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EURO PLUS PACT: THE GREEK CASE

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ABSTRACT: The Euro Plus Pact was adopted in March 2011 by 23 EU member states, under EU's open method of coordination, aiming at a stronger coordination of competitiveness and convergence economic policies in the EU. It is based on four strategic pillars of equal importance, which are fostering competitiveness, fostering employment, contributing further to public finance sustainability and reinforcing financial stability, specified by various indicators and goals. This paper examines whether Greece has succeeded in implementing the recommended reforms and which are the results of these reforms by comparing more than 25 indicators. The assessment results show that Greece implements the recommended reforms, but they are not fully delivered because certain goals are not achieved.

Keywords: Euro Plus Pact, Greek reforms, European integration, Euro economic reforms, Greek economic policy.

1. INTRODUCTION

The Euro Plus Pact grew out of a Franco-German proposal in February 2011 for a so-called "Competitiveness Pact". As an intergovernmental initiative, it reflected the dominant perception in some member states of the need for a more rigorous approach towards economic and financial imbalances (European Commission, 2015) and was subtitled "Stronger Economic Policy Coordination for Competitiveness and Convergence". It has been claimed that the institutional convergence in the EU does not necessarily lead to economic growth, with trade openness, economic integration and euro currency being instead decisive factors for the convergence benefits especially among the non-founding EU members, except for Greece (Campos *et al.*, 2019).

The core of this pact is the obligation of each participating country to review its external price competitiveness so that a macroeconomic imbalance accumulation can be avoided, especially in relation to current account deficits (Marzinotto, 2011). The pact sets out a number of quantified objectives, which aim at boosting competitiveness and convergence in the EU, in order to prevent European economies from accumulating unsustainable macroeconomic imbalances.

In the related literature many doubts have been expressed about the Euro Plus Pact effectiveness. According to studies (Boing and Stadtmann, 2016) (Horn and Watt, 2017) the main conclusion drawn is that the current account balance changes precedes the relative unit labor cost changes. Additionally, according to the related literature, the opposite effect of wage cost reduction over current account balance improvement does not seem quite strong. Other scientific findings show that the unit labor cost reducing measures of the Euro Plus Pact are not likely to have direct impacts on possible current account imbalances. Furthermore, (Gabrisch and Staehr, 2014) argue in their study that it is quite doubtful if this pact has the ability to protect the European economy from future financial imbalances . Moreover, Wyplosz (2011) maintains that the unit labor cost should be compared among all countries taking part in the world trade and not only among the eurozone countries, while (Marzinotto, 2011) also criticizes the basic rationale of the pact. Besides, the labor market reforms are quite likely to increase the imbalances inside the European edifice (Barnard, 2012).

2. THEORETICAL FRAMEWORK

The Euro Plus Pact was published as part of the 24-25 March 2011 European Council conclusions (EUCO 10/11), being one of the two annexes attached to the main body of the European Council conclusions. It was endorsed by 23 EU member states –the then 17-euro area countries and the six noneuro area countries (Bulgaria, Denmark, Latvia, Lithuania, Poland and Romania)– and put into effect soon thereafter. On legal terms, the Euro Plus Pact is neither an international treaty –like the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union– nor a regulation, directive or decision, nor also recommendation or opinion. Thus, it applies only in the framework of the enhanced cooperation, which is provided by the articles 326-334 TFEU, titled "Enhanced Cooperation", while the pact committedness and sanction- imposing process, as long as the partners do not comply with the agreed terms, are optional. The pact sets out a number of quantitative objectives that aim at boosting competitiveness in order to prevent the accumulation of external fiscal imbalances (Gabrisch and Staehr, 2014). It works in line with the already existing institutional processes and policies such as the Europe 2020 Strategy, the European Semester, the Integrated Guidelines, the Stability and Growth Pact and the new macroeconomic surveillance framework, while the European Commission assumes a strong central role in the monitoring of the commitment implementation (European Commission, 2015). The pact reiterates that the regulated policies about the wage, the productivity and competitiveness growth belong to the responsibility area of the member states and not the EU.

Table 1 summarizes the four Euro Plus Pact strategic pillars, the indicators under monitoring, the objectives and the related means of achievement.

Table 1. The Euro Plus Pact pillars, indicators and means of achievement

		Euro Plus Pact						
Strategic Pillar		**Fostering Competitivenss**		**Fostering Employment**		**Contributing further to Public Finance Sustainability**		**Reinforcing Financial Stability**
Indicator	1	Unit labor cost	1	Long-term unemployment rate / Youth unemployment rate / Labor market participation rate	1	Sustainability of the pension, healthcare and social benefit systems	1	(No indicators referred)
Means	a	Review of the wage-setting arrangements, the degree of centralization in the collective bargaining process, etc.	a	Flexicurity	a	Aligning the pension system to the national demographic situation and life expectancy	a	Bank resolution legislation
	b	Ensuring that wage settlements in the public sector support the competitiveness efforts in the private sector	b	Life-long learning	b	Limiting early retirement schemes and using targeted incentives to employ older workers	b	Regular stress tests
	c	Further opening of sheltered sectors	c	Tax reforms (e.g. lowering taxes on labor)	2	National fiscal rules	c	Close monitoring of private debt for banks, households and non-financial firms
	d	Improving education systems and promoting R&D, innovation and infrastructure			a	Debt brake		
	e	measures to improve the business environment						

According to the pact, the necessary condition for boosting the cohesion and competitiveness of the EMU member states' economies is tax policy coordination, which is a national and not an EU responsibility. More specifically, it is suggested the promotion of a common corporate base. Presently, a minimum VAT rate regulation has been adopted by the EU bodies, while there has not been any strong step towards a common tax policy (Delgado, 2013);(Valenduc, 2018).

This paper has much added research value, since all the other papers discussing the Euro Plus Pact focus on the external imbalances and the first strategic pillar of the pact, namely competitiveness. It examines all the strategic pillars relating to a national economy, while a compliance rate indicator could be created at a later stage, which will help to a comparative assessment of the national economies.

3. METHODOLOGY

The methodology followed is the empirical analysis of the Table 1 time series, objectives and actions. More specifically, more than 25 indicators are used, showing whether Greece meets the goals of the four strategic pillars set out by the Euro Plus Pact. The goal assessment is made through the comparative quantitative analysis of the indicators, but also trough the qualitative assessment of the reforms (e.g. enacting regulatory frameworks) whenever is required. Additionally, least-squares linear regressions (OLS) are performed in order to verify the goal-result correlation. We employed descriptive statistics to illustrate an overview and the development of the indicators and relationships under examination. That is, we considered whether the indicators under examination increase, decrease or remain stable. Moreover, we employed ordinary least squares to examine the relationships between the variables under examination, monitoring whether independent variables affect dependent variables. All these tools allow us to have a complete overview of the variables under examination Lastly, a comparative assessment of the indicators is performed over the period 2008-2018. We employed descriptive statistics to illustrate an overview and the development of the indicators and relationships under examination. That is, we considered whether the indicators under examination increase, decrease or remain stable. Lastly, we employed ordinary least squares to examine the relationships between the variables under examination, monitoring whether independent variables affect dependent variables. All these tools allow us to have a complete overview of the variables under examination.

4. THE GREEK RESPONSE TO THE EURO PLUS PACT

Due to the pact's legal form the Greek government did not need to transpose it into the national law since there was not provided any integrating process. Moreover, while the pact includes some indicators, such as the unit labor cost, it does not specify them with reference rates like other treaties or pacts do . The assessment is divided according to the four Euro Plus Pact strategic pillars. These pillars are presented in table 2.

Table 2. The Euro Plus Pact Euro Plus Pact Strategic Pillars

The Euro Plus Pact Euro Plus Pact Strategic Pillars
Fostering competitiveness
Fostering employment
Contributing further to public finance sustainability
Reinforcing financial stability

In the 9/12/2011 European Council there was a specification of the pillars for each country. According to the European Commission (European Commission, 2011), the country-specific goals set for Greece are presented in table 3:

Table 3. Greek country-specific goals

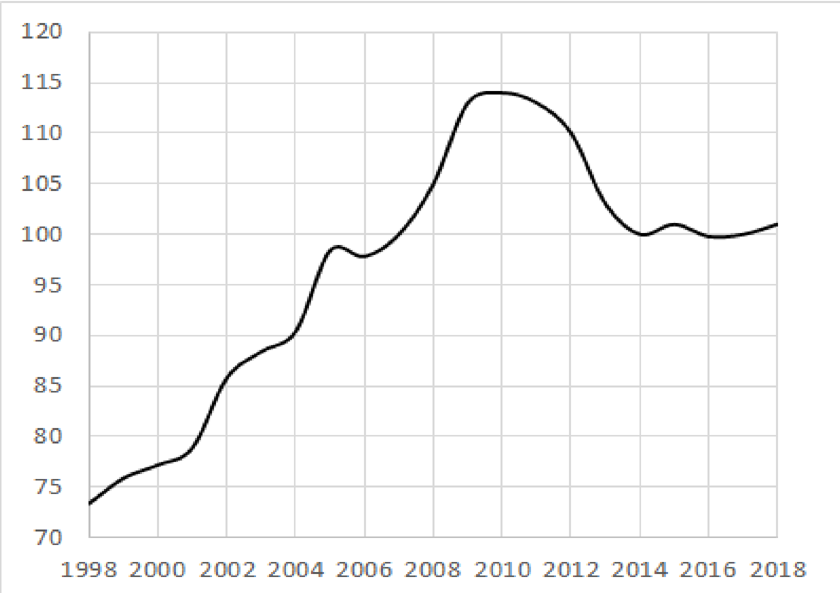
Competitiveness
Creation of a wage-setting mechanism
Public-sector wage developments
Stronger competition in services
Better education, R&D and innovation systems
Business-friendly environment
Employment
Flexicurity increase
Labor-market participation increase

