

Serial 340/25

Documento de Trabalho/ Working Paper n° 25

THE THE PORTUGUESE CAPITAL MARKET  
DURING WORLD WAR II

Nuno Valério

GHES  
Gabinete de História Económica e Social  
Lisboa  
2005

## **Contents**

1. Introduction
  2. The The balance of payments
  3. Neutrality
  4. Legal foreign trade
  5. Illegal trade
  6. Overall evaluation of Portuguese supplies to Germany
  7. Invisible flows
  8. Accumulation of foreign assets and gold and foreign exchange reserves
  9. Payment regimes
  10. Money supply and inflation
  11. Economic activity
  12. Investment
  13. Interest rates
  14. The banking system
  15. The stock market
  16. Formation and dissolution of companies
  17. Mortgages
  18. Insurance
  19. Government accounts and financing public deficits
  20. Conclusion
- References
- Appendix

### **Abstract**

During the Second World War, the Portuguese capital market was characterized by a glut of savings opportunities and a shortage of investment opportunities. The glut of savings opportunities was caused by surpluses in the balance of payments, which resulted from Portugal's neutrality and its capacity to supply valuable commodities. The shortage of investment opportunities derived from the economy's overall stagnant performance and the lack of adequate supplies from abroad. As a consequence, there was a downward trend in interest rates, despite the increase in price levels, and investors concentrated on public bonds and construction. It may, however, be argued that this process acted as a kind of prior accumulation of funds before the take-off of modern economic growth that was to occur in the Portuguese economy during the post-war years.

## **1. Introduction**

During the Second World War, the Portuguese capital market was characterized by a glut of savings opportunities and a shortage of investment opportunities.

The opening sections of this paper will deal with the mechanisms that gave rise to this situation. This is followed firstly by an analysis of the institutional features and facts that affected the functioning of the market, and then by a general conclusion.

## **2. The balance of payments**

The glut of savings opportunities that occurred in Portugal during the Second World War resulted from surpluses in the balance of payments.

Table 1 shows that the typical state of Portuguese external payments in peacetime was a significant trade deficit, partially offset by invisible flows (mostly emigrants' remittances).<sup>1</sup> During the war, however, the trade deficit was reduced, and even converted into a surplus in 1941, 1942 and 1943, as a consequence of the export boom (at least in value terms) that resulted in turn from the country's capacity to supply valuable commodities (chiefly wolfram ore), as well as from the restrictions on imports resulting from the fact that the traditional main suppliers concentrated their resources on war purposes. At the same time, invisible flows increased (mainly as a result of capital movements and aid to refugees). This allowed for a significant increase in the amounts of foreign assets held by Portuguese economic agents.

---

<sup>1</sup> Most of the figures presented in the appended tables are reproduced from Valério (2001), where longer series may usually be found.

### 3. Neutrality

The evolution of the various items in the Portuguese balance of payments during the Second World War must be understood against the background of Portugal's neutrality in the conflict. It may be said that this neutrality was the result of a mixture of good luck and skilful diplomacy<sup>1</sup>.

The crucial moments were the autumn of 1940 and the autumn of 1943. These two moments separated the opening and closing phases of the war (both characterised by 'biased' neutrality<sup>2</sup>) from an intermediate phase of 'geometrical' neutrality.

Until the summer of 1940, there were neither good land communications between Portugal and Germany nor any significant German military threat to Portugal. Consequently, the Portuguese government clung on to its traditional alliance with Britain

In the autumn of 1940, when it became clear that it would be impossible to undertake Operation Sea Lion against Britain, Operation Felix, which involved occupying the Iberian Peninsula and denying Britain access to the Mediterranean from the west, gained in significance for Germany.<sup>3</sup> Portuguese diplomacy played its part in convincing Spain that it was not wise to imitate Italy and side with Germany, and Operation Felix was abandoned in favour of Operation Barbarossa against the Soviet Union. However, the German military threat remained, both by land and submarine war. Moreover, the deleterious consequences for Portugal of Britain's enforcement of trade restrictions to deprive Germany of valuable supplies, and the occupation of Portuguese Timor by Australia and the Netherlands as a precautionary (and ineffective) measure against Japanese invasion brought some friction to relations between Portugal and Britain.

Nevertheless, in the autumn of 1943, Portugal ceded military bases in the Azores to Britain (and in practice to the United States of America as well). Portuguese diplomacy managed to convince Germany that a regular supply of wolfram was preferable to retaliation.<sup>4</sup> From then on, although formally a non-belligerent, Portugal clearly sided again with the Allies. For instance, in spite of the Portuguese undertaking not to cut off the supply of Portuguese wolfram to Germany, this supply was suspended in the spring of 1944, when the British pressure on the Portuguese government to stop this flow became unbearable and the possibility of significant German retaliation became remote.

---

1 For a general analysis of Portugal's situation during the Second World War, see Telo (1991) and Telo and Torre (2000).

2 Biased in favour of Britain and against Germany, of course.

3 The most probable immediate outcome of Operation Felix would have been the occupation of Gibraltar and mainland Portugal by Germany and Spain, together with the withdrawal of the Portuguese government to the Azores, which were beyond German reach. One can speculate that an American-British-(Portuguese) invasion of the Iberian Peninsula would have followed in due course (instead, for instance, of Operation Torch against North Africa). This could be seen as a re-enactment of the British strategy used against Napoleonic France between 1808 and 1814.

4 By way of comparison, it may be recalled that during the First World War (in 1916) Germany declared war on Portugal when Portugal refused to guarantee that German ships impounded in Portuguese harbours would not be lent to Britain.

#### 4. Legal foreign trade

Table 2 presents a summary of the available data on Portuguese legal foreign trade during the Second World War.

As might be expected of a non-industrialized country, foodstuffs (mainly wine) and raw materials (traditionally mainly cork, but during the war mainly wolfram ore) were the main items of Portuguese exports, in terms of both value and volume. Total exports in value terms increased fourfold between the immediate pre-war years and 1943, falling for a while thereafter and reaching new peaks in the immediate post-war years. The two main items showed a similar evolution (the value of exports of raw materials increased sevenfold, while the value of exports of foodstuffs increased roughly threefold); meanwhile, textiles and miscellaneous manufactures (mainly canned fish) underwent a significant and permanent increase. Total exports in volume terms declined from the immediate pre-war years until 1944 but recovered thereafter, although they were still below the starting levels in the immediate post-war years. Again, the two main items showed a similar evolution, while textiles and miscellaneous manufactures underwent a significant and permanent increase.

Great Britain remained the main foreign outlet for Portuguese goods until the end of the war (just as it had traditionally been for more than two centuries), except in 1941. However, the Portuguese colonial empire and the United States of America showed stable increases, and the former overtook Britain as the main outlet for Portuguese goods in the immediate post-war years (the United States of America also overtook Britain in 1946). Germany experienced very sharp fluctuations, depending on the state of communications between the two countries: the initial and closing periods of biased neutrality were periods of low Portuguese exports to Germany; during the middle period of geometrical neutrality, Portuguese exports to Germany increased, and Germany even became the main outlet for Portuguese goods in 1941<sup>1</sup>.

The increase in total imports by value exceeded the fourfold mark of exports. This was mainly because of the behaviour of the second item in the ranking (foodstuffs) during the war, and the third item in the ranking (machines, implements, tools, weapons, ships and vehicles) immediately after the war, whilst the main item (raw materials) showed a more moderate increase.

Imports by volume showed a U-shaped evolution, also shared by almost all items. The same situation was encountered in exports, although there are two important differences: the turning point for imports occurred earlier (1943) and the figures for imports in the immediate post-war years were

---

<sup>1</sup> It may be noticed that the years of surpluses in the trade balance roughly coincided with the years of geometrical neutrality, which in turn roughly coincided with the period (between the summer of 1940 and the summer of 1944) during which there were serviceable land communications with Germany, the country that was most in need of Portuguese supplies, especially wolfram ore.

far ahead of those during the immediate pre-war years. Exchange availability certainly contributed to these developments.

Great Britain was the main supplier of Portuguese imports in the immediate pre-war years (as it had traditionally been for more than two centuries), but was overtaken from 1940 onwards by the United States of America, and from 1941 onwards by the Portuguese colonial empire, which became the main provider of Portuguese imports between 1942 and 1946 (in 1947 the United States of America took the lead once again and Great Britain regained second place). The fluctuations in imports from Germany mirror those in exports to this country, although Germany never became the main source of Portuguese imports.

An analysis of trade balances by country shows that all balances were negative on the eve of the Second World War. During the war, surpluses were obtained between 1940 and 1945 with Great Britain, between 1941 and 1944 with Germany, in 1941 and 1942 with other countries, in 1944 with the United States of America, and in 1945 with the Portuguese Colonial Empire. After the end of the war, the typical peacetime situation of negative trade balances with all partners returned, except for a positive balance with the Portuguese Colonial Empire in 1947. Aggregation of trade balances over the war years (1940–1945) shows that only Great Britain and Germany provided overall positive figures (respectively 2,236 million escudos and 1,409 million escudos).

