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Portugal's Growth Paradox, 1870-1950

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PORTUGAL'S GROWTH PARADOX, 1870-1950[*]

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ABSTRACT

From 1870 to 1913, the Portuguese economy expanded slowly and diverged from the European core. Contrarily, in the interwar period, Portugal achieved higher growth and partially caught-up to the levels of productivity of Western Europe. Higher growth in Portugal after World War I occurred in a framework of protection, increasing state intervention, and capital deepening. Agriculture responded more positively than manufacturing, revealing important changes in its structure which favored output with higher levels of factor productivity. Portugal's pattern of growth across 1870-1950 was not unique within the European periphery, but it contrasted with Latin America's experience.

Keywords: *economic growth, European periphery, state intervention, protectionism.*

RESUMO

Entre 1870 e 1913, a economia portuguesa cresceu lentamente e divergiu do centro da Europa. Ao contrário, durante o período de entre as duas guerras mundiais, Portugal atingiu taxas de crescimento económico mais elevadas e convergiu parcialmente para os níveis de produtividade da Europa ocidental. O crescimento mais rápido verificado a seguir à primeira Guerra Mundial deu-se num contexto proteccionista, de crescente intervenção do Estado e também de intensificação do investimento. O sector agrário respondeu de forma mais positiva do que o sector manufactureiro, revelando alterações significativas na estrutura da produção da agricultura, em favor de produções com níveis mais elevados de produtividade dos factores. O padrão de crescimento em Portugal, durante o período entre 1870 e 1950, não foi único no contexto da periferia europeia, mas contrastou com a experiência dos países da América Latina.

Palavras-chave: *crescimento económico, periferia europeia, intervenção do Estado, proteccionismo.*

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INTRODUCTION

A better understanding of the causes of European economic growth has much to gain from the knowledge of the experiences of falling behind and catching up of the Continent's poor periphery. Theories on the causes of rapid industrialization have to be validated by investigating why peripheral countries remained behind during most of the nineteenth century and why that changed during the twentieth century. In a few number of peripheral countries rapid growth and catching up was first achieved during the interwar period, as a prelude to the period of higher growth during the golden age.[1] That was the case of Portugal.

From 1870 to 1913, Portugal failed to get closer to the levels of income per capita and labor productivity of the forerunners, despite the fact that it was increasingly involved in the international economy. Between 1913 and 1950, Portugal's growth experience changed in a remarkable way. Its rate of economic growth increased and, for the first time since industrialization began, the gap to the European core was partially abridged (though part of the recovery was due to the slowing down of economic growth in the European core after 1929). Thus, the Portuguese economy expanded slowly when more favorable external conditions developed, and expanded more rapidly when the international economic conditions were *less* favorable, after World War I.[2] This paper explores the causes of such paradox.

Portugal's growth paradox was not unique within the European periphery. But growth experiences elsewhere were more limited in time because of political instability and civil war. In Greece and Yugoslavia, the period of higher growth following World War I was interrupted by instability in Central Europe, particularly in their main trading partners on the West, Germany and Austria, following the 1931 bank crisis. Spain had an acceleration of growth after World War I which was interrupted by the emergence of

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[1] See Maddison (1995), Good and Ma (1999) and Lains (2003a). For Greece see Kostelenos (1995) and Christodoulaki (2001). Bulgaria and Turkey also caught-up in the period from the early 1920s to the beginning of World War II, whereas Latin America diverged. See Pamuk (2001) and Taylor (1998). See also Milanovic (2003).

[2] According to Clemens and Williamson (2001), tariffs were positively correlated with growth in the nineteenth century (1865-1908) and during the interwar period (1919-1934). See also Bairoch (1976), O'Rourke (2000) and Vamvakidis (2002).

civil war in 1936.[3] The impact of the Great Depression in Italy was in the midway between industrialized and peripheral Europe.[4]

Yet the growth experience of the poor periphery of Europe contrasts with what happened in other parts of the World and, in particular, in higher income Latin America countries, such as Argentina.[5] There economic growth was generally higher before World War I and the region benefited largely from immigration, capital imports and exports to the European and the North American markets. After the War and even more so after the Great Depression, Latin America entered a period of slower growth and falling behind, as a consequence of the contraction in international economic relations. [6] The contrast between the European and the Latina American peripheries is a further paradox of the interwar period. According to Williamson (2002a) tariffs have positive long-run effects, if there is a 'big domestic market' and if a given country 'is ready for industrialization, accumulation and human capital deepening'.[7] However, in the early twentieth century, Argentina was closer to that description and the outcome of higher protection and state intervention was apparently less favorable than it was in Portugal.

The causes of the Latin American depression in the interwar period can be related to changes in tariff policy, although the shift to higher protection was less important than previously believed.[8] But they are also related to other factors, such as the sharp contraction of capital imports, after 1914, and the low domestic savings rate of the population with a large proportion of young immigrants.[9] Hadass and Williamson (2003) also sustain that one of the possible causes of the Latin American falling behind during the interwar period was a 'resource course' associated with capital flight and rent seeking in their economies. As we contend in the paper, capital imports into Portugal

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[3] See Palafox (1991), Carreras (1995), Prados and Sanz (1996) and Prados (2003).
[4] See Rossi and Toniolo (1992), Mattesini and Quintieri (1997) and Perri and Quadrini (2002). See also Madsen (2001a).
[5] See Taylor (1992). Taylor and Williamson (1997) argue that factor mobility had a higher impact on wage convergence than did trade.
[6] See Williamson (2002a and 2002b).
[7] See also Eichengreen (1992).
[8] For the evolution of the levels of Latin American trade protection before and after 1913, see Blattman *et al.* (2002), Clemens and Williamson (2001) and Hadass and Williamson (2003). For the analysis of the divergence of Latin America, see Williamson (2002b). Madsen (2001b) estimates that higher trade barriers accounted for about half of the reduction of total trade among 17 countries, representing world trade, in the interwar period. Estevadeordal *et al.*(2003) argue that the main causes of the depression of world trade in the interwar period were higher transport costs and the collapse of the gold standard. See also Rodríguez and Rodrik (2000).
[9] See Taylor (1992 and 1998). See also Eichengreen (1992).

increased after the War, as did the domestic savings rate. The understanding of comparatively better performance of the European periphery may have more to do with what happened in the capital markets than with the effects of protection.[10]

The change in the pattern of economic growth in the poor European periphery in the period between the wars has deserved little attention in the literature and it has still not held enough recognition. Its understanding is most relevant for the discussion of explanatory models of European economic growth, as it contributes to the study of the effects of different levels of openness and state intervention on the growth of the less industrialized economies, as well as the effects in changes in capital flows.

