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POLAND: MACRO FISCAL ASSESSMENT

AN ANALYSIS OF THE DECEMBER 2008 UPDATE OF THE CONVERGENCE PROGRAMME

The Stability and Growth Pact requires each EU Member State to present an annual update of its medium-term budgetary programme, called "stability programme" for countries that have adopted the euro as their currency and "convergence programme" for those that have not.

The attached technical analysis of the programme, prepared by the staff of, and under the responsibility of, the Directorate-General for Economic and Financial Affairs (DG ECFIN) of the European Commission, was finalised on 18 February 2008. Comments should be sent to Piotr Bogumił (piotr.bogumil@ec.europa.eu) and Aleksander Rutkowski (aleksander .rutkowski@ec.europa.eu). The main aim of the analysis is to assess the realism of the budgetary strategy presented in the programme as well as its compliance with the requirements of the Stability and Growth Pact. However, the analysis also looks at the overall macro-economic performance of the country and highlights relevant policy challenges.

The analysis takes into account (i) the Commission services' January 2009 interim forecast, (ii) the code of conduct ("Specifications on the implementation of the Stability and Growth Pact and guidelines on the format and content of stability and convergence programmes", endorsed by the ECOFIN Council of 11 October 2005) and (iii) the commonly agreed methodology for the estimation of potential output and cyclically-adjusted balances. Technical issues are explained in an accompanying methodological paper prepared by DG ECFIN.

Based on this technical analysis, the European Commission adopted a recommendation for a Council opinion on the programme on 18 February 2008. The ECOFIN Council is expected to adopt its opinion on the programme on 10 March 2008.

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All these documents, as well as the provisions of the Stability and Growth Pact, can be found on the following website:

http://ec.europa.eu/economy_finance/about/activities/sgp/main_en.htm

1. INTRODUCTION

This document assesses the December 2008 update of the Polish convergence programme. It takes into account all currently available information, notably the Commission services' January 2009 interim forecast and the short-term fiscal stimulus measures adopted by the Polish authorities in response to the economic downturn. The programme, which was submitted on 30 December 2008[1], covers the period 2008-2011 and builds on the 2009 budget proposal. It was approved by the government and will be presented to the Polish Parliament for a debate without a vote.

2. MAIN CHALLENGES IN THE ECONOMIC DOWNTURN AND THE POLICY RESPONSE

The period 2008-2009 marks a sharp deterioration of economic situation. This is due both to developments in the Polish business cycle and the effects of the global financial crisis. According to the January 2009 Commission services' interim forecast, the positive output gap will decrease strongly over the forecast horizon and reach negative values in 2010 while real GDP growth in 2009 will drop by 3 percentage points to 2%, as a result of the plunge of investment and exports. Employment is set to contract indicating a sharp turnaround in the labour market and the unemployment rate is projected to increase by 2 percentage points to around 9½% over 2009-2010. Inflation is foreseen to remain above EU-27 average in both 2009 and 2010 but the inflation differential is set to decline over the forecast horizon.

The deterioration in global trade flows brings severe consequences for the Polish export-oriented sectors, especially for the automotive and steel industry, while the financial crisis hampers FDI activity and limits the availability of external financing to both the financial and non-financial sector, implying lower growth of domestic credit and a slowdown in investment. Besides deteriorating global economic conditions, which impact negatively on the Polish export performance and investment activity, the relatively high share of foreign currency denominated (mainly CHF) mortgages brings an additional drag on private consumption in times of a marked currency depreciation and, together with a growing deposit gap, could lead to a decrease in credit quality and liquidity problems for some smaller banks. Moreover, the Polish construction sector is at risk of a severe contraction due to falling prices and plunging demand in the housing market.

The expected economic slowdown together with some expansionary measures, adopted both ahead of the crisis and after it became visible in Poland, entail a rapid shrinking of fiscal space. The Commission services foresee in their January 2009 interim forecast a deterioration of the general government deficit by about 1 percentage point to 3½% of GDP in 2009. Unless the Polish authorities undertake some corrective measures, the deficit will decline only marginally in 2010. In line with the European Economic Recovery Plan (EERP) agreed in December by the European Council, the fiscal stimulus measures planned by the Polish government aiming at aggregate demand stimulation should also be beneficial for long-term potential growth and thus public finances. If the administrative capacity and absorption of EU funds improves, as intended by the government and assumed in the January 2009 Commission interim forecast, public investment should increase significantly. The adopted personal income tax reform is another measure which should support domestic demand and reduce the negative impact of the financial crisis on GDP growth. The reform replaces three tax rates

[1] The English language version was submitted on 15 January 2009.

(19%, 30% and 40%) with two (18% and 32%), with almost all tax payers being subject to the lower rate. The personal income tax cut reduces the tax wedge, though mainly for high-income tax-payers. Besides these measures having a large and direct budgetary impact, the Polish authorities (i) modified the value-added-tax law and corporate-income-tax regulations in order to reduce the administrative burden for enterprises, and (ii) intend to re-establish confidence in the banking sector to restore inter-bank loans and loans to corporations through additional guarantees for banks. The government and parliament also adopted measures, which should improve the quality of public finances and improve the long-term sustainability of public finances. The abolishment of widespread and unfunded early pensions is the most important reform in this area. Since the beginning of 2009, they have been replaced by better targeted and partly funded "bridge pensions", which should not only improve the long-term budgetary sustainability, but also contribute to increasing labour activity among older people. Finally, the convergence programme foresees a continued implementation of performance budgeting ("task budgeting") and multiannual budgetary plans which will cover an increasing part of the general government, with 2013 as the implementation deadline for the whole general government. This will provide more tools for policy makers to improve the composition of public spending towards more employment- and growth-stimulating expenditure. These measures are related to the medium-term reform agenda and the country-specific recommendations proposed by the Commission on 28 January 2009 under the Lisbon Strategy for Growth and Jobs.

Box: Measures to help stabilise the financial system

In response to the financial crisis, the Polish government adopted a number of measures to ensure the stability of the financial sector. The guarantees for bank deposits have been significantly increased, with € 50 thousands as a new threshold. The main measure, which is the increase in the ceiling for guarantees for inter-bank and corporate loans (by almost 2 percentage points to about 3% of GDP), are envisaged for 2009 only and therefore planned to be temporary. In addition, the government planned capital injection (about 0.15% of GDP) to the state-owned BGK bank, intended for increasing loans to small and medium-sized enterprises.

3. MACROECONOMIC SCENARIO

The programme expects a gradual decrease in GDP growth from 5.1% in 2008 to 3.7% in 2009 and a slight rebound to 4% in 2010. GDP growth should be mainly driven by domestic demand with a small positive external contribution in 2009-2010 which is expected to be fuelled by a depreciating currency and lower import dynamics, as both import intensive investments and private consumption will be decelerating. The output gap as recalculated by Commission services based on the information in the programme, following the commonly agreed methodology, is foreseen to decline over the programme horizon. It is projected to reach -0.1% of potential output in 2009 and decelerate further to -0.6% of potential output in 2010.

The external assumptions underpinning the macroeconomic scenario in the programme diverge from the Commission services' January 2009 interim forecast. The programme assumes a much stronger exchange rate of PLN against EUR over 2009-2010, higher oil prices in 2009 (in USD terms) and slightly lower short term interest rates in 2010.

The projected profile of GDP growth in the programme is markedly favourable compared with the Commission services' January 2009 interim forecast, which projects a drop from 5% in 2008 to 2% in 2009 and 2.4% in 2010. Moreover, the programme's growth projection for

2011 is slightly above the estimate of potential growth in the January 2009 interim forecast for the period 2008-2010 of 4.3% on average.

Private consumption is, according to the programme, expected to grow on average by 4.5% over 2008-2010 which is much above the Commission services' January 2009 interim average forecast of 3.5%. The programme assumes robust growth of investment spending, amounting on average to 5.3% in the years 2008-2010, backed by better utilisation of EU funds and public spending. The Commission services' forecast assumes a much lower increase of investment by 2.8% on average across 2008-2010. Finally, the programme forecasts exports' growth to reach 5.3% on average over 2008-2010 compared with 2.3% in the Commission services' January 2009 interim forecast, despite the much stronger depreciation of the PLN underlying the Commission services' forecast.

The programme expects employment growth to decrease strongly from 3.7% in 2008 to 0% in 2009 and rebound thereafter to 0.3% in 2010, while the unemployment rate should increase only marginally from 7.1% in 2008 to 7.6% in 2010. The Commission services' forecast assumes a fall in employment by 0.6% and 0.8% in 2009 and 2010, respectively and an increase in the unemployment rate from 7.4% in 2008 to 9.6% in 2010.

Little attention is paid to the situation of foreign currency denominated loans and housing market developments, while the programme appears to downplay the effect of a decreasing credit growth on private investment. The adopted structural measures in response to the downturn seem to be incorporated in the macroeconomic scenario but no details concerning their individual estimated effects on growth are provided in the text.

Overall, the programme's macroeconomic outlook is based on markedly favourable growth assumptions over the programme horizon. The macroeconomic forecast included in the programme seems to underestimate the effects of the current global crisis on the Polish economy, in particular the effects of weakening consumer confidence, decreasing global trade, falling foreign investment and limited credit availability on investment, consumption, exports and the labour market.

Table I: Comparison of macroeconomic developments and forecasts

	2008		2009		2010		2011	2012
	COM	CP	COM	CP	COM	CP	CP	CP
Real GDP (% change)	5.0	5.1	2.0	3.7	2.4	4.0	4.5	n.a.
Private consumption (% change)	4.9	5.3	3.4	4.5	2.2	3.7	3.8	n.a.
Gross fixed capital formation (% change)	8.2	6.5	-1.3	4.4	1.5	5.0	5.8	n.a.
Exports of goods and services (% change)	4.9	7.4	-0.6	3.0	2.5	5.5	6.0	n.a.
Imports of goods and services (% change)	5.4	7.0	-0.3	1.8	1.3	4.4	6.1	n.a.
Contributions to real GDP growth:								
- Final domestic demand	5.0	5.1	2.1	3.1	2.0	3.6	4.7	n.a.
- Change in inventories	0.4	0.4	0.0	-1.0	0.0	0.0	0.3	n.a.
- Net exports	-0.4	-0.1	-0.1	0.5	0.4	0.3	-0.2	n.a.
Output gap[1]	2.2	1.0	0.1	-0.1	-1.1	-0.6	-0.5	na
Employment (% change)	3.0	3.7	-0.6	0.0	-0.8	0.3	0.4	n.a.
Unemployment rate (%)	7.4	7.1	8.4	7.2	9.6	7.6	7.4	n.a.
Labour productivity (% change)	1.9	1.4	2.7	3.7	3.2	3.7	4.0	n.a.
HICP inflation (%)	4.2	4.2	2.9	2.9	2.5	2.5	2.5	n.a.
GDP deflator (% change)	3.6	2.8	2.3	2.5	2.3	2.5	2.5	n.a.
Comp. of employees (per head, % change)	8.1	8.9	5.7	5.3	3.7	5.4	6.5	n.a.
Net lending/borrowing vis-à-vis the rest of the world (% of GDP)	-4.1	-4.0	-3.5	-1.8	-2.9	-1.3	-1.5	n.a.

Note:

[1]In percent of potential GDP, with potential GDP growth according to the programme as recalculated by Commission services.

Source :

Commission services' January 2009 interim forecasts (COM); Convergence programme (CP)

4. BUDGETARY STRATEGY

4.1. Budgetary implementation in 2008

The December 2008 update of the convergence programme of Poland estimates the 2008 general government deficit at 2.7% of GDP, which is slightly less optimistic than planned in the March 2008 update (2.5%). This should result mainly from a larger deficit of the central but also that of the local government, which would not be fully offset by a higher surplus of the social security subsector.

The slippage is mainly on the revenue side, consistent with the lower estimated GDP growth. In particular, the performance of indirect taxes and non-tax revenue was below projections, due to weaker private consumption and imports in 2008. On the expenditure side, wage pressure and compensation of public employees was higher than planned. However, this was more than offset by lower public investment.

The Commission services' January 2009 interim forecast points to an even lower execution of investment in 2008, resulting in the estimated general government deficit of 2.5% of GDP. The slow implementation of investment plans appears to be reflected in the preliminary figure for the 2008 central state budget deficit outturn (cash, non ESA95), which is currently estimated to be by 0.3% of GDP better, but it may not be fully matched by numbers in the convergence programme.

4.2. Near-term budgetary strategy

The general government deficit is planned to improve to 2.5% of GDP in 2009 according to the December 20008 convergence programme. The adjustment burden is to fall on central government, the balance of which is supposed to improve by almost 1 percentage point. Deterioration is foreseen in the local government, arguably because of the intended increased absorption of EU funds resulting in increased co-financing and public investment. Both expenditure and revenue are projected to increase in 2009, but revenue at a higher rate.

The programme appears to be consistent with the 2009 budget adopted by the government on 24 September 2008 and by Parliament on 9 January 2009. They are based on similar macroeconomic scenarios. The change in the central government deficit projected in the convergence programme (about 9 bn PLN) corresponds with the planned improvement in the central state budget deficit (cash, non ESA95) compared to the target in the 2008 budget. The fiscal adjustment will be supported by increases in excise duties (on cigarettes, as required by EU harmonisation, alcohol products and cars with large engines) expected to yield about 0.2% of GDP of additional revenue and reduction of subsidies by more than 0.2% GDP.

The budget and the convergence programme include fiscal stimulus actions, of which higher public investment (by more than 1% of GDP) and personal income tax cuts (estimated at about 0.6% of GDP) are the most important. However, both of them were planned well ahead of the financial crisis. The tax cut and the investment increase are planned as permanent in the programme period. In the specific anti-crisis plan ("Stability and Development Plan" announced on 30 November 2008), the Polish authorities intend to additionally increase public investment by about 0.3% of GDP.

The planned stance of fiscal policy in 2009, as measured by the change in the structural balance recalculated by the Commission services based on the projections in the convergence programme and the commonly agreed methodology, is restrictive, which does not appear to be consistent with the mainly expansionary measures presented in the table below. The cyclically-adjusted and structural balances need to be interpreted with caution as the statistical confidence band around the point estimates is wide (due to uncertain real-time estimates of output gaps and budgetary sensitivity to output gaps). The overall budgetary impact of the main budgetary measures points to an expansionary stance, according to the Commission forecast.