## **5. Illegal trade**

During the war, illegal trade was more a question of unregistered trade with Germany than traditional smuggling practices. British efforts to deprive Germany of valuable supplies – in the form of navicerts, affidavits and the blacklisting of firms suspected of supplying Germany with forbidden commodities – led many Portuguese firms to avoid registering their profitable trade with Germany. Using data from Louçã (2000), we estimate that the accumulated net amount of Portuguese illegal exports to Germany during the war reached a figure of between 469 million escudos and 2,565 million escudos.

The lower figure is the difference between the sum of German gold and foreign exchange payments to Portugal (1,212 million escudos) and German unregistered arms exports to Portugal (666 million escudos), and the registered trade balance between Portugal and Germany favourable to Portugal (1,409 million escudos). The higher figure exceeds the lower one by the difference between the gold and foreign exchange payments made by the Swiss National Bank to the Bank of

Portugal (2,623 million escudos) and the registered trade balance between Portugal and Switzerland favourable to Portugal (527 million escudos).<sup>1</sup>

## **6. Overall evaluation of Portuguese supplies to Germany**

This allows an overall evaluation of Portuguese supplies to Germany during the war (legal plus illegal exports). It may be said that they reached a figure between a minimum of 3,239 million escudos and a maximum of 5,335 million escudos. From a quantitative point of view, this may be reckoned as a significant but not decisive input to the German war effort. From a qualitative point of view, the important item was, of course, wolfram.

During the war, the Portuguese government tried to implement a quota system for wolfram ore exports, which allowed each side in conflict to get the ore from the mines it owned, and a percentage of the product of other mines. Germany got a favourable percentage of the product of other mines because it accepted to sell to Portugal in exchange commodities it badly needed<sup>2</sup>. However, most of legal production of wolfram ore was exported to the Anglo-Saxon allies. Total legal production of wolfram ore reached 22.8 thousand tons, of which 14 thousand tons were exported to Great Britain, 1.6 thousand tons were exported to the United States of America and 6.2 thousand tons were exported to Germany (to which may be added 0.3 thousand tons exported to Italy and 0.5 thousand tons exported to France; the remaining 0.2 thousand tons went to other countries). As could be expected, a lot of illegally mined ore escaped this quota system. The higher financial capacity of the Anglo-Saxon allies favoured them in transactions in the black market. Thus, it may be said that the quota system worked to the advantage of Germany, in spite of its lower share in the market. As a consequence, Portugal was Germany's main supplier of wolfram ore until the spring of 1944. From then on, legal prohibition (even if not fully enforced) and subsequently the lack of serviceable land communications between the two countries soon throttled the flow of Portuguese wolfram to Germany.

---

<sup>1</sup> Notice that all gold and foreign exchange payments by the German State Bank to the Bank of Portugal were made through the Swiss National Bank.

<sup>2</sup> The Anglo-Saxon allies refrained from presenting equally good offers because they feared that part of the valuable supplies going to Portugal might end in Germany through illegal channels.



## **7. Invisible flows**

As suggested above, the war did cause some changes to the composition of the invisible flows within the Portuguese balance of payments. For a while, the capital inflows resulting from money seeking refuge in a neutral economy or brought to the country by refugees, plus aid to refugees<sup>1</sup> overtook emigrants' remittances as the main items. Unfortunately, although such a development seems quite plausible, and was taken for granted at the time<sup>2</sup>, there are no statistical data available to prove or illustrate this theory.

## **8. Accumulation of foreign assets and gold and foreign exchange reserves**

Table 1 also shows that the increase in foreign assets held by Portuguese economic agents mainly took the form of gold and foreign exchange reserves at the Portuguese issuing bank, the Bank of Portugal. This resulted from two facts. Firstly, a significant part of the inflow of foreign assets took the form of gold and foreign exchange payments to the Bank of Portugal by foreign central banks, within the context of payment agreements between Portugal and several foreign countries.<sup>3</sup> Secondly, most of the remainder of the inflow of foreign assets was channelled through the banking system to the Bank of Portugal, so that these assets might then be used for expenditure and business in Portugal.

## **9. Payment regimes**

Free convertibility had been the normal regime for external payments from the Portuguese perspective ever since Decree-law 28088 of 18 October 1937 had abolished all exchange controls dating back to the time of the First World War<sup>4</sup> and established a regime of unrestricted buying and selling of foreign exchange on the market. However, as most other countries had exchange controls,

---

1 Which is supposed to have been given mainly by the American Jewish community to Jewish refugees either trying to go to America or stay in the country.

2 The annual reports of the Bank of Portugal and the Ministry of Finance's reports on public accounts often present this phenomenon as the explanation for the inflationary process occurring during the war.

3 Moreover, Decree-law 32078 of 11 June 1942 gave the Bank of Portugal a legal monopoly over gold transactions. This situation lasted until the end of the war.

4 To be precise, almost all exchange controls had already been suppressed by Decree 21063 of 7 April 1932 (free convertibility in the case of amounts up to 100 pounds sterling) and Ordinance 7724 of 4 December 1933 (free disposal of 95% of foreign exchange obtained by exporters).

the Bank of Portugal had to organize its own counterpart to these controls by signing payment agreements with the central banks of these countries.

The most important of these payment agreements were those signed with Germany (approved by Decree-law 25418 of 29 May 1935 and remaining in force until the collapse of Germany on 9 May 1945) and Great Britain (signed on 29 July 1940 and remaining in force until the devaluation of the pound sterling on 18 September 1949).<sup>1</sup> These were quite different agreements. The payment agreement with Germany did not include any provision for stabilizing the exchange rate, included provisions to balance payment flows between the two countries, and called for any outstanding balances to be settled in gold or convertible foreign exchange within three months. The payment agreement with Great Britain established a fixed exchange rate (1 pound sterling = 100 Portuguese escudos<sup>2</sup>), did not include any provisions designed to balance the payment flows between the two countries, and allowed Britain to borrow any amount at all from the Bank of Portugal without having to service this debt until the end of the European war. In spite of German pressure to obtain more favourable conditions for the settlement of its outstanding balances with Portugal<sup>3</sup> and Portuguese dissatisfaction with British interference in Portuguese imports from overseas<sup>4</sup>, both agreements were maintained.<sup>5</sup>

As a consequence, positive trade balances with Great Britain led to a British war debt of around 81 million pounds and accumulation of sterling balances by the Bank of Portugal. At the same time, Portuguese refusal to award any long-term credit to Germany forced this country to pay Portugal with Swiss francs and gold, giving rise to the Portuguese involvement in the notorious question of Nazi gold, which is dealt with in Louçã (2000) and Telo (2000). The Bank of Portugal received around 49 metric tons of gold from the German State Bank (always through the Swiss National Bank as pointed out above). When these transactions came under scrutiny of the Allied Tripartite Commission after the end of the war, the Portuguese government refused to accept the principle of giving back looted gold, arguing that it had acted *bona fide* in legal international

---

1 Relations with the United States of America developed under the free convertibility rule. Other countries played a lesser role in Portugal's foreign economic relations, as shown in Table 2 for trade.

2 Until the beginning of the war, the Portuguese monetary authorities had kept the Portuguese escudo pegged to the pound sterling at a rate of 1 pound sterling = 110 Portuguese escudos; but the Portuguese escudo rapidly appreciated against the pound sterling between September 1939 and July 1940. Only the stabilisation of the pound sterling against the American dollar (1 pound sterling = 4 American dollars), which was agreed in July 1940, allowed for the stabilization of the pound sterling against the Portuguese escudo.

3 In peacetime, the outstanding balances usually favoured Germany, but the situation changed during wartime, whenever land communications between the two countries were relatively easy (roughly from the summer of 1940 until the summer of 1944, as mentioned above).

4 Of course, these interferences were part of the British economic warfare apparatus, designed to deprive Germany of valuable supplies.

5 This means that Portuguese neutrality was never 'geometrical' and always favoured Britain in the financial field.

transactions. The whole question was not settled until the early 1950s<sup>1</sup>. 4 metric tons of gold were acknowledged as looted from the Netherlands Central Bank and given back, compensated by an indemnity from the Federal Republic of Germany.<sup>2</sup>

German gold accounted for only a small part (around 14%) of the gold acquired by the Bank of Portugal during the war.<sup>3</sup> The Federal Reserve Bank of New York provided 167 metric tons, the Swiss National Bank provided 104 metric tons, and other sources provided 28 metric tons, in spite of the absence of overall positive trade balances with these countries. In the case of the Swiss National Bank (and other sources), it is likely that Portuguese gold acquisitions were financed partly by Swiss francs obtained from the German State Bank, partly by foreign exchange brought into the country by refugees. In the case of the Federal Reserve Bank of New York, Portuguese gold acquisitions imply the existence of dollar balances held by the Bank of Portugal despite the negative trade balances with the United States of America. This gives further support to the idea that there were significant invisible flows from the U.S.A. to Portugal during the war<sup>4</sup>.

