

## At the great crossroads of the world: Safe haven, traffic hub: the port of Lisbon during World War II

Maria Fernanda Rollo  
Universidade Nova de Lisboa

### Resumen

El puerto de Lisboa fue un espacio importante durante la II Guerra Mundial y como tal cumplió un papel de relevancia en ese contexto. La neutralidad portuguesa y su privilegiada situación geográfica le dieron proyección mundial como puerto de abrigo y como muelle de pasaje.

En la encrucijada del mundo, en la que se revalorizó, fue espacio de vivencias cruzadas y de nuevas cotidianidades, lugar de encuentros, línea de contactos, camino de fugas, lugar de exilio y refugio, o apenas de paso; confluencia de culturas, religiones, sensibilidades; acogió y generó complicidades, solidaridades humanas, dinámicas sociales, experiencias culturales. Fue zona de cambio, quizá un escenario de modernidad. Fue un centro mundial, denso, intenso, universal, cosmopolita.

El puerto de Lisboa procuró seguir rentabilizando y beneficiándose de las características, por otra parte excepcionales, de su posición histórica de puerto natural, el más importante del panorama nacional. Y lo hizo compaginándolo con una inversión relativamente modesta en su modernización, reflejo de una tensión creciente, que el contexto de la guerra y la posición de Portugal frente al conflicto acentuaría, por la inevitable adopción de las capacidades con las que contaban los puertos artificiales y por el tiempo de cambio que se adivinaba.

**Palabras clave:** Portugal, Porto de Lisboa, II Guerra Mundial, Economía portuguesa.

**Códigos JEL:** L8, L9, N7, R4.

### Abstract

The port of Lisbon has played a rather important role, at a planetary scale, within the context of World War II, due to its neutrality and to the geographic location of the country. It was a safe haven and a traffic hub.

Standing at the great crossroads of the world, Lisbon provided the backdrop to the exchange of experiences, new routines, a place for encounters and for the establishment of networks, an escape route, a place for exile or for transit alone; a meeting point for cultures, religions, worldviews; it harboured and generated complicities, human solidarity, social dynamics, and cultural experiences. It was a place of evolution, a stage for modernity. It was a true centre of the world, dense, intense, universal and cosmopolitan.

The port of Lisbon sought to keep on profiting from the unique advantages of its position as a natural port, the most important one nation-wise, by combining those benefits with relatively scarce investment in its modernisation. This attitude reflected a growing tension, further heightened by the conflict and Portugal's standing, that was brought about by the inevitable need to adopt new standards that were becoming common practice in artificial ports, and the time of change that lied ahead.

**Key words:** Portugal, Port of Lisbon, II World War, Portuguese economy.

**JEL Codes:** L8, L9, N7, R4.

## At the great crossroads of the world: Safe haven, traffic hub: the port of Lisbon during World War II

[Fecha de recepción del original: 25-03-2013; versión definitiva 31-07-2014]

**Maria Fernanda Rollo**

Instituto de História Contemporânea. Faculdade de Ciências Sociais e Humanas.  
Universidade Nova de Lisboa

*Through the Tagus, one reaches out to the whole world*<sup>1</sup> (Fernando Pessoa).

“Pelo Tejo vai-se para o Mundo” Fernando Pessoa

“Es Lisboa uma otava maravilla.  
De las entrañas de España,  
(...)  
Nace el caudaloso Tajo,  
(...) antes que pierda  
su curso y su claro nombre  
hace un cuarto entre dos sierras,  
donde está[n] de todo el orbe  
barcas, naves, caravelas.  
Hay galeras y saetias  
tantas que desde la tierra  
parece una gran ciudad  
adonde Neptuno reina.  
(...)”

Y sobre todo, el llegar  
cada tarde a su ribera  
mas de mil barcos cargados  
de mercancías diversas  
y de sustento ordinario,  
pan, aceite, vino y leña,  
frutas de infinita surte  
nieve de sierra de Estrella,  
que por las cales á gritos,  
puesta sobre las cabezas,  
la venden. Mas, ¿qué me canso?  
porque és contas las estrelas  
querer contar una parte  
De la ciudad opulenta”<sup>2</sup>

Tirso de Molina, El Burlador de Sevilla

### 1. Introduction

The Second World War further emphasised the peripheral role of some traditional Portuguese ports and raised the relevance of the port of Lisbon within the context of

---

<sup>1</sup> “Through the Tagus, one reaches out to the whole world”.

<sup>2</sup> “Lisbon is an eight wonder/ of the entrails of Spain (...)/ The large Tagus is born/ (...) before it loses/ its direction and clear name/ it draws a port between two mountain chains/ Where from all the world rest/ boats, vessels, caravels/ there are galleys and *saetias*/ In such a great number that from land/ it looks like a great city/ where Neptune reigns.(...)/ And above all, arriving/ each afternoon at its shore/ more than a thousand boats filled/ with different cargos/ of everyday need/ Bread, olive oil, wine and firewood/ Fruits of endless variety/ Snow from the Estrela mountains/ Which is sold through the streets/ placed over the heads/ But, why do I even bother?/ Recounting even just a part of this opulent city/ is like trying to count stars”.

international navigation, thus confirming a tendency that had become noticeable since the 19<sup>th</sup> century, in Portugal and in other countries alike. The phenomenon combined the evident and decisive natural selection between ports, measured in terms of traffic of large passenger and cargo vessels that required ample and deep ports and adequate ancillary structures, and the particular circumstances that had emerged from the conflict and its aftermath, provided the neutrality of Portugal and the strategic location of Lisbon.

The port of Lisbon is one of the most important European trading hubs between South Western Europe, Western and Central Europe, the Mediterranean, Africa, Asia and Latin America, with a long historical record, dating back to the early years of European expansion in the 15<sup>th</sup> and 16<sup>th</sup> centuries, when Lisbon was one of the most important port cities worldwide.

With the signs of the grandeur of the past still visible in the urban architecture, and its cultural and historic heritage, Lisbon reinvents and reasserts itself, across the 50 km of the wide estuary of the Tagus, on its strategic location at the crossroads of multiple routes. As a natural gate to an overwhelmingly vast economic space that stretches from the Atlantic to the Urals, that connects the Mediterranean and Northern Europe, and as a stronghold placed at a central point between Europe, Africa, America and the Far East, Lisboa was the link between the two sides of the war... A traffic hub, a safe haven, a 'universal port'.

The war, in a certain way, accelerated the passage of time and the transition from a system of natural ports, where Portugal had slowly thrived, to the era of artificial ports, with facilities and equipments adequate to the new roles entrusted upon the port activities as a result of the new patterns and demands of navigation and international trade.

This paper studies the extent to which the changes to the activities and the administration of ports during wartime were significant in Portugal and particularly in Lisbon, as they reflected the city's geostrategic location, the political options adopted by the New State throughout the conflict, the economic profile and behaviour of the country, considering the nature of its system of ports and the features of its main ports (particularly, the favourable natural conditions offered by the main port, Lisbon).

On the other side, it aims at understanding, the port of Lisbon has played a rather important role, at a planetary scale, within the context of World War II, due to its neutrality and to the geographic location of the country. It was a safe haven and a traffic hub. Standing at the great crossroads of the world, Lisbon provided the backdrop to the exchange of experiences, new routines, a place for encounters and for the establishment of networks, an escape route, a place for exile or for transit alone; a meeting point for cultures, religions, worldviews; it harboured and generated complicities, human solidarity, social dynamics, and cultural experiences. It was a place of evolution, a stage for modernity. It was a true centre of the world, dense, intense, universal and cosmopolitan.