The paper is structured as follows. Next section sets down the main features of the Portuguese economy and discusses the impact of the War and the stabilization program that followed. The third section discusses the main trends in economic growth and structural change in the period from 1870 to 1950. The fourth section analyses the growth of factor productivity in agriculture and industry. The fifth section explains Portugal's growth performance in terms of productivity gains in the agrarian sector. The paper ends with a concluding section.

BACKWARDNESS IN THE AFTERMATH OF WORLD WAR I

By mid-nineteenth century, Portugal was an extremely backward country, as its income per capita laid well behind most of the other Western European countries, including Scandinavia.[11] Such high level of backwardness is evident in many aspects. There were large parts of the territory which were not cultivated, despite the fact that the labor force was to a large proportion still employed in the agricultural sector. The share of animal products in total agrarian production was relatively small. Such feature implied a deficient use of natural manure and animal force, which were of course not substituted by chemical fertilizers until late in the nineteenth century and machinery well into the twentieth century.[12] In industry there was a predominance of traditional activities and mechanization and the use of coal or other sources of power was still relatively scarce.[13]

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[10] See Estevadeordal *et al.*(2003). See also Prados (2003, pp. 158-59).

[11] 'Extreme backwardness' is here used in the sense introduced by Gerschenkron (1962), referring to a level of development below the threshold of the converging countries. See also Abramovitz (1986) and the discussion in Lains (2002). For relative income levels in Europe, see also Maddison (1995) and Reis (2000).

[12] See Reis (1993).

[13] See Justino (1988-1989) and Pedreira (1990).

The transport sector was also poorly developed, with bad roads, few ports and no relevant canals.[14] The society at large also had many signs of serious underdevelopment. The state was relatively inefficient, constrained by political instability and scarce of financial resources and that translated into a deficient coverage of the territory and low levels of investment in infrastructure and education.[15]

Portugal's extreme backwardness was only partially overcome in the years from 1850 to 1913, but some progress was achieved. Firstly, the industrial sector expanded at about 2.5 percent per year and the agricultural sector at about 1.5 percent and thus the country became more industrialized, albeit at a relatively slow pace.[16] There were also significant productivity gains in the agricultural sector. Other facets of change in the Portuguese economy include changes in the structure of both the agricultural and the industrial sector. In agriculture, a major transformation concerned the increase in the area under acreage at the expense of the decline in the uncultivated area or the area left under fallow. This was a major source of the increase in labor productivity as more land was put into use.[17] Contrarily, there were no relevant changes in the levels of land productivity, as the introduction of new processes and techniques in agriculture was relatively slow. In the industrial sector, there were also some relevant productivity gains and changes in structure, which were associated with higher levels of protection. Due to highly protective tariffs, both in the domestic and the colonial markets, at the outbreak of the War, Portugal had a relatively large share of its industrial labor force occupied in the textile sector, which was relatively inefficient.[18]

Despite tariff protection, the degree of internationalization of the Portuguese economy increased in important ways after 1870, as foreign trade, capital imports and emigration expanded faster than the rest of economy. These trends were not sustained though. Following the abandonment of the gold standard in 1891 and the partial default from the state in the following year, capital imports declined.[19] Export also expanded at slower pace in the last two decades before the war, as Portugal did not manage to keep her quotas in the markets for agricultural products, such as wine and live animals, due to the

[14] See Justino (1988-89).
[15] Reis (1993).
[16] See Lains (1995).
[17] See Lains (2003b).
[18] See Lains (1995).
[19] See Mata (1993) and Esteves (2003).

competition from Mediterranean and South American exporters.[20]

The slow pace of economic growth in the decades up to 1913 went together with the slow development of institutions and infrastructures. Yet the control of the State over the territory was universally achieved by the eve of the War. Mortality fell and urbanization and literacy rates increased in significant ways.[21] The financial system became more developed and widespread.[22] And there was an important effort in building railways, roads and other infrastructures. Such developments were made possible by increasing government deficit and public debt, which was financed either domestically or in the international capital markets.[23]

Despite such positive economic and institutional developments, the fact is that Portugal failed to catch-up to the levels of income per capita of the forerunners.[24] But half a century of slow but sustained growth led the Portuguese economy to a higher degree of maturity, which proved to be fundamental for the kind of response to the distresses provoked by World War I. The war was highly disruptive for the Portuguese economy, in spite of the fact that the country had only a minor participation and that its territory was not directly affected by warfare. In 1916, Portugal entered the war on the allied side and the first immediate consequence was an increase in public expenditure and in the government deficit, which led to an increase in money supply and inflation.[25] The war also provoked the decline in exports from Portugal and reexports from the colonies, whereas imports maintained its upward trend. Emigrant remittances declined too and the financing of the country's balance of payments was severely affected.

The participation in the war was compensated by a loan from the British government which temporarily eased the external and the government financial disequilibria.[26] But that was not sufficient and, as state revenues did not keep up with expenses, the government kept printing money and prices continued to rise sharply. Of all countries which territory was not affected by warfare, Portugal was the one with highest inflation

[20] See Lains (2003c, chap. 2)
[21] See Reis (1993).
[22] See Reis (1995).
[23] See Mata (1993) and Esteves (2003).
[24] None of the European countries with levels of income per capita close to Portugal's in around 1870 caught up in the period to 1913. See Good and Ma (1999) and Lains (2002).
[25] On the interwar period see Valério (1994), Carvalho (2001) and Lains (2003c, chap. 5).
[26] Valério (1994).

levels and devaluation.[27]

After the War, several measures were taken in order for the government to gain more leverage over the economy, as was happening contemporarily in the rest of the European continent. That change occurred firstly has a response to the effects of the War in the supplies of energy, raw materials, and main food staples, in order to minor food shortages and to keep on working the industries which depended on the imports of energy and other industrial inputs. The interwar period was also marked by a high level of political instability which lasted throughout the whole period of the Republican regime (1910-1926) and during the first years of the dictatorship imposed in 1926.

