PANOECONOMICUS, 2011, 2, pp. 195-218
Received: 3 June 2011.

UDC 338.124.4 (469)
DOI: 10.2298/PAN1102195A
Original scientific paper

João Sousa Andrade

GEMF and Faculty of Economics,
University of Coimbra,
Portugal

✉ jasa@fe.uc.pt

Adelaide Duarte

GEMF and Faculty of Economics,
University of Coimbra,
Portugal

✉ maduarte@fe.uc.pt

The Fundamentals of the Portuguese Crisis

Summary: This paper analyses the fundamentals of the Portuguese crisis. The financial crisis of 2007 worsened and triggered the current Portuguese crisis. We argue that the main problem the economy is facing is its output stagnation due to a kind of Dutch disease that has created high and increasing levels of indebtedness, low and decreasing levels of saving and has reduced Portuguese competitiveness. Moreover, the existence of a dualist labour market and a new wave of emigration produce inefficiency, increasing unemployment of younger workers and the supply of human capital abroad funded by the Portuguese taxpayers. Governance problems such as poor public budget governance and lack of transparency and accountability are also at stake. These governance problems must be solved to allow the economy to return to its long-run growth path.

Key words: Growth, Debt, Saving, Dutch disease, Unemployment, Budget policy.

Paper by invitation

JEL: E21, F34, G01, H10, H63.

The scope of automatic stabilization is too narrow in the face of a severe recession preceded by a long period of sluggish growth (Phillip Anthony O'Hara 2011). The elasticity of government receipts with respect to GDP is usually greater than the elasticity of government expenditures. Consequently, during an economic recession the automatic deficit tends to increase through government receipts reduction. More aggressive fiscal policies aimed to overcome a severe recession were conducive to greater deficits through government expenditures increases but their efficacy remains controversial (Alan J. Auerbach, William G. Gale, and Benjamin H. Harris 2010). This was the case mainly for the USA when compared with that of European countries during 2007 crisis. The USA developed more ambitious stimulus plans; nevertheless, the G20 budget deficit was 1% of GDP in 2007 and 9% in 2009. High budget deficits led to an unprecedented growth of public debt. This growth, most probably acting as a stability buffer for financial institutions, was not risk free when these institutions sought safer assets. Debt accumulation and its downgrading put financial institutions out of the obliged ratios for assets and liabilities, creating a link of causality from state solvency problems to private institutions. Portuguese financial institutions are facing that problem. At the same time, the trade-off between consolidation and stabilization was destroyed for most of the countries in favor of consolidation producing recession episodes (Salvador Barrios, Sven Langedijk, and Lucio Pench 2010).

The main issue faced by Ireland (Constantin Gurdgiev et al. 2011) during the financial crisis was the bailout of Anglo Irish and Irish Nationwide Building Society, pushing the budget deficit to around 38.5% of GDP in 2010, and leading to an unexpected sharp rise in public debt from 65.8% of GDP in 2009 to around 126% of GDP in 2011. As for the Portuguese and Greece (Georgios P. Kouretas and Prodromos Vlamis 2010) cases, the problem was not the bailout of financial institutions. In Portugal the recent crisis clearly showed problems at two banks that fall in common-criminal law, not consequences of the financial crisis.

May 3rd, 2011 announced a total bailout out of 78 billion Euros for the Portuguese economy. This was the result of negotiations between the Portuguese government with the International Monetary Fund (IMF), European Commission and the European Central Bank following the request for financial aid made by the Portuguese government to the European Commission (EC) on April 6, 2011. As a consequence of the bailout, the Portuguese deficit target is 5.9% of GDP in 2011, and not 4.6% as previously agreed with the EC. For the next two years it will be 4.5% and 3% in 2012 and 2013, respectively. Portugal is the third economy asking for financial aid in the Euro area. The program was approved by the European Finance Ministers on May 16, 2011. The IMF will lend at 3.25% a total of €26 billion and the remaining €52 billion will be lent by the European Financial Stabilisation Mechanism and European Financial Stabilisation Fund at an average interest rate of 5.7%.

In this paper we explain the reasons Portugal has fallen into this calamitous situation. Several factors led to different, though intertwined problems that were conducive to this situation. The first problem is the sluggish Portuguese output growth. This problem was due mostly to the lack of structural reforms, namely in the labour market, low levels of human capital of the Portuguese labour force, and the negative impact of globalization the Portuguese economy suffered from EU Eastern enlargement and Chinese accession to the WTO in 2001. The second problem is the result of monetary integration associated with poor policies. The decrease of interest rates after years of inflation uncertainty and high nominal interest rates created a kind of Dutch disease. The degree of public and private indebtedness reached very high levels, the saving rate decreased and dangerously trended negative, and price competitiveness deteriorated continuously reducing the rate of output growth. The third problem is the lack of accountability and transparency of political governance.

Based on this framework, rating agencies' continuous downgrading of Portuguese sovereign debt is perfectly comprehensible. Those decisions had implications on the devaluation of banking assets, creating the need for capital strengthening and forcing most banks to sell participations in other financial and non-financial institutions. Our analysis is consistent with that of the IMF: "The program is built on three strong pillars. First, a set of pro-growth measures aimed at making the country competitive again and creating jobs - especially for the young people of Portugal. Second, a set of ambitious fiscal measures needed to reduce the public debt and deficit, implemented at a pace that is realistic and which allows Portugal the time it needs to demonstrate policy implementation and restore market confidence. Third, a set of measures aimed at ensuring the stability of Portugal's financial sector." (Dominique Strauss-Kahn and Olli Rehn 2011). The paper is organized in eight sections. In the

first, we present "A Brief History of Portuguese Financial Distress"; next we question the "Portuguese Government Size" preceding an inspection of "The Portuguese Output Stagnation"; in the fourth section we analyse main impacts of the Portuguese "European Integration"; then we view the problem of "Saving and Indebtedness in the Portuguese Economy"; sixth, we handle the topic, "External Competitiveness of Portuguese Economy", followed by a brief characterisation of "Labour Market and Unemployment Behaviour" and finally, in the eighth section we examine issues concerning Portuguese "Bad Governance: The Problem of Off-Budgeting Practice Matters".

1. A Brief History of Portuguese Financial Distress

The Portuguese maritime expansion was so mismanaged by the Portuguese King, like Spain with Filipe the Second, that in 1560 (Carmen M. Reinhart and Kenneth S. Rogoff 2008, 2009), 60 years after the arrival to Brazil, Portugal defaulted on external debts with other European countries in the sense used by the authors of default followed by rescheduling. From 1828 to 1852, five episodes express the vulnerability of the Kingdom's Treasury. In April 1890, Argentina stopped payments to creditors and Baring Brothers became insolvent in November 1890. Baring Brothers was an important source of financing to the Portuguese government. With the Brazilian crisis between January and April of that year and the persistence of public budget deficits, currency reserves fell by a half and in May the Portuguese experience with a gold standard (1854-1891) ended (Luís Aguiar Santos 2001; António Portugal Duarte and João Sousa Andrade 2011). In 1892 the Portuguese government stopped payments and debt rescheduling ended in 1902. Only 1/3 of total debts were paid (Eugénia Mata and Nuno Valério 1994) in the 1920s, external financing of the government was closed and the last payment associated with this operation was made in 2001. A period of financial instability characterized the post-war period from 1917 to 1926 with many bank failures. From then until now, the Portuguese economy did not experience a single bank failure. Of sixty-six countries from 1945 to 2007, only Austria, Belgium, Portugal and the Netherlands escaped banking crises. Even in 1960 when the war in Angola began and in 1974 with the Portuguese Revolution there were no signs of bank-run.

From 1926 to 1974, the dictatorial regime that ruled Portugal segregated the country at the international level. Portugal was admitted to the United Nations only in December 14, 1955 and became a member of the IMF as of March 29, 1961. After the declaration of George Marshall at June 5, 1947 the Portuguese government decided not to participate in the Marshall aid, the so-called Economic Recovery Program (Fernanda Rollo 1994). Portugal participated only in the creation of the Organization for European Economic Co-operation, but in September 27, 1948, without international reserves in the Central Bank, the Prime Minister Salazar was obliged to demand economic and financial aid from the Marshall Plan. As a consequence the Portuguese economy had not benefited from the major part of funds. Nevertheless from 1949 to 1951 were received in Portugal 70 million dollars. Public infrastructure and industrialization benefited from those funds.