Several studies have shown how war brought about deep changes in Portugal<sup>3</sup>, as it confronted the country, under the authoritarian rule of Oliveira Salazar, with the need to

---

<sup>3</sup> Historiography devoted to the study of the impact of War in Portugal is extensive and deep, as it will be explained further ahead.

adopt adequate policies and practices in light of the strong economic and political dependency upon the exterior, as well as of the tensions and changes that foreseeably would be introduced by the post-war period. It will be attempted to show, within a historical analysis based on the study of sources related to its activity<sup>4</sup>, how the port of Lisbon sought to keep on profiting from the unique advantages of its position as a natural port, the most important one nation-wise, by combining those benefits with relatively scarce investment in its modernisation. It will also be argued that this attitude reflected a growing tension, further heightened by the conflict and Portugal's standing, that was brought about by the inevitable need to adopt new standards that were becoming common practice in artificial ports, and the time of change that lied ahead, which would emerge in the post-war period, arousing other tensions and presenting new challenges.

## 2. Historical memory of the Port of Lisbon

At the beginning of the 20<sup>th</sup> century, the port of Lisbon, based on its natural conditions, provided a Portuguese foot on the great Atlantic routes, both as regards cargo and passenger traffic, benefitting from the large Tagus estuary that stretched over 50 kilometres, with ample inner space, and with a navigable width of 2 to 14 km, and a total underwater surface of 32 500 hectares, notably the area known as Mar da Palha, which includes the shores of 11 municipalities. Its official limits are marked by the lighthouses of S. Julião da Barra and Bugio, downstream, and the bridge over the Tagus by Vila Franca de Xira, upstream<sup>5</sup>.

The port of Lisbon had undergone some interventions before the 20<sup>th</sup> century<sup>6</sup>, in particular the works assigned to a French contractor, Pierre Hildenert Hersent, which began in 1887, in Alcântara –in 1897, Hersent was granted the right to explore the port for ten years, through a new contract.

When that concession ended, in 1907, the port of Lisbon was placed under autonomous management, carried out by Administração do Porto de Lisboa (APL), while the same law of 11<sup>th</sup> March created Autonomous Commissions for the other ports. When the first Portuguese port was handed over to the state for it to pursue its economic exploration, the state had very limited capabilities to carry out such endeavour; actually, even during World War I<sup>7</sup> the large passenger ships that stopped at the estuary had their passengers transported onto the shore in rather pedestrian boats<sup>8</sup>. In 1907, a second stage of interventions in the port started, and it included the building of several kilometres of

---

<sup>4</sup> There is no remarkable historiographical production specifically devoted to the study of the impacts of World War II in the Port of Lisbon.

<sup>5</sup> See on the port of Lisbon for the period prior to World War II, Bebiano (1960); Coelho (1928); Coelho (1929); Matos (1900), pp. 418-430; Pedroso (1931), pp. 78-94; Perestrelo (1931).

<sup>6</sup> Vd. Loureiro (1893), pp. 417-455; "O Porto de Lisboa. Nomeação e relatório da comissão ultimamente encarregada de dar parecer sobre os melhoramentos deste porto" (1905), pp. 281-304.

<sup>7</sup> On the impact of World War I, see, Pires (2011).

<sup>8</sup> This problem would only be partly solved in 1930, after docking at the harbours of the port of Lisbon was made mandatory to all ships that entered that port carrying passengers. *Boletim do Porto de Lisboa*, no. 297 *Gares Marítimas – Sua História*.

docks and other ancillary works (slopes, earthworks), storing facilities, a dry dock, stations. The model adopted in Lisbon, which was an innovation as regards port administration (only later was it adopted by other major ports, such as London, through the Port of London Authority Act, 1909), would later be extended to others, through the 'Law of Ports' (decree-law no. 12 757, of 2<sup>nd</sup> December, 1926) that classified Lisbon, as well as Douro-Leixões, Funchal and Ponta Delgada, as 1<sup>st</sup> class ports, as they were at either end or in the middle of great navigation routes and important networks of domestic communication, with a high level of traffic of cargo or passengers, and placed them exclusively under the administration of the state<sup>9</sup>.

In 1921, the port of Lisbon offered 6584 metres of harbour where ships could dock, an area of 80 000 square metres covered by warehouses and rooftops, more than 50 electric, hydraulic and steam-powered cranes. Also in this period, there were interventions in the tidal docks of Bom Sucesso, Belém, Santo Amaro, Alcântara, Alfândega and Terreiro do Trigo, two dry docks and ramp where the Rocha shipyard was installed. The Alcântara dock was especially suited for ships of great draft. The so-called 3<sup>rd</sup> section of the port (Santa-Apolónia-Poço do Bispo) was organised by the 1929 plan of ports<sup>10</sup>, to which were added some endowments by law no. 1923 of 17<sup>th</sup> December, 1935, with new harbours and embankments, the Santos commercial dock, the Alcântara station, the Pedrouços fishing port and the Poço do Bispo dock. As regards construction works inland, we should mention the maritime stations of Alcântara and Rocha do Conde de Óbidos, the great warehouses of North Alcântara trading post, the river stations of Belém and Terreiro do Paço and the refrigerating warehouses of the Oversight Commission of the Trade of Cod, as well as the rather important adaptation, in 1936, of the operation of APL's shipyard to Companhia União Fabril, where several vessels intended for fishing cod, and tugboats were built. In the following year, two sailing ships christened Santa Maria Manuela and Creoula were released onto the water, both for the purpose of cod fishing. They were built in steel and moved on dual propulsion: sail and helix. Each ship had capacity to carry roughly 60 men and 540000 kilograms of fish.

### 3. Portugal and the Second World War

The wartime years and the post-war period left an indelible mark with enduring consequences in the Portuguese society<sup>11</sup>.

---

<sup>9</sup> See on organization and port policies for the period prior to World War II, Alegria (1985), pp. 1-29 and Prata, (2008).

<sup>10</sup> The first Plan for Ports, launched in 1929, determined to carry out major works in the ports of Lisbon and Leixões (succeeding in both new specific plans), and building interventions or improvements in the ports of Viana do Castelo, Póvoa de Varzim, Aveiro, Figueira da Foz, Peniche, Setúbal, Vila Real de Santo António, Funchal and Ponta Delgada. The interventions were prepared by the decree 17047 of June 1929, authorizing the government to borrow a loan for remodeling of national port infrastructure. It emerged then an effective action plan, a phase of the National Port Plan. See *Diário do Governo*, nº 227, Série I, de 3 de Outubro de 1929.

<sup>11</sup> On the impact of the Second World War in Portugal see: Telo (1991); Rosas (1990); Rollo (2007); Rollo (2006), pp. 115-153; Rollo (2009), pp.71-107. See as a paper more focused on seaport questions in the second half of the twentieth century: Dias and Alves (2002).

The Second World War, in spite of Portugal's neutrality, was a turning point for the country –as to all countries directly or indirectly affected by the conflict and, in general terms, in the international order itself– as it triggered a serious political crisis that affected the New State, imposing a redefinition of the path and rhythm of the economic governance of the country.

Initially, Portugal's ambiguous neutrality placed it in a somewhat frail position within the international scene, but a second stage followed, of cooperating neutrality toward the allies' side, which benefitted the country. The support from the allies was essential to the survival of the New State, notably as, at the same time, the victory of the western democracies provided a renewed momentum to the opposition, which grew stronger in its struggle against Oliveira Salazar's dictatorship.

During the conflict, it was impossible even to a neutral country to escape the need to impose a strict control over its economic activity, in order to cater for its essential needs and to minimise the most nefarious effects of total war in the everyday economic and financial life of the country; in the Portuguese case, it clearly made it impossible to maintain the “existing normality”<sup>12</sup>, which had been pointed out by the government as the goal of its strategy at the onset of hostilities, and required the organisation of a true wartime economy, along with a wider degree of state intervention in the economic life. The situation demonstrated the strong reliance of the domestic economy in relation to foreign trade (notably, as regards supplies), denounced a number of relevant structural vulnerabilities that were present in the Portuguese economic reality as regards the nature and makeup of its productive sector.

