ABSTRACT – The end of the 19th century was marked by several events which were extremely important to Portugal. The consequences of these events would later be responsible for the fall of the Monarchy and, thus, for the birth of the Republic. The first Republic was officially proclaimed on the 5th October 1910, and had a relatively short lifetime. This regime was later abolished by a military dictatorship. During most of its duration, the First Republic was marked by economic, financial, political and social instability. However, the Portuguese economic scenario started to change and improved by the end of this regime and, consequently, before the beginning of the Military Dictatorship, which ended up taking advantage of the ‘new’ and more favourable economic situation of the country. Additionally we find evidence that in the first two civil years of the Military Dictatorship, the real GDP grew sharply and above our prediction, and the public debt as percentage of GDP, had a more significant reduction then predicted.

KEY WORDS: economic growth, First Republic, public finance, Portugal

Introduction

At the end of the 19th century, the Portuguese economy was one of the most backward in Europe, with low standards of living, so Portugal began a ‘new’ century with aspiring meaningful changes, but nothing changed in the first years. On 5th October 1910, Monarchy was replaced by a new regime known as the First Portuguese Republic (1910-1926) with new ideas for the country. But this new regime lasted only sixteen years, giving way to a military dictatorship (1926-1933).

The aim of this work is to analyse the performance of public finance and the growth of the Portuguese economy during the period of the First Portuguese Republic. Additionally, we will try to find if in the first two civil years of the Portuguese Military Dictatorship, the economic growth, and the public debt as percentage of GDP, stayed below or above the expected performance. To make this possible, we will use statistical analysis and econometric prediction models, more precisely ARIMA models, in order to validate the study and draw objective conclusions.

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Hence, this study can represent a real contribution for all those interested, not only in the historical dimension of this topic, but at the same time want to appreciate the economic dimension of the period being studied. The contribution is noticeable namely when we take into consideration a distant period of analysis in respect of the set of variables which are object of the study (resulting from a great effort to conciliate several time series), but also when we call on econometric methods of analysis.

The paper is organised in four sections. After the introduction, Section 2 analyses the evolution of the Portuguese GDP and the behaviour of the Portuguese public finance, since the end of the 19th century up to the fall of the First Republic in the 20th century. Section 3 is dedicated to the applied study. Finally, section 4 concludes.

From the end of the 19th century to the fall of the First Republic in the 20th century

The end of the 19th century was a time when several extremely significant political, economic and social events happened in Portugal (see Chronology of Events in Appendix). The consequences of these events were later responsible (even if indirectly) for the fall of the Monarchy and, therefore, for the birth of the ‘new’ form of government called Republic, thereby effecting a new period for the Portuguese nation.

The End of the 19th century, the First Republic, and the World War I

The Portuguese economy was one of the most backward in Europe, with extremely low of living even when compared to the countries on the periphery of Europe (see Table 1), such as Spain and Italy (Rosas, 1987; Gonçalves, 1998; Mateus, 1998; Lains, 2003; Mata and Valério 2003).

<table>
<thead>
<tr>
<th>Country</th>
<th>1820</th>
<th>1870</th>
<th>1900</th>
<th>1913</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>105</td>
<td>134</td>
<td>127</td>
<td>121</td>
</tr>
<tr>
<td>Denmark</td>
<td>100</td>
<td>98</td>
<td>101</td>
<td>110</td>
</tr>
<tr>
<td>Germany</td>
<td>91</td>
<td>97</td>
<td>109</td>
<td>112</td>
</tr>
<tr>
<td>Greece</td>
<td>62</td>
<td>50</td>
<td>51</td>
<td>47</td>
</tr>
<tr>
<td>Spain</td>
<td>87</td>
<td>70</td>
<td>71</td>
<td>66</td>
</tr>
<tr>
<td>France</td>
<td>99</td>
<td>94</td>
<td>99</td>
<td>101</td>
</tr>
<tr>
<td>Ireland</td>
<td>78</td>
<td>90</td>
<td>87</td>
<td>80</td>
</tr>
<tr>
<td>Italy</td>
<td>89</td>
<td>74</td>
<td>61</td>
<td>73</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>105</td>
<td>134</td>
<td>127</td>
<td>121</td>
</tr>
<tr>
<td>Netherlands</td>
<td>127</td>
<td>134</td>
<td>123</td>
<td>116</td>
</tr>
<tr>
<td>Austria</td>
<td>105</td>
<td>95</td>
<td>101</td>
<td>102</td>
</tr>
<tr>
<td>Portugal</td>
<td>64</td>
<td>55</td>
<td>49</td>
<td>40</td>
</tr>
<tr>
<td>Finland</td>
<td>62</td>
<td>56</td>
<td>56</td>
<td>60</td>
</tr>
<tr>
<td>Sweden</td>
<td>98</td>
<td>84</td>
<td>89</td>
<td>91</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>143</td>
<td>165</td>
<td>159</td>
<td>147</td>
</tr>
<tr>
<td>15-CE</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Table 1. GDP per capita at 1990 prices (Percentage regarding the 15 - EC)*