Undeclared work decrease
Life-long learning promotion
Second-earner participation in the labor market
Public finance sustainability
Pension-system alignment to the demographic situation
Incentives for older workers
National fiscal-rule setting
Financial stability
Introduction of bank bailout legislation or other measures

4.1. Fostering Competitiveness

The first strategic pillar of the Euro Plus Pact is to foster the competitiveness. The pact defines that the progress assessment will be based on the wage and productivity developments as well as the competitiveness adjustment needs. According to the OECD, the unit labor cost is often considered a widely used measure of the (international) price competitiveness, while it is defined as the average cost per unit of production. Figure 1, based on OECD data, shows that the unit labor cost in Greece has been reduced.

Figure 1. Unit Labor Cost index



Source: OECD

The first means of unit-labor-cost reduction is reviewing the wage-setting arrangements, the degree of centralization in the collective bargaining process and other related labor issues. During the economic adjustment period in Greece, extensive reforms were promoted in the labor relations field towards more flexible wage-setting arrangements and more deregulated labor relations (Christopoulou and Monastiriotis, 2014). Additionally, according to a study (Cholezas and Kanellopoulos, 2015), the decline in wages began only after the Greek government reform efforts took place in 2011. Table 4 shows that a unit-labor-cost rise by 1% could bring about a 502-million-euro fall in the current account balance, with the unit labor cost defining only by 36% the current account balance changes.

Table 4. Regression between current account balance and unit-labor-cost

Dependent Variable: Current Account Balance Method: OLS Sample: 2002 - 2011 Included observations: 10 after adjustments				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob**
C	27423.92	23743.37	1.155014	0.2814

Unit-Labor-Cost	-502.9198	234.9163	-2.140847	0.0647
R-squared	0.364233	Mean dependent var		-23159.75
Adjusted R-squared	0.284762	S.D dependent var		8746.039
S.E of regression	7396.678	Akaike info criterion		20.83231
Sum squared resid	4.38E+08	Schwarz criterion		20.89282
F-statistic	4.583225	Durbin-Watson stat		0.729317
Prob (F-statistic)	0.064691			

The unit labor cost reduction requires –except for wage-cost cutting– a GDP increase in absolute numbers that is growth (Petrakis, 2016). (Peeters and Reijer, 2012) also support that a competitiveness boost is needed for growth rate sustainability, although a nominal wage rise along with a labor productivity rise could hardly happen in Greece. Table 5 shows that a new bank lending rate increase by 1% could create a 2.43-billion-euro rise of the nominal GDP and a unit labor cost increase by 1% could create a 1.84 billion-euro rise of the nominal GDP (ceteris paribus), with the two aforementioned variables explaining by 89% the nominal GDP changes.

Table 5. Regression between nominal GDP and unit labor cost and bank lending rate

Dependent Variable: nominal GDP Method: OLS Sample: 2004 - 2018 Included observations: 15 after adjustments				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob**
Unit-Labor-Cost	1849.966	22.90874	80.75375	0.0000
New Banking lending rate	2431.302	255.6949	9.508607	0.0000
R-squared	0.893396	Mean dependent var		201686.0
Adjusted R-squared	0.885196	S.D dependent var		23734.57
S.E of regression	8041.930	Akaike info criterion		20.94629
Sum squared resid	8.41E+08	Schwarz criterion		21.04070
		Durbin-Watson stat		1.713720

According to the pact, cutting down wage costs could smooth the external imbalances, which include also the current account imbalances (Moschovis and Servera, 2009). Figure 2 shows the changes in the wage indicator and the current account balance.

Figure 2. Current Account Balance and Wage Index

Source: Hellenic Statistical Authority & Bank of Greece

It is widely accepted that the current account balance improvement has positive correlation with the government expenditure reduction (Hardouvelis *et al.*, 2009). Table 6 shows the negative correlation between current account balance and government expenditure, since a 1-million-euro government expenditure rise could cause deterioration in the current account balance by 229 thousand euros, with government expenditure defining only by 55% the current account balance changes.

Table 6. Regression between current account balance and government expenditure

Dependent Variable: Current Account Balance Method: OLS Sample: 2002 - 2011 Included observations: 10 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob
government expenditure	-0.229351	0.017696	-12.96093	0.0000
R-squared	0.552955	Mean dependent var		-23159.75
Adjusted R-squared	0.552955	S.D dependent var		8746.039
S.E of regression	5847.725	Akaike info criterion		20.28013
Sum squared resid	3.08E+08	Schwarz criterion		20.31039
		Durbin-Watson stat		0.648087

An additional step taken by the Greek governments towards the unit labor cost reduction during the economic adjustment period was ensuring that wage settlements in the public sector support the competitiveness efforts in the private sector. There were specific legislative measures that imposed wage cuts in the public sector up to 13%, according to the OECD (OECD, 2014)(2014), while other studies estimate these cuts at 20%-40%, depending on the estimation method (Tzanatos and Monogios, 2013). According to (Ioannidis and Pissarides, 2015), the wages in Greece fell by 23% during 2009-2013, the unitary pay for civil servants was applied, the wage maturities froze and many allowances were curtailed. On the contrary, (Cahuc and Michel, 1996) maintain that the wage cost reduction does not necessarily have positive correlation with growth. Furthermore, another study supports that Greek enterprises tried to face the decline in demand by wage-cutting (Kosma, 2017).

The Euro Plus Pact assesses the progress of a economy in terms of competitiveness by focusing on the wage-cost developments while other indicators could also be used. More specifically, the pact does not take into consideration the structural competitiveness (non-price competitiveness), which plays a decisive role in the international trade (Athanasoglou and Bardakas, 2010). The World Bank assesses on an annual basis the global business activity by releasing its “Doing Business Annual Report”. According to table 7, the Greek economy has improved its competitiveness among 190 countries in recent years.

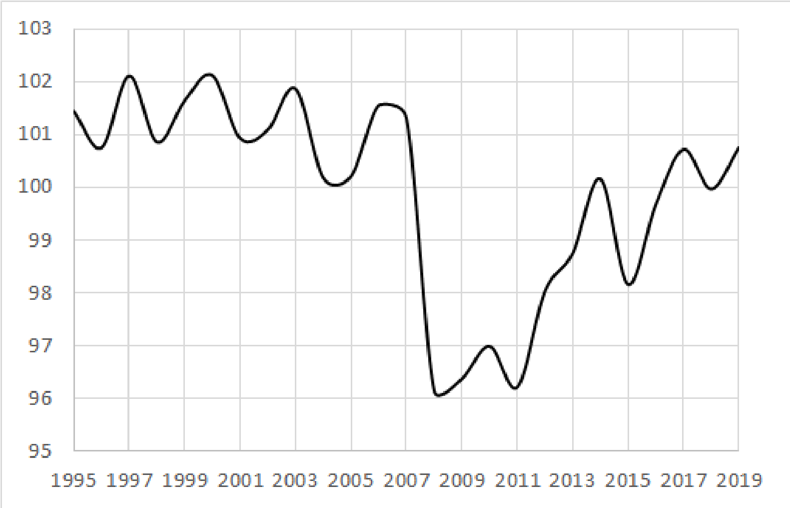
Table 7. Doing Business Annual Report ranking

Year	06′	07’	08’	09’	10’	11’	12’	13’	14’	15’	16’	17’	18’	19’
Ranking	106	109	100	96	109	101	100	78	72	61	60	61	67	72

Source: World Bank

Regarding the business-environment improving measures, the pact refers to bureaucracy elimination and regulatory framework enhancement (e.g. bankruptcy law and commercial code). The Greek governments have adopted extensive changes in the related sectors such as the Law 4446/2016 and the Law 4549/2018, which update the bankruptcy code. The progress made in the field of business environment can be assessed by the Business Confidence Index (BCI), which is an indicator that reflects the market climate. Figure 3 below shows that Greece has not fully managed to recover the lost ground compared to the pre-crisis situation.

