

**MEASURING ECONOMIC & COMPETITIVENESS INDICATORS OF  
EUROPEAN COUNTRIES AFTER THE ECONOMIC CRISIS OF 2008:  
THE CASE OF GREECE AND GERMANY**

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**Abstract**

In the present paper, we present and analyze on a time basis key data on the economy and competitiveness of two European countries, Greece and Germany, for the period 2008-2015. The purpose is to capture and assess the general situation in the two economies after the international economic crisis and the possible impact on them. Next, a comparative analysis of fiscal policy and competitiveness in the two economies is carried out to study policies to improve fiscal and competitiveness on a case-by-case basis. On the basis of the above, the work is completed with conclusions on the effectiveness of the adopted policies for improving the budget and enhancing competitiveness

**Keywords:** economy, GDP, competitiveness, impact

**Introduction**

**2.1 Comparative economic analysis between Greece and Germany**

The growth rate of GDP shows the annual GDP change, ie the change in the quantities produced in one economy from one year to the next, and is an indicator for the productivity performance of an economy either over time or in comparison with another (Kyrikos, 2015). As can be seen from the chart below, the GDP of the two countries in 2009, following the outbreak of the 2008 international crisis, fell significantly, with Germany for Germany - 5.6% and -4.3% for Greece. From 2010 onwards, Germany's GDP has been rising year on year, although different rates of change have been observed. Larger increases in GDP are observed over the two years 2010-2011 (+ 4.1% and + 3.7% respectively), while GDP growth is slower in the next four years. On the contrary, for Greece, the downward trend in GDP continued in the coming years, in particular until 2013. Specifically, in 2011 GDP decreased by -9.1% from the previous year and by -7.3% in 2012. A marginal increase is observed in 2014 + 0.7% while in 2015 there was a small decrease, -0.3%. Overall, since 2008, Greece's GDP has fallen significantly, while Germany has seen increases since 2009.

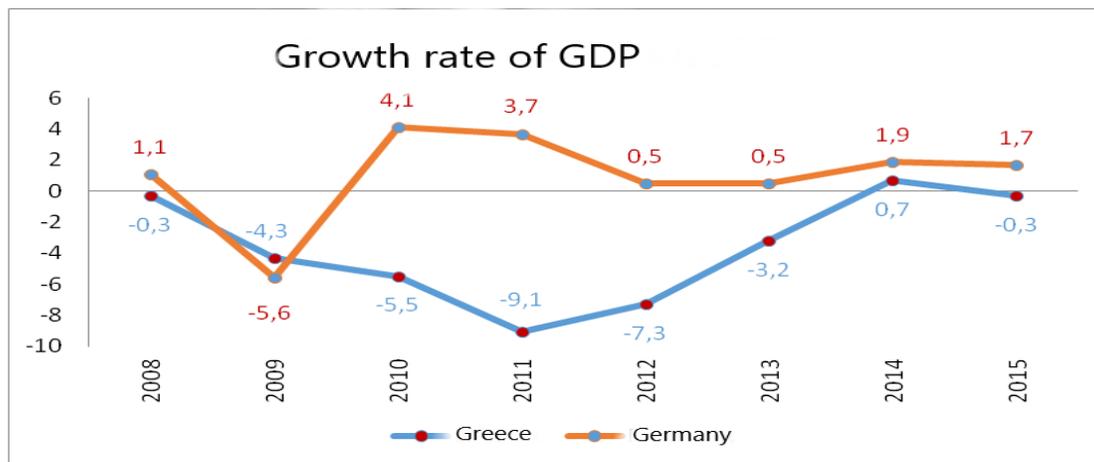


Figure 1.

The importance of the course of the trade balance of a country is great, as it records the receipts and payments from exports and imports of goods in a country. Its long-term course can capture the capacity of a country to produce goods in relation to other economies. The existence of a deficit in the trade balance does not automatically cause unfavorable developments, as in cases where surplus imports are made in capital goods, they may lead to an increase in the production process. By contrast, long-term deficits signal low competitiveness increased lending, etc. (Kosteletos, 2013). Germany's trade balance from 2008 to 2015 is surplus with exports of goods exceeding import while increasing over time as a percentage of GDP.

The surplus of exports in 2008 was 5.6% of GDP, while in 2015 it grew to 8.55%. On the contrary, in Greece, the trade balance is a deficit in all the years under review, although gradually there is a clear reduction of the deficit since 2008. In 2008, the deficit was 15.11% of GDP, while in 2015 it was limited to -0.23%.

