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Country Report Poland 2015

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EXECUTIVE SUMMARY

Poland weathered the economic crisis and its aftermath very well. Real GDP has increased cumulatively by 19% since 2008, which is unparalleled in the EU. In 2014, economic activity recovered from a temporary slowdown in the two previous years, as domestic demand picked up again, replacing external trade as the main growth driver. Private consumption is expected to remain strong in the near term, supported by solid employment and real wage growth. The ongoing recovery of credit growth, coupled with declining financing costs and increasing profit margins, is expected to provide additional support for private investment, which however, remains to be hindered by deficiencies in business environment. Public investment is also projected to gather steam in 2015 with the rollout of new EU-financed projects. In 2014, the unemployment rate fell substantially, while the employment rate improved on the back of strong employment growth and weak demographics. Like in the rest of Europe, inflationary pressures subsided. In 2014 inflation receded and is set to pick up modestly in 2015.

This Country Report assesses Poland's economy against the background of the Commission's Annual Growth Survey which recommends three main pillars for the EU's economic and social policy in 2015: investment, structural reforms, and fiscal responsibility. In line with the Investment Plan for Europe, it also explores ways to maximise the impact of public resources and unlock private investment. The main findings of the Country Report are:

- **Public finances have been gradually improving but structural challenges remain, especially in relation to the efficiency of public spending and tax compliance**. The general government deficit is expected to fall gradually, from 3.6% of GDP in 2014 to narrowly below 3% of GDP in 2015. Growing health-care expenditures pose fiscal challenges for the future. Low tax compliance remains an issue, in particular as regards the efficiency of the Polish tax administration and the administrative burden on taxpayers. The extensive use of reduced rates of the Value Added Tax (VAT) weighs on government revenues and leads to high tax compliance costs for firms; it is also a distortive and imperfect instrument to achieve redistributive objectives. The Polish fiscal framework includes positive elements but lacks a genuine independent fiscal council.

- **Although employment has risen consistently since 2007, the Polish labour market suffers from several structural weaknesses.** Besides the long-term demographic challenge, the Polish labour market underperforms in terms of labour market participation of certain groups, labour market segmentation and geographic and vocational mobility. The latter is especially hampered by the special pension scheme for miners as well as heavily subsidised social security system and preferential tax system for farmers. In addition, the education system underperforms in matching skill supply and demand as well as in enhancing the skills serving the employability of older workers, in particular older women. Access to quality apprenticeships and work-based learning remains insufficient. Finally the share of population living at risk of poverty/social exclusion is still above the EU average, but has dropped considerably in recent years.

- **Poland's good economic performance in the past 25 years relied strongly on competitive labour costs, and the country still faces the challenge of boosting its innovative capacity, to move up the value-added chain**. Currently, the Polish Research and Development (R&D) and innovation system scores low on many important dimensions such as the share of companies engaging in in-house innovation, scientific excellence, intensity of cooperation between business and the research sector and the number of patents. Although individual measures to create an innovation-friendly business environment were adopted, it will remain a long-lasting challenge to measurably improve the country's scientific and technological performance.

- **Despite sizeable investment, bottlenecks and deficiencies in transport, energy and information and communications networks continue to weigh on Poland's growth potential**. The railway sector suffers from low investment, and broadband internet coverage is underdeveloped. The Polish economy is energy and carbon intensive and potential gains from improving energy efficiency are significant. The country also has an aging energy generation infrastructure, which is heavily dependent on coal. The energy network is not sufficiently connected to neighbouring countries

• **The business environment remains burdensome and complex in a number of areas, such as paying taxes or dealing with construction permits.** The vast nationwide network of business environment institutions remains fragmented, ineffective and overly-reliant on public support. The digitalisation of public administration is slow and fragmented. On the other hand, the deregulation of professional services has progressed well and will facilitate the ease of doing business and bring productivity gains in the economy.

Overall, Poland has made some progress in addressing the CSRs issued by the Council in 2014. Firstly, the general government deficit declined and remained within the headline ceilings recommended by the Council. No progress was made towards completing the fiscal framework. Some progress was made towards increasing the effectiveness of the tax administration and facilitating tax compliance. However, no progress was made in addressing the issue of the extensive system of reduced value-added tax rates. On labour market policies, progress was mixed. Some effort was made to reduce youth unemployment and to increase female participation, but only limited progress was made with improving the employability of older workers. Limited progress was also made in reducing labour market segmentation, and no measures were taken to reform the special pension and social benefit schemes for farmers and miners. After presenting a promising strategic programme to improve the innovative capacity of firms last year, Poland made some progress in better targeting existing instruments, only limited progress in strengthening the links between research, innovation and business, and no progress in improving the effectiveness of R&D tax incentives. There was some progress in improving the energy generation capacity, energy efficiency and broadband coverage, while limited progress was made in improving the railway infrastructure. There was continued and substantial progress in implementing an ambitious reform facilitating access to regulated professions, and some progress was made in improving the business environment, while progress was limited in relation to construction permits.

The Country Report also discusses the policy challenges stemming from the analysis, including the following:

• In the area of public finances, the inefficiency of the country's tax administration and high costs of tax compliance for taxpayers weigh on tax collection and the business environment.

• The amendment to the act on employment promotion and labour market institutions adopted in 2014 is an important step towards increasing labour market participation. Ensuring appropriate coordination, monitoring and evaluation would be crucial, especially for boosting the employment of older and younger people.

• The high incidence of civil-law labour contracts and the high tax wedge on low-skilled labour contribute to labour market segmentation.

• As regards the innovative capacity of the economy, improving the quality and effectiveness of R&D policy and strengthening business innovation are major challenges for Poland. Effective R&D tax incentives are crucial for supporting private R&D.

• Insufficient coordination across levels of government and inadequate capacity of regional and local governments to implement and monitor policies is an obstacle for good governance and effectiveness of public administration.

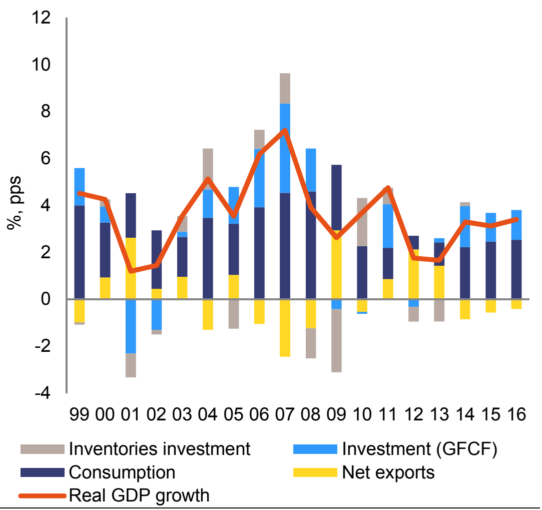
• Investment in sustainable and environmental-friendly transport remains low. A lack of competition in energy markets leads to insufficient supply diversification.

1. SCENE SETTER: ECONOMIC SITUATION AND OUTLOOK

Economic activity accelerates on the back of strong domestic demand

Poland's economy weathered the post-2007 economic crisis very well. After a modest slowdown in 2009, it enjoyed a strong upswing in 2010-11, followed by more moderate but still solid growth in 2012-2013. Economic activity is estimated to have accelerated in 2014 as private consumption and investment replaced external trade as the main growth engine (Graph 1.1). Real GDP has increased cumulatively by 19% since 2008, an unparalleled performance among all EU Member States, including Central and Eastern European Member States (Graph 1.2).

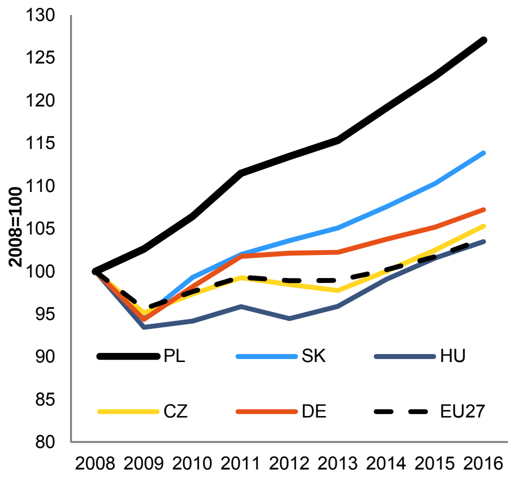
Graph 1.1: **Contributions to real GDP growth**



Source: European Commission

GDP Growth is expected to be robust in the near term. Private consumption is expected to remain strong, supported by solid real wage and employment growth. The ongoing recovery of credit growth coupled with declining financing costs is expected to provide additional support to private investment expenditure. Profit margins in the corporate sector are set to increase as prices of commodities and imported intermediate goods fall faster than prices of final goods. This increase in margins is expected to support corporate investment spending and, possibly, wage growth. In addition, public investment is projected to gather steam in 2015 with the rollout of new EU-financed projects.

Graph 1.2: **Real GDP growth (index)**



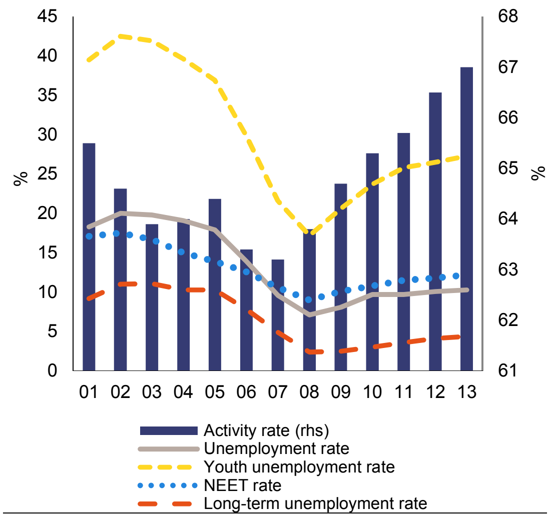
Source: European Commission

After several years of inflation above target, pressures subsided and resulted in deflation. The effects of high commodity prices and a depreciating Zloty, which were responsible for high inflation in 2012, petered out in 2013 when consumer prices inflation averaged 0.8%. Limited price increases at the beginning of 2014 turned into outright deflation in the second half of the year: in 2014 as a whole the HICP index remained unchanged on the previous year. Going forward, low external inflationary pressure coupled with falling food and oil prices are forecast to result in deflation until the third quarter of 2015. Inflation is expected to pick up moderately thereafter, fuelled by base effects in food prices and robust domestic demand.

Labour market conditions improve while participation remains low

After several years of moderate increases, unemployment fell substantially from 10.3% in 2013 to 9.1% in 2014. The improvement resulted from strong employment growth on the back of a robust rise of private investment. The situation of the young in the labour market is, however, precarious. The youth unemployment rate and the share of fixed-term contracts among the young are very high. The low overall participation rate remains a major challenge, despite continuous progress in recent years. The reform of the general early retirement scheme in 2009 and gradual increase in the retirement age are stimulating growth of activity rates, though from a low level (Graph 1.3). In particular, participation of young people, older workers and women remains low. The share of population exposed to the risk of poverty or social exclusion is still above the EU average, but has dropped considerably from 30.5% in 2008 to 25.8% in 2013.

Graph 1.3: **Employment and social indicators**

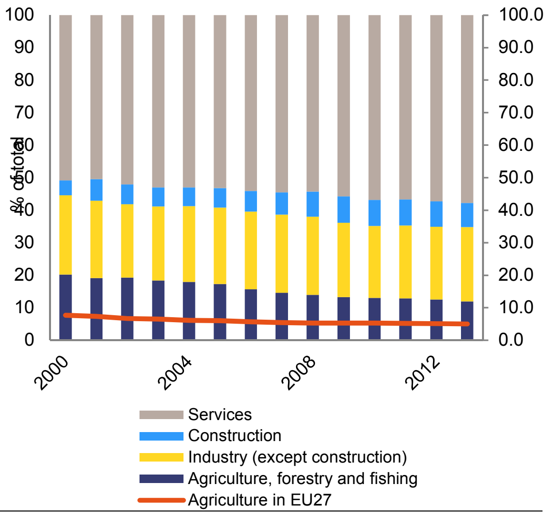


Source: European Commission

Temporary employment is widespread in Poland. The share of fixed-term contracts is the highest in the EU. Recourse to temporary contracts helped the country safeguard and improve its cost-competitiveness in the crucial post-communist catching up phase. At the same time, it tends to favour specialisation in low to medium-tech, low-skilled, labour-intensive products and services which, while expressing the current comparative advantage of the country, do not necessarily produce the seeds of sustained economic growth in the medium and long run.

The large share of employment in labour-intensive sectors limits productivity growth. While the manufacturing sector is well interlinked with global trade networks and benefits from globalisation, the large agricultural sector was left behind (Graph 1.4). Labour productivity in Polish agriculture is low due to unfinished restructuring, low levels of education, and the still significant role of subsistence agriculture. Moreover, lack of affordable housing in the fast growing urban areas, insufficient transport infrastructure and the more generous social security system for farmers prevent people from moving to urban areas and, therefore, hamper an efficient allocation of resources across sectors.

Graph 1.4: **Sectoral composition of employment**



Source: European Commission

Public finances improve gradually

Albeit on a declining path, the general government deficit has been above the 3% threshold since 2008. It has fallen from 7.6% in 2010 to 3.6% in 2014, and is expected to edge below 3% of GDP in 2015 by a narrow margin. The improvement is expected to result from government revenues growing in line with robust economic activity and expenditure restraints. The main deficit-reducing measures taken by the government in the last few years include changes to the pension system (higher retirement age, limits to early retirement, and limits to the role of the second pillar pension system), increases in indirect taxes and social contributions, a public wage and tax thresholds freeze, and limited growth in public investment.

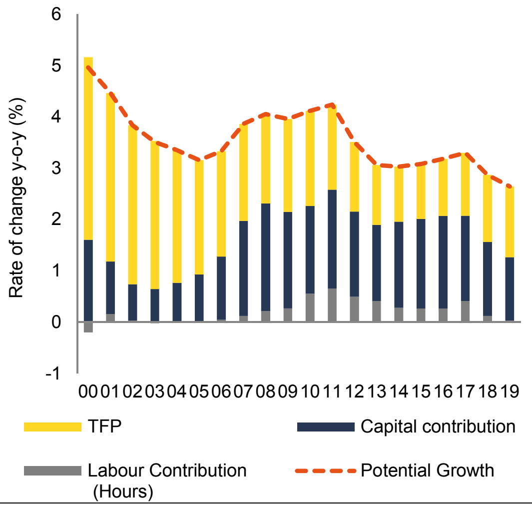
The general government debt-to-GDP ratio remains below the 60 % of GDP reference value in the Treaty. It increased from 53.6% in 2010 to 55.7% in 2013, on the back of high general government deficits and somewhat slower economic growth. It then fell to 48.6% in 2014, mainly due to a large, one-off transfer of private pension funds' assets. The Commission expects a debt-to-GDP ratio of 49.8% in 2016.

