
Poland and the Global Economic Crisis: Observations and Reflections in the Public Sector

Adam Reichardt
Jagiellonian University of Krakow
and Consultant with Zdrowie i Zarzadzanie, Poland

Address for correspondence email: adam.reichardt@gmail.com

Abstract

The global economic crisis has had a profound affect on the public finances of many countries, especially those in Europe. Unlike the majority of European countries, Poland has actually fared very well in the face of this recession. Yet, despite optimistic remarks by the ruling politicians, Poland is not immune to the effects of the crisis, and that includes its public finances. Like all other EU countries in the last two years, Poland's public debt has increased to dangerous levels and the budget deficit remains high.

This article provides some reflections through a closer look at Poland and its response to the global financial crisis, with a special emphasis on the situation concerning public sector finances. The author discusses the situation in Poland leading up to the crisis and examines the situation faced by the Polish government after the onset of the crisis. This article outlines various measures that were taken or are currently being taken to stem any further effects of the crisis, such as raising the national value-added tax, the consolidation of public finances at the sub-national levels, and efforts to reform the pension system. It concludes with remarks regarding the implications of these measures and what the future may hold for Poland's public finances.

Keywords: Poland, Public Finance, Economic Crisis

Introduction

When it comes to the global economic crisis, Poles have something to feel good about. At least that is the sentiment that the politicians, here in Poland, enjoy stressing, over and over again. When reflecting upon Poland in relation to the crisis, one is often reminded of the famous presentation by the Prime Minister at the end of January 2010. During the presentation, the Prime Minister stood in front of a giant map of Europe. Each EU country was red, with indicators displaying the percentage of loss in its respective GDP. The lone green island in this sea of red, situated directly behind the Premier, was Poland – with a positive increase of GDP. In 2009, while most of the EU was wallowing in a recession, the GDP of Poland actually grew by 1.7%. (Eurostat) This is compared to its European neighbours (the EU27) whose aggregate loss of GDP fell to 4.2% (Eurostat).

“The results of the previous year is a symbol of the difficult, but globally perceived success of the Polish Economy, the data are better than expected even by the most optimistic - they build the pride of Poles,” Prime Minister Donald Tusk said while standing in front of the map (Rożek & Rożyński, 2010) . Indeed, Poland enjoyed a unique position among nearly all of its peers in the European Community. In 2010, Poland continued this trend. An analysis of the first three quarters of 2010, according to estimates by the Ministry of the Economy (p.6), illustrated further GDP growth by 3.4%. Beyond GDP growth, Poland also saw continued growth and investment in infrastructure investments across local communities, primarily as a result of EU investment which was at its highest since Poland's accession into the European Union.

It would appear, to the outsider, that Poland maintained a certain level of immunity to the financial crisis. Regardless, the global financial crisis has had an impact on Poland, its economy, and its public finances. Despite the significant positive economic gains that were being made during the two years previous to the crisis, Poland's interdependence on its neighbours quickly slowed its growth. Additionally, Poland's unemployment rate has been gradually increasing after the onset of the crisis, starting at the end of 2008 and rising ever since. Starting in November 2008, the Polish unemployment rate has steadily matched the slow increase seen in the 27-EU countries (Eurostat). Other economic indicators, such as Poland's purchasing power and GDP per capita, have not risen at a fast enough pace to even meet the standards of our EU neighbours in the West. Eurostat (2010) data estimated that for 2009, Poland's GDP per inhabitant expressed in purchasing power standards (PPS) was the 5th lowest in the European Union, being 61% of the average of the 27 European Union states.

This article provides some reflections through a closer look at Poland and its response to the global financial crisis, with a special emphasis on the situation concerning public sector finances. It discusses the situation in Poland leading up to the crisis while examining the situation faced by the Polish government after the onset of the crisis and demonstrating that the situation in the public sector is not as optimistic as it is described in public by the ruling politicians. Like all other EU countries, Poland's debt increased to dangerous levels and the budget deficit remained high. This article outlines various measures that were taken or are currently being taken to stem any further effects of the crisis, such as raising the national value-added tax, the consolidation of public finances at the sub-national levels, and efforts to reform the pension system. It concludes with remarks regarding the implications of these measures and what the future may hold for Poland.