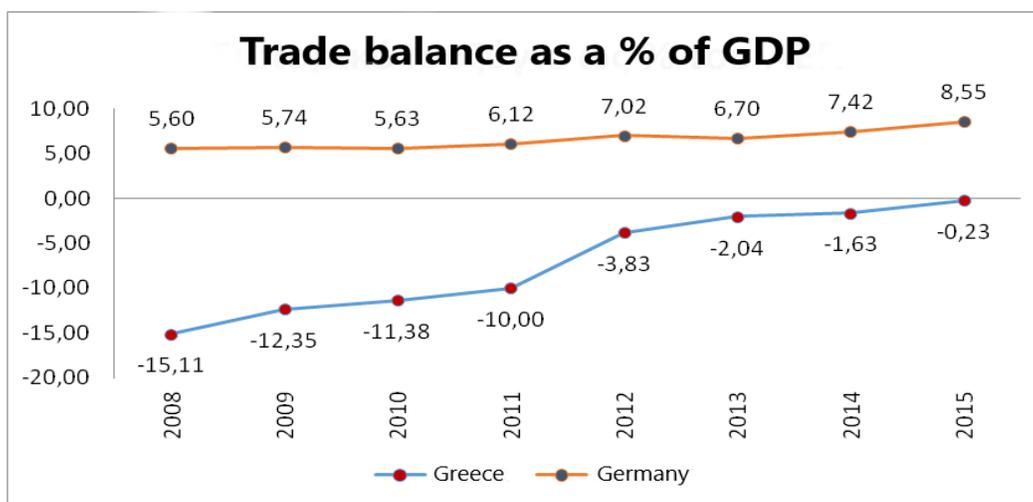


Figure 2.

The budget balance is the difference between the main revenue (mainly taxes) of a state and the budget expenditure (civil servants fees, social benefits, borrowing interest, etc.). The difference between government revenue and budget expenditures is covered either by borrowing (in the case of a deficit) or borrowing (surplus) (Euro stat, 2018). The reasons for budget deficits are different, such as public investment financing, insufficient current income, etc. (Georgeakopoulos, 1997).

However, the existence of long-term fiscal deficits and the accumulation of public debt can lead to serious problems for an economy, restricting the fiscal policy and reducing the solvency of the government (Arêtes, 2000). Germany's fiscal balance, with the exception of 2009-2010, is almost balanced; showing small GDP deficits, while budget surpluses for the 2014-2015 period. In contrast to the period under review, Greece's budget revenues have consistently been lower than budget expenditure and the deficit is fluctuating.

Specifically, in 2009 and 2013 it was found to be relatively high in terms of GDP, with rates of -15.14% and -13.16%. While in 2014 it narrowed significantly to -3.59%, it was re-expanded in 2015 with -5.72% of GDP.

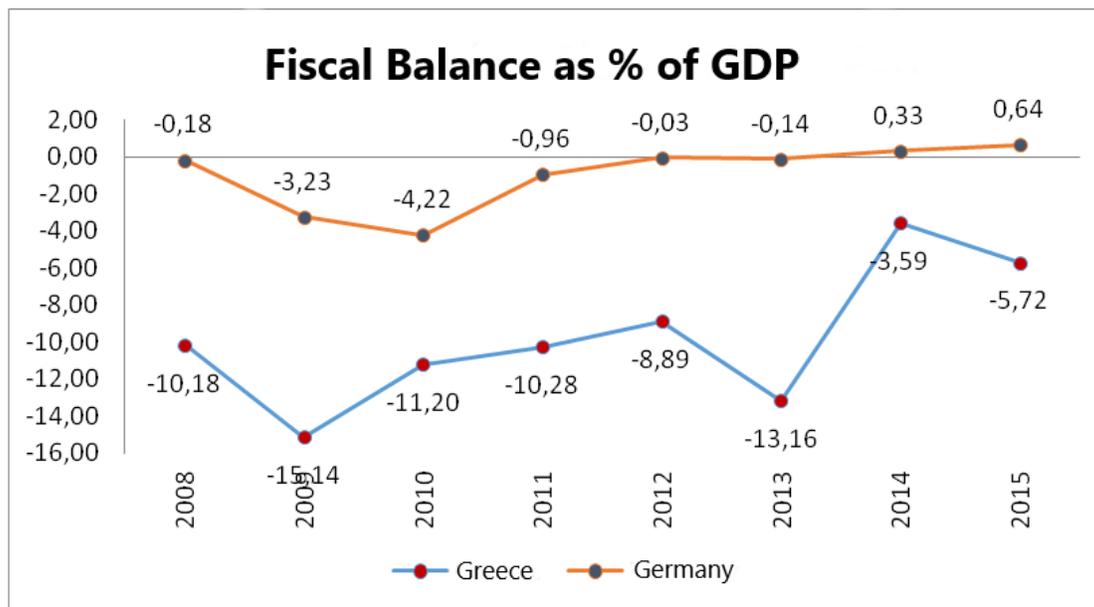


Figure 3.

