



Rabobank

Poland up to 2022

Fish nor Fowl

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Management Summary

Next decade of Poland

The Country Risk Research team of Rabobank's Economic Department presents to you the study 'Poland In depth: ten years ahead'. With this study we aim to provide an in depth analysis of Poland and point out the key developments in the next decade.

Why did we choose to look at the next decade? In a period of ten years, Poland can alter structural aspects of its economy, such as the labour participation, its pension system and euro adoption. This means that we can assume changes that are not possible within 1 or 2 years, the general forecast period of a country analysis. Clearly, the global financial and economic crises have shown that forecasting the future is very difficult and the past is not always a predictor of the coming years. Despite this, we would like to show you our ideas about the current situation in Poland and the medium to long term developments.

Neither Fish nor Fowl

The main message is portrayed in the subtitle 'Fish nor Fowl'. We see Poland as a stable country, which is neither a crisis-prone, nor a very dynamic, booming emerging market. It has some promising sectors, but also a lagging business environment. It has well-educated workforce, but a mismatch with the demanded skills. It is a young state, but has an ageing population. It has attractive low labour costs, but relatively low labour productivity. It has a sustainable pension system, but only very small pensions. It has a diversified economy, but the labour market strongly relies on the agricultural and public sector. Etc, etc.

In the next decade, economic growth is expected to gradually decrease to a level of around 3%. The main reasons for this rather low level are a declining working-age population and a moderate productivity growth. In chapter 7, we go into more detail on the long-term economic growth. In the same chapter, we also discuss different scenarios, which result from several positive and negative shocks: (1) increased labour participation, (2) higher emigration, (3) depreciation of the zloty, (4) early EMU entry, and (5) higher oil price. The scenarios show that the economy of Poland is rather robust. This is both positive, in the sense that shocks are dampened, and negative, in the sense that acceleration is not easy either. Again, it shows that Poland is neither very sensitive to shocks, nor very dynamic.

In depth analysis

On the next page, a short summary is given of chapters 1-5; history of Poland, people, economic structure, government and external position. Each section is indicated by the underlined key phrase.

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History of Poland

Poland has a scarred history. From being one of the powerful European States in the 14th century, the country has spent much of the past two centuries under foreign rule. The economic transition from communism towards a market economy has been rapid. After initial contraction, economic growth boomed during 1990s and accelerated again in the period 2003-2008. Dips in growth were caused by overheating in the late 1990s and by the global financial crisis.

People

The demography of Poland is characterized by an ageing population. Around 2012, the active population will start to shrink. The Polish culture is strongly linked to Central Europe and Poland is a homogenous society. Poland is a high income country. The progress on the convergence path is slow, but steady. Education is universal with many Poles attending higher education. However, there is a mismatch between education and the labour market and soft skills are generally not a strong point. Life-long learning is limited. The unit labour costs in Poland compared favourably to other OECD countries, but labour productivity is rather low. Labour productivity growth is expected to remain around 3% per year in the next decade. Unemployment is stubbornly above 10%, but is expected to decrease with the ageing population. Joblessness is higher among well-educated, young people and among low-educated and older Poles. Rigidities in the labour market are one of the reasons for the high structural unemployment. Restrictive regulation makes hiring and firing difficult, while early retirement benefits distort labour supply. The labour participation rate is low. Inactivity is highest among females, low-educated persons and the 50+ age groups. EU accession boosted emigration, which partly absorbed Poland's brain overflow. In the future, Poland could become a net immigration country.

Economy

The structure of economic sectors in Poland is rather similar to more developed countries, while the government and agriculture are large employers. The agricultural sector in Poland is important for employment and exports. But with low usage of capital, in parts of Poland extensive crop farming and under-developed land rent system, there seems ample room for improvement. In the industrial sector, the automotive and food processing sectors are important. The combination of relatively low labour costs and abundance of (semi)skilled workers and/or proximity to Germany makes Poland attractive to foreign investment. The services sector has seen a rapid development in the past 20 years, helped by the growth of household spending power. The financial market in Poland is the main financial centre in the region and is sizeable compared to regional competitors. But the Polish financial market is still small and shallow compared to developed countries. Liquidity and long-term finance are issues. The banking sector is characterized by low, but growing usage – definitely a

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growth market. As many as half of the Poles do not have a bank account, but in many cities bank outlets are very prominent and numerous. The monetary policy is determined by the Narodowy Bank Polski (NBP, Poland's central bank). Its primary objective is price stability. In the late 1990s, inflation was a major issue, but it is generally considered under control now. The exchange rate is under an occasionally managed, free floating regime. The zloty acts as a thermometer for Central Europe. Euro adoption is still far away; 2018 seems a realistic option. The business environment and institutional quality of Poland lags behind other Central European countries. Important obstacles are skills availability, labour regulation, excessive red tape and bureaucracy, and a slow judiciary system. The main natural resources of Poland are coal, arable land and –potentially– shale gas. Although promising in size, shale gas extraction is far from operational. In most areas of infrastructure, Poland is behind compared to other European countries. Energy security and environmental impact are hot topics, but roads, electricity, water and waste water treatment also demand investment. Environmental awareness has increased in the past years, helped by EU regulation. Poland still faces significant issue related to soil, water and air pollution and it scores poorly on energy intensity and CO2 emissions.

