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Review paper

FISCAL CONSOLIDATION IN POLAND AND IT'S ECONOMIC CONSEQUENCES AFTER THE CRISIS 2008

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Abstract

The paper focuses on public finance and the aspect of fiscal consolidation in Poland as economic consequences after the financial crisis in 2008. The study assumes that there is a wide range of needs for fiscal consolidation implementation in European post-crisis countries. Budgets of the vast majority of European Union Members are unbalanced, their deficits have a great, negative impact on the public finance sector, as well as on countries' GDP. The theoretical part presents a literature overview of the essence of consolidation and its role in fiscal policy. The empirical part of the paper focuses on trends, changes in the level of budget deficits in Poland and EU-27 and the influence of this on key macroeconomic indicators.

Keywords: *balanced budget, deficit, fiscal policy, debt, public finance*

JEL classification: *E620, E62, E63*

1. Introduction

The financial crisis in 2008 ushered in not only significant turbulence in international financial markets, but also in terms of public finances. Significant public sector dependence on the financial markets in terms of a broad range of financial debt instruments (and thus tools used to financing budget deficit) led to significant inequalities and instability. In the current situation, it seems that we should not ask ourselves if the fiscal policy and public finances need reforms and structural changes. The question should be what actions should be taken to carry out of this process effectively and properly.
The landscape after the 2007-2009 financial crisis is extremely unstable. Various global financial institutions are in bad shape, having issues with liquidity, capital base etc. Most of the developed and emerging market countries have problems, too. Macroeconomic situations with *debt-to-GDP ratios*, *GDP* growth, and structural budget deficits are not appropriate. A large group of countries are trying to manage with very high debt ratios (according to the *IMF,* global debt ratios were on such level during

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World War II). Fiscal consolidation is the tool which could help governments with their problems. The financial crisis and its effect such as the global recession in the real economy led to uncontrolled rises in government deficits. An example would be the fiscal consolidation which is currently being implemented in many European countries. It is important, however, that such consolidation is carried out without negative effects. It seems that this is an extremely individual and complex issue. An example of a country which considers that consolidation should be based on a significant reduction of expenditure is Greece (paradoxically, such actions provide evidence that cutting expenditures even in the short term could lead to a greater economic and social destabilization).

The paper focuses on fiscal consolidation and its influence on the macroeconomic situation in *Poland* and *EU-27*. The empirical part of the text is based on *Eurostat, IMF, World Bank, OECD* database of macroeconomic indicators like: inflation rate (*CPI*), unemployment rate*, CAB*, budget deficit, *GDP* growth, general government debt ratio. This situation negatively affects debt and decreases the government credibility. This paper should try to assess the effect of fiscal consolidation on macroeconomic indicators. The cases of *Poland* and *EU-27* will try to present the short-term costs and potential long-term benefits of fiscal consolidation. Data analyzed in the text show that fiscal consolidation could be a very efficient tool to reduce deficit and debt, but in the short term, a bill of lower *GDP* growth should possibly be paid. These cases show that fiscal consolidation could be more relevant in countries with a relatively higher growth, safer domestic financial market and more stable social situations (this aspect could have a great impact on the anticipation of fiscal policy in the future and determination of people's economic activities). Budgetary issues were dealt with by some of the most prominent representatives of classical economists such as Smith and Ricardo. They believed that budgetary imbalances were something negative, contrary to society, and in particular, with regard to future generations. They postulate that the state budget should be sustainable in the long run. J.B. Say believed that the state budget should be absolutely balanced, the deficit regarded as a sign of irresponsibility and irrationality of government and authorities. J.M. Keynes pointed out that the budget deficit should be used to stimulate the economy in times of crisis or post-crisis. However, experiences associated with fiscal consolidation indicate a slightly different state of affairs (in the long term are the so-called non-Keynesian effects). S. Ardagna, A. Alesina, R. Perotti ad Schiantarelli (1999) provide a wide range of empirical evidence of positive short-term effects of fiscal consolidation. L. Forni, A. Gerali and M. Pisani (2010) show a very useful and significant model which assesses the macroeconomic influence of fiscal consolidation and falling debt-to-gross domestic product ratio. In literature, authors do not focus only on European cases. American fiscal consolidation is a consideration topic of J. F. Cogan, J. B. Taylor, V. Wieland, M. Wolters (2013). These authors show that in their model, consolidation has On the other hand, H. Bi, E. M. Leeper and C. Leith (2013) highlight the main issue with fiscal consolidation. They show its ambiguity, complexity and dependence on many variables, which make it extremely difficult to clearly evaluate the effects of its conduct. F. Heylen, A. Hoebeeck, T. Buyse (2013) found that success of fiscal consolidation should be reinforced by more effective government decisions, structural changes and focus on cutting the non-investment expenditures. A. Alesina, C. Favero and F. Giavazzi (2012) show