Apart from that, the years of war witnessed an exceptional accumulation of gold and currency in the Portuguese central bank, considerable wealth in the national treasury and a substantial rise in bank deposits, along with low levels of domestic investment, enabling the country to hold, once the conflict ended, a rather comfortable financial situation, which strongly opposed that of most European countries that were involved in the war. The situation resulted in an outstanding rise in fiduciary circulation and arose from the combination of a number of factors, particularly the introduction of capital (both new, returned and brought in by the refugees), the influx of currencies, which raised the reserves (especially through purchases and investments made by the belligerents) and the rise in invisible revenues. In addition to those and other revenues and the results of its past financial situation, Portugal was creditor to the UK by roughly 80 million pounds. Further to that, the bank system also enjoyed the positive results of wartime business, particularly the revenues from smuggling and those coming from illegal circuits, such as the black market.

All this wealth, held by the state, the banking system, and in private savings made up a significant war spoil; however, its use in productive investments remained limited –though it enabled the country to look forward to the years ahead with a fair degree of

---

<sup>12</sup> Without daring to predict the extension of the conflict and all its consequences, the Government has set forth, from the first moment, the goal of maintaining, as far as possible, the existing normality (...) Salazar (1959), p. 322.

serenity as far as the financial resources of the state were concerned, they turned out to be insufficient and were spent in a relatively short time.

The authors have pointed out the image of prosperity that briefly resulted from the war. Similarly, the importance of some of its positive effects has been highlighted, though they also mention that the opportunities were far from being fully exploited. Apart from that, it is often concluded, from the available economic data, that the World War II period was insignificant in terms of growth, when compared to other countries that, like Portugal, maintained their neutrality during the war. In fact, the country became wealthier, but saw little actual growth.

**Table 1.**  
**Average yearly GDP, population and GDP per capita growth rate (%)**

Years	Portugal			EU – 15		
	GDP	Population	GDP <i>per capita</i>	GDP	Population	GDP <i>per capita</i>
1939-1946	2	0.9	1	-2.6	0.4	-3
1946-1950	3.4	1	2.4	7.1	1	6
1950-1960	3.7	0.4	3.3	4.9	0.7	4.1
1960-1973	6.4	-0.2	6.7	4.8	0.8	4

Source: Silva Lopes (2002), p. 276.

The idea of a relative benefit that was only based on circumstances and globally modest, from the opportunities provided by the war, should be pondered in light of the existing conditions of the domestic economic structure and the difficulties in acquiring equipments and technologies from foreign countries, but also bearing in mind the overwhelming weight of the state and its economic policies<sup>13</sup>.

The concern and the action of the state in order to maintain the monetary and financial stability, hold back the inflation, preserve a balanced budget, had hampering effects on economic activities. The need to raise revenues, notably through taxes on war profits and through taxes on external trade, the pursuit of a financial policy focused on holding prices and salaries down and limiting demand through the purchasing power, is somewhat to blame for the weak economic outcome of domestic production during the war, as under other circumstances.

Such situation brought about a debate on the elements of the Portuguese economy that raised consciousness of the limits posed by its weak performance in terms of production, particularly revealing frailties in its industrial sector, paving the way for the acceptance and approval of a plan of economic modernisation that relied chiefly on a program of

<sup>13</sup> On this specific conjuncture and the period that succeed it, Rollo (2007).

expansion of the electric grid (law no. 2002) and on the acceptance of a program of industrialisation (law no. 2005) from 1944 to 1945<sup>14</sup>.

Within that context also, one may highlight the great relevance of transports in the options and investments, combining features of the industrial sector and that of the services<sup>15</sup>.

The frailties of the domestic means of transport and the external dependency regarding it, all throughout World War II, granted the issue a position of undisputable priority. It is therefore no wonder the sector was thoroughly reconsidered and saw a significant number of political decisions, including the strategy for the sector of ports –notably for the port of Lisbon.

In reality, one of the most dramatic aspects that became evident as soon as the war ended was the well-known insufficiency and obsolete nature of the Portuguese merchant navy, which became an even more pressing issue, as it had long been overlooked, in terms of investment, in favour of the war navy. This circumstance heightened the difficulties posed by the war, particularly considering that, in addition to the high level of external dependency as regards practically all supplies, including essential goods (foodstuff, raw materials, fuel and equipments), nearly 90% of the Portuguese external trade was made through sea, and from that, 80% was carried by foreign ships. Thus, in October, 1939 the Government provided for the creation of the National Merchant Navy Commission (Junta Nacional da Marinha Mercante, JNMM), to which it entrusted the state control over the merchant navy, and launched a significant effort toward renovating the national fleet that involved the activity of the two main Portuguese shipyards (the Alfeite Arsenal and the shipyards of the Administration of the port of Lisbon, leased to CUF since 1936). After the creation of JNMM, other legislative measures followed, guaranteeing the intervention of the state in the sector, imposing the assignment of at least 75% of the net profit of the shipping companies to the constitution of "Funds of Acquisition of Ships ". The strategy would result, by the end of the war, in August 1945, in the Plan of Renovation of the National Merchant Navy Fleet<sup>16</sup>.

As regards the issue of ports, one must highlight the approval, in September 1944, of the second stage of the Plan of Ports<sup>17</sup> and the adoption of specific measures for the port of Lisbon, largely in an attempt to react to the circumstances that directly influenced the activity of the port throughout the war and the perception of its impacts on a domestic scale.

---

<sup>14</sup> Vd. Rollo (2012), pp. 39-77.

<sup>15</sup> Vd. Rollo (2006).

<sup>16</sup> The Fleet Renewal Plan of the National Merchant Navy was subject of the dispatch n.º 100 published by the Navy Minister Américo Tomás, (Despacho n.º 100/45, Renovação e Expansão da Frota Mercante Nacional. Despachos do Ministro da Marinha Almirante Américo Thomaz, Lisboa, 1958, pp. 7-15.). The following year was created a special Fund for the Merchant Fleet Renoval (Law-decree n.º 35 876, DG, I Série, n.º 217, de 24 de Setembro de 1946) for support the execution of the renovation programme of the naval fleet eight decrees were issued n.º 35 009 and n.º 35 956, DG, I Série, n.ºs 228 e 263, de 13 de Outubro de 1945 e 19 de Novembro de 1946).

<sup>17</sup> The Decree-law no. 33 922 established the groundwork for the intervention of the 2nd stage of the plan of ports, DG, I Series, no. 197, 5<sup>th</sup> September, 1944.

#### 4. The port of Lisbon during the war

“... as this port played its role during the conflagration that spread throughout the earth and as it has fulfilled in this conflict the duties of neutrality that were entrusted upon it, equally serving the belligerents and neutrals, and complying with the guidelines of our nation’s government”.

Report of the administration of the port of Lisbon, (1945).

Using the condition of declared neutrality, Portugal maintained strong economic and trade relations with the two sides of the conflict, offering, moreover, a privileged space for the international commercial maritime traffic<sup>18</sup>. This situation was obviously felt very significantly activity of the largest Portuguese port. And indeed, though “deficient in harbours, wet and dry docks, railways, cranes, warehouses, silos and pneumatic cleaners, tugboats, dredges, derricks, etc., the port of Lisbon managed to collect significant revenues during the war that were rather useful to the economy of the nation and even to the world”<sup>19</sup>.

Everything was traded and circulated through the port of Lisbon; diplomats, prisoners of war, persons and goods travelled to and from both sides of the war.