In 1960, Portugal faced again an external problem due to a shortage of international reserves, but the development of the Portuguese tourism sector and emigrants' remittances, especially from France, solved that problem. After the Carnation Revolution (April 25, 1974), Portugal requested assistance from the IMF (1977/78), IMF (2011), to solve an urgent problem of public and external deficits associated with other serious macroeconomic imbalances such as sharp increases in unemployment, pressure from oil prices and a huge inflationary pressure. The first credit tranche arrived in 1977 and the second in 1978. IMF financial help ascended to €111 million at current exchange rate. A second financial aid was requested by Portugal to the IMF in 1983. Once again, nothing new occurred, the same known problems emerged: high public and external deficits. The total financing this time was €555 million. Despite the recognized success of these two aid plans (for the first see Hans O. Schmitt 1981), external conditions of the Portuguese economy evolved in such a virtuous way that the Portuguese authorities did not need to meet the accorded programs in terms of the agreed instruments.

2. Portuguese Government Size

Are average government indicators pointing to a Portuguese macroeconomic situation that would evolve to a sovereign debt default?

Table 1 gives information about government size (ratio of expenditures over GDP, %) for European Union with 27 members, Euro area with 12 members that are representatives of a stronger fiscal policy discipline, and Germany and France, the two major members of the Euro area and the three countries under fiscal and debt stress, Ireland, Greece and Portugal. The ratio of total expenditure of general government over GDP gives information about government size. The general government sector comprises central government, state government, local government, and social security funds.

Table 1 Ratio of Expenditures to GDP (%)

	Germany	France	Ireland	Greece	Portugal	E27	Euro12
1988-90	43.8	49.3	44.5	41.5	37.0		
1995-97	50.8	54.3	39.0	44.9	41.6	50.1	51.0
2002-04	47.9	53.0	33.4	45.1	43.6	46.9	47.7
2008-10	46.0	55.1	53.0	50.7	48.4	49.4	49.6

Source: AMECO[1], UTAO (2011), and authors' calculation.

Two main conclusions can be drawn from Table 1 above. Portugal and Greece are the countries for which expenditure has never been reduced for the chosen periods and Portugal has a level of expenditure less than the average of E27 and Euro12 and near the value of Germany. Based on this indicator it's difficult to find out an excessive size for the Portuguese government.

[1] Annual Macro-ECOnomic database (AMECO) - annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs (http://ec.europa.eu/economy_finance/db_indicators/ameco/index_en.htm).

Since February 1992, the future members of the European Monetary Union knew the general conditions about deficit and debt values. Table 2 below exhibits the occurrences of excessive deficit and positive budget balance for Euro12, Germany, France, Ireland, Greece and Portugal haven't had limits before the current crisis, from 1995 to 2007.

Table 2 Occurrences of Excessive Deficit and Positive Budget Balance

	Excessive deficit	Positive budget balance
EU12	(3) 1995-1996 and 2003	2000
Germany	(6) 1995-1996, 2002-2005	2000
France	(6) 1995-1997, 2002-2204	
Ireland	(0)	1997-2001, 2003-2007
Greece	(13) 1995-2007	
Portugal	(9) 1995-1998, 2001, 2003-2006	

Source: AMECO, UTAO (2011), and authors' calculation.

A positive balance was registered in 2000 for Euro12 and Germany. For 1997-2001 and 2003-2007, Ireland has registered successive positive budget balances. Six times, Germany and France had deficits greater than 3%. The Euro area is an example of *moral hazard* created by its leaders. The assumed Euro authority in these countries is very weak in historical and moral terms (see also Miroslav Prokopijević 2010). In Germany the Constitutional amendment introduced in 2009 will impose structural budget balances equilibria at the Federal level in 2016 and at the Länders level in 2020 (Federal Ministry of Finance 2009; Lars P. Feld and Thushyanthan Baskaran 2010).

Very high values for public debt, doubling the limit of 60% for many countries, influenced the recent turmoil in sovereign financial markets. At the end of 2010 (UTAO 2011), the highest level was registered by Greece (142.8%), followed by Italy (119%), Ireland (96.2%), Belgium (96.8%) and Portugal (93%). The value for the Euro area at 17 was 85.1%, meaning that the Portuguese value is higher but not very far from the average of this area. Note that Ireland reduced its level of public debt from 1987 to 2007.

The problem with the Portuguese economy is neither about average values indicators nor about a long term view of fiscal sustainability. Carlos Fonseca Marinheiro (2006) has confirmed sustainability using the conventional unit root and cointegration analysis. But the problem at stake for the Portuguese economy should not be identified with a kind of long term decision by capital markets based on past data. Instead it should be envisaged as a situation of lending rupture created by forward expectations. The same comment applies to the "rule" of the 90% threshold value of debt: lower than the threshold does not affect growth but greater has negative implications (Cristina Checherita and Philipp Rother 2010; Reinhart and Rogoff 2010). We will try to explain why the Portuguese economy is in a situation of rupture and why financial aid is necessary.

3. The Portuguese Output Stagnation

In order to understand the Portuguese output path we analyse the evolution of output in terms of growth rates and actual levels for 1960-2010. Considering these two variables we get a more accurate understanding of the evolution of the economy. The

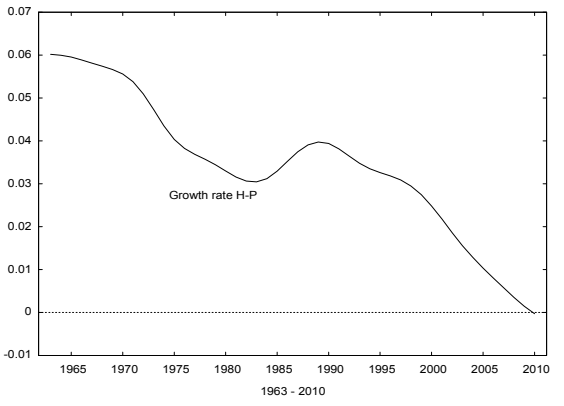
Portuguese economy experienced past growth rates typical to emerging economies. For the period 1969-73, the average GDP growth was 8.2% (Table 3).

Table 3 GDP Growth Rates (%)

1960-64	5.8
1969-73	8.2
1986-90	6.6
1994-98	3.8
2001-10	0.5
2006-10	0.3

Source: AMECO and authors' calculation.

In the first years of European integration (1986-90), the growth rate attained 6.6%, a result in accordance with growth predictions of real convergence since Portuguese real income was only a percentage of the real income of the EU12 economy (Maria Adelaide Duarte and Marta Cristina N. Simões 2002). But Portuguese divergence from EU started in 2001 since growth became anaemic during the last nine years. The growth trend rate for the Portuguese economy was computed using the H-P filter (λ =100) as illustrated in Figure 1 below.

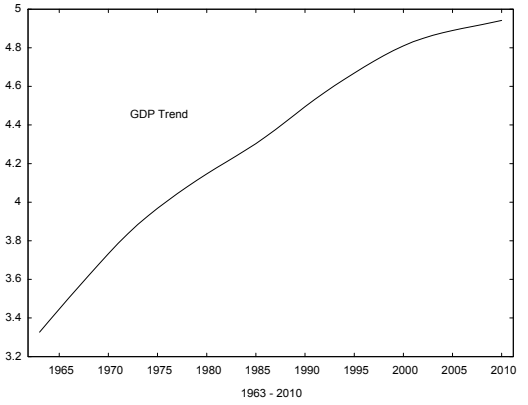


Source: AMECO and authors' calculation.

Figure 1 Growth Trend Rate (H-P) for the Portuguese Economy

To obtain H-P trend values we have used λ =100 to a new series increased 4 periods by an ARIMA model chosen by the Schwarz criteria. The picture of Portuguese growth rate decline is very clear. The exception is for the first years following the European integration. The last phase of decline starts in 1999.

But the beginning of this last phase doesn't coincide with the above one if we take the GDP trend (in logs and with a λ =100, Figure 2).



Source: AMECO and authors' calculation.

Figure 2 GDP H-P Trend

In the figure above output stagnation clearly starts in 2002. Table 4 expresses the actual stagnation of the Portuguese economy.

Table 4 Trend Growth Rates

	Trend growth rate
1998-00	2.65
2002-04	1.56
2008-10	1.04

Source: AMECO and authors' calculation.

