ECONOMY OF TOMORROW

Socially Just, Sustainable and Dynamic Growth for a Good Society: A Case Study for Poland

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- In 1989 Poland began transition from centrally planned economy to free market. Polish transition can be regarded as one of the most successful among former socialistic countries in Central and Eastern Europe. Over last two decade Polish economy experienced rapid GDP growth, which exceeded growth in wealthier Western Europe. Over last two decades Polish GDP growth outperformed nearly all EU countries and as a result GDP per capita doubled.

- Poland's economic and social development over the past two decades was determined by two tremendously important events: change of political and economic system and shared by all subsequent governments strategic goal of European integration, which outlined the direction of reforms.

- The ongoing process of convergence between Poland and Western Europe is evident. However there are still many issues to be addressed to achieve sustainable growth in the future. Further structural reforms are needed in areas of i.e. public finance, labour market and pension system.

- Poland has been going through a massive infrastructural transformation which speeded-up after the EU accession. Although there are still huge investments needed in all sectors of infrastructure the gap is to be closed in coming years.

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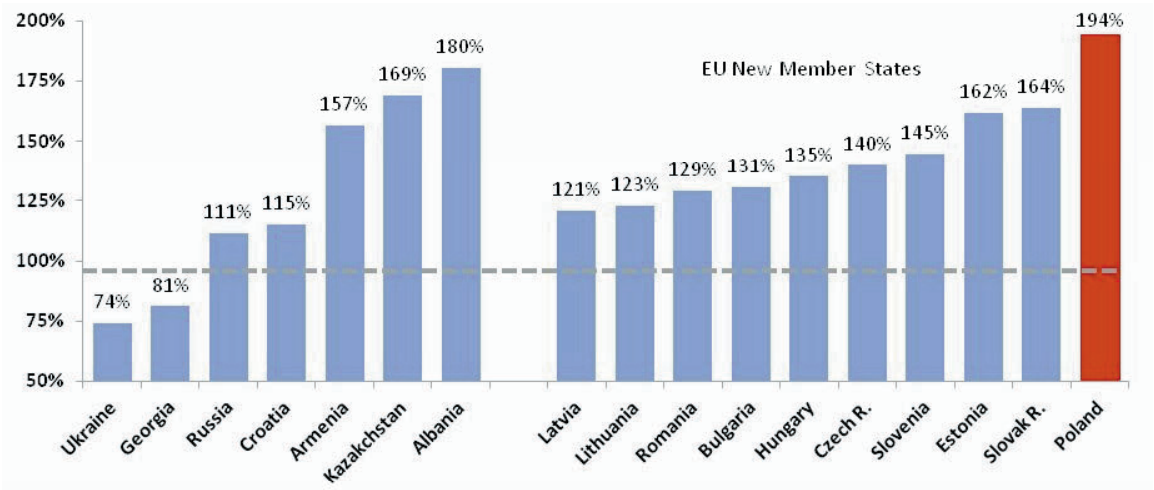
1. General macroeconomic overview

1.1 Past development of the key macroeconomic indicators

In 1989 Poland began transition from centrally planned economy to free market. Today, judging by the GDP per capita, as well as other economic indicators, Polish transition can be regarded as one of the most successful among former socialistic countries in Central and Eastern Europe. During the 90' Poland was one of the fastest growing economy in the region. After 2000 many countries in the region started to grow at pace much higher than Poland, but their growth came to sudden stop after the beginning of global financial crisis in 2008, exposing the weaknesses of their former economic policy. Poland with limited boom during the period 2004-2008 managed to avoid serious bust later, being the only growing economy in EU-27 in 2009.

Graph 1.1 GDP per capita in transition countries in 2011 (1989=100%)

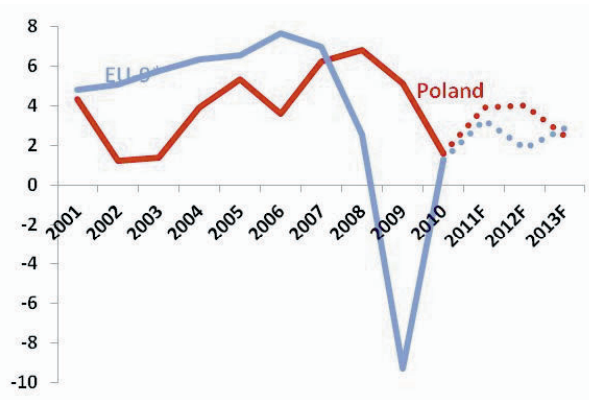


Source: EBRD transition indicators, http://www.ebrd.com/pages/research/economics/data/macro.shtml, IMF WEO IX 2011 http://www.imf.org/external/ns/cs.aspx?id=29.

GDP growth and domestic demand

After the slowdown at the beginning of the 21st century economic growth accelerated in Poland around the time of country's accession to the EU in 2004. The cyclical upswing was amplified by the ongoing integration with the EU and its vast single market, the inflow of both private and public funds to Polish economy and overall general optimism. Domestic demand was growing particularly fast in the boom years 2005-2008, outpacing GDP growth reaching the level of 104% of GDP in 2008. During this period gross capital formation (both private and public) was growing faster than final consumption. Final consumption of general gov-

Graph 1.2 GDP growth rate 2001-2013



* Unweighted average for: Bulgaria, Czech R., Estonia, Latvia, Lithuania, Hungary, Romania, Slovenia, Slovakia.
Source: AMECO, http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm.

ernment was growing at moderate pace, while the share of households consumption in domestic demand declined.

As a result of global financial crisis and a recession in global economy in the second half of 2008, economic growth in Poland markedly slowed down. Although at that time majority of international organisations (e.g. IMF, EC) forecasted a recession in Poland for the next year, Polish economy proved to be more resistant and was the only country in the EU that avoided GDP decline in 2009. However with uncertain outlook for both global and Polish economy, private sector investment and inventories felt significantly, but it was offset to some extend by growing public investment financed by the inflow of structural funds from the EU. Final consumption remained stable, what coupled with growing net export allowed to avoid recession.

In 2010-2011 Polish economy started to grow faster, but still slower than during pre-crisis years. Domestic demand also picked up, mainly due to large investment (particularly in public sector, where absorption of structural funds from the EU was gaining pace) and change of inventories.

Table 1.1 Domestic demand, current prices, all items as % of GDP

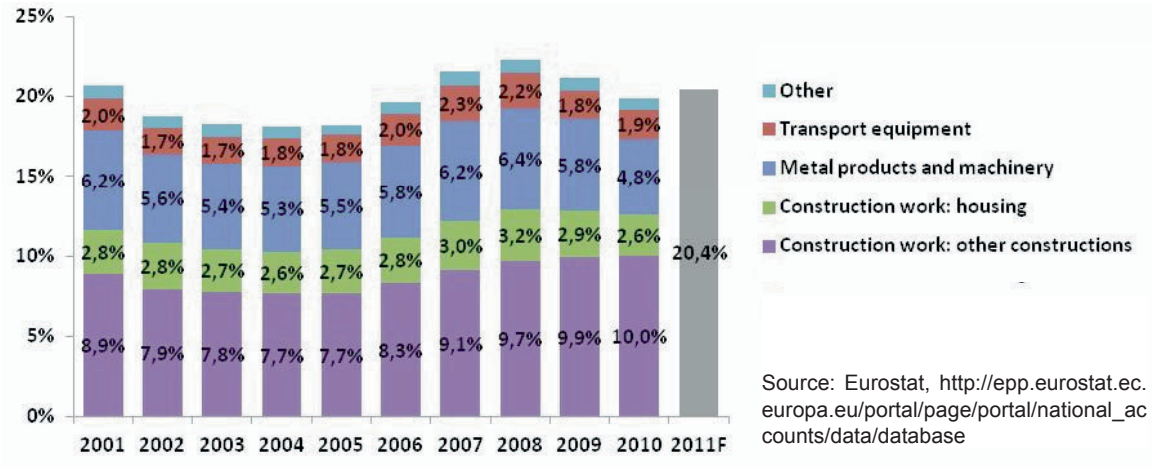
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011F
Domestic demand	**103.7**	**103.5**	**102.7**	**102.4**	**100.7**	**101.8**	**102.9**	**104.0**	**99.9**	**101.2**	**101.3**
Final consumption expenditure	**82.9**	**84.8**	**83.9**	**82.3**	**81.5**	**80.8**	**78.4**	**80.1**	**79.5**	**80.3**	**79.7**
of household and NPISH*	65.0	66.9	65.8	64.7	63.4	62.5	60.5	61.6	61.1	61.4	61.2
of general government	17.9	17.9	18.1	17.6	18.1	18.3	17.9	18.5	18.4	18.9	18.5
Gross capital formation	**20.8**	**18.6**	**18.7**	**20.1**	**19.3**	**21.1**	**24.4**	**23.9**	**20.4**	**21.0**	**21.7**
Gross fixed capital formation	20.7	18.7	18.2	18.1	18.2	19.7	21.6	22.3	21.2	19.9	20.4
of private sector	17.3	15.3	14.9	14.7	14.8	15.7	17.4	17.7	16.0	13.9	:
of public sector**	3.4	3.4	3.3	3.4	3.4	4.0	4.2	4.6	5.2	6.0	6.4
Changes in inventories	0.1	-0.1	0.5	2.0	1.0	1.4	2.9	1.6	-0.8	1.1	:
External balance of goods and services	**-3.7**	**-3.5**	**-2.7**	**-2.4**	**-0.7**	**-1.8**	**-2.9**	**-4.0**	**0.1**	**-1.2**	**-1.3**

Non-profit institutions serving households **public sector gross capital formation is calculated as gross capital formation minus private sector formation; for 2010 however numbers given by AMECO (5.6%) differ from reported result.
Source: Eurostat; 2011 - forecasts, http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/data/database.

Gross fixed capital formation

As a result of big infrastructure programs co-financed by the EU, construction work other than housing has been the biggest and fastest growing part of gross fixed capital formation during the period 2005-2010. Although detailed data for 2011 are not available yet, most probably this trend has continued. The contribution of housing construction to GDP grew dynamically in boom years between 2005 and 2008, but later felt back to the pre-boom levels.

Graph 1.3 Gross fixed capital formation as % of GDP



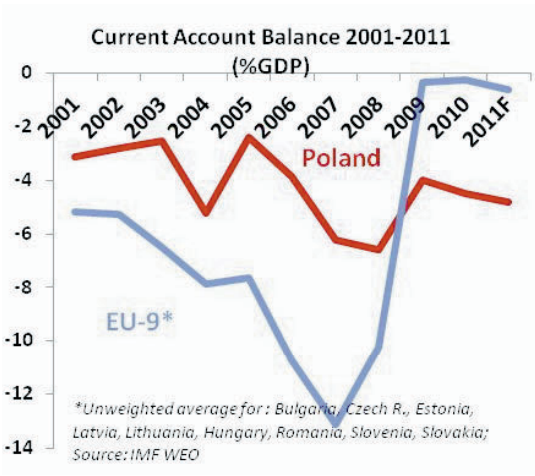
Source: Eurostat, http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/data/database

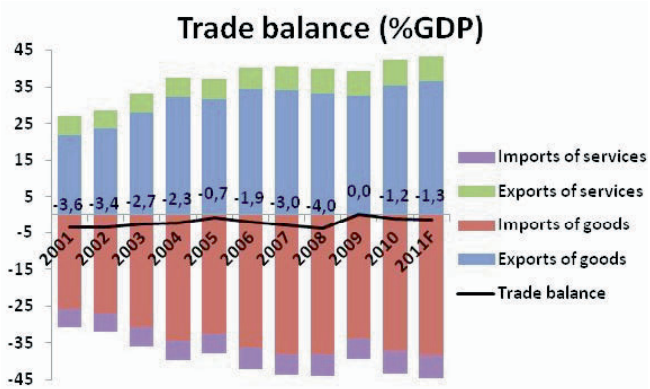
External sector

During the entire period 2001-2011 Poland was running current account deficit. It should be noticed however, that the deficit in Poland was significantly lower than in the neighbor countries during the boom years 2005-2008. During the slowdown (2008-2009) Polish CA deficit declined, but the adjustment was also much smaller than in other countries of the region that went through severe recession.

The openness of Polish economy has been growing, with import and export raising from 57.8% of GDP in 2001 to over 88% of GDP in 2011 (forecasted). With the exception of 2009, Poland was running moderate trade deficit. At the eve of global financial crisis in 2007-2008 trade deficit started to widen, but after the outburst of the global crisis and depreciation of Polish currency, deficit nearly was eliminated. This reduction from 4% of GDP in 2008 to 0% of GDP in 2009 was due to significant fall in import from 43.9% of GDP to 39.4% of GDP, accompanied by only minor fall in export, from 39.9% of GDP to 39.4% of GDP.

Graphs 1.4 and 1.5 Current account and trade balance 2001-2011



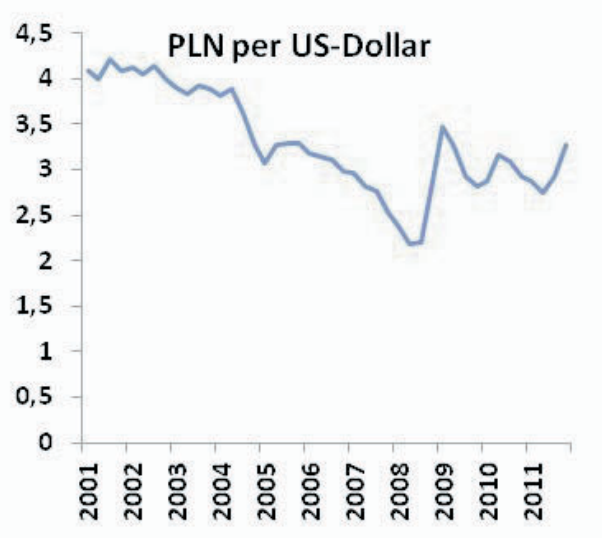


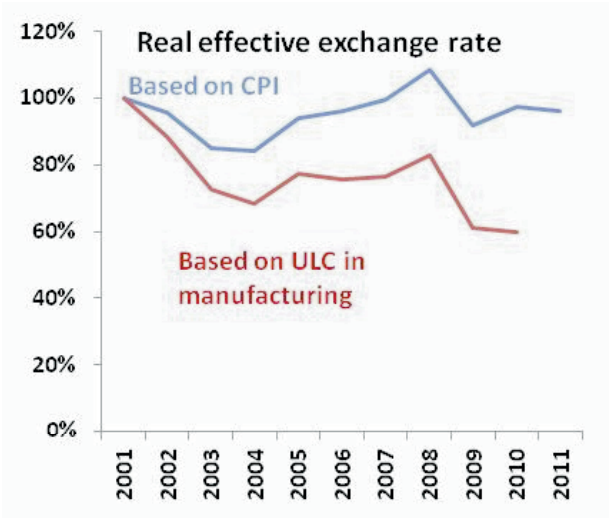
Source: Eurostat, http://epp.eurostat.ec.europa.eu/portal/page/portal/balance_of_payments/introduction, NBP, http://www.nbp.pl/home.aspx?f=/statystyka/bilans_platniczy.html.

From 12th of April 2000 the zloty (PLN) exchange rate has been a floating exchange rate that is not subject to any restrictions. The boom years 2004-2008 saw appreciation of PLN

from 3.8 PLN per USD at the beginning of 2004 to 2.25 PLN per USD in the first quarter of 2008. Later in 2008, with growing risk aversion in global economy, Poland along with other emerging markets in Europe experienced capital outflows resulting in rapid depreciation of PLN. Although exchange rate developments were a serious concern for some of the households that were repaying FX denominated loans, it also lead to remarkable reduction of import. With fairy constant value of export (in PLN terms), the net export in 2009 substantially contributed to GDP growth in Poland, allowing the country to avoid recession. After 2009 PLN regained part of its pre-crisis value, but the market remained volatile. It should be also noticed that real effective exchange rate based on unit labour costs in manufacturing indicates of growing competitiveness of Polish economy.

Graphs 1.6 and 1.7 Exchange rates



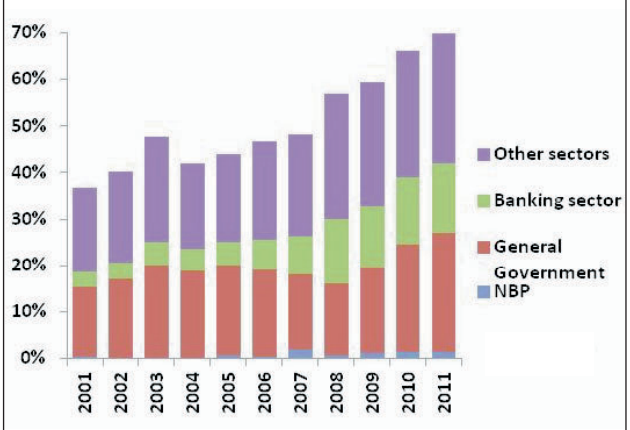


Source: OECD, http://stats.oecd.org.

External debt

One of the side effects of ongoing integration of Poland with European economy was growing external debt, resulting i.e. from closer cooperation and interdependence of Polish and European companies. Between 2004 and 2008 external debt of banking sector was growing particularly fast, but after the financial crisis it slowed down. After 2008 the increase of external debt to large extend is the result of depreciation of PLN.

Graph 1.8 External debt as % of GDP



Source: NBP, http://www.nbp.pl/home.aspx?f=/statystyka/bilans_platniczy.html.