Stabilization is often associated with the dictatorship imposed by the 1926 military coup, that would lead to the ascension of Salazar, first as finance minister, in 1928, and then prime minister, in 1932. However, it should be noted that stabilization was clearly achieved from 1924 and that the two first years of the dictatorship, 1926-1928 had a negative impact on the main financial and monetary variables.[28] Moreover, military uprisings, general social unrest and strikes marked Portugal's political life until well into the 1930s and it only stopped thanks to the repression and the limitation of political rights imposed by the dictatorship.[29]

The redressing of the Portuguese finance and monetary variables was achieved though a mix of improved conditions in the foreign markets, change in monetary policies, fiscal reform, and the rise of tariffs and other import controls.[30] Such measures were of course made possible by political stabilization and also by the return of at least one of the classical sources of external financing, namely, emigrant remittances. In 1922 and 1923, respectively, a fiscal and a tariff reform were implemented. Both reforms aimed to restore government taxes which had been eroded by the inflation, as most tariffs were specific and not *ad valorem*. In 1924, a foreign reserve fund was introduced which retained 50 percent of the earnings in gold and foreign reserves from exporters and there was an important sale of silver coin reserves by Banco de Portugal. In 1925, a new bank imposed stricter measures for the sector and defined the role of Banco de Portugal as strictly one of central bank with higher control by the government. The new balances

[27] See Feinstein *et al.* (1997).
[28] See Valério (1994).
[29] See Pinto (Ed.) (1998) and Gomes and Tavares (1999).
[30] For further details on the stabilization policies, see Valério (1994), Carvalho (2001) and Lains (2003c, chap. 5).

were also made possible by the negotiations of the war debt to Great Britain which was virtually cancelled in 1926. One further major help in reaching the new equilibrium was the return of domestic capital that had flown the country during the War, which was estimated at 60 to 70 million pound sterling, accumulated in 1929, and should be compared to an estimate of British investment in Portugal of 21-25 million pounds and exports which totaled 10 million pounds, also in 1929.[31]

After two years of political instability, in 1928, Salazar as finance minister enhanced the measures that had been taken up to then. He refused a loan from the League of Nations, which had been painfully negotiated by the finance minister before him. There were also some war compensations and a severe cut in expenses with the colonies, which were to end totally in 1930. In 1929, final steps were made to redress the state finances by increasing further tariff levels. After peaking at 30 percent of GDP, in 1924, the import share declined to 18 percent of GDP, in 1929, and that level that was kept roughly constant up to 1945. The share of exports in GDP also remained relatively constant throughout.

Table 1 provides the data on the evolution of Portugal's main fundamentals. It depicts the high rates of price inflation and exchange devaluation which started off during the War and were aggravated in the post-war period. At an annual rate of 58.8 percent, between 1914 and 1918, Portugal had the highest war inflation in Western Europe, surpassed only by Italy, Finland and the hyperinflation in Germany and Austria. During the following period from 1918 to 1924 Portugal remained at the top of the inflation league in Europe. The depreciation of the exchange rate followed closely the inflation pattern, because the *escudo* was left to float. Table 1 also shows the growth of the money supply, total public debt and the ratio of the budget deficit to GDP. In all cases there was a considerable expansion, as compared to the pre-war levels and in all cases there was a sharp reduction in the years between 1924 and the outbreak of World War II. Table 2 shows the evolution of tariff protection and trade ratios and points to the fact that protection was more effective after 1929.

[31] Lains (2003c, pp. 160-162).

Table 1 - Monetary and fiscal indicators for Portugal, 1854-1945

	GDP Deflator % pa	Money Supply % pa	Exchange Rate % pa	Total Public Debt % pa	Budget Deficit % of GDP
1854-1891	0.39	3.23	0.00 (1)	5.12	1.5
1891-1914	0.92	0.68	0.69	0.46	0.3
1914-1918	58.81	21.37	8.68	11.29	6.8
1918-1924	30.84	37.68	60.28	41.70	8.7
1924-1929	-3.33	5.20	-4.17	3.48	3.3
1929-1939	-0.10	6.21	1.85	-2.84	-0.9
1939-1945	15.22	27.77	-1.58	5.54	0.9

(1) Portugal was on the Gold Standard from 1854 to 1891.
Sources: GDP deflator: Lains (2003c, appendix); Money supply (M1): Valério (Ed.) (2001, pp. 568-71) (for a discussion of different series for the period to 1912, see pp. 544-45); Exchange rate: Valério (Ed.) (2001, p. 737); Total public debt: Valério (Ed.) (2001, pp. 707-10); Budget deficit: Mata and Valério (1996, p. 205).

Table 2 - Trade ratios and average tariffs (percent)

	Average Tariffs		X/ GDP		M/ GDP		(X+M)/ GDP	
	Value	Volume	Value	Volume	Value	Volume	Value	Volume
1910-1913	22.9	--	9.0	11.4	19.4	7.5	28.4	18.9
1918-1928	8.0	19.6	8.4	11.3	24.9	9.8	33.3	21.1
1929-1937	27.9	47.4	6.6	8.7	14.7	12.3	21.3	21.0
1938-1950	16.3	19.1	11.5	9.6	16.3	15.0	27.8	24.6

Notes: Average tariffs are the ratio of total tariff revenues to total imports. Shares in volume were computed by deflating values respectively by the price indices for GDP, exports (X) and imports (M). Tariffs were deflated by the GDP price index.
Sources: Computed from Batista *et al.* (1997).

STRUCTURAL CHANGE: TWO STEPS FORWARD, ONE STEP BACK

The main phases of growth of Portuguese income per capita during the century to about 1950 are given in Table 3, which shows trends growth rates defined between peak years (see also figure 1).[32] The data shows that in the first phase from 1855 to 1870 there was a substantial decline in income per capita, as the economy shrank at –0.74 percent per year. The decline may be exaggerated, as we cannot be sure whether 1855 is an absolute peak, for lack of data for the previous years. Yet it is well established that this was a period of decline in agricultural output, particularly due to the fall of wine output as a consequence of the spread of disease in the vines. Portugal was a highly agricultural economy, in which wine accounted for about 1/3 of the total agrarian output, and thus economic growth was much sensitive to changes in climacteric or other natural

[32] For a discussion of GDP data, see Lains (2003c, appendix).

conditions.[33] Growth of income per capita resumed after 1870 but in a first phase income expanded only moderately. From 1882 to the end of the nineteenth century, the pace of economic growth increased. According to the data on Table 3, most of the last quarter of the nineteenth century was spent in recovering economic decline in the 1850s and the 1860s.

During the first decade of the twentieth century, agriculture had again a negative phase, which partially offset the positive performance of the industrial sector. In sharp contrast with what happened in agriculture, industrial output expanded at relatively stable rates of growth throughout the decades from 1870 onwards and showing some tendency to rise at the end of the century. The year 1922 marked an important turning point in Portugal's growth experience, as income per capita expanded since then at rates which had not been seen before. In the years after 1922, growth was common to the three sectors of the economy and in some periods there was a small increase in the share of agriculture in national output. There was a slight slowing down after 1934, but growth resumed at a faster pace after 1947.

Table 3 – Growth of real income per capita in Portugal, 1851-1958
(peak-to-peak annual growth rates; percent)

1855-1870	-0.74
1870-1882	0.44
1882-1902	0.90
1902-1922	0.69
1922-1934	1.56
1934-1947	1.13
1947-1958	2.14
Trend (1851-1958)	0.86

Note: Peak years (1855 and 1958 excepted) are derived from a log-linear time trend for 1851-1958.
Source: Lains (2003c, appendix).