The evidence of output stagnation since 2002 pushed our analysis further in order to forecast the output trend gap for 2010. Due to the atypical GDP behavior in the period following the Carnation Revolution, we forecasted the values of the GDP trend (H-P) based on 1978 to 2001 for the years 2002 to 2010. The model used for this projection, with trend GDP in logs, includes a constant, a time trend and the lagged value of the dependent variable. The AR1 model allows us to take into account the inertia of output trend evolution. We used the Jae H. Kim (2009) procedure for R that applies the bias correction of Paul Shaman and Robert A. Stine (1988) caused by auto-regressive estimations and the correction of Lutz Kilian (1998) for the confidence intervals of the forecast, for which were made 1000 bootstrap iterations, to obtain 90% confidence intervals.

The new series for the GDP trend augmented with trend forecast for 2002-2010 (A) and the two series compared (B) are in Figure 3.

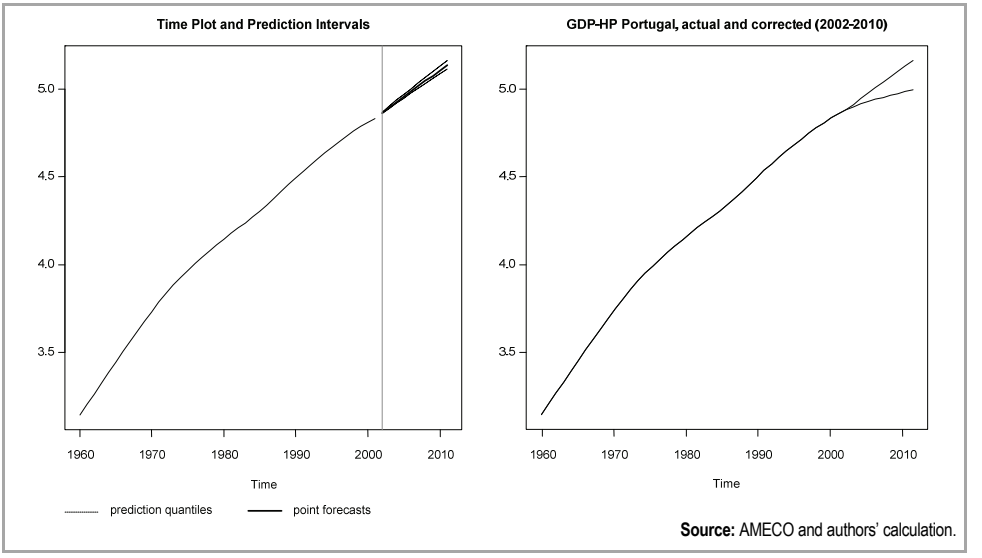


Figure 3 GDP Trend Correction (A) and (B)

The existence of sluggish growth is now perfectly obvious (Figure 3B). Nouriel Roubini (2011) recognises the dependence from growth for the success of the stabilisation program of May 4. For him the lack of growth of the Portuguese economy is the most important problem that the country is faced with.

The usual method of trend calculation hides a grim reality for Portugal that can be seen in the values of output gap (Table 5).

Table 5 Output Gap Values in %

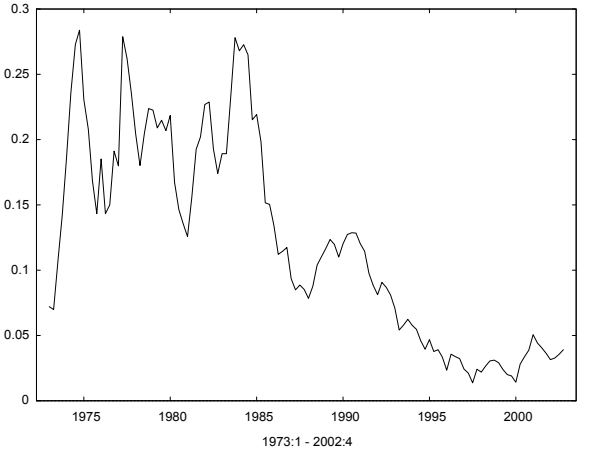
	2006	2007	2008	2009	2010
Gap	-0.19	1.16	0.20	-3.43	-3.30
GapC	-8.58	-9.26	-12.26	-17.90	-19.66

Source: AMECO and authors' calculation.

By the usual calculation, the negative gap is inexistent in 2008 (0.2%) but by our calculation the gap is 12%. And in 2010 the value is near 20%. This gives a bleak picture of the Portuguese economy that also has consequences at the level of the budget deficit corrected by cyclical output fluctuations. This applies to the correction based on H-P filter and also based on the production function because this last method depends essentially on that filter in input calculations (European Community 1995; and Francesca D'Auria et al. 2010 in the European Union). If we don't correct the trend in terms of using two trends, an effective one and a desired one, the indicators of fiscal policy can be very misleading. Using only the first one we are prone to advise restrictive discretionary fiscal policies while the economy has already substantial positive budget balances, after the correction of cyclical fluctuations by the second (desired) trend.

4. European Integration: Inflation Convergence and the Dutch Disease

Inflation convergence was necessary to Portuguese Euro-area membership. The Portuguese inflation convergence process occurred at a fast pace. After the Carnation Revolution Portugal experienced a process of high and unstable inflation (see Figure 4). For 1984-85 the average rate of inflation, measured by the CPI, was 21.76%, in 1990-91 it was 11.56%, and 2.59% in 1999-2000. From 1977 to 1990 the Portuguese Central Bank applied a policy of bank credit rationing with a crawling-peg exchange rate policy. In the last years of that reform (1990) there were many exceptions to the target level of banking credit and interest rates and credit needed to reflect market conditions. In 1991 the Bank of Portugal started a policy of targeting the value of the exchange rate of the Deutsche Mark, equivalent to a policy of revaluing the Portuguese Escudo to control and reduce the inflation rate. This is a policy that presents potential long-run drawbacks that can hamper growth in the future. Sergio Rebelo and Carlos A. Vegh (1995) shows that this kind of policy is more effective to control inflation in the short run than the conventional monetary policy, but has greater costs in the long run resulting from the loss of price competitiveness.



Source: INE (Portuguese National Statistical Institute).[2]

Figure 4 Annual Inflation Rate (CPI) from 1973:1 to 2002:4

In order to estimate the uncertainty associated with the evolution of inflation we used an AR(1) model with an ARCH(2) structure of errors estimated by maximum-likelihood. Any GARCH structure tested was rejected. The model is indicated below and has 3 equations: equation (1) models the autoregressive for the inflation rate (π); equation (2) models the error term, where ϵ has a normal distribution (0,1); and equation (3) models conditional variance.

[2] Banco de Portugal. Statistics/Statistical Publications/Statistical Bulletin (Boletim Estatístico). http://www.bportugal.pt/ptPT/Estatisticas/PublicacoesEstatisticas/BolEstatistico.

$$\pi_t = \beta_0 + \beta_1 \cdot \pi_{t-1} + \mu_t \tag{1}$$

$$\mu_t = \sigma_t \cdot \epsilon_t \quad \epsilon_t \sim N(0,1) \tag{2}$$

$$\sigma_t^2 = \alpha_0 + \sum_{j=1}^{2} \alpha_j \cdot \mu_{t-j}^2 \tag{3}$$

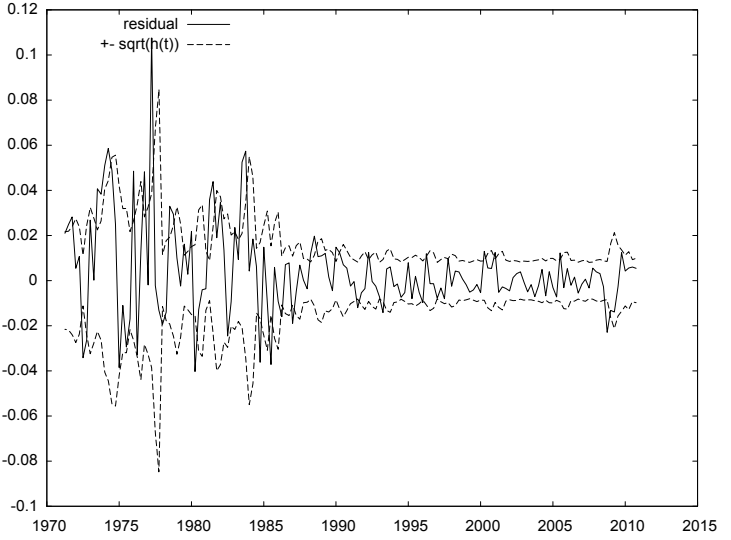
Table 6 ML-ARCH(2) 1971:2-2010:4 (T = 159)

D4LIPC	Coefficient	Std. error	Z	p-value
Constant	0.00167751	0.00116407	1.441	0.1496
D4LIPC_1	0.942320	0.0125731	74.95	0.0000***
alpha(0)	6.32146e-05	1.51812e-05	4.164	3.13e-05***
alpha(1)	0.384639	0.137367	2.800	0.0051***
alpha(2)	0.615361	0.147744	4.165	3.11e-05***

Notes: Log-likelihood 442.7605; Likelihood ratio test for (G)ARCH terms: Chi-square(2) = 85.5511 [2.64738e-19].