## 10. Money supply and inflation

The increase in money supply and the rise in price levels were important macroeconomic consequences of the accumulation of gold and foreign exchange reserves at the Bank of Portugal.

The monetary base increased greatly as a direct result of the accumulation of gold and foreign exchange reserves at the Bank of Portugal. It increased nearly sixfold between 1938 and 1946, as shown in Table 3.

The Bank of Portugal tried to sterilize this increase in the monetary base, but this proved to be a difficult task for two reasons. Firstly, the banks had large excess reserves (see Table 8). Secondly, open market operations were impossible, because there were no Treasury bills outstanding<sup>5</sup>. As a surrogate for such operations, the Ministry of Finance proceeded to issue public

---

1 The American government froze for a while Portuguese holdings in the United States as a means of pressure, but at the same time allowed Portugal to be a beneficiary of Marshall aid. Of course, the crucial point of the whole negotiations was not Nazi gold, but to lead Portugal to accept American military bases in the Azores as permanent in practice.

2 Payments were made only in the late 1950s.

3 All figures on gold acquisitions were obtained in official reports of the Bank of Portugal and in the 1999 Report of the Commission of Research on Gold Transactions between Portuguese and German Authorities during the Period between 1936 and 1945.

4 Of course, these gold acquisitions by the Bank of Portugal from the Federal Reserve Bank of New York did not imply any physical shipment of gold from America to Portugal. The Bank of Portugal merely became owner of certificates over Fort Knox gold (and even shipped part of its reserves to the same place, fearing they would share the fate other European gold reserves if Operation Felix were implemented).

5 This rather exceptional situation was the result of the radical orientation that Oliveira Salazar, Portuguese Minister of Finance (1928–40) and Head of Government (1932–1968), imprinted on the process that had already been introduced for the financial stabilisation of post-First World War inflation. It should be noted that the fact that he was able to conclude the

bonds in excess of the amount that was actually needed to finance public deficits from 1942 onwards. Even so, the increase in the money supply was less significant than the increase in the monetary base. Comparing the peak year (1946) with the immediate pre-war year (1938), the issue of banknotes was multiplied by a factor of around 3.9, sight deposits were multiplied by a factor of around 5.2 and time deposits stagnated.<sup>1</sup> Thus,  $M_0$  was multiplied by a factor of around 3.7,  $M_1$  was multiplied by a factor of around 4.7 and  $M_2$  was multiplied by a factor of around 4.1. This means that there was a decrease in the money multipliers, at least until 1943 (followed by a gentle rise thereafter), as also shown in Table 3.

As could be expected, the increase in money supply triggered a rise in prices despite a decline in the velocity of money, as can be seen in Table 4. As the cost of living index seems to be the best indicator in this field<sup>2</sup>, it is possible to say that the (fairly stable) price level that existed immediately after 1947 was roughly twice the (equally stable) price level that had existed during the 1930s. Meanwhile, the inflation rate became clearly positive in 1941 (12%), and remained in double-digits until 1946 (22% in 1942, 13% in 1943, 10% in 1945 and 13% in 1946). 1944 was an exception (3%) and the inflation rate still reached 4% in 1947, but decreased thereafter.

The behaviour of the wage index seems quite normal until 1942, keeping pace with the cost of living index with some difficulty. From then on, it approaches the behaviour of the wholesale price index, and even surpasses its rate of increase, which casts some doubts on its accuracy<sup>3</sup>.

It may seem surprising that the decrease in the velocity of money persisted throughout the period of rising prices, and began to recede when prices tended to stabilize. In other words, economic agents seemed to prefer to lay their hands on liquid assets when they were depreciating and to flee from them when their value stabilized. The explanation for such behaviour is, of course, linked to the evolution of the interest rate, which will be dealt with later on.

## 11. Economic activity

The shortage of investment opportunities was the result of the overall stagnant performance of the economy and the shortage of adequate supplies from abroad.

process and was then (rather unfairly) credited with responsibility for its complete success was crucial in determining Salazar's later role in Portuguese politics.

- 1 It should be noted that in 1947 there was a sharp fall in sight deposits, partially compensated by a huge relative increase in time deposits.
- 2 The monetary authorities acknowledged that the wholesale prices index was too much influenced by the behaviour of import prices, and used the cost of living index for official monetary corrections.
- 3 It may be noticed that the salaries of public servants (which were a significant part of wage earners in urban context) were frozen until 1944 (although taxes on salaries up to a certain limit were abolished in 1942, and family allowances were given in 1943), and rose 20% in that year (Decree-law 33272 of 24 November 1943).

Two estimates published during the late 1990s present two different views of the changing level of economic activity in Portugal during the Second World War.

Table 5 presents a synthesis of the evolution of the level of economic activity in Portugal during the Second World War, using estimates of nominal gross domestic product and the gross domestic product deflator based on proxy variables. According to this view, real gross domestic product experienced increases until 1941, stagnated in 1942, and then suffered three consecutive years of decreases, which brought real gross domestic product in 1945 back close to the 1938 level. Growth resumed in 1946 and, by 1947, real gross domestic product had slightly overcome the population increase of 9%. Thus, the average standard of living during the post-war years was somewhat above the pre-war level.<sup>1</sup>

Table 6 presents estimates for the level of economic activity by sector for the same years. These suggest a sluggish performance until 1942, and significant growth thereafter<sup>2</sup>, leading to an overall 29% increase in real gross domestic product, which would represent a comfortable increase in the average standard of living. However, these figures also present some very implausible features (such as a reduction in mining and quarrying activities during the period of the wolfram boom until 1944<sup>3</sup>). Even so, it is important to examine the performance suggested here for sectors linked to the production of investment goods. It seems that the metals, machinery and equipment sector performed dismally: it stagnated during the war years at around 6% of gross domestic product and only experienced significant growth after the end of the war. In contrast, the construction sector presented rather high rates of growth, rising from around 2% to roughly 4% of gross domestic product.

---

1 It may be argued that the estimate of the gross domestic product deflator is too optimistic, being clearly below any of the price indexes presented in Table 4. If the same nominal gross domestic product estimate is combined with the cost of living index in Table 4, the overall evolution is similar to the one presented in Table 5, but the level of real gross domestic product in the immediate post-war years just catches up with the level of the immediate pre-war years, and there is a significant drop in the average standard of living for the whole war period.

2 Notice that the evolution of real gross domestic product in Table 6 is much more similar to the evolution of foreign trade than the evolution of real gross domestic product in Table 5. This is not surprising, because a significant part of the production indexes used in computations are surrogates taken from foreign trade statistics.

3 Of course, much of the wolfram boom took the form of illegal activity, and the official figures only include legal activity. Nonetheless, one would expect legal wolfram mining to increase as well (the post-1944 decrease is a consequence of the end of legal wolfram mining, and corresponded to the collapse of German demand, both legal and illegal, because of the disruption in the lines of communication as Allied forces advanced across France). Perhaps it is inadequate weighting (the weights are based on 1958 figures) that explains these odd results.

## 12. Investment

It is possible to illustrate the shortage of adequate supplies from abroad by looking at the figures for the imports of machines, implements, tools, weapons, ships and vehicles from Table 2 (sections D and E). These remained below 400 million escudos during the war (corresponding to a fall from around 2% to roughly 1% of gross domestic product) and then rose sharply to more than 1 billion escudos in 1946 and more than 2 billion escudos in 1947 (thus reaching around 4% of gross domestic product).

The sum of imports of machines, implements, tools, weapons, ships and vehicles plus the domestic production of metals, machinery and equipment and construction may provide a rough estimate of gross fixed capital formation (excluding animals). It is possible to suggest that this amounted to around 10% of gross domestic product on the eve of the Second World War (8% for instruments, 2% for infrastructures), was kept at roughly the same level throughout the war because of a lack of imports and the limited domestic production of instruments (despite an increase in the construction of infrastructures), and rose very significantly in the immediate post-war years, reaching around 14% of gross domestic product (10% for instruments, 4% for infrastructures).

It may seem difficult to reconcile the absence of a significant growth in physical investment with the expansion of production in some sectors, such as wolfram mining, which experienced a very important boom. However, it is possible to suggest that increases of mining and quarrying output were based mainly on labour-intensive techniques.<sup>1</sup>

The excess of additional financial resources produced by the surpluses in the balance of payments (clearly above 10% of gross domestic product) over the physical investment that it was possible to undertake (stagnating at around 10% of gross domestic product) triggered a fall in interest rates and a search for financial investment.