Figure 3. Business Confidence Index



Source: OECD

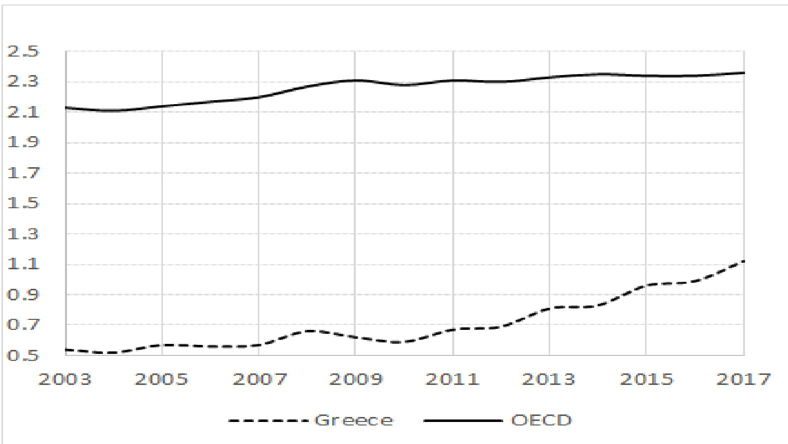
As far as the Purchasing Managers' Index (PMI) is concerned, which is an indicator that measures the manufacturing sector performance deriving from a survey of 350 industrial companies, it follows the same pattern as the BCI.

Regarding the opening of sheltered industries to free competition, the Greek governments have completed numerous reforms aiming at boosting competitiveness and opening closed professions. Key reform to this direction was the introduction of the Law 3919/2011 and the Law 4512/2018. According to a report of the Centre of Planning and Economic Research (Kotsi *et al.*, 2016), "the first indications show that the liberalization of closed professions had a positive effect in the Greek economy, irrespective of its small effect in the short term, while being an essential reform with multidimensional and long-lasting benefits." Moreover, the reform process monitoring and assessment results show a significant progress made in the areas of facilitating new-business market entries and enhancing competitiveness in the transport, energy and service industries (Balfoussias *et al.*, 2011); (KEPE, 2019).

Furthermore, according to European Commission assessment (European Commission, 2019a), important steps have been taken to promote competitiveness by reducing the market entry barriers for enterprises, while since 2013 closed professions accounting for around 45% of Greece's value added have already opened, which will help attract new investments and retain existing investments.

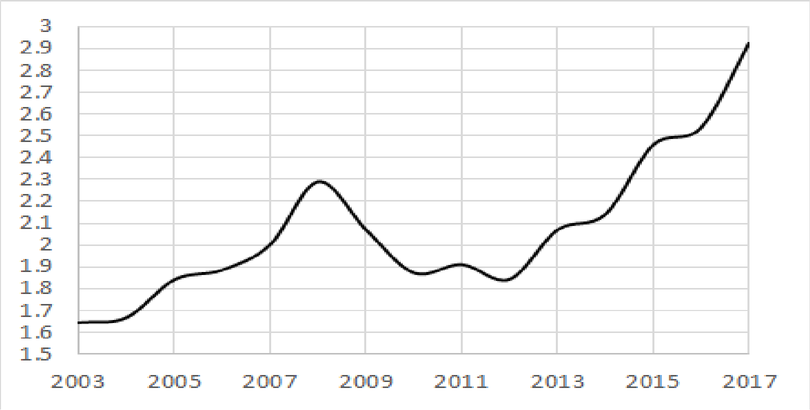
As regards the next Euro Plus Pact means of achievement concerning education system improvement and R&D promotion, innovation and infrastructure, two indicators are used for the examination of the Greek case. The first one is the size of R&D and innovation expenditure and the second one is the Greek public investment program take up rate, whose a big part is directed to infrastructure development. Figures 4 and 5 present the total investment in R&D as a ratio of GDP but also in absolute prices.

Figure 4. R&D expenditure as share of GDP



Source: OECD

Figure 5. R&D in bn $

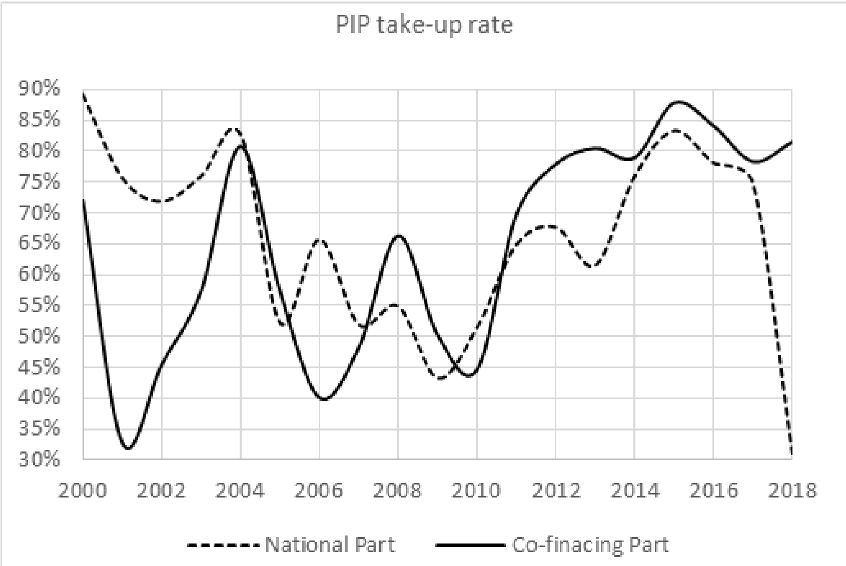


Source: OECD

Therefore, the conclusion drawn from these Figures is that there have been progress steps in the area of R&D investments, yet Greece is far from reaching the OECD average rate.

Figure 6 presents the execution of the Greek public investment program. The public investment program consists of two parts, the national part and the co-financed part, and serves as the main tool for public investments in the national economy.

Figure 6. Public Investment Program

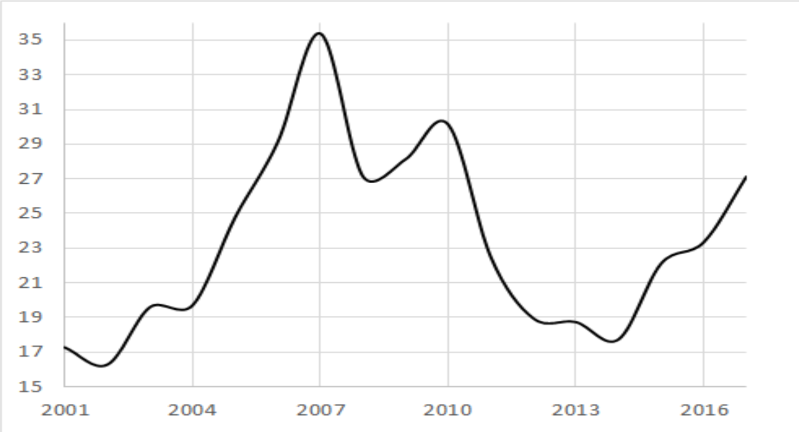


Source: Greek Ministry of Education and Religious Affairs

Figure 6 shows a decline in the take-up rate of the approved national appropriations and a rise in the take-up rate of co-financing funds. Public expenditure has positive correlation with economic growth, provided that it refers to developed economies (Wu *et al.*, 2010) and as long as expenditure is channeled to sectors such as education and health (Lupu *et al.*, 2018).

Additionally, a crucial indicator relating to the competitiveness of an economy is that of foreign direct investments. Figure 7 shows that the Greek economy has managed to regain international investors' trust with its foreign direct investments being on the rise since 2014.

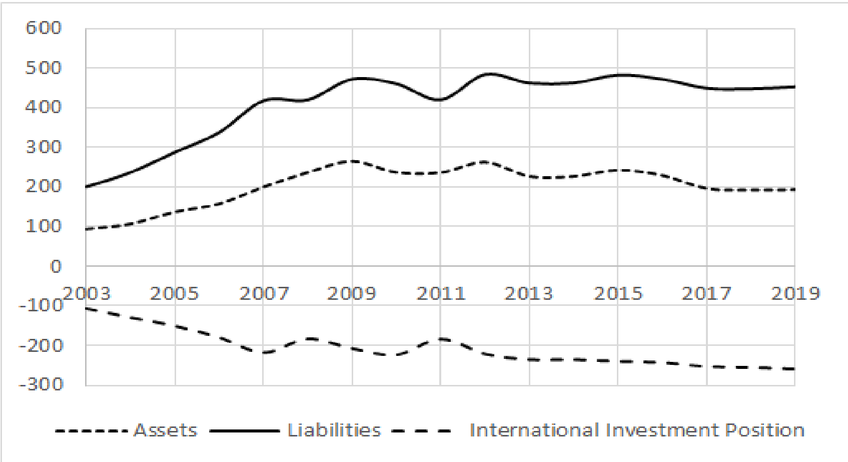
Figure 7. FDI in bn €



Source: Bank of Greece

Finally, figure 8 presents the international investment position of Greece, attesting that it is an international debtor since the total investment liabilities overtake the total investment assets, while the gap between assets and liabilities grew wider during the economic crisis period, which was due to assets decrease rather than liabilities increase.