in their texts that an expenditure-based consolidation is far more efficient than a tax-based one. They also point out that an important aspect is the cooperation of fiscal policy (fiscal consolidation activities) with the monetary policy. N. Bagaria, D. Holland, J. V. Reenen (2012) show that *Euro Area* consolidation is mostly based on monetary policy (*quantitative easing*). The discussion about unconventional monetary tools is complex due to the fact that nobody is certain of their final effects and their likelihood to also spearhead a new financial crisis.

2. Polish, European and global solutions in terms of fiscal consolidation

Fiscal consolidation is an instrument of fiscal policy aimed at reducing the deficit and public debt. This tool is currently implemented in many European countries, as well as in Japan and the United States of America. The main reason of using such actions is to support the healing processes initiated in post-crisis economies affected by the crisis of public finances. The financial crisis whose start is deemed to be the fall of the US investment bank *Lehman Brothers* in 2008 spurred the largest spiral of imbalance, instability and debt occurring in public finances.

Fiscal consolidation could be implemented in three different ways, such as:

1. Reducing expenditures,
2. Increasing public revenues,
3. Reducing budget expenditures and increasing public revenues.

In the face of deregulated and unbalanced financial markets, fiscal consolidation seems to be more appropriate and beneficial. One of the consequences of its use is in fact the higher credibility of the country from an international financial markets' perspective. By receiving higher credit ratings from Credit Rating Agencies (e.g. *S&P 500, Fitch, Moody's*), the government has more preferable conditions for effective decision-making in the financial management area. Increased credibility significantly reduces the cost of borrowing on financial markets, as well as the risk of excessive public debt. Government decisions regarding fiscal policy tightening impact the level of credibility of the country in two ways. The reaction of key stakeholders (e.g. Credit Rating Agencies) to such moves are different depending on the stage of consolidation implementation. In the short term, credibility may not have such positive impact as it could, because of the uncertainty of stakeholders about whether these activities slow down the economy to a large extent (short-term negative impact on *GDP* growth). However, in the long term, positive attitudes bleed markets and the risk premium and thus cause a decline in real long-term interest rates. On the other hand, J. F. Cogan, J. B. Taylor, V. Wieland, M. Wolters (2013) show that the short-term negative impact on growth is not entirely true. Their model indicates that cuts in public spending and behavior of householders, firms etc. to fiscal consolidation stimulates *GDP* not only in the long run. Short-term positive growth effects are also noticeable. T. Schwarzmüller and M. H. Wolters (2014) consider that consolidation combined with some tax cuts (it is possible because of the fiscal space that consolidation could create) is able to make positive effects in both short and longterm. On the other hand, during fiscal consolidation we can easily notice Non-Keynesian effects. For example, that consolidation

is able to boost the country's creditworthiness and credibility, and reduce the cost of debt financing, thereby lowering long-term interest rates. Non-Keynesian effects are crucial to successful fiscal consolidation. F. Giavazzi and M. Pagano (1996) note on the Ireland and Danish example that changes in public expenditures, revenues etc. are not enough. They show that private demand and investment are important effects. H. Bi, E. M. Leeper and C. Leith (2013) also claim that behavior of agents, i.e. stakeholders has a great impact on the efficiency of the fiscal consolidation process. Their decisions could be either positive or negative regarding the final result of consolidation. A stable situation of public finances is extremely important, indeed crucial both during a crisis and economic prosperity. The relative stabilization of the public sector was one of the most important factors that contributed to the crisis gentle wave phenomena occurring in Poland. An important aspect that should not be underestimated was primarily the Polish Government's automatic, regulated and legally fiscal rules. These rules refer to the maximum levels of public deficit and debt (such regulations have been included in the Polish Constitution, which set the country apart from other European Union countries). It meant that Polish Government could not ignore the indicators relating to deficit and debt (3% of *GDP* in case of Budget Deficit, and 60% of *GDP* in general government debt). The effectiveness of fiscal consolidation is measured by verifying the changes in the size of the *CAB* (*Cyclically Adjusted Balance*) and *CAPB* (*Cyclically Adjusted Primary Balance*) indicators. The academia developed the view and the theory that a successful consolidation is considered to lead to at least a 1.5 % decline in these indicators during the financial year.