The phenomenon of unemployment is characteristic of modern economies, the level of which is constantly changing according to the prevailing economic conditions (recession-growth) (Lianas & Psiridou, 2015). The impact of long-term unemployment is serious and multidimensional, having adverse economic, social and individual consequences (Agrapidas, 2012). The reasons for unemployment are different, leading to different types of unemployment.

unemployment (from disproportionality in the supply and demand of various specialties) and unemployment to inadequate demand, stemming from the fall of economic activity in an economy, has a particularly negative effect on an economy. The loss of disposable income, in periods of increased unemployment, leads to reduced demand further exacerbating economic activity (Lianas, 2008).

In 2008-2013, unemployment in Greece gradually increased to a high of 27.5% of the working population. Despite the fall in the next two years, the unemployment rate is still high, and in 2015 it was 24.9%. In Germany, on the other hand, with the exception of 2009, there is a gradual decrease in the unemployment rate and from 7.4% in 2008; in 2015 it was limited to 4.6% of the working population.

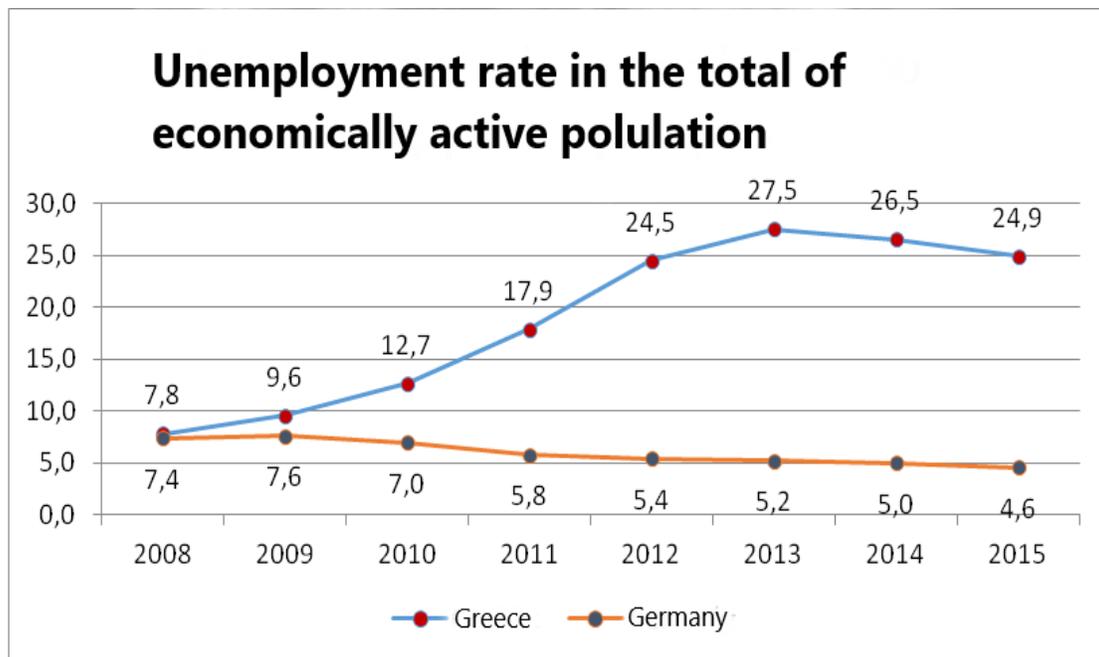


Figure 4.

The graph below shows spending on research and development (private and public sector) in Greece and Germany, expressed as a percentage of GDP. Research and development spending is a key element in gaining competitive advantage in the science and technology of an economy and contributing decisively to its growth (World Bank, 2018). Over time in Germany, spending on research and development as a share of GDP is on the rise, while in 2008 it was 2.6% of GDP, in 2015 it rose to 2.88% of GDP. In Greece, this ratio is well below those in Germany and in the 2009-2010 period it was limited. Since then, there has been an upward trend in R & D expenditure and by 2015 their share of GDP was 0.96%.