## 13. Interest rates

As a result of the glut of savings opportunities and the shortage of investment opportunities, the Portuguese capital market witnessed a fall in interest rates during the Second World War.

At the beginning of the war, the Bank of Portugal operated a rediscount rate of 4%. During the war, this rate was lowered to 3.5% on 31 March 1941, 3% on 8 April 1943, 2.5% on 16 August 1943 and 2% on 12 January 1944<sup>2</sup>.

---

<sup>1</sup> See Nunes (2002), pending the conclusion of his Ph.D. thesis on the wolfram boom.

<sup>2</sup> It would then remain at this level until the 1960s.

According to reports by the Bank of Portugal, the discount and lending rates used by other banks were at an average level of 5.25% on the eve of the war<sup>1</sup>, and experienced a downward trend until they reached 2.75% in 1944. The end of the war brought a slight rise to around 2.875%. At the same time, the interest paid on deposits was also reduced, from 3.5% for time deposits and 1.5% for sight deposits on the eve of the war to 1.5% for time deposits and 0.1% for sight deposits in the immediate post-war years.

The Portuguese government was able to borrow at an interest rate slightly below 4% on the eve of the Second World War. This rate fell steadily during the war, reaching 3% in 1943, and a figure slightly above 2.75% in 1947, after a slightly lower trough in 1946<sup>2</sup>. The yields of Portuguese consolidated debt showed a similar evolution.<sup>3</sup>

To sum up, real interest rates were positive and rather high at the beginning of the war<sup>4</sup>, became clearly negative during most of the conflict<sup>5</sup>, and then became positive once again, although remaining at rather low levels in the immediate post-war years.<sup>6</sup>

#### **14. The banking system**

According to Law 1894 of 11 April 1935, the Portuguese banking system during the Second World War was formed by:

a) A private issuing bank, the Banco de Portugal (Bank of Portugal), regulated by Decree-Law 19869 of 9 June 1931, which went a long way towards transforming it into a modern central bank and called for close coordination with the Ministry of Finance over all policy matters.

b) A public commercial and investment bank, the Caixa Geral de Depósitos, regulated by Decree-Laws 16665 to 16669 of 27 March 1929.

c) A public mortgage bank, the Companhia Geral do Crédito Predial Português.

d) Common private credit institutions, namely two colonial issuing banks, the Banco Nacional Ultramarino (National Overseas Bank – the issuing bank for all Portuguese colonies with the

---

1 Decree 20983 of 7 March 1932 forbade banks from demanding discount and lending rates more than 1.5% above the Bank of Portugal's rediscount rate.

2 Figures computed from the data in Table 13.

3 Figures computed from the data in Table 41B of Valério (1994).

4 It may be recalled that the 1930s were characterized by price stability. These positive and rather high real interest rates may be seen as the result of the viscosity of the reduction in interest rates from the very high levels reached during the post-First World War period of inflation.

5 It may be recalled that the war years witnessed two-digit inflation rates. The monetary authorities expressed much concern about these negative real interest rates, because of the disincentives to saving (the concern was, of course, with stable domestic saving, which was perhaps receding, and not with volatile external saving, which was booming, as pointed out above).

6 It may be recalled that the late 1940s and the 1950s were once again characterized by price stability.

exception of Angola) and the Banco de Angola (Bank of Angola – the issuing bank for Angola), around two dozen joint-stock commercial banks, around two dozen commercial banking houses and bankers, and around two dozen savings banks.

Table 7 presents a summary of the evolution of the Portuguese banking system during the period under consideration.

Section 7A deals with the Bank of Portugal. The striking features here are the growth of the gold and foreign exchange reserves, already noticed in connection with the evolution of the overall balance of payments, and the stagnation of credit. The evolution of banknote issues is the joint result of the growth in issuing factors (due to the growth in reserves) and attempts to sterilize such growth (starting in 1941 and powerfully supported, from 1942 onwards, by the issue of public bonds in excess of the amounts needed to finance public deficits, as mentioned above). The evolution of deposits is mainly linked to the accumulation of liquid assets by the government resulting from this policy of excess borrowing.

Section 7B deals with commercial banks.<sup>1</sup> The main points to be noticed here are the stability in the number of commercial banks (which corresponded to a similar stability in the identity of active firms), and the growth in balance sheet items. The sharp rise in the ratio of reserves to deposits (occurring mainly in 1941) meant that the Bank of Portugal lost control over the behaviour of the commercial banks, because they no longer needed to finance themselves by means of rediscounts. The slow growth in credit until 1943 shows that it was difficult to find profitable investments for the available funds, due to the various problems that were causing damage to the real sphere of economic life.

Section 7C deals with the Caixa Geral de Depósitos. The main point to be noticed in this case is that, judging by the main balance sheet items (reserves, credit and deposits), its size was roughly two thirds of the group of commercial banks as a whole in the immediate pre-war years, and that its credit and deposits clearly grew at a slower rate than those of the commercial banks as a whole during the period under consideration (while reserves were accumulated at a faster rate). This may be interpreted as a result of the difficulty in performing its role as an investment bank.

Section 7D deals with savings banks.<sup>2</sup> It is clear that they did not play any really significant role in Portuguese financial life, and the Second World War diminished their importance even further, as they did not keep pace with the growth in the other sectors of the Portuguese banking system.

On the whole, it is clear that the commercial banks increased their relative importance in two ways. Firstly, they grew at faster rates than the other parts of the Portuguese banking system (and

---

<sup>1</sup> It also includes commercial banking houses and bankers, all of which were of almost negligible size.

<sup>2</sup> It also includes the figures for the State mortgage bank.



the Portuguese economy as a whole). Secondly, they freed themselves from the tight control of the Bank of Portugal.

The figures presented in Table 8 relating to the discounting and protesting of bills show that Portuguese firms did not face stringent financing problems during the war years. The protesting of bills was almost negligible, whereas there was only a significant increase in the discounting of bills in the last few years of the war and especially in the post-war years.

### **15. The stock market**

In spite of a significant increase in comparison with the almost negligible levels of the immediate pre-war years, issues of shares and bonds did not provide either a major investment target for financial resources or a major flow of finance to private firms during the Second World War, as can be seen from Table 9. Of course, the spectacular feature to be noticed in this field was the huge increase in the issues of public bonds occurring between 1941 and 1946, especially in 1943. These issues were the consequence of the need to finance public deficits, which are considered in greater detail below, and to find a surrogate for open market operations as anti-inflationary measures, as pointed out above.

There are no data available about stock market transactions and prices.

### **16. Formation and dissolution of companies**

The figures for the formation and dissolution of companies presented in Table 10 point to conclusions similar to those of the previous sections on the discounting and protesting of bills and the stock market. The dissolution of companies was almost negligible, especially considering the amounts of capital involved. There was a significant increase in the formation of companies when compared with the almost negligible numbers of the immediate pre-war years, but it is impossible to consider that this represented either a major financial investment or a major flow of finance to private firms during the Second World War. Only the period encompassing the end of the war and the immediate post-war years represented a real boom, especially considering the amounts of capital involved.

## **17. Mortgages**

The data from Table 11 show that, despite the construction boom suggested by the production indices, mortgages were not a significant source of credit in the Portuguese economy during the years under consideration. The number of new mortgages and the amount of mortgage credit granted stagnated during the war. Once again, the period at the end of the war and during the immediate post-war years saw some revival in this field.

## **18. Insurance**

Table 12 ends our consideration of the main financial activities in Portugal during the Second World War years. 1942 and 1943 saw a significant increase in the number of active insurance companies. This may be interpreted as a response to a very significant growth in insured capital, which grew from roughly one and a half times gross domestic product in the immediate pre-war years to around two and a half times gross domestic product in the immediate post-war years.

Pending detailed research into this sector of the Portuguese economy during the period under consideration, one can speculate that the new buildings resulting from the construction boom were perhaps the source of new capital to be insured, and insurance appeared as a good financial investment for the large amounts of capital looking for a home at the time.

## **19. Government accounts and financing public deficits**

Table 13 shows significant deficits in the government accounts presented during the years under consideration (with the almost negligible exception of 1942). However, these public deficits were financed by decreases in accumulated liquid assets until 1941 and bond issues between 1942 and 1946, as the same table shows. Thus, they did not contribute to inflationary pressures. On the contrary, as already explained above, public bonds were issued in excess of what would be needed for financing public deficits, so that liquidity could be taken from economic agents in general. Only in 1947 was the financial policy of the government reversed again, and a very significant amount of accumulated liquid reserves used to finance the public deficit of that year.

Table 14 presents details of the market public debt issues made by the Portuguese government during the years under consideration.<sup>1</sup> It confirms the downward trend of interest rates, as already mentioned above.