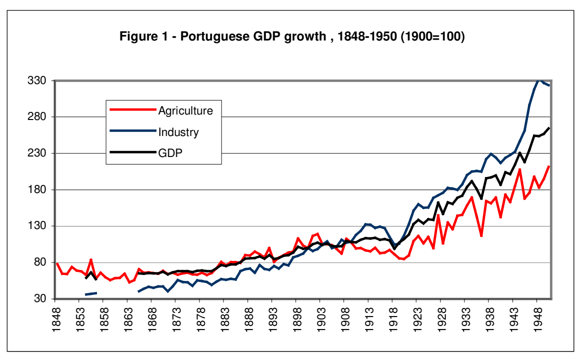


Figure 1 - Portuguese GDP growth , 1848-1950 (1900=100)

Table 4 compares the growth of Portugal's GDP per capita with growth in the three European peripheral and an average for nine European core countries, during what can be termed the Maddison's phases of economic growth. The table shows that the performance of the Portuguese economy was relatively poor during the first two phases down to 1913. During the period from 1913 to 1929, Portugal's income per capita

[33] See for agricultural growth Justino (1988-1989) and Lains (1995).

growth rate increased, although it performed worst than Spain and Greece. Yet, Portugal kept on growing after 1929, contrarily to Spain, which was affected by the civil war (1936-1939). After 1938, Portugal's growth performance was also better than that of Greece and that can be explained by the fact that Greece which was directly affected by World War II which was followed by civil war. As a result, Portugal performed better than the rest of the peripheral countries shown in the table when the whole 1913-1950 period is considered.[34]

Table 4 - Growth of real income per capita in the European periphery, 1870-1950
(Maddison's phases of development; annual growth rates between 3-years averages; percent)

	Portugal	Spain	Greece	Ireland	Average 9
1870-1890	0.66	1.48	-	1.21	1.07
1890-1913	0.40	0.76	-	0.84	1.32
1913-1929	1.35	1.65	2.45	0.33	1.39
1929-1938	1.28	-3.53	1.50	0.87	1.16
1938-1950	1.56	1.48	-2.72	0.94	1.00
1870-1913	0.52	1.09	0.54	1.01	1.21
1913-1950	1.40	0.31	0.51	0.66	1.21
1870-1950	0.93	0.73	0.53	0.85	1.21

Notes: 'Average 9' is based on an unweighted average index for the following European core countries, from Maddison: Belgium, Denmark, France, Germany, Italy, Netherlands, Norway, Sweden and UK. Three year averages, except for 1870/71 and for Spain (1870 and 1890), Ireland (1870, 1890 and 1913).
Sources: Maddison (1995 and 2001), Lains (2002), for Greece in 1870-1913 and Lains (2003c, appendix) for Portugal.

Table 5 - Convergence of real incomes per capita in the European periphery, 1870-1950
(Maddison's phases of development; annual growth rates between 3-years averages; percent)

	Portugal	Spain	Greece	Ireland
1870-1890	-0.41	0.41	-	0.14
1890-1913	-0.92	-0.56	-	-0.48
1913-1929	-0.04	0.26	1.04	-1.04
1929-1938	0.12	-4.64	0.33	-0.29
1938-1950	0.55	0.47	-3.69	-0.06
1870-1913	-0.68	-0.11	-0.66	-0.19
1913-1950	0.19	-0.89	-0.69	-0.54
1870-1950	-0.28	-0.47	-0.64	-0.35

Notes: convergence defined according to:

$$\phi = [(y_i / y9)_{(t+1)} / (y_i / y9)_{(t)}]^{[1/(t+1-t)]}$$

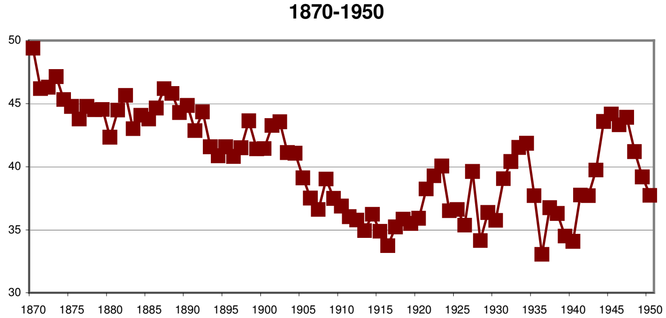
where y_i is income per capita for the 4 countries in the table and y9 is the average for the United Kingdom, France, Germany, Belgium, the Netherlands Italy, Sweden, Denmark and Norway.
Sources: see Table 4.

[34] See Lains (2003a).

Table 5 tells the same story, based on estimates for GDP per capita rates of convergence towards the European core. As it is shown, Portugal diverged in 1870-1890, at –0.41 percent per year, and even more in 1890-1913, at –0.92 percent per year. It is interesting to note that divergence after 1890 was more important in Portugal and that it occurred in Spain and Ireland, contrarily to what have happened in these countries in the period before 1890. In the case of Portugal, there was a slight divergence during 1913-1929, but after the New York crash, Portugal start converging for the first time, again in marked contrast to what was happening in the rest of the countries of the European periphery shown in the table. Catching-up was helped by the reduction of growth in the European core after 1929.

Figure 2 shows that the ratio of Portuguese GDP per capita to the average of the nine European core countries declined quite sharply, between 1870 and 1875, from 50 to 45 percent, stabilized in the years up to 1890, declined only slightly to 1900, and then sharply again to 1915. From then on, the ratio evolved in an irregular way but with a positive trend to at least 1947. However, in this year, Portugal's relative position was still below the one that existed in 1870.

Figure 2 -
Portuguese GDP per capita as per cent of Average 9, 1870-1950



Source: see Table 1

The observed pattern of growth of income per capita can be related to changes in the structure of the economy before we turn to the analysis of the evolution of factor productivity. Data on the evolution of the structure of the output of the Portuguese economy during the century from 1850 to 1950 is presented in Table 6. The data is based on direct evaluation of output at 1958 prices for the period from 1910 to 1950. For the previous period, we use backward extrapolations of the structure in 1910, based on indices for physical output growth and a proxy index for the growth of services. As shown there, Portugal had in the beginning of the period a small level of industrialization, as the industrial sector accounted for only 13 percent of total output, whereas the agricultural sector accounted for about 45 percent. The share of the agricultural sector in GDP declined from 45.4 percent of total output, in 1850, to 36.4 percent, in 1880, to increase in the following two decades. Such evolution of the weight of the agricultural sector is closely related to trends in the growth of output. In fact, the decline of the agricultural output share down to 1860 happened in a decade of severe contraction of output, whereas the recovery of the share between 1880 and 1910 was associated to the expansion of output. Portuguese economic growth had to be somehow related to the performance of its largest sector, agriculture, but the fact that economic growth could be driven by an increasing participation of the agricultural sector has to be explained. By 1910, the share of agricultural output in total output had reached the level it had thirty years previously, and from 1920 to 1950 the agricultural share remained virtually constant.[35] The largest increase in the share of the industrial sector occurred between 1850 and 1860, from 13 to 18 percent, and then it took five decades to reach a level of 27 percent. After 1910 the share of the industrial sector remained relatively stable, increasing only in the decade from 1940 to 1950.