Source: Authors' estimations.

The estimated model (Table 6) allows us to calculate the conditional variance and to analyse what happened in terms of uncertainty (Figure 5).



Source: INE and authors' calculation based on model (1)-(3).

Figure 5 Conditional Variance Errors and Squared Root Associated to Inflation

As we can see (Figure 5), we can split the uncertainty path into two periods: from 1970 to 1990 and from 1990 to 2010. This evolution is interpreted in terms of monetary policy change and credit market operations. The interest rates begin to persistently decrease (Figure 6) after 1990. The consequences were obvious: a huge real growth of monetary aggregates, the real annual growth rate of M1 from 1997:1 to 1999:4 was between 10.4% and 18.3%. Also note that never before did Portuguese individuals and firms know such low interest rates.

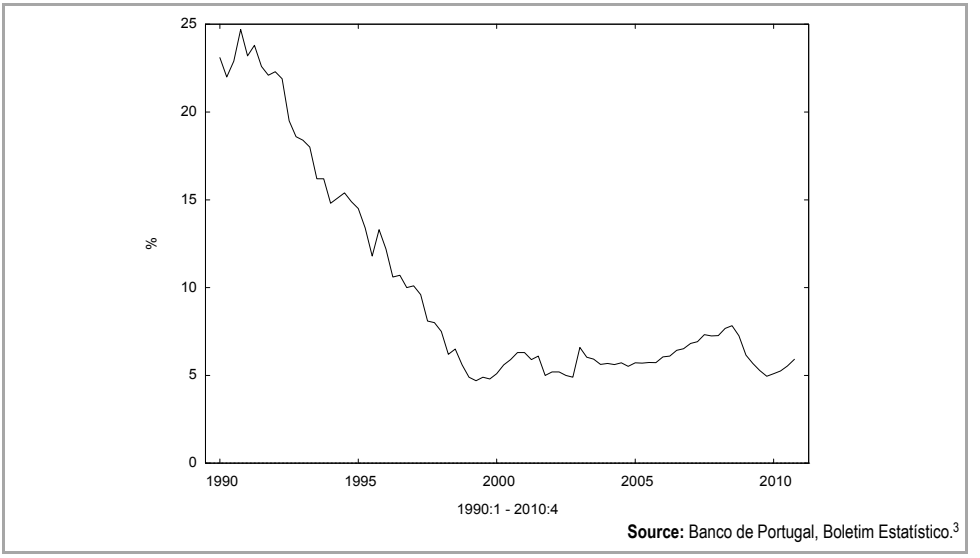


Figure 6 Short-Run Interest Rate (Bank Lending to Non-Financial Firms from 6 Months to 1 Year)

In 10 years, nominal interest rates fell to a quarter and real interest rates to a fifth of their 1990 value (Table 7). This was a sudden change no one, individual or firm, could resist.

Table 7 Short Run Interest Rates (Quarterly Averages)

Years	Nominal (%)	Real (%)
1990 - 1991	23.1	10.3
1995 - 1996	12.1	8.2
1999 - 2000	5.3	2.6
2000 - 2001	5.8	2.1

Source: Banco de Portugal, Boletim Estatístico; Authors' calculation.

As mentioned before, Portuguese inflation convergence toward the level of that of the European countries with the lowest inflation was the result of a real exchange rate appreciation policy. At the same time the process of financial integration had also an enormous impact on Portuguese macroeconomic disequilibrium's. In December 1992 financial transfers with the EU were totally liberalized by the initiative of Braga de Macedo, the Finance Minister. Current account exchange rate transfers were allowed for Europe only in 1964. The liberalization of capital movements, access to a massive market supply of funds, a context of decreasing inflation expectations and reduced inflation uncertainty resulted in an impressive reduction of interest rates, a sustainable decrease of domestic savings and in a continuous increase of internal and external indebtedness. This situation fostered a kind of Dutch disease. The concept of Dutch disease emerged in *The Economist* (1977) and the seminal papers by Warner Max Corden and Peer J. Neary (1982) and Corden (1984). Meanwhile,

[3]AMECO. Real effective exchange rates, based on unit labour costs (total economy), performance relative to the rest of the former EU-15, double export weights.

other sources have been envisaged to explain the so called disease: external remittances (Beja Jr Edsel 2010); international aid (Karel Verbeke 2007; Raghuram G. Rajan and Arvind Subramanian 2011); and the phenomena of real exchange rate appreciation (Christopher Adam 2005; UNCTAD - South Centre 2007). In what concerns Portuguese net transfers from EU, they reached 2.6% of GDP in 1996-99 and they decreased ever since: to 1.5% in 2004-07 and 1.3% in 2008-10. This aid was applied mostly in infrastructure investments. A majority of papers supports the idea that public investment has a positive effect on long-run output (David Aschauer 1989; William Easterly and Rebelo 1993). However the estimated effect is often small or negligible and too dependent on the methodologies employed (Alessandro Turrini 2004). Antonio Afonso and Miguel St. Aubyn (2008) concluded for the period 1960-2005, that Portuguese public investment has not had a crowding out effect on private investment but at best the effect does not differ from null at 95% confidence intervals. Its total rate of return is negative for Portugal (as well as for Austria, Finland, Greece and Sweden). We can conclude that the policy of real exchange rate appreciation, EU structural funds and an impressive reduction of interest rates, altogether were major sources of the Portuguese *Dutch disease* that explain its spread that manifested mainly in accruing indebtedness and lacking external competitiveness of the Portuguese economy.

5. Saving and Indebtedness in the Portuguese Economy

The intertemporal constraint of individuals and firms was very much relieved. With a rate of interest increasingly lower than the rate of time preference, why would individuals continue to save?

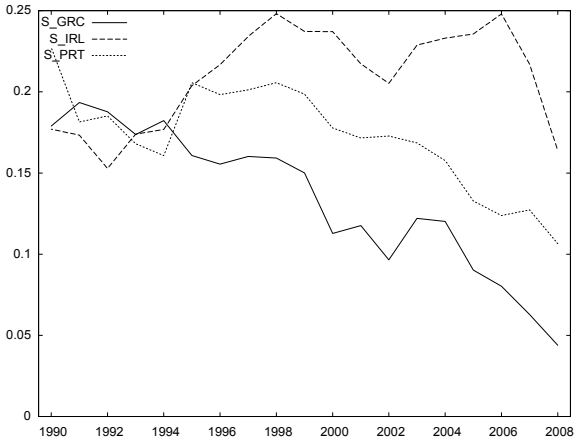
When we compare the saving rate (the ratio of National Saving to GDP) of Greece, Ireland and Portugal, from 1990 to 2008 we see that Ireland had maintained reasonable values of savings while Greece and Portugal after 1994 had continually reduced their savings (Pedro Bação and Duarte 2011).

As observed (Table 8) the low level of savings for Greece and Portugal represent a clear indication that future problems to debt payments would most probably occur.

The low value of savings is the other side of the Portuguese external current account disequilibrium. It is clear that for Portugal we also have a twin deficit problem (Martin S. Feldstein 1999) with adverse effects on real exchange rate that affect both external competitiveness and growth of the Portuguese economy.

The low value of Portuguese savings was considered normal in the early years of its integration to the EU; it was the consequence of a process of capital integration in a more developed area (Olivier Blanchard and Francesco Giavazzi 2002) but some time later, it was taken as an indicator of a serious external imbalance (Blanchard 2007).

The level of debts in the Portuguese economy has grown without any relation with the growth of output or incomes. Real growth rates (deflated by GDP implicit price level) and the ratios of indebtedness for general government, financial and non-financial corporations and households, and assets of the rest of the world (RW) are shown in Table 9.



Source: AMECO and authors' calculation.