Figure 8. International Investment Position in bn €



Source: Bank of Greece

Tables 8 and 9 are extracted from the analysis of all the aforementioned indicators.

Table 8. Comparative analysis

Indicator	2008	2018	Difference
PIP Take-up Rate (co-financing part) (%)	66	81	+15
PIP Take-up Rate (national part) (%)	55	31	-14
R&D Investment (bn $)	2.29	2.94 (2017)	+0.72
R&D investment as GDP ratio (%)	0.66	1.12 (2017)	+0.46
Business Confidence Index	96.15	99.97	+3.82
Wage Index	114.7	94 (2019)	+20.7
Unit Labor Cost Index	105	101	+4
Doing business in Greece (ranking)	100	72 (2019)	+28
Foreign Direct Investment (bn €)	27.14	27.12 (2017)	-0.02
International Investment Position (bn €)	-183.32	-259.59	-76.27

Table 9 presents the way Greece responded to the first Euro Plus Pact objective, while the response assessment was carried out using qualitative classification.

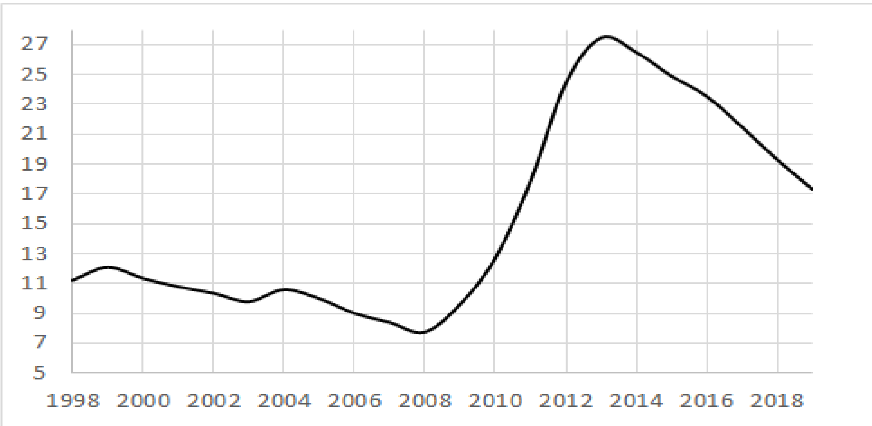
Table 9. Assessment

Pillar	Fostering competitiveness	Greece's response
Indicator	Unit labor cost	Good
Means	Review of the wage-setting arrangements, the degree of centralization in the collective bargaining process, etc.	Good
Means	Ensuring that wage settlements in the public sector support the competitiveness efforts in the private sector	Good
Means	Further opening of sheltered sectors	Average
Means	Improving education systems and promoting R&D, innovation and infrastructure	Average
Means	Measures to improve the business environment	Average

4.2. Fostering Employment

Fostering employment has been a very important pillar of all economic adjustment programs as well as in relation to the Euro Plus Pact. Figure 9 shows that Greece has not managed to recover the lost ground in this sector compared to the pre-crisis situation. A very serious problem lies in the trend of the long-term unemployment indicator, which does not show any sign of real improvement, while the unemployment rate gets lower slowly. As far as the labor market participation in Greece is concerned, it remains at fair levels.

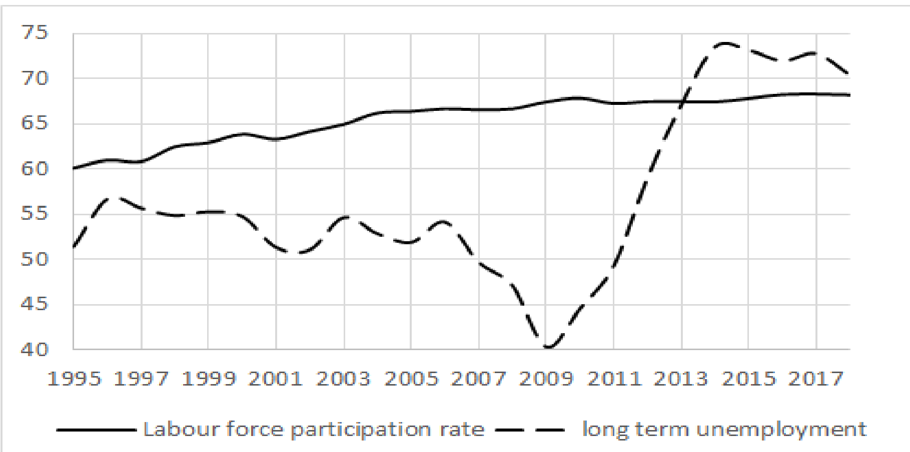
Figure 9. Unemployment



Source: OECD

According to a study of G. Kennedy (Kennedy, 2018), the increase of flexibility in the labor market, the opening of sheltered professional sectors, the reforms in the collective bargaining process and the social protection system did not have a positive effect to unemployment reduction, but exactly the opposite one.

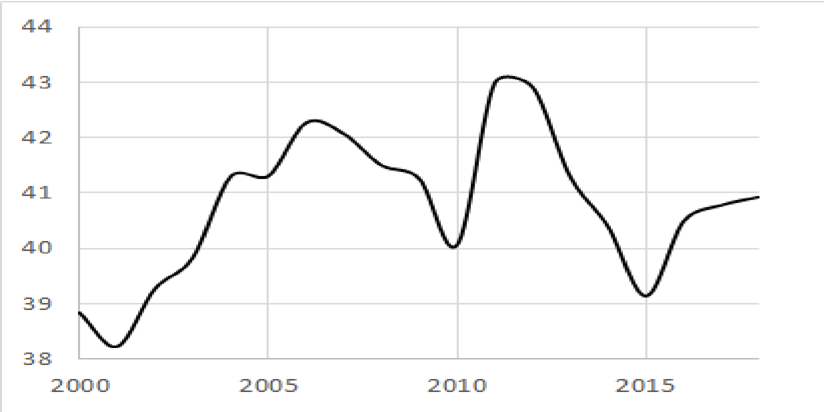
Figure 10. Long term unemployment and labor market participation rates



Source: OECD

Regarding the labor-friendly tax reforms, the Figure below shows that there is a reduction in the labor taxation, though not on a large scale. Furthermore, according to European Commission assessment (European Commission, 2019c), the tax reforms promoted by the Greek governments aim at creating a more progressive tax system, widening the tax base, lowering the tax-free threshold and rationalizing the property tax. Moreover, a greater emphasis must be put on the indirect taxation (Kaplanoglou and Newbery, 2003); (Deloitte, 2019).

Figure 11. Tax wedge rate



Source: OECD

The following tables show the progress made in the second Euro Plus Pact pillar, which is fostering employment.

Table 10. Comparative analysis

Indicator	2008	2018	Difference
Labor taxation (%)	41.5	40.93	+0.57
Labor market participation rate (%)	66.65	68.17	+1.52
Unemployment rate (%)	7.8	19.3	- 11.5
Long-term unemployment rate (%)	47.09	70.34	- 29.25

Table 11. Assessment

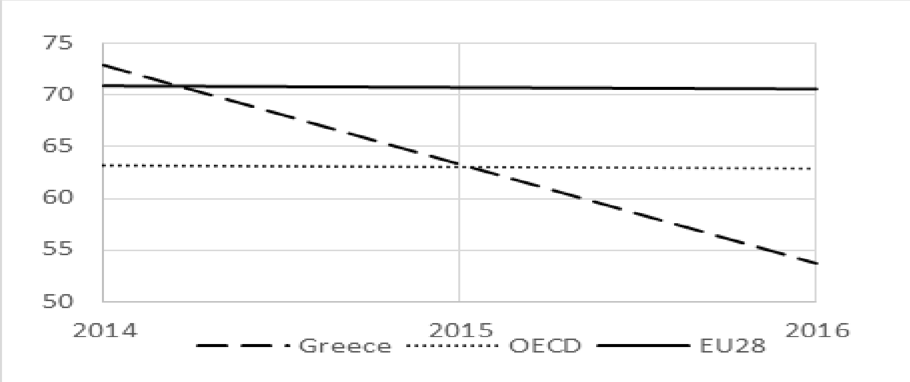
Pillar	Fostering employment	Greece's response
Indicators	Long-term unemployment rate / Youth unemployment rate / Labor market participation rate	Poor
Means	Flexicurity	Good
Means	Life-long learning	Average
Means	Tax reforms (e.g. lowering taxes on labor)	Poor

So far, the employment sector reforms in Greece have not led to the desired outcome. Moreover, despite the fact that many of these reforms have been adequately completed, such as the reduction of the undeclared work from 30% in 2013 to 13% in 2019 (European Commission, 2019d) unemployment has not fallen significantly probably due to the macroeconomic imbalances and the political instability. However, further reduction of unemployment requires the consistent promotion of those reforms which affect the labor demand and supply forces as well as the product market (Papageorgiou and Vourvachaki, 2015). According to Ioannidis and Pissarides (2015), the labor market reforms taken place in Greece had positive effects, but there were small and fragile, while the product market reforms were not given the same importance, which is wrong in their opinion. Finally, according to the (ILO, 2014), the rate of adopting fiscal consolidation measures should be diminished so as the economic recovery efforts not to be undermined. Additionally, the further implementation of flexicurity could increase employment (Wilthagen and Tros, 2004).