Table 6 – Evolution and composition of GDP, 1850-1950

	GDP	**Agriculture**	**Industry**	**Services**
	000 *contos* 1958 prices	Percent		
1850	9,340	45.4	13.1	[41.5]
1860	9,821	36.8	18.2	[45.0]
1870	10,958	37.6	17.1	[45.3]
1880	11,498	36.4	18.9	[44.7]
1890	13,727	41.5	21.7	[36.8]
1900	16,073	41.5	24.9	[33.6]
1910	18,267	36.6	27.1	36.2
1920	18,809	31.0	26.0	43.0
1930	27,387	33.1	27.4	39.6
1940	32,858	33.0	27.8	39.2
1950	44,800	32.0	30.7	37.3

Notes: The years in table refer to the centre of three-year averages, except for 1910/11.
1 *conto* = 1,000$000 (1 million reis).
Source: Lains (2003c, Appendix).

[35] For the period before 1910, these shares are only indicative, as they were estimated by extrapolating backwards output data for 1910 and the growth of the services sector was taken as the growth of active population in the sector. See Lains (2003, appendix).

The evolution of labor force and of its structure can only be assessed indirectly due to lack of data. Table 7 sets down data the available data on total population, population in the 15-64 years bracket and active population. The data on active labor force provide from the census since 1890 is not plausible, as it implies that the size of male active population is larger than the size of the 15-64 years bracket. More importantly, it implies a substantial contraction in total labor participation rates, from 50.1 percent in 1890 to 37.9 percent in 1950, and a once and for all decline of 10 percentage points between 1910 and 1930. As such, we opted to use as a proxy for the evolution of labor force the evolution of males in the 15-64 years bracket, which implies that we assume that labor participation rates remained stable throughout the period. This assumption affects to a relevant extent only the evolution of labor force during 1910-1930 and that should be taken into account in the interpretation of the results. But our option has two advantages. Firstly, it implies that we can have a coherent data for active population also for those censuses which did not provide that information, namely, 1864, 1878 and 1920. Secondly, it depicts a growth of active population in line with estimates based on a model for interpolation of active population between census years.[36] According to that data, there was a gradual decline in the expansion of the total labor force all the way to 1920, although in this latter decade the reduction in the rate of growth was more important. After 1920, however, labor force expanded more rapidly, what was due to the contraction in emigration after that year. Table 8 shows the shares of total labor force in the three sectors based on the structure of active population given by two parish censuses for 1841, 1862, and the official population census for 1890, 1900, 1910, 1930, 1940 and 1950. The structure for the intermediate census years is estimated by linear interpolation.[37]

[36] See Valério (Ed.) (2001, chap. 4).
[37] See for the parish censuses, Reis (forthcoming).

Table 7 – Population and labor participation rates

	Total (000)		15-64 years as % of total population		Active as % of total population		Active as % of 15-64 years	
	Total	Males	Total	Males	Total	Males	Total	Males
1864	4,188	2,006	61.3	59.3	--	--	--	--
1878	4,551	2,176	61.4	59.7	--	--	--	--
1890	5,050	2,430	60.5	58.9	50.1	66.2	82.8	112.4
1900	5,423	2,592	60.3	58.7	45.3	66.6	75.1	113.4
1911	5,960	2,829	59.6	57.6	42.7	65.3	71.7	113.4
1920	6,033	2,856	61.0	59.2	40.2	--	65.9	--
1930	6,826	3,256	61.7	60.4	36.9	56.0	59.8	92.7
1940	7,722	3,712	61.3	60.4	35.9	57.7	58.7	95.6
1950	8,441	4,060	63.5	63.1	37.9	60.9	59.6	96.5

Sources: Valério (Ed.) (2001, pp. 51, 55-56, 164 and 178) and Mitchell (1996, table A2).

Table 8 – Evolution and sectorial distribution of male labor force, 1841-1950

	Total Male Labor Force	Agriculture	Industry	Services
	(000)	Percent		
1841	993	67.5	15.9	16.6
1862	1,161	65.9	15.5	18.5
1864	1,189	[66.0]	[15.7]	[18.2]
1878	1,298	[66.6]	[17.0]	[16.3]
1890	1,432	66.9	18.3	14.8
1900	1,522	66.4	18.8	14.8
1911	1,629	61.0	21.7	17.3
1920	1,691	[60.9]	[21.2]	[17.9]
1930	1,967	60.9	20.7	18.4
1940	2,241	57.8	21.0	21.1
1950	2,562	53.8	24.6	21.6

Notes and sources: Total males in the 15-64 brackets computed from table 7, except for 1841 and 1862 which are based on growth rates for labour force to 1890 from Reis (forthcoming). Shares from Reis (forthcoming) (for 1841 and 1862) and from Valério (Ed.) (2001, p. 164) (for 1890 to 1950, except for 1864, 1878 and 1920, which are linear interpolations from adjoining years).

The comparison of Portugal's structural change patterns with that of other southern European countries reveals a precocious industrialization. In 1860, agricultural output in Portugal accounted for 36.8 percent of total domestic output, whereas in Spain and Italy the agricultural shares were higher, namely, 39.6 and 46.1 percent. In the five decades to 1910, the relative size of agriculture in the three southern European countries converged. After 1920, they diverged once more, as Portugal's share remained relatively flat, whereas the Italian and Spanish shares declined. Structural transformation in Portugal was thus slower than in Spain and Italy and it did not follow a consistent pattern.[38]

Table 9 compares Portugal's agricultural share at different levels of GDP per capita, with the norm for 17 countries, for late developers in nineteenth century Europe, as well as for 101 countries in the 1950-1970 period. This comparison helps describing the

[38] See Mitchell (1996, tab. J2), Molinas and Prados (1989) and Zamagni (1993, tab. 0.7).

extent to which Portugal's structural transformation was somehow related to the country's relative level of economic development and it shows that it was not.[39] In fact, in 1910, Portugal GDP per capita in dollars and prices of 1970 was about US$ 300 and the share of agriculture in national output was 36.6 percent. At the same level of income per capita, the norm for Europe was 54.2 percent, whereas it was 52.0 percent for the less developed European and 46.3 percent for the post-war World. In other words, Portugal had gone slightly further in the reduction of the size of the agricultural sector. The fact that the agricultural share in Portugal did not declined to 1930, contrarily to what happened in the three groups of countries mentioned above, implied some convergence of structural change. And after 1930, Portugal's share converged further to that of other countries with the same level of development.