Lisbon and its port was a safe haven and point of transit for many refugees<sup>20</sup>; mailbags, medicines, garments, foodstuffs and other products intended for prisoners of war, particularly those managed by the International Red Cross and its Portuguese counterpart, were shipped through this location. The Administration of the port of Lisbon, in fact, participated in the humanitarian relief efforts, in particular by facilitating the activities of the relief institutions and by reducing the cost of storage of goods for them, along with other forms of support. The space occupied by the goods of the International Red Cross was at the expense of many other cargos that, at a loss of revenue for the port of Lisbon, had to be stored elsewhere. Such reasons, along with the lack of funds and with enough freedom of action to act quickly, led AGL to allow Companhia Suíça de Navegação, Ltd, and Sociedade Geral de Superintendência, Ltd, as representatives of the Swiss Government in Portugal, to build warehouses in the parcel of the port from Santa Apolónia to Matinha, and to use –along with other firms– other warehouses, duly served by customs, located outside of the perimeter of the port.

During the war, 41683 people passed through the port of Lisbon, including diplomats, prisoners and refugees, with their entire luggage: 13580 diplomats, 24001 prisoners and 4102 refugees.

---

<sup>18</sup> Ver Telo (1991) and Rosas (1990).

<sup>19</sup> *Relatório da Administração do Porto de Lisboa*, 1944, 1945, p. 7.

<sup>20</sup> On the refugee question in Portugal see, Pimentel (2006), *Judeus em Portugal durante a II Guerra Mundial*, Esfera dos Livros.

Table 2. Port of Lisbon 1936-1945 (conto = 1000 escudos)

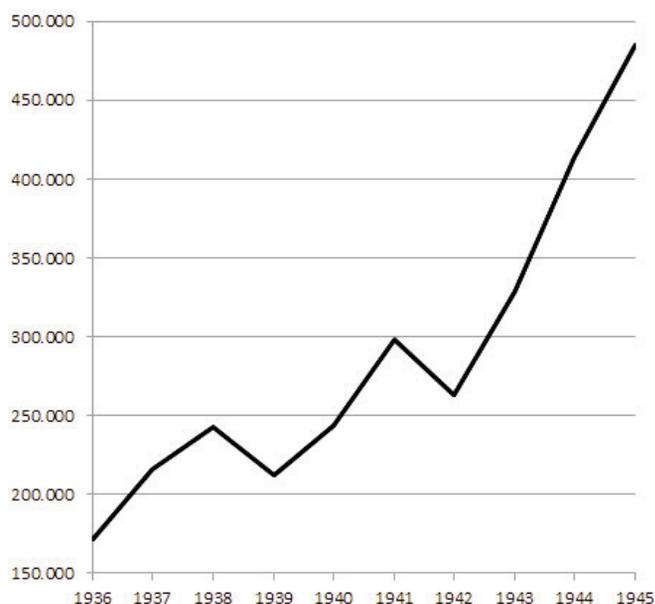
Year	Annual ordinary budget revenues charged (contos)	Ship traffic		Cargo traffic		Global economic activity	Annual net result (contos)	Personnel (contos)	Net worth of the port (contos)	Annual improvements (contos)	Equipment (contos)
		Entradas (gross tonnage)	Exits (tonnage)	Entries (tonnage)	Exits (tonnage)						
1936	30 164	13 078 503	2 386 535	1 544 626	100	8 854	13 309	452 615	8 872	1 141	
1937	32 736	13 755 566	2 861 349	1 694 918	110	8 810	13 481	466 644	10 439	4 432	
1938	31 276	13 444 200	2 516 619	1 463 239	102	7 304	13 403	495 698	20 285	1 586	
1939	30 811	11 514 551	2 540 596	1 541 756	103	6 178	13 377	511 707	15 127	1 169	
1940	34 713	6 032 720	2 309 523	1 585 149	101	7 268	13 374	523 744	15 945	487	
1941	44 719	4 001 084	2 535 310	1 705 755	109	12 559	14 572	539 215	7 988	1 009	
1942	40 844	3 383 849	2 452 744	1 759 793	110	9 491	14 138	550 192	5 541	1 501	
1943	44 170	2 886 736	2 379 615	1 498 952	109	11 500	15 469	566 885	15 178	7 377	
1944	49 928	3 046 530	2 681 347	1 404 081	113	7 722	20 212	588 617	17 676	720	
1945	62 344	3 773 470	2 323 316	1 730 139	109	16 401	23 107	617 388	22 840	1 658	

Source: Relatórios da Administração do Porto de Lisboa. Contas e Elementos Estatísticos, 1936 a 1944 e Relatório. Contas do ano de 1945, Vol. I, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, 1947, pp. 9-10.

As regards bags of mail to prisoners of war, 789724 volumes were carried through the port of Lisbon during the war, with a total weight of 22391927 kg.

The amount of goods with a foreign destination circulated during the five years of war through the port of Lisbon, indistinctly in transit, re-export or transfer, reached 13526761 volumes, of which 7690160 went through the several warehouses and 5836610 through warehouses with customs. The total weight was 2033744133 kg, 1451811136 kg through trading posts and 581962997 kg through warehouses with customs.

**Graphic 1.**  
**Annual movement of funds (1936-1945). Results (in contos)**



Source: *Relatório. Contas do ano de 1945*, Vol. I, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, 1947, p. 11.

The port of Lisbon was also a centre of support, rescue and repair to ships. One should cite the example of the rescue of the English ship *Empire Brutus*, the salvation of *Siva*, stranded off the coast of Caparica, and the Greek ship *Hadiotis*, stranded on rocky bottom at the port of Leixões. All of them were fixed in Lisbon and returned to the sea.

On the whole, 9 foreign ships were rescued by the port of Lisbon (1 American, 4 English, 1 Greek, 2 Spanish, and 1 Swiss), including rescue, medical, fire fighting, refloating and towing operations; and services were provided to 3 seaplanes (2 English and 1 American) –towing and recovery of bodies and wreckage of the sunken aircrafts.

151 ships belonging to 23 different foreign nations were docked: Denmark (5), Norway (7), Sweden (10), United States of America (1), Greece (28), Italy (1), Brazil (3), Finland (5), Latvia (1), Belgium (6), Netherlands (3), Yugoslavia (4), United Kingdom (19), Romania (1), Iceland (2), Switzerland (36), Panama (3), Spain (11), Argentina (1), France (1), Monaco (2), Poland (1), which occupied the docks of the port of Lisbon for 1012 days. Some of these vessels underwent significant repairs, as a result of serious damage from running aground or torpedoes.

71 other ships from 18 nations, instead of resorting to a dry dock, were repaired while floating at the shipyard of the Administration of the port of Lisbon. One should further add the repairs on foreign ships undertaken at the shipyard belonging to the firm H. Parry & Son, Ltd, on the port of Lisbon.

The outbreak of war had immediate results in the activity of the port of Lisbon, both as regards traffic and in terms of its economic activity, as well as in the whole of the Portuguese economy, which suffered from inflationary pressure, in spite of the relatively successful efforts of the government to contain prices within relatively modest and controlled levels.

The consequences of rising prices in the port economy became evident throughout the period, with a tendency towards its aggravation at the end of the war and even thereafter.

According to AGL estimates, from the data on average prices provided by the Bank of Portugal, the impact of the rising costs of materials reflected as follows:

**Table 3.**  
**Results applied to materials**

Year	Result applied to materials (contos)	Coefficient of devaluation	Losses for devaluation (contos)
1939	8 963	0	-
1940	10 803	0.3007	3 248
1941	18 227	0.3976	7 247
1942	14 272	0.4975	7 100
1943	16 460	0.6269	10 319
1944	15 267	0.6403	9 776
1945	20 469	0.6048	12 380

Source: *Relatórios da Administração do Porto de Lisboa. Contas e Elementos Estatísticos, 1936 a 1945*, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa.

In 1945, according to these data, the rise in prices of materials resulted for the port of Lisbon in an overload, or more accurately in a flight of resources, amounting to 12380 *contos*, an amount higher than those of the previous years. This regards the part of the port resources applied to materials alone.