It is true that Poland has sustained much less damage overall as compared to its counterparts across Europe. Many experts, as noted by Ewing (2010), have stated this is due to compounding factors, including the fact that Poland still has its own currency (the zloty) and is not on the Euro. Yet, it is clear that Polish society has felt an impact as a result of the financial crisis, especially in the public sector and the response by the policy makers. Across-the-board budget and programme cuts, raising the national (Value-added) tax, and the lack of expansion of certain social services in the public sector such as health funding, infrastructure, and environmental protection are all examples of how Poland's public sector must react to the crisis.

Above all, Poland has not and publicly stated it will not seek any external intervention or support to prevent any further damage by the crisis. This means, a certain level of austerity will be necessary, as demonstrated in this article. One thing is certain – Poland, like all European and developed countries, is not entirely immune to the effects of the global recession. Whether or not the efforts of the public sector are sufficient to minimize any further damage as a result of the ongoing global crisis will remain to be seen in 2011 and beyond.

Events Leading up to the Global Economic Downturn. 2004-2008

Among the 25 states that joined the European Union in 2004, Poland is the largest with nearly 40 million inhabitants. A member of the former Eastern bloc countries, accession into the EU was not an easy process for Poland as it faced significant challenges relating to public sector financing, transparency, infrastructure, and social policy. Significant economic challenges, macro and micro, were among the many concerns that faced Poland as it prepared to enter the EU. For example, in 2004, upon entering the EU, around 17% of Polish people were employed in the agriculture sector, mostly as farmers (Fundacja programów pomocy dla rolnictwa, p. 2).

The labour force in Poland was also undergoing fundamental change. In 1989, 53% of the workforce was employed in the public sector. By 2002, only 26% of the Polish workforce was in the public sector. Privatization of the economy moved at a quick pace within that period, however with mixed results. By 2002, Poland faced massive unemployment, with nearly 20% of the Polish workforce registered as unemployed in 2002.

Along with this massive system change, came incredible amount of reforms in the public sector. To prepare for accession into the European Union, Poland underwent significant reforms throughout the 1990s and early 2000s. In addition to the privatization of state-owned enterprises, governmental functions were decentralized through various reforms leading up to 2004. The reforms were meant to give greater financial autonomy to the local authorities.

As Poland entered the EU, it's situation dramatically improved starting after 2005 and into 2006. In the period directly before the crisis, Poland experienced growing investment from European Union investment

funds and other foreign sources. Reversing some of the worrying trends in the early 2000s, the pace of investment in Poland quickly rose to high-levels - 14.9% of GDP in 2006, 17.6% of GDP in 2007 and 15% of GDP by mid-2008 (National bank of Poland, p. 24) – and supported mainly by outlays on investment using EU funds. By mid-2008, Poland had finally turned its economy around, despite the large uncertainty that lay ahead with the onset of the banking crisis in the United States, and later in Europe.

Polish Response to the Financial Crisis

The fact that Poland experienced such a high investment and growth immediately prior to the crisis may help explain some of the reason why Poland's economy weathered most of the storm felt across the rest of Europe starting at the end of 2008. The growth that Poland experienced prior to 2008, however, was significantly stalled once the banking crisis hit in the United States and later followed in Europe. By mid-to late-2008, the significant deterioration in the global economy impacted Polish growth and witnessed a reduction of most measures of business activity in Poland with a significant decrease in production power. At the same time, as the Euro zone recession began, together with increasing uncertainty about prospects for the Polish economy, investment activity of Polish enterprises diminished considerably. (National Bank of Poland, 2010, p. 19). Despite an economy that stayed above the red, Poland, like all other nations, prepared to deal with the crisis, considerably worried about the direct effect on public financing.

In immediate response to the crisis, Poland released the “Stability and Development Plan - Strengthening the Polish economy in the time of the world financial crisis” (Plan Stabilności i Rozwoju– wzmocnienie gospodarki polski wobec światowego kryzysu finansowego) on November 30, 2008. The plan called for action and legislation amounting to 91.3 billion zloty in activities to stimulate investment in the Polish economy as well as support consumer conditions (p. 6).

Primary activities that were outlined in the plan included:

- Maintaining the stability of public finances;
- Maintaining the stability of the financial system (included guarantees for deposits, inter-bank loans, and the creation of a Financial Stability Committee);
- Implementing a “Trust Package” by the National Bank of Poland to increase the liquidity of the banking system.

The plan also called on Polish public finances to reduce the cost of debt servicing, which especially was critical considering the scope of the crisis and the credit situation. The plan noted (p. 5) that any decision to increase the budget deficit may lead to the abrupt decline in valuation of its debt, which would be counterproductive. The plan also delineated a reduction in general budget spending by 1.7 billion zloty to allow flexibility in the movement of resources.