In Poland, in order to comply with the guidelines on fiscal policy, in 2010, a "*Plan of development and consolidation of public finances*" was initiated. This document was directly binding and incorporated the content of the Council of Europe's recommendations of 2010 on consolidation and the provisions contained in the Stability and Growth Pact. The following are the main objectives, which if realized, determine the stability and efficiency of the public finance system to a great extent:

- The purpose of public finance development and consolidation was to achieve the *MTO* (The *Medium-Term budgetary Objective*), so that the State would effectively create favorable conditions for economic and social development. The long-term effect of this would be that Poland meets the Maastricht criteria. Achieving this goal would also allow Polish exit from the excessive deficit procedure imposed in 2009;
- An important element of the implementation of the Plan was the introduction of fiscal rules, with a particular emphasis on the rules of expenditure (support of expenditures in the macroeconomic situation and the system can regulate the maximum amount of expenses at 40% of GDP);
- In addition to the fiscal rules, a special emphasis was also placed on structural changes in public finances;
- The reference was, inter alia, to the effective use and implementation of multiannual plans and performance of budget tasks;
- It was also suggested to increase the quality of reporting and informing on the obligations of the public finance sector entities;
- Increasing efficiency and rationality of liquidity management in the public finance sector.

The IMF also points to a very important factor which increases the effectiveness and impact of consolidation and fiscal policies, which is strong and independent fiscal institution. They stimulate the credibility of the fiscal policy implemented by limiting the uncertainty, volatility and irrational decisions of authorities. This fact is very positively perceived by the markets and provides significant stability and transparency.

International Monetary Fund sees fiscal consolidation as a chance to boost the effectiveness of automatic stabilizers of the economy. Their importance is particularly evident and worthy in difficult periods when the cyclical trends of the economy are slowing down and entering a state of economic recession. They are based on the action of counter-cyclical mechanisms. They allow for the avoidance of build-up of debt during recessions. Stability is achieved through the operation of stabilizers which reduce the susceptibility to asymmetric shocks, volatility and instability of the global macroeconomic situation. Worth mentions the fact that is so similar to the Polish case."*The Program of Convergence: Update 2012*" medium-term budgetary objective (*MTO*) assumes reduction in the structural deficit to 1% of *GDP*. This Report anticipates that it will be possible for automatic business stabilizers to function properly.

Fiscal consolidation is also carried out in the *US* and Japan. In these countries, deficit levels are now the lowest since 2007. Authorities' influence by sizing the budget revenues and expenditures in order to reduce the structural deficit is one of the most important, crucial medium-term objectives of fiscal policy, as well as in the entire economic policy in these countries. Reasons for which fiscal consolidation was introduced in these countries are largely the same as in the situation in Japan and the *US*:

- A high level of public debt in relation to *GDP*, aging society greatly aggravating public finances,
- Increasing public expenditure incurred in connection with the implementation of stimulus packages implemented during the prevalence of the global economic crisis,
- Mutually reinforced strength and extent of the impact of monetary policy (e.g. quantitative easing programs) and fiscal policy (the effective use of the so-called policy mix).

3. Data and Variables

The main assumption of the research was to verify the efficiency of implementation of fiscal consolidation. Research will try to show if fiscal consolidation has any impact on basic macroeconomic indicators (such as level of *GDP*, Inflation, Unemployment and General Government Gross Debt) in Poland and *EU-27*. The above-mentioned data are shown in Table 1 and Table 2. Table 3 also presents information on the structure of the Polish budget between 2004 and 2014, and how the revenues and expenditures were changing within this period of time.

Table 1 states the basic macroeconomic data on Poland. It clearly shows how budget deficit, unemployment and debt indicators have been changing during 2004-2014 period.