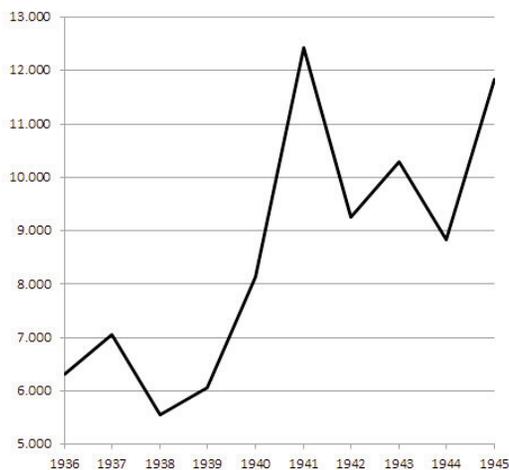
As for the port resources invested in staff and other costs, the available figures also clearly suggest the negative effects of rising prices. However, although some of these charges, such as those resulting from consumption of electric power for lighting and motive power (mainly due to the rising price of raw materials) and pursuance of traffic services (as a result of subsidies granted to workers), denounce the deadweight losses that resulted from high prices, the personnel-related expenses should be highlighted, due to their sheer volume.

**Table 4.**  
**Port resources invested in staff and other costs**

Year	Port resources invested in staff and other costs (contos)	Annual difference in relation to 1939 (contos)
1939	23 390	-
1940	25 560	+ 2 170
1941	28 482	+ 5 092
1942	27 529	+ 4 139
1943	29 559	+ 6 169
1944	35 848	+ 12 458
1945	43 163	+ 19 773

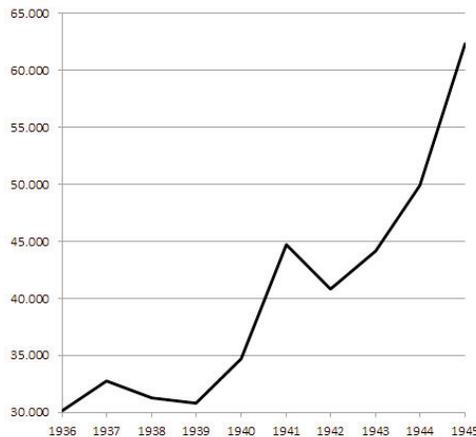
Source: *Relatórios da Administração do Porto de Lisboa. Contas e Elementos Estatísticos, 1936 a 1945*, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa.

**Graphic 2. The ‘financial effort’.**  
**Extraordinary financial activity (1936-1945). (in contos)**



Source: Relatório. Contas do ano de 1945, Vol. I, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, 1947, p. 12.

**Graphic 3.**  
**Ordinary budgetary revenue (1936-1945). (in contos)**



Source: *Relatório. Contas do ano de 1945*, Vol. I, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, 1947, p. 14.

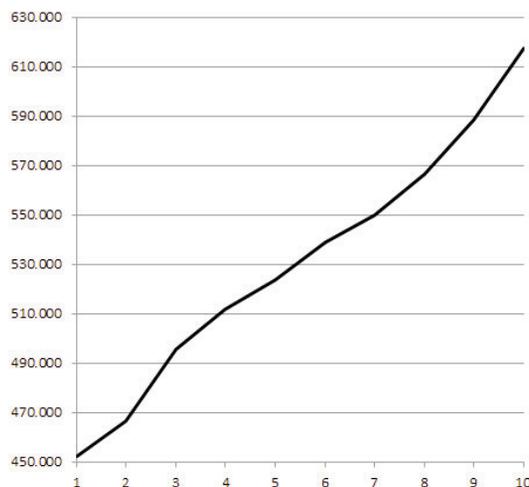
The port administration, in spite of the plunge in the traffic and the resilience of the inflationary pressure, carried on with a policy of constant financial effort enabled by the net results, notably through the reinforcement of the improvements fund, initiating extraordinary works and respecting the responsibilities pertaining to financial burdens, loan fees and deliveries to the public Treasury.

The ordinary budgetary revenue kept a rising trend over the period, in spite of the sharp breaks in 1939 and 1942. The trend very visibly became stronger in 1945. In terms of expenditure, one should highlight its actual increase, in particular as regards the personnel.

The combination of a policy of financial stress with the levels of budgetary revenue is reflected in the persistence of the trend towards a significant increase in the net worth of the port of Lisbon registered over the period.

It should be noted, among other works and improvements, the building of the maritime stations, designed by Pardal Monteiro, in Alcântara and in Rocha Conde de Óbidos, two valuable examples of architecture of that time with the central halls decorated with frescoes by Almada Negreiros. The project, which expressed the nature and ideals of the New State in multiple domains, reflects the idea of idealised space, where travellers could establish the first contact with the country, capturing a certain image of it.

**Graphic 4.**  
**Material development of the port of Lisbon (net worth of the port from 1936 to 1945). (in contos)**



Source: *Relatório. Contas do ano de 1945*, Vol. I, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, 1947, p. 21.

The maritime station of Alcântara was opened on July 17, 1943, with the arrival of a ship carrying refugees. The press reported the event on the front pages, referring to the official opening of the maritime station with the arrival of the ship "Serpa Pinto", property of the Colonial Company of Navigation, from Philadelphia with 253 passengers on board, mostly English subjects that were war refugees, as the first ship to use the facilities of the maritime station, which were still incomplete<sup>21</sup>.

The building of the Lisbon airport, funded directly by the Public Treasury as stipulated by Decree-Law No. 32331, should also be noted.

In terms of exploration, one should highlight the intensification of inland services (at the trading posts) and their traffic. It should be noted that the very sharp intensification of activities as early as 1945 did not result from the increase in the quantity of sea cargo that entered the port, as, on the contrary, the goods admitted, on the whole, did not reach the level of 1944, although the movement of ships had increased. The explanation for such increased activity of the port trading posts lies in the movement of cargo that had been stored on the port of Lisbon during the war years for protection. These goods that had been stored for a long time started to circulate, obligations were fulfilled, storage expenses and others were paid for, and the general traffic services witnessed an increase in their activity. Thus, port revenues rose, although as a result of special and temporary reasons.

<sup>21</sup> Boletim do Porto de Lisboa, no. 297 Gares Marítimas – Sua História.

**Graphics 5 and 6.**  
**Net profits of the land and sea services (1936 to 1945). (in contos)**



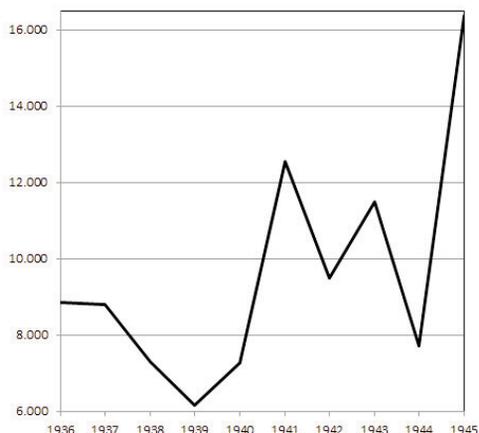
Source: *Relatório. Contas do ano de 1945*, Vol. I, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, 1947, p. 23 e p. 25.

**Table 5.**

Year	Annual revenue collected (contos)	Annual net result (contos)	Net management income in relation to the revenue collected
1936	30 164	8 854	29.4
1937	32 736	8 810	26.9
1938	31 276	7 304	23.4
1939	30 811	6 178	20.1
1940	34 713	7 268	20.9
1941	44 719	12 559	28.1
1942	40 844	9 491	23.2
1943	44 170	11 500	26
1944	49 928	7 722	15.5
1945	62 344	16 401	26.3

Source: *Relatórios da Administração do Porto de Lisboa. Contas e Elementos Estatísticos, 1936 a 1945*, Ministério das Obras Públicas e Comunicações, Imprensa Nacional de Lisboa, 1939 a 1947.