In addition, the National Bank of Poland (2009, p. 38) complemented the Stability and Development Plan with anti-crisis measures such as 1) mitigating economic downturn for workers and entrepreneurs, 2) providing assistance in the repayment of housing loans to people who lost their jobs, 3) support medium and large enterprises, implementing projects important for the Polish economy (with the use of loans and guarantees from the Industry Restructuring Agency).

The recession in the Euro area economies affected Poland mostly in regard to the decrease in demand for Polish products. Considering that our European neighbours are Poland's largest trading partners there was a natural decline in Polish exports. The primary threat to Poland's economic growth was the development of the situation in the world's largest economies, such as the United States, France, Germany, and the United Kingdom. A considerable portion of Poland's economic health depends on the efficiency of those countries' stimulus, internal domestic policies, and the speed of recovery abroad. This key fact demonstrates Poland's place in the global economy.

The Financial Crisis and Poland's Public Sector Finances

Considering the prospects for slow economic recovery, Poland, like so many other nations, has significant ongoing challenges in its public sector. Some of these challenges exist despite the crisis; others are confounded by it. Nevertheless, it is viable to note that Poland's public sector activity in the past few years has two sides – one is the ongoing reforms necessary to continue to advance Poland from being an emerging economy despite the recession; and on the other side are the measures that have taken place in the public sector to prevent further damage by the economic downturn.

In the context of the ongoing global financial crisis, Poland's response in the public sector revolves around five central themes:

- Inflation (including an analysis of raising the Value Added Tax by 1% in 2011);
- Fiscal policy and deficit spending;
- Public employment and pension reform;
- Reliance on EU funding to supplement budget cuts;
- Fiscal consolidation and public finance at the local level;

The delicate balance between economic stimulus and austerity will prove difficult in the coming year or two. Lowering the scale of financial imbalances in the medium term is needed in order to curb the rise in public debt and the obligations imposed on Poland under its deficit. The state of Poland's public sector finances will largely depend upon how Poland addresses these challenges in the coming years.

Inflation

Like all emerging economies, inflation continues to be a concern for Poland. Fortunately, the consumer price index (as a measure for inflation) has steadily decreased in the last few years from an annual rate of 4.2% increase in the consumer price index in 2008 to 2.58% increase in 2010 (Tradingeconomics.com; forsa.pl), which compares to the EU average of 3.3%, 1.4%, and 2.2%, respectively. These rates, while hopeful for an emerging economy, especially in an economic downturn, are still high enough to cause concern. In response to the mixed news of the CPI, the monetary policy of Poland has been to keep interest rates down. In relation to inflation, the International Monetary Fund reported in October 2010 that "considerable uncertainty surrounds the outlook for inflation, especially with regard to labour supply and the impact of capital inflows on the exchange rate." (IMF, 2010, p. 1).

Yet, on top of this concern is an increase in Poland's national Value Added Tax (VAT) rate, which went into effect 1 January 2011. The law rose taxes by one percentage point to 23% on most consumer goods, including food, electrical appliances, and cosmetics. The tax increase is meant to be only temporary, for a period of three years ending December 31, 2013. According to research by the Economic Institute of the National Bank of Poland, the short-term effects of the VAT increase on inflation should not be significant, and should not exceed 0.3 percent; while the longer-term influence on the Consumer Price Index should be neutral. (Gazeta Prawna, 4 Jan 2011).

Raising taxes in the middle of an economic downturn sounds counterproductive. An increase of taxes on consumer goods will obviously inhibit consumer demand, impact inflation, and force Polish consumers to tighten their spending on goods and services and thus could have a negative effect on the economy. On the other hand, raising the VAT by 1% for a defined period of time may aid the public sector finances, at least provide some assistance to keep public funding commitments, rather than cut programs indiscriminately, and provides an alternative to brutal austerity programs. The increase in taxes and the budget revenue that it will provide may also aid in Poland's efforts to minimize deficit spending and control public debt. Projections aside, there is risk on behalf of the Polish government by the modest tax increase. Its impact and additional burden to the CPI versus its slight benefit to the public sector finances (by adding an estimated 5 bln zloty a year) remains to be seen.