As shown in Table 1, by the end of the 19th century, Portugal had a GDP per capita very inferior to the average value of the current European Community with 15 countries (15 - EC), and at the beginning of the new century that situation became even worse.

In what concerns public finance, we can say that Portugal was placed in a high level of indebtedness, having abandoned the gold standard system and declared a moratorium regarding the external debt in 1891 (Duarte and Andrade, 2012).

A year later, in 1892, the Portuguese State’s Bankruptcy (a partial one) was declared.

However, as is pointed out by Santos (2001), this crisis was not only a financial one; it was also economic, since it caused a stagnation of economic growth and richness. Rosas (1987) goes even further, arguing that both this event and the British Ultimatum in 1890, would later lead to the fall of the Monarchy and, therefore, to the Republican Revolution on 5th October 1910.

In Table 2 is documented the evolution of the Portuguese public debt as percentage of GDP, from which it is seen that at the beginning of the ‘new’ century the ratio reduced $^4$.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|}
\hline
Date & Debt-to-GDP ratio \\
\hline
1890 & 105,7 \\
1895 & 111,3 \\
1900 & 104,1 \\
1905 & 99,5 \\
1910 & 91,5 \\
\hline
\end{tabular}
\caption{Evolution of the Public Debt as percentage of GDP}
\end{table}

Source: Authors calculation based on the Valério (2001 and 2008).

On the other hand, Table 3 clarifies that in respect of public revenues and expenses, while countries such as Romania and Bulgaria recorded a surplus throughout most of the last quarter of the 19th century, other countries such as Portugal and Greece, recorded a significant deficit in the same period.

The first years of the Portuguese First Republic were, however, marked by a relative improvement in the budgetary situation of the country, despite Portugal’s continued struggle with a situation of government deficit.

$^4$ Our calculation for public debt as percentage of GDP differs from the International Monetary Fund (IMF) historical debt database. It happens because IMF used other sources, such as Flandreau and Zumer (2004). For more detail see IMF (2012) and Abbas et al. (2010).
Table 3. Public Revenue and Expense in the European Periphery (revenue in percentage of the expense)

<table>
<thead>
<tr>
<th>Countries</th>
<th>1880-1884</th>
<th>1885-1889</th>
<th>1890-1894</th>
<th>1895-1899</th>
<th>1900-1904</th>
<th>1905-1909</th>
<th>1910-1912</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>102,9</td>
<td>109,4</td>
<td>99,7</td>
<td>91,6</td>
<td>95,0</td>
<td>101,2</td>
<td>96,7</td>
</tr>
<tr>
<td>Greece</td>
<td>93,5</td>
<td>95,8</td>
<td>97,5</td>
<td>67,8</td>
<td>116,7</td>
<td>101,6</td>
<td>126,4</td>
</tr>
<tr>
<td>Romania</td>
<td>99,0</td>
<td>101,7</td>
<td>103,7</td>
<td>96,1</td>
<td>105,3</td>
<td>114,4</td>
<td>117,0</td>
</tr>
<tr>
<td>Serbia</td>
<td>86,0</td>
<td>78,5</td>
<td>92,3</td>
<td>86,7</td>
<td>92,2</td>
<td>98,1</td>
<td>105,1</td>
</tr>
<tr>
<td>Portugal</td>
<td>79,5</td>
<td>80,6</td>
<td>81,9</td>
<td>93,2</td>
<td>94,6</td>
<td>98,1</td>
<td>99,5</td>
</tr>
</tbody>
</table>

Source: For Bulgaria, Greece, Romania and Serbia, the source is Lains (2003). For Portugal, the source is authors calculation based on the Valério (2001).