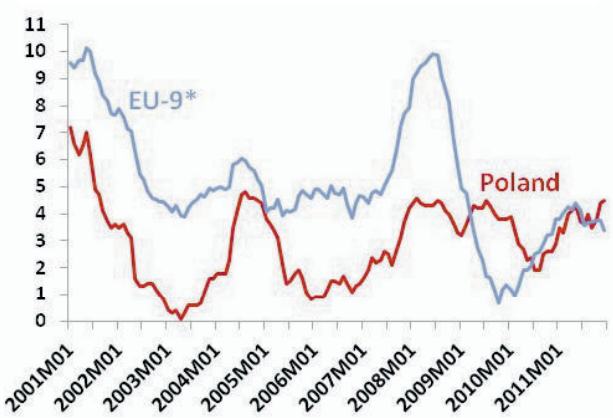
Inflation

At the beginning of the previous decade National Bank of Poland succeeded in

[1] The graph presents Harmonized indices of consumer prices, calculated by Eurostat and comparable between countries. Thus numbers given by Eurostat might slightly vary from numbers calculated in line of NBP's methodology.

reducing inflation and later keeping it close to its target of 2.5% +/-1%[1]. In the boom years 2005-2008 inflation in Poland was much lower than in many countries of the region, indicating that imbalances in Polish economy were less serious than in neighbour countries. As of end 2011 inflation in Poland is slightly above NBP's target, partly due to high oil prices and weak zloty. However, private expectations of inflation recently started to raise.

Graph 1.9 Harmonized indices of consumer prices (%) 2001-2011

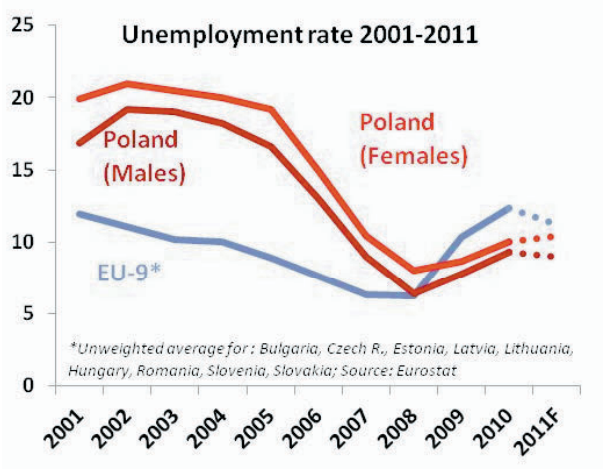


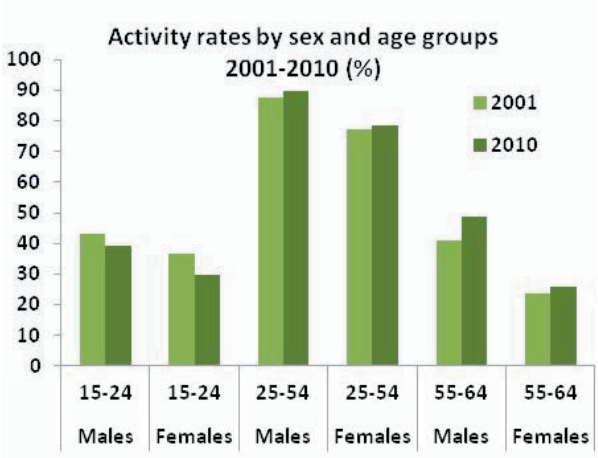
*Unweighted average for: Bulgaria, Czech R., Estonia, Latvia, Lithuania, Hungary, Romania, Slovenia, Slovakia.
Source: Eurostat, http://epp.eurostat.ec.europa.eu/portal/page/portal/hicp/introduction.

Labour market

The economic slowdown from 2001-2002 and the demographic situation (children of baby boomers entering into the labour force) resulted in unemployment rate of over 20% at the beginning of the past decade. As the economy started to grow faster in the following years, the unemployment gradually felt. Also, after Polish accession to the EU in 2004 about 1 M people (out of 38 M people living in Poland) emigrated to the old EU member states, mainly to UK and Ireland. During the boom years of 2005-2008 labour market became much tighter and employers had growing problems with finding skilled workers. Remembering problems with hiring, in 2009 employers were reluctant to fire, which combined with growing GDP limited the overall impact of the global financial crisis on unemployment rate in Poland. Unemployment growth was moderate compared to other countries in the region.

Graphs 1.10 and 1.11 Unemployment rate and activity rates





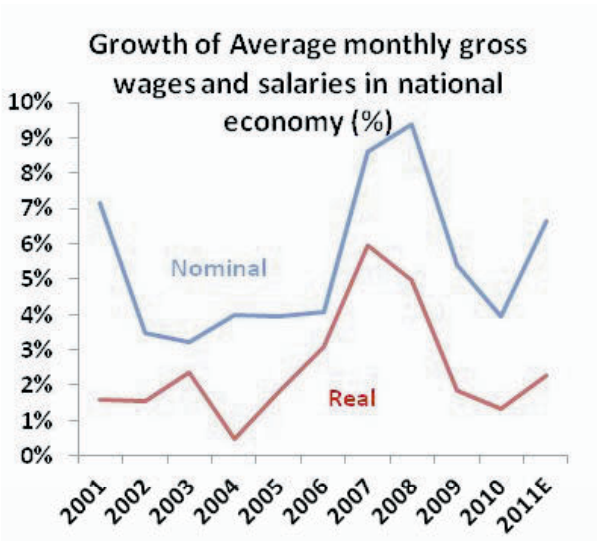
Source: Eurostat, http://epp.eurostat.ec.europa.eu/portal/page/portal/labour_market/introduction.

Low activity rate is serious issue in Poland, standing at 66% in 2001 and 66,5% in 2010 for people aged 15-64. Although it is in line with average activity rate in CEE countries, it is well below EU-15 average (69% in 2001 and 72.5% in 2010). The problem is partly the heritage of 1990' when subsequent governments in order to "hide" unemployment were granting generously disability pensions and entitlements to early retirement. The effects can be seen

in low employment rate among older people over 55, particularly women. It should be noted however, that in recent years some progress has been made in this area, including significant reduction of number of people entitled to early retirement and better control of disability social transfers. Currently the most important topic on public agenda is the gradual increase of retirement age from current 65 (men)/60 (women) to 67 over next years.

During the past decade the average wage has been growing in Poland, both in nominal and real terms. The fastest growth occurred in 2007-2008, just before the global recession and the slowdown of Polish economy. Although between 2004 and 2010 the unit labour costs in Poland grew by 14%, in manufacturing - a tradable sector crucial for international competitiveness - unit labour costs felt. Decreasing unit labour costs where predominantly the result of fast growing labour productivity.

Graphs 1.12 and 1.13 Wage growth and ULC developments



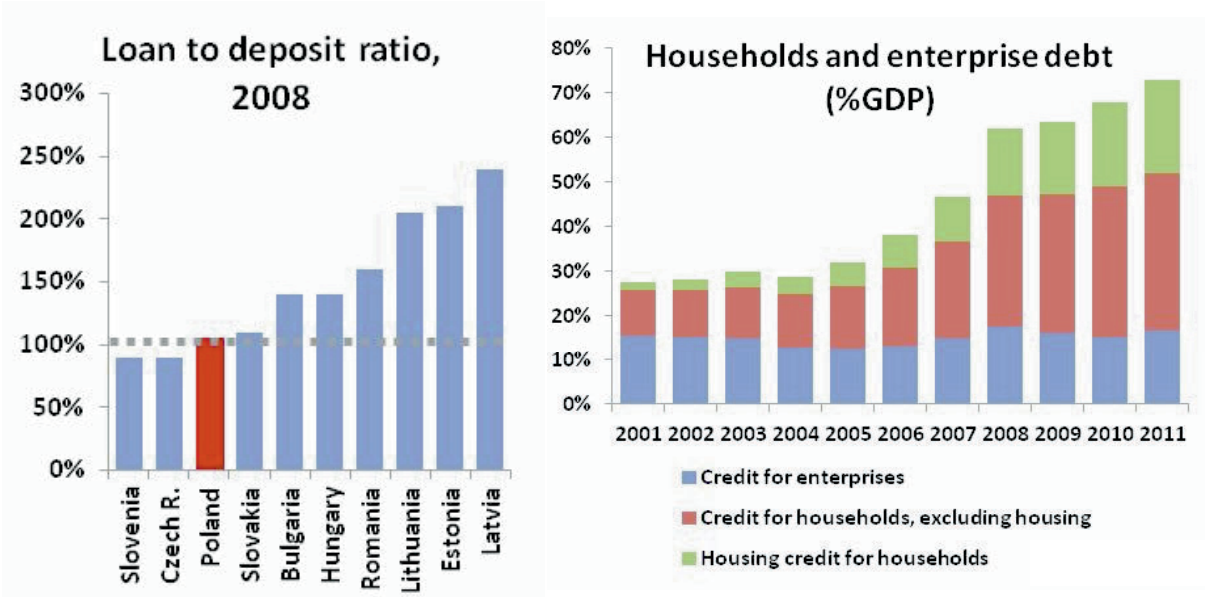
*Unweighted average for: Bulgaria, Czech R., Estonia, Latvia, Lithuania, Hungary, Slovenia, Slovakia.
Source: Eurostat, http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/data/database,GUS, http://www.stat.gov.pl/gus/wskazniki_makroekon_PLK_HTML.htm.

Households and enterprise debt

Lower inflation, positive macroeconomic outlook and general optimism coupled with gradual improvement of legal environment facilitated rapid growth of credit after Poland' s accession to the EU. The fastest growth was recorded in the segment of housing credits - between 2004 and 2008 housing credit rose from 4% of GDP to 15% of GDP. Before 2003 housing credit was virtually non-existing in Poland - in the environment of high inflation and large uncertainty about legal issues banks were reluctant to long-term lending and the interest rates were prohibitive. As those barriers were significantly reduced combined with growing demand for housing due to demographic changes, mortgage credit started to growth rapidly. Consumption credit also expanded during the boom, while the credit for enterprises as % of GDP reminded at fairly stable level.

In response to the credit boom Polish financial supervision authority issued regulations tightening lending standards, but their impact was limited. The boom came to end with global financial crisis and since 2008 the growth rate of credit has been much more moderate. Despite rapid growth of the credit, fundamentals of Polish banking sector reminded sound. Loans have been financed mainly through deposits and banks are well capitalized.

Graphs 1.14 and 1.15 Loan to deposit ratio, households and enterpise debt

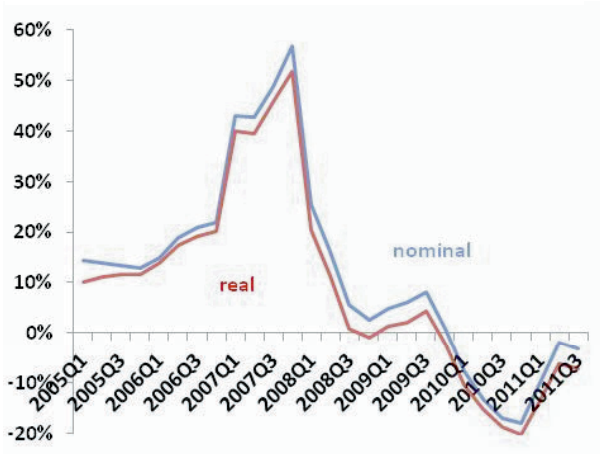


Source: NBP, http://www.nbp.pl/home.aspx?f=/statystyka/pieniezna_i_bankowa.html, World Bank EU 10 Regular Economic Report, February 2009, http://go.worldbank.org/BW4II39J00.

Real estate market

Strong fundamental factors, such as growing income and increasing number of households combined with rising credit availability resulted in a substantial growth of housing demand after 2004. The supply at that moment was limited due to cyclical factors, deepened by the changes in tax regime enacted in the previous years. With rigid supply in short term, the growing demand led to booming housing prices in major cities in Poland. The effect was further amplified by new investors, attracted by growing prices, who were searching for capital gains. The boom picked at the end of 2007 when growing supply together with steps taken by financial supervision to tighten housing credit standards resulted in the slowdown of the dynamics of real estate prices. The further growth of supply and the fallout of global financial crisis limiting demand led first to moderation of price dynamics and later to a fall. Currently, as of 2012 houses in Poland are slightly overvalued. The prices are stable or slightly falling in nominal as well as real terms. This moderate decline of prices coupled with growing income of households should eliminate remaining overvaluation of real estates in Poland.

Graph 1.16 Real estate offer prices in Warsaw (YoY change)



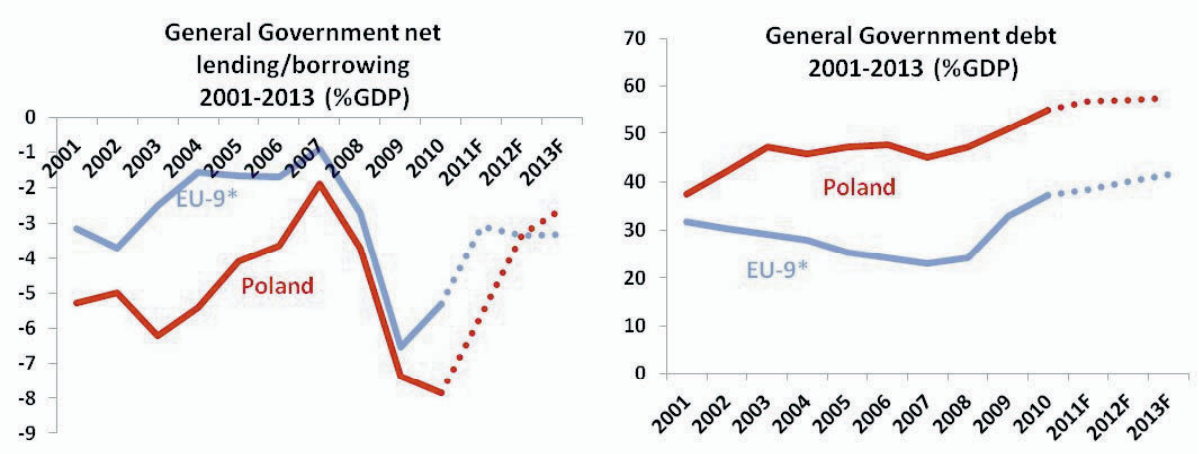
Source: NBP, http://www.nbp.pl/home.aspx?f=/publikacje/rynek_nieruchomosci/index_pre.html.

Public finance

High general government deficit during the slowdown of 2001-2002 was reduced in subsequent years. However, during the last decade the deficit in Poland was larger than the aver-

age for other new member states from CEE, resulting in persistently higher level of debt. The structural weakness of Polish public finance was particularly visible during the years 2004-2007, when despite booming economy, the general government sector was still running a deficit. After a record deficit of 7.8% GDP in 2010, the stance of Polish public finance started to improve. Taking into account recently announced steps, it seems plausible that Poland will manage to reduce the deficit to 3.3% in 2012 and below a threshold of 3% in 2012. Although the scale of ongoing fiscal consolidation is proper, the structure is much more questionable, as the adjustment is revenue based.

Graphs 1.17 and 1.18 General Government debt and deficit



Unweighted average for: Bulgaria, Czech R., Estonia, Latvia, Lithuania, Hungary, Romania, Slovenia, Slovakia.
Source: AMECO, http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm.

The most important fiscal rule in Poland is a constitutional limit on public debt of 60% of GDP. The rule as such is highly prized by economists, as it prevents from accumulating too high debt, but the recent developments has also exposed some of its shortcomings. The debt brakes like Polish start to work only after the debt reaches predefined threshold, which often takes place during a recession or slowdown. The debt brakes however do not prevent the government from excessive spending and running a deficit during the upturns. This problem is a subject to debate both in Poland and in the EU, where sanctions for breaching Maastricht criteria (debt below 60% of GDP, deficit below 3% of GDP) has been toughen and made semiautomatic. Also fiscal pact signed by Poland recently bans countries from running a structural deficit larger than 0.5% GDP. The positive result of current debt crisis in the EU is a growing awareness of the importance of sound public finances, resulting in tighter and better rules regarding public debt and deficit, both at national and the EU level.

General government expenditure remained above 40% of GDP for the entire analysed period, which is quite high for an emerging economy. After Poland's accession to the EU in 2004, with some lag, general government investments started to rise from 3.4% of GDP in 2005 to 6.5% of GDP in 2011. In 2012 the share of general government capital formation in GDP is forecasted to decline moderately, but will remain at relatively high level due to still many on-going infrastructure projects co-financed by the EU. Total revenue was significantly lower than expenditure, rarely exceeding 40% of GDP. The main source of public revenue were indirect taxes and social contributions, supplemented by direct taxes.

Table 1.2 General government expenditure and revenue as % of GDP, 2001-2012

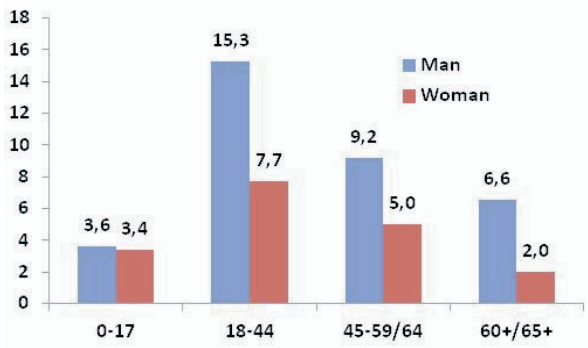
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011F	2012F
Total expenditure	**43,8**	**44,3**	**44,7**	**42,6**	**43,4**	**43,9**	**42,2**	**43,2**	**44,5**	**45,4**	**45,2**	**44,8**
including:												
Interest	3,1	2,9	3,0	2,8	2,8	2,7	2,3	2,2	2,6	2,7	2,8	3,0
Gross fixed capital formation	3,4	3,4	3,3	3,4	3,4	3,9	4,2	4,6	5,2	5,6	6,4	6,1
Total revenue	**38,5**	**39,3**	**38,5**	**37,2**	**39,4**	**40,2**	**40,3**	**39,5**	**37,2**	**37,5**	**39,6**	**40,8**
including:												
Indirect taxes	12,5	13,2	13,2	12,9	13,6	14,2	14,1	14,2	12,9	13,6	14,2	14,3
Direct taxes	6,3	6,7	6,5	6,5	7	7,5	8,6	8,6	7,4	6,9	7,3	7,5
Social contributions received	13,4	12,9	12,8	12,3	12,3	12,2	12	11,3	11,3	11,1	11,6	12,2
Net lending	**-5,3**	**-5,0**	**-6,2**	**-5,4**	**-4,1**	**-3,6**	**-1,9**	**-3,7**	**-7,3**	**-7,8**	**-5,6**	**-4,0**
Net lending including additional measures announced XII 2011								**-**	**-**	**-**	**-**	**-3,3**

Source: AMECO, http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm.