Table 1. Macroeconomic and fiscal data on Poland, 2004-2014

Period	Budget deficit	CAB	GDP	General government gross debt	Inflation consumer prices y/y	Unemployment
2004	-5.48%	-3.7%	5,14%	45.30%	3.58%	19%
2005	-4.03%	-2.7%	3,55%	46.70%	2.11%	17.70%
2006	-3.39%	-3.7%	6,19%	47.10%	1.11%	13.80%
2007	-1.86%	-3.6%	7,20%	44.20%	2.39%	9.60%
2008	-3.69%	-5.3%	3,92%	46.60%	4.35%	7.10%
2009	-7.06%	-8.2%	2,63%	49.80%	3.83%	8.20%
2010	-7.68%	-8.3%	3,70%	53.60%	2.71%	9.60%
2011	-4.21%	-5.9%	4,76%	54.80%	4.26%	9.60%
2012	-3.70%	-3.8%	1,76%	54.40%	3.56%	10.10%
2013	-3.55%	-3.6%	1,67%	55.70%	1.03%	10.40%
2014	-3.20%	-2.9%	3,20%	50.10%	0.11%	9.02%

Source: World bank, Eurostat, OECD and IMF data set

Table 2 shows identical as above data registered in all European Union countries. By comparingboth tables and graphs showing indicators' trends it is relatively easy to assess the relation between Poland and EU in this case. The figures are in a way describing a process of getting back to normality after the 2008 financial crisis.

Table 2. Macroeconomic and fiscal data on the European Union, 2004-2014

Period	Budget deficit	CAB	GDP	General government gross debt	Inflation consumer prices y/y	Unemployment
2004	-2.29%	-	2.52%	47.78%	2.26%	9.17%
2005	-1.97%	-	2.06%	46.40%	2.45%	8.93%
2006	-1.24%	-	3.42%	43.47%	2.60%	8.22%
2007	-0.83%	-	3.07%	40.01%	2.45%	7.17%
2008	-1.98%	-	0.48%	46.84%	4.20%	6.97%
2009	-5.95%	-	-4.41%	50%	0.95%	8.95%
2010	-5.59%	-4%	2.12%	55.70%	1.67%	9.63%
2011	-3.72%	-3.8%	1.76%	81%	3.31%	9.60%
2012	-3.61%	-3%	-0.40%	83.70%	2.72%	10.50%
2013	-3.20%	-1.7%	0.06%	85.50%	1.39%	10.92%
2014	-2.90%	-1.6%	1.20%	86.80%	0.22%	10.22%

Source: World bank, Eurostat, OECD and IMF data set

Table 3 will give some extra feedback about the budgetary situation. Apart from nominal indicators like budget deficit, CAB or CAPB in the above Table, we are able to judge by what method Government decreased its deficit (by boosting revenues, restraining expenditures or both). The budget structure is very important and the data below are also crucial to realize how the fiscal consolidation process works.

Table 3. Total revenues and expenditures of Poland, 2004-2014[2]

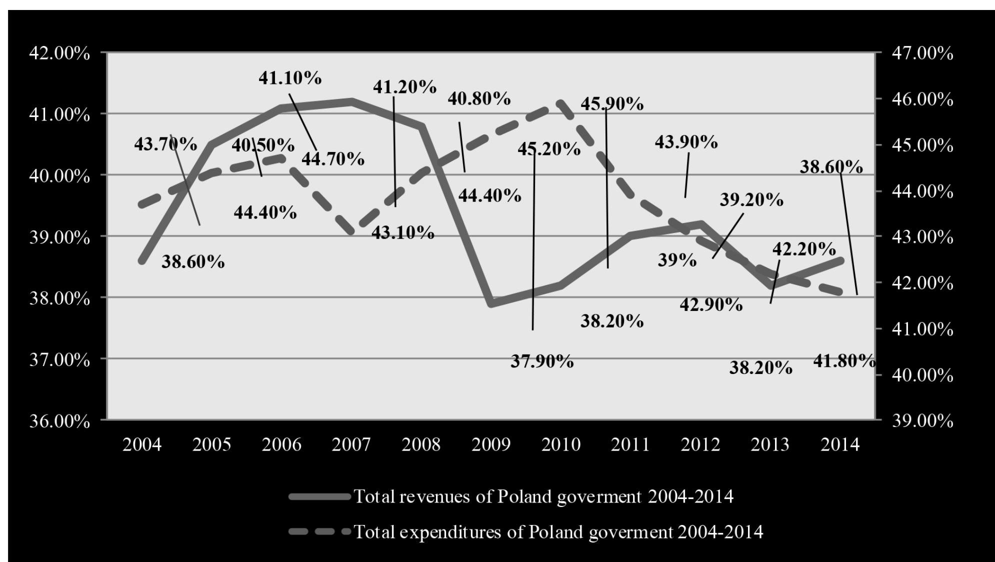
Period	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*
Total revenues	*38.6*	*40.5*	*41.1*	*41.2*	*40.8*	*37.9*	*38.2*	*39*	*39.2*	*38.2*	*38.6*
Total expenditures	*43.7*	*44.4*	*44.7*	*43.1*	*44.4*	*45.2*	*45.9*	*43.9*	*42.9*	*42.2*	*41.8*
Net lending (+) or net borrowing (-)	*-5.2*	*-4*	*-3.6*	*-1.9*	*-3.6*	*-7.3*	*-7.6*	*-4.9*	*-3.7*	*-4*	*-3.2*