Potential growth slows with productivity growth

In the last 25 years, Poland has clearly benefited from the effects of the catching-up process. It has recorded impressive productivity gains as measured by Total Factor Productivity (TFP) (Graph 1.5). The country underwent a profound transformation towards a market-based system, tapping a remarkable growth potential that is typical in the early phase of 'economic transformation'. However, Poland has moved up the income ladder and efficiency gains will be harder to achieve in the future. The recent slowdown of TFP growth is a harbinger of the more difficult path of convergence ahead. The main challenge for the Polish economy will be to manage the transition from a low-cost, low-skilled-labour intensive economy towards a more high-skilled labour, innovation-based economy. Moreover, and barring major migration inflows, demographic factors have already turned into a drag on growth. Poland is among the countries with the least favourable long-run projections for the ratio of the elderly to working-age population.

Poland's remarkable growth performance over the past 25 years went along with a surprisingly low investment rate. Despite major foreign direct investment inflows, low domestic savings limited the growth rate of private investment in Poland. Household savings have been declining since 2001 and are among the lowest in the EU. In the 2000s, corporates took over as the biggest savers, as their profitability increased, not least due to contained increases in labour costs. The high profitability of the corporate sector in Poland, however, does not fully translate into higher investment, partly because the labour-intensive nature of the production reduces the need to upgrade production facilities and replace physical capital. Companies' investment is also hindered by deficiencies in business environment, in particular in terms of construction permits, contract enforcement, as well as stability and clarity of tax regulations. Moreover, the corporate sector investment needs are not addressed effectively by business-support institutions, and are hampered by insufficient coordination between ministries and other entities responsible for the business environment policies.

Graph 1.5: **Breakdown of potential growth**



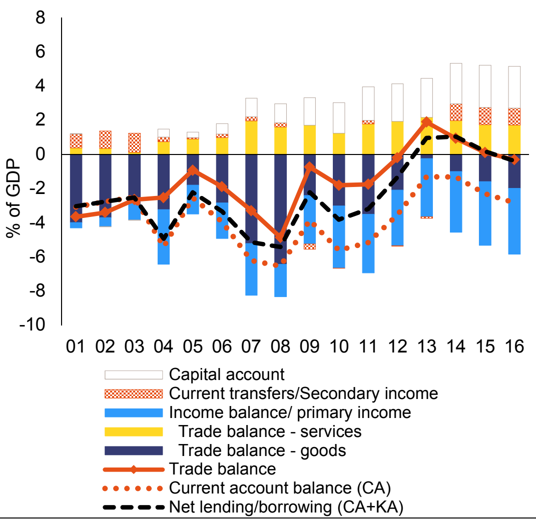
Total Factor Productivity (TFP) captures effects in total output, which are not explained by the amount of input of labour and capital. These can be, among others, effects stemming from technological innovations and/or other production process improvements.
Source: European Commission

The external position is improving but Poland's product specialisation needs an upgrade

The current account deficit improved from 5.2% of GDP in 2011 to 1.3% of GDP in 2013, driven by a series of annual trade surpluses. The improvement reflected both the diversification of Poland's exports towards new, more dynamic markets based on cost advantages and weaker import growth (Graph 1.6). The surplus in services' trade continued to increase, boosted by the development of 'business processing centres' in Poland, which provide a wide range of services to multinational companies. The current account deficit was financed by inflows of EU funds, and sustained inflows of foreign direct investments and foreign portfolio investments.

Poland's negative Net International Investment Position (NIIP) stabilised at below 70 % of GDP in recent years. The post-2009 increase in sovereign debt was accompanied by an unchanged level of private and banking sector debt, leading to a moderate increase in overall external indebtedness. The private sector remains, however, the major source of gross liabilities in Poland. In terms of instruments, the accumulated stock of foreign direct investments constitutes the major part of NIIP, whereas net external debt, including all non-equity assets and liabilities, is relatively limited at 37% of GDP.

Graph 1.6: **Current account balance by component**



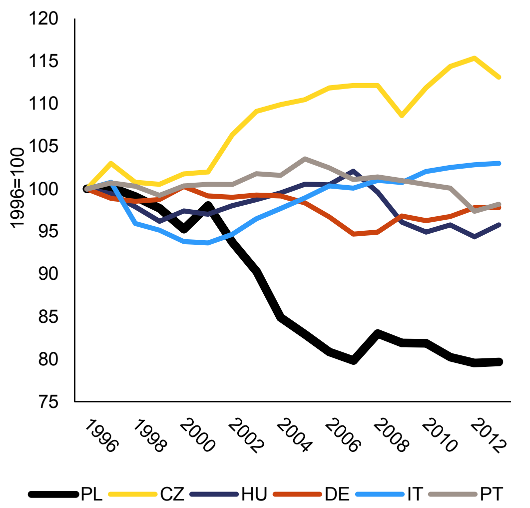
Source: European Commission

During the last 15 years Poland benefited strongly from its cost competitiveness. Poland's share of world exports increased substantially between 2000 and 2013, with market shares in goods increasing by 0.5 pps. and market shares in services rising by 0.2 pps. The growth of Polish exports can mainly be attributed to declining real unit labour costs. They decreased steadily and considerably when compared to its main trading partners (Graph 1.7). The downside to the comparatively low labour costs is Poland's product specialisation: it is biased towards low- or medium-low-technology goods, which intensively rely on comparatively cheap, and to a large extent unskilled labour.

Private sector debt is limited and the financial sector is stable

Below the EU average, private sector indebtedness does not appear to be a source of concern. Household debt increased strongly in the pre-2009 period, but Poland was a latecomer to the credit boom in Central and Eastern European Countries and, as a result, the level of household debt remains low compared to peers. Credit flows financed mainly housing investment, though the share of consumption credit is comparatively high. The provision of credit to corporates was moderate for much of the last decade, due to the low capital intensity of the Polish economy and high real interest rates. Recently, however, corporate credit growth recovered, supported by favourable financial conditions and healthy corporate balance sheets, By contrast, recent changes in the regulatory provisions reducing permissible loan-to-value ratios for mortgages are likely to limit faster growth of housing credit.

Graph 1.7: **Real unit labour costs**



Source: European Commission calculations

Poland is the single largest banking market in the Central and Eastern European countries, with EUR 340 billion of assets, accounting for about a third of the region's assets. Close to 60 % of the sector's assets are held by foreign institutions. In the past decade, Poland's banking system has become one of Europe's star performers, yielding on average a double-digit Return on Equity between 10 % and 15 % per annum. Banks' underlying capital ratios are high, while bad credit ratios remain under control at 7.5% of the total loan book. The business model followed by most market players is very traditional, focusing on deposit taking and lending, and not much investing. The healthy state of the banking sector was confirmed by the results of recent asset quality review and stress tests. Most of the examined banks significantly exceeded the expected levels of Common Equity Tier 1 (CET1) ratio, and only in two banks was the CET1 ratio slightly short of expected levels.

In Poland, mortgages denominated in Swiss francs amount to 15% of total outstanding lending to the non-financial sector and 37% of total household mortgages. The unexpected depreciation of the Polish zloty against the Swiss franc in mid-January 2015 might affect disposable income of Polish households. However, the overall impact is likely to be minor - estimated at less than one decimal point of GDP. Recent stress tests indicate that the banking sector should also remain safe, with only a minor impact on the share of non-performing loans and capital adequacy ratios. Currently, Poland's consumer protection agency (UOKiK) and the Financial Services Authority (KNF) are reviewing banks' loan procedures in order to eliminate allegedly irregular or wrongful practices in the context of foreign-denominated mortgages.

Box 1.1: **Economic surveillance process**

The Commission's Annual Growth Survey, adopted in November 2014, started the 2015 European Semester, proposing that the EU pursue an integrated approach to economic policy built around three main pillars: boosting investment, accelerating structural reforms and pursuing responsible growth-friendly fiscal consolidation. The Annual Growth Survey also presented the process of streamlining the European Semester to increase the effectiveness of economic policy coordination at the EU level through greater accountability and by encouraging greater ownership by all actors.

This Country Report includes an assessment of progress towards the implementation of the 2014 Country-Specific Recommendations adopted by the Council in July 2014. The Country-Specific Recommendations for Poland concerned public finances, training, labour market participation, innovation, network industries and business environment.

Table 1.1: **Key economic, financial and social indicators - Poland**

							Forecast		
	2008	2009	2010	2011	2012	2013	2014	2015	2016
Real GDP (y-o-y)	3.9	2.6	3.7	4.8	1.8	1.7	3.3	3.2	3.4
Private consumption (y-o-y)	6.1	3.4	2.7	2.9	0.9	1.0	3.0	3.1	3.2
Public consumption (y-o-y)	5.1	3.6	3.3	-2.3	0.2	2.1	2.2	4.0	3.3
Gross fixed capital formation (y-o-y)	8.3	-1.9	-0.4	9.3	-1.5	0.9	9.3	5.9	6.3
Exports of goods and services (y-o-y)	7.0	-6.3	12.9	7.9	4.3	5.0	4.8	4.1	5.4
Imports of goods and services (y-o-y)	9.4	-12.4	14.0	5.5	-0.6	1.8	6.9	5.5	6.4
Output gap	3.2	1.9	1.5	2.0	0.3	-1.1	-0.8	-0.7	-0.4
Contribution to GDP growth:									
Domestic demand (y-o-y)	6.4	2.4	2.2	3.2	0.3	1.2	4.0	3.7	3.8
Inventories (y-o-y)	-1.3	-2.7	2.0	0.7	-0.6	-0.9	0.2	0.0	0.0
Net exports (y-o-y)	-1.2	2.9	-0.5	0.9	2.1	1.4	-0.8	-0.5	-0.3
Current account balance (% of GDP), balance of payments	-6.57*	-3.88*	-5.11*	-5.02*	-3.72*	-1.37*	.	.	.
Trade balance (% of GDP), balance of payments	-4.9	-0.7	-1.9	-1.9	-0.2	2.2	.	.	.
Terms of trade of goods and services (y-o-y)	-1.6	3.3	-1.4	-1.8	-1.3	1.6	2.3	1.5	0.0
Net international investment position (% of GDP)	-56.3*	-58.8*	-65.2	-62.7	-65.4	-68.0	.	.	.
Net external debt (% of GDP)	29.4*	32.0*	33.1*	36.0*	36.0*	37.2*	.	.	.
Gross external debt (% of GDP)	56.8*	59.4*	65.691	71.1	70.3	69.2	.	.	.
Export performance vs advanced countries (% change over 5 years)	57.5*	45.7	34.9	25.6	13.6	9.5	.	.	.
Export market share, goods and services (%)	1.0	1.0	1.0	1.0	1.0	1.1	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	-0.3	6.9	6.1	-0.2	2.6	.	.	.	.
Private credit flow, consolidated, (% of GDP)	16.4	4.2	5.8	7.9	3.6	2.9	.	.	.
Private sector debt, consolidated (% of GDP)	67.7	67.5	70.1	74.7	74.0	74.8	.	.	.
Deflated house price index (y-o-y)	.	-5.2	-6.1	-5.4	-5.9	-4.2	.	.	.
Residential investment (% of GDP)	3.2*	2.9*	2.6*	2.6*	2.7*	2.5*	.	.	.
Total financial sector liabilities, non-consolidated (y-o-y)	6.0	9.0	12.7	4.9	7.3	7.2	.	.	.
Tier 1 ratio[1]	.	.	.	.	.	.	.	.	.
Overall solvency ratio[2]	.	.	.	.	.	.	.	.	.
Gross total doubtful and non-performing loans (% of total debt instruments and total loans and advances)[2]	.	.	.	.	.	.	.	.	.
Change in employment (number of people, y-o-y)	3.7	0.4	-2.5	0.6	0.2	-0.1	1.7	0.4	0.5
Unemployment rate	7.1	8.1	9.7	9.7	10.1	10.3	9.1	8.8	8.3
Long-term unemployment rate (% of active population)	2.4	2.5	3.0	3.6	4.1	4.4	.	.	.
Youth unemployment rate (% of active population in the same age group)	17.2	20.6	23.7	25.8	26.5	27.3	24.2	.	.
Activity rate (15-64 year-olds)	63.8	64.7	65.3	65.7	66.5	67.0	.	.	.
Young people not in employment, education or training (%)	9.0	10.1	10.8	11.5	11.8	12.2	.	.	.
People at risk of poverty or social exclusion (% of total population)	30.5	27.8	27.8	27.2	26.7	25.8	.	.	.
At-risk-of-poverty rate (% of total population)	16.9	17.1	17.6	17.7	17.1	17.3	.	.	.
Severe material deprivation rate (% of total population)	17.7	15.0	14.2	13.0	13.5	11.9	.	.	.
Number of people living in households with very low work-intensity (% of total population aged below 60)	8.0	6.9	7.3	6.9	6.9	7.2	.	.	.
GDP deflator (y-o-y)	3.6	3.9	1.8	3.2	2.2	1.2	1.1	0.6	1.4
Harmonised index of consumer prices (HICP) (y-o-y)	4.2	4.0	2.7	3.9	3.7	0.8	0.1	-0.2	1.4
Nominal compensation per employee (y-o-y)	8.6	3.4	8.8	5.3	3.5	2.6	2.3	3.7	3.9
Labour productivity (real, person employed, y-o-y)	0.1	2.3	6.5	4.2	1.6	1.7	.	.	.
Unit labour costs (ULC) (whole economy, y-o-y)	8.5	1.1	2.1	1.1	1.8	0.8	0.7	0.9	1.0
Real unit labour costs (y-o-y)	4.8	-2.7	0.3	-2.0	-0.4	-0.4	-0.4	0.3	-0.5
REER[3)] (ULC, y-o-y)	13.8	-20.3	9.0	-2.4	-3.5	0.4	0.1	-3.4	-0.1
REER[3)] (HICP, y-o-y)	8.8	-15.8	6.2	-2.0	-2.0	0.1	0.8	-3.6	-0.3
General government balance (% of GDP)	.	.	-7.6	-4.9	-3.7	-4.0	-3.6	-2.9	-2.7
Structural budget balance (% of GDP)	.	.	-8.4	-5.9	-4.0	-3.5	-3.0	-2.7	-2.4
General government gross debt (% of GDP)	.	.	53.6	54.8	54.4	55.7	48.6	49.9	49.8