Demographics

According to preliminary results of the last years census, during the last decade population of Poland felt by about 1 M of people, from 38.2 M in 2001 to 37.2 M in 2011. It should be noticed however, that these are preliminary results and there were methodological changes dealing with classification of migrants. Still this number seems plausible, in line with the estimates of emigration of 1 M Poles to the old EU member states, after the accession.

Graph 1.19 Population of Poland, by age group(in millions), 2011



Retirement age for women is 60, for men 65.
Source: GUS, http://www.stat.gov.pl/gus/ludnosc_PLK_HTML.htm.

The life expectancy of Poles is growing and the society is ageing. With given demographic structure and low birth rate, Poland is currently undergoing the discussion about retirement age, which currently is 65 years for men and 60 for women. The government proposes to raise the retirement age for both sexes to 67 years, at the pace of 3 months annually.

1.2 Present macroeconomic problems

Present problems are strictly connected to the past macroeconomic developments and to the fallout of global financial crisis.

The biggest challenge is the reform of public finances. The measures already taken by the government should allow to reduce public deficit to around 3.0-3.5% of GDP, but their structure (mainly revenue increases) may harm economic growth, without addressing underlying structural problems. It might be also expected, that current fiscal rules, particularly constitutional debt limit, will be supplemented by additional rules limiting structural deficit (Poland is

a participant of new European fiscal pact) and/or expenditure growth rate (which is one of the ideas discussed by Ministry of Finance).

Problems of public finance exposed by the financial crisis and economic slowdown, are tightly connected to the low employment rate. On one hand low employment means lower tax revenue for public finance and on the other hand higher expenditures for social transfers. Part of this transfers is unproductive and unjust, with transfers going to relatively affluent and/or able to work people, deterring them from labour market (as presented in the second part of the report).

Large unproductive public expenditures are also spent on special interest groups, like for example farmers and their social security system (KRUS). Contributions from farmers are poorly connected with their income and cover only about 10% of KRUS expenditure, with rest of the resources coming from state budget. Besides the direct costs for public finance, such situation is simply socially unjust, as urban citizen with the same level of gross income as a farmer, pays much higher social contributions and taxes resulting in lower net income. It also dissuades farmers from moving from agriculture to more productive sectors like industry or services (there is however large group of people insured in KRUS, but working outside of the agriculture in shadow economy). As the public awareness of the unfairness of current situation grows, changes in this area can be expected, but it should be remembered that farmers are only one of the examples of special interest groups receiving undue transfers from the state.

Next current problem is lying at the nexus of public finance, demography and special interest groups is pension reform. In 1999 Poland underwent deep pension reform that significantly improved long term sustainability of pension system in Poland. Unfortunately the reform has not been finished, as many groups (ex. farmers, miners, soldiers, police officers, judges) won the exclusion from general system and benefit from the costly for tax payer pension privileges. Furthermore part of the reform was recently undone, as the government in the search for higher current revenues increased the contributions going to pay as you go part of the pension system at the expense of the capital part. However with the growing public awareness of the unjust exceptions from general system (ex. police officers retiring at the age of 35 with relatively high pension) the pressure for reforms is growing.

The last unfinished part of pension reform is raising of retirement age, currently 65 for men and 60 for women. It was planned already in 1999, but subsequent governments failed to address this issue. However the present government had officially announced its plan to raise retirement age to 67 for both sexes and the relevant bill is being consulted now. The direction of governmental actions is definitely right, but it seems that proposed pace of changes (raising the retirement year by 3 months each year) is too slow, given the Polish demographic situation.

As a member of European Union Poland is obliged to adopt Euro. Although no exact date has been given yet and there is a lot of uncertainty regarding Eurozone this days, further integration with the EU and Euro adoption remains Poland' s strategic goals, as well as fulfilment of Maastricht criteria. It should be also remembered, that fulfilling them is beneficial for economy per se, as it means sound fiscal and monetary policy.

It is also worth to notice, that contrary to their European counterparts (and often their parent companies) banks in Poland are well capitalized and their credit portfolio is sound. In 2011 Polish banking sector had record profits of around 1% of GDP.

1.3 Likely future development

Poland has weathered global financial crisis well, being the only growing economy in the EU in 2009. The growth is forecasted to continue, but at the lower rate than before the crisis. The pace of growth during the next years to large extend will depend on the future developments in Eurozone, which is Polish biggest trade partner. Inflation, currently above NBP target is forecasted to decline in coming years. Unemployment will be also declining, but at rather slow pace. Taking into account additional measures announced by the government after IMF and EC published their forecasts, it might be expected that general government deficit will be reduced faster than in forecasts below. Current account deficit is to remain at the level of about 5% of GDP.

Table 1.3 IMF and EC forecasts for Poland

		2011	2012	2013	2014
GDP growth rate (%)	IMF	3.8	3.0	3.4	3.5
	EC	4.0	2.5	2.8	-
Inflation (%)	IMF	4.0	2.8	2.5	2.5
	EC	3.7	2.7	2.9	-
Unemployment rate (%)	IMF	9.4	9.2	9.0	8.8
	EC	9.3	9.2	8.6	-
General government net lending/borrowing (%GDP)	IMF	-5.5	-3.8	-3.5	-3.2
	EC	-5.6	-4	-3.1	-
Current account balance (%GDP)	IMF	-4.8	-5.1	-5.2	-5.2
	EC	-5	-4.3	-4.8	-

Forecasts from: IMF World Economic Outlook IX 2011, EC Autumn Forecast XI 2011.

In the longer run we expect that Poland will continue to converge to the level of development of western countries. Although much progress in modernization of Polish economy has been made during the last 20 years, there are still many areas with large inefficiencies were large productivity gains can be made. Such process can be currently seen for example in transport infrastructure were large investments, co-financed by the EU funds are improving communication and reducing transportation costs in Poland. Not all the progress must be capital intensive, as we still see large scope for improvement in regulatory environment (better public administration, better courts, better law), where also things are still changing. Poland will also benefit further from ongoing integration with European Union and the biggest single market in the world. However in order to realize full profits from the ongoing processes of modernization and integration with the EU Poland will have to address problems in area of public finance, demography and labour market.

2. Income distribution, consumption demand and sustainable development

2.1 Past development of income distribution

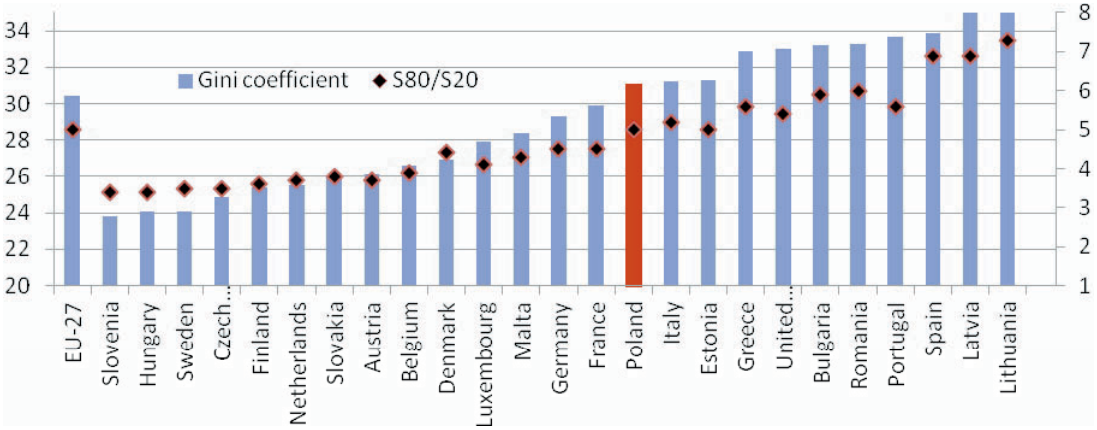
Present situation and latest development of income distribution and wage disparity

Poland belongs to a group of countries with the level of income inequalities slightly above the average in the EU (in Disposable income Gini coefficient and distribution of income by quantils). In the year 2010, Poland was ranked at 11th position among the countries with the

highest disposable income inequalities expressed by Gini coefficient. The income of 80th centile, which includes the income of riches households was five times higher than the income of 20th centile which places Poland above average. The process of closing the gap in income inequality between Poland and the EU average in both presented income inequality measures has been observed in the period of last five years, which also means flattening the dispersion in income. The shrinking width of the income distribution may be specially expressed by the ratio of total income received by the 20% of the population with the highest income to that received by the 20 % of the population with the lowest income, The value of this ratio has dropped from the level exceeding 6.5 in year 2005 to 5 in year 2010.

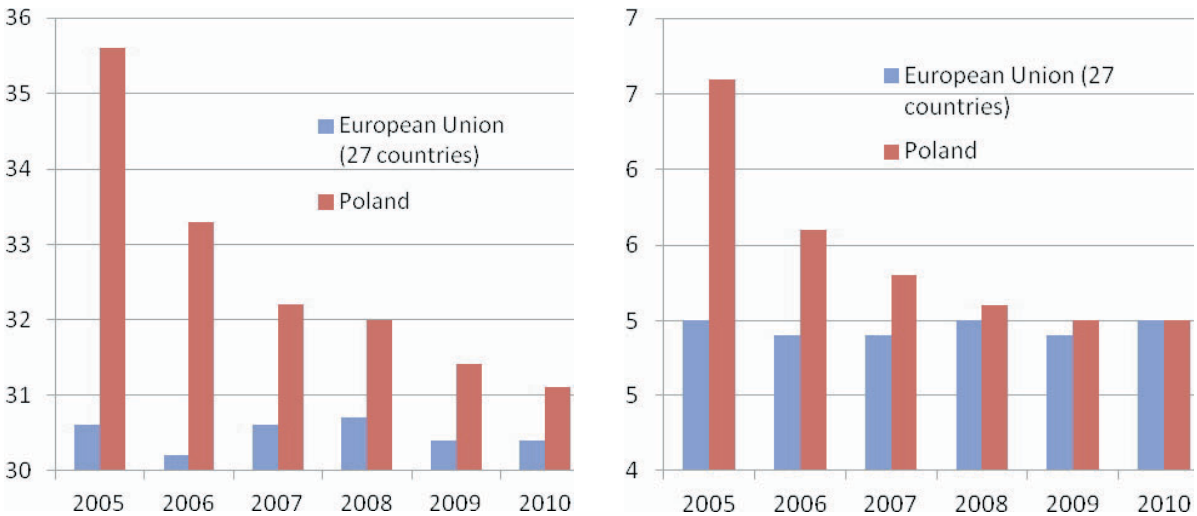
This tendency is visible equally for men and women. The value of the ratio of the income of women belonging to 80th centile to the incomes of women belonging to 20th centile declined gradually from the level of 6.4 in 2005 to the level of 4.9 in 2010 equating to the EU average (and for men at the level of 6.,9 and 5.1 respectively). It is important to note that there is still existing disparity between women and men earnings in Poland (more information below)

Graph 2.1 Gini coefficient (left axis) and S80/S20 (right axis) in the EU countries, 2010



Source: own calculations based on Eurostat database, 2012.

Graphs 2.2 and 2.3 Income distribution in Poland and the EU (Gini coefficient - left graph, S80/S20 - right graph), 2005-2010



Source: own calculations based on Eurostat database, 2012.

The data presented above describe dispersion in disposable household income, which apart from labor earnings includes capital and self-employment income as well as all social transfers received in cash including old-age pensions. Eurostat data indicate a permanent disparity between Poland and the EU in income distribution by sources of income. The income from labour accounts for less than 50% of total Polish household budgets (compared to 62% in the EU), followed by property income, revenue from business activity, and social transfers accounting for 4%, 33% and 5.7% of total household income respectively. For the EU these figures were appropriately 10.5%, 19.3% and 3.7%.

It is important to note, that specially self-employment income is relatively more important source of household income in Poland compared to the EU average. Even so, capital income and self-employment income combined are not a major determinant of total household market income dispersion. The main contributor to the dispersion in household income (before taxes and social transfers) is the labor income inequality. Labour market income accounts for a bulk of the dispersion (around 92%), as compared with just 8% for self-employment, and minimum impact of capital income (OECD data for late 2000s). This situation does not differ from that in most of the OECD countries where labor income brings he highest contribution to the concentration coefficient of household income (before tax and social transfers) on average accounting for around 75%.

Inequality in income after taxes and transfers, as measured by the Gini index, was about 25% lower than for income before taxes and transfers in the late 2000s according to OECD data. This figure is in the range of average values for OECD countries. Transfers are the most important factors responsible for the redistribution effect.

Pensions account for the majority of total public cash transfers in Poland (more than 50% of total transfers which accounted for around 17% of GDP). Incapacity-related spending, which are expenditure on disability pensions and sick leaves schemes are the second biggest pubic money cash flows sent to households in Poland (more than 20% of total transfers). At the same time money spent on unemployment benefits are minor compared to pensions and incapacity-related spending (around 4% of total transfers). Total spending on passive labor market policy accounted for about 0.5% of GDP (together with ALMP total spending on labor market accounted for less than 1% of GDP in 2007). Poland is situated among the OECD countries with generous redistributive policy with one essential difference though concerning the structure of public money transfers, where relatively the less money is spent on unemployed persons.

Poland may be classified as a high-tax country measured by tax-to-GDP ratio. Household taxes absorbed about 30% of household disposable income in 2000s, but their redistributive impact was much below the average in OECD countries and was one of the lowest among European OECD countries (OECD Income distribution and poverty database). The little redistributive impact comes along with little total progressivity measured by progressivity index (the progressivity index of household taxes is the Kakwani index computed as the concentration coefficient for taxes less the concentration coefficient for income after transfers and before taxes).

Broader historical perspective

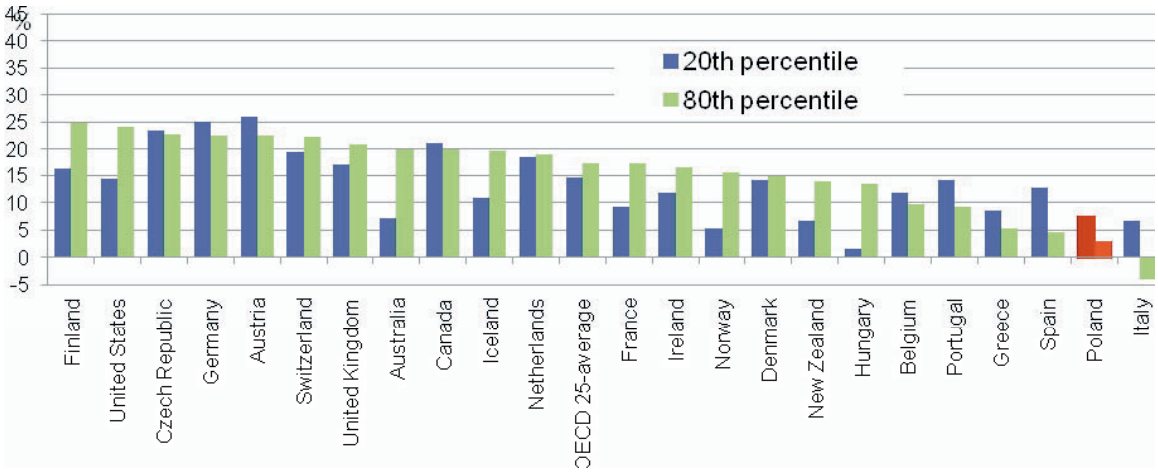
Poland' s experience as a country which underwent the major transition reform (so called big bang reform in the late 80' s and early 90' s) asks to look at the changes in income disparities and level of poverty and living conditions in broader historical perspective. To assess the

changes we should also refer the direction and volumes of these changes to other transition countries from the region. Poland' s transition resulted in gradual and moderate increase in income inequality in the early years of nineties compared to other countries in the region. The Gini coefficient for income distribution increase from the level of 0,256 in the pre-transition 1988 year up to the level of 0,276 in 1997 (the World Bank). However Poland experience substantial increase in labour earnings inequality. The growth in Gini coefficient for labour earnings (0,046) was more than twice that of the Gini for overall income (0,02) during the transition period of 1989-1997 (Keane, Prasad, 2002)[2]. The reason behind the existing gap in income and earnings inequality in Poland was substantial rise in the level of social transfers to individuals which mitigated the income disparity. In the first decade after transition the cash transfers to individuals doubled (from 10% of GDP up to 20% of GDP). Major part of this increase (up to 70% of total increase) was due to increase in pension expenditure. The generous pension systems was to mitigate the negative implication of enterprises restructuring on employees.

During the next years after transformation period (1997-2005) the Gini index rose from 0.28 up to 0.34. The increase of earnings discrepancy was asymmetric meaning that the income from well-paid jobs rose with higher pace than for worse-paid jobs. The average wage was 19% higher than the median wage in 1997 and 24% in 2005.

Gender dimension and dispersion in earnings.
There is a persistent disparity between level of earnings obtained by women and men. The graph below presents gender gap in full-time earnings at the top and bottom of the earnings distribution. Poland is favourably compared with OECD countries in respect to shrinking the difference between 20% best and least earning women and men. The analysis of the average and medium values bring similar findings. It is worth pointing out that Poland has experienced gradual improvement in men and women earnings' equalisation since early nineties. The gender wage gap in medium earnings of full-time employee reached the level of 5.9% in the year 2007 (the bottom point) starting from almost 20% in the year 1991.

Graph 2.4 Gender gap in full-time earnings at the top and bottom of the earnings distribution in selected OECD countries, 2008



Source: own calculations based on OECD database, 2012.

[2] Keane M.P., Prasad E.S. Inequality, transfers, and growth: new evidence from the economic transition in Poland, The Review of Economics and Statistics, May, 2002.