Fiscal Policy and Deficit Spending

The global economic downturn has led to a decline in general government revenues. Poland’s fiscal situation continues to be a concern, with the global economic crisis only exacerbating this concern. Given the high share of fixed expenditures in the budget and increased debt servicing costs, the public sector deficit will be further magnified - which increases the level of public debt in relation to GDP. Despite high economic growth, as mentioned above, in the period prior to the economic crisis, public spending grew much faster than GDP. According to the European Central Bank, between 2006 and 2009 Poland maintained deficit spending above 3% of its GDP (exception was 2007) (p. 88).

The current economic slowdown has exposed some structural weaknesses in public finances. During recovery, the economic burden has been reduced by the government, which consequently increased the structural deficit in public sector finances. The significant weakening of GDP growth (while still growing) in 2009 contributed to a slump in tax revenues. Loss of revenue in conjunction with the rigid structure of public expenditures consequently led to a strong increase in public sector deficits. Already in 2008 there was a significant increase in the public deficit to a level of 3.6% of GDP (National Bank of Poland, 2009, p. 29).

Poland’s budget deficit grew even more significantly in 2010. In the first half of 2010 alone, the state budget recorded a deficit of 36.6 billion zloty (compared to a deficit of 16.6 billion zloty for the same period in 2009) (Ministry of Finance, p. 10). As displayed in Chart 1, by the end of 2010, it was projected that Poland’s budget deficit was expected to reach nearly eight percent of the GDP for that year – close to three times the three percent ceiling set by the European Union (Jones /ForexYard 17 Dec 2010).

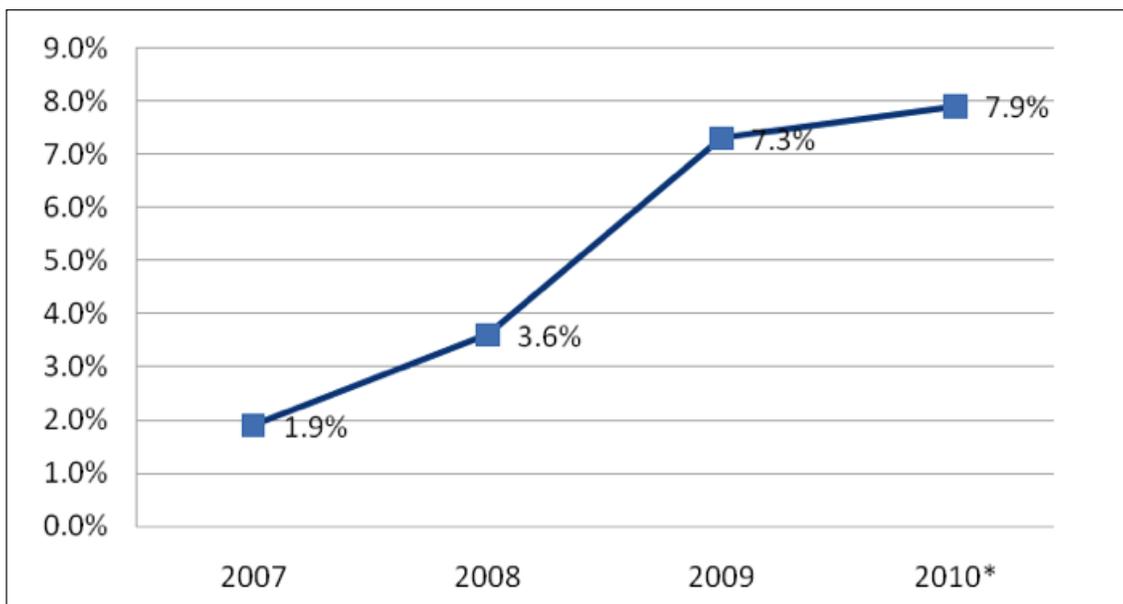


Chart 1

The increase in the Polish VAT by 1% is expected to alleviate some of the deficit burden by adding an estimated 5 billion zloty a year for the next three years to the public treasury (Sionko, 04 Aug 2010). What’s more, the International Monetary Fund (IMF) in October 2010, upon reviewing Poland’s financial credibility especially in light of the VAT increased, announced that it expected to see the deficit-to-GDP ratio to fall below five percent of the GDP in 2013 (IMF, p.1) – indeed some welcomed news for the public sector.

Poland’s public debt has also been considerably threatened in wake of the crisis. As seen in Chart 2 below, the public debt has been rising steadily since 2007, reaching an estimated 53.5 % of the GDP by the end of 2010. These levels are fairly dangerous, especially from the perspective of public finances. According to Polish law, if the public debt reaches above 55% of the GDP, legal requirements force Polish officials to begin automatic cuts in public spending. By the end of 2010, Polish officials remained optimistic that public debt in 2011 would not breach this crucial threshold (See Forexyard). The debt, however, remains at a level where caution and concern is considerable, especially taking into account the ongoing economic situation.