Table II. Main budgetary measures for 2009

Revenue measures[1]	Expenditure measures[2]
Measures in response to the downturn	
	• Investment (+0.3% of GDP)
Other measures	
• Personal income tax (−0.6% of GDP) • Excise duties (+0.2% of GDP)	• Investment (+1.1% of GDP) • Subsidies (−0.2% of GDP)

Note:

[1] Estimated impact on general government revenue

[2] Estimated impact on general government expenditure

Source: Commission services

Most of the specific anti-crisis measures in the "Stability and Development Plan" will not have any direct impact on the budget, as they are guarantees for inter-bank or corporate loans. The maximum limit fur such guarantees was increased by almost 2 percentage points to about 3% of GDP. In addition, a capital injection (about 0.15% of GDP) to the state-owned BGK bank is planned, with the intention to increase loans to small and medium-sized enterprises. The fiscal stimulus measures planned by Poland match with the general principles of the Commission Communication of 26 November 2008 on the European Economic Recovery Plan. The measures are targeted towards the source of the economic challenges, as they attempt to restore confidence in the banking sector. Most of these actions are of a temporary nature (additional guarantees to expire at the end of 2009, but may be extended if necessary). They will have both positive short-term (demand side) and long-term (supply side) effects, such as additional public investment in infrastructure. The programme provides a mix of expenditure and revenue instruments in line with the "menu" approach recommended in the Recovery Plan. The timeliness of measures is uncertain as their implementation appears to be slow.

Table III: Composition of the budgetary adjustment

(% of GDP)	2007	2008		2009		2010		2011	Change: 2008-2011
	COM	COM	CP	COM	CP	COM[1]	CP	CP	CP
Revenue	**40.0**	**39.6**	**39.8**	**40.2**	**40.7**	**40.3**	**40.0**	**39.7**	**-0.1**
of which:									
- Taxes on production and imports	14.2	14.3	14.3	14.8	14.8	14.9	14.7	14.6	0.3
- Current taxes on income, wealth, etc.	8.6	8.6	8.6	8.0	8.2	8.1	8.1	8.1	-0.5
- Social contributions	12.0	11.1	11.1	11.2	11.2	11.1	11.1	11.1	0.0
- Other (residual)	5.3	5.7	5.8	6.2	6.5	6.2	6.1	5.9	0.1
Expenditure	**42.0**	**42.1**	**42.6**	**43.8**	**43.2**	**43.7**	**42.4**	**41.7**	**-0.9**
of which:									
- Primary expenditure	39.5	39.9	40.2	41.4	40.6	41.6	39.9	39.3	-0.9
of which:									
Compensation of employees	9.6	9.8	9.8	10.0	9.8	9.8	9.5	9.1	-0.7
Intermediate consumption	6.0	5.5	5.5	5.3	5.2	5.2	5.0	4.9	-0.6
Social payments	16.2	16.5	16.6	17.0	16.4	16.9	16.0	15.5	-1.1
Subsidies	0.6	1.0	1.0	0.8	0.7	0.7	0.7	0.7	-0.3
Gross fixed capital formation	4.1	4.1	4.3	5.3	5.1	5.6	5.4	5.8	1.5
Other (residual)	3.0	3.0	3.0	3.1	3.3	3.4	3.3	3.2	0.2
- Interest expenditure	2.4	2.3	2.4	2.4	2.6	2.1	2.5	2.4	0.0
General government balance (GGB)	**-2.0**	**-2.5**	**-2.7**	**-3.6**	**-2.5**	**-3.5**	**-2.3**	**-1.9**	**0.8**
Primary balance	**0.5**	**-0.2**	**-0.3**	**-1.2**	**0.1**	**-1.3**	**0.2**	**0.5**	**0.8**
One-off and other temporary measures	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	0.0	0.0
GGB excl. one-offs	**-2.0**	**-2.5**	**-2.7**	**-3.6**	**-2.5**	**-3.3**	**-2.1**	**-1.9**	**0.8**
Output gap[2]	2.2	2.2	1.0	0.1	-0.1	-1.1	-0.6	-0.5	-1.5
Cyclically-adjusted balance[2]	-2.8	-3.4	-3.1	-3.7	-2.5	-3.0	-2.1	-1.7	1.4
Structural balance[3]	**-2.8**	**-3.4**	**-3.1**	**-3.7**	**-2.5**	**-2.9**	**-1.9**	**-1.7**	**1.4**
Change in structural balance		*-0.5*	*-0.3*	*-0.3*	*0.7*	*0.8*	*0.6*	*0.2*	
Structural primary balance[3]	-0.4	-1.1	-0.7	-1.2	0.1	-0.7	0.2	0.7	1.4
Change in structural primary balance		*-0.7*	*-0.3*	*-0.1*	*0.9*	*0.5*	*0.1*	*0.5*	

Notes:

[1]On a no-policy-change basis.

[2]Output gap (in % of potential GDP) and cyclically-adjusted balance according to the programme as recalculated by Commission services on the basis of the information in the programme.

[3]Structural (primary) balance = cyclically-adjusted (primary) balance excluding one-off and other temporary measures.

Source :

Convergence programme (CP); Commission services' January 2009 interim forecasts (COM); Commission services' calculations

4.3. Medium-term budgetary strategy

The medium term goal of the December 2008 convergence programme is to keep general government balances below 3% of GDP in a sustainable way, reducing them gradually in the programme period. It is admitted that the achievement of the medium-term objective (MTO), which is general government structural balance of −1% of GDP as in the previous updates of the programme, will have to be postponed beyond 2011 (which was a target year for achieving the MTO in the previous update) due to a significant revision of the macroeconomic scenario. The structural balance projected for 2011 as recalculated based on the programme figures is −1.7% of GDP. The planned stance of fiscal policy, as measured by the change in the recalculated structural balance, is restrictive. The headline general government balance to be achieved by the end of the programme period is set at −1.9% of GDP.

After 2009, the consolidation is planned to be achieved in the central government subsector followed by the social security funds. This reflects optimistic assumptions about the labour

market situation after 2009, such as employment growth quickly rebounding into positive area (compared to a decrease by 0.8% in 2010 according to the Commission services' January 2009 interim forecast) and nominal growth of compensation of employees per head of 5.4% in 2010 (compared to 3.7% according to the Commission services' forecast). Local government finances will deteriorate, being the main channel through which the EU structural funds will be spent and supplemented with domestic cofinancing. Out of the 0.6 percentage point improvement in the general government deficit after 2009, 0.2 percentage point is set to result from lower interest expenditure.

The adjustment path will be based on a sizeable expenditure reduction (ratio declining by 1.5 percentage point), while the revenue ratio is also decreasing, but less (1 percentage point). This can be growth-enhancing considering the suboptimal composition of public spending in Poland[2]. As a percent of GDP, social transfers other than in kind and compensation of employees are foreseen to decline significantly (implying annual average nominal growth of about 3-3½%). The achievement of the budgetary targets requires significant deficit-reducing measures (i.e. this is not a projection under a no-policy change assumption), which are not specified in the programme, considering that the average nominal growth of social transfers in kind was 4% despite low inflation (2%) recently (2002-2007, the discrepancy is estimated to be even higher in 2008). The generous indexation rule adopted in 2007 (annual, change in CPI plus 20% of wage growth) is not supportive to that end. The replacement of early pensions with less costly "bridge pensions" implemented in 2009 will not be sufficient to accomplish such big savings since it affects only new-comer beneficiaries. Also specific measures to reduce the growth rate of public sector wages should be revealed, as their planned 3% nominal growth may be incompatible with the current indexation rule for this sector (change in CPI plus 1 percentage point).

There can be a contradiction between the expenditure targets and the planned measures. In contrast with the planned deep reduction of total expenditure, several planned specific measures involve higher spending and savings only in a long term or indirectly (via a better performance of labour markets). These reforms encompass: upgrading transport infrastructure (motorways and railways), building stadiums and other sports infrastructure for the 2012 European football championship, increasing spending on education and research, active labour market policy towards older labour force segment (the "50+ programme"), extension of publicly financed maternity leave.

4.4. Risks to the budgetary targets

There are several risks to the budgetary targets. First and foremost, the macroeconomic scenario assumed in the December 2008 convergence programme is very optimistic (see Section 3). High assumed GDP growth entails a nominal overestimation of all revenues in 2009 and the following years. As a percent of GDP, expected revenue from direct taxes in 2009 appear on the high side due to more tax-rich GDP growth projected in the programme. Also high growth of revenue other than taxes, social contributions or property income in 2009 (by almost 20% nominally) is foreseen without any clear reason.

[2] European Commission (2008), *Poland: Macro Fiscal Assessment. An analysis of the March 2008 update of the convergence programme*, Directorate General Economic and Financial Affairs, http://ec.europa.eu/economy_finance/publications/publication12812_en.pdf

The macroeconomic scenario in the December 2008 convergence programme appears to assume that the fiscal stimulus measures in 2009 (personal income tax reduction and steep upsurge of public investment) will be very effective in fuelling growth. However, there are potential weaknesses in each of the planned measures which may reduce the actual effect. First, the personal income tax reduction is beneficial mainly for high-income tax-payers whose propensity to consume is low and propensity to save high. Consequently, the expected consumption boost can be limited. Second, as regards the investment expansion, it can be difficult to carry out considering the recent disappointing track record and significant underexecution due to administrative inefficiency and rigid legal framework.

If a less favourable macroeconomic scenario materialises, as demonstrated e.g. in the Commission services' January 2009 interim forecast, the proportion of all nominally fixed expenditure items to GDP will turn out higher than assumed by the government. In addition, some expenditure components, such as social transfers can be significantly higher in 2009 because of automatic stabilisers. The upward trend in subsidies ratio, which started in 2006, may not be reversed at the rate planned by the government due to sharply deteriorating financial situation in some industries with a risk of mass layoffs (e.g. possible losses in the still state-owned mining and railways). In the programme, subsidies are set to fall by about 25% nominally and the ratio of social transfers other than in kind by 0.1 percentage point.

Finally, the planned sharp reduction of expenditure growth for public sector wages and social transfers other than in kind after 2009 may be difficult to implement due to the current indexation rules and the approaching parliamentary elections (scheduled for autumn 2011).

The overall track record of Poland when it comes to respecting its budgetary targets is positive (see Figure 2 in Annex 2). However, this resulted to large extent from strong growth and windfall revenues as well as an underexecution of expenditure (mainly investment) due to administrative bottlenecks.

The overall assessment indicates that budgetary outcomes projected in the programme are subject to downside risks throughout the whole period covered by the current update. Optimistic GDP growth forecasts are the main reason. In addition, some expenditure components may be underestimated. For the outer years, the planned spending restraint may not be feasible in view of (i) the electoral cycle and (ii) the lack of clear specification of reform measures leading to significant expenditure reduction (while expenditure-increasing measures are specified).

5. DEBT DEVELOPMENTS AND LONG-TERM SUSTAINABILITY

5.1. Debt developments

The 2007 was a particularly favourably year for the Polish public finances, as high growth yielding windfall revenues and some underexecution of expenditure resulted in a reduction of the general government deficit to 2% of GDP. The December 2008 update of the convergence programme projects a small reduction in the gross debt ratio from almost 46% of GDP in 2008 to 45½% in 2010 and a further 0.7 percentage point decrease in 2011, whereas the Commission services' January 2009 interim forecast envisages a steep increase from 45½% in 2008 to slightly less than 50% in 2010. The differences in the primary deficit forecasts are the main reason for the discrepancy in the foreseen debt evolution paths. These different views may stem from the fact that the Commission services' forecast is made on a no-policy change

basis for 2010 while the Polish programme may assume additional corrective measures to be undertaken.

On the other hand, there is a risk of a future increase in financing needs stemming from the assumed interest rates. Despite the macroeconomic scenario with much higher GDP growth, the convergence programme projects practically the same short-term interest rates and only slightly higher long-term interest rates compared to the Commission services' forecast, especially for 2010. Finally, the debt ratios may turn out higher if the risk attached to additional guarantees for inter-bank and corporate loans turns out higher than assumed by the Polish authorities and capital transfers will have to increase when the guarantees are called. Stock-flow adjustment ratios are debt-increasing for the programme period, but should be becoming smaller gradually, in both the convergence programme and in the Commission forecast.

Table IV: Debt dynamics

(% of GDP)	average 2002-06	2007	2008		2009		2010		2011
			COM	CP	COM	CP	COM	CP	CP
Gross debt ratio[1]	**45.9**	**44.9**	**45.5**	**45.9**	**47.7**	**45.8**	**49.7**	**45.5**	**44.8**
Change in the ratio	2.0	-2.8	0.6	1.0	2.2	-0.1	2.0	-0.3	-0.7
Contributions[2]*:*									
1. Primary balance	**2.2**	**-0.5**	**0.2**	**0.3**	**1.2**	**-0.1**	**1.3**	**-0.2**	**-0.5**
2. "Snow-ball" effect	**0.2**	**-2.1**	**-1.3**	**-1.0**	**0.5**	**-0.2**	**0.0**	**-0.3**	**-0.6**
Of which:									
Interest expenditure	2.8	2.4	2.3	2.4	2.4	2.6	2.1	2.5	2.4
Growth effect	-1.7	-2.9	-2.1	-2.1	-0.9	-1.6	-1.1	-1.7	-1.9
Inflation effect	-0.9	-1.7	-1.5	-1.3	-1.0	-1.2	-1.0	-1.0	-1.1
3. Stock-flow adjustment	**-0.3**	**-0.1**	**1.7**	**1.8**	**0.5**	**0.2**	**0.7**	**0.2**	**0.4**
Of which:									
Cash/accruals diff.	-0.1	-0.4		-0.1		0.3		-0.2	-0.2
Acc. financial assets	-0.1	1.3		0.5		0.6		0.8	0.6
Privatisation	-0.5	-0.2		-0.1		-0.2		-0.3	-0.2
Val. effect & residual	-0.2	-0.9		-2.1		-3.6		-3.3	-3.0

Notes:

[1]End of period.