1 Domestic banking groups and stand-alone banks.
2 Domestic banking groups and stand-alone banks, foreign-controlled (EU and non-EU) subsidiaries and branches.
3 Real effective exchange rate
(*) Indicates BPM5 and/or ESA95
Source: European Commission, 2015 winter forecast; ECB

Table 1.2: **Macroeconomic Imbalance Procedure (MIP) scoreboard indicators - Poland**

			Thresholds	2008	2009	2010	2011	2012	2013
External imbalances and competitiveness	Current Account Balance (% of GDP)	3 year average	-4%/6%	*-5.5*	*-5.5*	*-5.2*	*-4.7*	*-4.6*	-3.3
		p.m.: level year	-	*-6.6*	*-3.9*	*-5.1*	-5.2	-3.5	-1.3
	Net international investment position (% of GDP)		-35%	*-56.3*	*-58.8*	-65.2	-62.7	-65.4	-68.0
	Real effective exchange rate (REER) (42 industrial countries - HICP deflator)	% change (3 years)	±5% & ±11%	14.3	-4.0	-1.4	-11.6	1.2	-4.3
		p.m.: % y-o-y change	-	9.1	-14.7	6.0	-2.2	-2.4	0.2
	Export Market shares	% change (5 years)	-6%	*39.2*	*27.9*	*20.1*	*12.2*	*1.1*	*-0.4*
		p.m.: % y-o-y change	-	*7.1*	*0.4*	*-2.5*	*-1.1*	-2.2	6.6
	Nominal unit labour costs (ULC)	% change (3 years)	9% & 12%	10.4	12.4	12.0b	4.4	5.1	3.9p
		p.m.: % y-o-y change	-	8.5	1.1	2.1b	1.1	1.8	0.9p
Internal imbalances	Deflated House Prices (% y-o-y change)		6%	na	-5.4e	-6.2e	-5.4e	-5.5e	-4.4e
	Private Sector Credit Flow as % of GDP, consolidated		14%	16.3	4.2	5.8	7.9	3.6	2.9
	Private Sector Debt as % of GDP, consolidated		133%	67.7	67.5	70.1	74.7	74.0	74.9
	General Government Sector Debt as % of GDP		60%	*47.1*	*50.9*	53.6	54.8	54.4	55.7
	Unemployment Rate	3-year average	10%	10.2	8.3i	8.3i	9.2i	9.8	10.0
		p.m.: level year	-	7.1	8.1i	9.7	9.7	10.1	10.3
	Total Financial Sector Liabilities (% y-o-y change)		16.5%	6.9	9.2	13.3	4.8	10.4	7.6

Flags: b: break in time series. e: estimated. p: provisional. na: not available.
"Note: Figures highlighted are the ones falling outside the threshold established by EC Alert Mechanism Report. For REER and ULC, the second threshold concerns non-Euro Area Member States. (1) Figures in italic are according to the old standards (ESA95/BPM5). (2) Export market shares data: the total world export is based on the 5th edition of the Balance of Payments Manual (BPM5). (3) Unemployment rate i=Eurostat back calculation to include Population Census 2011 results. (4) House Price indicator: e = NSI estimates. (5) Nominal unit labour cost: break in time series in 2010 due to methodological change in the LFS.
Source: European Commission

2. OTHER STRUCTURAL ISSUES

2.1. FISCAL FRAMEWORK AND LONG-TERM SUSTAINABILITY

The general government deficit is expected to fall gradually, from 3.6 % of GDP in 2014 to narrowly below 3 % of GDP in 2015 and 2016. The general government debt-to-GDP ratio remains below the 60 % of GDP reference value of the Treaty. It fell from 55.7 % in 2013 to 48.6 % in 2014 mainly due to a large, one-off transfer of private pension funds' assets. The debt-to-GDP ratio is forecast to be close to 50 % in 2016.

Fiscal framework

The current fiscal framework encompasses positive elements. Poland's medium-term budgetary planning is based on the Multiannual State Financial Plan which covers four years and constitutes a basis for the preparation of annual budgets. Debt rules for the general government and separately for local governments are in place. A new expenditure rule was introduced at the end of 2013, following a Council recommendation in that year. The 2015 budget was the first to incorporate the new rule. The effectiveness of the expenditure rule will depend on how it is implemented in practice, in particular in view of frequent changes to the fiscal framework introduced in the past.

The fiscal framework does not include an independent fiscal council. As in most EU Member States, the Supreme Audit Office presents an annual report to the Parliament with an ex-post assessment of budgetary execution, including compliance with the rules governing the budgetary process. However, the remit of an independent fiscal council would be broader and would play an essential role in strengthening the Polish fiscal framework. Consequently, last year the Council recommended to Poland to establish such an institution. Fiscal councils exist or are currently being introduced by almost all EU Member States. Their remit typically covers: (1) ex-ante checks of compliance with fiscal rules, an assessment of macroeconomic and budgetary forecasts and an analysis of the long-term sustainability of public finances; and (2) an ex-post assessment of compliance with fiscal rules. By issuing regular and public recommendations on fiscal policy to the government, such a body could contribute significantly to improving the quality of public debate on public finances. No steps have been taken in the past year towards introducing a fiscal council.

Healthcare and long-term sustainability of public finances

Growing healthcare expenditure weighs on the long term sustainability of public finances, and the health system faces problems of accessibility and inefficiencies in the use of resources. In 2012, health expenditure was among the lowest in the EU, both in terms of public and total expenditure and both per capita and as a share of GDP. However, given demographic aging and other non-demographic drivers of expenditure, such as medical progress, public health expenditure is projected to increase significantly ([1]). While life expectancy in Poland is below the EU average, the number of years spent in good health is comparable to the EU average. According to Eurostat, the extent to which waiting times restrict access to healthcare is the second highest in the EU. Long waiting times are reported for a number of planned surgeries. Unmet medical needs for reasons of cost are also above the EU average. Weak governance, deficiencies in transparency ([2]) and difficulties in providing the right mix between primary, specialist, hospital and long-term care are some of the sources of inefficiency ([3]). The number of acute care beds is much higher than the EU average (4.3 beds in Poland versus 3.5 in the EU), pointing towards an excessively hospital centric health system. At the same time, Poland has the lowest number of practising doctors per capita in the EU and relatively few general practitioners. Long-term care provision remains fragmented and largely underdeveloped. Overall, the governance, transparency and accountability of the system, strengthening primary care and referral systems, rationalising and consolidating the hospital network, reducing waiting times and developing the use of eHealth remain a challenge.

([1]) According to the 2012 Ageing Report public health care and long-term care expenditure will increase by 3.2 pp. of GDP or 60% until 2060 compared to an increase by 2.7 pp or 30% for the EU. These projections will be updated in the first half of 2015 when the new 2015 Ageing Report is published.

([2]) The Supreme Chamber of Control highlighted lack of transparency in the way services in specialist and hospital care are contracted and the related procedures of the NFZ.

([3]) Boulhol, H. et al. (2012) Improving the Health-Care System in Poland, OECD Economics Department Working Papers No. 957

While two reform packages of the healthcare system have come into force beginning of 2015, challenges remain. The “waiting lists package” and the “oncology package" aim at reducing waiting times by shifting patients to the lowest appropriate level of care and prioritising patients with greater needs. From 2015 Poland will introduce annual Health Needs Maps for cardiovascular and cancer diseases identifying relevant needs, resources and infrastructure. In 2016 Health Needs Maps for all other important diseases will follow. The Polish government is currently preparing a new strategic document (Policy paper for the health sector 2015-20), a National Health Programme and new Public Health law. Those initiatives have a potential of improving the cost-effectiveness of the health system. However, their scope and specifics remains unknown far the time being. Limited administrative capacity in the healthcare sector is a challenge in terms of EU funds absorption for addressing existing issues in the health care system. Overall, limited progress has been made in improving the cost-effectiveness and efficiency of spending on healthcare.

Poland appears to face medium fiscal sustainability risks according to the 2012 Fiscal Sustainability report. The medium-term sustainability gap, showing the adjustment effort up to 2020 required to bring debt ratios to 60 % of GDP in 2030, is currently estimated at around below 1/4 % of GDP. It is primarily related to the structural primary balance in 2015 (estimated at -0.2 % of GDP). Also in the long-term, Poland appears to face medium fiscal sustainability risks, mainly related to the projected increase in healthcare spending. To safeguard the sustainability of public finances in the long term, a sufficient primary surplus is needed.

2.2. TAXATION

Poland faces significant challenges in taxation. They relate to tax collection, the efficiency of the tax administration, costs of compliance for taxpayers as well as to broadening the tax base for consumption.

Improving tax collection remains a major challenge. Increasing the recovery of unpaid taxes is a pressing issue, as the stock of tax debt has continued to increase. The VAT compliance gap increased significantly and reached 25 % of the amount theoretically due in 2012 ([4]). Recent data points to an increase in VAT collection in 2014 which could be attributed to the introduction of some anti-fraud measures (i.e. reverse charge and joint liability) in sensitive sectors. However, as fraudsters can move to other sectors it is important to ensure that such tools are used alongside a well-organised and efficient tax administration. Poland has taken a number of additional measures to combat tax fraud, such as warning letters, limiting the exemption from using cash registers, monthly VAT returns for certain suppliers, improving cooperation with enforcement authorities and improving analysis and planning of VAT audits. The implementation of the tax compliance action plan, presented in spring 2014, is progressing well: 35 out of 43 measures envisaged in the plan are on track.

Poland faces the challenge of further modernising and improving the efficiency of its tax administration. First steps were taken to consolidate the highly fragmented tax administration. A bill that foresees the consolidation of activities in the tax administration, more support for taxpayers, changes in the functioning of the customs administration to facilitate customs procedures for firms, and stronger anti-corruption measures will enter into force in April 2015. A new law on tax administration is under preparation, which (among others things) will enable specialisation by tax offices. Each tax office is still using its own database for risk assessment, while consolidation could allow for better targeting of controls. Many of the measures have just been introduced or are at the proposal stage and it is therefore too early to evaluate their impact on government revenues. A lot will depend on how the reorganisation of the tax administration is implemented on the ground. Given the number of measures taken and the low efficiency of tax collection, developing an overarching and strategic approach linking all functions of tax administration (i.e. risk assessment, audit, debt collection and IT) would help ensure that the legislative changes deliver the expected results. Overall, Poland made some progress in raising the effectiveness of its tax administration.

Complying with tax obligations remains a major obstacle for a well-performing business environment. The number of hours spent by firms to prepare, file and pay taxes is high and has hardly improved in recent years ([5]). The lack of clarity and frequent changes in tax law, as well as diverging interpretations by the tax authorities, weigh on the complexity of the tax system. On the other hand, the use of electronic services in tax procedures has been extended. The percentage of tax returns filed electronically is expected to increase from 27 % in 2013 to 35 % in 2014. A new taxpayers' portal was launched in August 2014 that should facilitate direct communication between taxpayers and tax offices and allow taxpayers to access their own tax records. In March 2015 limited pre-filling of tax returns will be made available. In autumn 2014, the government appointed a committee to prepare a thorough reform of a general tax act (Ordynacja Podatkowa) that deals with general tax rules and procedures and sets the framework for relations between taxpayers and tax authorities. The committee is expected to present the basis for a reform in the first quarter of 2015. On this basis, a new general act is expected to be proposed within the next two years. The revision of the general tax act offers an opportunity to set a framework conducive to a more trust-based relation between taxpayers and tax administration. However, this cannot be achieved without an efficient and high-quality tax administration. It is important to ensure that the operational changes and tightening of the

([4]) The difference between theoretical tax liability, according to the tax law, and actual revenue collected. CASE/CPB '2012 Update Report to the Study to quantify and analyse the VAT Gap in the EU-27 Member States'. Study commissioned by the European Commission. September 2014.

([5]) 286 hours compared to the EU-28 average of 189. World Bank, 2014 Doing Business 2015: Going Beyond Efficiency, Washington rules translate into structural improvements and result in higher revenues. Overall, Poland made some progress in facilitating tax compliance.

Poland applies reduced VAT rates to an extensive number of goods and services ([6]), which affects the efficiency of the VAT system and carries a large budgetary cost (2.7 % of GDP in 2012 ([7]). In particular, the reduced VAT rate applied to housing and housing works is estimated to constitute the biggest loss of potential revenue among the reduced VAT rates ([8]). A number of reduced VAT rates are presented as instruments for redistribution. However, reduced VAT rates are not an effective instrument for that purpose. In particular, VAT rates are not specifically targeted to vulnerable households and thus translate into significant subsidies to rich taxpayers. Social benefits and income tax are instruments which are better targeted and thus more suitable to achieve redistributive goals. Poland has made no progress in addressing the issue of reduced VAT rates.

The current design of environmental taxes does not provide a coherent set of incentives for efficient energy use and for reducing greenhouse gas emissions. Government revenues from energy taxation in terms of GDP percentage are above the EU average ([9]). However, this is mainly due to high energy consumption since the implicit tax rate on energy consumption remains comparatively low ([10]). Tax rates on energy products are relatively low and Poland applies tax exemptions to agriculture and energy intensive sectors. Environmental taxes in Poland are not automatically indexed and despite the trend in the EU, vehicle taxation in Poland is not based on CO2 emissions.

([6]) Among other foodstuff, water supplies, pharmaceutical products, medical equipment, transport of passengers, books and periodicals, admission to cultural services and amusement, social housing, renovations and repairs of private dwellings, hotel accommodation, restaurants, use of sporting facilities, medical care, waste collection, minor repairs, hairdressing.
([7]) Ministry of Finance data.
([8]) PLN 11.2 bn or 15 % of the total cost of reduced VAT rates.
([9]) Study on Environmental Fiscal Reform Potential in 12 EU Member States.
([10]) Taxation Trends in the EU, 2014 edition.

2.3. LABOUR MARKET, EDUCATION AND SOCIAL POLICY

Over the past years, the Polish economy has benefited from low labour costs. However, the path towards an innovation-driven economy presents challenges for improving quality of human capital. The most important challenges are a low labour market participation by certain groups, persistent labour market segmentation and low geographic and occupational mobility. Poland also faces a number of challenges in education, especially regarding insufficient labour market relevance, its quality and life-long learning. At the same time, ensuring social cohesion is also an important challenge.

Labour market performance

The Polish labour market suffers from several weaknesses and is under growing pressure from demographic aging (Box 2.3.1**).** The employment rate has increased significantly and stood at 67.3% in the third quarter of 2014. At 8.3%, the unemployment rate is also showing strong improvements. However, long term unemployment continues to rise. In 2013, 42.5% of the unemployed remained without a job for more than one year, up from around 30% in 2008-2009, while the transition rate from unemployment to employment was 28.7% in 2012.