Figure 7 Ratio of National Savings for Greece, Ireland and Portugal

Table 8 National Saving Ratio of GDP

S/Y (%)	Greece	Ireland	Portugal
1973-73	33.4	20.9	29.4
1989-90	17.9	16.2	22.7
2009-10	2.9	10.9	8.7

Source: AMECO and authors' calculation.

Table 9 Total Liabilities of Portuguese Institutional Agents and RW Assets (%)

	ST	LT	TOTAL	ST/Y	LT/Y	Total/Y	ST	LT	TOTAL	ST/Y	LT/Y	Total/Y
1996	2.9	10.7	8.0	52.7	101.6	154.3	-4.9	9.1	6.2	6.4	26.9	33.2
1997	0.5	42.3	29.9	50.8	148.5	199.3	-10.7	33.3	26.3	5.5	36.0	41.4
1998	9.2	12.7	11.8	53.0	160.6	213.6	13.6	16.0	15.7	6.0	40.2	46.1
1999	14.9	8.1	9.8	59.1	167.2	226.4	29.3	14.4	16.4	7.7	44.5	52.2
2000	7.1	10.7	9.8	61.1	179.1	240.2	5.4	18.3	16.5	7.8	51.5	59.3
2001	5.9	10.4	9.2	63.6	194.8	258.4	39.4	22.6	25.0	11.3	63.3	74.7
2002	-1.7	6.5	4.6	62.0	206.5	268.6	9.0	14.1	13.3	12.3	72.3	84.7
2003	6.6	4.4	4.9	66.9	217.8	284.7	11.5	7.3	7.9	14.0	78.5	92.5
2004	6.4	0.8	2.1	70.2	216.2	286.4	27.7	-4.2	1.3	18.1	74.2	92.3
2005	1.4	5.6	4.6	70.7	227.0	297.7	11.1	8.9	9.4	20.1	80.5	100.6
2006	-5.3	7.0	4.2	66.1	240.0	306.1	-14.8	8.6	4.3	17.1	86.5	103.6
2007	4.8	8.3	7.6	67.7	254.8	322.5	6.6	9.6	9.1	17.8	92.9	110.8
2008	7.5	6.5	6.7	73.0	271.8	344.8	6.4	8.7	8.3	19.0	101.3	120.3
2009	1.8	8.5	7.1	76.2	303.7	379.9	12.6	12.5	12.5	22.1	117.8	140.0
2010	-3.1	2.0	1.0	73.0	306.1	379.1	-14.0	-3.7	-5.3	19.0	112.1	131.2
1995-07	4.4	10.6	8.9				10.3	13.2	12.6			

Notes: ST: short term securities other than shares excluding derivatives + financial derivatives + short term loans + trade credit and advances; LT: long term securities other than shares excluding derivatives + long term loans; The first two columns are real growth rates; The GDP implicit price index was used to deflate the nominal series.

Source: Banco de Portugal, Boletim Estatístico, Financial Accounts; Authors' calculation.

The average annual growth rate of total debt for the period 1995-2007 was almost 9%. However this situation is far from the situation of Mexico in 1994-95, East Asia in 1997-98 and Russia and Brazil in 1998-99 (Uri Dadush, Dipak Dasgupta, and

Dilip Ratha 2000; Robert N. McCauley and Jens Zukunft 2008) since short-term assets of the rest of the world were only 19% in 2010 (see also Essahbi Essaadi, Jamel Jouini, and Walih Khallouli 2009).

The growth of total long-term debts is 2.5 greater than that of short-term and in levels, long-term debt is more than 4 times the level of short-term debt. Even in 2008-2010 debt growth in the Portuguese economy was considerable. The last column shows the fragility of the Portuguese economy; from 1996 to 2010 the level of indebtedness was multiplied by 2.5. This indebtedness growth is incompatible with the sluggish evolution of the economy (see Section 3).

The ratio of total debt from abroad to GDP has grown 4 times from 1996 to 2010 and the average real growth of debt from 1997 to 2001 was 20%. Table 10 presents debt securities by sources of institutional debtors. The government is the most significant debtor even if its position has decreased since 2005. The most recent reduction, for 2010, is naturally due to increasing difficulties to sell securities abroad and also to off-budgets expenditures (see below). Actually it is difficult to say what really happened: the debts of the financial institutions reflect the growing need for funds to buy public debt and a not negligible part of other residents' debt are debt of public firms or guaranteed by the state.

Table 10 International Investment Position: Institutional Debtors of Securities

	1997	1998	1999	2000	2001	2002	2003
General government	70.9	79.8	80.9	80.7	71.4	70.1	71.3
Other monetary financial institutions	26.8	17.8	14.5	16.3	20.2	16.3	13.7
Other resident sectors	2.3	2.4	4.6	3.1	8.3	13.6	15.0
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
General government	74.4	78.3	75.5	68.1	64.9	60.0	58.3
Other monetary financial institutions	10.7	1.7	0.4	14.8	20.8	27.4	26.0
Other resident sectors	14.9	20.0	24.1	17.1	14.4	12.6	15.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Banco de Portugal, Boletim Estatístico, Balance of Payments Accounts.

6. External Competitiveness of the Portuguese Economy

In the second half of 1980, Pierre Bérégovoy, French Finance Minister and later Prime Minister, advocated the idea of competitive disinflation (Christian de Boissieu and Jean Pisani-Ferry 1995; Frederic Lordon 1998). It was recognized that with irrevocably fixed exchange rates an economy would be more competitive if its inflation rate was lower than that of its competitors. That idea has never been considered by Portuguese policy makers. Figure 8 express what happened in terms of implicit prices, dividing the Portuguese series by the German series (A), and in terms of the real effective exchange rate (B).

The implicit price level of Portuguese GDP measured in Euros has an increasing trend in relation to German implicit prices. This evolution of relative prices is an incentive to imports and a disincentive to exports. This same evolution is confirmed by the evolution of the real exchange rate. From 1986 to 2010 the Portuguese implicit real effective exchange rate suffered a real appreciation of 100% in terms of German values. From 2000 to 2010 the appreciation was also high, at 20%. This last

result was also confirmed in Fernando Alexandre et al. (2009). How can an economy with a technological level that is far from the technological leaders resist this evolution? The obvious consequence of this loss of external competitiveness was the external current balance disequilibrium and also the low level of savings and a sluggish output evolution.