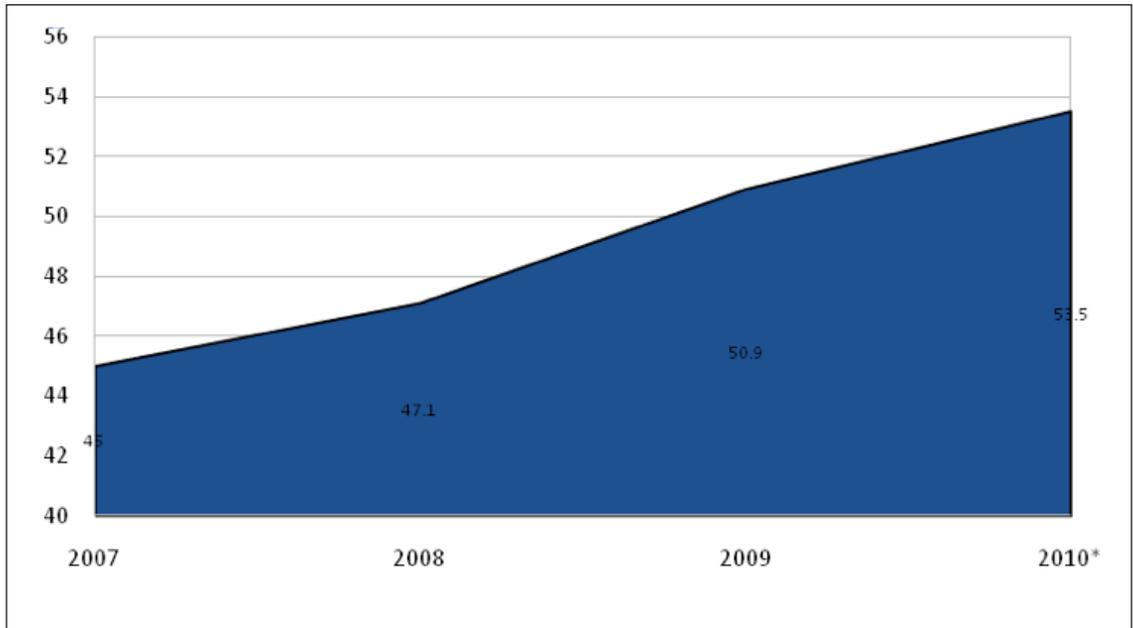


Chart 2. Public Debt as % of GDP in Poland 2006-2010

In spite of the cause for concern, public officials claim success and maintain an optimistic attitude toward fiscal policy. The Minister of Finance, Jacek Rostowski, noted that savings in public expenditures in the years 2008 and 2009 is what had led to Poland’s positive position despite the economic downturn; and outlined fiscal goals for the coming years as reducing spending, reducing the public deficit and defusing the growing problem of debt. “The budget for 2011 showed determination to reduce public debt. It will be a crucial year in terms of the crisis,” the Finance Minister predicted in December 2010 (Ministry of Finance).

Public Employment and Pension Reform

Rising levels of public debt and the concerns over budget deficits are pervasive across Europe. Somewhat related to Poland’s situation is the resolve to reform its public pension system. New legislation aims to change the structure of how cash transfers are managed in the pension system. The plan calls for cash transfers to private pension funds to decrease to 2.3 percent (opposed to pre-reform levels of 7.3 percent) (Bojanowski, 2011).

What this will essentially do is put more money on the books in terms of Poland’s budget; therefore allowing Poland to stay on target (at least on paper) in terms of reducing deficit spending and bringing down its budget shortfall. However, because the revenue from these payments are long-term pension investments on behalf of the citizens, it is difficult to consider this real revenue when measuring public finances. Therefore, there is much concern over this strategic change in the pension system of Poland and calls into question the measurement of budget deficits and public debt in light of this change.