## 20. Conclusion

The picture that emerges from the preceding pages for the Portuguese capital market during the Second World War suggests a very exceptional situation. For a while, the not very dynamic routine of a non-industrialized and not very sophisticated country was transformed by the glut of external savings and the lack of opportunities for physical investment into a potentially fevered speculative area.

It seems that the monetary authorities understood the volatile nature of the situation and tried to keep it under control, which meant keeping it as close to normal as possible. They were partially successful. The more or less spontaneous concentration of foreign assets as gold and foreign exchange reserves at the Bank of Portugal and the absorption of a significant part of the liquidity thus produced as consolidated public debt contributed to this success.

Anyway, it may be argued that the whole process functioned as a kind of prior accumulation of funds before the take-off of modern economic growth that was to occur in the Portuguese economy during the post-war years. The reduction in the long-term real interest rate may, perhaps, be considered as the most positive consequence of the Second World War for the long-term performance of the Portuguese economy. Of course, the good overall European performance of the second 'belle époque' and Portugal's participation in European economic integration from its early beginnings (even though it was not at the core of the process), were also decisive factors in producing such long-term growth after the war.

---

<sup>1</sup> Besides these market public debt issues, there were also significant issues (especially of consolidated bonds) for the conversion of outstanding debt (both consolidated and redeemable). The most important of these operations was organized in 1940 and 1941 and was able to convert external redeemable 3% debt into internal consolidated 4% debt. These operations profited from the enthusiasm stoked by the commemoration of the anniversaries of independence (1143) and of separation from the Western Habsburg Empire (1640), and by the fears fuelled by the German occupation of France and the Battle of Britain.

## References

- Baptista, Dina; Martins, Carlos; Pinheiro, Maximiano; and Reis, Jaime (1997): *New estimates for Portugal's GDP 1910–1958*. Lisbon: Banco de Portugal.
- Louçã, António (2000): Hitler e Salazar – comércio em tempo de guerra. Lisbon: Terramar.
- Nunes, João Paulo Avelãs (2002): “Volfrâmio e poderes locais em Portugal 1931–1947”, *Revista de História Económica e Social*, 2nd series, No. 4.
- Telo, António (1991): *Portugal na Segunda Guerra*. 2 vols. Lisbon: Vega.
- Telo, António (2000): *A neutralidade portuguesa e o ouro nazi*. Lisbon: Quetzal.
- Telo, António, and Torre Gómez, Hipólito de la (2000): *Portugal e Espanha nos sistemas internacionais contemporâneos*. Lisbon: Cosmos.
- Valério, Nuno (1984): *A moeda em Portugal 1913–1947*. Lisbon: Sá da Costa.
- Valério, Nuno (1994): *As finanças públicas portuguesas entre as duas guerras mundiais*. Lisbon: Cosmos.
- Valério, Nuno (1998): *Recent developments in Portuguese retrospective national accounts*. Gabinete de História Económica e Social do Instituto Superior de Economia e Gestão da Universidade Técnica de Lisboa. Working Paper No. 12.
- Valério, Nuno (2001) [ed.]: *Portuguese historical statistics*. Lisbon: Instituto Nacional de Estatística (2 vols.).

## Appendix

**Table 1: The Portuguese balance of payments 1938–1947 (in million escudos)**

Source: exports and imports, *Comércio Externo*, various issues (1938–1947); increase or decrease in foreign assets, and increase or decrease in reserves, *Banco de Portugal – Relatório do Conselho de Administração*, various issues (1938–1947); trade balance (= exports – imports), total foreign flows (= imports + increase or decrease in foreign assets), and invisible foreign flows (= total foreign flows – exports), computed from other items.

| Year | Exports | Imports | Trade balance | Invisible foreign flows (net) | Total foreign flows | Increase (+) or decrease (–) in foreign assets | Of which increase (+) or decrease (–) in reserves |
|------|---------|---------|---------------|-------------------------------|---------------------|--|---|
| 1938 | 1 146   | 2 306   | – 1 160       | 995                           | 2 141               | – 165  | + 96  |
| 1939 | 1 339   | 2 082   | – 743         | 1 134                         | 2 473               | + 391  | + 143   |
| 1940 | 1 638   | 2 583   | – 945         | 1 604                         | 3 242               | + 659  | + 761   |
| 1941 | 2 973   | 2 469   | + 504         | 3 214                         | 6 187               | + 3 718  | + 3 113   |
| 1942 | 3 939   | 2 480   | + 1 459       | 3 069                         | 7 008               | + 4 528  | + 4 513   |
| 1943 | 4 035   | 3 341   | + 694         | 1 011                         | 5 046               | + 1 705  | + 2 887   |
| 1944 | 3 166   | 3 920   | – 754         | 3 429                         | 6 595               | + 2 675  | + 2 378   |
| 1945 | 3 237   | 4 056   | – 819         | 2 675                         | 5 912               | + 1 856  | + 1 928   |
| 1946 | 4 587   | 6 860   | – 2 273       | 2 775                         | 7 362               | + 502  | + 504   |
| 1947 | 4 307   | 9 462   | – 5 155       | 2 356                         | 6 663               | – 2 799  | – 2 785   |

**Table 2: Portuguese foreign trade 1938–1947**Source: *Comércio Externo*, various issues (1938–1947).**2A: Exports by class – values (in million escudos)**

| Year | Exports total | Live animals | Raw materials | Textiles | Foodstuffs | Machines, implements, tools, weapons, ships and vehicles | Miscellaneous manufactures |
|------|---------------|--------------|---------------|----------|------------|--|----------------------------|
| 1938 | 1 146         | +0           | 327           | 119      | 591        | 13   | 96                         |
| 1939 | 1 339         | 1            | 399           | 103      | 703        | 11   | 122                        |
| 1940 | 1 638         | 25           | 505           | 152      | 702        | 20   | 235                        |
| 1941 | 2 973         | 14           | 1 346         | 338      | 951        | 21   | 305                        |
| 1942 | 3 939         | 13           | 2 206         | 344      | 938        | 53   | 386                        |
| 1943 | 4 035         | 3            | 1 687         | 353      | 1 499      | 82   | 411                        |
| 1944 | 3 166         | 17           | 831           | 440      | 1 370      | 36   | 473                        |
| 1945 | 3 237         | 16           | 699           | 717      | 1 129      | 37   | 640                        |
| 1946 | 4 587         | 5            | 1 001         | 879      | 1 657      | 54   | 991                        |
| 1947 | 4 307         | 8            | 1 192         | 831      | 1 308      | 70   | 898                        |

**2B: Exports by class – quantities (in million tons)**

| Year | Exports total | Live animals | Raw materials | Textiles | Foodstuffs | Machines, implements, tools, weapons, ships and vehicles | Miscellaneous manufactures |
|------|---------------|--------------|---------------|----------|------------|--|----------------------------|
| 1938 | 1 540         | +0           | 1 281         | 6        | 214        | 11   | 29                         |
| 1939 | 1 471         | +0           | 1 185         | 4        | 237        | 2  | 43                         |
| 1940 | 1 140         | 6            | 878           | 5        | 188        | 5  | 58                         |
| 1941 | 744           | 1            | 521           | 11       | 200        | 3  | 37                         |
| 1942 | 616           | 1            | 369           | 7        | 186        | 5  | 47                         |
| 1943 | 495           | +0           | 288           | 6        | 150        | 5  | 47                         |
| 1944 | 474           | +0           | 280           | 6        | 118        | 2  | 69                         |
| 1945 | 673           | +0           | 467           | 8        | 119        | 2  | 76                         |
| 1946 | 1 176         | +0           | 824           | 9        | 206        | 2  | 134                        |
| 1947 | 1 120         | +0           | 803           | 10       | 176        | 3  | 128                        |

**2C: Exports by country – values (in million escudos)**

| Year | Exports total | Portuguese colonial empire | Germany | United States of America | Great Britain | Other countries |
|------|---------------|----------------------------|---------|--------------------------|---------------|-----------------|
| 1938 | 1 146         | 137                        | 149     | 61                       | 236           | 563             |
| 1939 | 1 339         | 173                        | 121     | 121                      | 359           | 565             |
| 1940 | 1 638         | 200                        | 29      | 235                      | 471           | 703             |
| 1941 | 2 973         | 323                        | 565     | 547                      | 526           | 1 012           |
| 1942 | 3 939         | 450                        | 960     | 226                      | 1 147         | 1 156           |
| 1943 | 4 035         | 546                        | 855     | 388                      | 1 230         | 1 016           |
| 1944 | 3 166         | 515                        | 361     | 714                      | 788           | 788             |
| 1945 | 3 237         | 768                        | +0      | 551                      | 573           | 1 345           |
| 1946 | 4 587         | 1 032                      | 3       | 685                      | 659           | 2 208           |
| 1947 | 4 307         | 1 134                      | 13      | 495                      | 635           | 1 030           |

