position assumed by the then Minister of the Treasury, Ávila, brought panic to the market because those who held such coins feared their devaluation. The parliamentary decision of 1851 was adopted in this context of difficulties in minting Portuguese coins, while the overvalued British gold coins remained in circulation.

Finally, the 1847 and 1851 political decisions shaped the choice that would be taken three years later when bimetallism was officially abandoned in 1854. This episode took place in a southern European country and demonstrated the importance of political concerns in monetary decision-making.

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