Only four years after the beginning of the First Portuguese Republic, World War I began\(^5\) (1914-1918). As shown in Table 4, on the beginning of this conflict, Portugal had one of the major public national debts. However, only 31,4% consisted of external debt, a fact that illustrates the external financing difficulties faced by Portugal.

Table 4. National Public Debt in 1914 (millions of French Francs)

<table>
<thead>
<tr>
<th>Country</th>
<th>Total</th>
<th>Internal</th>
<th>External</th>
<th>External/Amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>17257</td>
<td>17257</td>
<td>0</td>
<td>0,0</td>
</tr>
<tr>
<td>Denmark</td>
<td>498</td>
<td>123</td>
<td>375</td>
<td>75,3</td>
</tr>
<tr>
<td>Finland</td>
<td>164</td>
<td>0</td>
<td>164</td>
<td>100,0</td>
</tr>
<tr>
<td>Norway</td>
<td>493</td>
<td>31</td>
<td>462</td>
<td>93,8</td>
</tr>
<tr>
<td>Sweden</td>
<td>955</td>
<td>169</td>
<td>785</td>
<td>82,3</td>
</tr>
<tr>
<td>Spain</td>
<td>9347</td>
<td>8346</td>
<td>1001</td>
<td>10,7</td>
</tr>
<tr>
<td>Italy</td>
<td>15661</td>
<td>15661</td>
<td>0</td>
<td>0,0</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>986</td>
<td>123</td>
<td>862</td>
<td>87,5</td>
</tr>
<tr>
<td>Greece</td>
<td>1345</td>
<td>339</td>
<td>1006</td>
<td>74,8</td>
</tr>
<tr>
<td>Portugal</td>
<td>3265</td>
<td>2238</td>
<td>1027</td>
<td>31,4</td>
</tr>
<tr>
<td>Romania</td>
<td>1714</td>
<td>180</td>
<td>1535</td>
<td>89,5</td>
</tr>
<tr>
<td>Serbia</td>
<td>888</td>
<td>765</td>
<td>123</td>
<td>13,9</td>
</tr>
</tbody>
</table>

Source: Lains (2003).

\(^5\) See again Chronology of Events in Appendix.
Portugal’s participation in this conflict had financial and economic consequences. As we can see on Figure 1, the GDP, in real terms, decreased sharply during the World War (between 1914 and 1918, reduced by approximately 23%).

Figure 1. Portuguese GDP, 1914 prices, thousands of ‘contos’, 1885-1920

![Graph showing Portuguese GDP, 1914 prices, thousands of ‘contos’, 1885-1920](image)


The participation in this war led to a very significant raise in the Portuguese public expenses, which were more than quintupled in the period from 1914 to 1920. These public expenses were financed through an increase in the debt demanded by the Bank of Portugal, leading to the consequent growth of the Portuguese public debt, in thousands of ‘contos’, which increased by approximately 93% between 1916 and 1920.

Also Gonçalves (1998), Lains (2003) and Mateus (2013) points out that the financing of the war effort was at the expense of the public debt, which according to Mata and Valério (2003), reached its highest point with the consecutive loans to the Bank of Portugal, leading also to enormous amounts of money creation. As can been seen in Table 5, this way of financing war led to an increase in inflation levels. The public expense and public debt continued to rise after de war, so as the inflation.

Between 1914 and 1920, the Price Index (PI) raised from 100 to 580, which can also be explained by the strong increase in money supply, from 165 to 840 thousand ‘contos’. However the Debt as percentage of GDP reduced substantially because of the strong growth of GDP at current prices.