**2D: Imports by class – values (in million escudos)**

| Year | Imports total | Live animals | Raw materials | Textiles | Foodstuffs | Machines, implements, tools, weapons, ships and vehicles | Miscellaneous manufactures |
|------|---------------|--------------|---------------|----------|------------|--|----------------------------|
| 1938 | 2 306         | 4            | 1 086         | 107      | 408        | 381  | 320                        |
| 1939 | 2 082         | 2            | 1 068         | 95       | 269        | 357  | 291                        |
| 1940 | 2 583         | 2            | 1 452         | 88       | 418        | 287  | 335                        |
| 1941 | 2 469         | +0           | 1 362         | 79       | 440        | 266  | 320                        |
| 1942 | 2 480         | 1            | 1 353         | 85       | 532        | 210  | 298                        |
| 1943 | 3 341         | 1            | 1 958         | 137      | 556        | 307  | 383                        |
| 1944 | 3 920         | 2            | 2 126         | 162      | 958        | 265  | 408                        |
| 1945 | 4 056         | 3            | 2 084         | 187      | 1 054      | 368  | 359                        |
| 1946 | 6 860         | 5            | 3 181         | 271      | 1 479      | 1 283  | 641                        |
| 1947 | 9 462         | 8            | 3 831         | 349      | 2 240      | 2 102  | 931                        |

**2E: Imports by class – quantities (in million tons)**

| Year | Imports total | Live animals | Raw materials | Textiles | Foodstuffs | Machines, implements, tools, weapons, ships and vehicles | Miscellaneous manufactures |
|------|---------------|--------------|---------------|----------|------------|--|----------------------------|
| 1938 | 2 396         | 1            | 1 974         | 8        | 343        | 28   | 42                         |
| 1939 | 2 299         | +0           | 2 009         | 7        | 216        | 24   | 43                         |
| 1940 | 1 899         | 1            | 1 515         | 5        | 326        | 23   | 28                         |
| 1941 | 1 745         | +0           | 1 357         | 5        | 350        | 11   | 21                         |
| 1942 | 1 342         | 1            | 990           | 3        | 311        | 10   | 27                         |
| 1943 | 1 458         | +0           | 1 107         | 3        | 303        | 19   | 27                         |
| 1944 | 1 805         | 1            | 1 280         | 5        | 468        | 13   | 39                         |
| 1945 | 1 748         | 1            | 1 207         | 5        | 495        | 17   | 24                         |
| 1946 | 2 488         | 1            | 1 809         | 7        | 541        | 91   | 39                         |
| 1947 | 3 079         | 1            | 2 305         | 6        | 635        | 75   | 58                         |



**2F: Imports by country – values (in million escudos)**

| Year | Imports total | Portuguese colonial empire | Germany | United States of America | Great Britain | Other countries |
|------|---------------|----------------------------|---------|--------------------------|---------------|-----------------|
| 1938 | 2 306         | 234                        | 387     | 266                      | 393           | 1 026           |
| 1939 | 2 082         | 253                        | 276     | 219                      | 394           | 940             |
| 1940 | 2 583         | 301                        | 39      | 587                      | 422           | 1 234           |
| 1941 | 2 469         | 426                        | 200     | 629                      | 375           | 839             |
| 1942 | 2 480         | 566                        | 313     | 302                      | 309           | 990             |
| 1943 | 3 341         | 562                        | 481     | 464                      | 516           | 1 318           |
| 1944 | 3 920         | 742                        | 314     | 476                      | 433           | 1 955           |
| 1945 | 4 056         | 759                        | 14      | 778                      | 444           | 2 061           |
| 1946 | 6 860         | 1 036                      | 34      | 1 715                    | 943           | 3 132           |
| 1947 | 9 462         | 744                        | 51      | 2 993                    | 1 122         | 4 552           |

**2G: Trade balance by country – values (in million escudos)**

| year | Portuguese Colonial Empire | Germany | United States of America | Great Britain | Other countries |
|------|----------------------------|---------|--------------------------|---------------|-----------------|
| 1938 | - 97                       | - 238   | - 205                    | - 157         | - 463           |
| 1939 | - 80                       | - 155   | - 98                     | - 35          | - 375           |
| 1940 | - 101                      | - 10    | - 352                    | + 49          | - 531           |
| 1941 | - 103                      | + 365   | - 82                     | + 151         | + 173           |
| 1942 | - 116                      | + 647   | - 76                     | + 838         | + 166           |
| 1943 | - 16                       | + 374   | - 76                     | + 714         | - 302           |
| 1944 | - 227                      | + 47    | + 238                    | + 355         | - 1 167         |
| 1945 | + 7                        | - 14    | - 227                    | + 129         | - 716           |
| 1946 | - 4                        | - 30    | - 1 030                  | - 284         | - 924           |
| 1947 | + 390                      | - 38    | - 2 498                  | + 487         | - 3 522         |

**Table 3: Money supply (in million escudos)**

Source: monetary base,  $M_0$ , sight deposits, and time deposits, computed using data from Valério (1984);  $M_1$  (=  $M_0$  + sight deposits),  $M_2$  (=  $M_1$  + time deposits),  $M_0$  multiplier (=  $M_0$  / monetary base),  $M_1$  multiplier (=  $M_1$  / monetary base) and  $M_2$  multiplier (=  $M_2$  / monetary base), computed from other items.

| Year | Monetary base | $M_0$ | sight deposits | $M_1$  | time deposits | $M_2$  | $M_0$ multiplier | $M_1$ multiplier | $M_2$ multiplier |
|------|---------------|-------|----------------|--------|---------------|--------|------------------|------------------|------------------|
| 1938 | 3 283         | 2 212 | 3 869          | 6 081  | 1 069         | 7 150  | 0.7              | 1.9              | 2.2              |
| 1939 | 3 339         | 2 468 | 3 979          | 6 447  | 1 160         | 7 607  | 0.7              | 1.9              | 2.3              |
| 1940 | 4 133         | 2 815 | 4 802          | 7 617  | 1 109         | 8 726  | 0.7              | 1.8              | 2.1              |
| 1941 | 7 345         | 4 244 | 6 741          | 10 985 | 1 124         | 12 109 | 0.6              | 1.5              | 1.6              |
| 1942 | 11 805        | 5 267 | 10 925         | 16 192 | 1 305         | 17 497 | 0.4              | 1.4              | 1.5              |
| 1943 | 14 541        | 6 656 | 12 769         | 19 425 | 1 345         | 20 770 | 0.5              | 1.3              | 1.4              |
| 1944 | 16 943        | 7 230 | 16 035         | 23 265 | 1 179         | 24 444 | 0.4              | 1.4              | 1.4              |
| 1945 | 18 859        | 7 734 | 18 580         | 26 314 | 1 066         | 27 380 | 0.4              | 1.4              | 1.5              |
| 1946 | 19 214        | 8 253 | 20 054         | 28 307 | 1 040         | 29 347 | 0.4              | 1.5              | 1.5              |
| 1947 | 15 391        | 8 371 | 13 275         | 21 646 | 3 008         | 24 654 | 0.5              | 1.4              | 1.6              |

**Table 4: Prices and velocity of money (base 1938 = 100)**

Source: wholesale price index and wage index, *Banco de Portugal – Relatório do Conselho de Administração*, various issues (1938–1947); cost of living index, *Anuário Estatístico*, various issues (1938–1947);  $V_0$  ( $= M_0$  / gross domestic product),  $V_1$  ( $= M_1$  / gross domestic product), and  $V_2$  ( $= M_2$  / gross domestic product), computed from other items (for  $M_0$ ,  $M_1$ , and  $M_2$ , see Table 3; for gross domestic product at current prices, see Table 5).

| Year | Wholesale prices index | Cost of living index | Wage index | $V_0$ | $V_1$ | $V_2$ |
|------|------------------------|----------------------|------------|-------|-------|-------|
| 1938 | 100                    | 100                  | 100        | 10.5  | 3.8   | 3.2   |
| 1939 | 100                    | 94                   | 96         | 9.5   | 3.6   | 3.1   |
| 1940 | 127                    | 99                   | 99         | 8.7   | 3.2   | 2.8   |
| 1941 | 149                    | 111                  | 108        | 6.8   | 2.6   | 2.4   |
| 1942 | 172                    | 135                  | 135        | 6.5   | 2.1   | 1.9   |
| 1943 | 215                    | 153                  | 165        | 5.5   | 1.9   | 1.7   |
| 1944 | 241                    | 157                  | 188        | 4.9   | 1.5   | 1.4   |
| 1945 | 234                    | 172                  | 201        | 4.7   | 1.4   | 1.3   |
| 1946 | 229                    | 195                  | 238        | 5.1   | 1.5   | 1.4   |
| 1947 | 241                    | 203                  | 262        | 5.6   | 2.1   | 1.9   |