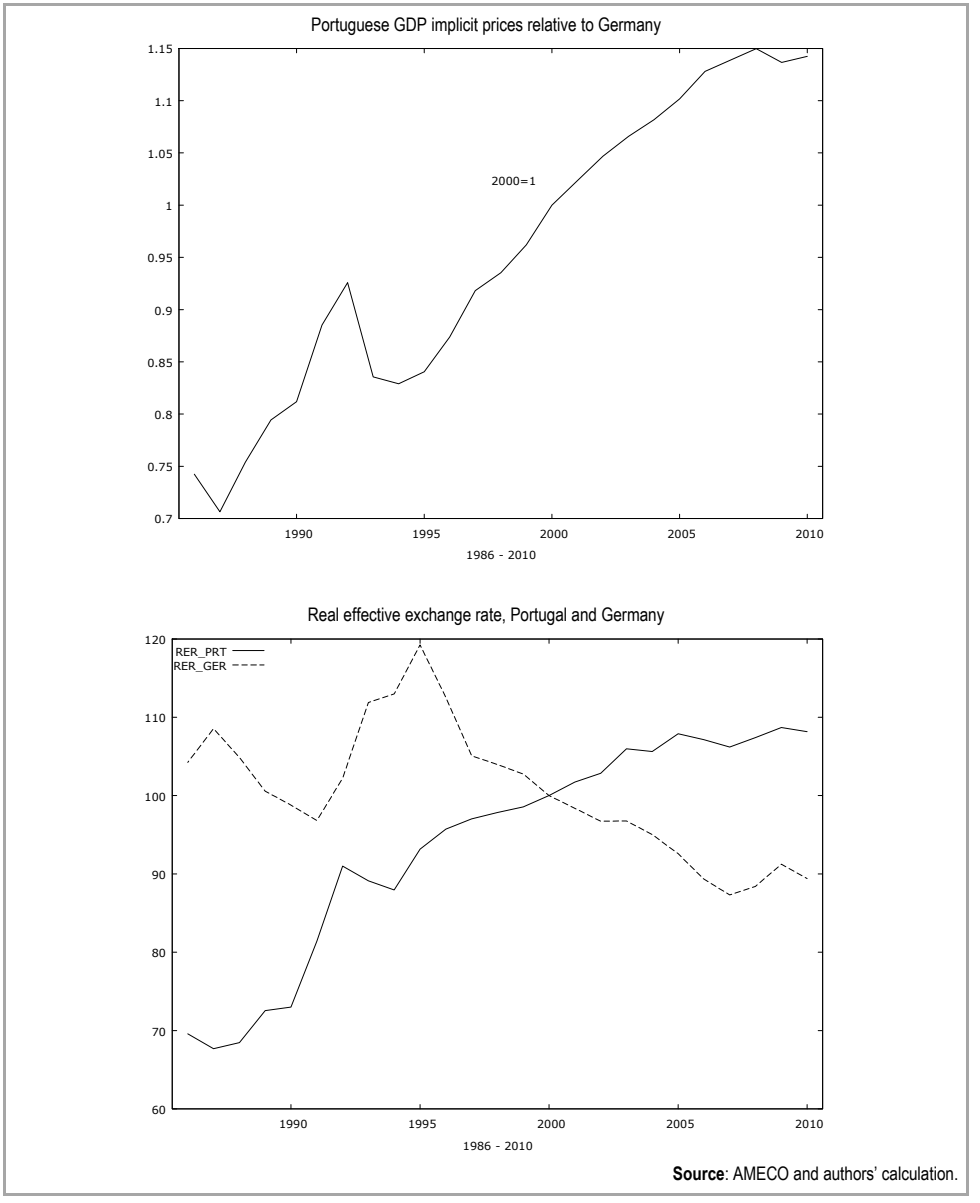


Figure 8 Relative Implicit Prices and Real Effective Exchange Rate for Portugal vs Germany

"Portugal's share in the world exports, particularly in goods, has substantially shrunk since the early nineties; also, compared to 1990, unlike the majority of the other EU member states, the ratio of exports of goods and services to GDP was reduced, and in 2005, well below EU averages" (Joaquim Ramos Silva 2008, p. 53). Even if "exports of goods are shifting from low to medium (low and high) technology products, traditionally uncompetitive products of textiles, clothing and footwear have significantly lost weight in the total" (Silva 2008, p. 53). For João Ferreira do Amaral (2006), Portugal in the second half of the nineties has suffered from the greatest negative shock in peacetime resulting from the emergence of countries such as China and India and the EU membership of Eastern European countries. In the absence of structural transformations Portugal (like Italy) was very vulnerable to those competitors, "Italy and Portugal entered EMU with industrial structures that placed them directly in China's line of fire." (Alan Ahearne and Jean Pisani-Ferry 2006, p. 4). In this international setting of free movement of goods, the worst that could happen at the national level was a real exchange rate appreciation, and indeed it occurred.

7. Labour Market and Unemployment Behaviour

Perhaps the best way to characterize the Portuguese labour market is to consider it as an apartheid situation (Andrew Eatwell 2010). The definition in Council of the European Union (2011) suits the Portuguese labour market very well, "large differences in relative levels of employment protection legislation contributes to a division between well-protected workers with permanent contracts and less-protected workers with atypical, mostly temporary, contracts. The impact of the crisis has highlighted this issue: job losses for workers in temporary work were almost four times higher than for those in permanent employment." (p. 11).

During the last years the Portuguese labour market has experienced a downward trend of the Organization for Economic Cooperation and Development (OECD) EPL index (Employment Protection Legislation) like some other economies in the European Union. In 2008 the Labour Code was revised and some measures were taken in order to facilitate its application by reducing procedural court processes, increasing trial periods and also reducing notice time and compensation for no-fault dismissal (OECD 2010). The effects of these changes coincided with unemployment rate increase so the results of these changes have to be analyzed with caution.

Table 11 Unemployment Rate for Several Countries

	2000	2010
EU – 27	8.7	9.6
Euro area	8.5	10.1
Ireland	4.2	13.7
Greece	11.2	12.6
Spain	11.1	20.1
Portugal	4.0	11.0
Austria	3.6	4.4
U.S.A.	4.0	9.6

Source: Eurostat[4].

[4] European Commission. Eurostat.Unemployment rate. http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home.

The worst situations in terms of unemployment rate increases are reckoned by Portugal and Ireland (Table 11). The unemployment rate from 2000 to 2010 was multiplied by 3. The unemployment rate for Austria is in 2010 the value of that rate in 2000 for Portugal and Ireland.

Historically, the unemployment rate in Portugal is not very different from that of the USA, but two differences are hidden in those numbers (Blanchard and Pedro Portugal 2001). The duration of unemployment in Portugal is three times that of the USA and the relative flow of workers into unemployment in the USA is three times that of Portuguese workers.

In Figure 9 (A) and (B) we present the total unemployment rate and the unemployment rate for workers less than 25 years old (A) and the logs of the actual number of unemployed and the unemployed by at least 25 months (B).

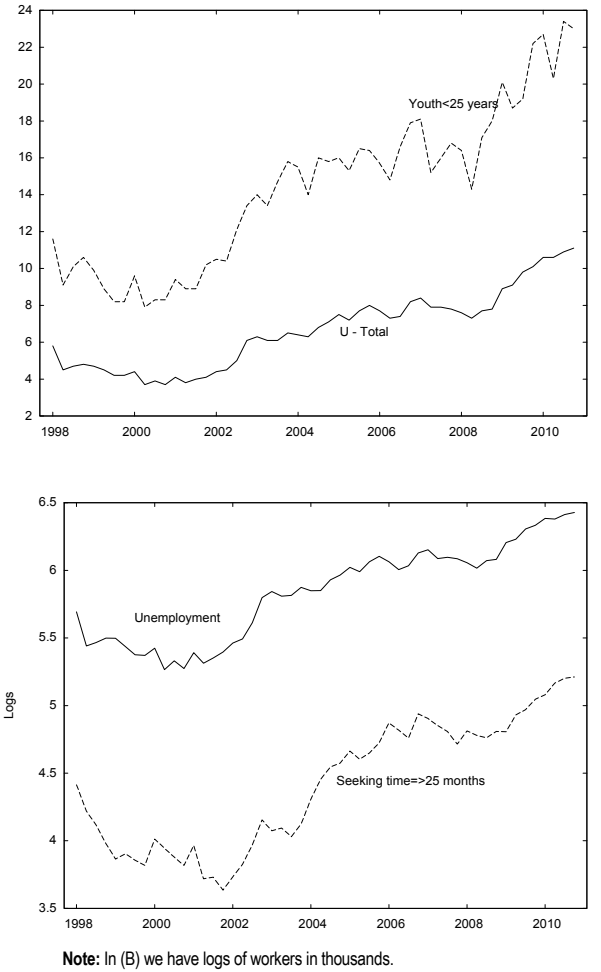


Figure 9 Unemployment Rate (A) and Unemployment Duration (B)

Unemployment rate path exhibits three main characteristics: its increase after 2002 (A) with the youth unemployment rate increasing more than the total rate (A) and the increase of long duration unemployed workers (B).

The employment/unemployment data is obtained by inquiry based on the census made every 10 years. This means that during the 1990's the immigration from Latin America (Brazil), ex-Portuguese colonies and Eastern European countries was actually on the labour force supply but not reflected in the employment inquiry. According to the inquiry, in 2006 the total labour force supply was 5601.4 thousands and immigrants numbered 437.126 thousands, 7.8% of the official value of the labour supply (João Peixoto and Catarina Sabino 2009). As a consequence the actual unemployment rate was lower than the official rate. Moreover, as Portugal is traditionally an emigration country this also has consequences on its unemployment rate. Portugal had three waves of emigration since 1850: at the end of 19th century, the second and biggest one in the 1960's and the third beginning in 2002 (Alvaro Santos Pereira 2001). The European Union's freedom of movement created a problem for migration statistics in Portugal. Based on Pereira (2010) calculations, emigration was 108,388 and 101,595 in 2007 and 2008, respectively and from 2002 to 2008 the total value was 542,808. The present wave differs from the two previous waves by the higher education level of the new Portuguese emigrants, representing an effective brain drain (Pereira and Pedro Lains 2010). If at the end of 2010 we count these emigrants since 2002 as unemployed searching for employment, the unemployment rate 11.1% is undervalued; it ascends to 18.9%. The emigration phenomenon is known in Portugal as an "exhaust valve", as is confirmed by this calculation. The unemployment rate can be a bad indicator of the output gap as well as a bad social welfare indicator. We can conclude that the sluggish growth of the Portuguese economy has terrible effects in terms of unemployment.