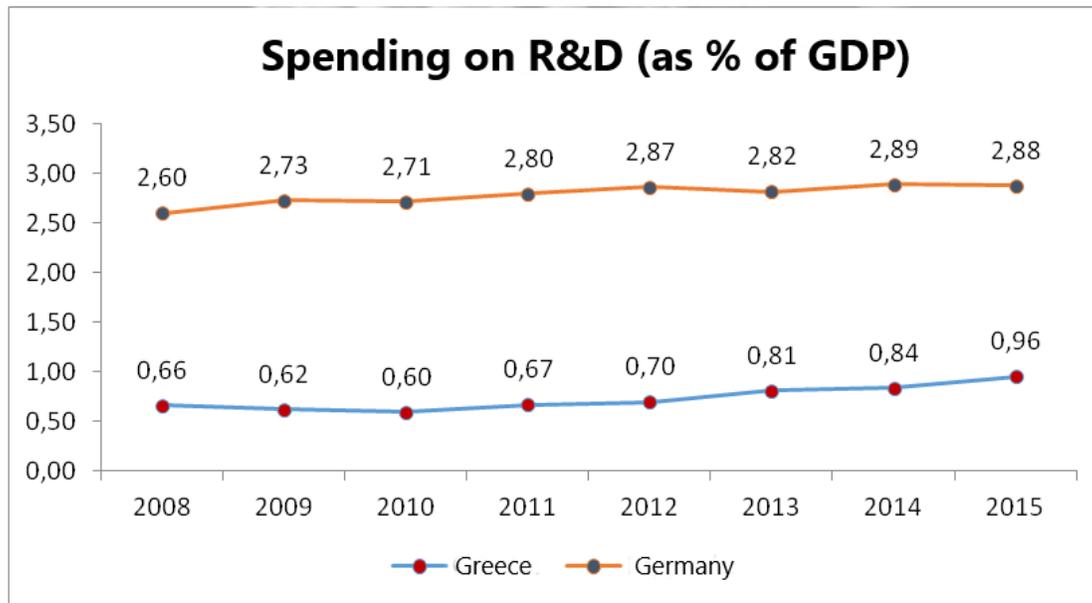


Figure 5.

### 3. The policies implemented to achieve fiscal stability and promote competitiveness

#### 3.1 Financial stability

The sound budgetary policies to avoid excessive budget deficits is a key concern in the EU. The Stability and Growth Pact raised the limits of the budget deficit and public debt in recent years was reviewed fairly, taking new measures to prevent crises and to strengthen of stability (Bank of Greece, 2017). Greece's post-crisis economic adjustment programs aim at fiscal consolidation, reducing budget deficits and public debt (European Commission, 2010). At the same time, measures have been taken to improve tax returns and contributions (Bank of Greece, 2017). Final consumer spending since 2010 has steadily declined, and the budget deficit is gradually narrowing, with public spending cuts and tax cuts. Nevertheless, the country's sovereign debt declined from the year 2010-2011 to a significant increase from 2012 onwards, reaching 183.14% of GDP in 2015. On the other hand, in Germany, the government's final consumption expenditure has been boosted, albeit with a different intensity, and as mentioned above, the balance is almost balanced. Germany's public debt over the five-year period 2008-2012 rose by almost 20 percentage points to GDP, reaching 88.11%. From 2013 onwards public debt is limited.

#### 3.2 Competitiveness

Alongside fiscal consolidation measures by the Member States seeking to enhance competitiveness as a complementary action to restore and maintain financial stability and economic growth (Bank of Greece, 2017). For Greece, these measures aim at reducing unit labor costs and higher spending on research and development. Nevertheless, the

unemployment rate has increased significantly and remains very high, and the growth rate of gross fixed capital formation has negative changes (although the decrease is limited over time). To strengthen the GDP and creating surplus trade balance, which will help increase private consumption (which gradually narrowed considerably), the emphasis seems to be given to the development of the tertiary sector of production that mainly composes GDP and the agricultural sector but still remains low in terms of its contribution to GDP. The growth of the primary sector is apparent as a reduction in the production of the agricultural sector and fixed capital consumption as a percentage of gross value added (Nicolaidis & Stassinopoulos, 2015). In Germany there is a relative stability in the added value of the industrial sector in GDP, while there is an improvement in the tertiary sector as opposed to the primary one. Despite the increase in unit labor costs, productivity is rising, as there is an improvement in real GDP per hour of work, a decrease in the unemployment rate and an increase in household final consumption expenditure and central government.

#### **4. Conclusions**

Greece's economy appears to be trapped in the problem of twin deficits, the budget deficit, and the trade deficit. Increasing tax and tax revenues, reducing budget spending has led to a reduction in the government budget deficit but not to a reduction in public debt. Austerity measures and unemployment have led to a reduction in disposable income, significantly affecting active demand by limiting GDP and investment that can help competitiveness (Bank of Greece, 2017). Although there is an increase in export value and a greater decline in import value by significantly improving commodities, their GDP / GDP ratio does not change significantly. The current account is improving mainly due to the surplus over time service flow (Konstantakopoulou, 2014). The reduction in unit labor costs has not helped to raise real GDP per hour of work or to produce both the secondary and the primary sector. Targeting cost reductions to improve competitiveness does not help to improve productivity and increase investment. Key factors for productivity growth are technological progress, higher spending on R & D, and growth in focused sectors with high added value (Paitaridis, 2015). The reduced market liquidity, low consumption, and low productive investment have led the economy to a standstill (GSEE Labor Institute, 2017).

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