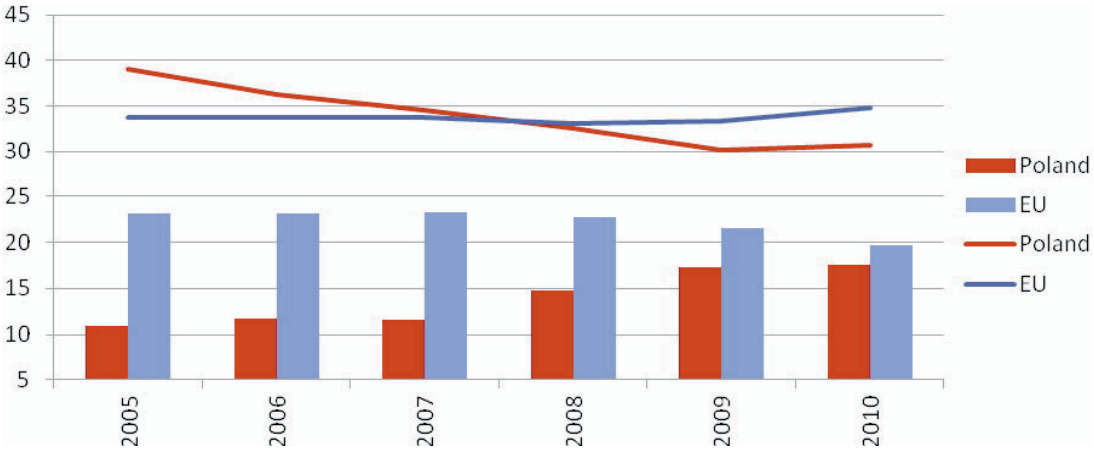
Regional diversity

There is visible regional differentiation in Poland in terms of earnings. The most developed and well-paid regions are the south-west regions (e.g. Silesia region and Wielkopolskie region) and central part (Mazowieckie region), the latter especially due the location of capital city - Warsaw. According to the National Statistical Office, the highest average gross salary in 2011 was in Mazowieckie region, where it amounted to PLN 45 k (around USD 1.5k and EUR 1.1k) and was 25% higher than in the second well-paid region - Silesia. While in the eastern parts of the country the average salary was merely at approx. 64% of the average earnings in central part. In Mazowieckie region GDP per capita reached 82% of the EU average and only 40% in of the EU average in eastern parts. Poland' s eastern regions belong to the poorest in the EU. Among the factors responsible for the difference are high dependence on low-productivity agricultural sectors, poor infrastructure and unfavorable distant location from western European countries.

Poverty and living conditions

The poverty rate used in this part is based on the relative income concept according to Eurostat methodology. The poverty threshold is set at 60% of median equalized household income.

Graph 2.5 Poverty before and after the social transfers (%), EU countries, 2010



Source: own calculations based on Eurostat, 2012.

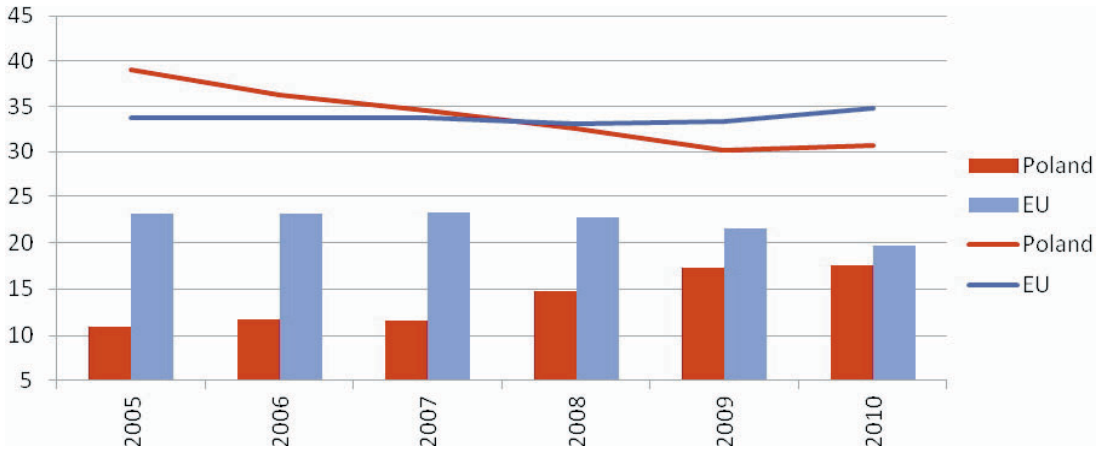
Poland with the poverty rate (before social transfers) accounting for less than 25% was ranked in the middle of the EU countries range in 2010, slightly below the average. However there is a significant change if we examine the poverty rates after social transfers. The change regards both the level of the poverty rate and the country' s ranking. Social transfers resulted in poverty rate reduction by around 28% while in the EU (on average) transfers lead to 36% decrease in poverty rate. Poland for middle-poverty country shifts towards high-poverty country if we examine overall household disposable income (in relative terms). The risk of poverty is strictly related to no. of children in the family. The highest is for the families with four and more children - around 48% of families.

It is important to note that significant improvement (in relative terms - compared to other countries) occurred within last five years (there was also moderate improvement in nominal terms). In 2005, Poland with the poverty rates before and after social transfers at the level of

29% and 20% respectively was among the countries (mostly new member states) at the top of the range.

There is a persistent difference between the poverty rate among young (aged 18 and less) and elderly people (pensioners) in Poland. The poverty rate for group of young people accounted for 30.7% and 17.5% for pensioners in 2010. It is worth mentioning that the gap has narrowed within last five years. The poverty rates were on increase in case of pensioners and changed in reverse direction in case of young people. However the poverty rate among young people is still one of the highest in the EU.

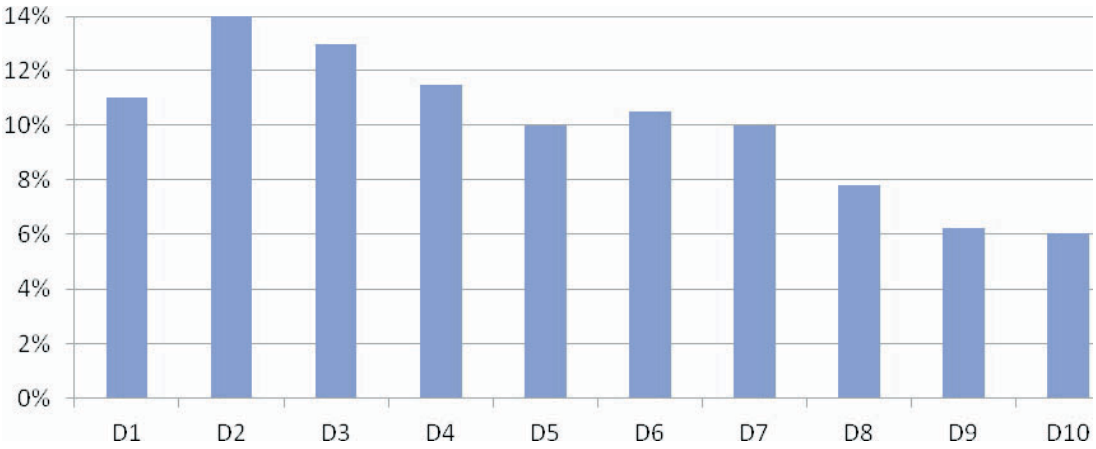
Graph 2.6 Poverty rates for young people (line) and pensioners (bars) in Poland and the EU, 2005-2010 (%)



Source: own calculations based on Eurostat, 2012.

Relatively easy access to social safety net programmes together with robust economic growth and employment increase resulted in decline in poverty. It is important to note however that even though the system of social transfers played a certain role in poverty reduction is still inefficient and not targeted properly. First decile of the lowest-income households (D1/D10) receive only 11% of the total social transfers and less than second (D2), third (D3) and forth (D4) decile of better situated households. Ten per cent of household with the highest income benefit from 6% of the total social transfers. This unfavourable situation result from existing system of mixed income-based benefits and non-income based benefits.

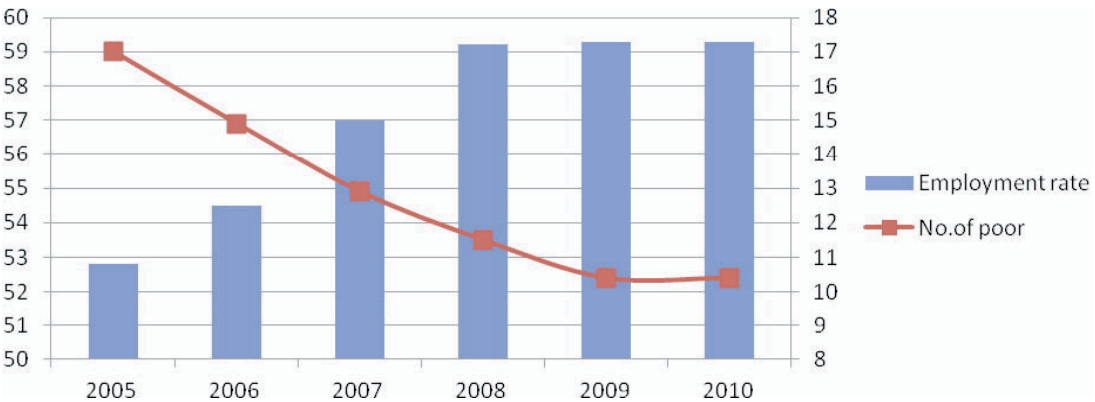
Graph 2.7 Distribution of social transfers in Poland depending on the income criteria



Source: own calculations based on EU-SILC, 2012.

It is worthwhile stressing that, as presented on graph below, economic growth leading to employment increase is the major determinant of poverty reduction.

Graph 2.8 Employment (%, left axis) and poverty (M right axis) in Poland



Source: own calculations based on Eurostat, 2012.

2.2 Present debate about policies to change income distribution

The following part focuses only on the essential issues and major challenges in such areas as labor market and social policies (incl. pensions), as well as tax system, lately debated in Poland.

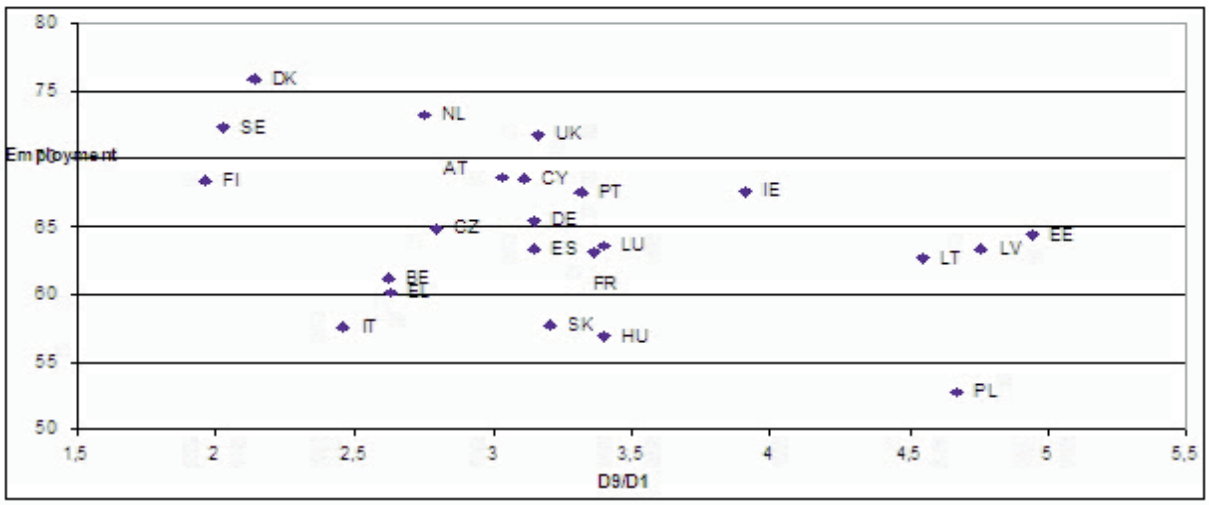
Labour market institutions such as the minimum wage, trade unions, tax system and social benefits (depending on the overall institutional system structure) have an impact on the earnings distribution. However, it is very important to note that the institutional system of labor market is of great importance for the labor market efficiency. Any labor market policies reforms ought to take both of these aspects into account. Poland is among the countries with the lowest employment rate in the EU. The overall rate of employment reached the level slightly above 59% in 2010 which was almost 5pp lower than the EU average and 16 pp. lower the best performing European countries (Scandinavian countries). There was a similar gap in employment rates for women between Poland and the EU average. The rate of

employment of women in 2010 accounted for 53% while in the EU as a whole it exceeded 58%. It should be also noted that there was more than 13 pp. disparity between employment rate for women and men.

It is straightforward to extent the argument that any reforms regarding the institutional framework of the labor market in Poland should be directed at lifting the ability of the economy to generate jobs. Getting more people to work will mitigate the poverty problems (as presented above) and by creating stable source of income will positively impact the level of consumption.

Labour market policies in Poland could be described as follows: high minimum salary, relatively high tax wage, restrictive EPL, moderate system of expenditure on labour market policies but very limited on the side of active policies (Active Labour Market Policies), collective bargaining is ensured by national legislation and the strength of the trade unions comes from high collective bargaining coverage rather than from trade density. Institutional framework of the labour institutions leads to poor labour market performance and relatively high earnings inequality, as presented on the graph below.

Graph 2.9 Employment and earnings disparity in the EU countries, 2005

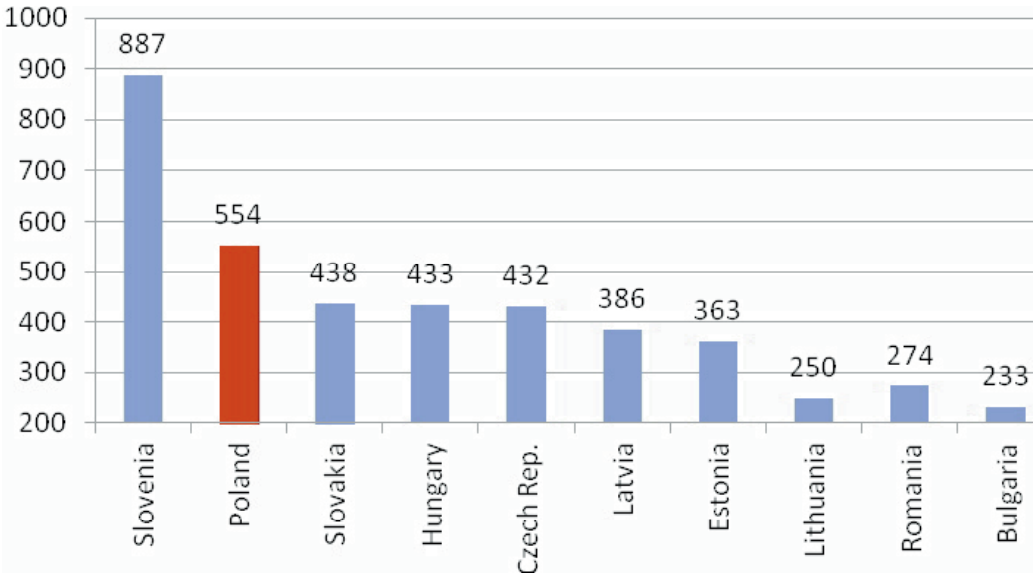


Source: own calculations based on OECD data, 2012.

Ongoing debate in Poland points out major challenges for the government to improve present situation on the labor market. Firstly, a new approach is recommended, which uses the EPL as only one component of a strategy to maintain a high level of employment alongside: a system of unemployment benefits, EPL and active labour market policies (ALMP) which reduce the frictional unemployment. So called flexicurity system let the higher flexibility of employment legislation with parallel increase in public expenditure on ALMP. For example, current governmental proposition referring to additional spending to promote young adults employment goes in the right direction. Secondly, it is worth to note that within last couple of years the government decided to decrease the tax burden measured by the size of a tax wedge for an average salary. However this year governmental decision to rise the disability pension contribution (one of the mandatory social contribution included in the tax wedge) will probably offset expected positive outcomes from previous decision. Thirdly, development of the statutory minimum wage was lately at the special attention in Polish debate.

Poland is one of twenty EU member states which have a minimum wage in their legislation. Minimum wage in Poland is regulated by the Act from 2002. It should be noted that in 2005 Polish government implemented major changes concerning minimum wage indexation mechanism. The rise of minimum wage is linked to real GDP growth and inflation. Government adopted also the target level for minimum wage accounting for 50% of the average salary. Currently the Kaitz index (the ratio of minimum to average wage) in Poland accounts for 40% and is 5pp higher than in 2005. Within last five year Poland was a country with the most dynamically rising minimum wage (measured by Kaitz index) in the EU. As a result, Poland shifted from group of low-minimum wage to high-minimum wage countries. As presented on the graph below, the minimum wage in Poland is one of the highest compared to other CEE countries and is more than 25% higher than in countries on the similar level of economic development such as Hungary, Slovakia and Czech Republic.

Graph 2.10 Minimum wage in CEE countries (PPP, EUR), 2011



Source: own calculations based on Eurostat, 2012.

Presently, in the debate there is a clash of opinions in favor of further increase of minimum wage to the target level and against. Opponents stress the negative influence of minimum wage specially on the employment of young people which is one of the lowest in the EU. Suggested manners for mitigating the impact of minimum wage are: regional diversification (lower wage for poor regions), diversification taking into account age of employees and the length of service (lower wage for young and inexperienced), applying and in-work benefits and negative taxes.

Apart from the issues concerning the labor market policies presently discussed in Poland, there is an important ongoing debate on pension system reforms. It goes toward limiting the number of the pensioners aged 60-67 benefiting from the system of social transfers. As already mentioned cash transfers for elderly people are a bulk of total social transfers in Poland. Government plan to increase the current retirement age from 60 years for women and 65 years for men to 67 years (equal for men and women) aim at encouraging professionally active persons to stay in labor market. In the Polish pension system, as a result of the reforms in the late 1990', the level of pension is strictly linked to contribution and length

of service. It means that elongating the period of professional activity will increase the chance for pensioners to keep the consumption at more stable level during lifetime.