8. Bad Governance: The Problem of Off-Budgeting Practice Matters

Voters may not understand the significance of many forms of off-budget expenditures but not capital markets. For example, Freitas Diogo do Amaral (2011) has stressed the inexistence of specific laws for public foundations. The government does not know the exact number of these institutions but they are dependent of public funds, as indeed private foundations. The XIII and XIV constitutional government of António Guterres (1995-2002) created many institutes with financial and administrative autonomy with the aim of making more efficient public decisions fleeing the constraints of state bureaucracy. Years later a parallel state structure was really in place. A part of their receipts is off-budget and their liabilities are not aggregated in the general government accounts. The debts of public and semi public firms created by central and local public administrations are guaranteed by the state but are not aggregated at the national public debt. The accumulated debt of non-financial firms owned by the state at the end of 2009 was 24.3% of the GDP, and in 2010 it is approximately 26% (Pereira 2010).

In the last years, public-private partnerships (PPP) at the level of road and rail infrastructure and also hospital buildings and the associated production of health services became a very controversial subject. PPPs are an alternative to traditional public investment; they allow to keep these expenditures off-budget and to postpone the payment to the PPP operator in a yearly basis (Turrini 2004). This practice can hide inefficient projects and future commitments that are kept aside from the voters. Some of these contracts were renegotiated but always with more charges incurred by the state. Based on 2009 as reference year (Finanças 2010), Table 12 shows the future costs from PPP. As we can see these costs represent with reference to 2010 1% by year of GDP. From 2011 to 2030 the total cost will be 20.9% of 2010 GDP, which is a huge amount of expenditures. The report for 2010 (Finanças 2011) doesn't publish the future costs of PPP.

Table 12 PPP Future Costs in % of GDP (2010)

5 years period	% GDP 2010
2011-15	5.1
2016-20	6.5
2021-25	5.1
2026-30	4.2

Source: Finanças (2010) and authors' calculation.

More important than the public debt level is the absence of credible information about state liabilities, direct or indirect, like future liabilities associated to PPP expenditures already discussed that endangers capital markets confidence on Portuguese economy.

And finally we want to stress recent opportunist policies in a context of fiscal consolidation. The dates of recognition of an excessive deficit and for abrogating that decision were: 2002-04, 2005-08 and 2009-? (see for Portugal EC 2005a,b; EC 2009a,b). For all the excessive deficit processes: EC 2011. In 2008, using the data then recognized by Portugal and Eurostat, Portugal exit an excessive deficit situation by implementing rigorous control of public expenditures and receipts. Political measures such as VAT reduction from 21% to 20% (30th May 2008) and public sector wages increase of 2.9% in 2009 due to elections to the Portuguese parliament, European Parliament and local governments, were important signs that fiscal consolidation was no longer a government priority.

9. Conclusion

We have portrayed Portuguese economy tracing a general picture whose main characteristics are a situation diagnosed as a kind of Dutch disease since the second half of the 1990's, with a systematic decrease of its savings and suffering from the impact of globalization and loss of external competitiveness following from a stagnated output since 2002.

We have also concluded that the output gap and the unemployment rate have to be interpreted carefully. A new output trend was calculated in order to correct the recent actual Portuguese sluggish growth. The third wave of emigration has reduced the actual labour supply value resulting in the decrease of the unemployment rate.

Additionally, high unemployment rates express a situation of apartheid in the labour market and low skills of older workers.

Sluggish growth means less budget receipts and the government reaction to this was to develop off-budget practices and to create public firms to hide the increased disequilibrium between expenditures and receipts. The development of a parallel government structure, with the creation of public firms at the central and local governments, to employ party elements and pay them out of public administration salaries has also contributed to a real problem of lack of transparency and accountability. Why would international financial markets and rating agencies ignore this situation and these facts?

The Portuguese problems will be solved only with output growth. The simple rule for inter-temporal budget constraints states that debt can only be sustainable if real output growth is greater than the real interest rate. With an interest rate of 5.1 (more or less the average of the financial aid to the Portuguese economy), output has to grow at a minimum of 3%. This is the real challenge for the Portuguese economy.

References

Adam, Christopher. 2005. "Exogenous Inflows and Real Exchange Rates: Theoretical Quirk or Empirical Reality?" Paper presented at the IMF Seminar on Foreign Aid and Macroeconomic Management, Maputo.

Afonso, Antonio, and Miguel St. Aubyn. 2008. "Macroeconomic Rates of Return of Public and Private Investment: Crowding-in and Crowding-out Effects." ECB Working Paper 864.

Ahearne, Alan, and Jean Pisani-Ferry. 2006. "The Euro: Only for the Agile." Bruegel Policy Brief 2006/01.

Alexandre, Fernando, Pedro Bação, João Cerejeira, and Miguel Portela. 2009. "Aggregate and Sector-Specific Exchange Rate Indexes for the Portuguese Economy." *Notas Económicas*, 30: 6-28.

Amaral, João Ferreira do. 2006. "Evolução do Comércio Externo Português de Exportação (1995-2004)." GEE Papers Lisbon 1.

Amaral, Freitas Diogo do. 2011. "Freitas denuncia 'jobs for the boys' nas fundações." *Diário de Notícias*. April 16, 2011.

Aschauer, David. 1989. "Does Public Capital Crowd Out Private Capital?" *Journal of Monetary Economics*, 24(2): 171-188.

Auerbach, Alan J., William G. Gale, and Benjamin H. Harris. 2010. "Activist Fiscal Policy." *Journal of Economic Perspectives*, 24(4): 141-164.

Bação, Pedro, and António Portugal Duarte. 2011. "Accession to the European Union, Interest Rates and Indebtedness: Greece and Portugal." Estudos do Grupo de Estudos Monetários e Financeiros 4.

Barrios, Salvador, Sven Langedijk, and Lucio Pench. 2010. "EU Fiscal Consolidation After the Financial Crisis - Lessons from Past Experiences." In *Fiscal Policy: Lessons from the Crisis*, ed. Daniele Franco, 561-593. Roma: Banca d'Italia.

Blanchard, Olivier, and Pedro Portugal. 2001. "What Hides behind an Unemployment Rate: Comparing Portuguese and U.S. Labor Markets." *The American Economic Review*, 91(1): 187-207.

Blanchard, Olivier, and Francesco Giavazzi. 2002. "Current Account Deficits in the Euro Area: The End of the Feldstein Horioka Puzzle?" *Brookings Papers on Economic Activity*, 33(2002-2): 147-210.

Blanchard, Olivier. 2007. "Adjustment within the Euro. The Difficult Case of Portugal." *Portuguese Economic Journal*, 6(1): 1-21.

Boissieu, Christian de, and Jean Pisani-Ferry. 1995. "The Political Economy of French Economic Policy and the Transition to EMU." CEPII Document de travail 95:09.

Council of the European Union. 2011. *Joint Employment Report*. Brussels: Council of European Union.

Checherita, Cristina, and Philipp Rother. 2010. "The Impact of High and Growing Government Debt on Economic Growth, an Empirical Investigation for the Euro Area." ECB Working Paper Series 1237.

Corden, Warner Max, and Peter J. Neary. 1982. "Booming Sector and De-Industrialisation in a Small Open Economy." *The Economic Journal*, 92: 825-848.

Corden, Warner Max. 1984. "Booming Sector and Dutch Disease Economics: Survey and Consolidation." *Oxford Economic Papers*, 36(3): 359-380.

D'Auria, Francesca, Cécile Denis, Karel Havik, Kieran Mc Morrow, Christophe Planas, Rafal Raciborski, Werner Röger, and Alessandro Rossi. 2010. "The Production Function Methodology for Calculating Potential Growth Rates and Output Gaps." European Economy, Economic Papers 420.

Dadush, Uri, Dipak Dasgupta, and Dilip Ratha. 2000. "The Role of Short-Term Debt in Recent Crises." *Finance & Development*, 37(4).

Duarte, António Portugal, and João Sousa Andrade. 2011. "How the Gold Standard Functioned in Portugal: An Analysis of Some Macroeconomic Aspects." Forthcoming.

Duarte, Maria Adelaide, and Marta Cristina N. Simões. 2002. "Principais Factores de Crescimento da Economia Portuguesa no Espaço Europeu." *Boletim de Ciências Económicas da FDUC*, XLV(A): 927-962.

Easterly, William, and Sergio Rebelo. 1993. "Marginal Income Tax Rates and Economic Growth in Developing Countries." *European Economic Review*, 37(2-3): 409-417.