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*1 conto = 1000 Portuguese escudos.*
The revenues also increased, but not enough to avoid the consecutive and growing government budgetary deficit, which were also financed by the public debt (as mentioned, this form of financing war obviously caused the increase in inflation levels).

In addition to the inflation crisis, during the First Republic, Portugal also faced a serious crisis, concerning a cereals shortage (mainly wheat), and the energy supply (coal). The World War I disturbed the supply of these goods, because the usual suppliers decided to reduce their exports and because there were not available means of transport. These goods were essential to the war effort of the countries involved in the armed conflict. Furthermore, Portuguese external commerce traditionally depended on British vessels, which were then being used for military purposes. Thus, it is not surprising that the shortage of essential products significantly reduced Portugal’s economic activity. The food supply to Lisboa and Porto, and the supply of fuel and raw material to the main industries were seriously affected.

Together with Portugal’s hard economic and financial situation, there was also an unstable political situation, considered an additional cause of the lack of control of Portuguese public finance. In fact, during the Portuguese First Republic’s relatively short life (it lasted only 16 years), there were several governments, some lasting only a few months. Hence, it is easy to understand the many social confrontations between workers, State, lower and higher bourgeoisie, and employers which occurred in 1920.

In that year, there were strikes, demonstrations, rallies, bomb attacks and several assassinations (some of important State personalities) throughout the country. All these events seriously affected the political regime’s credibility, which had to deal with, not only an economic and financial crisis, but also a serious social one. It is also important to mention that, at the time, the Portuguese population was mostly illiterate (before World War I, the illiteracy rate was around 70%, and in 1920 it was still above 65%).

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7 We should not forget that following the World War I, 10 thousand Portuguese died.
The Fall of the First Republic

Contrary to expectations, and in spite of the undoubted catastrophic situation at the start of the 1920’s, Portugal began to show signs of revitalisation in this decade.

From Figure 2, it is apparent that an economic growth, in real terms, was evident from 1922 (even though the real output decreased again between 1923 and 1924).

This conjunctural change followed the positive developments in the international financial markets, being also aided by a series of measures concerning taxation and financial reform implemented by the republicans. Lains (1998) emphasises the fact that in 1922 the State decreed a taxation reform which made the increase of the revenue and the public deficit reduction possible.

![Figure 2. Portuguese GDP, 1914 prices, thousands of ‘contos’, 1910-1926](image)


On the other hand, in 1924, a foreign exchange reserve fund financed by the compulsory delivery of part of the exportations revenue was created. This was a system which relieved the pressure on the Bank of Portugal regarding the external deficit financing. Thus, the Bank of Portugal was also able to administer the monetary policy again, which was itself reinforced by the Bank Law Reform in 1925. This reform allowed greater Government control over the banking sector, and assigned the Bank of Portugal the role of market regulator.

Table 6 illustrates the republican leaders’ attempt to stabilise the Portuguese public finance.
Table 6. Portugal’s Monetary and Financial Indicators, 1922-1926 (PI: 1914 = 100)

<table>
<thead>
<tr>
<th>Year</th>
<th>Exchange rate ($/£)</th>
<th>Public expense (thousands of ‘contos’)</th>
<th>Public revenue (thousands of ‘contos’)</th>
<th>Public Budget balance (thousands of ‘contos’)</th>
<th>Public Budget balance (% of the GDP)</th>
<th>Public debt (thousands of ‘contos’)</th>
<th>Money supply (M1) (thousands of ‘contos’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1922</td>
<td>65$1</td>
<td>550</td>
<td>320</td>
<td>-230</td>
<td>-2,9</td>
<td>4.002</td>
<td>1.555</td>
</tr>
<tr>
<td>1923</td>
<td>109$7</td>
<td>1187</td>
<td>537</td>
<td>-650</td>
<td>-5,0</td>
<td>6.963</td>
<td>1.986</td>
</tr>
<tr>
<td>1924</td>
<td>133$9</td>
<td>1171</td>
<td>770</td>
<td>-401</td>
<td>-2,4</td>
<td>8.048</td>
<td>2.438</td>
</tr>
<tr>
<td>1925</td>
<td>99$2</td>
<td>1428</td>
<td>1162</td>
<td>-266</td>
<td>-1,6</td>
<td>8.041</td>
<td>2.438</td>
</tr>
<tr>
<td>1926</td>
<td>94$8</td>
<td>1508</td>
<td>1099</td>
<td>-409</td>
<td>-2,4</td>
<td>8.900</td>
<td>2.499</td>
</tr>
</tbody>
</table>