[2]The snow-ball effect captures the impact of interest expenditure on accumulated debt, as well as the impact of real GDP growth and inflation on the debt ratio (through the denominator). The stock-flow adjustment includes differences in cash and accrual accounting, accumulation of financial assets and valuation and other residual effects.

Source:

Convergence programme (CP); Commission services' January 2009 interim forecasts (COM); Commission services' calculations

5.2. Long-term debt projections and the sustainability of public finances

This section presents sustainability indicators based on the long-term age-related government spending as projected by the Member States and the EPC in 2006 according to an agreed methodology.[3]

Table 4 in Annex 2 shows that the projected dynamics in age-related spending are much below the EU average, falling by 3.2 percentage points of GDP between 2010 and 2050. Sustainability indicators for two scenarios are presented in Table 5 in the Annex. Assuming that the structural primary balance remained at its 2008 level and taking into account the decrease of age-related expenditure, Poland has no sustainability gap in the baseline scenario (S2 is negative, at -0.2% of GDP).[4] However, the starting budgetary position is not sufficient to stabilize the debt ratio over the long-term and entails a risk of unsustainable public finances before considering the long-term budgetary impact of ageing.

The programme plans a structural primary budgetary consolidation of 1.4% of GDP between 2008 and 2011; no sustainability gap emerges in the programme scenario either.

Based on the assumptions used for the calculation of the sustainability indicators, Figure 4 in the Annex displays the projected debt/GDP ratio over the long-term.

For an overall assessment of the sustainability of public finances, other relevant factors are taken into account, as shown in Table 6 in the Annex. Notably, the programme presents in qualitative terms pension reforms since 2004, which tend to increase pension expenditure.

Although the budgetary position in 2008 includes a small structural primary deficit based on the convergence programme, the long-term budgetary impact of ageing is among the lowest in the EU according to the projections made in 2005, which are based on the common methodology. Recent reforms, however, tend to raise expenditure in the long-term. Maintaining high primary surpluses over the medium term would contribute to limiting the risks to the sustainability of public finances, which are currently at a low level.

6. INSTITUTIONAL FEATURES OF PUBLIC FINANCES

The strength of Poland's medium term budgetary framework[5] is slightly below the EU average. Looking at the composition, efficiency and effectiveness of public expenditure, Poland has a relatively large share of public expenditure allocated to social protection at the cost of underspending in growth-enhancing categories (infrastructure and R&D) or those

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[3] Economic Policy Committee and the European Commission (2006), 'The impact of aging on public expenditure: projections for the EU-25 Member States on pensions, health care, long-term care, education and unemployment transfers (2004-50)', *European Economy − Special Report* No. 1/2006. European Commission (2006), The long-term sustainability of public finances in the European Union, European Economy No. 4/2006. European Commission (2008), *Public finances in EMU – 2008*, *European Economy* No. 4/2008.

[4] The S2 indicator is defined as the change in the current level of the structural primary balance required to make sure that the discounted value of future structural primary balances (including the path of property income) covers the current level of debt.

[5] Including such criteria as: the existence of a national medium-term budgetary framework (MTBF), connectedness between an MTBF and an annual budget, involvement of a national, coordination, monitoring and enforcement.

improving the quality of living (healthcare) as indicated by the COFOG data.[6] As far as the revenue side is concerned, the level of taxation is average but the tax system is overly complex and needs simplification. As indicated by the World Bank, Poland has one of the largest numbers of annual tax payments and working hours spent on an average payment.[7]

The December 2008 update of the convergence programme presents the intention of the government to improve the composition of public expenditure and spend relatively more on education, R&D, infrastructure and healthcare in parallel with increasing the efficiency and effectiveness of spending in these areas. While having an ambitious plans for investment in local and regional roads, railways and sea harbours, the government should better address the strategic instability in the execution of these plans, administrative bottlenecks and legal rigidities, which resulted in significant underexecution of plans. On the other hand, it appears reasonable that the government aims at gradually introducing some competition in healthcare insurances and harder budget constraints for hospitals through transforming them into companies (rather than prolonging soft budget constraints and repetitive accumulation of debts) while allocating more resources to public healthcare. However, the feasibility of reforms remains uncertain in this area, due to strong political resistance.

The convergence programme update mentions a planned amendment of the public finance law. It includes a reduction of the amount of autonomous public funds not directly controlled by central or local authorities, obligatory multiannual budgetary plans for the central state budget and local authorities as well as modified fiscal rules. Moreover, tougher debt rules will apply to the central budget: the rule pertaining to the debt ratio threshold, which triggers obligatory corrective action, will be reduced by 3 percentage points. As regards local government, the uniform thresholds as regards the maximum allowed debt ratios will be diversified and will depend on the creditworthiness of the respective local government. The creditworthiness is to be assessed on basis of the balance of current revenues minus current expenditure. These reforms seem reasonable, but they do not necessarily entail that the corrective actions, are those which are the most likely to restore sustainability of finances and limit the increase of expenditure which does not support growth.

The problem of improving the composition of expenditure is better addressed by performance budgeting ("task budgeting").[8] The December 2008 update of the convergence programme repeats the long-term plans for performance budgeting with a gradually increasing institutional coverage. The government's aim is to fully introduce performance by 2013.

7. ASSESSMENT

This section assesses the budgetary strategy, taking into account risks, in the light of (i) the adequacy of the fiscal stimulus package in response to the Commission Communication of 26 November 2008 on the European Economic Recovery Plan (EERP) as endorsed by the

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6 European Commission (2008), *Poland: Macro Fiscal Assessment. An analysis of the March 2008 update of the convergence programme*, Directorate General Economic and Financial Affairs, http://ec.europa.eu/economy_finance/publications/publication12812_en.pdf.

7 World Bank, Doing Business database.

8 Performance budgeting entails the evaluation of the effectiveness of public expenditure in achieving some targeted improvement in specific indicators.

European Council conclusions on the European Economic Recovery Plan (EERP) on 16 December 2008 and the overall fiscal stance (ii) the criteria for short-term action laid down the above mentioned Commission Communication, and (iii) the objectives of the Stability and Growth Pact.

The short-term measures are partly in line with the criteria mentioned in the Commission Communication of 26 November 2008, namely adequacy, temporariness, and timeliness and long-term sustainability of public finances. Poland is likely to avoid recession both in view of the government and according to the Commission services' January 2009 interim forecast. Therefore, the current stimulus package appears adequate. Since fiscal space is very limited as there is a risk of breaching the 3%-of-GDP reference value in 2009 and 2010, deficit-increasing stimulus measures should not be enhanced. The main measures with a budgetary impact, namely a personal income tax cut and an increase in public investment, are foreseen to be permanent. However, in the long-term increased public investment should also strengthen long-term potential growth and thus public finances, while the reduced personal income tax contributes to lowering the tax wedge which was relatively high in Poland. The sustainability of public finances will be improved by the replacement of early pensions with less costly "bridge pensions". On the other hand, lack of administrative capacity may hamper execution of investment plans. There is also uncertainty to which extent the personal income tax reduction will be effective in stimulating demand, considering the propensity to save. The main measures with no direct budgetary impact, which are the guarantees for inter-bank and corporate loans, are temporary, envisaged for 2009 only.

The planned budgetary targets do not provide a sufficient safety margin against breaching the 3%-of-GDP reference throughout the programme period, and as a consequence, given the macroeconomic fluctuations, Poland is likely to exceed the reference value in 2009 and 2010. A return to the MTO will require additional measures. The Polish authorities should reduce expenditure not related to investment projects or automatic stabilisers in 2009 and, for the following years, back up fiscal targets with specific expenditures measures with a sufficiently large deficit-decreasing impact.

ANNEX 1. SPECIAL TOPIC: UNFINISHED PENSION REFORM AND IMPACT ON REGIONAL DISPARITIES IN POLAND

1. FISCAL POLICY AND REGIONAL DISPARITIES

The composition of government spending, both in economic and geographical dimensions, can potentially have a strong impact on regional employment. On the one hand, targeted spending on active labour market policies, which enhances skills or temporarily tops up net wages, can reduce regional disparities. In addition, better local public infrastructure stimulates investment and job creation. On the other hand, high social transfers may reduce incentives to seek employment among the least-skilled and to be mobile, thus contributing to rising labour market inequalities across regions, as demonstrated by the experience of both old (Boeri and Perotti, 2001; Brunello et al., 2001) and new EU member states (Lelkes and Scharle, 2004). As a consequence, the inter-regional income redistribution, which is usually intended to be temporary and alleviate income disparities, may become permanent. Fiscal decentralisation can be expected to result in lower disparities (Gil et al., 2004) because local government should be able to adjust better the composition of expenditure to local needs (Oates, 1999). This decentralisation could comprise also some social transfers, which would be differentiated across regions to reflect local purchasing power or the cost of living, in order to avoid distorting the job-seeking and the migration incentives.

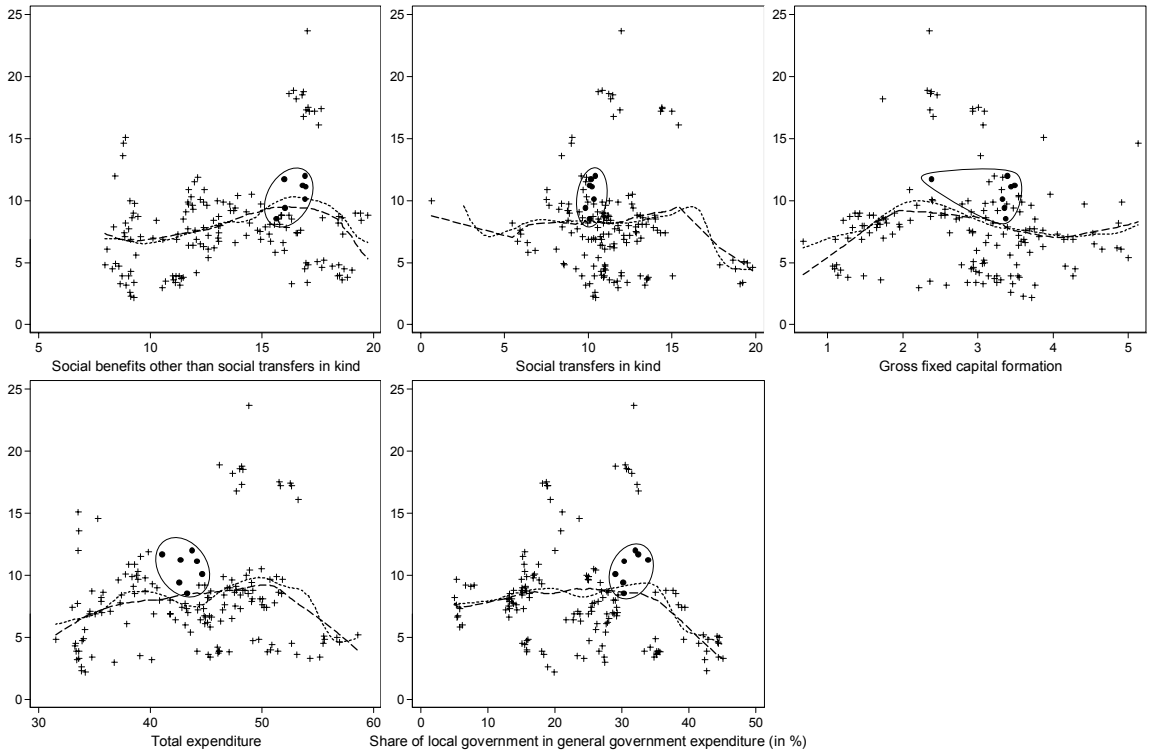
1.1. Public expenditure and regional employment disparities: Poland compared to other EU member states

There appears to be a strong link between public expenditure and the labour market performance in Poland: insufficiently targeted transfers could have contributed to relatively low employment and labour activity rates (European Commission, 2008). Furthermore, the impact is asymmetric across regions.

In general, one can notice a rough hump-shaped relationship[9] between different fiscal variables and regional employment dispersion based on non-parametric estimation for pooled cross-country time-series data for 19 EU member states (Figure 1). Regional employment dispersion in Poland was always above the "benchmark" curve for all the analysed public expenditure variables for almost all years since the end of 1990s. Moreover, the level of dispersion was quite high despite the level of fiscal decentralisation (as reflected by the share of local government in general government expenditure). The relatively high level of dispersion could be influenced by the structural features of social security systems in Poland: the composition of social spending (e.g. share of active versus passive social transfers) and other institutional arrangements (e.g. contribution-to-benefit ratios).

[9] This relationship can be explained with the Kuznets-Williamson curve if government expenditure ratios are proportional to income per capita and the regional employment variation is correlated with regional income variation.

Figure 1. The coefficient of employment variation across the NUTS-3 regions and general government expenditure in Poland and in a sample of EU member states in 1999-2006



Note: The coefficient of variation (vertical axes) is in %. All fiscal variables (horizontal axes) are in % of GDP, except for the share of local government expenditure in general government expenditure. Observations are pooled for countries and years. Curves show non-parametric fits: locally weighted regression is dashed and kernel-weighted local polynomial regression is dotted. Large outlined dots indicate the observations for Poland.

Source: Commission services.

With respect to Poland, regression analysis suggests that fiscal social transfers increase regional dispersion (see box). In other words, social benefits affect asymmetrically regions in Poland: they have a stronger employment-deterring effect in those regions where employment is already low compared to those regions where employment is higher. This finding supports calls for a regional differentiation of social benefits, in accordance with regional wages, unemployment levels or the cost of living, to reduce the reservation wage for the least skilled (Narożny, 2006). Also social transfers in kind, which include active labour market policies, do not seem to be effective in Poland (nor in the benchmark group) in reducing regional disparities. Finally, decentralisation of expenditure in Poland appears to contribute to increasing rather than decreasing employment dispersion,[10] contrary to theoretical propositions and the experience of other countries (Oates, 1999; Gil et al., 2004). This may be a signal of the high discrepancies among different regional authoritiees in their ability to stimulate employment.

[10]In the regression specification where endogeneity is controlled for (i.e. changing level of decentralisation in response to changing dispersion). This estimation does not consider the overall level of budgetary decentralisation which includes the decentralisation of revenues.