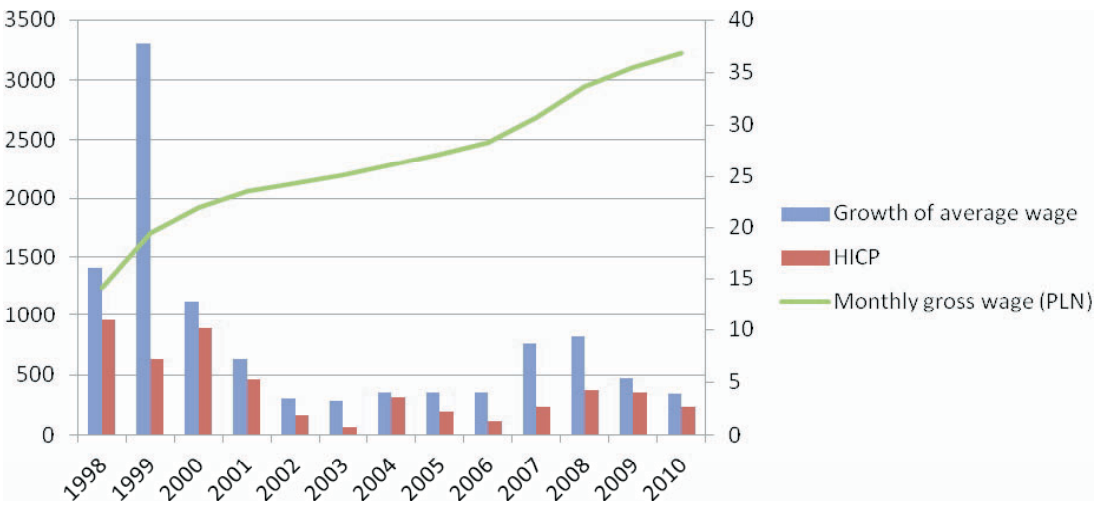
2.3 Likely future development

Polish economy is growing and parallel is becoming more polarized. The Gini coefficient for labor income is likely to grow in coming years. Economic growth by having an adverse effect on different groups of workers - may be characterized by growing demand for high-skilled (well-paid) workers on one hand and growing demand for basic-skills (low-paid) workers on the other hand - may cause a further decline in relative wages of low-skilled workers.

Although social transfers mitigate the earnings disparity on the level of households Disposable income and poverty - due to imperfect targeting - is more than costly and inefficient. Limiting the pension expenditure as a result of planned reforms of pension system create an opportunity for transferring larger amounts of money to support labor activity programs.

Even though Poland is becoming more polarized, standards of living are on the increase. From 1998 onward, there has been continuous rise of average real salary in Poland (as presented on then graph below). Over the last five years the gap between disposable income in Poland and the EU average (as PPP) has narrowed. In 2005 real disposable income in Poland accounted for 52% of the EU average to reach a level of 61% in 2010. This trend is likely to continue in the future as Polish economy is on catching-up process.

Graph 2.11 Monthly gross wage (left axis, PLN) in Poland, HICP and growth of nominal wage (right axis), 1998-2010



Source: own calculations based on GUS data, 2012.

Currently the wages are still relatively low compared to other countries in Europe. Competitive price of labor together with the generous availability of qualified and well-educated workers create an opportunity for significant improvements in labor market performance with all the positive consequences for poverty reduction, level of consumption and sustainable development.

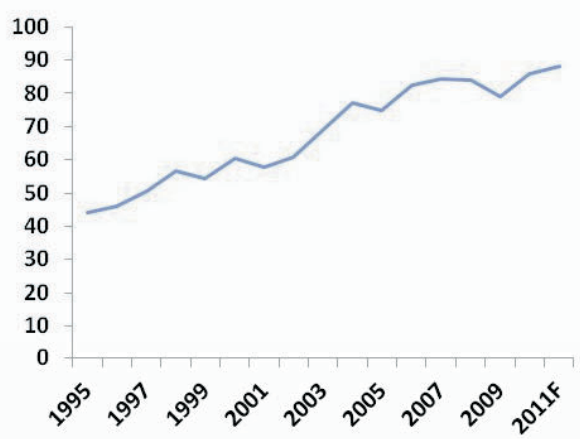
It should be also borne in mind that increasing polarization may be also visible on the region-

al dimension. Poland as a member of the EU benefits from the European regional and cohesion policy. The poorest region are recipient of significant European funds that are likely to rise the level of development and improve the standards of living there.

3. World market strategy and protection from external shocks

3.1 Past integration into the world market

Graph 3.1 Export + Import as % of GDP



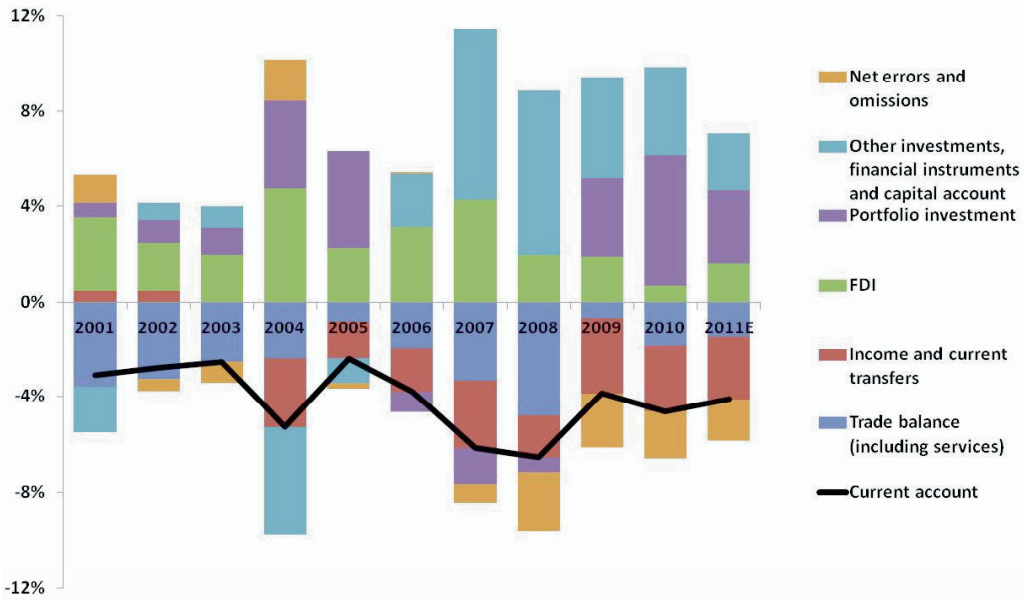
Source: Eurostat, http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/data/database.

For nearly half of the century Poland was centrally planned economy, connected with other socialistic countries of the region and with the USSR. After the collapse of real socialism and democratic change of 1989 Poland started to reintegrate with the world market and particularly with the Western Europe. The process further accelerated after Polish accession to the EU, as Polish companies and consumers gained access to European single market. Growing integration of Poland with the world economy can be seen in the growing openness of Polish economy, measured as a sum of export and import as % of GDP.

Balance of payments

During last decade Poland has been constantly running current account deficit of around 4% of GDP. It should be noticed however, that nearly 60% of it was covered by the inflow of FDI. Since accession to the EU Poland has also experienced growing inflow of the EU funds - according to primary results in 2011 Polish balance with the EU was around of 0.7% of GDP, which represents net inflow of capital to Poland.

Graph 3.2 Balance of payments as % of GDP

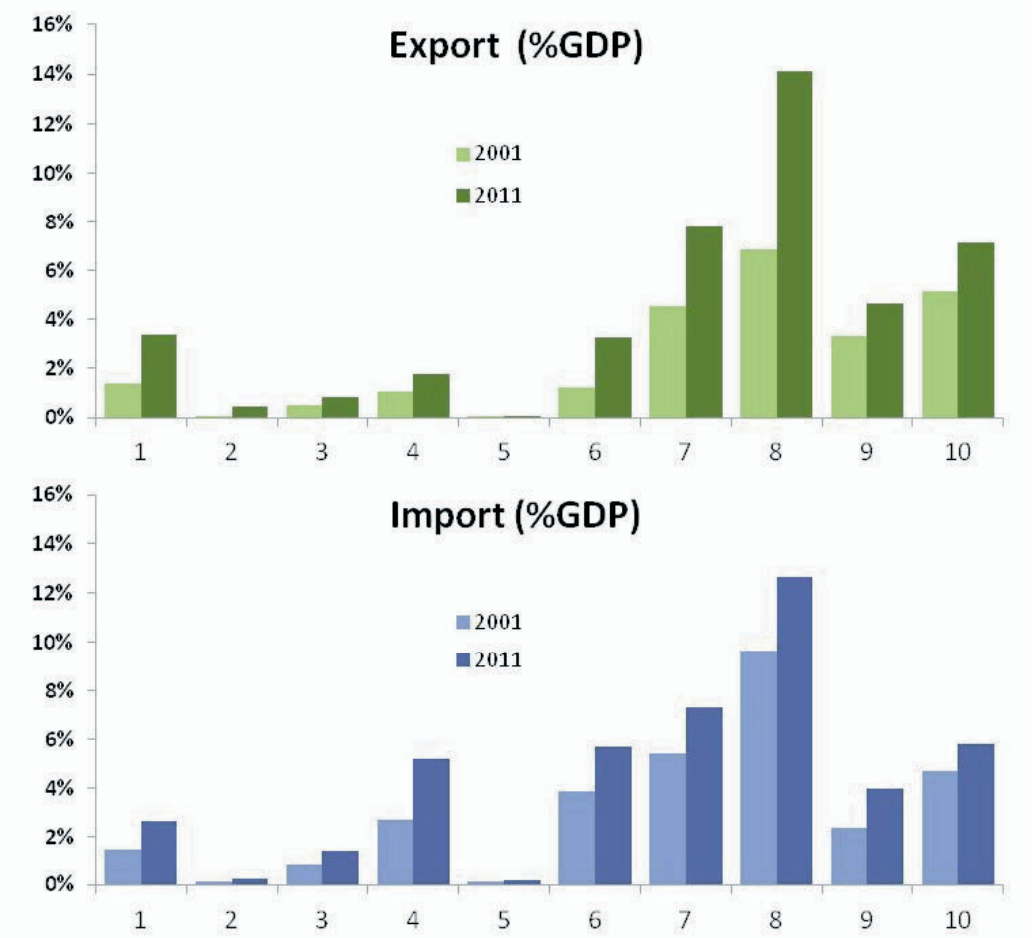


Source: NBP, http://www.nbp.pl/home.aspx?f=/statystyka/bilans_platniczy.html.

Export and import structure

As Polish economy have been integrating with the global economy and Polish enterprises have become part of the global production chains, both Polish export and import have increased. The increase can be observed across all the categories. The largest growth in export has been observed in manufactured goods classified chiefly by material (7 on the graph.) and machinery and transport equipment (8), which is a sign of the development of Polish, market oriented, industrial base. It is also worth to mention there was a remarkable growth in food export (agriculture sector still has relatively large share of employment in Poland and the potential of small, family owned, ecological farms is not fully used) and in services as Poland hosts more and more services centers. The growth of import was more even across all of the categories, with the exception of fuels, which was growing particularly fast. Polish trade deficit is the biggest in the category of fuels (-3.4% of GDP in 2011), followed by the deficit in chemical products (-2.5% of GDP in 2011). Presently there are high expectations, that with the extraction of shale gas, Poland will manage to reduce or even eliminate trade deficit in fuels (more information below).

Graphs 3.3 and 3.4 Export and import structure



1. food and live animals, 2. beverages and tobacco, 3. crude materials, inedible, except fuels, 4. mineral fuels, lubricants and related materials, 5. animal and vegetable oils, fats and waxes, 6. chemicals and related products, 7.manufactured goods classified chiefly by material, 8.machinery and transport equipment, 9. miscellaneous manufactured articles, 10. Services.
Source: own calculations based on GUS (2012), Handel zagraniczny. Styczen-Grudzien 2011 r., http://www.stat.gov.pl/gus/5840_719_PLK_HTML.htm.

Main trade partners

Poland' s main trading partners are other EU-member states and Eurozone members in particular. Single biggest trading partner for Poland is Germany, which represented for 26.1% of Polish export and for 22.3% of Polish import in 2011. Poland achieved a trade surplus in trade with developed countries and the deficit in trade with developing countries that outweighed the surplus in trade with developed countries. From the second group (developing countries) the most important Polish trade partner is Russia (4.5% of Polish export and 12.2% of Polish import in 2011). The deficit in trade with Russia is to large extend the effect of the import of fuels.

Table 3.1 Export and import by country groups, as % of Polish GDP, 2011 (primary results)

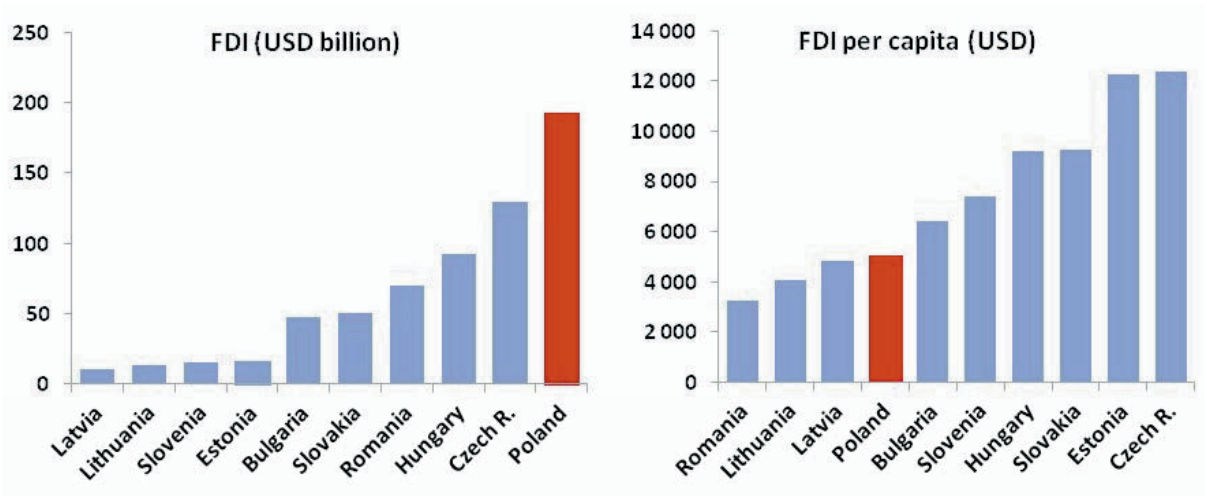
	export	Import	balance
Total	**36,5%**	**40,4%**	**-3,9%**
developed countries	**30,7%**	**26,8%**	**3,9%**
of which: the EU	28,4%	23,9%	4,5%
of which: Eurozone	19,7%	18,7%	1,1%
developing countries	**2,7%**	**7,8%**	**-5,1%**
of which: Albania, Belarus, Croatia, Moldova, Russia and Ukraine	3,1%	5,8%	-2,7%

Source: GUS, http://www.stat.gov.pl/gus/5840_6704_PLK_HTML.htm.

FDI

Since the beginning of the transition Poland managed to attract almost 200 billion USD of Foreign Direct Investment (as of 2010). Majority of the FDI inflows came during the last decade - in 2010 the stock of FDI in Poland amounted to 193 billion USD, compared to 34 billion USD in 2000. Although it is the best result among the EU new member states from Central and Eastern Europe, taking into account the size of the country, some countries of the region fared better than Poland (in relative terms). Still, it should be remembered that as of 2010, value of FDI stock in Poland was equal to 41% of Polish GDP.

Graphs 3.5 and 3.6 Foreign Direct Investment, 2010

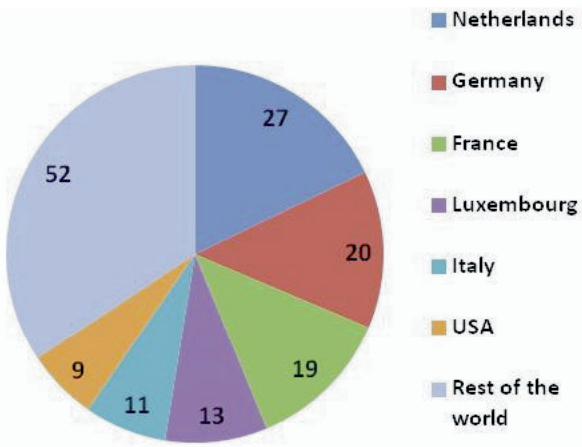


Source: UNCTADSTAT, http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx.

The inflow of FDI besides the capital also brought to Poland much needed know-how. FDI in Poland went to all sectors of the economy, ranging from manufacturing to banking. Most recently there is a growing interest in localization of Shared Services Centers (SSC), Business

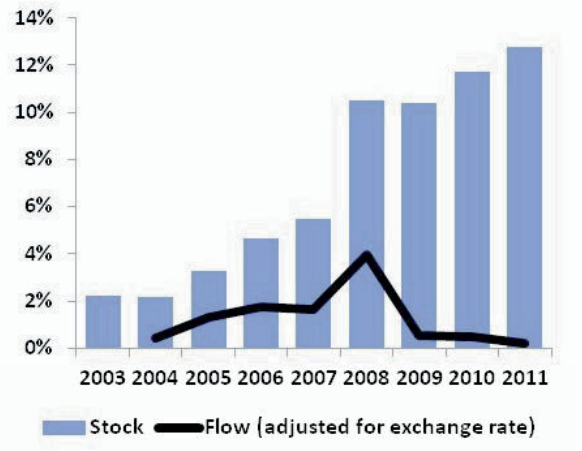
Process Outsourcing (BPO), as well as Research and Development (R&D) centers in Poland. It is forecasted, that by 2013 around 100 K Poles will be employed in such centers. Particularly R&D and Knowledge Process Outsourcing (KPO) centers are valuable investments for Poland as they generate well paid work places for highly educated specialists.

Graph 3.7 FDI stock by country of origin, as of 2010 (EUR billion)



Source: PAIiIZ, http://www.paiz.gov.pl/polska_w_liczbach/inwestycje_zagraniczne.

Graph 3.8 FX denominated mortgages as % of GDP



Source: own calculations based on NBP (2012), http://www.nbp.pl/home.aspx?f=/statystyka/pieniezna_i_bankowa.html.