4.3. Further Contributing to Public Finance Sustainability

As far as the sustainability of the pension, healthcare and social benefit systems is concerned, Figures 12 and 13 show that progress has been made in these areas, yet significant steps must be taken towards enhancing the pension system stability (Ziomas and Theodoroulakis, 2016). Figure 12 presents the pension replacement rate in Greece, which fell by 20% during 2014-2016 and now lies significantly under the OECD and the EU average.

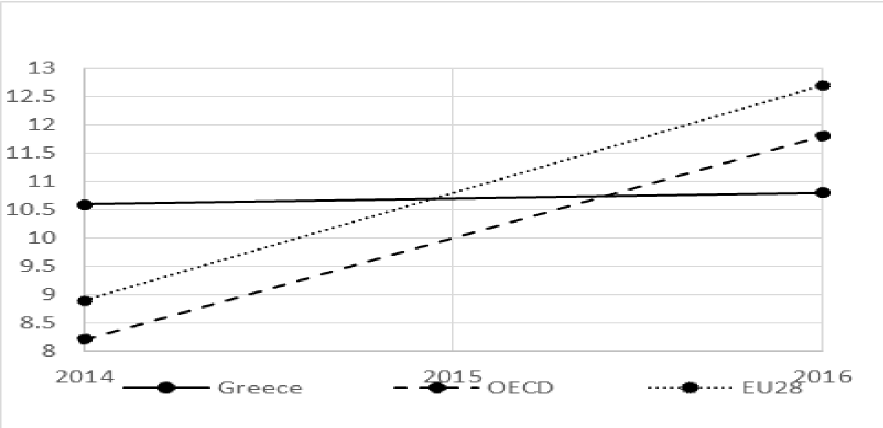
Figure 12. Pension replacement rate



Source: OECD

Figure 13 presents the net pension wealth in Greece, which measures the Greek pension system sustainability as compared with the OECD and the EU average. Greece remains at the same levels during 2014-2016, while the EU and the OECD pension systems have made a substantial improvement. According to European Commission assessment (European Commission, 2019b), the Greek pension system has made progress in terms of sustainability by reducing the early retirements, increasing the retirement age limit, integrating the pension funds and cutting back the pension expenditure.

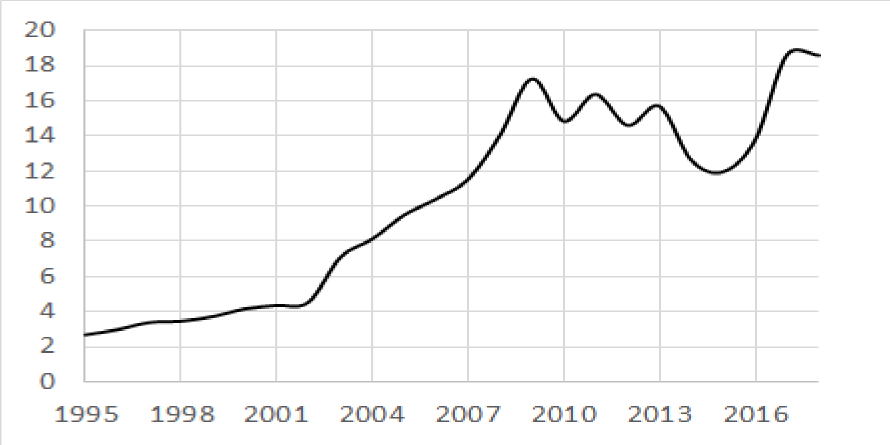
Figure 13. Net pension wealth



Source: OECD

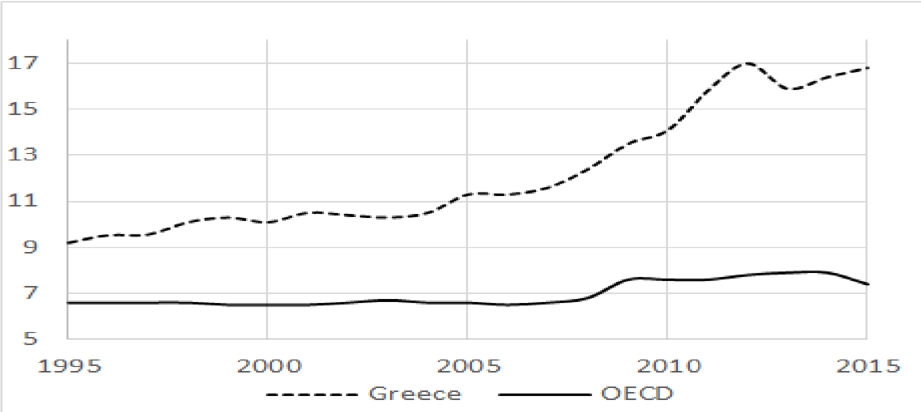
Figure 14 presents the capital transfers made by the general government to social security organizations. Although there is a funding cut during 2009-2015, since then the total amount provided by the general government exceeds the upper funding limit of 2008. Figure 15 presents the total pension expenditure of the public and private sector. It shows that the total pension spending as share of GDP was not reduced at all, instead it was incremental, while the related gap between Greece and the OECD got wider. According to a study (Monokroussos 2017), the Greek pension system remains weak and in need of further reforms.

Figure 14. capital transfers made by the general government to social security organizations



Source: Hellenic Statistical Authority

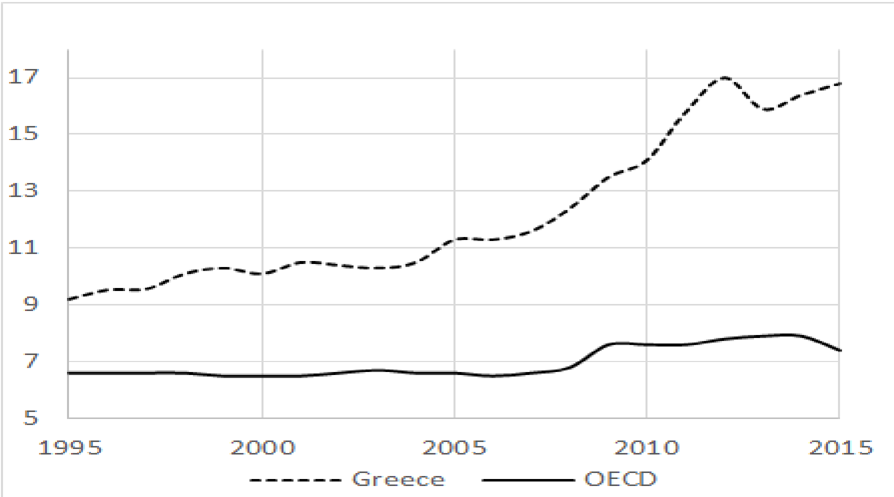
Figure 15. Pension Spending



Source: OECD

The sustainability objective refers not only to the pension system, but equally to the healthcare and social benefit systems. Figure 16 presents the developments in public spending levels in these sectors.

Figure 16. Healthcare and pharmaceutical spending per capita



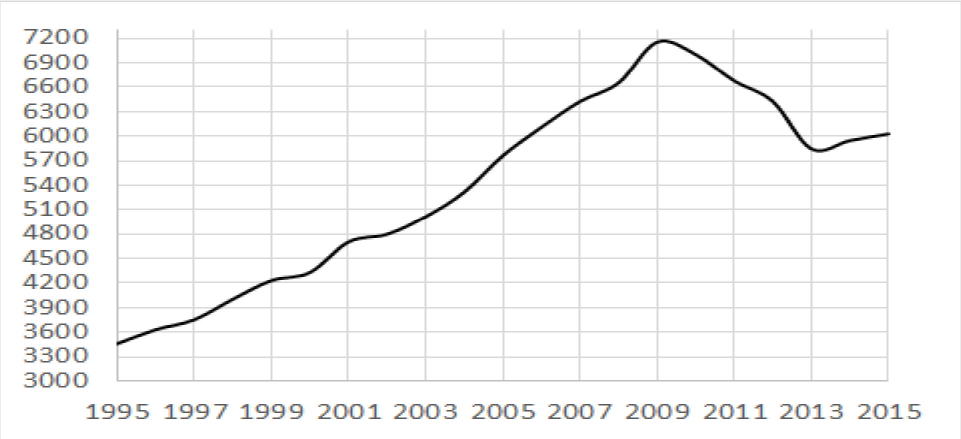
Source: OECD

Figure 16 shows that the total public expenditure both on health services and pharmaceuticals has been reduced. This reduction is very important, since the related expenditure for both indicators approaches the spending levels before 2010. Nevertheless, the spending cuts combined with the public services demand increase during the economic crisis period have led to the exclusion of certain social groups from the national healthcare system (Economou, 2014). On the contrary, the European

Commission concludes in its assessment that there is full healthcare coverage for all Greek citizens, the pharmaceutical cost falls, the generic medicines and the electronic prescribing system are firmly promoted, while highlighting the cost-effectiveness of all these reforms.