In sum, also for Poland the more general finding for the new EU member states applies that "tight fiscal policies, rather than being harmful to job creation, may actually improve the employment performance of the region" (Boeri and Garibaldi, 2006). Loose fiscal policies crowd out not only private investment, but also, indirectly, employment. This appears to be particularly true for social benefits.

Box: The impact of public finances on regional employment dispersion in Poland compared to other EU countries

The link between regional employment dispersion and different types of public expenditure in Poland compared to other countries can be analysed with panel-data regressions. This allows to discuss the impact of each spending component ceteris paribus, the role of country-specific effects and the issue of persistence in regional dispersion.

All the specifications render particularly robust results for social benefits in Poland. Whereas the corresponding benchmark coefficient (average impact for other member states) does not seem to be statistically different from zero, the coefficient for Poland points towards a relatively strong dispersion-increasing impact of social benefits. This does not mean that the impact in every other EU member state is insignificant, as possible positive effects for some countries and likely negative effects for other countries can offset each other. High expenditure on social benefits in Poland can be associated with high subsidies to the farmers' social fund (KRUS), high spending on early pensions and a still important role of disability benefits.

Fixed country effects (dummies) are used as a baseline specification. Since there can be some persistence in regional dispersion shocks, a regression with an AR(1) disturbance is also done. Finally, a robustness check against possible endogeneity (influence of dispersion on fiscal variables) is made, as governments can adjust the levels of different expenditure components in response to different employment dispersion levels. Lags of variables are used as instruments. In all specifications, the possible influence of the degree of decentralisation (share of local government in general government expenditure) and the degree of spatial complexity (number of the NUTS-3 regions) are controlled.

Table: Panel regressions explaining the coefficient of employment variation across the NUTS-3 regions in Poland and in a sample of EU member states in 1999-2006

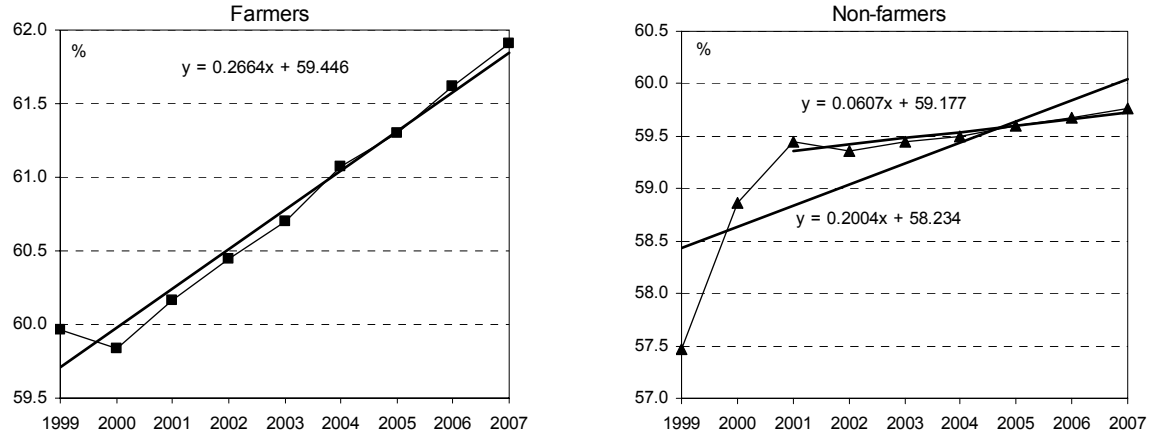
Estimation method	Fixed effects	Fixed eff. with AR(1)	Instrum. variables
Lagged coefficient of employment variation for NUTS-3	0.504***	0.558***	0.257
	[0.006]	[0.006]	[0.191]
Social benefits other than social transfers in kind	−0.005	−0.014	−0.015
	[0.944]	[0.858]	[0.890]
Social transfers in kind	0.007	0.023	−0.121
	[0.930]	[0.776]	[0.287]
Gross fixed capital formation	−0.002	−0.021	0.085
	[0.991]	[0.899]	[0.689]
Other expenditure	−0.114*	−0.114*	−0.181**
	[0.062]	[0.062]	[0.037]
Share of local government in general government expenditure	0.001	0.004	−0.041
	[0.930]	[0.805]	[0.141]
Social benefits other than in kind × Dummy for Poland	0.661	0.524	1.333**
	[0.134]	[0.269]	[0.018]
Social transfers in kind × Dummy for Poland	1.080*	1.250*	0.364
	[0.082]	[0.065]	[0.620]
Gross fixed capital formation × Dummy for Poland	−0.391	−0.300	−0.802*
	[0.274]	[0.440]	[0.071]
Other expenditure × Dummy for Poland	−0.512**	−0.577**	−0.149
	[0.025]	[0.024]	[0.514]
Share of local government × Dummy for Poland	0.260**	0.215	0.497***
	[0.047]	[0.122]	[0.004]
Number of NUTS-3 regions	0.013***	0.013***	0.160**
	[0.008]	[0.005]	[0.038]
Observations	131	131	111
Number of countries	20	20	20
R^2 within countries	0.349	0.348	0.293

Note: p-values in brackets: * p < 0.1, ** p < 0.05, *** p < 0.01. All explanatory variables in % of GDP, except the share of local government in general government expenditure and the number of regions. All standard errors are Huber-White heteroskedasticity-robust. The fixed-effects regression with an adjustment for an AR(1) disturbance is based on an autocorrelation parameter which minimizes the sum-of-squared errors of the transformed equation. The instrumental-variables regression is Arellano-Bond linear dynamic estimation.

1.2. Regional dispersion in the transfer recipients: general system versus farmers' system

Regional inactivity dispersion (as approximated with the coefficient of variation of the number of recipients of different types of social benefits at NUTS-2[11] in Poland) was not only increasing in general, but also has evolved very differently according to the type of social security system (Figure 2). The dispersion in the number of farmers benefitting from the farmers' social fund (KRUS) was increasing much faster than the corresponding ratio for non-farmers receiving transfers from the general system, especially in the recent years. This implies that the labour market situation of more rural regions has diverged more and more from the situation in other regions. The slow-down in regional dispersion growth of non-farmer beneficiaries took place after 1999, when the pension reform was implemented. The reform did not cover social benefits,[12] nor early pensions or KRUS, which are still pay-as-you go systems heavily subsidised by the central budget (European Commission, 2008).

Figure 2. Evolution of the coefficient of variation of the number of recipients of pensions and social benefits across the NUTS-2 regions in Poland



Source: Polish central statistical office (GUS).

Through increasing regional labour market discrepancies, the social security system for farmers (KRUS) seems to contribute to disparities in regional income per capita (Figure 3). First, there are relatively more recipients of farmers' social transfers (i.e. more inactive or less active people linked to KRUS) in the regions with lower GDP per capita. This link is particularly strong statistically (correlation of −0.75). In the general system (for non-farmers), there are more beneficiaries of social transfers in the regions with higher GDP per capita. Second, regions appear to grow slower when they have many recipients of transfers from KRUS. In contrast, the number of beneficiaries in the general system does not seem to be

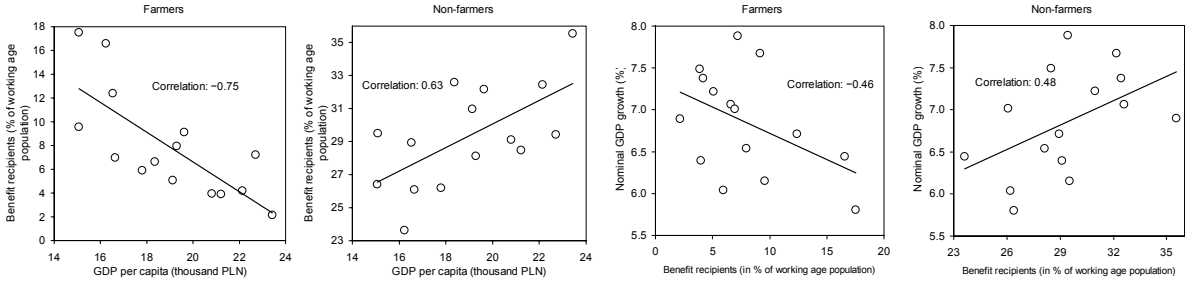
[11]This is a more aggregated level than in the previous section due to data availability.

[12]Disability benefits were reformed in the mid-2000s in the framework of the Hausner plan. The plan focused on the eligibility criteria, but did not harmonise the disability benefits with the reformed pension system, which is planned only now. The harmonisation intends to link the disability benefit to the individually accumulated capital in the pension fund (with (i) some capital imputed for the non-working period due to disability and (ii) a bottom limit for a benefit). This harmonisation is necessary to avoid a situation in which disability benefits are higher than pensions, which would discourage labour activity and private saving in the reformed pension funds.

negatively correlated with growth, probably thanks to the pension reform (more people able to work do work as there is now a direct link between individual wages and future individual pensions) and a better targeting of transfers than in KRUS (those who receive benefits from the general system would not be very productive e.g. because of real disability).

Both findings imply that KRUS appears to tie people with agriculture and subsequently de-activate them in relatively poor agriculture-dependent regions, thereby contributing to their slower restructuring and growth. Ultimately, KRUS can be one of the causes of the persistency of regional income disparities in Poland. Poorer regions, with less demand for processed products and sophisticated services, offer fewer alternative job opportunities, thus creating an environment for inactivity and closing a vicious circle of low labour activity and slow growth.

Figure 3. The ratio of the number of recipients of pensions and social benefits to working age population, GDP per capita and nominal GDP growth across the NUTS-2 regions in Poland, annual averages for 1999-2007



Note: An outlier, the capital region, is omitted. Nominal GDP growth rates (rather than real) are used because regional GDP deflators are not available.

Source: Polish central statistical office (GUS).

Moreover, since the farmers' pensions and benefits per capita are about 70% of the transfers in the general system on average[13] and this ratio has been declining[14] despite heavy subsidies, the beneficiaries of the farmers' fund are more endangered by the "poverty trap"[15].

Although the farmers' benefits are low, KRUS provides more opportunities and incentives for becoming a recipient than the general system, resulting in a positive correlation between the amounts transferred through KRUS per capita and the number of recipients (Figure 4). As regards the opportunities to join KRUS, the the strictness of the eligibility criteria is low and their application. It appears to be relatively easy to become a beneficiary of the farmers' fund (e.g. because of low minimum land size required) so the impact of the level of benefits on the decision to enter KRUS is relatively strong. As far as incentives to join KRUS and become inactive early are concerned, the high subsidisation of the farmers' system, which makes the benefits practically unrelated to duration and level of contributions (which are small), is also likely to reduce labour market activity. For non-farmers, who are a more heterogeneous group

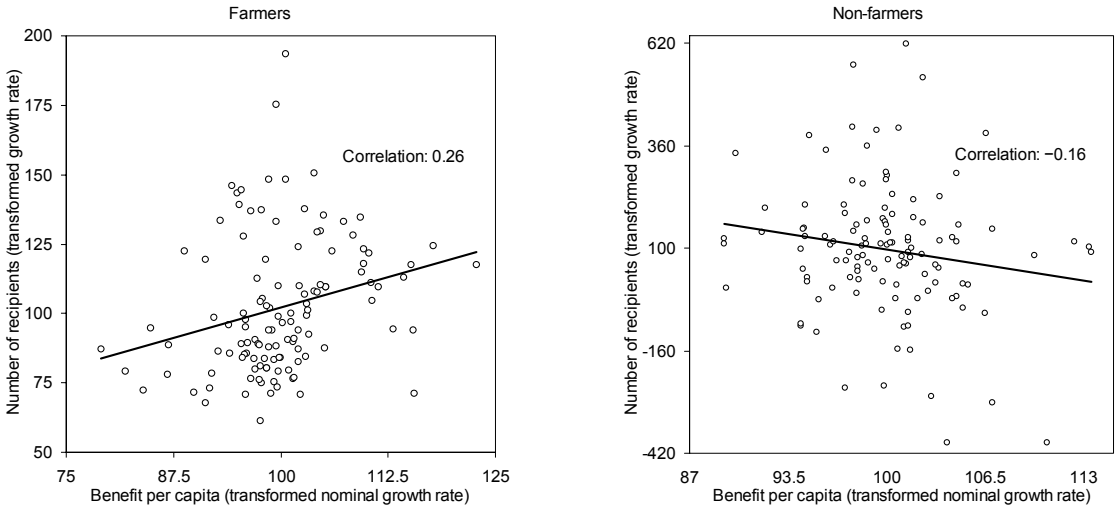
[13]The lowest regional ratio of farmers' pensions and benefits per capita to pensions and benefits per capita in the general system was about 60% in 2007.

[14]By about 1 percentage point per year in the period 1999-2007.

[15]"Poverty trap" is meant here as gross benefit per capita rather than net income per capita.

compared to the farmers, the seemingly negative link between the growth of benefits and the increase in the number of beneficiaries (statistically not very strong) may result from the fact that it is mainly the low-skilled, who have used the opportunity to shorten their labour market activity period and receive disability benefits or early pensions. For the higher-skilled, these low transfers in per capita terms were apparently not attractive compared to a salary i.e. the income replacement ratio was too low.

Figure 4. The growth of the number of recipients of pensions and social benefits and the growth of pensions and benefits per capita across the NUTS-2 regions in Poland in 1999-2007



Note: Observations are pooled for regions and years. Both variables are transformed to avoid a spurious relationship due to countrywide growth of each variable: the growth rate of the number of recipients and the nominal growth rate of benefit per capita are divided by respective country averages across regions for each year. Therefore, the scale should be interpreted as a percentage deviation for a given year and region from the longer-term country average. In standard estimations, the coefficient of benefit per capita (transformed) is significant at 1% for farmers and not significant at 5% for non-farmers. In bootstrap estimation (performed due to some deviation of residuals from normality), the coefficient of benefit per capita (transformed) is significant at 0.1% for farmers.

Source: Polish central statistical office (GUS).