Table 9 – Portugal's structural change compared

GDP p.c. $US 1970	**Portugal**			**19th Century Europe**						**World, 1950-1970**		
				17 countries			Late-developers					
	AGY	AGLAB	SPG	AGY	AGLAB	SPG	AGY	AGLAB	SPG	AGY	AGLAB	SPG
	37.6 (1870)	66.3	3.26									
	41.5 (1890)	66.9	2.85									
300	36.6 (1910)	61.0	2.71	54.2	72.9	2.27	52.0	69.3	2.08	46.3	66.7	2.32
400	33.1 (1930)	60.9	3.15	46.5	64.3	2.07	44.1	64.4	2.29	41.3	62.7	2.39
550	32.0 (1950)	53.8	2.47	38.0	54.6	1.96	35.3	59.0	2.64	34.6	57.3	2.54

Notes and sources: GDP per capita measured in 1970 US dollars and prices. "World norm" are the values predicted by linear regressions for a sample of 101 countries for 1950-70, with income and population as dependent variables and population fixed at 10 million. See Chenery and Syrquin (1975, table 3). Portugal's GDP for 1970 is from Bairoch (1981, p. 10) and extrapolated backwards following estimates on table 1. Data from Crafts (1984, tabs. 2, 4 and 7).
AGY = share of agriculture in total output (%); AGLAB = share of agriculture in total labour force (%); SPG = Sectoral productivity gap = (100-AGY) / (100-AGLAB) x AGLAB / AGY.

Table 9 also shows that the earlier structural transformation of Portugal's output is matched by a precocious shift of labor resources from agriculture to industry. In fact, at $US 300 level of GDP per capita at 1970 prices, Portugal had 61.0 percent of its labor force employed in the agricultural sector, whereas the nineteenth century European norm for the same level of income per capita was higher at 69.3 percent, for the late-developers, or 72.9 percent, for the 17 European countries, whereas the World norm, in 1950-1970, was 66.7 percent. In 1950, as GDP per capita amounted to $US 550, Portugal's labor share was still below the correspondent European and World norms. Thus, the growth of the share of agriculture in national output was accompanied by a decline in the share of agricultural labor. This means that the productivity gap between

[39] See Chenery and Syrquin (1975) and Molinas and Prados (1989).

agriculture and the rest of the economy declined in the period to 1950, converging to the level of nineteenth century European late-comers and the World average.

The fact that the share of Portugal's agricultural sector in total employment and output was smaller than the average of countries with similar levels of development is a consequence of the fact that up until late in the nineteenth century the level of tariff protection of industry was higher than that of agriculture.[40] After 1890, protection to agriculture was enhanced and agriculture increased its weight in total output and labor force. It is important to point though that the increase in the relative importance of the agricultural sector, after World War I, was associated with a decline in the growth of agrarian labor force and that labor productivity increased concomitantly. Thus, we observe a decline in the sectorial productivity gap in favor of the agricultural sector and that Portugal converged also in terms of productivity gaps to the level of the other countries at the same level of development. This is also shown in Table 9. Structural change after 1920 is associated with changes that put the structure of the Portuguese economy in line to the norm of other countries with similar levels of income per capita, reversing the precocious shift of resources out of agriculture in the period before World War I and, in particular, before 1890.

Table 10 shows aggregate and disaggregate growth rates for output, labor force and labor productivity. Labor productivity in the whole economy expanded faster during 1880-1900 and slowed down in the following two decades. After 1920, labor productivity gained momentum and despite the slowing down in the 1930s, labor productivity expanded more rapidly after the War then before. The productivity of labor employed in the agricultural sector in some occasions expanded at a similar pace or even more rapidly than that of the industrial sector, as it was the case in the decades from 1880-1890 and from 1920-1950. Thus the increasing importance of the agricultural sector was clearly associated with a better overall economic growth performance. This was so particularly during the 1920s and the 1940s.

[40] See Lains (2003c, chap. 3)

Table 10 - Growth of output, labour force and labour productivity, 1860-1950
(annual growth rates, percent)

	Output			
	Agriculture	**Industry**	**Services**	**Total**
1860-1880	0.74	0.95	0.70	0.70
1880-1890	3.14	3.23	0.90	2.21
1890-1900	1.58	3.00	0.65	1.57
1900-1910	-0.40	1.97	1.00	0.74
1910-1920	-1.64	0.15	2.14	0.32
1920-1930	4.51	4.35	2.97	3.83
1930-1940	1.81	2.02	1.73	1.84
1940-1950	2.82	4.16	2.66	3.15

	Labor force			
	Agriculture	**Industry**	**Services**	**Total**
1860-1880	0.77	1.28	-0.09	0.70
1880-1890	0.86	1.44	0.01	0.82
1890-1900	0.54	0.88	0.61	0.61
1900-1910	-0.15	1.94	2.06	0.62
1910-1920	0.40	0.16	0.80	0.42
1920-1930	1.52	1.28	1.80	1.52
1930-1940	0.78	1.46	2.71	1.31
1940-1950	0.62	2.96	1.59	1.35

	Labor productivity			
	Agriculture	**Industry**	**Services**	**Total**
1860-1880	-0.03	-0.33	0.79	0.00
1880-1890	2.28	1.79	0.89	1.39
1890-1900	1.04	2.12	0.04	0.96
1900-1910	-0.25	0.03	-1.06	0.12
1910-1920	-2.04	-0.01	1.34	-0.10
1920-1930	2.99	3.07	1.17	2.31
1930-1940	1.03	0.56	-0.98	0.53
1940-1950	2.20	1.20	1.07	1.80

Sources: Output from Lains (2003c, appendix) and labor force from Table 8, with linear interpolations.

BACKWARDNESS AND PRODUCTIVITY GROWTH

In order to explain the increasing contribution of agriculture to Portuguese economic growth after World War I we have to go beyond the analysis of labor productivity and assess as well the performance of investment. This can be particularly relevant because we have noticed that the conditions for domestic investment increased favorably during the interwar period as a consequence of the return of domestic capital that had been exported at some point before the war. Capital imports were relatively small in size when the War broke out and thus Portugal's rate on domestic investment presumably did not suffer much with the disintegration of the international capital markets in its aftermath. The evidence regarding capital flows and domestic investment is very scanty, though.