The following Figure presents the developments in social spending in Greece over the years. It confirms the significant reduction of social expenditure to the same levels as those of 2005-2006. However, this reduction combined with the economic crisis led to the rise of inequality and poverty, which is a commonplace in the related literature (Matsaganis, 2011; Mitrakos, 2014; Sotiropoulos, 2014). On the contrary, the European Commission concludes in its assessment that the adoption of the social solidarity income scheme forms a social safety net for 600.000 citizens, while at the same time a new organization for granting all the welfare benefits was created, namely the Organization of Welfare Benefits and Social Solidarity (OPEKA).

Figure 17. Social Spending in Greece in $ per capita



Source: OECD

It is noted that all the Figures above show a spending cut during 2010-2014 and a systematic increase after 2014 and until 2018. If this trend is supposed to last for a long period of time, then the fiscal space regained over the previous years is quite possible to be lost.

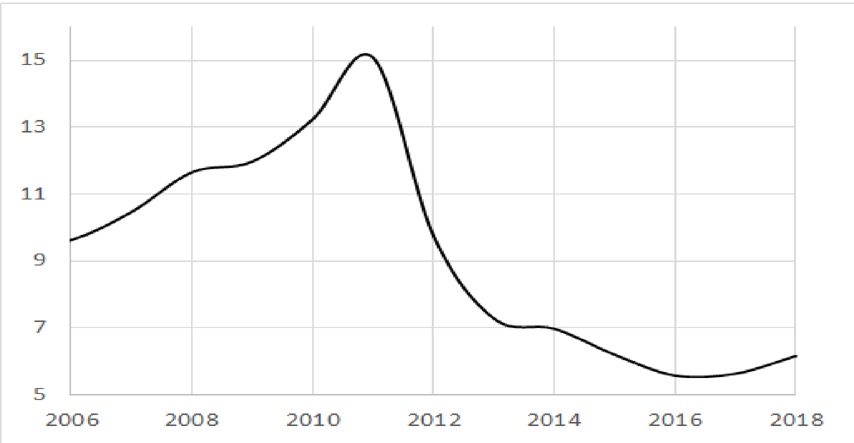
Regarding the adoption of national fiscal rules as well as the debt brake, a large number of laws and reforms focusing on spending cuts has passed by the Greek parliament, e.g. the Law 4270/2014 that regulates the fiscal governance and introduces the Medium-Term Budgetary Frameworks, which are voted by the Greek parliament (though not annually as defined by the legislation), the establishment of an independent authority responsible for public revenue collection (Law 4386/2016), the establishment of an independent authority titled "Fiscal Council" (Law 4270/2014), etc. However, the debt brake has not still become part of the Greek legislation or constitution as defined by the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union. Additionally, researchers come to completely different conclusions about the best way of dealing with the fiscal consolidation issue and the appropriate policy mix that should be followed in the Greek economy case (Mosler *et al.*, 2019). Examining the Greek public debt-to-GDP ratio indicates that there is a huge fiscal derailment compared to the pre-crisis levels, while the Greek public debt as share of GDP seems to have stabilized over the past few years, as shown by the Figure below. Furthermore, examining the Greek public debt in absolute terms shows that it has returned to the pre-crisis levels. As far as the Greek public debt sustainability is concerned, many studies currently conducted on this subject pinpoint the need for extra debt relief measures, productivity increase and additional pro-growth reforms (IMF, 2015) (IMF, 2018). Related studies from Greek and EU organizations focus on the gross financing needs level (PDMA, 2017) (PDMA, 2018), which represents the total debt service cost. According to the following table, a 1- euro rise in the interest expenditure leads to a 1.69-euro reduction in the fiscal balance, with the interest expenditure defining by 50% the overall fiscal balance changes.

Table 12. Regression between fiscal balance and interest expenditure

Dependent Variable: fiscal balance Method: OLS Sample: 2006 - 2018 Included observations: 13 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob
interest expenditure	-1.695355	0.235713	-7.192461	0.0000
R-squared	0.502584	Mean dependent var		-14507.62
Adjusted R-squared	0.502584	S.D dependent var		11784.82
S.E of regression	8311.566	Akaike info criterion		20.96249
Sum squared resid	8.29E+08	Schwarz criterion		21.00594
		Durbin-Watson stat		1.094060

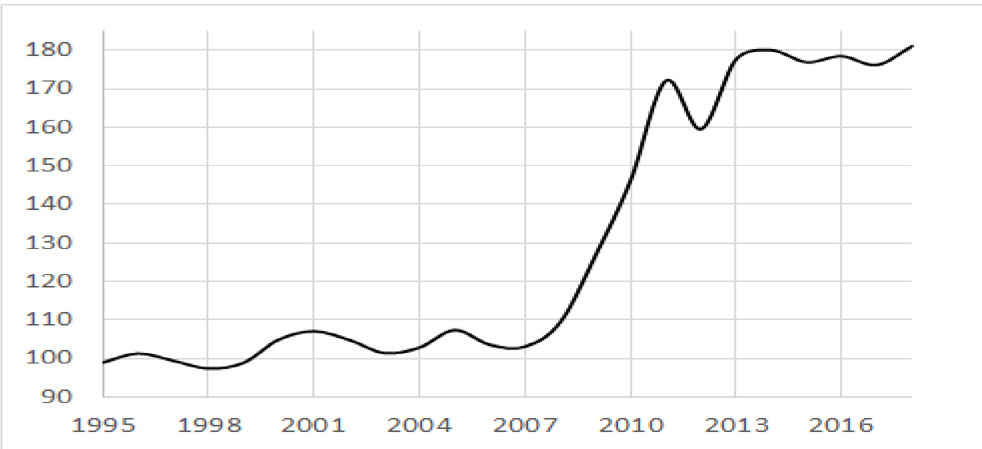
Moreover, the Greek Ministry of Finance expresses its positive assessment about Greece's response in the fiscal and financial sector (COA, 2019). Figures 18 through 22 show that the interest expenditure has been drastically reduced in aid of debt sustainability and the general government fiscal balance has moved to positive ground, while the ten-year Greek government bond rate allows the Greek economy's access to the international money and financial markets. Nevertheless, there is an opposite point of view holding that the economic adjustment programs have led the Greek economy to fiscal balance deterioration (Lapavitsas, 2018;2019).

Figure 18. Interest expenditure in bn €



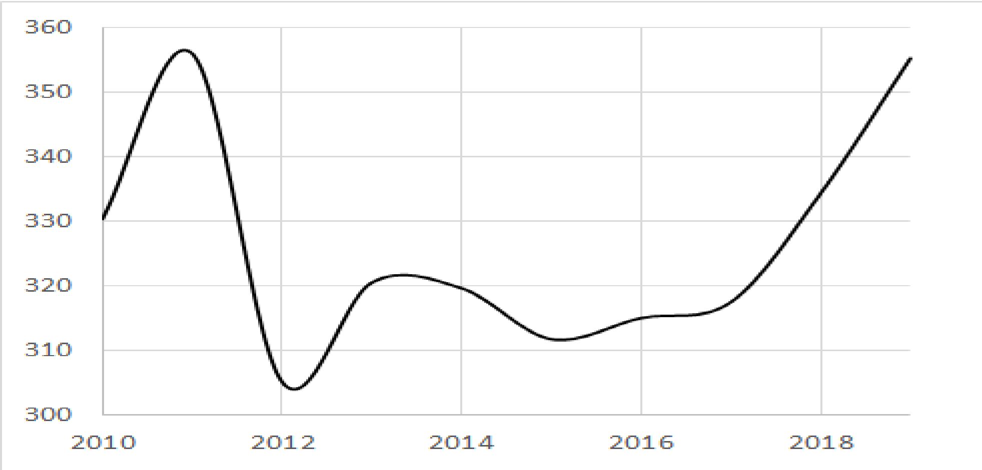
Source: Hellenic Statistical Authority (ELSTAT)