Source: Authors’ calculation based on the Valério (2001 and 2008).

Mata and Valério (2003) note that the taxation reform in 1922 brought an increase in public revenues, even though some items of public expenditure increased, namely education expenses, through their strategic priority in the republican programme. Also, the problems related to high inflation that marked most of the Portuguese First Republic period started to being resolved, and in 1925 the results was evident. According to the data, the Portuguese fiscal consolidation strategy consisted on reducing the budget deficit essentially by increasing Public revenue.

Thus, the Revolution in May 1926, which led to the Military Dictatorship, occurred in a very favourable context (recovery). Besides experiencing real economic growth, Portugal was also in a process of stabilising its public accounts (however, it should be mentioned that, in spite of the obvious efforts on fiscal consolidation, the Portuguese public debt in thousands of ‘contos’, continued to rise).

Mateus (1998) and Lains (2003) argue that the Military Dictatorship was caused mainly by the political instability (there were nine governments during a single year) and social restlessness (strikes, attacks and assassinations), and not by the economic and financial situation experienced within the country. It was just starting to be favourable to the Republicans.

To summarise, in Figure 3, the historical course of public revenue and expenditure during the period 1885 to 1926 is presented, thereby indicating the events during the period which is the focus of this study. From this figure, it is possible to conclude that during most of the First Republic, there were high budgetary deficits as a percentage of GDP.
By the opposite, as we can see in Figure 4, in the same period, the public debt (as percentage of GDP) continued to decline since the beginning of XX century, with a substantially decrease in the period of the war. This substantially decrease in Debt-to-GDP was because of the strong Growth of GDP at current prices.

However in respect of the economic growth, in real terms, as we can see on Figure 5, on the First Republic, there was a strong decrease in the Portuguese real GDP during, and after, the World War, especially between 1917-1921, which it only started to recover in 1922, when the negative tendency was inverted.
In this context, and because the series evolution does not show any behaviour change, it is important to determine whether, after the end of the First Republic, the economic growth, and the public debt, stayed below or above the expected performance.

More precisely we will try to find if the economic growth in real terms, and public debt, as percentage of GDP in the first two civil years (1927 and 1928) of the Portuguese Military Dictatorship (1926-1933), stayed below or above the expected performance. This exploration is made in the following section of this paper.

**Applied study**

The brief econometrical discussion that follows is, in fact, a prediction exercise, so it is important to start with a brief explanation of some of the available options regarding prediction models; thereafter, the study of the Portuguese economy will be considered.

**Prediction models**

Prediction models analyse stochastic features of the time series based on previous values (lags) of the variables and of the stochastic term (error term).

These models are known as univariate time series models, and they are used to make predictions about the evolution of a meaningful variable, studying the characteristics of the past and analysing the dynamic inter-relation in a single time series.

These models can have several specifications, namely i) Auto-regressive process (AR); ii) Moving Average Process (MA); iii) Auto-regressive and Moving Average Process (ARMA) and iv) Auto-Regressive Integrated and Moving Average Process (ARIMA), among others (Pindyck and Rubinfeld, 1997; Gujarati, 2003; Stock and Watson, 2007).
The ARIMA is the most usual one, once it includes all the AR and MA situations. This models are applied exclusively to stationary time series. For example, an ARIMA process \((p,d,q)\) means that it has \(p\) auto-regressive terms, it is integrated (stationary series) of order \(d\), and it has \(q\) moving average error terms.