**Graphic 7.**  
**Annual net management profits (1936 to 1945). (in contos)**



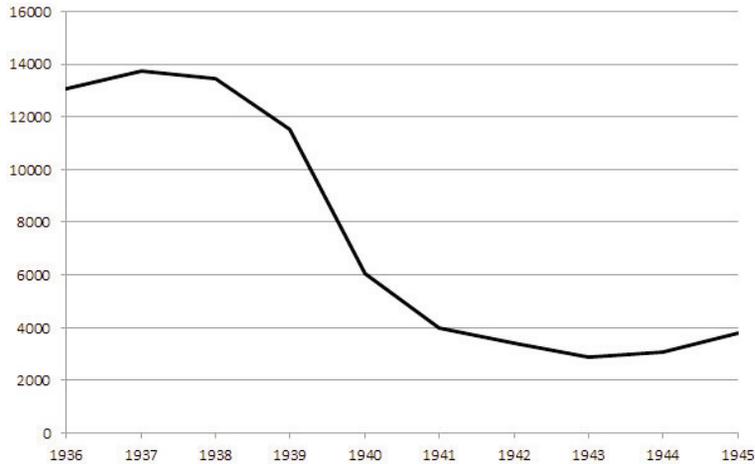
Source: *Relatório. Contas do ano de 1945, Vol. I*, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, 1947, p. 26.

**Table 6.**

Year	Entry of ships		Cargo (maritime cargo) (T)		
	Number of entries	Total gross tonnage	Loaded	Unloaded	Total
1938	4 809	13 444 200	1 095 729	2 138 902	3 234 631
1939	4 545	11 514 551	1 177 425	2 131 597	3 309 022
1940	3 668	6 032 720	1 235 522	1 939 910	3 175 432
1941	3 235	4 001 084	1 322 177	2 185 531	3 507 708
1942	2 790	3 383 849	1 445 004	1 969 408	3 414 412
1943	2 565	2 886 736	1 110 876	1 817 678	2 918 554
1944	2 859	3 046 530	1 027 128	2 205 420	3 232 548
1945	3 104	3 773 470	1 107 188	1 770 463	2 877 651
1946	4 236	5 511 662	1 148 298	2 523 205	3 671 503
1947	4 127	7 353 053	772 592	2 828 457	3 601 049

Source: *Relatórios da Administração do Porto de Lisboa. Contas e Elementos Estatísticos, 1938 a 1947*, Ministério das Obras Públicas e Comunicações, Imprensa Nacional de Lisboa, 1939 a 1949.

**Graphic 8.**  
**Maritime traffic–entry of ships (1936 to 1945). (mil total gross tonnage)**



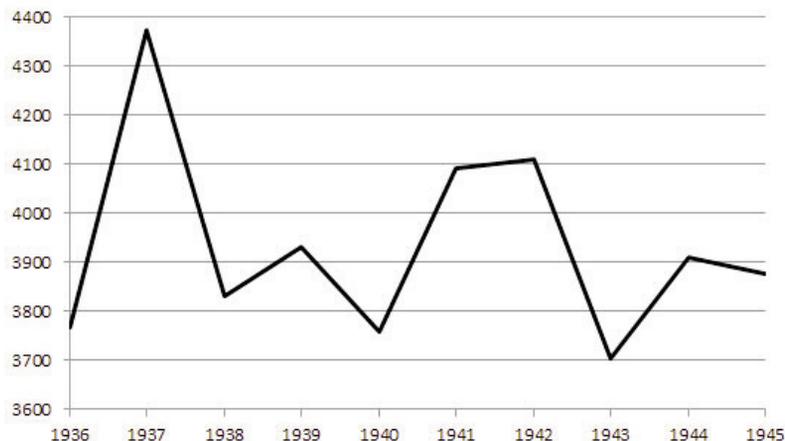
Source: *Relatório. Contas do ano de 1945*, Vol. I, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, 1947, p. 30.

The low income, on the one hand, and the constant pressure due to the high price of materials and manpower (increase of personnel-related expenses, mainly due to extraordinary allowances relating to salaries and supplements, occasional allowances and child benefit), on the other hand, explain the losses in the results of the maritime services.

Despite the unfavourable conditions of the exploration of the maritime services of the ports, the net result of the activity of AGL was frankly positive throughout the period, although with rather sharp variations, reflecting the decrease in budgetary revenue in 1939, and especially in 1942, and the extraordinary increases in 1941, 1943 and 1945, largely resulting from budgetary endowments.

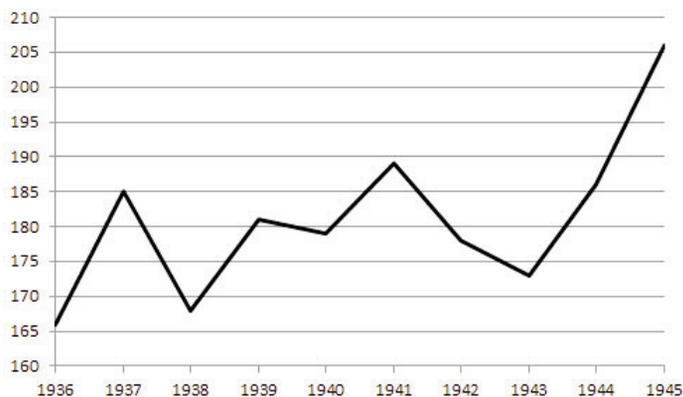
The general movement of goods in the port of Lisbon also suffered with the impact of war, with decreased tonnage as compared to the period prior to the conflict and maintaining an unstable dynamic over the period, though with dimly pronounced variations.

**Graphic 9.**  
**Movement of goods—inputs and outputs (1936 to 1945)**  
**(total miles tonnage)**



Source: *Relatório. Contas do ano de 1945*, Vol. I, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, 1947, p. 30.

**Graphic 10.**  
**Utilisation of docks for the movement of goods - per metre of dock (1936 to 1945). (tonnage)**



Source: *Relatório. Contas do ano de 1945*, Vol. I, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, 1947, p. 31.

The analysis becomes more significant as we observe the movement of goods that have circulated through the port of Lisbon –maritime and fluvial cargo– in light of the use of

docks built on the port, enabling us to consider the value added by those works. Taking into consideration that the extension of the docks of the port was about 13000 metres, in 1945 the movement of goods per metre of dock was 206 tons. At the same time, the utilisation rate of the docks in relation to the total of goods unloaded and loaded settled at a percentage of 69% in 1945. Ten years earlier, in 1935, the movement of goods per metre of dock had not exceeded 166 tons and the utilisation rate of the docks as regards the goods circulated through the port had not exceeded 54%.

While seeking to illustrate the importance of the port of Lisbon in the context of the national economic activity, it should be noted that from the country's total imports for consumption (Mainland and adjacent islands), which in 1945 was 1687788 tons of goods, valued at 3902213 contos, the port of Lisbon was responsible for the important parcel of 1361511 tons, the equivalent to 2763648 contos. In terms of national and nationalised exports (Mainland and adjacent islands), which in 1945 totalled 668872 tons of goods, with a value of 3185939 contos, the port of Lisbon dealt with 344085 tons, with a value of 1556574 contos. The traffic of the remaining ports on the mainland and islands, both as regards imports and exports, was much lower –the second place, at a significant distance, was held by Oporto, which had a traffic volume of 199868 t in terms of imports, and 80720 t as regards exports.