Figure 19. Public Debt to GDP ratio



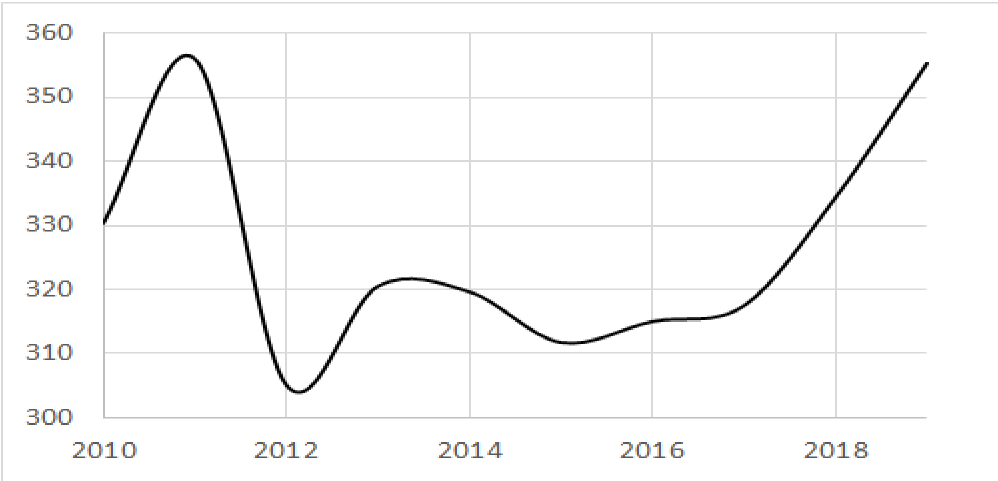
Source: IMF

Figure 20. Public Debt in bn €



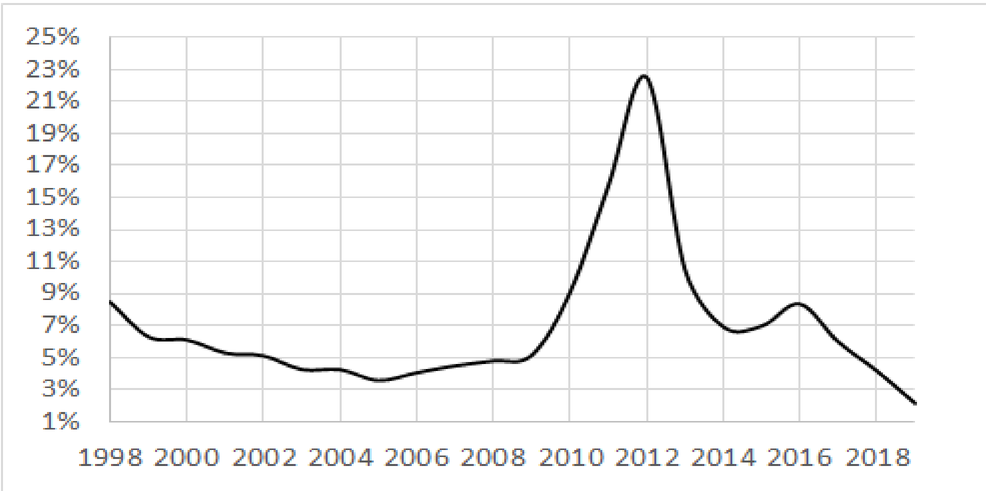
Source: Greek State General Accounting Office

Figure 21: Fiscal balance of general government as share of GDP



Source: Eurostat

Figure 22. 10-year Greek bond rate



Source: Bank of Greece

Table 13 presents the positive correlation between the ten-year government bond rate and the unemployment rate as well as the negative correlation between the ten-year government bond rate and the fiscal balance as share of GDP. More specifically, the unemployment rate rise by 1% leads to the interest rate rise by 0.33%, while the fiscal balance rise by 1% leads to the interest rate decline by 0.34% (ceteris paribus). These variables define the changes in the ten-year Greek government bond rate by 41%.

Table 13. Regression between ten-year government bond rate and unemployment rate and fiscal balance as share of GDP

Dependent Variable: Greek Government Bond rate Method: OLS Sample: 1998 - 2018 Included observations: 21 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob
unemployment rate	0.339778	0.067211	5.055426	0.0001
fiscal balance as share of GDP	-0.340603	0.143015	-2.381596	0.0278
R-squared	0.414568	Mean dependent var		0.072490
Adjusted R-squared	0.383756	S.D dependent var		0.044863
S.E of regression	0.035218	Akaike info criterion		-3.764120
Sum squared resid	0.023566	Schwarz criterion		-3.664642
		Durbin-Watson stat		1.327556

Table 14. presents the changes in the aforementioned indicators over the last decade.

Table 14 Comparative analysis

Indicators	2008	2018	Difference
Total public pension spending as share of GDP (%)	12.4	16.8	-4.4
Net pension wealth	10.6 (2014)	10.8(2016)	+0.2
Pension replacement rate (%)	72.9 (2014)	53.7 (2016)	+19.2
Total public healthcare spending per capita ($)	1,652	1,348	+304
Total public pharmaceutical spending per capita ($)	749.98(2009)	603.30	+146.68
Total social spending per capita ($)	6,652.6	6,027	+625
Public debt as share of GDP (%)	109.42	181.1	-71.68
Public debt (bn €)	330 (2010)	334	-4
Public interest spending (bn €)	11.65	6.15	+5.5
General government fiscal balance as share of GDP (%)	-10.2	1.1	+11.3
Ten-year government bond rate (%)	4.8	4.18	+0.62
Government grants to social security organizations (bn €)	14.02	18.59	-4.57

According to tables 14 and 15, Greece responded well enough to the objective of further contributing to public finance sustainability.

Table 15. Assessment

Pillar	Further contributing to public finance sustainability	Greece's response
Indicators	Sustainability of the pension, healthcare and social benefit systems	Average
Means	Aligning the pension system to the national demographic situation and life expectancy	Good
Means	Limiting early retirement schemes and using targeted incentives to employ older workers	Good
Indicators	National fiscal rules	Good
Means	Debt brake	Poor

4.4. Reinforcing Financial Stability

As far as reinforcing financial stability is concerned, bank resolution legislation has been enacted by the Law 4335/2015, which transposes the Directive 2014/59/EU on "Rules for the recovery and resolution of credit institutions and investment firms" (BRRD) into the Greek legal system.

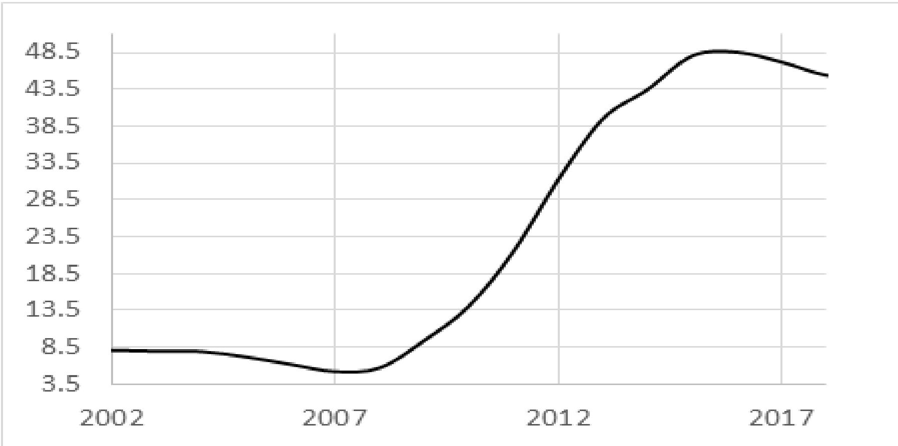
Added to that, bank supervision legislation has been also enacted by the Law 4261/2014, which transposes the Directive 2013/36/EU on “Access to the activity of credit institutions and prudential supervision of credit institutions and investment firms” into the Greek legal system.

Regarding the implementation of regular bank stress tests, Greek banks have undergone two stress tests as yet. The first one was conducted by the Bank of Greece in 2013, while the second one was conducted by the European Central Bank in 2018. Therefore, bank stress tests are not carried out on a regular basis, as they should be, while, according to a study (Louzis and Vouldis, 2013), it is maintained that potential financial stability risks could be foreseen by using a Financial Systemic Stress Index (FSSI).

Regarding the monitoring of the private debt of banks, households and non-financial firms, the Bank of Greece keeps track of this debt based on a monthly database, but Greece has not managed so far to address the grave problem of non-performing loans (NPLs), as shown in the Figure below.

According to the assessments of the EU and international organizations, the NPL resolution issue is associated with the national institutional framework and the current auction process (Plaskovitis, 2016), while other studies suggest that the Greek NPL market offers good prospects for the banking system through NPL sales (Delfi, 2018; EY, 2018). Moreover, enacting the Law 4224/2013 on “Government Council for Private Debt Management, Institution for Growth in Greece, State Asset Development and other urgent provisions” attempted to set an NPL management framework.

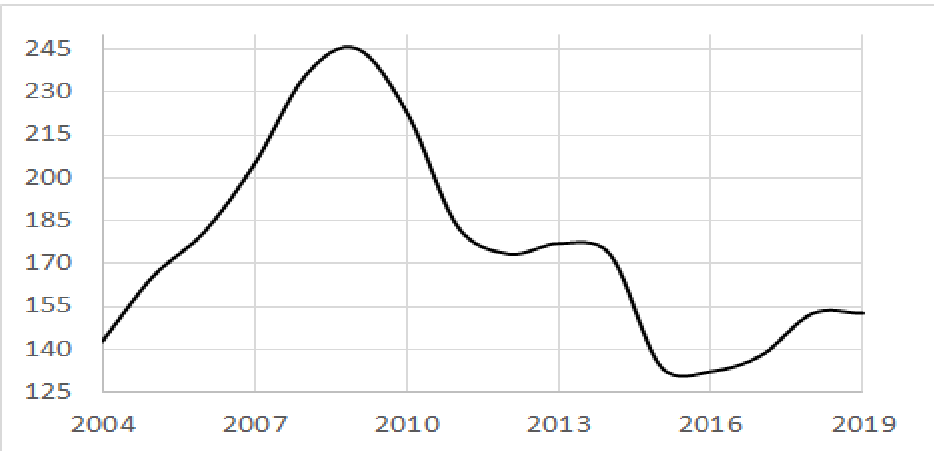
Figure 23. NPs as share of total bank lending



Source: Bank of Greece

The assessment of the Euro Plus Pact objective of reinforcing financial stability includes also the examination of the developments in bank deposits and new loan issuance rates. The following Figures show a decline both in the bank deposit stock and new bank lending in Greece as well as the negative correlation between bank deposit levels and long-term unemployment levels. Moreover, according to a study (Anastasiou *et al.*, 2019), there is a correlation among NPLs, bank deposits and political uncertainty.