Source: General Government Data - General Government Revenue, Expenditure, Balances and Gross Debt
PART I: Tables by country, European Commission Directorate-General for Economic and Financial Affairs, 2015.

4. Results and discussions

Graph 1 presents the tendencies of public revenues and expenditures in Poland. The red curve indicates the expenditures which are clearly falling down from 45.2% in 2009 (just after the financial crisis) to 38.6% in 2014. At the same time, the total revenues have increased from 37.2% to 41.8%. This shows that Polish fiscal consolidation was based on two-side action (boosting revenues and reducing expenditures).

Graph 1. Total Revenues and expenditures of Polish Government, 2004-2014

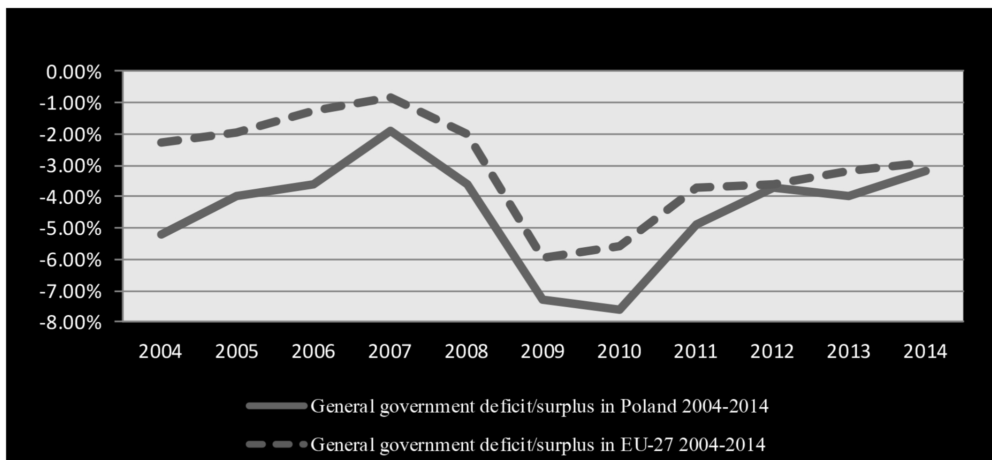


Source: Based on General Government Data - General Government Revenue, Expenditure, Balances and Gross Debt PART I: Tables by country, European Commission Directorate-General for Economic and Financial Affairs, 2015