2. REGIONAL DISPARITIES IN POLAND

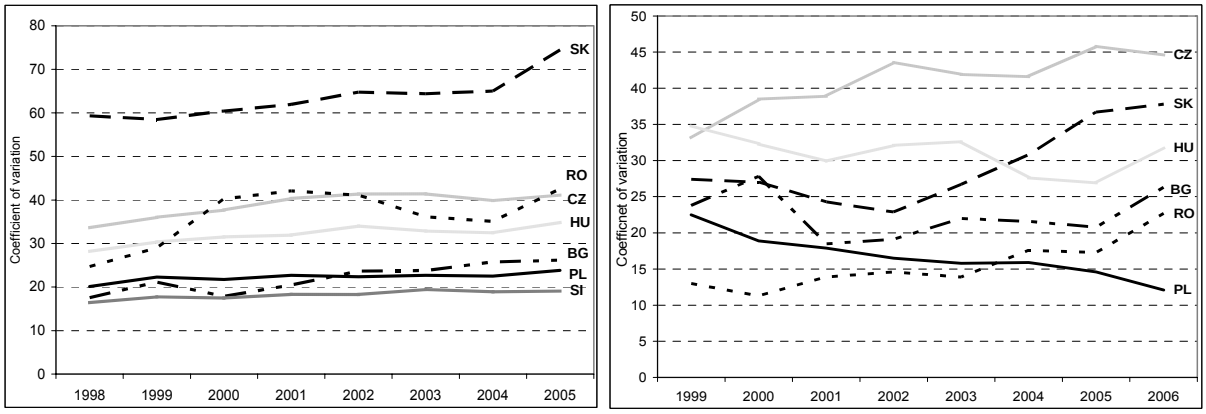
Strong economic growth, associated with a catching-up process, leads to an increase in regional imbalances (as depicted in the Kuznets-Williamson curve, see e.g. Barrios and Strobl, 2005; Campano and Salvatore, 2007; Szörfi, 2007). However, further sustainable growth is not possible in an environment of high inequalities, which include also regional disparities. The standard argument is that inequalities entail either considerable instability or high redistribution, which both are harmful for investment (Kaldor, 1956; Persson and Tabellini, 1994). Therefore, growth-supporting government policies, including public finances, should attempt mitigating regional income and labour market disparities, especially in Poland, where a strong link between public expenditure and labour market performance was found in the previous scene setter (European Commission, 2008b).

2.1. Income disparities across Polish regions

Regional disparities, according to the Kuznets-Williamson inverted U-curve hypothesis, are increasing in the early stages of economic development on the back of uneven spatial coverage of technological progress (Barrios and Strobl, 2005), the privileged position of developed areas in terms of capital and labour mobility, the location of decision-makers and interregional linkages (Williamson, 1965). However, for countries at later stages of economic development, higher factor costs and diseconomies of agglomeration, matched with knowledge spillovers should lead to spatial convergence (Szörfi, 2007).

Figure 5. Regional disparities in the RAMS-7(6) at NUTS-2 level

GDP **Unemployment**



Source: Eurostat, Commission services' calculations

While the income levels were growing steadily in these countries, within-country regional disparities in the RAMS-7 at NUTS2 increased substantially in the period 1995-2005.[16] Regional income disparities are particularly high in Slovakia (European Commission, 2008a), whereas in Poland they are lower than the average for the analysed countries (Figure 5).[17] Relatively low spatial divergence of Polish regions can be explained by the size of the country, the proximity to the West (Petrakos, 2001) and by the spatial aggregation at NUTS-2 level which hides very high inequalities between sub-regions.[18] GDP per capita varies across Polish regions along three dimensions: (i) a persisting gap between western and eastern Poland, (ii) increasing disparities between the fast-growing Warsaw region and the rest of the country, and (iii) rising intra-regional differences, mainly due to urban-rural divide.

While GDP per capita reached 82% of the EU-27 average in Mazowieckie region (includes Warsaw), it amounted to less than 40% of the EU-27 average in the 5 eastern regions (Lubelskie, Podkarpackie, Swietokrzyskie, Podlaskie and Warminsko-Mazurskie). The differences in the spatial distribution of income stem from inherited trends in sectoral

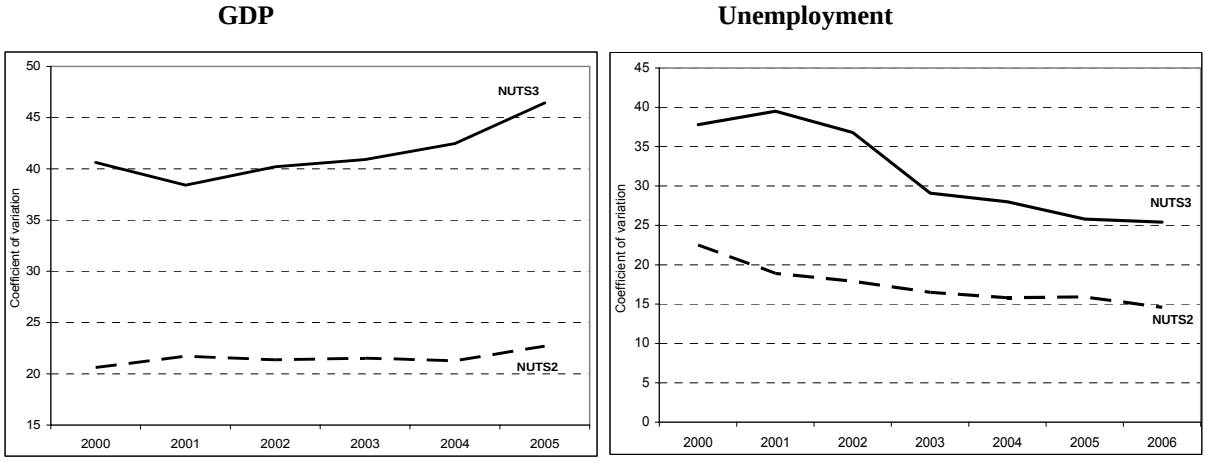
[16] Latvia, Lithuania and Estonia are not included in the sample, as in these countries the NUTS-2 corresponds to the territory of the country.

[17] The use of different measures of regional convergence (Gini index and maximum to minimum ratios) corroborates these results.

[18] The relatively favourable situation in terms of unemployment disparities, as measured by the coefficient of variation, is partly resulting from much higher average unemployment in Poland compared to other RAMS.

specialisation, human and social capital endowments and institutional development. Poland's eastern regions are among the poorest in the EU-27 as a result of the low-productivity agricultural sector, the distance to well-developed European regions and poor infrastructure, which undermines their investment attractiveness (Petrakos, 2001). On the other hand, the Mazowieckie region, which surrounds Warsaw, has used its privileged location and has been growing much faster than the other Polish regions playing an important role in the widening of the regional disparities.

Figure 6. Regional disparities in Polish NUTS-2 and NUTS-3 regions



Source: GUS, Commission services' calculations

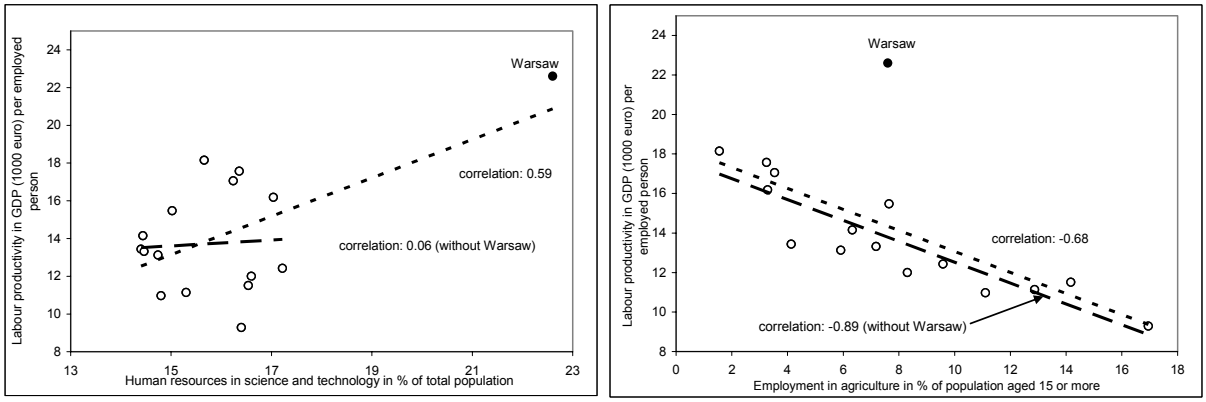
While disparities in GDP per capita at regional level in Poland are relatively subdued, at intra-regional level (NUTS-3) they rank among the highest in the OECD (OECD, 2008). Intra-regional disparities are explained by the growing gap between, on the one hand, low productivity agricultural areas and small/medium-size towns undergoing industrial restructuring and, on the other hand, fast growing urban areas developing services and medium to high-tech industries. Indeed, a high correlation between population density and output per capita was found pointing to importance of urban centres for regional development (Bukowski et al., 2007).

2.2. Regional labour markets

Regional labour markets in Poland exhibit similar characteristics to other countries in the region: a much better situation of the urban centres and surrounding regions in comparison to the periphery. However, regional GDP levels do not explain everything as low unemployment levels can be observed in regions with high output per capita (usually metropolitan areas) and in regions with low output per capita (Eastern Poland).[19] This stems from the fact that the situation in the labour markets at the regional and local level is strongly linked to the scale and type of agricultural activity, past experiences with industrial restructuring (e.g. Silesia) and reduced mobility of Polish workers.

[19] The analysis in this section is based on NUTS-2 data due to data availability.

Figure 7. Determinants of labour productivity across NUTS-2 regions in Poland in 2001-2005

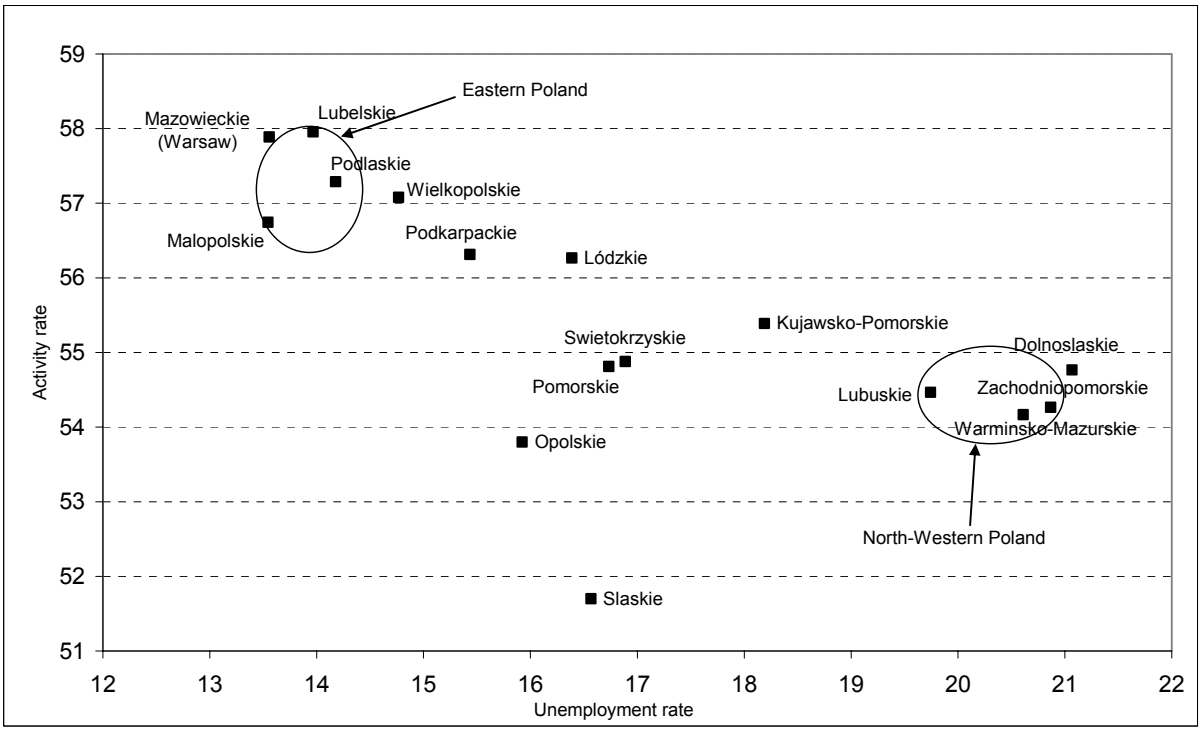


Source: Eurostat, Commission services' calculations.

Labour productivity is the highest in Mazowieckie and Slaskie regions and the lowest in Lubelskie, Podkarpackie, Swietokrzyskie and Podlaskie where employment is concentrated in subsistence agriculture. The negative correlation between labour productivity and the share of employment in agriculture stems from the low productivity in agriculture, as it is underinvested, with a high share of hidden unemployment and a small size of agricultural holdings, especially in Eastern Poland (Figure 7). The scale of hidden unemployment in agriculture (employment in the sector above the level consistent with potential labour productivity) was estimated at about 1.8-1.9 million people in 1996-2001, over 60% of employment in the sector, with the largest hidden unemployment in Mazowieckie, Lubelskie, Malopolskie and Podkarpackie (Kwiatkowski, Kucharski and Tokarski, 2004). On the other hand, hidden unemployment and overall employment in agriculture tends to be low in the North-Western part of Poland, where the liquidation of state-owned farms resulted directly in high unemployment. Apart from the sectoral structure of GDP and employment, labour productivity differentiation is also explained by regional disparities in the physical capital stock per employee (Tokarski, 2005). Finally, differences in human capital (as measured by human resources in science and technology) play a role as high employment in agriculture in several regions coexists with low levels of education and investment in human capital, while human capital investment concentrates in the Warsaw region.

Urban regions show substantially lower unemployment rates and slightly higher participation rates than the rural areas. At the regional level (NUTS-2), the North-Western part of Poland (Kujawsko-Pomorskie, Lubuskie, Warminskie, Zachodniopomorskie) is characterised by low employment rates stemming from the low share of employment in the relatively highly productive agriculture, which was successfully transformed into high areal, relatively well capitalised private farming after the fall of state-owned farms at the expense of persistently high unemployment (Figure 8). In the Dolnoslaskie region high unemployment results from relatively deep restructuring of the industry in the beginning of 90-ties. On the other hand low unemployment and high employment in Eastern Poland is driven by the share of hidden unemployment in agriculture.