**Analysis of ‘stationarity’ of variables**

Before conducting the econometric estimation, we performed the Augmented Dickey-Fuller Test, known as ADF test (Dickey and Fuller, 1979), in order to analyse the stationarity characteristics of our variables: GDP at constant prices and public debt as a GDP percentage. With this test, we can only conclude that a given series is stationary and, therefore, make a given prediction by rejecting the null hypothesis of presence of unity root in.

The results obtained in ADF test in respect of both variables are shown in Table 7, from which it can be concluded that the GDP (1914 prices) and public debt as percentage of GDP are stationary in the first differences.

**Table 7. Augmented Dickey-Fuller Unit Root Test**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Lags</th>
<th>Statistic of test</th>
<th>p-Value</th>
<th>Conclusion of the Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>2</td>
<td>0,376573</td>
<td>0,793</td>
<td>Non stationary</td>
</tr>
<tr>
<td>d_GDP</td>
<td>1</td>
<td>-7,81143</td>
<td>1,476e-013***</td>
<td>Stationary: I(1)</td>
</tr>
<tr>
<td>Debt</td>
<td>4</td>
<td>-1,14998</td>
<td>0,2286</td>
<td>Non stationary</td>
</tr>
<tr>
<td>d_Debt</td>
<td>3</td>
<td>-2,42246</td>
<td>0,01492**</td>
<td>Stationary: I(1)</td>
</tr>
</tbody>
</table>

**Test with no Constant**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Lags</th>
<th>Statistic of test</th>
<th>p-Value</th>
<th>Conclusion of the Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>2</td>
<td>-1,91761</td>
<td>0,3244</td>
<td>Non stationary</td>
</tr>
<tr>
<td>d_GDP</td>
<td>1</td>
<td>-7,74723</td>
<td>2,711e-012***</td>
<td>Stationary: I(1)</td>
</tr>
<tr>
<td>Debt</td>
<td>4</td>
<td>-0,565163</td>
<td>0,8673</td>
<td>Non stationary</td>
</tr>
<tr>
<td>d_Debt</td>
<td>3</td>
<td>-2,70013</td>
<td>0,07394*</td>
<td>Stationary: I(1)</td>
</tr>
</tbody>
</table>

**Test with Constant**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Lags</th>
<th>Statistic of test</th>
<th>p-Value</th>
<th>Conclusion of the Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>2</td>
<td>-2,75113</td>
<td>0,2158</td>
<td>Non stationary</td>
</tr>
<tr>
<td>Debt</td>
<td>4</td>
<td>-3,09227</td>
<td>0,108</td>
<td>Non Stationary</td>
</tr>
</tbody>
</table>

**Test with Constant and Trend**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Lags</th>
<th>Statistic of test</th>
<th>p-Value</th>
<th>Conclusion of the Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>2</td>
<td>-2,75113</td>
<td>0,2158</td>
<td>Non stationary</td>
</tr>
<tr>
<td>Debt</td>
<td>4</td>
<td>-3,09227</td>
<td>0,108</td>
<td>Non Stationary</td>
</tr>
</tbody>
</table>

*Source: Estimated by the authors.*

After analysing the order of integration \((d)\) of the variables, we can proceed to the selection of the ARIMA model to predict the behaviour of each one.

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\(^8\) As usual, on ADF test the notation (*), (***) and (****) represents the rejection of the null hypothesis at a significance level of 10%, 5% and 1%, respectively. \(H_0\) = Null Hypothesis of presence of unit root. The number of lags was chosen automatically by GRETL software.
ARIMA model selection

According to Pindyck and Rubinfeld (1997), the selection of the $p$ auto-regressive terms and $q$ moving average terms should be made through the minimisation of the Schwarz information criterion (BIC). The prediction model chosen for each of the variables is documented in Table 8. For the GDP at constant prices and for the public debt (as a percentage of GDP), the ARIMA Model (1,1,1) was chosen.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type of ARIMA model</th>
<th>Schwarz criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>$d_{\text{GDP}}$</td>
<td>(1,1,1)</td>
<td>462.4</td>
</tr>
<tr>
<td>$d_{\text{Debt}}$</td>
<td>(1,1,1)</td>
<td>295.1</td>
</tr>
</tbody>
</table>

Source: Estimated by the authors.