Currency mismatches

Largest currency mismatches exposed by the global financial crisis were the result of FX denominated mortgage lending to households. Loans denominated in Swiss Frank became particularly popular after 2006, with much lower interest rates, and the general perception that Polish zloty will continue to appreciate further limiting costs of the loan. Financial supervision knowing the risks connected with FX denominated loans issued regulations tightening lending standards for such loans (much to public discontent). With the benefits of hindsight it can be argued that the regulations then criticized by many politicians as limiting the access to credit for young households should be even tougher. The FX credits were growing until the second half of 2008, when PLN lost nearly half of its value, going from 1.95 PLN per CHF at the beginning of August 2008 to 3.3 PLN per CHF in February 2009. Since then the FX lending nearly disappeared, but as PLN continued to weaken against CHF (the minimum was reached at 3.99 PLN per CHF in August 2011, more than 2 times compared to the level from more than 3 years before), the value of the stock of existing loans has been raising.

The CHF loans during the boom were financed by banks mainly through short term borrowing and currency swaps. After the global financial crisis erupted banks met growing problems with refinancing. As the households were not hedged against the currency risk (although the mortgages were paid back in PLN) the growing value of installments meant growing credit risk.

As of 2012 however the problem of FX denominated loans has turned out to be manageable. It is plausible, that banks are now not earning (or even losing) on their FX denominated credit portfolios, as the refinancing they had obtained after 2008 is much more expensive and might be exceeding spread charged on the households. Fortunately NPLs have not

became major problems and with other product lines much more profitable, Polish banking sector as a whole remains well capitalized and highly profitable.

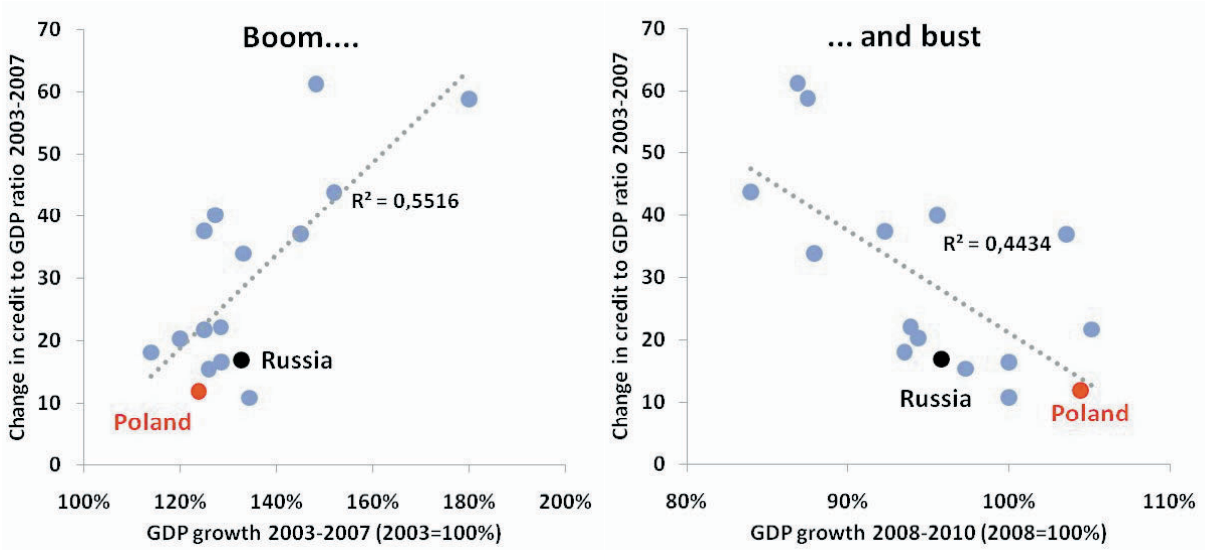
As far as other sectors are concerned, both companies and government also had some problems with exchange rate movements. In case of corporations it was a result of asymmetric currency options with which companies in 2008 were hedging against further appreciation of PLN. Companies were buying options anticipating further strengthening of PLN simultaneously selling options that could be executed in case of weaker PLN. As the PLN started to depreciate rapidly, companies had to face unexpected financial costs. In the end however the problem turned out to be manageable. In the case of government the biggest problems with FX denominated debt appeared at the end of 2011. In line with the strategy of management of public debt around of 20% of it is FX denominated. Currently Poland with the public debt accounting for 55% of GDP is at the edge of statutory threshold (55% of GDP[3]) and the weak PLN by the end of the year could have meant the breach of the limit. With some intervention on the FX market the public debt was kept below the constitutional threshold.

External shocks

The outbreak of global financial crisis at the end of 2008 constituted a major external shock to all economies of Central and Eastern Europe. Poland has proved to be particularly resistant, being the only country in European Union were the positive GDP growth was recorded in 2009. At least 3 sources of this apparent success can be pointed.

After 2000 nearly all post-socialist countries in Central and Easter Europe experienced rapid GDP growth. Although at first it came as a result of the accelerated reforms, soon the growth

Graphs 3.9 and 3.10 Growth in domestic credit to private sector as % of GDP and GDP growth



Countries: the EU New Member States (Bulgaria, Czech R., Estonia, Hungary, Latvia, Lithuania, Slovakia, Slovenia, Romania, Poland) and Albania, Croatia, Kazakhstan, Moldova, Russia, Ukraine. Data for Baltic states, where boom started earlier are for years 2002-2007.
Source: EBRD Transition Report 2009, IMF World Economic Outlook IV 2010,

[3] In Poland besides constitutional debt limit of 60% of GDP, there are also two statutory thresholds of 50% and 55% of GDP. After breaching each of the thresholds government is required to take statutory actions (in case of 55% threshold it is i.e. increase of VAT tax by 1 pp. and real freeze of pensions). The national methodology used for calculation of public debt is slightly different from the one used by Eurostat. For this reason although Poland has already public debt exciding 55% according to Eurostat, by national methodology the debt remains slightly below this threshold.

started to be to large extend credit driven. In Poland, market oriented reforms at that time were already quite advanced, so the initial acceleration of GDP was slower than in majority of other countries of the region. Also, during the boom phase Polish financial supervision was more prudent than in many other countries, partly limiting the credit boom. Due to limited boom, imbalances accumulated in Polish economy at the eve of the global financial crisis were much smaller than in other countries, enabling Poland to land soft.

Besides of limited imbalances Poland also benefited from two other factors: floating exchange rate and large domestic market. Large depreciation of zloty in 2009 had strongly limited import. With export fairly constant (in PLN terms) it resulted in substantial positive contribution of net export to GDP growth. The second factor was much more independent from economic policy, as Poland with about 38 M consumers is substantially larger than other EU new member states. Lastly it should be noticed that tax cuts enacted in 2007, but entering into force in 2008 also stimulated Polish economy in 2009 (contributing also significantly to current problems of public finances)[4].

3.2. Present debate about integration in the world market

The integration as such is not a subject of the main stream discussion, as there is a fairly broad consensus that further integration with the EU should be Poland's strategic aim (as the EU-27 countries represent over 75% of Polish export and about 60% of import).

There is however discussion about Euro adoption. As a member of the EU without opt-out Poland is required to adopt Euro, but no precise date has been given. Taking into account current debt crisis in Eurozone, Polish Eurosceptics has resumed debate about Euro. It must be remembered however, that at the moment Poland do not fulfil Maastricht criteria, with too high public finance deficit, inflation and long term interest rates. It can be also assumed, that after the experience of Greece, countries that want to adopt Euro will have to meet the requirements not only at the given point of time, but also prove that they can do it in a sustainable way. Although the breakup of the Eurozone seems implausible, there is quite a lot of uncertainty about the future institutional setting of Eurozone. It must be remembered however, that fulfilling of Maastrich criteria is good for economy per se, as it requires sound monetary and fiscal policy. Poland should now continue to work on improvement of its public finance condition, lower inflation and interest rates. At the time this targets will be met, Eurocrisis most probably will be already solved. This will be the time for proper cost and benefit analysis and public discussion. Given the structure of Poland's foreign trade, most probably the analysis will confirm, that Euro adoption will be beneficial for Poland.

There is growing debate about the extraction of shale gas in Poland. The resources of shale gas in Poland are estimated to be among the biggest in Europe, but no commercial drilling has began yet and the profitability of extraction has not been confirmed. Still the topic is high on public agenda, as the government expects to achieve two important goals with shale gas extraction: to reduce Poland's dependence on import of gas from Russia and increase public revenues, partly offsetting the effects of ageing of society. Opposition parties to large extend share the hopes of the government, but there are still unsolved environmental as well legal issues. Experts are also warning that more time is needed to check commercial profitability of extraction. New regulations concerning legal issues (environmental, rights of local

[4] For more details see Bakker B., M-A. Gulde (2010): The Credit Boom in the EU New Member States: Bad Luck or Bad Policies?, Working Paper No. 10/130.

communities) also must be prepared. We are cautious optimists about the shale gas and expect that in a few years Poland will start to benefit from its extraction, reducing our dependence on Russian gas and need for import of fossil fuels.

On the EU level Poland is advocate of further integration and deepening the single market. It was visible during Polish Presidency in the Council of the European Union, which brought three priorities on the European agenda: (i) European Integration as a Source of Growth (i.e. deepening the Single Market, particularly in area of services); (ii) Secure Europe (i.e. energetic security and diversification of energy supply to the EU); (iii) Open Europe (i.e. trade liberalization with the rest of the world). The most emphasis was put on the Integration as a Source of Growth., Another important issue for Poland at the EU level is the reform of financial regulation. As the majority of Polish banks are foreign owned, there are recurring concerns that the problems of their mother companies in the Western Europe will be exported to their sound subsidiaries in Poland, leading to a credit crunch for Polish companies. Under present regulation, banks operating in Poland are subject to regulation by Polish financial supervision. The advantages of proper domestic supervision has been seen recently, when the bankruptcy of Irish bank had only limited impact on the operations of its Polish subsidiary, which was sold by Irish and now continues smoothly its operations.

Although the issue of new FX denominated loans in Poland is now very limited, previously accumulated level of debt is still significant. As a result of actions taken by regulator as well as the increased public awareness of the danger of currency mismatches (the result of the zloty' s exchange rate volatility during the global financial crisis) the FX denominated loans constitute only the small fraction of new mortgage lending. Still it will take years to pay back CHF denominated loans issued particularly the pick of the boom in 2006 and 2007.

3.3 Likely future development

We expect Poland to continue its integration with the European single market leading to growing openness of Polish economy. Poland will continue to run current account deficit, but it will be to large extend financed by the inflow of FDI and capital transfers from the EU. European funds will continue to help modernize Polish economy, but also will help to further develop physical infrastructure connecting Polish companies and citizens with European Market. In the longer term it can be also expected that Polish currency (PLN) will be appreciating, as the global risk aversion will be declining.

In the perspective of 5-10 years Poland should be able to meet Maastricht criteria. Poland is obliged to adopt Euro and majority of analysis up to date has indicated that the benefits from Euro adoption will definitely outweigh the costs. The lost competitiveness and the debt crisis in the South European countries however highlighted dangers connected with Euro adoption by poorly prepared, inelastic economies. Further studies are required to reassess costs and benefits of Euro adoption, as well as to fully understand the mistakes of PIIGS in order not to replicate them. Still having in mind that majority of Polish foreign trade is with Eurozone and its share as Polish GDP most probably will be further raising in the next years, Euro adoption remains Poland' s strategic goal.

It is possible that within next 10 years Poland will start to extract substantial quantities of shale gas. It will help to lower import of fossil fuels, which at the moment amounts to over 5% of GDP, significantly contributing to Polish trade deficit. It will also improve energy security of Poland, reducing its heavy dependence on gas imported from Russia.

4. Green New Deal and ecological problems

4.1. Overview about ecological problems

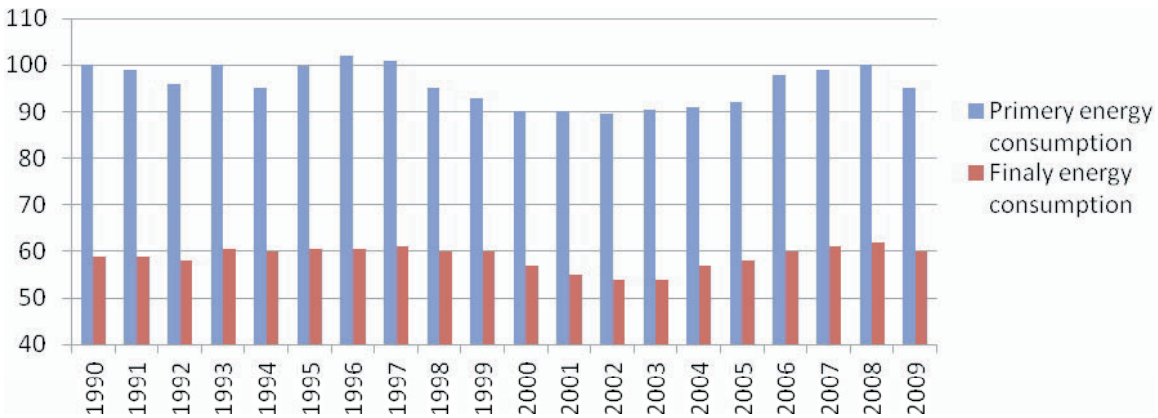
Poland faces couple of challenges when it comes to the environmental policy. The most important are: limiting the impact of energy on the environment(e.g. CO2 emission), improvement of the efficiency of the production and use of energy, development of renewable energy, increase of the power capacity, reforming the waste management, water and sewage sectors. Many these problems are linked together.

Energy efficiency

There were continuous improvement of all the basic economic indicators in Poland for the last two decades. The level of energy consumption in Poland as presented on the graph below has been mostly a function of economic activity and restructuring programs implemented in the economy.

Staring from the year 1996 both the primary and finally energy consumption - when it reached its peak values - declined. Mostly it resulted from restructuring of industry sectors, implementation of modernization programs and liberalization of energy prices.

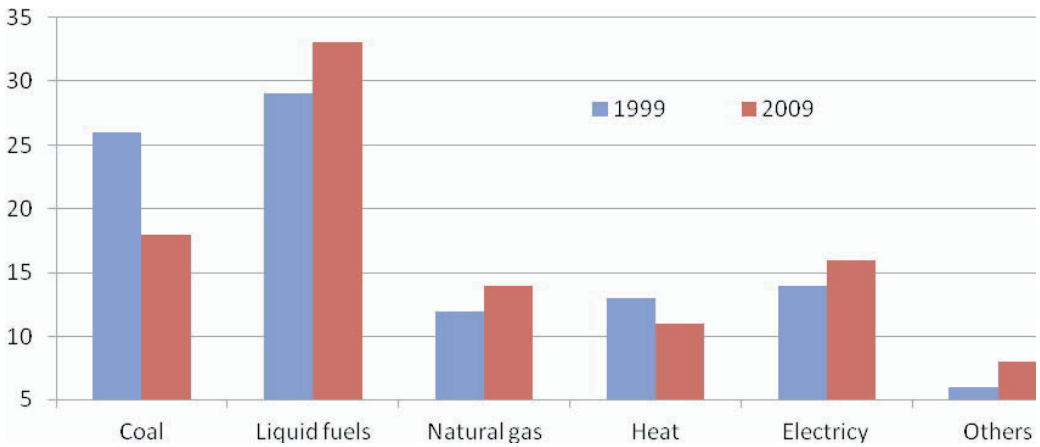
Graph 4.1 Primary and final energy consumption (Mtoe)



Source: Energy efficiency in Poland in years 1999-2009, GUS, 2011.

Traditionally due to the presence of abundant hard coal and lignite deposits, these two natural resources became important source of energy production in Poland. However, during the last decade the share of liquid fuels in final consumption systematically increased and reached the level of 33% in 2009. Importance of natural gas increased by 2 pp to reach the level of 14% in 2009. Similarly, share of electricity in the total energy consumption accounted for 16% in 2009, which was 2 pp more than in 1999. The share of hard coal and lignite declined from 26% in 1999 to 18% in 2009. The graph below presents the final energy consumption by energy carrier for the last decade. However, it is worth noticing that importance of coal is much higher when one looks at the energy consumption by types of fuel (see more on this issue - below). That is due to the fact that more than 90% of electricity comes from coal-fired power plants.

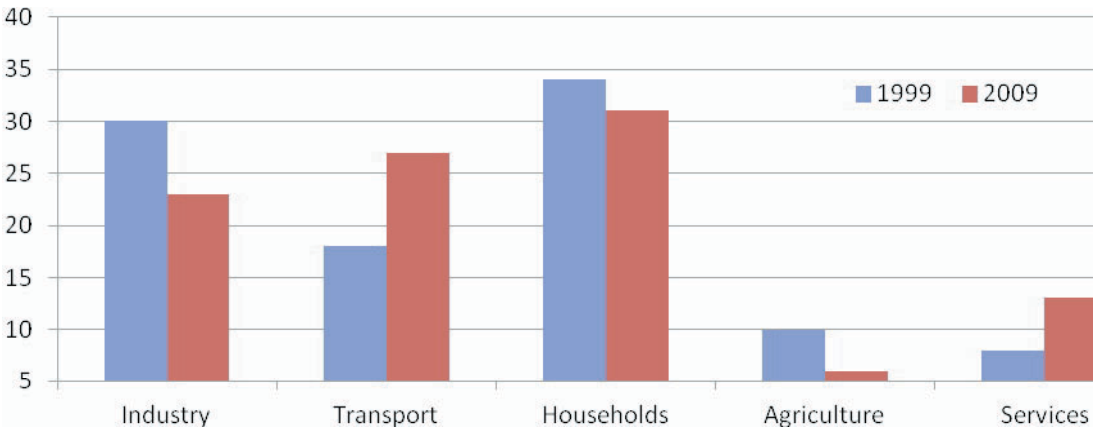
Graph 4.2 Final energy consumption by energy carrier (%, 1999, 2009)



Source: Energy efficiency in Poland in years 1999-2009, GUS, 2011.