**Table 5: Economic activity and standards of living in Portugal 1938–1947**

Source: adapted from Valério (1998).

| Year | Gross domestic product at current prices (million escudos) | Price index (base 1938 = 100) | Gross domestic product at 1938 prices (million escudos) | Population (1000 inhabitants) | Per capita gross domestic product at 1938 prices (escudos) | Increase (+) or decrease (-) in per capita gross domestic product at 1938 prices (%) |
|------|--|-------------------------------|---|-------------------------------|--|--|
| 1938 | 23 149   | 100                           | 23 149  | 7 575                         | 3 056  | –  |
| 1939 | 23 414   | 95                            | 24 612  | 7 677                         | 3 206  | + 4.9  |
| 1940 | 24 454   | 99                            | 24 748  | 7 758                         | 3 190  | – 0.5  |
| 1941 | 29 039   | 109                           | 26 668  | 7 800                         | 3 419  | + 7.2  |
| 1942 | 34 111   | 128                           | 26 579  | 7 859                         | 3 382  | – 1.1  |
| 1943 | 36 282   | 142                           | 25 540  | 7 934                         | 3 219  | – 4.8  |
| 1944 | 35 228   | 145                           | 24 223  | 8 013                         | 3 023  | – 6.1  |
| 1945 | 36 351   | 155                           | 23 509  | 8 101                         | 2 902  | – 4.0  |
| 1946 | 42 294   | 174                           | 24 341  | 8 182                         | 2 975  | + 2.5  |
| 1947 | 46 930   | 178                           | 26 335  | 8 258                         | 3 189  | + 7.2  |

**Table 6: Economic activity by sector**

Source: Baptista et al. (1997)

**6A: Gross domestic product and main sectors (index base 1938 = 100)**

| Year | Gross domestic product | Agriculture | Mining and quarrying | Manufacturing | Construction | Electricity, gas, water and sewage | Trade, financial intermediation and rents | Transport and communication | Services |
|------|------------------------|-------------|----------------------|---------------|--------------|------------------------------------|---|-----------------------------|----------|
| 1938 | 100                    | 100         | 100                  | 100           | 100          | 100                                | 100                                       | 100                         | 100      |
| 1939 | 101                    | 105         | 105                  | 96            | 117          | 104                                | 101                                       | 102                         | 101      |
| 1940 | 95                     | 88          | 87                   | 93            | 115          | 108                                | 97  | 106                         | 103      |
| 1941 | 104                    | 107         | 92                   | 95            | 128          | 112                                | 104                                       | 110                         | 104      |
| 1942 | 102                    | 101         | 92                   | 95            | 152          | 110                                | 105                                       | 111                         | 105      |
| 1943 | 109                    | 114         | 93                   | 96            | 164          | 114                                | 110                                       | 118                         | 108      |
| 1944 | 115                    | 123         | 67                   | 103           | 167          | 121                                | 118                                       | 122                         | 109      |
| 1945 | 111                    | 104         | 60                   | 109           | 185          | 131                                | 115                                       | 121                         | 111      |
| 1946 | 119                    | 109         | 73                   | 122           | 225          | 150                                | 125                                       | 133                         | 113      |
| 1947 | 129                    | 123         | 74                   | 132           | 222          | 170                                | 134                                       | 151                         | 116      |

**6B: Disaggregation of manufacturing (index base 1938 = 100)**

| Year | Food, beverages and tobacco | Textiles, clothes and footwear | Wood, cork and furniture | Paper, publishing and printing | Rubber, plastics and chemicals | Coke and petroleum | Non-metallic mineral products | Metals, machinery and equipment | Other manufacturing |
|------|-----------------------------|--------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------|-------------------------------|---------------------------------|---------------------|
| 1938 | 100                         | 100                            | 100                      | 100                            | 100                            | 100                | 100                           | 100                             | 100                 |
| 1939 | 97                          | 87                             | 105                      | 106                            | 83                             | 800                | 117                           | 104                             | 96                  |
| 1940 | 100                         | 78                             | 87                       | 101                            | 93                             | 2200               | 115                           | 96                              | 93                  |
| 1941 | 103                         | 77                             | 92                       | 95                             | 86                             | 2200               | 128                           | 108                             | 95                  |
| 1942 | 108                         | 73                             | 92                       | 100                            | 89                             | 900                | 152                           | 106                             | 95                  |
| 1943 | 112                         | 78                             | 93                       | 109                            | 79                             | 100                | 164                           | 102                             | 96                  |
| 1944 | 108                         | 96                             | 67                       | 125                            | 102                            | 200                | 167                           | 98                              | 103                 |
| 1945 | 107                         | 103                            | 60                       | 128                            | 92                             | 1000               | 185                           | 107                             | 109                 |
| 1946 | 103                         | 122                            | 73                       | 132                            | 103                            | 3200               | 224                           | 122                             | 122                 |
| 1947 | 107                         | 131                            | 74                       | 138                            | 124                            | 6200               | 222                           | 143                             | 132                 |

## 7: Situation of the Portuguese banking system

Source: *Situação Bancária*, various issues (1939–1946), and *Estatísticas Financeiras* (1947).

### 7A – Situation of the Bank of Portugal (in million escudos)

| Year | Assets | Reserves | Credit | Deposits | Banknotes |
|------|--------|----------|--------|----------|-----------|
| 1938 | 4 621  | 2 120    | 1 532  | 1 071    | 2 279     |
| 1939 | 4 764  | 2 416    | 1 488  | 871      | 2 550     |
| 1940 | 5 525  | 2 893    | 1 475  | 1 318    | 2 903     |
| 1941 | 8 638  | 6 334    | 1 368  | 3 101    | 4 488     |
| 1942 | 13 151 | 10 837   | 1 436  | 6 538    | 5 481     |
| 1943 | 16 038 | 13 732   | 1 422  | 7 885    | 6 910     |
| 1944 | 18 416 | 16 347   | 1 284  | 9 713    | 7 642     |
| 1945 | 20 344 | 18 315   | 1 319  | 11 125   | 8 166     |
| 1946 | 20 848 | 18 705   | 1 397  | 10 961   | 8 793     |
| 1947 | 18 063 | 15 876   | 1 413  | 8 160    | 8 752     |

### 7B: Situation of commercial banks (in million escudos)

| Year | Number | Assets      | Reserves    | Credit      | Deposits    |
|------|--------|-------------|-------------|-------------|-------------|
| 1938 | 27     | unavailable | unavailable | Unavailable | unavailable |
| 1939 | 26     | 9 258       | 657         | 2 330       | 2 893       |
| 1940 | 25     | 10 799      | 990         | 2 405       | 3 548       |
| 1941 | 25     | 12 466      | 2 480       | 2 497       | 5 133       |
| 1942 | 26     | 15 641      | 3 538       | 2 991       | 6 839       |
| 1943 | 27     | 17 979      | 4 151       | 3 500       | 8 237       |
| 1944 | 27     | 20 937      | 4 821       | 4 281       | 9 988       |
| 1945 | 27     | 23 588      | 5 610       | 4 806       | 11 406      |
| 1946 | 26     | 26 642      | 5 359       | 6 500       | 12 753      |
| 1947 | 26     | 27 322      | 5 679       | 7 077       | 12 506      |

**7C: Situation of Caixa Geral de Depósitos (in million escudos)**

| Year | Assets | Reserves | Credit | Deposits |
|------|--------|----------|--------|----------|
| 1938 | 3 298  | 560      | 2 061  | 2 389    |
| 1939 | 3 583  | 482      | 1 852  | 2 794    |
| 1940 | 3 919  | 596      | 2 083  | 2 854    |
| 1941 | 4 600  | 1 407    | 1 956  | 3 467    |
| 1942 | 5 951  | 2 870    | 1 791  | 4 928    |
| 1943 | 6 273  | 3 163    | 1 814  | 5 326    |
| 1944 | 7 543  | 4 237    | 1 904  | 6 466    |
| 1945 | 8 433  | 4 599    | 2 401  | 7 249    |
| 1946 | 8 716  | 4 783    | 2 419  | 7 419    |
| 1947 | 8 755  | 3 405    | 3 511  | 7 445    |

**7D: Situation of savings banks (in million escudos)**

| Year | Number | Assets | Reserves | Credit | Deposits |
|------|--------|--------|----------|--------|----------|
| 1938 | 25     | 479    | 45       | 263    | 360      |
| 1939 | 25     | 488    | 57       | 261    | 359      |
| 1940 | 25     | 482    | 85       | 241    | 361      |
| 1941 | 25     | 507    | 134      | 219    | 383      |
| 1942 | 24     | 538    | 138      | 217    | 438      |
| 1943 | 24     | 601    | 156      | 249    | 497      |
| 1944 | 24     | 717    | 244      | 295    | 608      |
| 1945 | 23     | 798    | 211      | 393    | 681      |
| 1946 | 24     | 868    | 157      | 505    | 749      |
| 1947 | 24     | 819    | 156      | 448    | 694      |