Figure 8. Activity and unemployment rates across Polish regions in 1999-2007



Note: Both unemployment and activity rates are in % of population aged 15 and more, averages for 1999-2007.
Source: Eurostat.

The differences in unemployment and employment rates between regions are persistent in time as usual mechanisms of regional equalisation such as migration, wage flexibility and investment are relatively inefficient in Poland. Internal migration is low and the regions with the lowest migration rates are also the most disadvantaged agricultural regions (Kwiatkowski, Kucharski and Tokarski, 2004). In general, migration is found to be ineffective in reducing regional disparities in the RAMS (Fidrmuc, 2004). Wage flexibility is comparable to the EU-15 levels, but minimum wages are fixed at the national level impacting negatively on differences between unemployment rates across regions. Finally, FDI tend to be spatially concentrated in metropolitan areas and western Poland due to border effects and increases the disparities among regions (Pavlinek, 2004).

3. CONCLUSIONS

Regional income disparities in Poland are steadily growing in line with the Williamson hypothesis, though on average they are smaller than in the other RAMS at NUTS-2 level. However, the spatial aggregation at NUTS-2 level hides very high inequalities between sub-regions. Persistent disparities in employment, unemployment and labour productivity across Polish regions stem from different paths of restructuring in agriculture, human capital endowment and spatial concentration of investment in metropolitan areas.

Too high regional inequalities can be harmful for economic growth. Some parts of public spending in Poland appear to increase regional labour market disparities. In particular, the farmers' social fund (KRUS) seems to contribute to the increasing dispersion in the number of recipients of social transfers. KRUS beneficiaries are apparently sensitive to the level of

benefits which are poorly related to their labour activity (duration or level of contributions) and which are low, thus creating a potential "poverty trap". In contrast, the pension reform, which tightly linked pensions to life-time income in the general system, appears to have slowed down regional dispersion. Nevertheless, there remain domains in the general system not covered by the reform, such as disability benefits and early pensions, which still encouraged low-skilled to become less active or inactive.

These findings support calls for a thorough reform of KRUS. Optimally, KRUS should be integrated with the reformed general system which entails that wage-related contributions should fully finance individual future benefits. Social assistance should be detached from the old-age saving or disability insurance, means-tested and precisely targeted to those who are really unable to remain active. In the general system, early pensions should be abandoned and the saved funds could be shifted to activity-stimulating transfers such as e.g. on-the-job training subsidies or wage top-ups for the least-skilled. Finally, regional differentiation of social benefits could be introduced, taking into account differences in the cost of living and stimulate mobility by reducing incentives to stay in underdeveloped regions.

REFERENCES

Barrios, S. and E. Strobl (2005), "The dynamics of regional inequalities", European Commission, European Economy Economic Papers, No. 229.

Bukowski, M. et al. (2007), "Employment in Poland 2006: productivity and jobs", Ministry of Labour and Social Policy

Boeri, T. and P. Garibaldi (2006), "Are labour markets in the new member states sufficiently flexible for EMU?", *Journal of Banking & Finance*, Vol. 30, pp. 1393-1407.

Boeri, T. and R. Perotti (2001), "Less Pensions, More Welfare", Paper presented at the conference on The Frontiers of Economic Research in Italy, Rome, September.

Brunello, G., C. Lupi and P. Ordine (2001), "Widening differences in Italian regional unemployment", *Labour Economics*, Vol. 8, pp. 103-129.

Campano, F. and D. Salvatore (2007), "Economic development and income distribution", *Journal of Policy Modeling*, Vol. 29, pp. 553-566.

European Commission (2008a), "Slovakia: Macro Fiscal Assessment. An analysis of the November 2007 update of the convergence programme", Directorate General Economic and Financial Affairs, ECFIN/2008-EN-50299.

European Commission (2008b), "Poland: Macro Fiscal Assessment. An analysis of the March 2008 update of the convergence programme", Directorate General Economic and Financial Affairs, ECFIN/2008-EN-52601.

Fidrmuc, J. (2004), "Migration and regional adjustment to asymmetric shocks in transition economies", *Journal of Comparative Economics,* Vol 32, pp. 230-247.

Gil, C., P. Pascual and M. Rapún (2004), "Regional economic disparities and decentralisation", *Urban Studies*, Vol. 41, pp. 71-94.

Kaldor, N. (1956), "Alternative Theories of Distribution", *Review of Economic Studies*, Vol. 23, pp. 94-100.

Kwiatkowski, E., P. Gajewski and T. Tokarski (2004), "Agricultural regions and regional policy in Poland", Research Project commissioned by the European Commission, Contract No. VC/2003/0367

Lelkes, O. and Á. Scharle (2004), "Low Participation among Older Men and the Disincentive Effects of Social Transfers: The Case of Hungary", TÁRKI Social Report Reprint Series, No 13.

Narożny, M. (2006), "High unemployment in Poland – not only a labour market problem", European Commission, Directorate General Economic and Financial Affairs, Country Focus, No. 6.

Oates, W. E. (1999), "An Essay on Fiscal Federalism", *Journal of Economic Literature*, Vol. 37, pp. 1120-1149.

OECD (2008), National Territorial Review of Poland, GOV/TDPC(2008)2

Pavlinek, P. (2004), "Regional Development Implications of Foreign Direct Investment in Central Europe", *European Urban and Regional Studies*, 11(1), pp. 47-70

Persson, T. and G. Tabellini (1994), "Is Inequality Harmful for Growth?", *American Economic Review*, Vol. 84, pp. 600-621.

Petrakos, G. (2001), "Patterns of Regional Inequality in Transition Economies", *European Planning Studies*, 9:3, pp. 359-383.

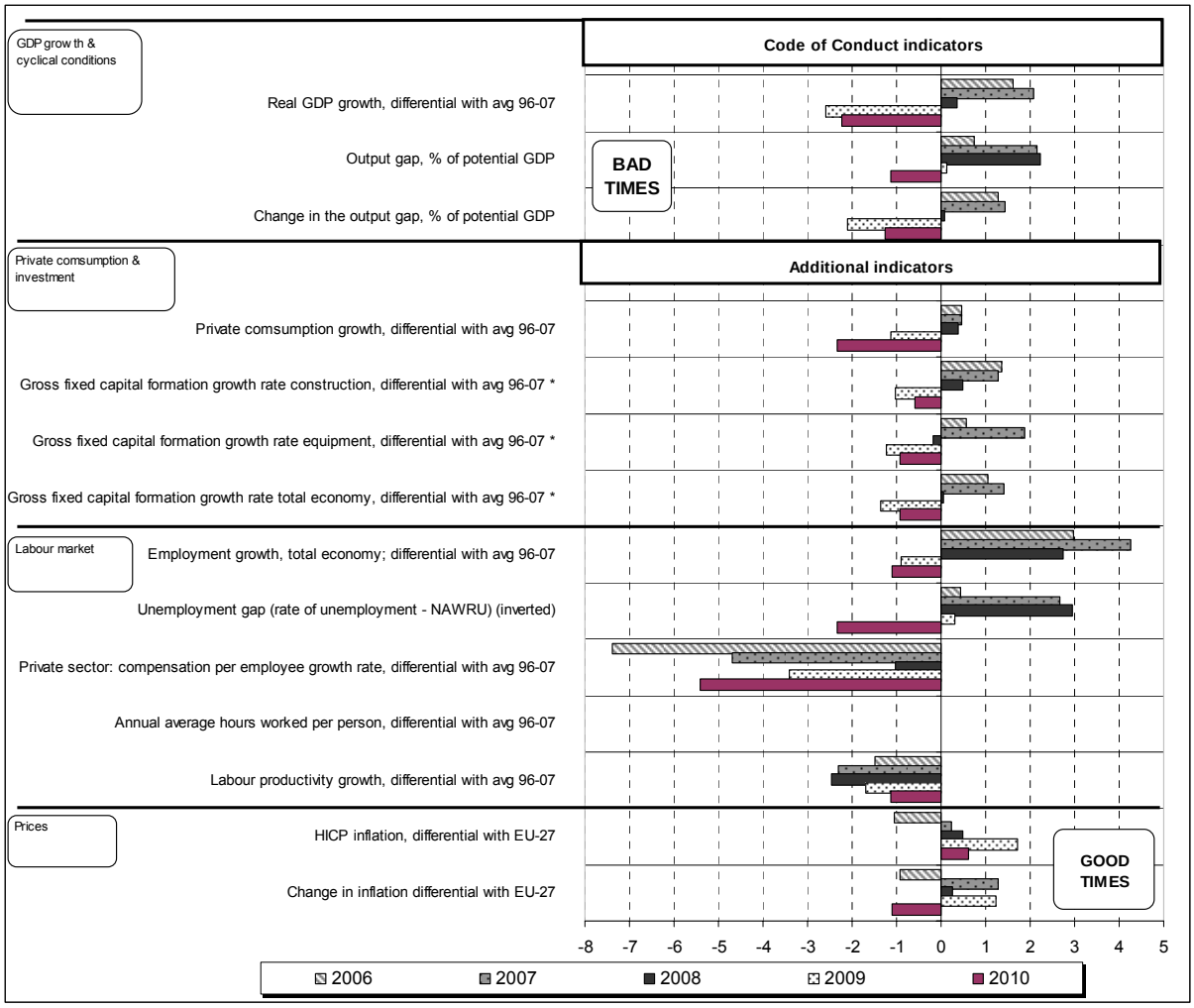
Szörfi, B. (2007), "Development and Regional Disparities – Testing the Williamson Curve Hypothesis in the European Union", Oesterreichische Nationalbank, Focus on European Economic Integration, No. 2/07, pp. 100-121.

Tokarski, T. (2005), "The differentation of the economic development in the Polish regions and sub-regions" in: *The Dillemas of Economic Policy, Development and Regional Economic Intergration* (ed. Bukowski S.), pp. 97-119.

Williamson, J.G. (1965), "Regional Inequality and the Process of National Development: A Description of the Patterns", *Economic Development and Cultural Change,* Vol. 13, No. 4, part 2, pp. 1-84.

ANNEX 2. ADDITIONAL TABLES AND FIGURES

Figure 1: Good and bad economic times



* These variables have been divided by their standard deviation over the period 2003-2010, with a view to reducing their variability relative to other variables in the graph.

Source: Commission services' January 2009 forecast (COM)

Table 1: Budgetary implementation in 2008

	2007		2008	
	Planned CP Mar 2008	**Outcome CP Dec 2008**	**Planned CP Mar 2008**	**Outcome CP Dec 2008**
Government balance (% of GDP)	-2.0	-2.0	-2.5	-2.7
Difference compared to target	**0.0**		**-0.2**	
Of which : due to a different starting position end 2007			0.0	
due to different revenue / expenditure growth in 2008			-0.6	
p.m. Denominator effect and residual [2,3]			0.0	
p.m. Nominal GDP growth (planned and outcome)			9.2	8.4
Revenue (% of GDP)	40.0	40.0	40.0	39.8
Revenue surprise compared to target [1]	**0.0**		**-0.2**	
Of which : due to a different starting position end 2007			0.0	
due to different revenue growth in 2008			-0.5	
p.m. Denominator effect [2]			0.3	
p.m. Residual [3]			0.0	
p.m. Revenue growth rate (planned and outcome)			9.2	7.9
Expenditure (% of GDP)	42.0	42.0	42.5	42.6
Expenditure surprise compared to target [1]	**0.0**		**-0.1**	
Of which : due to different starting position end 2007			0.0	
due to different expenditure growth rate in 2008			0.2	
p.m. Denominator effect [2]			-0.3	
p.m. Residual [3]			0.0	
p.m. Expenditure growth rate (planned and outcome)			10.5	9.9

Notes:

[1] A positive number implies that the outcome was better (in terms of government balance) than planned.

[2] The denominator effect captures the mechanical effect that, if GDP turns out higher than planned, the ratio of revenue or expenditure to GDP will fall because of a higher denominator. Although the denominator effect can be very significant for revenue and

[3] The decomposition leaves a small residual that cannot be assigned to the previous components. The residual is generally small, except in some cases where planned and actual growth rates of revenue, expenditure and GDP differ significantly.

Source : Commission services

Table 2: Evolution of budgetary targets in successive programmes

		2007	2008	2009	2010	2011
General government balance (% of GDP)	**CP Dec 2008**	**-2.0**	**-2.7**	**-2.5**	**-2.3**	**-1.9**
	CP Mar 2008	*-2.0*	*-2.5*	*-2.0*	*-1.5*	*n.a.*
	COM Jan 2009	-2.0	-2.5	-3.6	-3.5	n.a.
General government expenditure (% of GDP)	**CP Dec 2008**	**42.0**	**42.6**	**43.2**	**42.4**	**41.7**
	CP Mar 2008	*42.0*	*42.5*	*41.2*	*40.1*	*n.a.*
	COM Jan 2009	42.0	42.1	43.8	43.7	n.a.
General government revenue (% of GDP)	**CP Dec 2008**	**40.0**	**39.8**	**40.7**	**40.0**	**39.7**
	CP Mar 2008	*40.0*	*40.0*	*39.2*	*38.7*	*n.a.*
	COM Jan 2009	40.0	39.6	40.2	40.3	n.a.
Structural balance[1] (% of GDP)	**CP Dec 2008**	**-2.5**	**-3.1**	**-2.5**	**-2.3**	**-1.7**
	CP Mar 2008	*-2.2*	*-2.7*	*-2.1*	*-1.4*	*n.a.*
	COM Jan 2009	-2.8	-3.4	-3.7	-2.9	n.a.
Real GDP (% change)	**CP Dec 2008**	**6.7**	**5.1**	**3.7**	**4.0**	**4.5**
	CP Mar 2008	*6.5*	*5.3*	*5.0*	*5.0*	*n.a.*
	COM Jan 2009	6.7	5.0	2.0	2.4	n.a.