We are now able to present our predictions. We begin by the expected performance of the GDP at constant prices, as can be seen in Figure 6.

Figure 6. Portuguese GDP, 1914 prices, thousands of ‘contos’, and ARIMA (1,1,1) prediction, 1885-1928

From Figure 6, it is possible to conclude, within a confidence interval of 95%, that there was real economic growth in actual terms above the level predicted by our model. Consequently, in 1927 and 1928, the real output grew sharply ($GDP$) instead of a contraction like the prediction indicated ($GDP_{\text{Pred}}$).

In other words, the first two civil years of Militar Dictatorship corresponded to a real economic growth instead of a contraction.

On the other hand, the expected tendency to the public debt in percentage of GDP ($Debt_{\text{Pred}}$) can be observed in Figure 7.
From Figure 7, it is possible to conclude that it was expected that Portuguese public debt should be around 46% of the GDP in 1928 ($\text{Debt}_\text{Pred}$), but instead there was a more significant reduction ($\text{Debt}$).

As we can easily conclude, the first two civil years of Military Dictatorship represented real growth and a reduction of public debt as percentage of GDP. In reality, in 1927 and in 1928, Portugal grew sharply and above our prediction, and its public debt as percentage of GDP, had a more significant reduction than predicted.

**Conclusion**

Through this study it has been possible to arrive at some important conclusions. In the very beginning of this ‘new’ century, a new political regime called the First Republic emerges; precipitating a wave of new aspirations in Portugal. However, this regime was characterised by instability at different levels.

During the most of his period, there were economic and financial (and also political and social) instability. More precisely, there were simultaneously high budgetary deficits and a growing public debt. Although public debt as percentage of GDP continued to decline since the beginning of XX century because of the strong growth of GDP at current prices. And about the prices, we can state that there were high inflation problems too, more precisely from 1916. This problems started to being resolved and in 1925 the results were evident.

In terms of real economic growth the First Republic was characterised by a sharp decline in real GDP, especially in 1917-1921, but it started to recover in 1922, when the negative tendency was finally inverted.

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* One must bear in mind that António de Oliveira Salazar took over the Ministry of Finance again in April 1928 (he had already taken on that position in 1926 for six days only); the main goal of this ‘new Minister’ of Finance was to balance Public Finance.
So the Portuguese economic scenario started to change and improve by the end of the First Republic and, consequently, before the beginning of the Military Dictatorship (1926-1933), which ended up taking advantage of the ‘new’ and more favourable economic situation of the country.

On the other hand, the econometrical trial showed that in the first two civil years of Military Dictatorship, Portugal grew sharply and above our prediction, and the public debt as percentage of GDP, had a more significant reduction then predicted.

This Military Dictatorship was later replaced by another regime in 1933, which from the perspective of the analysis of the macroeconomic indicators used in this study would be interesting to explore.

The present reality, about 100 years away from the First Republic, is such that we are forced to say that some problems in that period sounded familiar.

It is certain that the Portuguese economy has democratised itself and made great progress in the last years in the context of its European integration process, such that it has become part of the restrictive group of countries which are part of the Euro area nowadays. However, the truth is that Portugal faces great challenges nowadays regarding the sustainability of its public finance and serious growth problems.

Acknowledgments

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Appendix: Chronology of Events


26/02/1885: The principle of the effective occupation of the African territories is laid down.

1886: Portugal claims the regions of Angola and Moçambique in the “pink map”, a project which collided for a long time with the British claims of connecting “Cairo to Cape”.

11/01/1890: The English government gives the Ultimatum to Portugal.

14/01/1890: The new monarchic government takes office and soon faces protests and hatred feelings regarding England, feelings that are soon transmitted to the State, personified in the King and in the Government, considered the main responsible for the overseas politics by the public opinion.

20/08/1890: Portugal and Spain sign a treaty which is considered a humiliation to Portugal (the following year it would sign a more humiliating one).