Along those lines, public sector employment cuts are also one of the major areas the Polish government is looking at savings in budget spending in 2011. In this case, however, it is much more concrete. A legislative proposal plans to dismiss up to 10 percent of public sector workers between the years 2011 and 2013. Estimates recently published in the Polish daily *Gazeta Wyborcza* show that there are currently over 310 000 public sector workers, meaning this proposal could potentially dismiss up to 30,000 people (estimated 20 000 full time positions) currently working in the public sector (exempted are crucial public servants as Police, Fire Brigades, Border Patrol, and public Prosecutors) (*Gazeta Wyborcza* Jan 10 2011). Questions remain, however, as to the legality of this legislation. As of the time this article was written, the proposal was being questioned by the the Constitutional Tribunal, at the request of the President, and may in fact not be enacted if declared unconstitutional (*Gazeta Wyborcza* Jan 9 2011).

Reliance on EU Funding to Supplement Budget Cuts;

Similar to the arguments in the previous two sections is the concern over reliance on EU structural funds whose purpose are one-time or short-term investments in Poland’s infrastructure and should not be treated as sustainable alternatives to budget shortfalls. An analysis of the Polish general budget receipts shows that Poland’s revenue has increased markedly over the last ten years, which should be a sign of a strengthened public finance system. However, when taken into account the funding from EU sources, the level of public revenue displays a levelling starting in 2007. Chart 3 below illustrates this analysis.

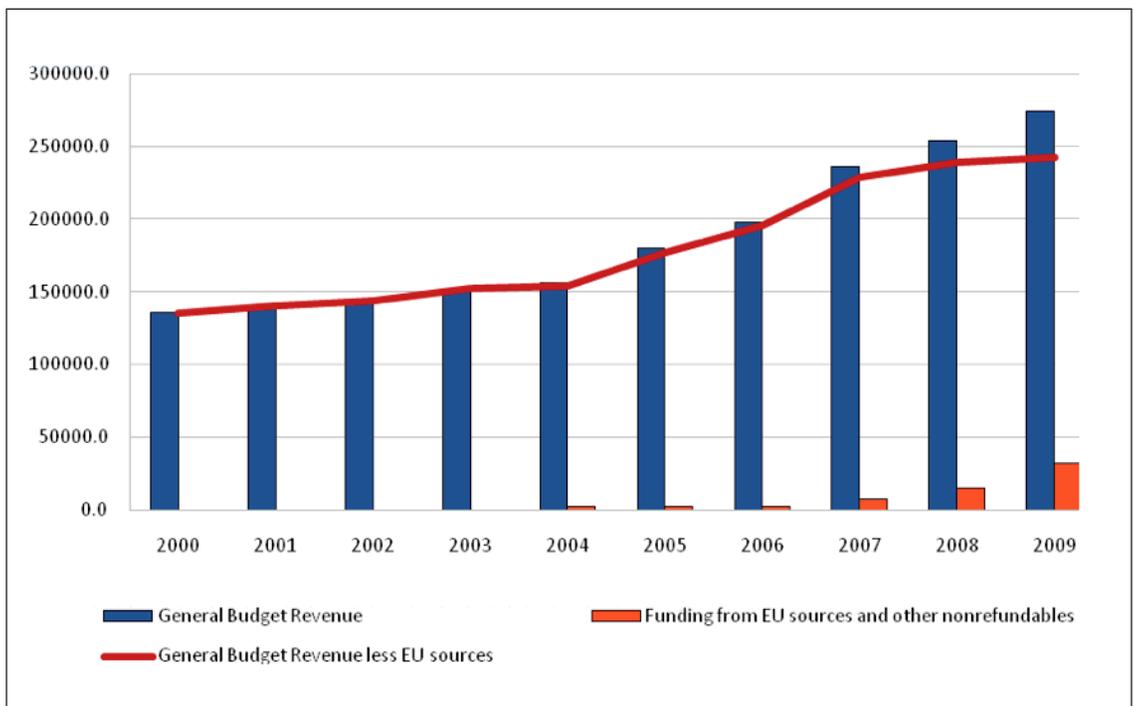


Chart 3. Analysis of Polish Budget Revenue and EU Funding

Becoming over-reliant on EU funding as a supplement for general budget revenue can prove troublesome in the long term sustainability of Poland’s public finances, especially when conducting analysis concerning budget deficits and public debt as the EU funds may once again generate discrepancies in measuring the fiscal health of the public sector in Poland.

Law on Public Finances at the Local Level

The final dominant theme relating to Poland, its public finances, and the financial crisis is a recent law in Poland on fiscal consolidation at the local level. The law on public finances (Ustawa z 27 sierpnia 2009 r. o finansach publicznych), passed August 27 2009, introduced significant changes in both the systematic and institutional forms of public financing at the sub-national level. The primary objective of this legislation is to consolidate the public finance system and add more transparency into the way tax money is spent.