Public Employment Services (PES) fail to adequately address the labour market performance issues due to a lack of resources and inefficient functioning. Weak monitoring, insufficient coordination of the fragmented PES system and a lack of skilled personnel hinder its efficient functioning. The amendment of the act on employment promotion and labour market institutions introduced a major reform of the PES and active labour market policies. An individualised approach of PES towards job-seekers and improved career guidance and counselling were introduced. New measures were also envisaged, including activation vouchers, loans from the Labour Fund and activation benefits for employers hiring parents who return to work. Ensuring effective policy coordination between the bodies concerned, including monitoring and evaluation, will be of key importance.

Labour market participation

Labour market participation by women continues to be hindered by limited availability of childcare services and pre-school education. Women’s working life (29.6 years vs. 34.7 for men) remains low, negatively influencing, for example, their pension rights. Their employment rate is still particularly hampered by the insufficient supply of care facilities for children and elderly people. Despite increased funding, the coverage of childcare facilities for the under 3s continues to be negligible ([11]) and challenges pertain in reducing disparities in access to early childhood education. To address these, a statutory obligation was introduced on municipalities to provide a place to participate in pre-school education for each 4-year-old child as of September 2015, and each 3-year-old child as of September 2017. The use of flexible working arrangements for women (such as part-time) is also significantly lower than the EU average and does not promote reconciling work with dependents care obligations. Despite introducing regulations pertaining on flexible working times ([12]) only a limited number of companies implemented flexible solutions by May 2014.

The overall impact of measures on parental leave and flexible working times, aimed at reconciling the work and family life, still remains uncertain. Two new additional measures were put in place in 2014: grants for telework and activation benefits for unemployed parents returning to the labour market after parental leave. However, the effectiveness of these complementary measures will likely depend on the availability of childcare services. The initial effects of the June 2013 parental leave increase on the re-integration of mothers into the labour market are still to be assessed. In general, some progress has been made on increasing female participation on the labour market.

Labour market participation of older workers also remains low, although a gradual increase in the employment rate in the age group 55-64 is visible ([13]). Some activation measures targeted at older workers were introduced, like new wage subsidies for hiring employees above 60 and limiting the use of the National Training Fund to

([11]) At a total of 6 % in 2012, compared to an EU-28 average of 28 %

([12]) These are, for example, 'sliding' (ruchomy) and 'interrupted' (przerywany) working time.

([13]) From 41.3% in 2013 (Q3) to 43.3% 2014 (Q3) people 45+. However, in the context of the increase of the statutory retirement age, increasing the effective retirement age and the employment rate of people aged 50+, and in particular of older women, remains a substantial challenge. Therefore, limited progress was made on improving employability of older workers.

Labour market participation of youth remains hindered as well. The youth unemployment rate in Poland, which stands at 27.3 %, continues to be higher than the EU average and the proportion of young people who are neither in education, nor in employment or training (NEETs) increased to 12.2 % in 2013. The Youth Guarantee in Poland was enacted into law. It is designed to strengthen the outreach ([14]) to unregistered young people and provide young job seekers with job brokering ([15]), vocational counselling support and new activation tools such as vouchers ([16]) and start-up loans from the Labour Fund. However, effective coordination of the activation measures is a challenge, in particular in terms of the cooperation between the PES and the Voluntary Labour Corps (OHP). The OHP was assigned a larger role under the new act and the Youth Guarantee, for formerly it was focused on low-skilled manual labour, to facilitate the social integration of disadvantaged young people. The extent to which the OHP is capable of helping a wider range of young people to find high quality long term employment remains to be thoroughly monitored. Some progress has been made as regards strengthening efforts to reduce youth unemployment.

Labour market segmentation

Labour market segmentation persists in Poland. The incidence of temporary contracts is the highest in the EU ([17]), while the transition rate from temporary to permanent employment is low (20%) and the wage penalty ([18]) the highest in the EU (36.8% in 2010). Moreover, 66.8% of temporary employees cannot find a permanent job. Furthermore, the use of civil law contracts (umowy cywilno-prawne) ([19]) increased over recent years. Their excessive use adds to weakening the quality of employment, especially for young workers. To safeguard the social insurance of persons employed under civil law contracts ([20]) and to limit their excessive use, a new law has been introduced, which is expected to be in force as of 2016. The new law is to oblige employers to pay monthly social contributions for all order contracts (i.e. the most commonly used civil-law contract) to at least the level of minimum wage (at PLN 1750 in 2015). However, the essence of the problem, which lies within the Labour Code, remains unaddressed. Therefore, the proposed change is rather unlikely to solve the problem of almost a quarter of people in employment on fixed-term or civil-law contracts. The high administrative burden ([21]) of hiring employees under the Labour Code poses a significant challenge to the labour market and fosters the use of fixed-term and atypical employment contracts. Rigid dismissal provisions often leading to long judicial proceedings as well as other burdens for employers motivate them to look for solutions outside the Labour Code. It also may limit the use of activation measures such as the teleworking grants. Overall, limited progress has been made in combatting labour market segmentation.

Regional and occupational labour mobility

Low regional and occupational mobility within Poland continue to be a structural labour market challenge. In a number of Polish regions, obstacles to internal mobility (both geographical

([14]) Finding young people not in employment, education or training and enthusing and helping them to return to education or take on employment.
([15]) Helping young persons to find the right job and employers to find the right skills.
([16]) Amongst others, these are vouchers for training, internship, employment and settlement.
([17]) 26.8 % in 2013 vs 13.7 % in the EU.
([18]) On average the pay under temporary contracts is less by this percentage in comparison to permanent contracts

([19]) These are flexible employment contracts agreed outside of the Labour Code, with a lower level of social security for the employee and lower social-security induced risks for the employer.
([20]) Workers employed on regular employment contracts pay contributions to the social insurance institution from their entire salary. In the case of order contracts (umowa zlecenie), employers can now pay contributions to social security - including pension, disability and accident contributions - only from one selected contract. For other contracts agreed with the same person the payment is not obligatory.
([21]) Including the rigid dismissal policy that often leads to long judicial proceedings for employers and other requirements creating unnecessary burdens for employers, motivating them to look for solutions outside the Labour Code and limiting the use of activation measures such as the teleworking grant.

and inter-industry) lead to regional labour market shortcomings and mismatches, as well as significant labour resource misallocation. Workers do not move to other districts or provinces with more favourable labour market conditions. In addition, a correlation is visible between high unemployment levels and possibly more generous unemployment benefits in some districts ([22]) (while minimum wage is the same everywhere), which potentially limits internal migration flows towards more dynamic areas. These flows are also hindered by the fact that workers do not commute easily because of persisting transport infrastructure limitations and transportation costs.

The social security privileges for farmers and miners substantially hamper occupational mobility and pose costs to public finances. The agricultural sector in Poland employs 11.4% of the workforce, more than double the EU average (5.1%), while producing only 3.3% of gross value added. The special social security scheme for farmers (KRUS), together with a preferential tax regime, disincentives people from leaving agriculture for more productive sectors. This results in hidden unemployment in rural areas and increased participation in the informal economy. KRUS is heavily subsidised, with social contributions from farmers covering only 9% of its costs and state subsidies amounting to almost 1% of GDP. Labour market mobility is similarly hampered by the special pension privileges for miners, who are exempt from the defined contribution system. Miners' pensions cost around 0.5% of GDP to public finances. There has been no progress in reforming the social security schemes for farmers and miners.

Education and skills

Poland performs relatively well in reducing early school leaving and has good PISA results, but improving key competences is a challenge. The socio-economic background of pupils still plays a significant role in student outcomes . There are also substantial differences in achievements between different types of upper secondary schools. Low levels of digital and language skills constitute a key challenge. Most importantly, surveys ([23]) point to the fact the education system is failing to equip pupils with labour market-relevant key competences, such as analytical skills, problem solving, critical thinking, teamwork, creativity, etc. An excessive focus on preparing students for testing is part of the problem. The school entry age was lowered from 7 to 6 years as of 2014/15 and a general education curriculum reform in upper secondary schools is being implemented. Under the *Digital School* programme, open educational resources (e-textbooks) developed, but the process is slow and faces criticism from education stakeholders. More free schoolbooks will gradually be introduced ([24]). However, there is still a challenge to improve teacher training as far as teaching labour market relevant key competences is concerned. A debate is underway about a possible reform of the teachers' charter with a view of making the system more flexible.

Vocational education and training (VET) is still not well-aligned to labour market needs ([25]). Poland started implementing reforms of its VET system as from the school year 2012/13, but the main challenges still include better cooperation between enterprises (especially SMEs) and VET schools ([26]), in particular concerning the development of work-based learning, and improvement of the teachers' skills. Improving basic and key competences of pupils is also essential in order to prepare them for the evolution

([22]) There is one national legal framework, but in practice the level of unemployment benefits differ per district due to a lack of cooperation between public employment services on different levels.

([23]) For example, results of TALIS 2013.

([24]) Free schoolbooks will be provided for the first grade students in primary school, from school year 2014/15. As of 2015, free schoolbooks will be introduced in the second and fourth grade of primary school and first grade of lower secondary school. From 2017 all primary and lower secondary schools students will have received free schoolbooks.

([25]) The unemployment rate for graduates of technical upper-secondary schools and post-secondary schools (technika and szkoly policealne) was at 35.5% , for basic vocational schools it was at 43.5 % (19.9% for higher education graduates) according to GUS 2014 (Polish Main Statistical Office).

([26]) In a survey, only 55% of VET teachers declared to have cooperated with employers in the year 2012/2013 and only 29% of schools consulted employers on their training programmes.

of the labour market ([27]). Providing high-quality career guidance also remains a challenge ([28]), as well as strengthening cooperation between the regional and local authorities to ensure efficient investment in the VET system. Recently, the Minister of National Education put the focus on strengthening VET by announcing the school year 2014/15 as the 'Year of VET professionals', which will be reinforced by both national and EU funds(). Overall, Poland has made some progress in further improving the relevance of vocational education to labour market needs.

Although Poland is on track to achieve its national target of 45 % for the tertiary attainment rate ([29]), the labour market relevance and quality of higher education, remains a challenge. An increase in the numbers of high skilled workers performing medium or low skilled jobs can be observed ([30]), which reveals a mismatch on the labour market. Furthermore, there is a lack of effective career guidance and graduates lack labour market relevant key competences. In October 2014 an amendment to the higher education law entered into force, which introduces a monitoring system of graduates' employment paths and allows students to conduct interdisciplinary studies and practice-oriented studies with employers. Finally, there is a challenge regarding Universities cooperation with business, including Ph.D. studies, international cooperation and the lack of a comprehensive system of electronic repositories providing open access to scientific information, namely publications and research data. Overall, as far as higher education is concerned Poland has made some progress in further improving the relevance of education to labour market needs.

([27]) In 2012 more than 46% of pupils in basic vocational school did not reach the level 2 in language abilities in PISA survey

([28]) Despite the fact it has been addressed in national legislation with the introduction of the obligation to provide the students at secondary education levels with guidance. Source: REPORT from the international conference on vocational education and training "PROFESSIONALS – READY, STEADY, GO!", EC Representation, Poland, 8 December 2014

([29]) Poland performs above the EU target regarding its tertiary attainment rate (40.5% in 2013 compared to the EU average of 36.9% for 30-34 year-olds)

([30]) As evidenced by Eurostat data, according to which the percentage of persons performing jobs below their level of qualifications increased from 11% to 19% between 2002 and 2012, showing one of the sharpest increases in the EU.

Low participation in lifelong learning continues to hinder the employability of adults, especially older workers. In this respect the key challenge is the adjustment of skills supply to skills demand on the labour market. Adult participation in lifelong learning remains particularly low ([31]), especially among those aged 55 – 64 (0.8 % of the population). Moreover, the results of the OECD Adult Skills Survey (PIAAC) show an urgent need to improve the skills of older adults, in numeracy, literacy and in particular in problem-solving in technology-rich environments. Furthermore, participation in lifelong learning tends to be low among people with a lower level of education as well as people in the agricultural and industry sectors. The VET reform introduced the possibility of validating full qualifications acquired in a non-formal way, which may provide a stronger incentive for adults to participate in different forms of life-long learning. Poland has made limited progress in increasing adult's participation in lifelong learning in a view to adjust skills supply to skills demand.

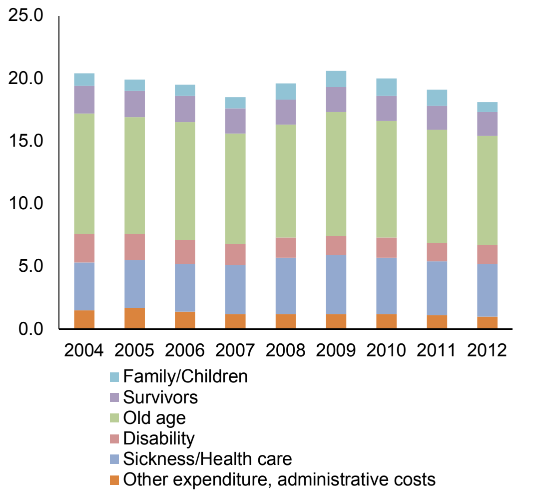
Social policy

Poland still faces serious challenges in terms of the overall adequacy and coverage of the social protection system. At 18.1 %, Poland's social protection spending in terms of GDP (Graph 3.3.1) remains below the EU average of 29.5 %. The impact of social transfers on poverty reduction is continuously decreasing with around 10 pp. lower than the European average in 2013. Almost 50% of the overall social protection expenditure is allocated to old-age pensions, and this share shows no tendency to decline. Within old-age pensioners, older women (65+) are at much higher risk of poverty and social exclusion than men (27.1 % vs 17.4 %) and this gender discrepancy is attributed mainly to the inequalities of the pension system. On average, women pay relatively lower pension contributions due to shorter careers and longer life expectancy. Despite a growing 'at-risk-of poverty' rate for children, expenditure on child and family benefits is the lowest in the EU, at 0.8% of GDP (2012). Furthermore, the coverage and amount of unemployment benefits are very low and the difference between the unemployment benefit and

([31]) The rate even decreased in 2013 to 4.3% (as compared to 4.5% in 2012), and the EU average of 10.5%.

the minimum wage is relatively small, which, in turn, discourages the low-skilled unemployed from looking for work. The National Programme for the Prevention of Poverty and Social Exclusion for 2014-20, which was adopted on 12 August 2014. In addition, some measures supporting large families were introduced. Moreover, the minimum qualifying income for family benefits has been raised, but benefit rates still remain low. However, a comprehensive reform of the social protection system to improve its overall effectiveness and efficiency has not been brought forward. Overall, limited progress has been made on improving the targeting of social policies.