Figure 24. Bank deposits in bn €



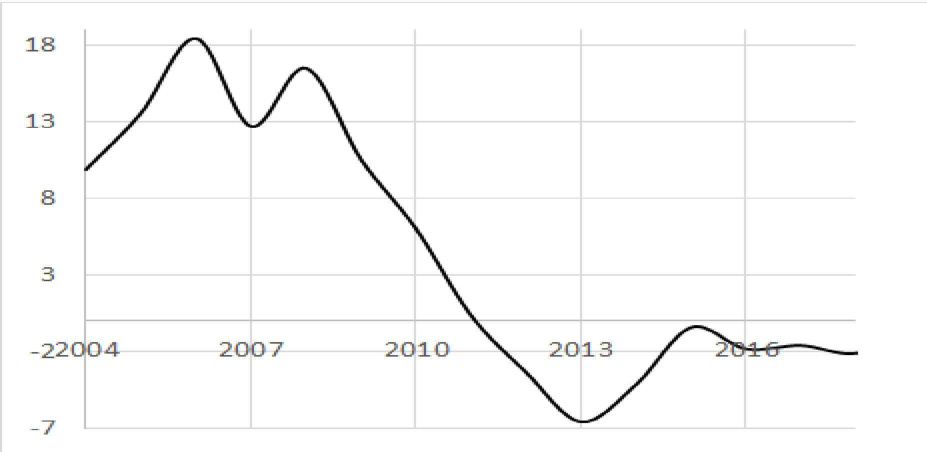
Source: Bank of Greece

The wage index is an important factor which defines the bank deposit levels. Table 16 shows that a 1% increase in the wage index could lead to a 1.75-billion-euro increase in bank deposits, with this indicator defining the changes in bank deposits by 55 %.

Table 16. Regression between bank deposits and wage index

Dependent Variable: Bank Deposits Method: OLS Sample: 2004 - 2019 Included observations: 16 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob
wage index	1745.330	58.39943	29.88608	0.0001
R-squared	0.554004	Mean dependent var		175832.6
Adjusted R-squared	0.554004	S.D dependent var		35612.51
S.E of regression	23783.09	Akaike info criterion		23.05180
Sum squared resid	8.48E+09	Schwarz criterion		23.10009
		Durbin-Watson stat		0.817862

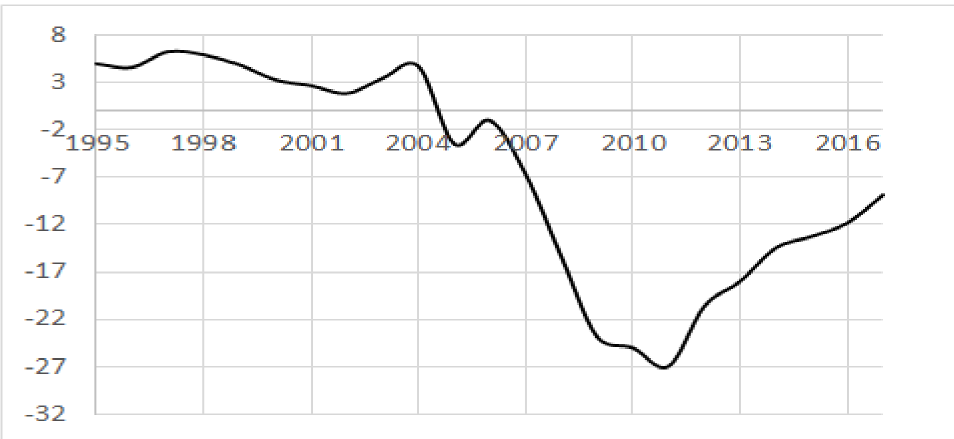
Figure 25. New Bank Lending rate



Source: Bank of Greece

Another crucial factors relating to the financial system stability are the net saving levels in Greece as well as the Greek banks' dependency on ELA funding. Figure 25 confirms the negative net savings, which lead to the deterioration of the Greek financial system functioning, with the Greek banks resorting to the ECB's emergency liquidity assistance mechanism (ELA) at various times during the crisis years.

Figure 26. Net saving in bn €



Source: Bank of Greece

As shown in the table below, there is a strong negative correlation between the bank deposit levels and the long-term unemployment rate. More specifically, a 1% increase in the long-term unemployment could lead to a 2.43-billion-euro decrease in bank deposits, with the unemployment levels defining the changes in bank deposits by 62%.

Table 13. Regression between bank deposits and long-term unemployment rate

Dependent Variable: Bank Deposts Method: OLS Sample: 2004 - 2011 Included observations: 15 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob
C	320001.2	31101.61	10.28890	0.0000
Unemployment Rate	-2437.125	521.6967	-4.671536	0.0004
R-squared	0.626686	Mean dependent var		177385.6
Adjusted R-squared	0.597970	S.D dependent var		36297.36
S.E of regression	23014.65	Akaike info criterion		23.04922
Sum squared resid	6.89E+09	Schwarz criterion		23.14362
F-statistic	21.82325	Durbin-Watson stat		0.771301
Prob (F-statistic)	0.000437			

According to these findings, the Greek banking system is now in a much worse situation than before the economic crisis, while any reforms promoted in this sector have not still yielded satisfying results.

Table 14. Comparative analysis

Indicator	2008	2018	Difference
Bank deposits (bn €)	235.87	152.43	-83.44
New bank lending rate of change (%)	16.49	-2.12	-18.61
NPLs as share of total bank loans (%)	5.7	45.1	-39.4
Net saving (bn €)	-15.4	-8.8 (2017)	+6.6

Therefore, Greece does not seem to meet sufficiently the goal of reinforcing the financial stability. Despite the adoption of many reforms in the EU level towards the banking union promotion, what Greece needs now is a "regulatory pause" (Gortsos, 2017). Nevertheless, the Bank of Greece (BoG, 2017) contends that the Greek financial system has been stabilized, but remains susceptible to imponderable external factors.

Table 15. Assessment

Pillar	Reinforcing financial stability	Greece's response
Indicators	(No indicators referred)	–
Means	Bank resolution legislation	Good
Means	Regular stress tests	Poor
Means	Close monitoring of private debt for banks, households and non-financial firms	Poor

5. RESULTS

Greece has succeeded moderately in meeting the Euro Plus Pact objectives. It has transposed into the domestic law a great deal of reforms, while the developments in the Greek economy and the related economic indicators are into the right direction, as set out by the pact (Schmieding H. and Schulz, 2014), while assessments shows that Greece leads on Euro Plus Pact implementation, measuring reforms at balance of payments, fiscal adjustment, labour cost and other reforms. (Rossen 2011; Schmieding, H and Schulz, 2013; Schmieding H., 2016). However, our results so far show that the Greek economy is still far from fully recovering the ground lost during the crisis years.

According to the European Commission assessment (European Commission, 2019d), many reforms have been promoted to the sectors of public administration, judicial system, land-use legal framework, tax-collection mechanism, labor market, business environment, privatizations and energy market. The same view is shared by almost all studies on this subject (IMF, 2019; KEPE, 2019; Tsakanikas, 2013; Vettas, 2019), yet stressing that Greece is a long way off from reaching the desired economic performance levels.

Furthermore, as shown by the indicators, Greece responded well to the competitiveness fostering objective, moderately to the employment fostering and public finance sustainability contributing objectives, and bad to the financial stability reinforcing objective, while it is argued that some reforms set conflicting objectives, that makes their implementation more difficult (Liargovas and Psychalis, 2019).

6. CONCLUSION

The question is whether this response to the Euro Plus Pact objectives is based on the pact itself – which does not provide any sanction-imposing process, or monitoring mechanism, or institutional implementing scheme– or the reforms taken place in Greece are due to the creation of other EU mechanisms and commitments under the new economic governance in the Economic and Monetary Union as well as due to the terms of the economic adjustment programs. However, the assessment outcome does not change, since it has become clear that the Greek governments are now reconciled with the philosophy of the Euro Plus Pact, though its full implementation requires a lot of additional effort, with many goals remaining undelivered. Therefore, a gap is revealed between the formal compliance with the pact and the successful implementation of its objectives.

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