07/05/1891: A serious financial and banking crisis starts in Portugal.

13/05/1892: The Portuguese State announces bankruptcy (even if a partial one).

08/08/1901: The last monarchy’s electoral law is published; it was one of the most restrictive electoral laws. From this moment on, centralisation and repression progressively take over.

23/05/1906: A decree ordering the end of the enrolments in the Universidade de Coimbra is published. The strikes in the schools go on and the atmosphere of dictatorship condemnation, together with social unrest, intensifies every day.
01/02/1908: King Carlos and Prince Luís Filipe are murdered.

05/10/1910: Proclamation of the Republic in Lisboa; a provisional government is formed.

20/04/1911: The law separating State and Church is published; all the cults are declared to be free, teaching Christianity in the schools is forbidden and the Church’s assets are nationalized. The Vatican reacts, cutting off diplomatic reactions with Portugal.

22/05/1911: The ‘Escudo’ is made Portugal’s official currency. Such measures aimed at changing the main State’s symbols, making an eventual restoration harder.

21/08/1911: The first Constitution of the Republican regime is promulgated.

1913: Serious financial crisis which led to the disappearance of important banks. Besides a contraction of the external markets, the stronger social groups showed a great distrust regarding the radicalism demonstrated by the Republic. The intensification of the protest movement led to a capital flight to foreign countries (a usual practice from the end of the monarchy on) and to a big investment reduction.

28/07/1914: The archduke Fernando from Austria is murdered. This event marks the beginning of World War I.

23/11/1914: The Portuguese entities approve Portugal’s participation in World War I besides England. The reasons for this are related with defending the African colonies and also with an attempt of assertion and recognition of the “young” Portuguese Republic.

03/03/1915: The rise of the essential goods prices in Portugal causes robbery and uproars.

09/03/1916: Germany declares war on Portugal.

30/01/1917: The ‘Corpo Expedicionário Português’ Second Contingent leaves a month later.

19/05/1917: During several days, there was a set of strikes, riots and burglary in grocery stores and warehouses in Lisboa and Porto. The war effort and the international context bring disastrous internal consequences. The lack of goods and the repression lead to the degradation of the State’s image and to the growing social unrest.

12/07/1917: In face of the serious social situation, the state of siege is declared in Lisboa.

1918: World War I comes to an end, with the signature of armistices by the countries defeated (Triple Alliance).

28/05/1926: Under the leadership of General Gomes da Costa, hero of the World War I, the military coup which founded the Military Dictatorship started in Braga.

03/06/1926: António de Oliveira Salazar, professor at the Universidade de Coimbra, is appointed Minister of Finance, having resigned shortly after.

27/04/1928: The new Military Dictatorship government takes office. António de Oliveira Salazar accepts, under certain conditions, to be the Minister of Finance again. His first aim was clearly achieving as fast as possible the “budgetary balance”, so he becomes responsible for the action of all the other ministries.
Javne finansije i ekonomski rast u Prvoj Portugalskoj Republici

REZIME – Kraj 19. veka obeležilo je nekoliko događaja koji su izuzetno važni za Portugal. Posledice ovih događaja biće kasnije odgovorne za pad monarhije i, samim tim, za rođenje republike. Prva republika je zvanično proglašena 5. oktobra 1910 i relativno je kratko trajala. Ovaj režim je kasnije ukinut od strane vojne diktature. Tokom većeg dela trajanja, Prvu Republiku obeležila je ekonomsko, finansijsko, političko i socijalno nestabilnost. Ipak, Portugalski ekonomski scenario počeo je da se menja i poboljšava do kraja ovog režima, i posledično, pre početka vojne diktature, koja je okončana uz prednosti i koristi od “novog” i povoljnije ekonomske situacije u zemlji. Pored toga smo pronašli dokaze da je u prve dve civilne godine Vojne Diktature realni BDP rastao naglo iznad naših predviđanja, a javni dug kao procenat BDP-a, imao je više značajno smanjenje

KLJUČNE REČI: ekonomski rast, Prva Republika, javne finansije, Portugal

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