The main factors influencing the change of the importance of specific carriers in overall energy consumption is strictly related to the structure of the final energy consumption in major economic sectors. Firstly, the development of transport sector (specially road transport) and services sector contributed to higher final energy consumption by these sectors. Secondly, the restructuring programs implemented by enterprises (and aimed at lowering the energy intensity) contributed to higher energy efficiency and decline in final energy consumption by this sector. Energy savings in households were mostly due to thermo-modernisation, the improvement of heating systems (around 70% of energy consumption) replacing low-efficient coal system by gas and electricity devices.

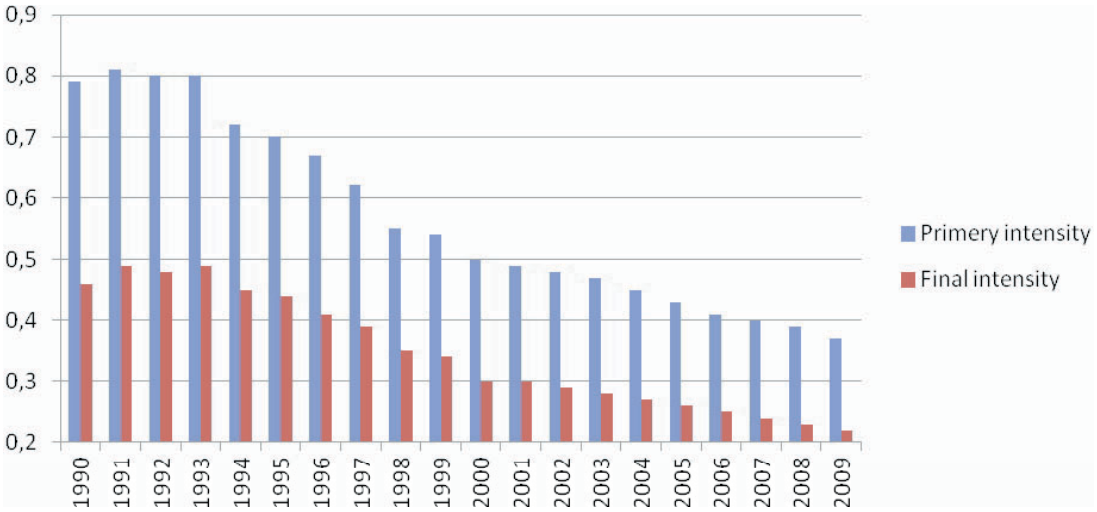
Graph 4.3 Final energy consumption by sector (%, 1999, 2009)



Source: Energy efficiency in Poland in years 1999-2009, GUS, 2011.

The programs and actions directed towards improvement of the energy efficiency and energy savings allowed to keep the stable levels of energy consumption over the last decade with growing economy at the same time. This contributed to solid improvement of energy intensity of primary and final energy in Poland. Between 1993 and 2000 there was a rapid decline in both primary and final energy intensity by 2% YoY on average. The positive trend was continued after year 2000, however with lower dynamic.

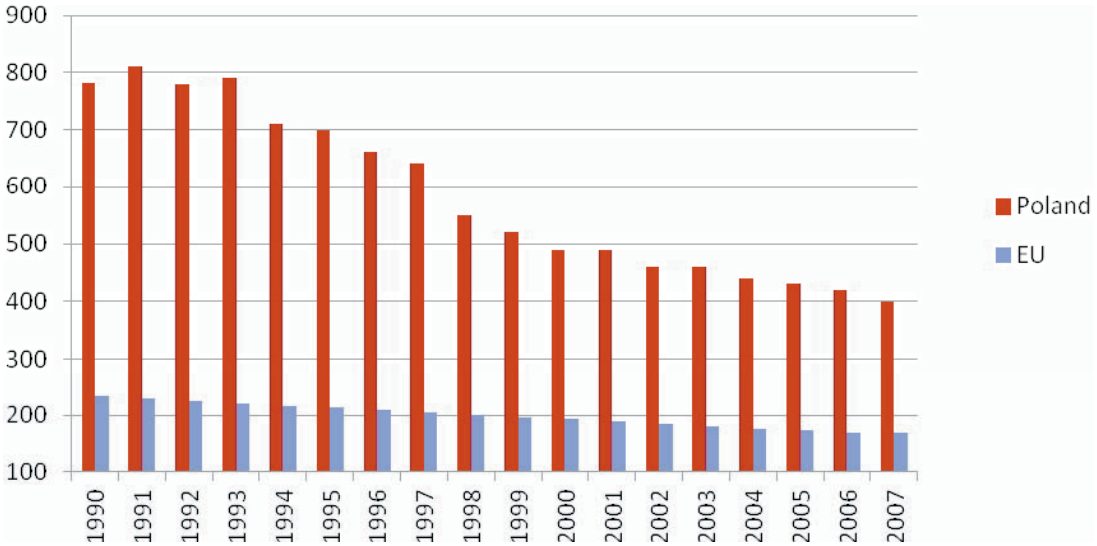
Graph 4.4 Energy intensity of GDP (koe/euro)



Source: own calculations based on GUS data, 2012.

Despite the last years improvement Poland still lacks behind the standards of western European countries. According to the World Bank data Poland' s economy is still more than twice as energy intensive as the EU average.

Graph 4.5 Energy intensity in Poland and the EU (toe/Meuro)



Source: Transformation towards low-carbon economy in Poland, World Bank, 2011.

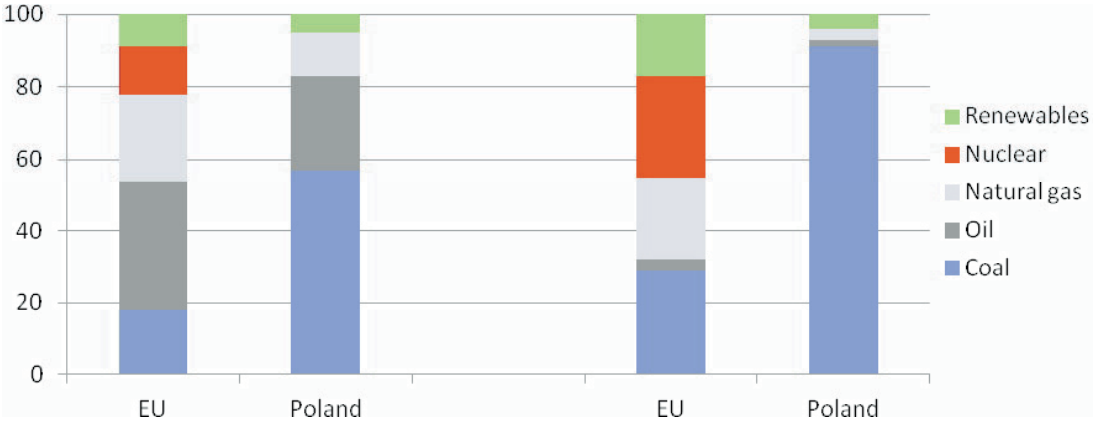
CO2 emission

Poland faces a considerable challenge in greenhouse gas emission reduction in the coming years. 85% of CO2 emission comes from the energy sector which is highly depended on domestically available coal (in 57%). Poland is one of the biggest consumers of coal in Europe. Nearly 92% of electricity in Poland is produced in coal-fired power plants. Coal is the fossil fuel which produces the greatest quantity of CO_2 by kWh of electricity. At the same time the use of renewable energy (RES) is far below the EU27 average. Only 5% of final energy consumption in Poland comes from renewables. Natural gas and oil constitute 13% and 26% of energy consumption respectively.

There was significant reduction of CO2 emission in energy sector within last two decades. According to the World Bank data energy sector emission has fallen by 30% since the year 1988. However, at the same time there was an intensive increase of transport sector emission. Transport sector which constitute of around 10% of overall emission has grown by more than 70%. Moreover, transport sector - due to relatively low saturation of this market - is expected to growth in the coming years. These projections - along with the unfavorable structure of energy production in terms of fuel used, namely coal dependency and low share of renewables - will pose a major challenge for Poland' s economy in near future.

It should be noted that the positive tendency in CO2 reduction since transformation process started allowed Poland to exceed the Kioto Protocol requirements. However the reliance on abounded domestic coal (together with the binding requirements resulting from the European regulations) pose a particular challenge for the future.

Graph 4.6 Energy consumption by fuel (left bars), electricity generation by fuel (right bars), %, 2007

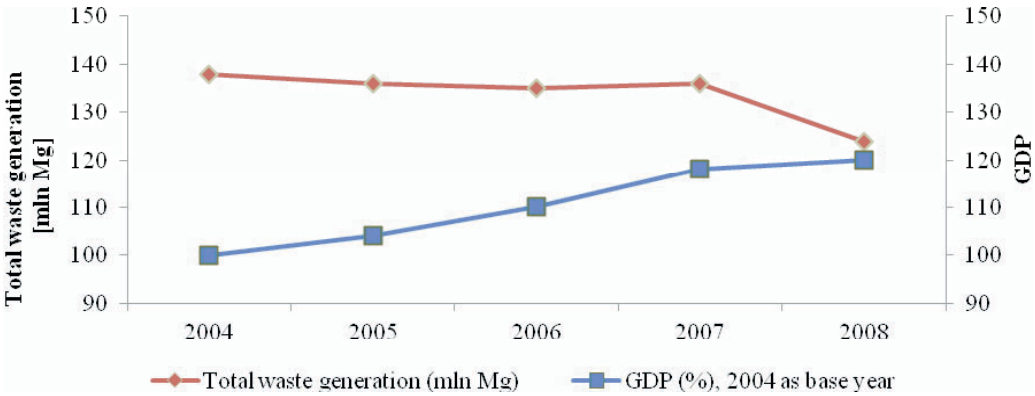


Source: Transformation towards low-carbon economy in Poland, World Bank, 2011.

Waste management

Waste management is among the sectors that have crucial impact on the ecologically sustainable development of the country, environment and human health. There was a high progress in shifting these sectors towards more environment friendly for last decade.

Graph 4.7 Waste generation and GDP



Source: Ministry of Environment.The National Waste Management Plan 2010 (2006) and the National Waste Management Plan 2014 (2010), http://www.mos.gov.pl/artykul/2437_krajowy_plan_gospodarki_odpadami_2010/8884_krajowy_plan_gospodarki_odpadami_2010.html.

However some problems still remain to and need to be gradually resolved.

Poland succeed in achieving two of the main objectives related to waste management and is in continuous process of improvement (as presented in graph below) - firstly managed to decouple waste generation from economic growth, and secondly, managed to reduce significantly the mass of waste production for the last years. Decoupling the waste generation from GDP growth indicates the positive structural change.

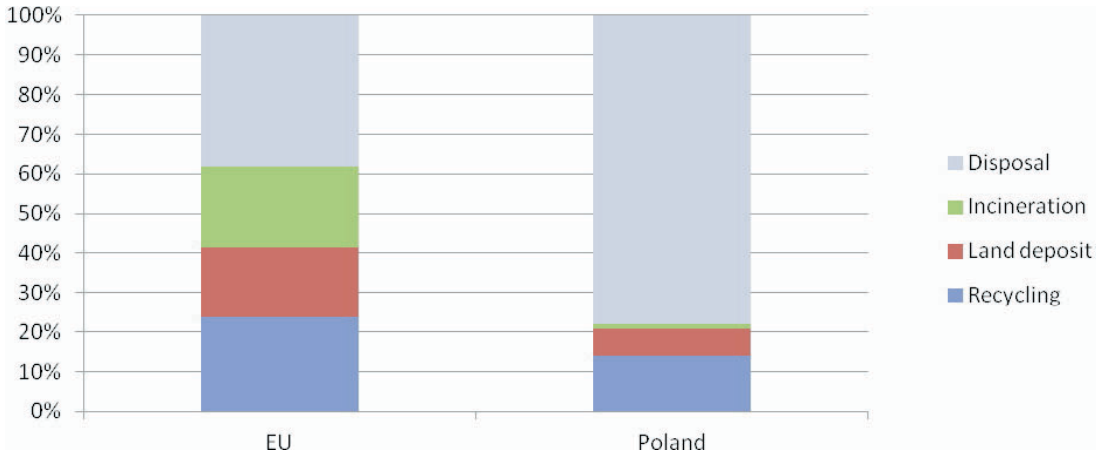
Growing environmental awareness of the general public, implementation of waste management rules and waste prevention programs, industries modernization programs were - among other things - the main factors that led to the improvement in waste prevention.

Despite the amelioration in waste management sector, the most important problems are still to be resolved to reduce the negative impact of waste on the environment. This problems concern further prevention of waste generation, ineffectiveness ("leakage" problem[5]), waste utilization methods, reuse, recycling, and other ways of waste recovery.

Poland is struggling with so called "leakage" problem of the municipal waste collection system. In 2009 the collection system covered only 79% of residence in Poland, which means that around 2 m Mg of waste was dumped illegally in the environment, which is approx. 50kg/capita (in the whole in the EU-27 it is five times less). The gap between waste generation and collection pose the high risk to ecosystem security.

The basic method of waste management in Poland is landfill disposal. At the same time landfilling waste is the least desired method of waste management as environment protection. Less than a quarter of collected municipal waste is treated with other pro-ecological method meaning utilized to the farthest possible extent. Recycling, biological treatment, thermal treatment accounted for 16%, 5%, 1% respectively. In this respect Poland is unfavorably compared to the other EU countries.

Graph 4.8 Waste treatment in the EU and Poland, %, 2008



Source: own calculations based on Eurostat, 2012.

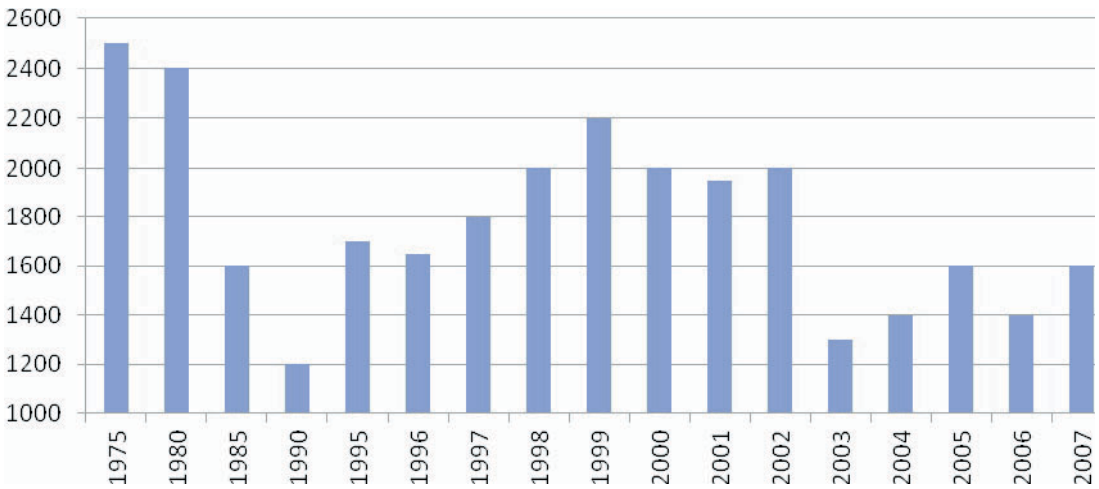
[5] Difference between waste generation and waste collection.

Water and sewage

There was a visible tendency of declining the water resources per capita in Poland for the last decade. The water resources amount to 1700 m3/capita which is approximately three times lower than the EU average. The most important water resources in Poland is surface water which is about 85% of total needs followed by groundwater which is remaining 15% of total needs.

During the last decade the stabilization of water usage at the level of 11km3 has been noted. That was achieved due to the stabilization of water consumption by industry sector which is 70% of total water usage and reduction of total consumption by households. The increase of society ecological awareness, limiting the irrational usage of water and water-saving sanitation devices played the most important role in the positive tendency of water usage.

Graph 4.9 Variability of surface water resources (m3/capita)



Source: own calculations based on Infrastructure and Ecology of Rural Areas, Polish Academy of Since, 2009.

The consumption of water is linked to supply of water sewage. The industry sector is responsible for less than 84% of total quantity of waste water, remaining 16% is municipal waste water. There was a high progress both in limiting the water sewage in last two decades - around 14% for industry sector and around 50% for municipals and in decreasing the amount of untreated s sewage delivered to the environment by more than 80%. Moreover, the tendency for increasing amount of sewage treated in high performance technologies is observed.

Despite the positive change in water management sector there is still some challenges Poland need to face in the near future. One concerns the sewage network condition and the sewage network coverage. Nowadays around 95% of the population have the access to municipal water and sewage network (compared to 81% in the year 1990) but there is high discrepancy between rural population covered by waste water treatment plans and the cities dwellers. The network system in villages accounts for only 19% of the total length of the network water supply in Poland.

4.2 Present debate to solve ecological problems/ Strategy and coherence of industrial policies

The most important issues in the agent seems to be: energy security (incl. energy efficiency), decreasing the air pollution by reduction of CO2 emission, limitation of the damaging impact of hazardous and illegal waste and water pollution from industrial and municipal sources.

The direction and the timetable of resolving ecological challenges is strictly set by Polish and European regulations. Additional targets are also proposed by the government in numerous strategic programs.

Energy security (incl. energy efficiency)
The issue of energy security is seems to be the priority for the Polish economy for the coming years. The consumption structure of primary energy is expected to change as shown by the table below. Within next 20 years the share of coal and lignite will total energy consumption is to decrease by 12 pp. It means that Poland will shift from coal-fired power plans to other sources of energy as gas, oil but also renewable energy. This change will also bring the positive effect on the level of CO2 emission.

Table 4.1 Forecasted consumption of primary energy

Type of primary energy	Annual consumption in Poland - 2006	Forecasted consumption in 2030
Coal	76.5 m tones	64 m tones
Lignite	59 m tones	46 m tones
Crude Oil	24 m tones	31 m tones
Natural Gas	14.5 bilion Nm^3	20.2 bilion Nm^3
Others	5.7 Mtoe	24 Mtoe

Source: CP Energy. Calculations based on own research, 2012.

The need to ensure the energy security in Poland brought discussion on the potential sources of primary energy in the context of the type of energy as well as geographical origin. The strategic goals are the geographic diversification of energy sources and decreasing the level of dependency on external sources of energy (specially gas and oil). There are several issues on the agenda in the current debate.