**Table 8: Discounting and protesting of bills**Source: *Estatísticas Financeiras* (1947).

| Year | Discounts  |                 | Protests   |                 |
|------|------------|-----------------|------------|-----------------|
|      | 1000 bills | Million escudos | 1000 bills | Million escudos |
| 1938 | 2 434      | 7 531           | 38         | 91              |
| 1939 | 2 566      | 7 671           | 40         | 84              |
| 1940 | 2 662      | 8 632           | 33         | 79              |
| 1941 | 2 666      | 8 338           | 29         | 68              |
| 1942 | 2 363      | 8 414           | 15         | 50              |
| 1943 | 2 271      | 8 973           | 14         | 44              |
| 1944 | 2 444      | 11 131          | 17         | 74              |
| 1945 | 2 646      | 13 290          | 24         | 91              |
| 1946 | 3 207      | 17 108          | 26         | 95              |
| 1947 | 3 696      | 20 914          | 40         | 181             |

**Table 9: Issues of shares and bonds (in million escudos)**

Source: *Estatísticas Financeiras* (1947).

| Year | Issues of shares | Issues of private bonds | Issues of public bonds | Total |
|------|------------------|-------------------------|------------------------|-------|
| 1938 | 59               | 2                       | 47                     | 108   |
| 1939 | 54               | 6                       | 52                     | 112   |
| 1940 | 155              | 38                      | 23                     | 216   |
| 1941 | 126              | 77                      | 229                    | 432   |
| 1942 | 269              | 102                     | 1 570                  | 1 941 |
| 1943 | 367              | 28                      | 888                    | 1 283 |
| 1944 | 522              | 128                     | 776                    | 1 426 |
| 1945 | 806              | 84                      | 610                    | 1 500 |
| 1946 | 570              | 351                     | 794                    | 1 715 |
| 1947 | 696              | 58                      | 6                      | 760   |

**Table 10: Formation and dissolution of companies**Source: *Estatísticas Financeiras* (1947).

| Year | Formation of companies |                                 | Dissolution of companies |                                 |
|------|------------------------|---------------------------------|--------------------------|---------------------------------|
|      | Number                 | Capital<br>(million<br>escudos) | Number                   | Capital<br>(million<br>escudos) |
| 1938 | 1 258                  | 98                              | 337                      | 52                              |
| 1939 | 1 169                  | 67                              | 294                      | 41                              |
| 1940 | 1 176                  | 102                             | 310                      | 37                              |
| 1941 | 1 740                  | 188                             | 326                      | 43                              |
| 1942 | 1 831                  | 305                             | 385                      | 44                              |
| 1943 | 2 073                  | 287                             | 397                      | 28                              |
| 1944 | 2 563                  | 395                             | 372                      | 36                              |
| 1945 | 2 599                  | 610                             | 444                      | 44                              |
| 1946 | 3 266                  | 367                             | 491                      | 38                              |
| 1947 | 3 000                  | 628                             | 480                      | 53                              |

**Table 11: Mortgages**

Source: *Estatísticas Financeiras* (1947).

| Year | Mortgages<br>(1000) | Mortgage credit<br>(million escudos) |
|------|---------------------|--------------------------------------|
| 1938 | 23                  | 356                                  |
| 1939 | 23                  | 341                                  |
| 1940 | 20                  | 301                                  |
| 1941 | 19                  | 274                                  |
| 1942 | 15                  | 361                                  |
| 1943 | 14                  | 437                                  |
| 1944 | 14                  | 538                                  |
| 1945 | 17                  | 638                                  |
| 1946 | 19                  | 896                                  |
| 1947 | 18                  | 1 281                                |

**Table 12: Insurance**Source: *Anuário Estatístico*, various issues (1938–1947).

| Year | Insurance companies (number) | Insured capital (million escudos) | Premiums covered (million escudos) | Indemnities paid (million escudos) |
|------|------------------------------|-----------------------------------|------------------------------------|------------------------------------|
| 1938 | 75                           | 38 396                            | 188                                | 73                                 |
| 1939 | 75                           | 40 996                            | 217                                | 67                                 |
| 1940 | 74                           | 45 138                            | 267                                | 79                                 |
| 1941 | 75                           | 49 398                            | 323                                | 129                                |
| 1942 | 80                           | 57 935                            | 424                                | 101                                |
| 1943 | 85                           | 66 338                            | 483                                | 169                                |
| 1944 | 85                           | 75 742                            | 529                                | 185                                |
| 1945 | 86                           | 84 293                            | 510                                | 225                                |
| 1946 | 87                           | 99 675                            | 613                                | 289                                |
| 1947 | 86                           | 117 667                           | 710                                | 373                                |

**Table 13: State accounts (in million escudos)**

Source: Valério (1994).

| Year | Effective revenue | Expenditure | Public surplus (+) or deficit (-) | Public debt revenue | Total revenue | Increase (+) or decrease (-) in liquid assets |
|------|-------------------|-------------|-----------------------------------|---------------------|---------------|---|
| 1938 | 2 250             | 2 289       | - 39                              | 47                  | 2 297         | + 11  |
| 1939 | 2 169             | 2 389       | - 220                             | 52                  | 2 221         | - 168   |
| 1940 | 2 218             | 2 415       | - 197                             | 23                  | 2 241         | - 174   |
| 1941 | 2 443             | 2 815       | - 372                             | 229                 | 2 672         | - 143   |
| 1942 | 2 967             | 2 953       | + 14                              | 1 570               | 4 537         | + 1 584                                       |
| 1943 | 3 259             | 3 973       | - 714                             | 888                 | 4 147         | + 174   |
| 1944 | 3 373             | 3 663       | - 290                             | 776                 | 4 149         | + 486   |
| 1945 | 3 333             | 3 897       | - 564                             | 610                 | 3 943         | + 46  |
| 1946 | 3 900             | 4 616       | - 716                             | 794                 | 4 694         | + 78  |
| 1947 | 4 304             | 5 675       | - 1 371                           | 6                   | 4 310         | - 1 365                                       |

**Table 14: Public debt market issues**

Source: Valério (1994).

| Year | Total | Consolidated<br>3.75% 1936 |              | Redeemable<br>3.5%<br>1938–1941 |              | Consolidated<br>3.5% 1941 |              | Consolidated<br>3% 1942 |              | Redeemable<br>2.5%<br>1942–1946 |              | Consolidated<br>2.75% 1943 |              |
|------|-------|----------------------------|--------------|---------------------------------|--------------|---------------------------|--------------|-------------------------|--------------|---------------------------------|--------------|----------------------------|--------------|
|      |       | Rev-<br>enue               | Nom-<br>inal | Rev-<br>enue                    | Nom-<br>inal | Rev-<br>enue              | Nom-<br>inal | Rev-<br>enue            | Nom-<br>inal | Rev-<br>enue                    | Nom-<br>inal | Rev-<br>enue               | Nom-<br>inal |
| 1938 | 47    | 18                         | 17           | 32                              | 30           | 0                         | 0            | 0                       | 0            | 0                               | 0            | 0                          | 0            |
| 1939 | 52    | 45                         | 42           | 11                              | 10           | 0                         | 0            | 0                       | 0            | 0                               | 0            | 0                          | 0            |
| 1940 | 23    | 21                         | 20           | 3                               | 3            | 0                         | 0            | 0                       | 0            | 0                               | 0            | 0                          | 0            |
| 1941 | 229   | 43                         | 40           | 189                             | 180          | 0                         | 0            | 0                       | 0            | 0                               | 0            | 0                          | 0            |
| 1942 | 1 570 | 0                          | 0            | 265                             | 255          | 500                       | 459          | 700                     | 656          | 200                             | 190          | 0                          | 0            |
| 1943 | 888   | 0                          | 0            | 0                               | 0            | 0                         | 0            | 500                     | 499          | 50                              | 47           | 357                        | 342          |
| 1944 | 776   | 0                          | 0            | 0                               | 0            | 0                         | 0            | 251                     | 250          | 500                             | 477          | 51                         | 49           |
| 1945 | 610   | 0                          | 0            | 0                               | 0            | 0                         | 0            | 26                      | 27           | 300                             | 296          | 294                        | 287          |
| 1946 | 794   | 0                          | 0            | 0                               | 0            | 0                         | 0            | 184                     | 187          | 270                             | 268          | 344                        | 339          |
| 1947 | 6     | 0                          | 0            | 0                               | 0            | 0                         | 0            | 0                       | 0            | 0                               | 0            | 6                          | 6            |