The central provisions of this new legislation revolve around budgeting at the local level, including more standardized and transparent ways to demonstrate local level revenue and expenditures – especially by forcing local governments to consolidate their budgetary units. This is extremely challenging to local agencies in Poland. For example, in 2007 there were more than 600 auxiliary units of local government budget and over 2,000 local government budgetary establishments, of which a significant (although difficult to quantify) part is subject to complete liquidation (Cieślak and Wojciechowski, 2010).

This law also shifts budgeting and reporting responsibility in a given jurisdiction to the local agency, since the responsibility for carrying out public tasks lie with the local government. This means that even if certain services are provided by private companies or Non-government Organizations, the budgeting responsibility ultimately lies with the governmental entity. These structural changes that take place as a result of the consolidation law should outright add more transparency to local level financing, however may add extreme difficulties to the local jurisdictions to comply with these changes.

These fundamental changes are indeed a necessary process to create a modern local government environment. However, the challenges that go along with this consolidation program are only compounded considering the the current situation in which government revenues are falling, public debt increases, and the overall economic downturn that is playing out on the global stage. The further significance of this law is the change that relates to the fundamental understanding and measuring of the financial situation in the public sector.

Concluding Remarks

The economic downturn has played a significant role in public sector financing in Poland. Arguably, Poland has fared much better than its European neighbours as being one of the only nations in the EU not to face a recession in 2009. Nevertheless, Poland's economy is still described as emerging which subjects it to additional factors that could quickly weaken or further slow down its economic growth. To prevent the economic crisis from further damaging public sector financing Poland enacted specific policies and changes with the goal of fiscal stabilization and restoration of public sector finances.

Poland's response to the crisis can be viewed through the lens of five dominant themes: inflation; fiscal policy and deficit spending; public employment and pension reform; reliance on EU funding to supplement budget cuts; and fiscal consolidation and public finance at the local level. The goals of legislative and regulatory activity within these themes is clearly stabilization. The implications, however, of any policies remain somewhat indeterminate. Raising taxes in the middle of a downturn, while at the same time cutting a large number of public sector employees can just as easily backfire, considering the damage it may have on consumer activity; compounded by the external economic situation. Managing public debt and budget deficits is one of the foremost objectives of Poland. Still altering the pension system to increase, on paper, revenues will not, in reality, 'reduce' the public debt.

In most likelihood it is the Polish citizenry that will face the consequences. To what extent may never be known. Ewing (2010) recently quoted Jacek Rostowski, the Polish Finance Minister, admitting, "In good times we don't have to take the punch bowl away because it will never come out of the pantry." (Ewing, Jack New York Times Poland's Currency Lifts Economy December 6 2010). 2011 will unquestionably be a pivotal year for Poland – not only as it continues to struggle with lasting effects of the economic crisis,

but also since this year will be an election year. The optimistic rhetoric from the politicians doesn't always match the reality in the situation. Nevertheless, the results of the current policies will most definitely be reflected in the ballot box come November.