Graph 2.3.1: **Expenditure on social protection in Poland, % of GDP, by expenditure type**



Source: Eurostat

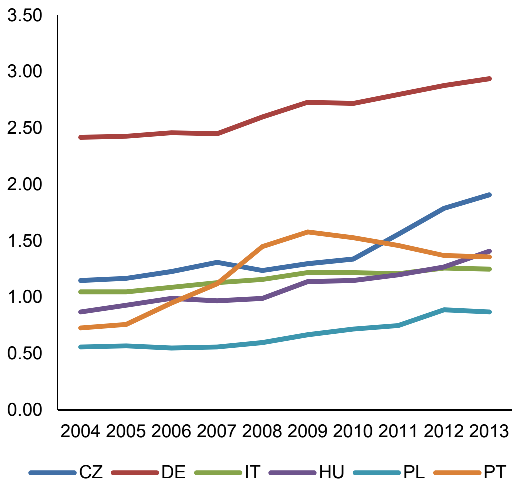
Box 2.3.1: **Growing pressure from an ageing population**

The Polish labour market is facing an increasingly important challenge related to demographic change and an ageing population. Poland has the second lowest fertility in the EU at the level of 1.3 (2012 latest available data). The future impact of immigration and emigration flows remains unclear. According to the 2015 Ageing Report, which includes net migration, the Polish working age population (15-64) is set to decline from 27.1 million in 2013 to 25.4 million in 2020. The pace of the decline in working age population (as % of total population) is worrying, with longer-term projections pointing at a decline to less than 20 million in 2050.

2.4. R&D AND INNOVATION

The R&D intensity of Poland's economic activity has increased since 2007 but it still remains low. Total R&D spending reached 0.9% of GDP in 2013, up from 0.6% of GDP five years earlier (Graph 3.4.1). Nevertheless, it remains one of the lowest in Europe and overly dependent on public outlays. Although the country's R&D system has recently experienced significant changes, increasing public support for R&D has not yet triggered a sufficient increase ([32]) in R&D spending by firms ([33]).There is still some way to go to meet Poland's target for total R&D spending of 1.7% of GDP by 2020. Overall, the low level of public and private R&D expenditure as well as the weak capacity of Polish companies and research institutions to translate investments into innovation output contributed to Poland's poor 2014 Innovation Union Scoreboard ranking (25 out of 28). The prioritisation of public investment in applied research and innovation that triggers greater private R&D investments leading to stronger innovation performance constitutes an important challenge.

Graph 2.4.1: **Total R& D expenditure as % of GDP in Poland in 2004-2013**



Source: Eurostat

Improving Poland's scientific and technological performance and fully rolling out the R&D policy framework is a priority to create an effective research and innovation system. The efficient implementation of the key policy initiatives planned for 2014-2020 – the Strategy for Innovation and Efficiency of the Economy , Enterprise Development Programme (PRP), National Smart Specialisations (KIS) and the Operational Programme 'Smart Growth' – is of key importance to gradually overcome the long-lasting challenge of intensifying the collaboration between science and industry. This challenge was also addressed in October 2014, when some amendments to the act on higher education were introduced, facilitating the transfer of ownership of intellectual property rights to scientists creating academic inventions, thus incentivising the commercialisation of R&D. Furthermore, Poland committed itself to fully implement, by the end of 2016, National and Regional Smart Specialisation Strategies in the framework of European Structural and Investment Funds initiatives. These strategies aim to reduce the fragmentation of public research policy and may help strengthen links between all participants of the innovation process. Moreover, the programmes offered by the National R&D Centre (NCBR) and measures included in the operational programme 'Smart Growth' for 2014-20 propose a more coherent system of support instruments addressing the whole innovation cycle from research to market innovation. The supply of venture capital instruments for investments in high risk, innovative projects is very low ([34]), therefore the use of financial instruments to leverage more private investment still remains an important challenge.

Increasing the internationalisation and quality of Polish research and innovation system is still a challenge. This is evidenced by the weak scientific excellence ([35]), the persistently low share of public-private co-publications ([36]) and business researchers, the alarming decline of the innovation

([32]) Private spending increased from 0.33 % of GDP in 2012 to 0.38 % of GDP in 2013, as compared to 1.29 % of the EU average.
([33]) There needs to be noted a possible underreporting of Polish BERD, which is due to lack of incentives for companies to meet their reporting obligations on R&D. Introduction of R&D tax incentives could motivate companies to adequately report their R&D expenditures.

([34]) Venture capital investment accounts for 0,05% of GDP (source: GUS, Polish national statistics).
([35]) Only 3.8% of the Polish scientific publications are among the 10% most-cited worldwide, which is the fifth lowest score in the EU
([36]) In 2012, Poland had only 5 public-private scientific co-publications per million population, compared with the EU average of 53.

activities performed by SMEs ([37]), and the weak performance in patents and other innovation indicators. A support programme for FDI to attract R&D investment ([38]) and planned support measures in the Operation Programme 'Smart Growth' focused on stimulating export activities by Polish companies. Recent improvements in the system of financing scientific institutions (amendments to the Act on financing science from January 2015) may partly contribute to increasing the international cooperation of researchers and businesses.

The main weaknesses of the Polish research and innovation system are on the output side. Thus, the challenge would be to raise the quality of public investments in R&D by focusing on areas with the highest commercial potential of research results. Moreover, further promoting the innovation performance of the private sector, focusing on the efficient implementation, monitoring and evaluation of the recently proposed R&D policy framework, is likely to improve the effectiveness of R&D system. Overall, Poland has made limited progress in strengthening the links between science and firms, while some progress was achieved in better targeting of the existing instruments at the different stages of the innovation cycle.

R&D tax incentives have so far been ineffective in stimulating private R&D. They reach a small number of beneficiaries at a high cost per beneficiary. This warrants a revision on how to use these funds more effectively in line with good practice ([39]). The two instruments, (i) the New Technology Tax Relief and (ii) the Tax Deduction for R&D centres have been in place for almost ten years, but their uptake has been very low. In 2013, only 75 companies claimed the technology relief, with an average support per company of 4 million PLN (circa EUR 950 000). Moreover, the design of the technology tax relief is targeted at supporting the purchase of technology and not in-house development. The eligibility criteria to benefit from the tax deduction for R&D centres are considered too restrictive, especially for young firms. There were only 34 R&D centres benefitting from this relief in 2014. A new design of the R&D tax incentives was proposed in 2014 within the Enterprise Development Programme. It would be helpful in addressing some shortcomings of the existing system, for example access for younger and smaller companies and stimulating internal R&D. However, its implementation has been made conditional by the government on Poland exiting the excessive deficit procedure. Overall, no progress has been made in improving the effectiveness of R&D tax incentives.

([37]) Only 13.5 % of Polish SMEs introduced product or process innovation in 2012 (average annual growth for 2007-12 was negative at - 12.2%).

([38]) Amendments of the rules for 'Programme for the support of investments of considerable importance for Polish economy for years 2011-2020' support FDIs that are oriented towards R&D-type investments.

([39]) Good practices have been identified in a recent study and the cost of a well-designed scheme should not necessarily be much higher than the existing scheme in Poland. CPB, 'Study on R&D tax incentives'. Final report. Study commissioned by the European Commission, 2014

2.5. NETWORK INDUSTRIES AND ENVIRONMENT

Bottlenecks and deficiencies in transport, energy sector and information and communications network continue to weigh on Poland's growth potential. The railway sector suffers from low investment, broadband internet coverage is underdeveloped.. The Polish economy is very energy intensive and has an aging energy generation infrastructure, heavily dependent on the coal. Finally, the energy network is not sufficiently connected to neighbouring countries.

Transport infrastructure

Thanks to sizeable investment ([40]), the density of the country's transport infrastructure is now in line with the EU average, but maintenance and modernisation spending between transport modes is not balanced. Due to the fast surge in road transport, the overall structure of the transport system – including in urban areas – has become unsustainable. It is dangerous for users ([41]), energy-intensive ([42]), congested ([43]) and adds to greenhouse gas emissions (GHG) ([44]) as well as high air pollution ([45]). The risks to the sustainability of the transport system mainly stem from underinvestment in maintenance of the railway infrastructure, preferential treatment of road transport, sub-optimal functioning of public transport, a poor integration of different modes of transport, and an insufficient reliance on Intelligent Transport Systems (ITS).

([40]) Between 2006 and 2013 the length of motorways and expressways increased by 1700 km and length of railways adjusted to the speed of 160 km/h increased by 700 km.
([41]) The number of accidents and fatalities still remains at one of the highest levels in the EU, with 263 fatalities per million passenger cars (2012).
([42]) The transport sector's energy consumption has been increasing by an annual rate of 6% between 2005 and 2011. As a consequence, Poland's dependence on petroleum products is one of the highest in the EU (at 3.5 % of GDP).
([43]) The annual cost of congestion as share of GDP is one of the highest in the EU (1,6 % of GDP in 2009 vs the EU average of 1 %) (JRC Technical Notes, 'Measuring road congestion'; ftp://ftp.jrc.es/users/transtools/public/congestion.pdf).
([44]) GHG emissions from transport doubled between 1990 and 2012 with the newly registered cars still less emission-efficient at 141 g CO2/km than the EU average of 127 g CO2/km.
([45]) In 2009-11, the percentage of the Polish urban population exposed to PM10 concentrations above the EU air quality objectives was 79-86 % (minimum and maximum over the period) (Air quality in Europe — 2013 report of the European Environmental Agency).

During the last 25 years the underinvested railway transport has been suffering from considerable degradation, closure of lines and traffic restrictions despite receiving prioritised EU funding. Moreover very high track access charges in comparison to other European countries hamper the development of this mode of transportation vis-á-vis road based transport. Rigid and insecure national financing of railway investment and burdensome regulatory environment led to lengthy and cumbersome project preparation and implementation. The implementation delays are also due to an inadequate administrative and organisational capacity of the railway infrastructure managing body, in relation to which no actual improvement could be observed on the ground despite announcing positive changes. As a consequence, the rail sector lost competitiveness vis-à-vis road transport.

Recent legislative changes are adequate and may have a positive impact on railway transport ([46]). However, they are not likely to affect investment projects in the 2007-13 programming period. In the 2014-20 financial perspective, European funding for the railway sector is to be increased by 85 % to EUR 10.2 bn and, in addition, at least EUR 4.5 bn is to be invested in sustainable urban transport projects to address congestion and sustainability. Poland committed to ambitious objectives, which may help to reverse negative trends in freight and passenger transportation towards more sustainable means of transport. However, it requires a stronger commitment at a central decision-making level as well as flexible and stable financial arrangements for investment co-financing ([47]).

Despite the steps planned for the coming years to address the transport challenges, only limited overall progress was observed in implementing railway projects and in improving administrative capacity in the sector.

([46]) Amendment of Railway Act of 15/01/2015 aims to facilitate the procedures for implementing investment in railway infrastructure.
([47]) On the basis of the Multiannual Railway Investment Poland, covering the period until 2023.

Broadband

Poland is among the EU countries with the lowest coverage in terms of both basic and high-speed internet and it also features low take-up rates for broadband. In 2013, only 88 % of homes in Poland had access to fixed broadband networks and only 75 % in rural areas. This ranked Poland respectively on the third and fourth last place among EU Member States. In terms of fixed broad-band affordability Poland ranks 22 out of 28 Member States ([48]). Thus, further investment in broadband deployment and making internet access more affordable are key challenges for the country's economic development. In early 2014 Poland launched a National Broadband Plan, which mirrors the Digital Agenda for Europe's (DAE) targets for broadband expansion until 2020, and which was complemented in December 2014 by Operational Programme Digital Poland (Polska Cyfrowa, OPDP). OPDP refers specifically to the elimination of territorial differences in terms of access to broadband and is set to support broadband deployment from 2014 to 2020 with EUR 1.2 bn in funding from the European Regional Development Fund and Poland's own contribution. Mobile broadband coverage is also planned to be reinforced as the auction for assigning new mobile broadband spectrum was finally launched. Overall, it can be concluded that Poland has made some progress with respect to broadband as far as administrative and financial decisions are concerned.

Energy

In recent years, overall energy consumption in Poland has decreased and decoupled from economic growth. Poland is on track to meet its national energy efficiency target, however, the potential to reduce Poland's overall energy dependency is still high and Poland still has one of the most energy-intensive economies in the EU ([49]). The Commission estimates that 70 % of houses are poorly insulated and 70 % of single-family houses are heated with coal which impacts negatively on public health and the environment. Poland has earmarked under the 2014 - 2020 EU funds programing period a significant amount of funds for energy efficiency projects (totalling EUR 2bn), in particular housing insulation and Combined Heat and Power (HP). Poland made some progress in the area of energy efficiency.

Lack of competition in the energy markets, combined with price regulation, leads to insufficient supply diversification and remains a main source of economic inefficiency in the entire energy supply chain. Insufficient supply diversification in the gas market increases the risks of gas supply disruptions and prevents closer integration of the Polish gas market with regional markets. In 2014 a gas exchange opened and an obligation to sell gas through it has been introduced. A similar arrangement in the electricity sector has facilitated competition and now about 60% of trade in this sector takes place through the exchange mechanism. However the exchange is not linked by market coupling with the neighbouring countries, except Sweden.

The development of energy interconnectors is progressing slowly. Stronger integration of Poland with neighbouring countries is key to ensure security of supply of gas and electricity and integration of the energy markets in the region. Although Poland has nearly completed the work on its part of the electricity interconnector with Lithuania ('LitPolLink'), the work on electricity interconnectors with Germany and Slovakia is not progressing. This situation makes Poland one of the least connected EU Member States in electricity. In the gas sector, despite recent investments and progress achieved in more flexible use of existing pipelines in the national grid, delays are reported in the development of the LNG terminal in Świnoujście (operation foreseen for mid-2015) and in the construction of interconnectors with neighbouring countries. The southern gas interconnection with the Czech Republic and Slovakia remains at the preparatory stage. The gas interconnector with Lithuania, which is a key project to increase security of supply in the region, has been progressing at a slow pace despite significant support granted from EU funds (EUR 295 million). Only limited progress was achieved in developing cross-border

([48]) Data from Broadband Internet Access Cost (BIAC) study (2014) (http://ec.europa.eu/digital-agenda/en/news/study-retail-broadband-access-prices-february-2014) and Eurostat (2013) (http://ec.europa.eu/eurostat/web/products-datasets/-/tec00113)

([49]) 'Member State's Energy Dependence: An Indicator-Based Assessment', European Economy, Occasional Paper 145, April 2013.

energy interconnectors, including the gas interconnector with Lithuania.