2 Data set in the following table is given in % of GDP

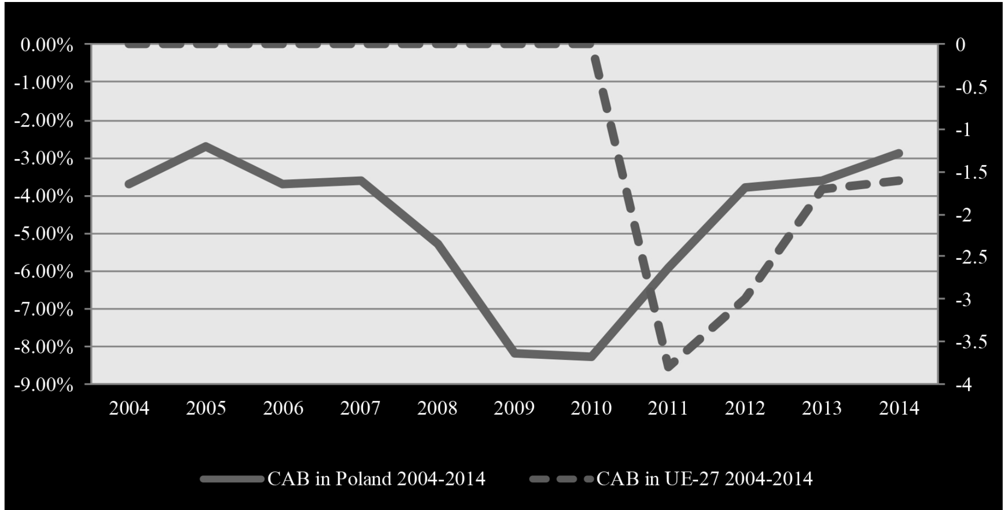
Graph 2 shows a phenomenon worth observing, i.e. a significant decline in the budget deficit in Poland in the 2010-2014 period (from 7.68 % of GDP to 3.2 %). Over the four years, these indicators moved significantly closer to the EU average, which was significantly better in the period before the fiscal consolidation of the Polish budget. The situation across the European Union also has improved; the budget deficit was reduced to 2.9 % of GDP from 5.59 % of GDP in 2010. Trends and forecasts in terms of budget plans also seem to confirm a further decline in deficits in European countries.

Graph 2. General government deficit/surplus in Poland and EU-27 2004-2014
Source: World Bank, Eurostat, OECD and IMF data set



Graph 3 shows the development of the size of the CAB index (Cyclically Adjusted Balanced) in Poland and the EU-27. CAB is a special, typical indicator used to assess the effectiveness and efficiency of fiscal consolidation. Successful consolidation is recognized when the CAB index falls by an average of 1.5 % per year. In Poland, within four years, this indicator fell from 8.3% of GDP to 2.9 % (making almost 1.5% per year). Across the EU-27, this relationship is somewhat weaker, because this indicator has changed within the four years from 3.8 % of GDP to 1.6 % of GDP (approximately 0.5 % per year).

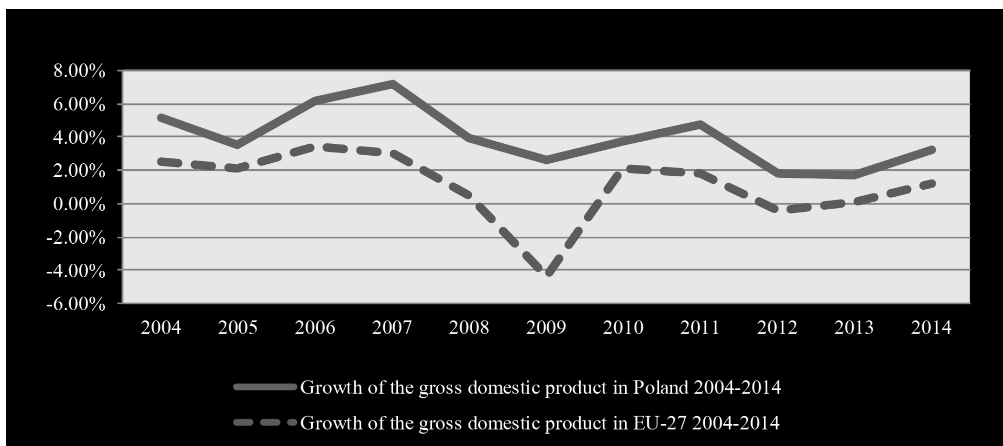
Graph 3. CAB in Poland and EU-27, 2004-2014



Source: Cyclical Adjustment of Budget Balances – spring, 2015, European Commission Directorate-General for Economic and Financial Affairs, 2015.

Graph 4 shows trends relating to the volume of annual gross domestic product growth. The figures clearly indicate that the theoretical considerations of the short-term negative impact on growth caused by fiscal consolidation may be justified, because both in Poland and throughout Europe over the years 2010-2011, there was a slight slowdown in GDP growth. In 2011, the decrease was higher (in Poland, up by approx. 3%). In subsequent years, however, we see a significant recovery, as well as an increasing macroeconomic stabilization, which could translate into further sustainable economic growth.