Note:

[1]Cyclically-adjusted balance excluding one-off and other temporary measures. Cyclically-adjusted balances according to the programmes as recalculated by the Commission services on the basis of the information in the programmes. One-off and other temporary measures are 0.2% in 2010, deficit-increasing, and zero for other years according to the most recent programme and the Commission services' January 2009 interim forecast.

Source :
Convergence programmes (CP); Commission services' January 2009 interim forecasts (COM)

Table 3: Assessment of tax projections

	2009			2010			2011
	CP	**COM**	**OECD[3]**	**CP**	**COM[1]**	**OECD[3]**	**CP**
Change in tax-to-GDP ratio (total taxes)	0.2	0.1	-0.2	-0.3	0.1	-0.2	-0.1
Difference (CP – COM)	0.1		/	0.1		/	/
of which [2] :							
- discretionary and elasticity component	*0.6*		/	*0.6*		/	/
- composition component	*0.2*		/	*-0.4*		/	/
Difference (COM - OECD)	/	0.3		/	0.3		/
of which [2] :							
- discretionary and elasticity component	/	*-0.4*		/	*0.4*		/
- composition component	/	*0.6*		/	*-0.1*		/
p.m.: Elasticity to GDP	1.1	1.1	0.9	0.9	1.1	0.9	1.0

Notes:

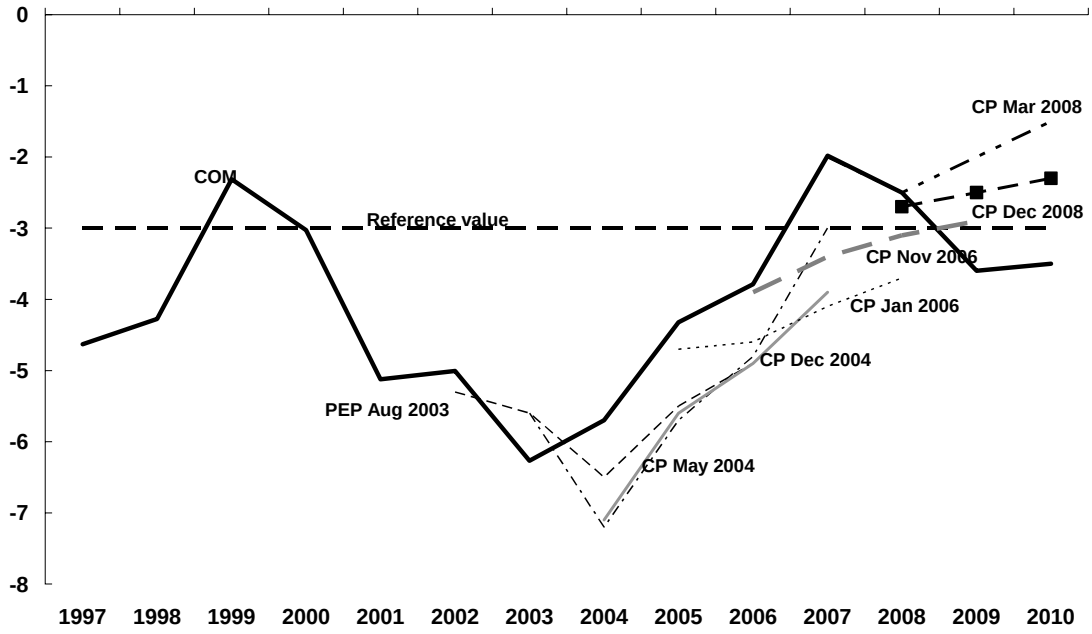
[1]On a no-policy change basis.

[2]The composition component captures the effect of differences in the composition of aggregate demand (more tax rich or more tax poor components). The discretionary and elasticity component captures the effect of discretionary fiscal policy measures as well as variations of the yield of the tax system that may result from factors such as time lags and variations of taxable income that do not necessarily move in line with GDP, e.g. capital gains. The two components may not add up to the total difference because of a residual component, which is generally small.

[3]OECD ex-ante elasticity relative to GDP.

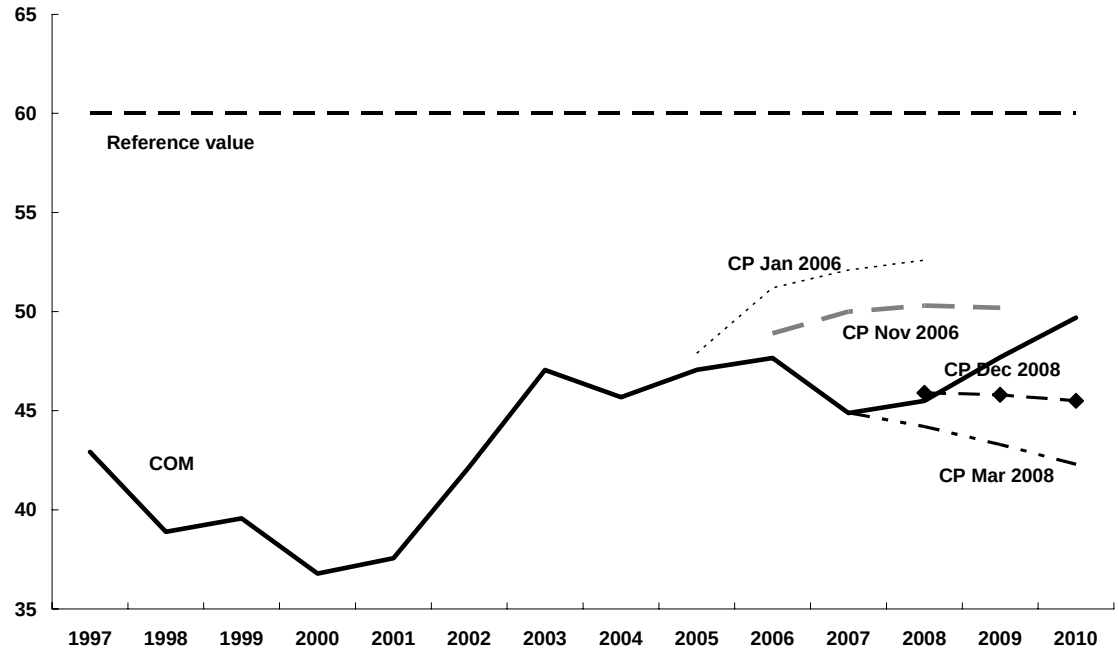
Source :
Commission services' January 2009 interim forecasts (COM); Convergence programme (CP); Commission services' calculations; OECD (N. Girouard and C. André (2005), "Measuring Cyclically-Adjusted Budget Balances for the OECD Countries", OECD Working Paper No. 434).

Figure 2: Government balance projections in successive programmes (% of GDP)



Source: Commission services' January 2009 interim forecast (COM) and successive convergence programmes

Figure 3: Debt projections in successive programmes (% of GDP)



Source: Commission services' January 2009 interim forecast (COM) and successive convergence programmes

Table 4: Long-term age-related expenditure: main projections

(% of GDP)	2004	2010	2020	2030	2040	2050	Change 2010- 50
Total age-related spending	**23.7**	**20.2**	**17.9**	**17.6**	**17.3**	**17.0**	**-3.2**
- Pensions	13.9	11.3	9.7	9.2	8.6	8.0	-3.3
- Healthcare	4.1	4.4	4.8	5.1	5.3	5.5	1.1
- Long-term care	0.1	0.1	0.1	0.1	0.2	0.2	0.1
- Education	5.0	3.9	3.0	3.0	3.0	3.1	-0.8
- Unemployment benefits	0.5	0.4	0.3	0.2	0.2	0.2	-0.2
Property income received	**1.9**	**1.6**	**1.3**	**1.1**	**1.0**	**1.0**	**-0.6**

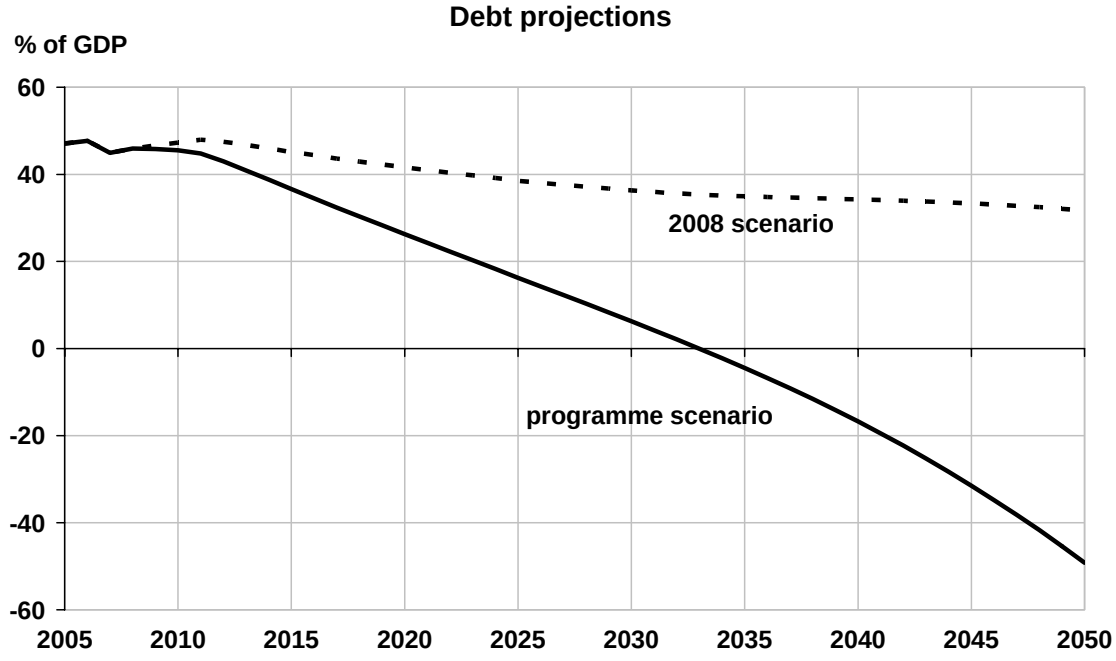
Source: Economic Policy Committee and Commission services.

Table 5: Sustainability indicators and the required primary balance

	2008 scenario			Programme scenario		
	S1	**S2**	**RPB**	**S1**	**S2**	**RPB**
Value	-0.5	-0.2	0.1	-2.0	-1.6	0.1
of which:						
Initial budgetary position (IBP)	1.6	2.0	-	0.1	0.5	-
Debt requirement in 2050 (DR)	-0.2	-	-	-0.3	-	-
Long-term change in the primary balance (LTC)	-1.9	-2.2	-	-1.9	-2.2	-

Source: Commission services.

Figure 4: Long-term projections for the government debt ratio



Note: Being a mechanical, partial-equilibrium analysis, the long-term debt projections are bound to show highly accentuated profiles. As a consequence, the projected evolution of debt levels should not be seen as a forecast similar to the Commission services' short-term forecasts, but as an indication of the risks faced by Member States.
Source: Commission services.

Table 6: Additional factors

	Impact on risk
Debt and pension assets	na
Decline in structural balance until 2010 in COM autumn forecast 2008	na
Significant revenues from pension taxation	na
Alternative projection of cost of ageing	na
Strong decline in benefit ratio	-
High tax burden	na
Non-age related budgetary measures with intertemporal effect	na

Note: '-': factor tends to increase the risk to sustainability, '+': factor tends to decrease the risk to sustainability.
'na': not applicable.
Alternative projections are often presented in the programmes, whose assumptions often diverge from the common method. Projections currently discussed in the Economic Policy Committee but not yet published, are for the time being also considered "unofficial".
An explanation on these factors can be found in chapter IV of: European Commission (2006), The long-term sustainability of public finances in the European Union, European Economy No. 4/2006.
Source: Commission services.

ANNEX 3. COMPLIANCE WITH THE CODE OF CONDUCT AND TABLES FROM THE PROGRAMME

The update adheres to the code of conduct as far as its table of contents is concerned. The update presents all the compulsory data. However, there are some gaps in the optional data.

In particular, the table on labour market developments provides no information on employment in hours worked or labour productivity in hours worked. The table on cyclical developments does not include a split in the contributions from labour, capital and total factor productivity to potential growth. This gap results from the national method used for estimating potential GDP (HP filter rather than production function). The table on long-term sustainability of public finances does not contain projections for total expenditure, occupational pensions in general government, total revenue, property income, and pension reserve fund assets. The table with sectoral balances does not include the statistical discrepancy. In addition, the presented non-compulsory estimation of the pension reform cost is not consistent with the difference between the general government deficit as reported until March 2007 (when the funded pension schemes were included in the general government) and after that date (when the funded pension funds were excluded from the general government). The cost reported in the current programme appears overestimated due to the inclusion of foregone revenues and extra expenditure not directly related to the pension reform.

The tables on the following pages show the data presented in the December 2008 update of convergence programme, following the structure of the tables in Annex 2 of the code of conduct. Compulsory data are in bold, missing data are indicated with grey-shading.

Table 1a. Macroeconomic prospects

	ESA Code	2007	2007	2008	2009	2010	2011
		Level	rate of change	rate of change	rate of change	rate of change	rate of change
1. Real GDP	B1*g	*1114.1*	6.7	5.1	3.7	4.0	4.5
2. Nominal GDP	B1*g	*1175.3*	10.9	8.4	6.6	6.5	7.1
Components of real GDP							
3. Private consumption expenditure	P.3	*686.7*	5.0	5.3	4.5	3.7	3.8
4. Government consumption expenditure	P.3	*195.5*	3.7	-0.1	2.0	1.0	0.5
5. Gross fixed capital formation	P.51	*242.1*	17.6	6.5	4.4	5.0	5.8
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53	*29.9*	2.7	3.0	2.0	1.9	2.1
7. Exports of goods and services	P.6	*456*	9.1	7.4	3.0	5.5	6.0
8. Imports of goods and services	P.7	*495.8*	13.6	7.0	1.8	4.4	6.1
Contributions to real GDP growth							
9. Final domestic demand		-	8.8	5.1	3.1	3.6	4.7
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	1.5	0.4	-1.0	0.0	0.3
11. External balance of goods and services	B.11	-	-2.1	-0.1	0.5	0.3	-0.2

Table 1b. Price developments

	ESA Code	2007	2007	2008	2009	2010	2011
		Level	rate of change	rate of change	rate of change	rate of change	rate of change
1. GDP deflator		*3.9*	3.2	2.8	2.8	2.5	2.5
2. Private consumption deflator		*n.a.*	2.4	4.2	2.9	2.5	2.5
3. HICP[1]		*n.a.*	2.6	4.2	2.9	2.5	2.5
4. Public consumption deflator		*n.a.*	5.1	6.0	2.9	2.5	2.5
5. Investment deflator		*n.a.*	3.6	2.0	2.0	2.5	2.5
6. Export price deflator (goods and services)		*n.a.*	2.7	0.0	4.5	2.5	2.5
7. Import price deflator (goods and services)		*n.a.*	1.0	0.8	4.0	2.5	2.5

[1] Optional for stability programmes.