Domestic energy generation capacity is aging and heavily reliant on coal. Coal and lignite account for nearly 85 % of electricity generation in Poland and significant new generation capacity running on coal is being built (Opole, Kozienice, Jaworzno, Turow power plants). With economically viable domestic coal reserves declining, Poland is increasingly importing coal: in the 8 years to 2013, Polish solid fuels (both coal and lignite) production declined by 17%, while imports almost tripled (to 6.5 mt), and exports fell by 22%. Sizeable subsidies for coal production (totalling €730m in 2012) decrease costs of producing electricity from coal, which may lower the effectiveness of renewable support schemes because renewable sources of energy become less competitive in comparison to coal ([50]). There are promising plans to steer consumer demand for electricity away from peak hours. In 2014, nearly 400 000 'smart meters' were installed in Poland. On balance, some progress has been achieved in renewing and extending energy generation.

Waste management

While Poland still faces challenges in meeting binding Waste Framework Directive targets, the overall landfilling rate for generated waste as well as municipal waste generation per capita are well below the EU average. Yet, statistical reporting suggests that about 16% of the generated municipal waste is not collected resulting in 1.8 million tons of uncollected waste dumped illegally or burned ([51]) and 75% of collected municipal waste was landfilled while only 13% recycled and 12% composted, which is below EU28 average ([52]) . The announced update of the National Waste Management Plan and Regional waste management plans (to be completed by the end of 2016) is encouraging, as planned infrastructure will be reviewed to address the overall quality of the recycling system and to avoid incineration overcapacities, both of which could further hinder a higher recycling rate of municipal waste. Moreover, any EU co-financed investment is set to be aligned with those plans. Overall, some progress has been made on improving waste management, in particular concerning planning of necessary infrastructure.

Air pollution and greenhouse gas emissions

The exposure of the urban population to air pollution by particulate matter continues to be well above the EU28 average ([53]) mainly due to widespread combustion of low quality coal in household stoves and small boilers. Lack of standards for domestic coal boilers and lack of fuel standards to favour the use of higher quality coal remain the most important cause for persisting poor air quality.

Poland could face difficulties in delivering on its commitment concerning the GHG in sectors outside of the Emissions Trading Scheme (ETS). Under the EU 2020, strategy Poland can increase its GHG emissions in such sectors by no more than 14% between 2005 and 2020. Based on recent Commission estimates for 2013 ([54]), emissions are higher than expected as they increased by 11% between 2005 and 2013 and stand above the annual target for 2013 (9%) set by the Effort Sharing Decision.

([50]) In 2012, the share of total renewable energy in gross final energy consumption was 11.04%.

([51]) According to GUS, in 2013, 11.295 thousand tonnes of municipal waste has been generated, while only 9.474 thousand tonnes collected, 'Rocznik Statystyczny Glownego Urzedu Statystycznego: Ochrona Srodowiska 2014' http://stat.gov.pl/obszary-tematyczne/srodowisko-energia/srodowisko/ochrona-srodowiska-2014,1,15.html

([52]) Eurostat 2012 data, EU28: landfilling 34%, incineration 24% and recycling and composting 42%

([53]) 37 micrograms per cubic metre as compared to the EU28 average of 25 micrograms per cubic metre; 2012 Eurostat data

([54]) Kyoto and EU 2020 progress report, COM(2014) 689.

2.6. BUSINESS ENVIRONMENT, COMPETITION AND PUBLIC ADMINISTRATION

The business environment and the effectiveness of public administration present a mixed picture. Despite some positive changes ([55]), progress in improving the business environment is hindered by weak coordination across levels of government and the limited capacity of sub-national governments to implement and monitor policies. The effectiveness of the public administration is additionally hampered by a high degree of fragmentation and incompatibility of IT systems. By contrast, Poland has been successful in increasing competition in professional services thanks to the implementation of ambitious reforms.

Business development demands are still not addressed effectively. Despite a sharp increase in the number of business environment institutions ([56]), the support provided is fragmented and does not reflect the needs of firms. As a result, the current business-support system is focused on basic services, and relies heavily on public aid, whereas firms lack specific support e.g. in areas of innovation and internationalisation. The government has recently initiated reforms to improve and simplify the regulatory business environment. However, better policy coordination between ministries and other entities and closer monitoring of the policies remain a key challenge in this respect. To make the law more predictable for firms, starting from 2015 new regulations will enter into force only twice a year – on 1 January and on 1 June. The act on facilitating business activity, which aims to ease economic activity and simplify regulations by grouping in one legal document changes to over 30 acts, came into effect in 2015. Also, work is ongoing to prepare a new draft law on economic activity, which is to reinforce the rights of entrepreneurs. Furthermore, a new law on enterprises restructuring, which enables a recovery of a company's financial situation, is under preparation.

([55]) For example, a set of measures related to coordination and monitoring development policies was taken, such as consolidation of strategic planning, regular evaluation, and setting up a network of regional observatories.

([56]) Between 2000 and 2012, the number of business environment institutions increased from over 260 to around 820: these are, among others, 40 technology parks, 73 academic business incubators, 69 technology transfer centres, 10 business angel networks, 86 local and regional loan funds and 319 training and advice centres. Data source: Operational Programme Smart Growth 2014-2020.

Dealing with construction permits in Poland is a long and burdensome process. According to the World Bank Doing Business report 2015, obtaining the permit requires 19 procedures, takes 212 days and costs 0.3% of the construction value. In 2014, Poland ranked 137th out of 189 countries in the global World Bank ranking. The government is amending the current legal framework. The codification committee is preparing the final version of the new Urban Development and Construction Code, which aims to improve the investment process. In addition, amendments to the construction law and certain other acts to simplify the procedures for obtaining construction permits are being discussed in the Parliament. Despite these promising steps, the overall reform has been lagging behind. Overall, limited progress has been made in simplifying requirements for construction permits.

Contract enforcement in Poland is lengthy. According to the 2015 Doing Business report (World Bank), enforcing contracts in Poland takes 685 days, costs 19.4% of the claim ([57]) and requires 33 procedures. Poland stands 52nd in the ranking of 189 economies on the ease of enforcing contracts. Recent reforms of the Civil Code, the Code of Civil Procedure, the Land Registries and Mortgages Act might help to simplify contract enforcement in Poland. These include electronic service of documents in enforcement proceedings, electronic auctions, electronic seizure of bank accounts, and extension of the competences of court registrars. These changes are, however, in the adoption or early implementation phase. The high number of pending cases remains a major issue. This is reflected in low clearance rate of courts of first instance resolving civil and commercial cases ([58]). The Supreme Administrative Court is accumulating backlog as well ([59]). Overall some

([57]) Doing Business 2015; the value of the claim is equal to 200% of the economy's income per capita or USD 5 000, whichever is greater, Methodology: http://www.doingbusiness.org/methodology/enforcing-contracts

([58]) In 2013, some 8.6 m civil cases were introduced before the courts of 1st instance, while only around 8.2 mln cases were closed adding to the backlog of cases, as the clearance rate was 97%. Also, disposition time continues to increase and amounts to 144.6 days in 2013. Source: Statistics by the Ministry of Justice;http://isws.ms.gov.pl/pl/baza-statystyczna/opracowania-jednoroczne/rok-2013/

([59]) In 2014, there were 19.5 thousand cases in cassation on January 1 and 22.7 thousand cases on November 1. Source:

progress has been made in simplifying contract enforcement.

The deregulation of professional services in Poland is progressing well. The overall aim of the reform is to liberalise access to ca. 250 professions, where currently almost 1 million people are employed or self-employed. The reform is carried out in three tranches. The first two tranches covering 147 professions (including legal and real estate professions, taxi drivers, tourist guides, sport instructors, security personnel, architects, urban planners, civil engineers, tax advisers, auditors) were adopted in 2013-14. The third one (101 professions including patent attorneys, geologists, stockbrokers) will be discussed in the Parliament in the first half of 2015 and is expected to enter into force in August 2015. While an ex-post evaluation of the effects of the reform is ongoing, the first results already indicate more affordable legal services an increase in the number of lawyers and legal solicitors. Originally, a fourth tranche of the reform was planned and was initiated via online public consultations, but its legislative outcome remains unclear at this stage. Overall, substantial progress has been noted in facilitating access to regulated professions.

The digitisation of public administration in Poland has been slow and very fragmented. The main platform of public administration services (ePUAP) is failing to fulfil its role with a user unfriendly interface and the very small number of registered users. The failure of the vote counting IT system during the local elections last autumn was another example of the problem. The country is one of the EU countries with the lowest online interaction between public authorities and citizens. The uptake of e-services by citizens and business is slow and full interaction with authorities online not always possible. In 2014, only 27 % of Polish citizens used the internet to interact with public authorities (the EU average is 47 %) and only 15 % sent filled e-government forms via the internet (versus the EU average of 26 %). Despite the necessary legislation being in place, only 5% of firms completed administrative procedures fully online. On the supply side, even though recent investment projects increased the general availability and transparency of e-government services (60), fragmentation of investment, weak coordination of measures and lack of standards contribute to a low 'maturity' of public e-services, which often cover procurement procedures only partially and thus are insufficiently integrated with other public systems (e.g. eHealth). For the coming years, Poland has committed to better coordinating European Fund investments through a single Operational Programme 'Digital Poland' (approx. EUR 1.2 bn of investments) and to introduce better policy coordination by establishing the National Integrated Informatisation Programme (PZIP). In terms of eProcurement, currently there are few e-services available and the responsibility is scattered over several institutions. Poland committed itself to complete the development of a comprehensive eProcurement system and the introduction of e-submissions by 2016.

Supreme Administrative Court, http://www.nsa.gov.pl/index.php/pol/Media/Files/ruch-spraw-NSA-2014-r

(60) This is confirmed by the user centricity indicator. It, measures to what extent information about a service is provided online and how usable it is, and rates Poland at 74 points against 73 of the EU average. The transparency indicator places Poland below EU average (42 points, against 51); eGovernment Benchmarking Report, Studies for the EC peformed by Capgemini (2012-2014)

ANNEX A
Overview Table

Commitments	Summary assessment ([61])
2014 Country specific recommendations (CSRs)	
CSR1: Reinforce the budgetary strategy to ensure the correction of the excessive deficit in a sustainable manner by 2015 through achieving the structural adjustment effort specified in the Council recommendation under the Excessive Deficit Procedure. After the correction of the excessive deficit and until the medium-term objective is achieved, pursue an annual structural adjustment of 0,5 % of GDP as a benchmark. A durable correction of the fiscal imbalances requires a credible implementation of ambitious structural reforms to increase the adjustment capacity and boost growth and employment. In that regard, minimise cuts in growth-enhancing investment, improve the targeting of social policies and the cost effectiveness of spending and the overall efficiency of the healthcare sector, broaden the tax base for example by addressing the issue of an extensive system of reduced VAT rates, and improve tax compliance, in particular by increasing the efficiency of the tax administration. Establish an independent fiscal council.	Poland has made **limited progress** in addressing CSR 1 (the overall assessment of CSR 1 excludes an assessment of compliance with the Stability and Growth Pact): • Limited progress in improving the targeting of social policies. The National Programme for the Prevention of Poverty and Social Exclusion was adopted and some measures supporting large families were introduced. The minimum qualifying income for family benefits has been raised. • Limited progress in improving the cost effectiveness and the overall efficiency of the healthcare sector. The "waiting lists package" and the "oncology package" have come into force. Annual Health Needs Maps are being introduced. National Health Programme and new Public Health law is being prepared by the government. • No progress in broadening the tax base • No progress in establishing an independent fiscal council. • Some progress in increasing the efficiency of the tax administration: steps were taken to consolidate the highly fragmented tax administration and to ensure more support to taxpayers; reform of customs administration has been proposed to facilitate customs procedures for businesses and stronger anti-corruption measures were introduced.
CSR2: Strengthen efforts to reduce youth unemployment, in particular by further improving the relevance of education to labour market needs, increasing the availability of apprenticeships and	Poland has made **some progress** in addressing CSR 2: • Some progress has been made in strengthening

([61]) The following categories are used to assess progress in implementing the 2014 CSRs of the Council Recommendation: No progress: The Member State has neither announced nor adopted any measures to address the CSR. This category also applies if a Member State has commissioned a study group to evaluate possible measures. Limited progress: The Member State has announced some measures to address the CSR, but these measures appear insufficient and/or their adoption/implementation is at risk. Some progress: The Member State has announced or adopted measures to address the CSR. These measures are promising, but not all of them have been implemented yet and implementation is not certain in all cases. Substantial progress: The Member State has adopted measures, most of which have been implemented. These measures go a long way in addressing the CSR. Fully addressed: The Member State has adopted and implemented measures that address the CSR appropriately.

work-based learning places and by strengthening outreach to unregistered youth and the cooperation between schools and employers, in line with the objectives of a youth guarantee. Increase adult participation in lifelong learning in order to adjust skills supply to skills demand. Combat labour market segmentation by stepping up efforts to ensure a better transition from fixed-term to permanent employment and by reducing the excessive use of civil law contracts.	efforts to reduce youth unemployment. The Youth Guarantee including a number of activation measures have been implemented. • Limited progress in strengthening outreach to unregistered youth. The Youth Guarantee provides, among others, for job brokering, vocational counselling support • Some progress in further improving the relevance of education to labour market needs. An advisory VET committee comprised of enterprises was established. The Minister of National Education announced the school year 2014/15 as the 'Year of VET professionals' • Some progress in increasing the availability of apprenticeships and work-based learning places. A number of relevant vouchers have been introduced. • Some progress in strengthening the cooperation between schools and employers. The reform of the VET system, providing for better cooperation between enterprises (especially SMEs) and VET schools, is under implementation. • Limited progress in increasing adult participation in lifelong learning. An Act on an Integrated System of Qualifications has been announced. • Limited progress in combatting labour market segmentation. An act on social security contributions announced, but not implemented yet.
CSR3: Continue efforts to increase female labour market participation, in particular by taking further steps to increase the availability of affordable quality childcare and pre-school education and ensuring stable funding. Include farmers in the general pension system, starting by speeding up the creation of the system for the assessment and recording of farmers' incomes. Phase out the special pension system for miners with a view to integrating them into the general scheme. Underpin the general pension reform by stepping up efforts to promote the employability of older workers to raise exit ages from the labour market.	Poland has made **limited progress** in addressing CSR 3: • Some progress in increasing female labour market participation. A statutory obligation on municipalities to participate in providing childcare services and pre-school education was introduced. Grants for telework and activation benefits for unemployed parents returning to the labour market after parental leave were put in place. • No progress in phasing out special pension

	schemes for farmers and miners. • Limited progress in stepping up efforts to promote the employability of older workers. Some activation measures targeted at older workers were introduced, including wage subsidies for hiring employees above 60 and limiting the use of the National Training Fund to people 45+.
CSR4: Improve the effectiveness of tax incentives in promoting R&D in the private sector as part of the efforts to strengthen the links between research, innovation and industrial policy, and better target existing instruments at the different stages of the innovation cycle.	Poland has made **limited progress** in addressing CSR 4: • No progress in improving the effectiveness of tax incentives. • Limited progress in strengthening the links between research, innovation and industrial policy. Some amendments to the act on higher education were introduced, facilitating the transfer of ownership of intellectual property rights to scientists creating academic inventions. • Some progress in better targeting existing instruments at the different stages of the innovation cycle. Poland committed itself to fully implement the National and Regional Smart Specialisation Strategies in the framework of European Structural and Investment Funds to reduce the fragmentation of public research policy and strengthen the links between all participants of the innovation process.
CSR5: Renew and extend energy generation capacity and improve efficiency in the whole energy chain. Speed up and extend the development of the electricity grid, including cross-border interconnections to neighbouring Member States, and develop the gas interconnector with Lithuania. Ensure effective implementation of railway investment projects without further delay and improve the administrative capacity in this sector. Accelerate efforts to increase fixed broadband coverage. Improve waste management.	Poland has made **some progress** in addressing CSR 5: • Some progress in energy efficiency. Significant amount of funding is to concentrate on energy efficiency projects, in particular housing insulation through European Structural and Investment Funds. • Some progress in energy generation. On the electricity market, significant new generation capacity running on coal is being built (Opole, Kozienice, Jaworzno, Turow). The draft of a new Renewable Energy Act, implementing some missing elements of the Renewable Energy Directive is in preparation.