References

- Bartyzel, Dorota (October 26, 2010). 'Poland May Keep Rates at Record Low as Belka Outweighs Inflation Concern.' <http://www.bloomberg.com/news/2010-10-26/poland-may-keep-rates-at-record-low-as-belka-outweighs-inflation-concern.html> 9 Jan 2011.
- Bojanowski, M. (Jan 2011). 'Emerytalny wyścig z czasem. Zmiany wejda w życie od kwietnia?' *Gazeta Wyborcza*. 5 Jan 2011.
http://wyborcza.biz/biznes/1,100896,8906205,Emerytalny_wyscig_z_czasem__Zmiany_wejda_w_zycie_od.html. Accessed 10 Jan 2011.
- Cieślak, R. and Wojciechowski, Z. (Dec 2010). 'Zbliża się termin likwidacji gospodarstw pomocniczych i części zakładów budżetowych'. *Gazeta Samorządu i Administracji*.
- European Central Bank (2010). 'Annual report – 2009'. European Central Bank. Pp 23-88; 118-120. <http://www.ecb.int/pub/pdf/annrep/ar2009en.pdf> Accessed Jan 4 2011.
- Eurostat (December 2009). 'Euro area annual inflation up to 0.9% ; EU up to 1.4%'. http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/2-15012010-AP/EN/2-15012010-AP-EN.PDF Accessed 4 Jan 2011.
- Eurostat (2010). 'GDP per inhabitant in the Member States varied between 41% and 268% of the EU27 average'. Eurostat Press Office.
- Ewing, Jack (2010). 'Poland's currecny lifts economy.' *New York Times*. Dec 6 2010.
- Gazeta Prawna* (Jan 9 2011). 'Graś: rząd doprowadzi do redukcji zatrudnienia w administracji'. 9 Jan 2011. http://praca.gazetaprawna.pl/artykuly/476732,gras_rzad_doprowadzi_do_redukcji_zatrudnienia_w_administracji.html
- Gazeta Wyborcza*. (Jan 10 2011). 'Miało być mniej urzędników, a jest ich więcej o 30 tys.' 10 Jan 2011. http://wiadomosci.gazeta.pl/Wiadomosci/1,80273,8923987,Mialo_byc_mniej_urzednikow__a_jest_ich_wiecej_o_30.html. Accessed online 13 Jan 2011.
- International Monetary Fund (2010). 'Poland—Concluding Statement of the 2010 Staff Visit'. Warsaw, October 29, 2010.
- Jones, Gareth. 'Polish debt won't top 55 pct of GDP in 2011' *Forex Yard*. <http://www.forexyard.com/en/news/Polish-debt-wont-top-55-pct-of-GDP-in-2011-FinMin-2010-12-17T180455Z-UPDATE-1>. Accessed 29 Dec 2010.
- Ministry of Finance (2010). '2010 rok udany dla polskich finansów'. Press Release by the Polish Ministry of Finance: 12 Dec 2010. <http://www.mf.gov.pl/dokument.php?const=1&dzial=153&id=232699&typ=news> Accessed Jan 13 2011.
- National Bank of Poland (2009). 'Polska wobec światowego kryzysu gospodarczego'. September 2009. pp. 29-34; 59-69.
- National Bank of Poland (2008). 'Plan stabilności i rozwoju– wzmocnienie gospodarki polski wobec światowego kryzysu finansowego'. Narodowy Bank Polski. Pp 5-11.
- Polish Ministry of Economy (2010). 'A study of Poland's economic performance in the period of I-IX 2010.' http://www.mg.gov.pl/files/upload/9142/3q2010_eng.pdf Accessed 27 Dec 2010.
- Polish Ministry of Finance (2010). 'Informacja kwartalna o sytuacji makroekonomicznej i stanie finansów publicznych.' Ministerstwo Finansów; Departament Polityki Finansowej, Analiz i Statystyki. October 2010. pp 9-10.
- Polska Agencja Prasowa (Jan 7 2011). 'Bank of America, Merrill Lynch: W Polsce wzrośnie inflacja i stopy procentowe.' http://forsal.pl/artykuly/476661,bank_of_america_merrill_lynch_w_polsce_wzrosnie_inflacja_i_stopy_procentowe.html Accessed 9 Jan 2011.
- Polska Agencja Prasowa (Jan 4 2011). 'MF: wpływ podwyżki VAT na ceny będzie nieznaczny'. *Gazeta Prawna* http://podatki.gazetaprawna.pl/artykuly/475917,mf_wplyw_podwyzki_vat_na_ceny_będzie_nieznaczny.html Accessed 9 Jan 2011.

- Sionko, Pawel (Aug 04 2010). 'Government announces temporary VAT rise to cope with fiscal pressures'. PMR Publications. Accessed online: <http://www.polishmarket.com/90150/Government-announces-temporary-VAT-rise-to-cope-with-fiscal-pressures.shtml> 12 May 2010.
- Tradingeconomics.com (2010). 'Data and tables concerning Poland's inflation rate.' Available online: <http://www.tradingeconomics.com/Economics/Inflation-CPI.aspx?Symbol=PLN> accessed 9 Jan 2011.
- Zespół SAEPR (2008). 'Polskie rolnictwo na tle rolnictwa UE'. Fundacja programów pomocy dla rolnictwa sekcja analiz ekonomicznych polityki rolnej. http://www.fapa.com.pl/gfx/saepr/Polskie%20rolnictwo%20na%20tle%20UE-raport%2009_08.pdf. Accessed 7 Jan 2011.
- Zespół Szkół Ekonomiczno-Administracyjnych w Bydgoszczy. (2009). 'PKB w Unii Europejskiej w latach 2000 – 2008'. <http://zsea.bydgoszcz.pl/joomla/pliki/Tygiel/realny%20pkb.pdf> Accessed Jan 4 2011.