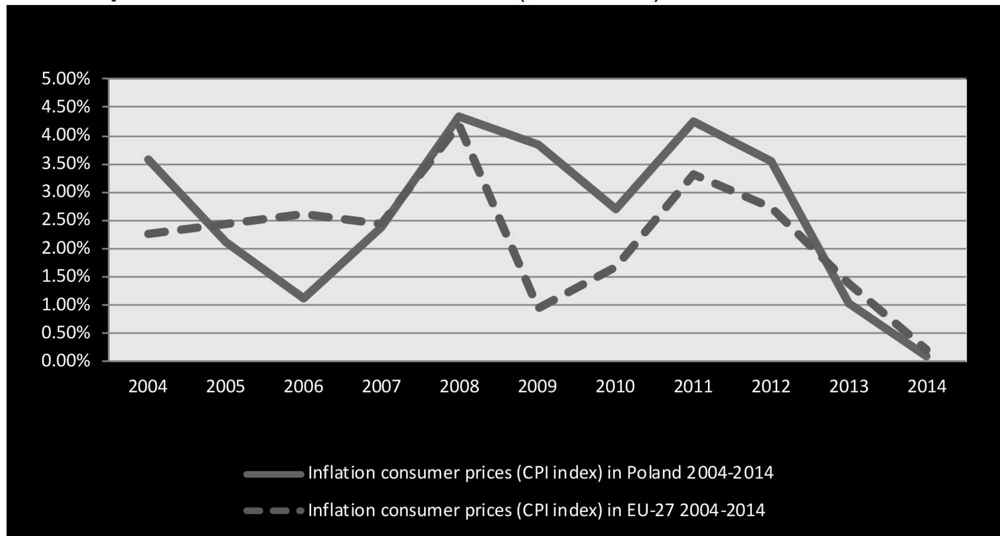
Graph 4. Growth of the gross domestic product in Poland and EU-27 2004-2014



Source: World Bank, Eurostat, OECD and IMF data set

Graph 5 refers to the general level of prices in the analyzed economies, i.e. the level of inflation measured by the CPI (Consumer Price Index). Noticeable is the substantial inflation fall in Poland from 4.26 % in 2011to 0.11% in 2014. In the European Union, the figures were 3.31 % and 0.21 %, respectively. Such a significant drop in inflation and long-term interest rates is not due only to fiscal consolidation activity. It has an enormous impact on the monetary policy implemented by the ECB (including the announced and launched quantitative easing program in 2015).

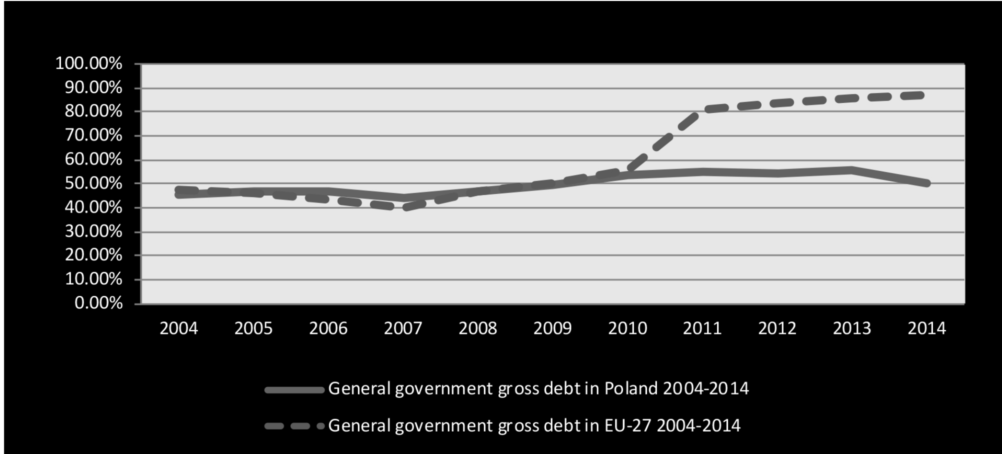
Graph 5. Consumer Price Inflation (CPI index) in Poland, 2004-2014