	• Some progress in the development of cross-border electric interconnections, especially with Lithuania ('LitPolLink' project nearly completed). • Limited progress on developing the gas interconnectors, in particular with Lithuania. The work on the southern gas interconnections with Czech Republic and Slovakia remains at the preparatory stage. • Limited progress on effective implementation of railway investment projects. Amendment of Railway Act of 15/01/2015 aims to facilitate the procedures for the implementation of investments in railway infrastructure, but it would rather not affect projects funded under the 2007-2013 programming period. • No progress on improving the administrative capacity in the railway sector. • Some progress with respect to broadband regarding administrative and financial decisions • Some progress has been made on improving waste management, in particular concerning planning of necessary infrastructure.
CSR6: Take further steps to improve the business environment by simplifying contract enforcement and requirements for construction permits. Step up efforts to reduce costs and time spent on tax compliance by businesses. Complete the ongoing reform aimed at facilitating access to regulated professions.	Poland has made **some progress** in addressing CSR 6: • Some progress in contract enforcement. The government has recently proposed a number of legislative measures aiming to increase the effectiveness of enforcement proceedings, including the enforcement of contractual obligations. • Limited progress in construction permits. The government has been working on amending the current legal framework. Currently, the final version of the draft Code is being prepared by the Codification Committee. In addition, amendments to the construction law and certain other acts aiming at simplifying the procedures and improving the investment and construction process are being discussed in parliament. • Some progress in improving tax compliance by businesses: the implementation of the tax compliance action plan is progressing well; on

	18 August 2014, the Ministry of Finance launched a new tax portal as part of the reform package announced in spring 2014; in early October, the Prime Minister announced in her expose an intention to present a new tax code (general tax act), which is to simplify and replace the old tax code. • Substantial progress in liberalising the Access to regulated professions: In May 2014 2nd tranche of deregulation reform was adopted (91 professions, incl. architects, urban planners, civil engineers, tax advisers, auditors) and first reading of the 3rd tranche (101 professions, incl. patent attorneys, geologists, stockbrokers) took place in the lower chamber of the Polish Parliament (Sejm). Legislative work on the draft law of the 3rd tranche is currently carried out by the Parliamentary Extraordinary Committee for limiting bureaucracy.
Europe 2020 (national targets and progress)	
Employment rate target: 71%	The employment rate has been rising in 2014 towards 67.3% (2014Q3 Eurostat) according to quarterly data. Nevertheless, more efforts are needed to meet the 2020 target.
R&D target set in the 2013 NRP: R&D intensity target is 1.7% for 2020	Poland's R&D intensity experienced an average annual growth of 7.2% between 2007 and 2013, reaching 0.87 % of GDP in 2013 (20^{th} position in the EU). Reaching the ambitious Polish target of 1.7% by 2020 remains challenging.
Greenhouse gas (GHG) emissions target: - National greenhouse gas (GHG) emissions target: +14% in 2020 compared to 2005 (in non-ETS sectors)	The change in non-ETS greenhouse gas emissions between 2005 and 2013: + 11 %. According to the latest national projections and taking into account existing measures, the target is expected to be achieved: 4% in 2020 compared to 2005 (with a margin of 10 percentage points).
2020 Renewable energy target: 15% Share of renewable energy in all modes of transport: 10%	In 2012, the share of total renewable energy in gross final energy consumption was 11.04%, renewable energy share in electricity sector was 10,7%, heating and cooling: 13,7% and in transport sector: 6,1%. Poland has met the RED interim trajectory for 2011/ 2012 of 8.8% and its national action plan trajectory (10,6%). It can be expected in 2013 - 2014 the growth of RES will increase as RES

	investors are interested to finalise the ongoing projects before the new support-scheme replacing the current green certificate scheme by annual auctioning comes into force (still to be adopted by the Parliament). Poland's share of RES in final energy consumption was estimated by EurObserv'ER to have reached 10.8% in 2013. Poland has completed the transposition of the Renewable Energy Directive by adopting the Law on biofuels and bio-liquids of 16 January 2015. The law has been notified to the European Commission and subsequently assessed. Following the assessment by the European Commission, transposition was considered complete.
Energy efficiency: reduction of energy consumption Poland has set an indicative national energy efficiency target of 13.6 Mtoe primary energy savings in 2020 reaching a 2020 level of 96.4Mtoe primary consumption and 70.4 Mtoe final energy consumption.	Primary and final energy consumption has been increasing in Poland in 2005-2012, however such trend has been reversed in the more recent years (2011 and 2012). If Poland maintains the current trajectory of primary and final energy consumption it is expected to meet its national energy efficiency target.
Early school leaving target: 4.5%	The early school leaving rate was 5.6 % in 2011, 5.7 % in 2012 and 5.6 % in 2013. Poland is already well below the target set for 2020 for the EU average (10 %).
Tertiary education target: 45%	The tertiary educational attainment rate was 36.5 % in 2011, 39.1 % in 2012 and 40.5 % in 2013. Substantial progress has been achieved towards meeting the target. The 2020 target has almost been achieved.
Risk of poverty or social exclusion target: Target on the reduction of population at risk of poverty or social exclusion in number of persons: 1 500 000	The number of people at risk of poverty and social exclusion has been reduced by 68 000 in 2012 and 213 000 in 2011. However, due to a change in the methodology in 2014 (changing the baseline from 2010 to 2008), the national target of 1.5 million has already been achieved. According to Eurostat data for 2013, the number of people at risk of poverty or social exclusion has decreased (from 2008) by 1.743 thousand.

ANNEX B
Standard Tables

Table AB.1: **Macroeconomic indicators**

	1996-2000	2001-2005	2006-2010	2011	2012	2013	2014	2015	2016
Core indicators									
GDP growth rate	5.4	3.0	4.7	4.8	1.8	1.7	3.3	3.2	3.4
Output gap [1]	1.6	-3.4	2.0	2.0	0.3	-1.1	-0.8	-0.7	-0.4
HICP (annual % change)	n.a.	2.7	2.9	3.9	3.7	0.8	0.1	-0.2	1.4
Domestic demand (annual % change) [2]	6.7	2.2	5.1	3.8	-0.4	0.2	4.2	3.8	3.9
Unemployment rate (% of labour force) [3]	12.5	19.0	9.7	9.7	10.1	10.3	9.1	8.8	8.3
Gross fixed capital formation (% of GDP)	22.5	18.7	21.0	20.3	19.4	18.8	19.7	20.3	20.9
Gross national saving (% of GDP)	20.1	16.8	17.2	17.2	16.8	17.6	18.8	19.2	19.2
General government (% of GDP)									
Net lending (+) or net borrowing (-)	n.a.	n.a.	n.a.	-4.9	-3.7	-4.0	-3.6	-2.9	-2.7
Gross debt	n.a.	n.a.	n.a.	54.8	54.4	55.7	48.6	49.9	49.8
Net financial assets	-6.0	-22.4	-20.7	-32.0	-33.2	n.a.	n.a.	n.a.	n.a.
Total revenue	n.a.	n.a.	n.a.	39.0	39.1	38.2	37.7	38.1	37.8
Total expenditure	n.a.	n.a.	n.a.	43.9	42.9	42.2	41.2	41.0	40.5
of which: Interest	n.a.	n.a.	n.a.	2.5	2.7	2.5	2.0	2.0	1.9
Corporations (% of GDP)									
Net lending (+) or net borrowing (-)	-5.4	-0.2	1.3	5.0	4.3	6.1	6.5	5.1	4.3
Net financial assets; non-financial corporations	-72.4	-75.4	-84.6	-77.3	-77.5	n.a.	n.a.	n.a.	n.a.
Net financial assets; financial corporations	10.8	5.8	-6.7	1.4	-5.6	n.a.	n.a.	n.a.	n.a.
Gross capital formation	15.9	11.1	12.3	11.5	10.6	9.8	10.8	11.2	11.7
Gross operating surplus	15.2	18.8	22.5	23.7	24.0	24.8	25.4	25.1	25.0
Households and NPISH (% of GDP)									
Net lending (+) or net borrowing (-)	5.5	2.7	0.1	-2.9	-1.6	-1.7	-3.0	-2.1	-2.1
Net financial assets	39.0	51.4	53.1	44.5	49.9	n.a.	n.a.	n.a.	n.a.
Gross wages and salaries	35.2	33.5	32.3	31.4	31.1	31.2	31.1	31.2	31.0
Net property income	5.5	5.1	3.3	2.8	2.9	3.2	3.5	3.3	3.2
Current transfers received	20.2	20.5	19.2	18.4	18.4	18.7	18.6	18.6	18.4
Gross saving	9.9	7.5	4.7	1.3	3.0	2.3	1.2	2.1	2.3
Rest of the world (% of GDP)									
Net lending (+) or net borrowing (-)	-3.7	-2.7	-4.1	-3.3	-2.1	0.8	0.6	0.7	0.0
Net financial assets	29.0	41.1	59.9	64.8	67.7	n.a.	n.a.	n.a.	n.a.
Net exports of goods and services	-4.5	-2.6	-2.5	-1.8	-0.2	1.9	2.0	2.1	1.7
Net primary income from the rest of the world	-0.6	-1.3	-3.1	-4.1	-4.2	-4.2	-4.2	-4.3	-4.4
Net capital transactions	0.0	0.1	1.1	1.8	1.7	2.3	1.9	2.2	2.0
Tradable sector	52.0	51.2	50.8	50.7	52.1	52.6	n.a.	n.a.	n.a.
Non-tradable sector	36.2	37.1	37.0	37.2	36.5	36.3	n.a.	n.a.	n.a.
of which: Building and construction sector	8.0	6.3	6.9	7.3	6.8	6.6	n.a.	n.a.	n.a.

Notes:
1 The output gap constitutes the gap between the actual and potential gross domestic product at 2010 market prices.
2 The indicator of domestic demand includes stocks.
3 Unemployed persons are all those who were not employed, had actively sought work and were ready to begin working immediately or within two weeks. The labour force is the total number of people employed and unemployed. The unemployment rate covers the age group 15-74.
Source: European Commission 2015 winter forecast; European Commission calculations

Table AB.2: **Financial Market Indicators**

	2009	2010	2011	2012	2013	2014
Total assets of the banking sector (% of GDP)[1)]	88.2	87.8	83.5	92.8	92.7	94.6
Share of assets of the five largest banks (% of total assets)	43.9	43.4	43.7	44.4	45.2	n.a.
Foreign ownership of banking system (% of total assets)	65.5	65.8	65.3	62.8	65.3	n.a.
Financial soundness indicators:						
- non-performing loans (% of total loans)[2)]	4.3	4.9	4.7	5.2	5.0	4.9
- capital adequacy ratio (%)[2)]	13.3	13.9	13.1	14.8	15.7	14.9
- return on equity (%)[2)]	11.2	13.3	16.1	14.0	12.1	12.6
Bank loans to the private sector (year-on-year % change)[1)]	8.0	5.9	5.9	7.3	4.0	7.0
Lending for house purchase (year-on-year % change)[1)]	11.8	19.3	8.8	6.8	3.0	4.2
Loan to deposit ratio[1)]	105.2	104.2	105.4	101.7	99.5	101.4
Central Bank liquidity as % of liabilities[3)]	1.6	0.1	0.0	0.0	0.0	0.0
Private debt (% of GDP)	67.5	70.1	74.7	74.0	74.8	n.a.
Gross external debt (% of GDP)[4)] - public	19.5	23.0	24.1	29.9	28.6	28.7
- private	28.7	27.6	28.3	28.9	28.6	28.0
Long-term interest rate spread versus Bund (basis points)*	289.8	303.8	334.8	350.5	246.3	235.3
Credit default swap spreads for sovereign securities (5-year)*	190.4	129.4	172.0	154.1	77.4	60.8

Notes:
1 Latest data November 2014.
2 Latest data Q3 2014.
3 Latest data September 2014.
4 Latest data June 2014. Monetary authorities, monetary and financial institutions are not included.
* Measured in basis points.
Source: IMF (financial soundness indicators); European Commission (long-term interest rates); World Bank (gross external debt); ECB (all other indicators).