Firstly, it is increasing the energy efficiency. Improving energy efficiency is also one of the priorities of EU energy policy as designated in 2020 to reduce energy consumption by 20% compared to the "business as usual" scenario. The Polish government adopted the following goals: zero-energy growth (to maintain the GDP growth without growing demand for energy), increasing the efficiency of electricity generation by new technologies, the introduction of minimum standards for energy-using products, support for energy saving investment by preferential credits and grants from national and European sources, including the law on supporting thermal isolation and renovations, the regional operational programs, and the special National Fund for Environmental Protection, stimulating the development of cogeneration. The potential perspective for cogeneration in Poland is linked to a unique pattern of energy production where most of electricity is produced in coal-fired power plants, whereas coal is the fossil fuel, which produces the greatest quantity of CO_2 by kWh of electricity.

Development of clean coal technologies are the chance to reduce CO_2 emissions per unit of energy produced. Due to the requirements of CO_2 emission reduction, clean coal technologies may become a natural stage of energy sector development.

Secondly, it is development and extraction of new sources of energy as renewables, shale gas and nuclear energy. There is a great emphasis put the development of renewable energy which is reflected in binding Polish and European regulations. The European directive on renewable energy sets the framework for the RES on the EU level (20% of RES in gross energy consumption expected by 2020). The share of RES in gross energy consumption in Poland should increase up to 15% in 2020. Ssustainable conditions for wind farms construction in over two-thirds of the country on one hand and broad public support on the other hand create the favourable conditions for development of this sector. Development of biogas installations is another way - strongly considered -for improvement of energy security by increased supply of renewable energy.

After the discovery of the rich deposits of shale gas in Poland its extraction has become a hot issue in Polish energy sector. According to the Energy Administration the extraction of shale gas may amount to 7% of world natural gas production by 2030. Resources of shale gas are estimated at the level of 1.4 trillion m^3 to 3 trillion m^3 - which places Poland among the countries with highest resources of this source of energy. Poland is still at the stage of search, exploration and preparation for potential extraction of shale gas. Research areas cover ca. 11% of the Polish territory. Most probably shale gas fields are located at a depth of 1200-2500 m in northern parts of Poland and of 2500- 4500 m in the southern parts.

Poland is one of 11 countries in the EU with no generation of nuclear energy. Polish government started the preparation for constructing the nuclear power plan. According to the Polish Nuclear Energy Program adopted by Ministry of Economy in year 2010 the share of energy generated by nuclear plant is to account of 16% of total energy production in the year 2030.

Climate change and CO2 emission

Poland has been actively involved in global and European discussion on climate change and CO2 emission. Poland adopted the United Nations Framework Convention on Climate Change and Kyoto Protocol. As a member of the EU, Poland ratified the EU Climate Package, which sets the ambitious targets for 2020, which are a 20% reduction in greenhouse gas emission, a 20% energy from renewables, a 20% reduction in primary energy use. To comply with the climate package Poland prepared the strategic program of major reforms in the energy sector. Polish government' s commitment to CO2 emission requirements was confirmed in the Energy Policy of Poland 2030 adopted in year 2009. There is a considerable concern that all the implemented reforms towards meeting the targets will result in growing electricity prices (as Poland need to reduce the dependency ration on domestic abundant coal in electricity production) already ones of the highest in the region. This as a consequence will have a negative impact on social welfare (wages in Poland are still far below wages in Western Europe), employment and profitability of the whole economy.

Waste management and water treatment

After transformation, Poland implemented various policies to ameliorate the waste management and water treatment. The visible positive tendency allowed to limit the deleterious waste and hazardous substances impact on the environment and humans health. Accession to the EU in year 2004, together with implementation of the European law accelerated the

actions aimed at further improvement. The requirements for Poland may be summarized as follows: reduction of total municipal waste generation, reduction of quantity of waste disposed in landfills, increasing the importance of recycling and thermal processing as the waste utilization methods, raise the standards for waste management installations (specially disposal areas), constructing, expanding or modernizing the sewage treatment plants.

Poland' s commitment to meeting all the requirements was confirmed by enforcing National Program for Municipal Waste Water Treatment and National Waste Management Plan with the lately Act on waste management sector in Poland (from 1st of January 2012).

4.3 Likely future development

Poland will make any effort to fulfil all the legally binding requirements. The ambitious targets and the government' s commitments became crucial business drivers in energy and environmental sectors. We expect significant improvement in environmental protection and sustainable development in the ecological area. Forthcoming changes will influence welfare, public health, economy growth in positive way.

Poland has been already on the right path to obtain all the energy and environment targets. However, agenda lately approved by the government calls for significant acceleration of the reforms. The announced reforms require to carry out a massive investment process, which in fact has already started.

We expect a significant capital inflow to the energy and environment sectors in the coming years. Most of the investment are co-financed by EU-funds, private and public capital.

In a broader perspective total infrastructure (incl. energy and environment) spending is expected at PLN 577 B (around USD 200 B, EUR 140 B, at 2011 exchange rates) in the period of 2010-2015. EU funds may cover 28% of total investments. Majority of these funds will be dedicated to transport infrastructure (incl. roads, motorways and public transport) - 60%, followed by environment and energy investments - 26% and social infrastructure - 7%. Additional PLN 246 B (around USD 80 B, EUR 60 B, at 2011 exchange rates) of infrastructure investment is expected to come from public sources. Private sector flow is expected at the minimum level of PLN 170 B (around USD 60 B, EUR 40 B, at 2011 exchange rates) within the same reference period.

We give particular examples below of the areas where we expect rapid changes in very near future.

Conventional energy and renewables

We expect a massive investments process in conventional energy sector. Firstly, the demand for electricity consumption within next 10 years will increase between min 25% and max 66%. In the long-run the demand growth is inevitable expected at 1.7% CAGR over 2007-2030. Secondly, the Polish generation asset base is outdated and many power blocks need modernization process to be accelerated. The estimated level of investment spending amounts to PLN 220-290 B (around USD 75-100 B, EUR 55-70 B, at 2011 exchange rates) within 10 years.

We expect higher dynamic of renewable energy development. Wind energy is likely to be the fastest growing segment of RES in Poland until 2030 (besides biomass & biogas). We fore-

cast the growth of 13% CAGR over 2009-2030. Biomass may become a viable alternative due to significant biomass feeds available from agriculture surpluses / waste, etc. However at the moment there is still a limited number of players that possess the know-how (or will to invest) in Poland. In our opinion this will change soon.

Waste management
Implementation of special government programs is one of the main reasons for dynamic development of these sectors. Other factors supporting investments in sewage network and waste management sector are: European funds and Polish commitments to the European law.
There is a clear priority for the local governments to focus on construction, extension or modernization of more than 1000 waste water treatment plants by the end of 2015. Due to new investments, the access to sewage network will be expanded to 100% of urban dwellers.

Waste management installations' capacities are not sufficient. Around 40% of the total waste is stored in the landfills that do not meet the specific technical requirements. Around 100 new installations for recycling and thermal utilization must be constructed to fulfill the requirements. We estimate the level of investments spending amounts to PLN 18.5 B (around USD 6.25 B, EUR 4.5 B, at 2011 exchange rates) within 10 years.

To sum up, we perceive the continues positive changes in environment and energy sectors determined mostly by massive investment process. We believe that within coming years Poland will success in building lower carbon economy, more efficient, green and environment friendly economy and keep on the path towards an ecologically sustainable development. The coming changes will boost competiveness of the economy and will have beneficial impact on welfare.

5. General evaluation

Poland's economic and social development over the past two decades was determined by two tremendously important events: change of political and economic system which triggered the transformation process and shared by all subsequent governments strategic goal of European integration, which outlined the direction of reforms. Fulfillment of various requirements regarding economic and social policies was a prerequisite to membership with the European Union. After Polish accession to the EU the changes in many economic and social fields became even more visible. As a member of the EU, Poland not only take an advantage of financial assistance offered by the common EU budget but benefits from the European single market and the free movement of goods, persons, capital, and services.

Over last two decade Polish economy experienced positive GDP growth, which exceeded growth in wealthier Western Europe. Although Poland in many fields still lags behind it, the ongoing catching-up is evident. Based on the experience of last two decades, it is clear that Poland among other CEE countries may be classified as leader of the transition process.

Taking a closer look at the newest history, the economic performance in Poland has been remarkable. It is important to note that Poland was the only country - and not only in the region, but the whole EU-27 - where the GDP growth in 2009 during the global financial crisis was recorded. This outcome was the result of sound fundamentals of economic growth, quite good macroeconomic policies and a bit of luck. During the preceding years Poland

contrary to other countries in the region did not lose competitiveness, as the credit boom in the non-tradable sectors like real estate was relatively small. Public finances were also in the good shape and despite too loose fiscal policy during the 2004-2007 boom, there was still policy space left. Free-floating regime also helped to cushion the external shock. As Polish zloty depreciated, import was substantially reduced, which coupled with unchanged value of export (in PLN terms) resulted in significant contribution of net export to GDP growth. Lastly, Poland is the biggest of the new member states of EU, with the biggest internal market. With nearly 40 M citizens and consumers Poland was positioned to weather global recession better than small open economies from the region.

Banking sector in Poland currently is one of the soundness in Europe, with well capitalized and highly profitable banks. It is a result of i.e. sector structure in Poland, with majority of banks operating as companies under Polish law, as opposed to a branch model widespread in other countries of the region. Such structure allowed for much more effective financial supervision. Furthermore the credit expansion in Poland was funded to large extend with local deposits, which are much more stable source of financing then capital markets. There was also an element of luck, as the credit boom in Poland started later than in other countries of the region and didn' t have time to develop to as dangerous size as in Baltic countries, before the global financial crisis. Still, before the crisis despite actions by the regulator, banks managed to grant significant amounts of FX denominated loans for households. That became a serious problem later, during the crisis. Currently situation is under control, but the danger of FX mismatches, beside the benefits for prudent credit regulations, is one of the most important lessons of the crisis for banking sector.

However, there are still many problems to be solved to achieve sustainable growth in the future. Stable development and maintaining high potential growth rate depend on structural reforms. Structural reforms are imperative in particular in areas such as labor market (measures supporting employability and guiding people towards new jobs), pension, and social protection which are tightly connected to also much needed fiscal reforms. More efficient labor market together with better targeted social protection programs and improved pension system will lead to higher public revenue from taxes and social contributions, which coupled with lower expenditure will put public finance on more sustainable path, also facilitating faster economic growth. Such program should be supported by other structural reforms, particularly in areas of education systems, regulatory environment and health care.

Economic growth led to remarkable improvement of standards of living. The level of earnings has been on the gradual increase for previous years, resulting in systematically growing private consumption.. However, the GDP growth brought raising earnings and income disparities. In this sense, the efficiency of tax system has to be improved as well as social transfer system and - what is even more important specially in case of Poland - the labor market performance needs to be strengthen.

Better social expenditure targeting is recurrent point in present debate in Poland. There is a large space for improvement. By reforming social policies the income of the poorest is to be raised what will also result in income equalization.

It should be bear in mind that work is stable source of income. High people inactivity is the biggest social problem that needs rapid addressing. The employment rate for people aged 15-64 is less than 60%. High inactivity is due to different reasons such as: high unemployment, high incapacity rate and low effective retirement age. This unfavorable situation is the

outcome of present inefficient model of labour market regulations, but has also historical background. Social problem of growing unemployment in the early phase of transition was mitigated by remarkable increase of generosity of public social transfers, specially pensions. The obsolescence of older worker skills in the period of industrial sector restructuring led to growing unemployment that was statistically limited by sending people for early retirement. The pension reform is one of the most important issue in ongoing economic debate in Poland. It is remarkable important in the context of challenges Poland faces today regarding unfavorable demographics. Ageing society will put burden on pension system. The main idea to address this problem is to increase the official retirement age. Most probably the government will implement this reform in coming months.
High unemployment rate indicate low efficiency of labor market. The problem of labor market becomes even worse when we look at the composition of the unemployment. The high unemployment is the biggest issue for young workers aged from 15 to 24. It is also much higher for women than for man.

Moreover substantial proportion of employment is linked to agriculture sector in Poland (around 13% of total employment) while agriculture sector accounts for only 3.4% of GDP (followed by industry and services accounting for 33% and 63% respectively). Creation of jobs outside agriculture is one of the conditions for reduction inefficient allocation of labor force. Within last 10 years employment in agricultural sector fell by around 11% which is slow change compared to the EU average (fell by 25%, from already lower level). The slow pace of changes is employment in agriculture follows from specific features of Polish agriculture sector, which is dominated by mainly small, subsistent family farms. There is also existing problem of low mobility, steaming from distortions in social security system - beneficial treatment of farmers discourages them from searching for job in other sectors. There are also factors of much more "material" nature - poor transport infrastructure and shallow rental market in cities make it harder to commute or move to the cities. Still we expect process of shifting peoples from agriculture sector to other sectors of economy will continue in coming years.

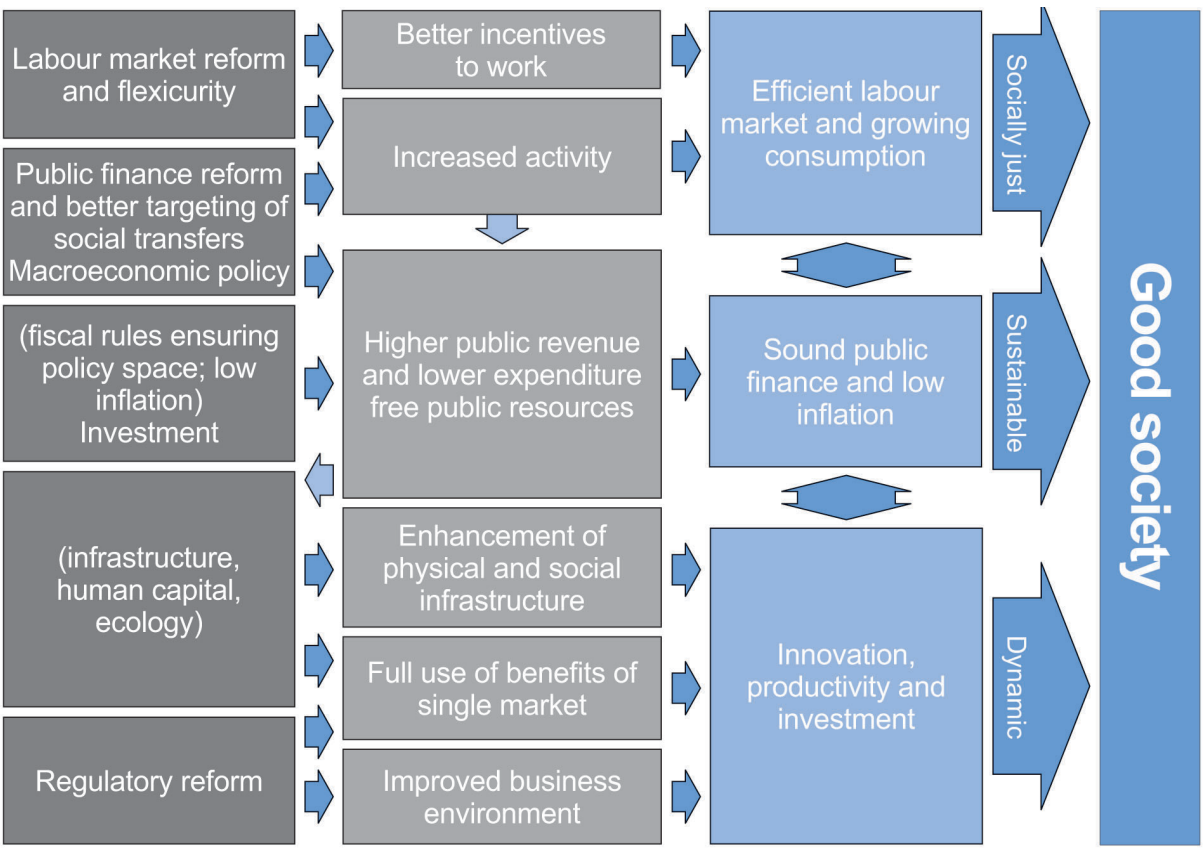
As regards of weak performance of Polish labor market most of currently debated propositions emphasis the need to focusing on active labor market policies, increasing labor market flexibility, lowering the tax wedge (particularly for younger worker) and preparing the labor market for further structural changes of Polish economy.

Poland has been going through a massive infrastructural transformation for some time following acceleration of the EU funds' absorption boosted by strong macroeconomic performance and resilience during the crisis. Present condition of infrastructure reflects a long period of underinvestment. There are still huge investments needed in all sectors of infrastructure. European funds contribute significantly to the investment process, bringing the impulse for modernization and construction of the new infrastructure. Majority of these funds are dedicated to transport infrastructure - 60%, environment - 26% and social infrastructure - 7%. We expect huge participation of public funds in infrastructure. transformation. However in the midterm there is a downside risk to the level of public spending related to level public debt limited by Polish regulations to the level of 60% of GDP. This will probably generate a rising pressure for private infrastructure investment and different forms of off-balance sheet financing (incl. Private-Public Partnership). In the framework of infrastructure investments we expect growing significance of spending regarding innovations and development of new technologies (incl. green technologies). This direction of changes strictly follows from strategy implemented at the EU level (Europe 2020).

The process of convergence between Poland and Western Europe is far from being finished. There are still many areas where large productivity gains can be made in Poland, fostering growth exceeding this of our western counterparts. Besides removing such bottlenecks as poor transport infrastructure or burdensome legal environment, Polish productivity will also growth as a result of ongoing further integration with European single market, allowing Polish companies to benefit from economies of scale and scope. In order to continue fast economic development however Poland must address current problems and implement structural reforms in areas of i.e. public finance, labour market, pension system. Some progress has been made already, some reforms are currently discussed, but some issues remind yet to be addressed.

We are optimistic about coming future. We hope for the continuation of the reforms already started. Together with the opportunities arising from the EU membership and market integration we expect to enhance the growth prospects and accelerate the process of catching up the richest countries in the EU, which began several years ago.

Poland's model of developing "Good Society"



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