Source: World Bank, Eurostat, OECD and IMF data set

Graph 6 shows the ratio of public debt to GDP in that year. The ratio of debt is an important macroeconomic indicator with which modern economies have been trying to deal for a long time. In the period 2010/2011-2014, we see a situation in which Polish public debt does not rise, but does not fall at a rapid pace either (apart from 2014, in which the large role was played by the pension system reform performed). Over the period 2011-2014 (when fiscal consolidation was carried out), public debt declined from 54.8 % of GDP to 50.1 %. In the EU-27, public debt has increased significantly over the study period. In 2010, it was still 55.7 % to reach 86.8 % in 2014. It is important, however, that it is only an average value for all EU countries. Countries affected by the debt crisis to the greatest extent (e.g. Greece, Italy, Portugal and Spain - the countries included in the group called PIGS) exceed the average.

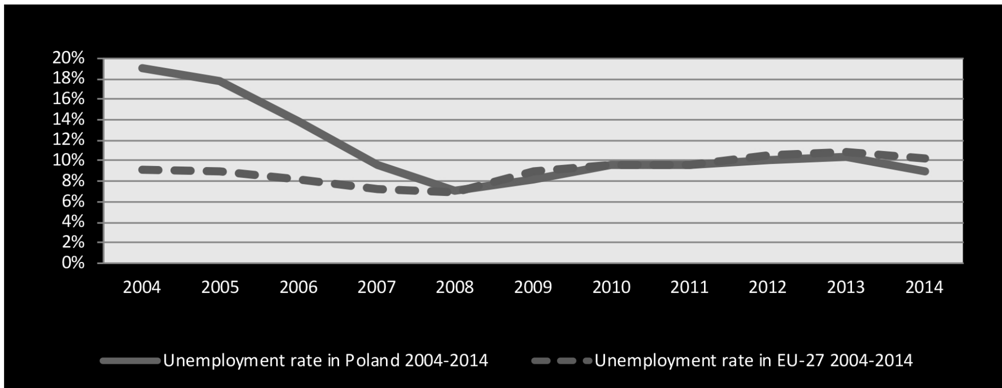
Graph 6. General government gross debt in Poland and EU-27 2004-2014



Source: World Bank, Eurostat, OECD and IMF data set

Graph 7 shows how the unemployment rate stood relatively still over the period 2004-2014 in the studied cases. This indicator both in Poland and in the aggregate unemployment rate in the EU-27 from 2010 to 2014 stood at a relatively stable level of 9-10%. This shows that there is no significant effect of consolidation, as well as other post-crisis action on unemployment.

Graph 7. Unemployment rate in Poland and EU-27, 2004-2014



Source: World Bank, Eurostat, OECD and IMF data set

5. Conclusions

The level of efficiency linked with the fiscal consolidation process seems to be relatively difficult to determine and asses. Especially because of the short implementation period, as well as the complexity of the model (i.e. the impact of the budgetary situation on various macroeconomic indicators). This is particularly evident in the slight slowdown of growth in the initial period of consolidation. The effectiveness of consol-

idation can be assessed adequately only through the benchmarking and valuation of three indicators:

1. Budget deficit (Difference between public revenues and expenditures),
2. CAB (*Cyclically Adjusted Balance*),
3. CAPB (*Cyclically Adjusted Primary Balance*).

Table 4 shows how budget deficit and CAB indicators were changing during the 2011-2014 period in the cases studied (Poland and EU-27).

Table 4. How effective is fiscal consolidation in Poland and EU-27?

Country or Sector	Budget Deficit 2010	Budget Deficit 2014	2010-2014 change (pp)	*CAB* 2010	*CAB* 2014	2010-2014 change (pp)	Difference per year
Poland	-7.68%	-3.2%	+4.48%	-8.3%	-2.9%	+5.4%	1.35%
EU-27	-5.59%	-2.9%	+2.69%	-4.0%	-1.6%	+2.4%	0.6%

Source: Author's work

Table 4 shows that Polish fiscal consolidation is much more effective that the *EU-27* average. Especially if we notice that the reduction of *CAB* is 1.35% per year (this level is near the 1.5% threshold of theoretical effective fiscal consolidation) compared to the 0.6% average in the *European Union*.

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