Table 11 provides a summary of the available data on the growth of factors and factor productivity in the agricultural sector and the total economy, based on proxy estimates for the growth of capital in the agricultural sector for the century ending in 1950 and for the growth of total capital in the interwar period. In what the agricultural sector is concerned, we may see that the growth of labor and capital productivity expanded at quite similar rates during 1865-1902. This period of higher growth was followed by one of slower growth of labor productivity and decline of capital productivity, to 1927. From then on, both productivity growth rates increased again, although the performance of labor was better than that of capital. Table 11 also shows that the ratio of capital to labor in agriculture increased throughout the period and that such capital deepening was associated with overall total factor productivity growth. Total factor productivity in agriculture expanded at 1.6 percent per year after 1927 which compares relatively well with factor productivity growth elsewhere in Europe.[41]

Table 11 - Growth labour, capital and total factor productivities, 1910-1950

(Annual growth rates; percent)

	1 Output	2 Labor	3 Capital	4 = 3-2 K/L ratio	5 = 1-2 Labor Productivity	6 = 1-3 Capital Productivity	7 TFP
Agriculture							
1865-1902	1.41	0.74	0.63	- 0.11	0.67	0.78	0.72
1902-1927	0.35	0.13	0.86	0.73	0.22	- 0.51	0.20
1927-1951	2.36	0.97	1.44	0.47	1.39	0.92	1.59 to 1.63
All Sectors							
1910-1934	2.17	1.00	1.25	0.25	1.17	0.92	0.72
1934-1947	2.09	1.31	3.89	2.97	0.78	- 1.80	- 0.02

Sources: Lains (2003a) and (2003b).

For the aggregate economy we only have data starting in 1910. The lower part of Table 11 shows that aggregate labor productivity expanded at a faster pace than aggregate capital productivity and considerably so after 1934, when there was a marked decline in the productivity of capital. Such patterns are reflected in the growth of total factor

[41] See Federico (2000).

productivity which virtually stagnated in the period from 1934 to 1947. The ratio of capital to the labor force in the aggregate economy expanded rather fast after 1934 and that was due mainly to the increase in investment in the non-agricultural sector. By the account given here, this implies that capital productivity in the non-agricultural sector had a negative performance, particularly after 1934.

The pattern that emerges from the observation of factor productivity growth is that the performance of the agricultural sector was better than that of the non-agricultural sector. That outcome helps explaining why the Portuguese economy managed to obtain higher productivity gains by shifting to a higher participation of agriculture in economic growth, during the interwar period. In order to investigate the mechanisms that led to such an outcome, we need to look more in depth to the structure of the economy to find out how was it that the new capital invested in the agricultural sector had higher levels of productivity that capital invested in the rest of the economy. The data for this in-depth level of analysis is scant but it is sufficient to reach some further results that confirm our overall analysis.

By decomposing the growth of labor productivity in the growth of the land per agricultural worker and the growth of output per land, we have reached elsewhere the conclusion that labor productivity growth in agriculture was a consequence of an increase in land productivity.[42] In fact, before 1930, the land-labor ratio increased slightly or remained stable and output per hectare increased only slightly. After 1930, the land-labor ratio *declined* and yet output per hectare increased at an unprecedented pace. Yet this happened without major changes in yields of the main agricultural staples. Agrarian productivity growth was achieved by structural shifts within the agricultural sector towards production with higher land values and higher labor productivity levels.[43] Animal output's share in total agrarian output increased from 23.6 percent in 1900-09 to 35.9 percent in 1954-58, whereas fruits and vegetables increased from 6.5 to 12.7 percent in the same time period. Together, these two sectors accounted for almost half of total agrarian output in the 1950s, up from 30 percent in the beginning of the century. Structural transformations in Portuguese agriculture can be explained in terms of the evolution of aggregate domestic demand which was enhanced by agricultural protectionism and state subventions, particularly to wheat and other cereals. Such

[42] See Lains (2003b).
[43] See Pereira and Estácio (1968).

change was a consequence of higher levels of contraction of imports, due to higher levels of tariff protection and state intervention. But agrarian structural change was also related to the expansion of demand as a consequence of overall output growth and that was particularly important for animal output. The role of demand in fostering agricultural output growth in Portugal is confirmed by showing that there was a positive correlation between long run output and price trends.[44] The observed changes in the agricultural sector compare favorably with what happened in the rest of the economy and in particular in the industrial sector.

In fact, the structure of the Portuguese industry remained relatively stable in the period from 1930 to 1950 for which we have information shown in Table 12. There were of course some changes, as the share of chemicals, non-metallic products and basic metals expanded throughout the same period. Yet the fact that those sectors were relatively small, accounting for only 6.1 percent of total output in 1930 and 9.1 percent in 1950, implied that the overall impact was also small.

Table 12 – Structure of output and labor productivity in Portugal, 1930-1950

	Output shares				**Labor productivity**			
	1930	**1940**	**1950**	**1958**	**1930**	**1940**	**1950**	**1958**
Agricult., Forest, Fishing	33.1	33.0	32.0	26.8	7,1	7,4	9,1	10,6
Mining and Quarrying	0.4	0.7	0.6	0.6	9,3	11,1	11,2	12,3
Manufacturing	24.6	23.8	25.4	28.8	20,0	18,0	19,2	23,8
Food, bev, tobacco	*5.4*	*4.5*	*3.9*	*4.0*	*40,1*	*22,4*	*22,6*	*31,6*
Textiles, clothes, footwear	*6.8*	*6.2*	*6.7*	*7.0*	*11,4*	*10,3*	*12,5*	*15,8*
Wood, cork, furniture	*4.3*	*3.3*	*3.3*	*2.7*	*29,2*	*18,6*	*16,2*	*15,5*
Paper, publishing, printing	*0.9*	*1.0*	*1.0*	*1.6*	*25,1*	*25,8*	*24,6*	*33,3*
Chemicals, rubber, petrol.	*1.4*	*1.7*	*2.2*	*2.9*	*131,1*	*63,7*	*95,4*	*52,8*
Non-metallic miner prods	*0.8*	*1.1*	*1.5*	*2.0*	*26,5*	*23,4*	*26,7*	*29,5*
Basic metals, machinery	*3.9*	*4.7*	*5.4*	*7.1*	*20,2*	*27,2*	*29,0*	*28,2*
Other	*1.2*	*1.1*	*1.2*	*1.4*	*13,7*	*25,5*	*12,3*	*36,7*
Construction	1.8	2.6	3.6	4.7	4,0	6,8	10,3	11,8
Electricity, Gas, Water	0.6	0.8	1.1	2.3	27,3	45,1	51,3	90,5
Trade, Finance, Rents	16.3	17.0	17.0	17.5	30,7	29,4	29,8	32,3
Transport, Communications	3.8	3.9	4.3	5.3	14,6	15,3	18,1	24,9
Services	19.4	18.3	16.0	14.0	9,8	13,2	14,9	16,6
GDP at factor cost	100	100	100	100	10,9	11,8	14,0	17,2

Source: Computed from Batista *et al.* (1997).