Eatwell, Andrew. 2010. "Time to End Spain's Labour Market Apartheid." *Iberosphere*. March 8th, 2010.

European Commission - EC. 1995. "Technical Note: The Commission Services' Method for the Cyclical Adjustment of Government Budget Balances." *European Economy*, 60: 35-88.

European Commission - EC. 2005a. *Portugal, Report Prepared in Accordance with Article 104(3) of the Treaty, SEC(2005) 838*. Brussels: Commision of the European Communities.

European Commission - EC. 2005b. "Regulation (EC) No 1467/97." Council Regulation (EC) No 1056/2005. http://eurlex.europa.eu/LexUriServ/site/en/consleg/1997/R/01997R1467-20050727-en.pdf.

European Commission - EC. 2009a. *Portugal, Report Prepared in Accordance with Article 104(3) of the Treaty, EC(2009) 1274 Final*. Brussels: European Commission.

European Commission - EC. 2009b. *Commission Opinion, on the Existence of an Excessive Deficit in Portugal, Application of Article 104(5) of the Treaty Establishing the European Community, SEC(2009) 1526 Final*. Brussels: European Commission.

European Commission - EC. 2011. "Excessive Deficit Procedures." http://ec.europa.eu/economy_finance/sgp/deficit/countries/index_en.htm.

Edsel, Beya Jr. 2010. "Do International Remittances Cause Dutch Disease?" MPRA Working Paper 23022.

Essaadi, Essahbi, Jamel Jouini, and Walih Khallouli. 2009. "The Asian Crisis Contagion: A Dynamic Correlation Approach Analysis." *Panoeconomicus*, 56(2): 241-260.

Federal Ministry of Finance. 2009. *Reforming the Constitutional Budget Rules in Germany*. Berlin: Public Finance and Economic Affairs Directorate.

Feld, Lars P., and Thushyanthan Baskaran. 2010. "Federalism, Budget Deficits and Public Debt: On the Reform of Germany's Fiscal Constitution." *Review of Law and Economics*, 6(3): Article 4.

Feldstein, Martin S. 1999. "Capital Income Taxes and the Benefit of Price Stability." In *The Costs and Benefits of Price Stability*, ed. Martin S. Feldstein, 9-40. Chicago: University of Chicago Press.

Finanças, D.-G. d. T. e. 2010. *Parcerias Público-Privadas e Concessões: Relatório de 2009*. Lisbon: Ministério das Finanças e da Administração Pública.

Finanças, D.-G. d. T. e. 2011. *Parcerias Público-Privadas e Concessões: Relatório de 2010*. Lisbon: Ministério das Finanças e da Administração Pública.

Gurdgiev, Constantin, Brian M. Lucey, Ciaran Mac an Bhaird, and Lorcan Roche-Kelly. 2011. "The Irish Economy: Three Strikes and You're Out?" *Panoeconomicus*, 58(1): 19-41.

International Monetary Fund. 2011. Portugal: Fast Facts. http://www.imf.org/external/np/exr/countryfacts/prt/index.htm.

Kim, Jae H. 2009. "Boostrap Prediction Intervals and Bias-Corrected Forecasting." http://cran.rproject.org/web/packages/BootPR/index.html.

Kilian, Lutz. 1998. "Small-Sample Confidence Intervals for Impulse Response Functions." *The Review of Economics and Statistics*, 80: 218-230.

Kouretas, Georgios P., and Prodromos Vlamis. 2010. "The Greek Crisis: Causes and Implications." *Panoeconomicus*, 57(4): 391-404.

Lordon, Frederic. 1998. "The Logic and Limits of Désinflation Competitive." *Oxford Review of Economic Policy*, 14(1): 96-113.

Marinheiro, Carlos Fonseca. 2006. "The Sustainability of Portuguese Fiscal Policy from a Historical Perspective." *Empirica*, 33(2-3): 155-179.

Mata, Eugénia, and Nuno Valério. 1994. *História Económica de Portugal: Uma Perspectiva Global*. Lisboa: Editorial Presença.

McCauley, Robert N., and Jens Zukunft. 2008. "The Asian Financial Crisis: International Liquidity Lessons." *BIS Quarterly Review,* June: 67-79.

O'Hara, Phillip Anthony. 2011. "International Subprime Crisis and Recession: Emerging Macroprudential, Monetary, Fiscal and Global Governance." *Panoeconomicus*, 58(1): 1-17.

Organization for Economic Cooperation and Development - OECD. 2010. *Policy Reforms: Going for Growth, Priorities Supported by Indicators*. Paris: OECD.

Peixoto, João, and Catarina Sabino. 2009. "Portugal: Immigration, the Labour Market and Policy in Portugal: Trends and Prospects." IDEA Working Paper 6.

Pereira, Álvaro Santos. 2001. *Portugal na Hora da Verdade, como vencer a crise nacional*. Lisboa: Gradiva.

Pereira, Álvaro Santos. 2010. "The Return of Portuguese Emigration." Simon Fraser University Working Paper.

Pereira, Álvaro Santos, and Pedro Lains. 2010. "From an Agrarian Society to a Knowledge Economy: Portugal, 1950-2010." Universidade Carlos III, Working Papers in Economic History WP10-09.

Prokopijević, Miroslav. 2010. "Euro Crisis." *Panoeconomicus*, 57(3): 369-384.

Rajan, Raghuram G., and Arvind Subramanian. 2011. "Aid, Dutch Disease, and Manufacturing Growth." *Journal of Development Economics*, 94(1): 106-118.

Rebelo, Sergio, and Carlos A. Vegh. 1995. "Real Effects of Exchange-Rate-Based Stabilization: An Analysis of Competing Theories." In *NBER Macroeconomics Annual 1995, Volume 10*, ed. Ben S. Bernanke and Julio J. Rotemberg, 125-188. New York: National Bureau of Economic Research, Inc.

Reinhart, Carmen M., and Kenneth S. Rogoff. 2008. "This Time is Different: A Panoramic View of Eight Centuries of Financial Crises." NBER Working Paper 13882.

Reinhart, Carmen M., and Kenneth S. Rogoff. 2009. *This Time is Different Eight Centuries of Financial Folly*. Princeton: Princeton University Press.

Reinhart, Carmen M., and Kenneth S. Rogoff. 2010. "Growth in a Time of Debt." *American Economic Review*, 100(2): 573-578.

Rollo, Fernanda. 1994. *Portugal e o Plano Marshall. Da rejeição à solicitação da ajuda norte-americana (1947-1952)*. Lisbon: Editorial Estampa.

Roubini, Nouriel. 2011. "Sem crescimento económico, este programa é uma missão impossível." *Expresso*, 7: 16-17.

Santos, Luís Aguiar. 2001. "A crise financeira de 1891: uma tentativa de explicação." *Análise Social*, XXXVI(158-159): 185-207.

Schmitt, Hans O. 1981. "Economic Stabilization and Growth in Portugal." IMF Occasional Paper 2.

Shaman, Paul, and Robert A. Stine. 1988. "The Bias of Autoregressive Coefficient Estimators." *Journal of the American Statistical Association*, 83(403): 842-848.

Silva, Joaquim Ramos. 2008. *Internationalization Strategies in Iberoamerica, The Case of Portuguese Trade*. Santiago: United Nations.

Strauss-Kahn, Dominique, and Olli Rehn. 2011. Statement on Portugal by IMF Managing Director Dominique Strauss-Kahn and European Commissioner for Economic and Monetary Affairs Olli Rehn. IMF Press Release 11/162. http://www.imf.org/external/np/sec/pr/2011/pr11162.htm.

The Economist. 1977. "The Dutch Disease," November 26, 82-83.

Turrini, Alessandro. 2004. "Public Investment and the EU Fiscal Framework." European Commission, Directorate-General for Economic and Financial Affairs, Economic Papers 202.

UNCTAD - South Centre. 2007. *Debt and Trade: Making Linkages for the Promotion of Development.* Washington, DC: Center of Concern.

UTAO. 2011. "Adenda ao Parecer Técnico Nº 4/2011, Análise das Contas das Administrações Públicas - PDE Março de 2011." Assemblei da República, Unidade Técnica de Apoio Orçamental. Lisbon.

Verbeke, Karel. 2007. "Dutch Disease in Aid-Recipient Countries: Are There Medicines to Avoid an Outbreak?" University of Antwerp, Institute of Development Policy and Management, Discussion Paper 2007.05.