Table 1c. Labour market developments

	ESA Code	2007	2007	2008	2009	2010	2011
		Level	rate of change	rate of change	rate of change	rate of change	rate of change
1. Employment, persons[1]		*15.24*	4.4	3.7	0.0	0.3	0.4
2. Employment, hours worked[2]		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3. Unemployment rate (%)[3]		9.6	9.6	7.1	7.2	7.6	7.4
4. Labour productivity, persons[4]		*77.1*	2.2	1.4	3.7	3.7	4.0
5. Labour productivity, hours worked[5]		*n.a.*	n.a.	n.a.	n.a.	n.a.	n.a.
6. Compensation of employees	D.1	*417.1*	10.8	12.4	5.6	5.7	7.0
7. Compensation per employee		*35.8*	4.7	8.9	5.3	5.4	6.5

[1]Occupied population, domestic concept national accounts definition.

[2]National accounts definition.

[3]Harmonised definition, Eurostat; levels.

[4]Real GDP per person employed.

[5]Real GDP per hour worked.

Table 1d. Sectoral balances

% of GDP	ESA Code	2007	2008	2009	2010	2011
1. Net lending/borrowing vis-à-vis the rest of the world	B.9	-3.6	-4.0	-1.8	-1.3	-1.5
of which :						
- Balance on goods and services		-2.9	-3.2	-2.4	-1.9	-2.0
- Balance of primary incomes and transfers		-1.8	-1.9	-1.8	-1.7	-1.8
- Capital account		1.1	1.2	2.4	2.3	2.3
2. Net lending/borrowing of the private sector	B.9	1.6	1.3	-0.7	-1.0	-0.4
3. Net lending/borrowing of general government	EDP B.9	-2.0	-2.7	-2.5	-2.3	-1.9
4. Statistical discrepancy		-	optional	optional	optional	optional

Table 2. General government budgetary prospects

	ESA Code	2007 Level	2007 % of GDP	2008 % of GDP	2009 % of GDP	2010 % of GDP	2011 % of GDP
Net lending (EDP B.9) by sub-sector							
1. General government	S.13	*-23.2*	-2.0	-2.7	-2.5	-2.3	-1.9
2. Central government	S.1311	*-37.2*	-3.2	-3.6	-2.7	-2.5	-2.1
3. State government	S.1312	*n.a.*	n.a.	n.a.	n.a.	n.a.	n.a.
4. Local government	S.1313	*1.3*	0.1	0.4	0.2	-0.1	-0.2
5. Social security funds	S.1314	*12.7*	1.1	0.5	-0.1	0.2	0.3
General government (S13)							
6. Total revenue	TR	*469.9*	40.0	39.8	40.7	40.0	39.7
7. Total expenditure	TE[1]	*493.1*	42.0	42.6	43.2	42.4	41.7
8. Net lending/borrowing	EDP B.9	*-23.2*	-2.0	-2.7	-2.5	-2.3	-1.9
9. Interest expenditure	EDP D.41	*28.6*	2.4	2.4	2.6	2.5	2.4
10. Primary balance[2]		*5.4*	0.5	-0.3	0.1	0.2	0.5
11. One-off and other temporary measures[3]		*0*	0.0	0.0	0.0	0.2	0.0
Selected components of revenue							
12. Total taxes (12=12a+12b+12c)		*267.7*	22.8	23.0	23.1	22.8	22.7
12a. Taxes on production and imports	D.2	*166.3*	14.2	14.3	14.8	14.7	14.6
12b. Current taxes on income, wealth, etc	D.5	*101.1*	8.6	8.6	8.2	8.1	8.1
12c. Capital taxes	D.91	*0.3*	0.0	0.0	0.0	0.0	0.0
13. Social contributions	D.61	*140.6*	12.0	11.1	11.2	11.1	11.1
14. Property income	D.4	*15.4*	1.3	1.0	0.9	0.8	0.8
15. Other[4]		*46*	3.9	4.9	5.5	5.3	5.2
16=6. Total revenue	TR	*469.9*	40.0	39.8	39.8	40.7	40.0
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)[5]			34.3	34.3	34.6	34.2	34.0
Selected components of expenditure							
17. Compensation of employees + intermediate consumption	D.1+P.2	*183.2*	15.6	15.3	15.0	14.4	14.0
17a. Compensation of employees	D.1	*113.2*	9.6	9.8	9.8	9.5	9.1
17b. Intermediate consumption	P.2	*70*	6.0	5.5	5.2	5.0	4.9
18. Social payments (18=18a+18b)		*190.6*	16.2	16.6	16.4	16.0	15.5
18a. Social transfers in kind supplied via market producers	D.6311, D.63121, D.63131	*23.7*	2.0	2.1	2.1	2.0	2.0
18b. Social transfers other than in kind	D.62	*166.9*	14.2	14.5	14.4	14.0	13.6
19=9. Interest expenditure	EDP D.41	*28.6*	2.4	2.4	2.6	2.5	2.4
20. Subsidies	D.3	*7.2*	0.6	1.0	0.7	0.7	0.7
21. Gross fixed capital formation	P.51	*48.1*	4.1	4.3	5.1	5.4	5.8
22. Other[6]		*35.3*	3.0	3.0	3.3	3.3	3.2
23=7. Total expenditure	TE[1]	*493.1*	42.0	42.6	43.2	42.4	41.7
p.m.: Government consumption (nominal)	P.3	*211*	18.0	17.8	17.4	16.8	16.3

[1]Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

[2]The primary balance is calculated as (EDP B.9, item 8) plus (EDP D.41, item 9).

[3]A plus sign means deficit-reducing one-off measures.

[4] P.11+P.12+P.131+D.39+D.7+D.9 (other than D.91).

[5]Including those collected by the EU and including an adjustment for uncollected taxes and social contributions (D.995), if appropriate.

[6] D.29+D4 (other than D.41)+ D.5+D.7+D.9+P.52+P.53+K.2+D.8.

Table 3. General government expenditure by function

% of GDP	COFOG Code	2006	2011
1. General public services	1	5.9	5.4
2. Defence	2	1.2	1.1
3. Public order and safety	3	1.8	1.8
4. Economic affairs	4	4.4	4.3
5. Environmental protection	5	0.6	0.6
6. Housing and community amenities	6	1.2	0.9
7. Health	7	4.7	5.0
8. Recreation, culture and religion	8	1.1	1.0
9. Education	9	6.0	5.9
10. Social protection	10	16.9	15.7
11. Total expenditure (=item 7=23 in Table 2)	TE[1]	n.a.	41.1

[1]Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

Table 4. General government debt developments

% of GDP	ESA Code	2007	2008	2009	2010	2011
1. Gross debt[1]		44.9	45.9	45.8	45.5	44.8
2. Change in gross debt ratio		-2.8	1.0	-0.1	-0.3	-0.7
Contributions to changes in gross debt						
3. Primary balance[2]		0.5	-0.3	0.1	0.2	0.5
4. Interest expenditure[3]	EDP D.41	2.4	2.4	2.6	2.5	2.4
5. Stock-flow adjustment		-0.1	-1.7	-2.6	-2.6	-2.6
of which:						
- Differences between cash and accruals[4]		-0.1	-0.1	0.3	-0.2	-0.2
- Net accumulation of financial assets[5]		0.8	0.5	0.6	0.8	0.6
of which:						
- privatisation proceeds		-0.1	-0.1	-0.2	-0.3	-0.2
- Valuation effects and other[6]		-0.8	-2.1	-3.6	-3.3	-3.0
p.m.: Implicit interest rate on debt[7]		5.5	5.6	5.8	5.6	5.6
Other relevant variables						
6. Liquid financial assets[8]		0.9	0.7	0.5	0.5	0.5
7. Net financial debt (7=1-6)		44.0	45.2	45.3	45.0	44.3

[1]As defined in Regulation 3605/93 (not an ESA concept).

[2]Cf. item 10 in Table 2.

[3]Cf. item 9 in Table 2.

[4]The differences concerning interest expenditure, other expenditure and revenue could be distinguished when relevant.

[5]Liquid assets, assets on third countries, government controlled enterprises and the difference between quoted and non-quoted assets could be distinguished when relevant.

[6]Changes due to exchange rate movements, and operation in secondary market could be distinguished when relevant.

[7]Proxied by interest expenditure divided by the debt level of the previous year.

[8]AF1, AF2, AF3 (consolidated at market value), AF5 (if quoted in stock exchange; including mutual fund shares).

Table 5. Cyclical developments

% of GDP	ESA Code	2007	2008	2009	2010	2011
1. Real GDP growth (%)		6.7	5.1	3.7	4.0	4.5
2. Net lending of general government	EDP B.9	-2.0	-2.7	-2.5	-2.3	-1.9
3. Interest expenditure	EDP D.41	2.4	2.4	2.6	2.5	2.4
4. One-off and other temporary measures[1]		0.0	0.0	0.0	-0.2	0.0
5. Potential GDP growth (%)		5.3	5.1	4.8	4.6	4.5
contributions:						
- labour		n.a.	n.a.	n.a.	n.a.	n.a.
- capital		n.a.	n.a.	n.a.	n.a.	n.a.
- total factor productivity		n.a.	n.a.	n.a.	n.a.	n.a.
6. Output gap		1.1	1.2	0.1	-0.4	-0.4
7. Cyclical budgetary component		0.4	0.4	0.0	-0.1	-0.1
8. Cyclically-adjusted balance (2 - 7)		-2.4	-3.2	-2.6	-2.2	-1.8
9. Cyclically-adjusted primary balance (8 + 3)		0.1	-0.7	0.0	0.3	0.6
10. Structural balance (8 - 4)		-2.4	-3.2	-2.6	-2.0	-1.8

[1]A plus sign means deficit-reducing one-off measures.

Table 6. Divergence from previous update

	ESA Code	2007	2008	2009	2010	2011
Real GDP growth (%)						
Previous update		6.5	5.5	5.0	5.0	n.a.
Current update		6.7	5.1	3.7	4.0	4.5
Difference		0.2	-0.4	-1.3	-1.0	n.a.
General government net lending (% of GDP)	EDP B.9					
Previous update		-2.0	-2.5	-2.0	-1.5	n.a.
Current update		-2.0	-2.7	-2.5	-2.3	-1.9
Difference		0.0	-0.2	-0.5	-1.2	n.a.
General government gross debt (% of GDP)						
Previous update		44.9	44.2	43.3	42.3	n.a.
Current update		44.9	45.9	45.8	45.5	44.8
Difference		0.0	1.7	2.5	3.2	n.a.

Table 7. Long-term sustainability of public finances

% of GDP	2000	2005	2010	2020	2030	2050
Total expenditure	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Of which: age-related expenditures	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pension expenditure	13.2	12.6	10.9	9.6	9.1	8.3
Social security pension	13.2	12.6	10.9	9.6	9.1	8.3
Old-age and early pensions	10.3	10.4	9.4	8.7	8.2	7.3
Other pensions (disability, survivors)	2.9	2.2	1.5	1.0	0.9	0.9
Occupational pensions (if in general government)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Health care	n.a.	4.1	4.1	4.4	4.7	5.2
Long-term care *(this was earlier included in the health care)*	n.a.	0.1	0.1	0.1	0.1	0.2
Education expenditure	n.a.	0.1	0.1	0.1	3.0	3.1
Other age-related expenditures	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Interest expenditure	0.0	0.0	0.0	0.0	0.0	0.0
Total revenue	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Of which: property income	7.8	7.1	5.5	5.4	5.1	5.0
Of which : from pensions contributions (or social contributions if appropriate)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pension reserve fund assets	0.0	0.2	0.4	0.4	0.4	0.6
Of which : consolidated public pension fund assets (assets other than government liabilities)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Assumptions						
Labour productivity growth	n.a.	3.5	3.7	3.1	2.7	1.7
Real GDP growth	n.a.	3.6	4.2	2.5	2.0	0.3
Participation rate males (aged 20-64)	79.3	77.8	77.1	76.9	78.6	76.2
Participation rates females (aged 20-64)	66.0	63.7	62.9	64.3	67.1	63.5
Total participation rates (aged 20-64)	72.5	70.7	69.7	70.5	72.8	69.6
Unemployment rate	16.1	17.7	5.9	5.9	5.9	5.9
Population aged 65+ over total population	n.a.	13.1	13.6	18.2	23.0	31.6

Table 8. Basic assumptions

	2007	2008	2009	2010	2011
Short-term interest rate[1] (annual average)	4.4	5.7	4.3	4.0	4.5
Long-term interest rate (annual average)	5.5	6.1	6.3	5.8	5.5
USD/€ exchange rate (annual average) (euro area and ERM II countries)	n.a.	n.a.	n.a.	n.a.	n.a.
Nominal effective exchange rate	3.8	3.5	3.7	3.6	3.5
(for countries not in euro area or ERM II) exchange rate vis-à-vis the € (annual average)	-4.9	-9.1	-8.5	-2.4	-2.8
World excluding EU, GDP growth	n.a.	n.a.	n.a.	n.a.	n.a.
EU GDP growth	2.6	1.0	-0.6	1.2	1.2
Growth of relevant foreign markets	8.8	6.8	2.3	5.0	5.0
World import volumes, excluding EU	n.a.	n.a.	n.a.	n.a.	n.a.
Oil prices (Brent, USD/barrel)	72.7	97.8	60.0	60.0	60.0

[1]If necessary, purely technical assumptions.

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