## 5. Conclusions

In short, as regards its port activity, Lisbon significantly reflected the impacts of World War II in the following aspects:

- Sharp reduction in maritime navigation, with a very significant decrease in visible movement of ships by tonnage, which became evident as soon as in 1940, and kept dwindling until it realised, by the end of the war, a decrease of 70% of its volume as it stood in 1938;
- The volume of traffic of merchandises remained stable throughout the period, both in terms of inputs and outputs, with an insignificant increase in 1941 and 1942;
- The ordinary revenues increased each year, especially in 1945;
- The economic activity of the port did not suffer, and actually had a significant improvement after 1941;
- The annual net income in the war period was always rather positive, with particularly significant levels in 1941, 1943 and 1945;
- Staff-related costs decreased in a relatively constant trend until 1943, they jumped up in 1944 and 1945, increasing 30% and 50% respectively;
- Visible price increases, or increased costs, of port activity, more pronounced in the later years, directly resulting from inflationary pressure caused by the war. The peak in prices certainly provided a heavy overcharge to the activity of the port of Lisbon in terms of material and personnel-related costs;

- The insistence upon investments aimed at improving the facilities is visible throughout the period, though less expressively in 1941 and 1942; such investments were particularly relevant in the final years of the war, especially in 1945 – the result of the allocation of the net income of the port to those improvements, largely through the Improvements Fund;

- The net worth of the port increased every year over the period, clearly reflecting the investments made, including those devoted to improvements and works;

- The effort toward improving the port of Lisbon fell short when compared to the project, as a result of the rise in costs of the necessary materials. The allocation of port revenues to new construction works, acquisitions of permanent usage and others, and conservation and maintenance costs was conditioned in its extent (and especially as regards the allocation of funds to construction works), due to the growth in current expenditure which was unavoidable and impossible to postpone – thus, the allocation of funds to material improvements resulted from the difference between the amount of current expenditure (which tended to increase) and gross revenues;

- All in all, the port of Lisbon suffered an actual reduction in its financial resources. The effects in the port resources of the monetary devaluation as a result of rising prices inferred, of course, the corresponding reduction in the value of the financial resources of the port of Lisbon, and consequently of its purchasing power, causing severe difficulties, sometimes even affecting the level of efficiency of the port services. In 1945, the burden of high prices and increased cost of living meant, to the port of Lisbon, an overload equivalent to at least a fourth of its gross collected income.

The end of the war enabled the port of Lisbon to resume more dynamic levels of activity and, above all, to aim for, at least, the re-establishment of its pre-war position, in spite of the constraints imposed by the prevailing economic circumstances.

During 1945, the movement of merchandises grew significantly more intense, in particular regarding the cargo that, throughout the years of war, had used the port of Lisbon as its storage point for transit purposes, seeking temporary shelter, sometimes of long duration.

The movement of such goods of long-term storage, and subsequent traffic operations, provided the port of Lisbon with large revenues. Therefore, in 1945, the port managed to collect revenues as high as 62344 *contos* (ordinary income), which represented a substantial increase over the previous financial years. The net income of the year, amounting to 16401 *contos*, absolutely outweighed those of previous years.

However, difficulties of various kinds remained, essentially due to lack of resources, coupled with the effects of high prices and high cost of living, which heavily affected the port management business. Even so, the port of Lisbon spent or set aside funds for material improvements as high as 20500 *contos*, while the State Treasury continued to devote hefty sums to the large works of regularisation of the north bank of the river, beyond Matinha. The balance was therefore positive, enabling the material improvements in the port to continue without interruption.

However, the idea of executing a plan of port improvements, with the aim of making it more suitable to meet the needs of maritime trade, remained postponed. For that reason, the port of Lisbon was not included in the project put forward almost by the end of World War II, which set out the second stage of the abovementioned plan of ports, through Decree-Law No. 33922, of September 5, 1944, which allocated a sum of 450000 *contos* to the improvement of several ports (with the exception of Lisbon), although it would only be executed by 50%. Fundamental guidelines stressed the need for regional decentralisation of ports, which were credited with great importance as instruments of regional economic and social development; ports were classified into fishing ports and fishing, commercial and cabotage ports. The public efforts were then directed to the 'improvement of access to ports and to the creation of the essential conditions to navigation, to the exercise of commercial traffic and the maritime activities in general', supplemented by some other works regarding docking and commercial facilities, which were expected to enhance some fishery and industrial centres.

The port of Lisbon was considered separately, being the subject of a special plan (Decree-Law No. 35716, of June 24, 1946), which provided for interventions amounting to 650000 *contos*, between 1945 and 1955<sup>22</sup>.

Most of the works planned for 1946-55 were formally integrated into the First Development Plan<sup>23</sup>. Until 1957, the docks of Poço do Bispo, Pedrouços and Olivais were completed; in the following decade, an important step was taken with the construction of the dock in Cabo Ruivo, designed for handling liquid fuels. It is certain, however, that since the end of the war, a substantial number of ships had stopped using the port of Lisbon. Moreover, the competition from air transportation would further worsen the situation. Shortly before the maritime station of Rocha do Conde de Óbidos entered into operation, the flow of passengers was already dropping and the increasing costs that resulted from such situation were a severe constraint. The situation would eventually be mitigated by the shipment of large military contingents to fight in the colonial war, thus increasing the traffic in the maritime stations. Only in 1970 would a new phase in the history of cargo transport and handling begin, when APL started to explore the first specialised container terminal.

It was the end of a cycle for the history of the port of Lisbon too –a cycle greatly influenced, of course, by the effects of World War II, triggering results that could be at times deemed contradictory. Its most significant effect was perhaps the simultaneous perception of the limitations and potential offered by a port that, then and now, sets out from the Tagus *into the world*.

---

<sup>22</sup> "Plano de melhoramentos do porto de Lisboa. Decreto-lei n.º 35 716, publicado no Diário do Governo de 24 de Junho de 1946" in Revista da Ordem dos Engenheiros, Ano IV, n.º 32, Agosto, 1946, pp. 509-523.

<sup>23</sup> Lei n.º 2 058, promulgando as bases para a execução do Plano de Fomento nos anos económicos de 1953 a 1958, *DG*, n.º 291, I Série, de 29 de Dezembro de 1952.

## References:

- "Melhoramentos no porto de Lisboa. Relatório da proposta de lei" (1946): *Revista da Ordem dos Engenheiros*, n.º 30, pp. 342-356.
- "O Porto de Lisboa. Nomeação e relatório da comissão ultimamente encarregada de dar parecer sobre os melhoramentos deste porto" (1905): *Revista de Obras Públicas e Minas*, n.º 427- 429, pp. 281-304.
- "Plano de melhoramentos do porto de Lisboa. Decreto-lei n.º 35 716, publicado no Diário do Governo de 24 de Junho de 1946" (1946): *Revista da Ordem dos Engenheiros*, n.º 32, pp. 509-523.
- "Plano de melhoramentos do porto de Lisboa. Decreto-lei n.º 35 716, publicado no Diário do Governo de 24 de Junho de 1946" (1946): *Revista da Ordem dos Engenheiros*, n.º 32, pp.509-523.
- ABECASIS, Duarte (1946): "Parecer da Câmara Corporativa sobre a proposta de lei de melhoramentos no porto de Lisboa", *Revista da Ordem dos Engenheiros*, n.º 32, pp. 493-508.
- ABECASIS, Duarte (1946): "Parecer da Câmara Corporativa sobre a proposta de lei de melhoramentos no porto de Lisboa", *Revista da Ordem dos Engenheiros*, n.º 31, pp. 427-438.
- ABECASIS, Duarte (1946): "Parecer da Câmara Corporativa sobre a proposta de lei de melhoramentos no porto de Lisboa", *Revista da Ordem dos Engenheiros*, n.º 30, pp. 357-386.
- ALEGRIA, Maria Fernanda (1985): "A organizacao portuaria portuguesa e a sua evolucao de 1848 a 1910", *Revista de Historia Económica e Social*, n.º 15, pp. 1-29.
- BEBIANO, J. Bacelar (1960): *O Porto de Lisboa (Estudo de Historia Económica)*, s.e., Lisboa.
- BEBIANO, José Bacellar (1952): *Missão aos Estados Unidos sob o patrocínio da Economic Cooperation Administration. Relatório. A visita a alguns portos e zonas francas dos Estados Unidos da América do Norte e ao Porto de Anvers*, Administração Geral do Porto de Lisboa, Lisboa.
- BEBIANO, José Bacellar (1952): *Os Estados Unidos da América e as suas Zonas Francas. Comunicação verbal feita na reunião da "Comissão para o Estudo do Problema da Criação do Porto Franco em Lisboa"*, em 5 de Fevereiro de 1952 Boletim do Porto de Lisboa, 1939-1945.
- COELHO, Francisco Ramos (1928): IX. Portos Marítimos Continentais. Legislação e Aspectos Económicos, Conferência realizada a 10 de Maio de 1928 na Liga Naval, Conferências Promovidas pela A.I.P., Tipografia da "Ilustracao", Lisboa.
- COELHO, Francisco Ramos (1929): *Portos Marítimos e Navegação Exterior, Portugal*. Exposição Portuguesa em Sevilha, Imprensa Nacional, Lisboa.