Table 12 also shows labor productivity levels across the Portuguese economy with the highest possible disaggregate level. Labor productivity in agriculture was clearly below that of manufacturing but it compared well to productivity in textiles and 'other' as well as in construction and services. We do not have disaggregated data on agrarian labor

[44] See Reis (1993, chaps. 2 and 3) and Lains (2003b).

productivity, but the disparities across sectors were certainly large. In fact, data on land productivity by region for 1952-1956 show wide differences in the 270 departments (concelhos) ranging from 0.3 to 2.4 contos/hectare. The range of labor productivity at the 18 district level (distrito) is 1:2. This implies that labor in the agrarian sector of the top six districts, which account for 31 percent of total agrarian output, has productivity levels above the national average for manufacturing.[45]

If we take into account the fact that labor productivity in agriculture varied widely, as shown by the regional data, we may conclude that in some agrarian sectors productivity was above that of textiles, construction and services. This conclusion is confirmed by the overall picture given by Caetano (1961), based on an interpretation of the first comprehensive industrial census for 1957-59 which states that Portugal's industry was characterized by many units with what he terms an 'anti-economical dimension' and a very small coverage of the country.[46] The character of industrialization would change markedly in the following decade, as Portugal adhered to EFTA in 1959 and the country opened up.[47]

According to Aguiar and Martins' (forthcoming) shift-share analysis, the agricultural sector contributed with 23.9 percent of total labor productivity growth during 1910-1950, whereas industry contributed with 35.5 percent and services with 40.6 percent. In no other period during the twentieth century analyzed by the authors did agriculture contribute to productivity growth in such a way. More importantly, 85 percent of overall labor productivity growth in 1910-1950 was a result of intra-sectorial productivity growth and just the remaining 15 percent can be attributed to shifts of labor towards sectors with higher productivity or with productivity growing above the average. About 1/3 of intra-sectorial growth is attributed again to changes within the agricultural sector. Labor productivity changes in the industrial sector occurred fundamentally in construction and energy (i.e. electricity), whereas the manufacturing proper sector lagged behind. Moreover, the observed productivity changes occurred mainly in the traditional sectors, namely, textiles and the food and wood industries. Building also

[45] Pereira and Estácio (1968, pp. 23-24 and 51).
[46] See Caetano (1961, p. 931). See also Pintado (2002).
[47] After 1960, there was a clear change in the emphasis of economic policy favoring the industrial sector. See for example Moura (1973).

increased its domestic output share. Contrarily the capital intensive sectors had negative labor productivity growth rates.

The short-run effects of protection in the interwar period were positive in the sense that the Portuguese economy responded and higher growth was achieved. That response implied an increase in the contribution of agriculture to domestic output. There was clearly a shift in the specialization of agriculture towards products with higher levels of factor productivity. In what the industrial sector was concerned, the changes favored what we may term as traditional sectors, including textiles, foodstuffs and wooden products. The fact that such low key form of structural change led to a positive impact in Portugal's total factor productivity growth reflects the structure of the domestic economy. On the demand side the fact was that there was still much scope for growth of the consumption of comparatively more sophisticated agrarian products with higher levels of labor and capital productivity. On the supply side, it reflects the potential vantage point of investment in the agrarian sector, as factor productivity in agriculture could be higher than in some industrial branches. The mechanism which led to higher productivity levels in agriculture is peculiar to the Portuguese economy and presumably to the other peripheral European economies. It can be explained mainly by the relative backwardness of these countries.

There are several reasons for the little attention devoted to the performance of the Portuguese economy in the interwar period. Firstly, although contemporaries were aware of improvements, it was only recently that yearly output indices for agriculture and industry have been computed for that period. Secondly, the interwar years were marked by high inflation, as well as high internal and external deficits, which have been too hastily related to economic decline. Thirdly, the evaluation of the performance of the economy in those decades has been blurred by the debate over the consequences of the advent of the Salazar's regime as many authors assume that the policies imposed by the dictatorial regime were biased against growth. Finally, the good performance of the economy before 1950 has been less noticed because, despite such improvements as there were, Portugal's levels of labor productivity remained low by western European standards.

CONCLUSION

Southern peripheral countries took only limited advantages from the expansion of the international economy in the last quarter of the nineteenth century. The reasons for the lack of response in the periphery during this period are a matter of dispute. Some authors would stress the negative impact of protectionist policies followed by countries such as Portugal and Spain. Yet, the countries in the Balkan region also did not converge despite the fact that tariff protection there was introduced only latter on, during the last decade of the century, and even then in a mild form. Government may also have been responsible for diverting productive investment to excess expenditure and debt, but that would have been the case only in Portugal, Spain and Greece, as the other Balkan countries kept balanced accounts throughout the period between 1870 and 1914. Other structural factors, such as low literacy levels, were a common feature in these countries and that may have contributed to the poor performance of their economies.[48]

However, such a list of negative factors did not disappear after the War and in many cases they were aggravated. Protectionism was enhanced, the level of state intervention was increased and there was a sharp contraction everywhere in the levels of exports and imports which were accompanied in many countries by declining terms of trade, particularly for agricultural exporters – as well as low levels of emigration. The fact that a country such as Portugal attained higher growth rates of GDP per capita and that, for the first time in many decades, managed to catch up, albeit only partially, to the European core implies that we need to investigate how growth was achieved in such presumably unfavorable circumstances.

This paper shows that productivity gains were achieved by keeping resources in the agrarian sector, where labour and total factor productivity gains could be achieved, as well as moving factors to construction, services and some of the more traditional branches in manufacturing, such as foodstuffs, textiles and wood products, as well as the services sector. The fact that the gains obtained were associated to what can be termed as traditional sectors implies that the Portuguese economy, overall, did not transform itself in an important way.

We conclude that specialization towards the domestic market led to structural changes in the economy that favored growth. Yet, this was possible thanks to the existence of

[48] Lains (2002).

favorable conditions in the balance of payments that allowed higher levels of investment. Such an outcome was peculiar to Portugal in the interwar period and thus should not be extended without further qualification to other experiences of other countries and time periods. But it shows that peripheral countries can achieve higher growth rates within an unfavorable context in the international economy and that 'good policies and efficient institutions are more important than openness'.[49]

The counterfactual that should emerge from the paper is not that protection is good for growth. We don not really know what would have happened in an open economy with buoyant external markets. And the experience of the golden age (1950-1973) tells us that Portugal obtained large benefits from an expanding international economy. Furthermore, it is possible that the growth that occurred during the interwar period was not a necessary condition for the country to achieve the Abramovitzian minimum social and economic capabilities in order to take full benefits of post World War II economic boom.

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[49] Vamvakidis (2002).

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