Table AB.3: **Taxation indicators**

	2002	2006	2008	2010	2011	2012
Total tax revenues (incl. actual compulsory social contributions, % of GDP)	32.7	33.8	34.3	31.8	32.3	32.5
Breakdown by economic function (% of GDP)[1]						
Consumption	11.9	12.7	13.0	12.5	12.6	11.8
of which:						
- VAT	7.2	8.1	8.0	7.8	8.0	7.3
- excise duties on tobacco and alcohol	1.9	1.9	2.2	2.0	1.9	1.8
- energy	2.0	2.3	2.2	2.2	2.1	2.2
- other (residual)	0.8	0.4	0.6	0.5	0.5	0.5
Labour employed	12.7	12.6	11.9	11.2	11.6	12.3
Labour non-employed	0.7	0.8	0.8	0.8	0.8	0.8
Capital and business income	5.8	6.2	6.9	5.8	5.8	6.1
Stocks of capital/wealth	1.9	1.9	1.7	1.6	1.6	1.6
p.m. Environmental taxes[2]	2.4	2.7	2.6	2.6	2.6	2.5
VAT efficiency[3]						
Actual VAT revenues as % of theoretical revenues at standard rate	42.1	50.9	50.6	48.7	49.2	44.2

Notes:
1 Tax revenues are broken down by economic function, i.e. according to whether taxes are raised on consumption, labour or capital. See European Commission (2014), Taxation trends in the European Union, for a more detailed explanation.
2 This category comprises taxes on energy, transport and pollution and resources included in taxes on consumption and capital.
3 VAT efficiency is measured via the VAT revenue ratio. It is defined as the ratio between the actual VAT revenue collected and the revenue that would be raised if VAT was applied at the standard rate to all final (domestic) consumption expenditures, which is an imperfect measure of the theoretical pure VAT base. A low ratio can indicate a reduction of the tax base due to large exemptions or the application of reduced rates to a wide range of goods and services ('policy gap') or a failure to collect all tax due to e.g. fraud ('collection gap'). It should be noted that the relative scale of cross-border shopping (including trade in financial services) compared to domestic consumption also influences the value of the ratio, notably for smaller economies. For a more detailed discussion, see European Commission (2012), Tax Reforms in EU Member States, and OECD (2014), Consumption tax trends.
Source: European Commission

Table AB.4: **Labour market and social indicators - part 1 Labour market**

	2008	2009	2010	2011	2012	2013	2014
Employment rate (% of population aged 20-64)	65.0	64.9	64.3	64.5	64.7	64.9	66.2
Employment growth (% change from previous year)	3.8	0.4	-2.7	0.6	0.1	-0.1	1.7
Employment rate of women (% of female population aged 20-64)	57.3	57.6	57.3	57.2	57.5	57.6	59.1
Employment rate of men (% of male population aged 20-64)	73.0	72.6	71.3	71.9	72.0	72.1	73.3
Employment rate of older workers (% of population aged 55-64)	31.6	32.3	34.1	36.9	38.7	40.6	42.0
Part-time employment (% of total employment, age 15 years and over)	8.5	8.4	8.4	8.0	7.9	7.8	7.9
Part-time employment of women (% of women employment, age 15 years and over)	11.7	11.6	11.6	11.2	11.3	11.1	11.1
Part-time employment of men (% of men employment, age 15 years and over)	5.9	5.8	5.8	5.5	5.2	5.2	5.2
Fixed term employment (% of employees with a fixed term contract, age 15 years and over)	27.0	26.5	27.3	26.9	26.9	26.9	28.2
Transitions from temporary to permanent employment	29.5	28.9	22.4	19.5	20.4	n.a.	n.a.
Unemployment rate[1] (% of labour force, age group 15-74)	7.1	8.1	9.7	9.7	10.1	10.3	9.0
Long-term unemployment rate[2] (% of labour force)	2.4	2.5	3.0	3.6	4.1	4.4	4.1
Youth unemployment rate (% of youth labour force aged 15-24)	17.2	20.6	23.7	25.8	26.5	27.3	24.2
Youth NEET rate (% of population aged 15-24)	9.0	10.1	10.8	11.5	11.8	12.2	n.a.
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	5.0	5.3	5.4	5.6	5.7	5.6	n.a.
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	29.7	32.8	34.8	36.5	39.1	40.5	n.a.
Formal childcare (from 1 to 29 hours; % over the population aged less than 3 years)	0.0	0.0	0.0	0.0	1.0	n.a.	n.a.
Formal childcare (30 hours or over; % over the population aged less than 3 years)	3.0	2.0	2.0	3.0	5.0	n.a.	n.a.
Labour productivity per person employed (annual % change)	0.1	2.3	6.5	4.2	1.6	1.7	1.6
Hours worked per person employed (annual % change)	-0.4	-0.8	-0.3	-0.3	-0.3	-0.2	-0.1
Labour productivity per hour worked (annual % change; constant prices)	0.5	3.0	6.8	4.4	1.9	1.9	1.7
Compensation per employee (annual % change; constant prices)	4.9	-0.5	6.8	2.1	1.3	1.4	1.2
Nominal unit labour cost growth (annual % change)	7.2	2.3	1.4	1.1	1.5	n.a.	n.a.
Real unit labour cost growth (annual % change)	4.0	-1.4	0.0	-2.0	-0.9	n.a.	n.a.

Notes:
1 Unemployed persons are all those who were not employed, but had actively sought work and were ready to begin working immediately or within two weeks. The labour force is the total number of people employed and unemployed. Data on the unemployment rate of 2014 includes the last release by Eurostat in early February 2015.
2 Long-term unemployed are persons who have been unemployed for at least 12 months.
Source: European Commission (EU Labour Force Survey and European National Accounts)

Table AB.5: **Labour market and social indicators - part 2 Social Protection**

	2007	2008	2009	2010	2011	2012
Sickness/healthcare	3.9	4.5	4.7	4.5	4.3	4.2
Invalidity	1.7	1.6	1.5	1.6	1.5	1.5
Old age and survivors	10.8	11.0	11.9	11.4	10.9	10.6
Family/children	0.9	1.3	1.3	1.4	1.3	0.8
Unemployment	0.4	0.4	0.4	0.4	0.3	0.3
Housing and social exclusion n.e.c.	0.1	0.1	0.1	0.1	0.1	0.1
Total	18.0	18.9	20.1	19.5	18.6	17.6
of which: means-tested benefits	0.9	0.8	0.7	0.7	0.6	0.7
Social inclusion indicators	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
People at risk of poverty or social exclusion[1] (% of total population)	30.5	27.8	27.8	27.2	26.7	25.8
Children at risk of poverty or social exclusion (% of people aged 0-17)	32.9	31.0	30.8	29.8	29.3	29.8
Elderly at risk of poverty or social exclusion (% of people aged 65+)	26.9	25.8	24.4	24.7	23.4	19.7
At-risk-of-poverty rate[2] (% of total population)	16.9	17.1	17.6	17.7	17.1	17.3
Severe material deprivation rate[3] (% of total population)	17.7	15.0	14.2	13.0	13.5	11.9
Proportion of people living in low work intensity households[4] (% of people aged 0-59)	8.0	6.9	7.3	6.9	6.9	7.2
In-work at-risk-of-poverty rate (% of persons employed)	11.5	11.0	11.4	11.1	10.4	10.7
Impact of social transfers (excluding pensions) on reducing poverty	32.7	27.5	27.9	26.6	25.3	24.8
Poverty thresholds, expressed in national currency at constant prices[5]	9196.0	10047.7	10291.0	10555.0	10550.9	10549.8
Gross disposable income (households)	806098.0	863695.0	903856.0	950727.0	985135.0	n.a.
Relative median poverty risk gap (60% of median equivalised income, age: total)	20.6	22.7	22.2	21.4	22.2	22.6
Inequality of income distribution (S80/S20 income quintile share ratio)	5.1	5.0	5.0	5.0	4.9	4.9

Notes:
1 People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in households with zero or very low work intensity (LWI).
2 At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.
3 Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.
4 People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months.
5 For EE, CY, MT, SI and SK, thresholds in nominal values in euros; harmonised index of consumer prices (HICP) = 100 in 2006 (2007 survey refers to 2006 incomes)
6 2014 data refer to the average of the first three quarters.
Source: For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.

Table AB.6: **Product market performance and policy indicators**

	2004-08	2009	2010	2011	2012	2013	2014
Labour productivity1 in total economy (annual growth in %)	2.2	2.5	6.6	4.1	1.7	1.8	n.a.
Labour productivity[1] in manufacturing (annual growth in %)	6.0	6.2	16.4	7.5	2.8	3.7	n.a.
Labour productivity[1] in electricity, gas (annual growth in %)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Labour productivity[1] in the construction sector (annual growth in %)	-3.8	5.6	11.3	8.5	-0.4	6.9	n.a.
Labour productivity[1] in the wholesale and retail sector (annual growth in %)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Labour productivity[1] in the information and communication sector (annual growth in %)	-1.4	-2.3	6.8	6.8	4.3	-2.4	n.a.
Patent intensity in manufacturing[2] (EPO patent applications divided by gross value added of the sector)	0.0	0.0	0.0	0.0	n.a.	n.a.	n.a.
Policy indicators	**2004-08**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Enforcing contracts[3] (days)	924	830	830	830	685	685	685
Time to start a business[3] (days)	39.0	32	32	32	32	30	30
R&D expenditure (% of GDP)	0.6	0.7	0.7	0.8	0.9	0.9	n.a.
Total public expenditure on education (% of GDP)	5.2	5.1	5.2	4.9	n.a.	n.a.	n.a.
(Index: 0=not regulated; 6=most regulated)	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Product market regulation[4], overall	2.04	n.a.	n.a.	n.a.	n.a.	1.65	n.a.
Product market regulation[4], retail	2.43	n.a.	n.a.	n.a.	n.a.	2.55	n.a.
Product market regulation[4], professional services	3.33	n.a.	n.a.	n.a.	n.a.	3.24	n.a.
Product market regulation[4], network industries[5]	2.70	2.67	2.60	2.51	2.41	2.34	n.a.

Notes:
1 Labour productivity is defined as gross value added (in constant prices) divided by the number of persons employed.
2 Patent data refer to applications to the European Patent Office (EPO). They are counted according to the year in which they were filed at the EPO. They are broken down according to the inventor's place of residence, using fractional counting if multiple inventors or IPC classes are provided to avoid double counting.
3 The methodologies, including the assumptions, for this indicator are presented in detail here: http://www.doingbusiness.org/methodology.
4 Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are presented in detail here: http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm
5 Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).
Source: European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators)

Table AB.7: **Green Growth**

Green growth performance		2003-2007	2008	2009	2010	2011	2012
Macroeconomic							
Energy intensity	kgoe / €	0.38	0.34	0.32	0.33	0.31	0.30
Carbon intensity	kg / €	1.63	1.39	1.31	1.32	1.26	1.22
Resource intensity (reciprocal of resource productivity)	kg / €	2.25	2.21	2.09	2.10	2.48	n.a.
Waste intensity	kg / €	n.a.	0.48	n.a.	0.52	n.a.	0.50
Energy balance of trade	% GDP	-2.2	-3.1	-2.3	-2.7	-3.4	-3.5
Energy weight in HICP	%	15.8	12.9	12.7	13.0	13.9	15.4
Difference between energy price change and inflation	%	2.0	5.7	6.8	1.4	3.4	2.9
Ratio of environmental taxes to labour taxes	ratio	20.1%	20.5%	20.8%	21.5%	20.6%	19.2%
Ratio of environmental taxes to total taxes	ratio	7.9%	7.6%	8.1%	8.1%	7.9%	7.8%
Sectoral							
Industry energy intensity	kgoe / €	0.32	0.24	0.21	0.21	0.19	0.18
Share of energy-intensive industries in the economy	% GDP	14.4	13.1	13.0	13.5	14.2	n.a.
Electricity prices for medium-sized industrial users**	€ / kWh	n.a.	0.09	0.09	0.10	0.10	0.09
Gas prices for medium-sized industrial users***	€ / kWh	n.a.	0.03	0.03	0.03	0.03	0.04
Public R&D for energy	% GDP	n.a.	0.01	n.a.	n.a.	n.a.	0.01
Public R&D for the environment	% GDP	n.a.	0.01	n.a.	n.a.	n.a.	0.02
Recycling rate of municipal waste	ratio	5.6%	10.5%	17.4%	21.4%	17.5%	19.6%
Share of GHG emissions covered by ETS*	%	n.a.	50.2	49.2	48.9	49.9	49.1
Transport energy intensity	kgoe / €	1.06	1.22	1.28	1.35	1.22	1.10
Transport carbon intensity	kg / €	2.96	3.35	3.51	3.66	3.31	2.98
Security of energy supply							
Energy import dependency	%	17.9	30.3	31.5	31.2	33.4	30.7
Diversification of oil import sources	HHI	0.59	0.54	0.56	0.62	0.61	0.71
Diversification of energy mix	HHI	n.a.	0.40	0.38	0.38	0.38	0.36
Renewable energy share of energy mix	%	4.8	5.7	6.6	7.2	7.9	8.8

Country-specific notes:
2013 is not included in the table due to lack of data.
General explanation of the table items:
All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2000 prices)
Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)
Carbon intensity: Greenhouse gas emissions (in kg CO2 equivalents) divided by GDP (in EUR)
Resource intensity: Domestic material consumption (in kg) divided by GDP (in EUR)
Waste intensity: waste (in kg) divided by GDP (in EUR)
Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP
Energy weight in HICP: the proportion of "energy" items in the consumption basket used for the construction of the HICP
Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change)
Environmental taxes over labour or total taxes: from DG TAXUD's database 'Taxation trends in the European Union'
Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2005 EUR)
Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP
Electricity and gas prices for medium-sized industrial users: consumption band 500–2000MWh and 10000–100000 GJ; figures excl. VAT.
Recycling rate of municipal waste: ratio of recycled municipal waste to total municipal waste
Public R&D for energy or for the environment: government spending on R&D (GBAORD) for these categories as % of GDP
"Proportion of GHG emissions covered by ETS: based on greenhouse gas emissions (excl LULUCF) as reported by Member States to the European
Environment Agency "
Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2005 EUR)
Transport carbon intensity: greenhouse gas emissions in transport activity divided by gross value added of the transport sector
Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels
Diversification of oil import sources: Herfindahl index (HHI), calculated as the sum of the squared market shares of countries of origin
Diversification of the energy mix: Herfindahl index over natural gas, total petrol products, nuclear heat, renewable energies and solid fuels
Renewable energy share of energy mix: %-share of gross inland energy consumption, expressed in tonne oil equivalents
* European Commission and European Environment Agency
** For 2007 average of S1 & S2 for DE, HR, LU, NL, FI, SE & UK. Other countries only have S2.
*** For 2007 average of S1 & S2 for HR, IT, NL, FI, SE & UK. Other countries only have S2.
Source: European Commission unless indicated otherwise, European Commission calculation