*Diário das Sessões da Assembleia Nacional e da Câmara Corporativa, Session years: 1939-1955.*

*Diário do Governo.*

DIAS, Emílio Brogueira e ALVES, Jorge (2002), "As Transformações Portuárias Em Portugal No Século XX", in BRITO, J. M. Brandão de, HEITOR, Manuel and ROLLO, Maria Fernanda (Coord), *Engenho e Obra. Uma abordagem à História da Engenharia em Portugal no Século XX*, Publicações Dom Quixote, Lisboa, p.

*Engenho e Obra. Memória de uma Exposição* (2003): Catálogo da Exposição Engenho e Obra realizada na Cordoaria Nacional, Org. Comissariado da Exposição, Publicações Dom Quixote, Lisboa.

*Engenho e Obra. Uma abordagem à História da Engenharia em Portugal no Século XX* (2002), Coord. BRITO, J. M.; Brandão de; HEITOR, Manuel; and ROLLO, Maria Fernanda, Publicações Dom Quixote, Lisboa.

*Frentes Ribeirinhas no Porto de Lisboa*, Catálogo da Exposição (1998), Administração do Porto de Lisboa.

GUIMARÃES, Gonçalves (1990): "A Alfândega do Porto e o Comércio entre a Barra do Douro e os Portos Russos do Báltico em 1820", *Revista de História*, Vol X, pp. 137-156.

LOPES, José da Silva (2002): "A economia portuguesa no século XX", in PERES, Fernando (Coord.), *Panorama da Cultura Portuguesa no Século XX, 1. As Ciências e as Problemáticas Sociais*, Edições Afrontamento, Porto

LOUREIRO, Adolfo (1893): "As Obras do Porto de Lisboa", *Revista de Obras Públicas e Minas*, n.º 285-286, pp. 417-455.

MARQUES, Artur Raul da Silva (1952), "Realizações portuárias em Moçambique" *Boletim da Ordem dos Engenheiros*, nº19, p.178.

MATOS, Melo de (1908), "Os Coeficientes de Exploração dos Portos Marítimos" *Revista de Obras Públicas e Minas*, n.º 460-462, pp.101-107.

MATOS, Melo de (1900): "Os Portos de mar no século XX", *Revista de Obras Públicas e Minas*, n.º 370-372, pp.418-430.

*Momentos da Inovação e da Engenharia em Portugal no Século XX* (2004): BRITO, J. M. Brandão de, HEITOR, Manuel and ROLLO, Maria Fernanda, Publicações Dom Quixote, Lisboa.

PEDROSO, Francisco José (1931): "Construção da 3.ª secção do porto de Lisboa" in *Revista da Associação dos Engenheiros Civis Portugueses*, n.º 669, pp. 78-94.

PERESTRELO, A. de M. Cid (1931): "A "gare" marítima e as "gares" fluviais do porto de Lisboa, in I Congresso Nacional de Engenharia, Lisboa, Imprensa Libanio da Silva, Lisboa.

- PIMENTEL, Irene Flunser (2006): *Judeus em Portugal durante a II Guerra Mundial*, Esfera dos Livros.
- PIRES, Ana Paula (2011): *Portugal e a I Guerra Mundial. A República e a Economia de Guerra*, Caleidoscópio, Casal de Cambra.
- Porto de Lisboa (2001): *Centro de Coordenação e Controlo de Tráfego Marítimo e Segurança*, APL - Administração do Porto de Lisboa, Lisboa.
- PRATA, Ana Filipa (2008): *Políticas Portuárias na I República (1880-1929)*, Master Thesis, Faculdade de Ciências Sociais e Humanas – Universidade Nova de Lisboa, Lisboa.
- PRATA, Ana Filipa (2012): *Atlas Portuário Nacional: Contributos Metodológicos para a sua elaboração*, Master Thesis, Faculdade de Ciências Sociais e Humanas – Universidade Nova de Lisboa, Lisboa.
- PRESIDÊNCIA DO CONSELHO (1958): *Inspecção Superior do Plano de Fomento, Relatório Final Preparatório do II Plano de Fomento. VII) Portos, VIII) Transportes. Comunicações*, Imprensa Nacional, Lisboa.
- Referências Históricas do Porto de Lisboa (1991): *Ministério das Obras Públicas, Transportes e Comunicações, Edição da Administração do Porto de Lisboa*, Lisboa.
- Relatórios da Administração do Porto de Lisboa. Contas e Elementos Estatísticos, 1936-1947*, Ministério das Obras Públicas e Comunicações, Administração Geral do Porto de Lisboa, Imprensa Nacional de Lisboa, Lisboa.
- ROLLO, Maria Fernanda and PIRES, Ana Paula (2012): *Ordem dos engenheiros. 75 Anos de história. Inovação e desenvolvimento em Portugal: o lugar dos engenheiros*, Ordem dos Engenheiros, Lisboa.
- ROLLO, Maria Fernanda (2006): "Heranças da Guerra: o reforço da autarcia e os 'novos rumos' da política económica" *Ler História*, nº 50, pp. 115-153.
- ROLLO, Maria Fernanda (2002): "Engenharia e História. Percursos Cruzados", in BRITO, J. M. Brandão de, HEITOR, Manuel and ROLLO, Maria Fernanda (Coord), *Engenho e Obra. Uma abordagem à História da Engenharia em Portugal no Século XX*, Publicações Dom Quixote, Lisboa, pp. 31-57.
- ROLLO, Maria Fernanda (2012): "Entre Linhas de Rumo. A superação do enunciado frustrado da modernização industrial do pós-Guerra", in *Actas da 4ª Conferência-2º Módulo* promovida pelo Núcleo Impulsionador de Conferências da Cooperativa Militar, pp. 39-77.
- ROLLO, Maria Fernanda (2009): "Portugal e a II Guerra: limites políticos e legados económicos", in CAPUZZO, Paola and GIORGI, Chiara (Coord.) *Centro e Periferia come Categorie Storiografiche. Esperienze do ricerca in Italia, Spagna e Portogallo*, Quaderni del Dipartimento di Discipline Storiche Università di Bologna, Carocci de Roma, pp.71-107.

- ROLLO, Maria Fernanda (2007): *Portugal e a Reconstrução Económica do Pós-Guerra. O Plano Marshall e a Economia Portuguesa dos anos 50*, Coleção Biblioteca Diplomática, 13, Ministério dos Negócios Estrangeiros, Lisboa.
- ROSAS, Fernando (1990): *Portugal entre a Paz e a Guerra. Estudo do Impacte da II Guerra Mundial na Economia e na Sociedade Portuguesas (1939-1945)*, "Imprensa Universitária, 83", Editorial Estampa, Lisboa.
- TELO, António José (1991): *Portugal na Segunda Guerra, Perspectivas & Realidades, Lisboa, 1987 e Portugal na Segunda Guerra (1941-1945)*, 2 vol., "Documenta Histórica, 19 e 20", Vega, Lisboa.