Government

The central government consists out of a bicameral parliament with political power concentrated in the cabinet. The president has a largely ceremonial role. The political landscape is dominated by the centre-right, liberal PO party and conservative, state-oriented PiS party. Although there is consensus on the general direction of Poland, there are major differences on certain topics, such as euro adoption, the pace of reforms and foreign politics. The fiscal policy has to deal with the ballooning fiscal deficit. Fiscal stimuli during the global financial crisis and past reforms have added to the fiscal burden. Useful future reforms would be widening the tax base, stimulating labour participation and transforming the farmers' social fund. The pension system reform of 1999, on the other hand, supports long-term sustainability. But this is achieved by shifting the burden to retirees – pension benefits are expected to shrink in the future. The health care system gives Poles almost universal access. More attention is needed for efficiency, service delivery and monitoring spending. Public spending is currently relatively low, but out-of-pocket spending is high. Privatization efforts peaked in 2000, but will likely receive a boost from fiscal consolidation needs. Currently, the Polish state is still very present in power, natural resources and banking sectors. Poland is the largest net receiver of EU funds, but the co-investment requirement pushes fiscal spending up. The international position of Poland shifted towards the West after the fall of communism. Poland became member of several multilateral platforms, such as the EU and NATO.

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External position

Foreign trade is dominated by the EU and especially Germany. The automotive sector is important for both imports and exports. The current account balance tends to be in deficit, between 2-6% of GDP. Deficits on the trade and income balances are the reason for the current account deficit. The transfer balance benefits from EU subsidies and remittances. Foreign investment took off after EU entry, especially FDI. Portfolio investment is growing, but remains very volatile. The Netherlands and Germany are the largest investors in Poland, which has the largest stock of FDI in Central Europe. Per capita stock, on the other hand, is less impressive. The level of external debt is around 55% of GDP. The composition of foreign debt changed toward more private debt and shorter tenors, among others due to the many foreign acquisitions of banks.

SWOT analysis

Based on the present situation in Poland and outlooks, a SWOT analysis is made, summarizing the strengths, weaknesses, opportunities and threats for Poland. Below you will find a summary and in chapter 6 the explanation is given.

SWOT analysis of Poland

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Large internal market. 2. EU Membership 3. Stable democracy 4. Macroeconomic stability 5. Low labour costs 6. Abundance of (semi-)skilled labour 7. Steady convergence path 	<ol style="list-style-type: none"> 1. Lagging business environment 2. Poor infrastructure 3. High structural unemployment 4. Low labour productivity (growth) 5. Low productivity in agriculture 6. Sustained current account deficit
Opportunities	Threats
<ol style="list-style-type: none"> 1. Increase participation rate 2. Stimulate investment in human capital 3. Improve access to financial services 4. Strengthen financial sector 5. Introduce the euro 6. Exploitation of shale gas 	<ol style="list-style-type: none"> 1. Ageing population 2. Slow growth in Western Europe 3. Deterioration of fiscal situation 4. New EU budget 5. Stalling privatization 6. Electricity shortage

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1. History of Poland

In this chapter a brief overview of Poland's history is given. After a general introduction, we focus on economic development since the transition.

1.1 A short history

- Poland's history shaped by foreign forces.
- No independent Polish state from 1795 to 1918.
- Solidarity movement key in peaceful end of communism.
- Rapid reorientation towards market economy and the west after fall communism.

Poland has a scarred history¹. From being one of the powerful European States in the 14th century, the country has spent much of the past two centuries under foreign rule (figure 1). The Polish-Lithuanian Commonwealth was established in 1569, but a marriage between the Queen of Poland and the Grand Duke of Lithuania in the 14th century had already created one of the largest political bodies in Europe. From mid-17th century, internal struggles led to a decline of the state. The Russian empire, the Kingdom of Prussia and the Austrian-Hungarian Habsburg Monarchy benefitted from this and each conquered parts of the Commonwealth. From 1795, when the Commonwealth ceased to exist, until 1918 there was no independent Polish state. The idea of an independent Polish state was kept alive and was the source of continuous uprisings. After World War I, the Second Polish Republic was established in the Treaty of Versailles.

In 1939, the Soviet Union and Nazi Germany signed the Molotov-Ribbentrop non-aggression pact, effectively dividing Poland, and within a month both countries had invaded Poland. Two years later, Germany fully occupied Poland. In 1945, the Soviet Union and the People's Army of Poland (controlled by the

Figure 1: Territorial changes of Poland ²



Source: Wikipedia

1. History of Poland

Soviets) defeated the Germans and liberated Poland in the process. In Yalta (June 1945), the People's Republic of Poland was established.

Under the rule of the communist Polish United Workers' Party, Poland became a Soviet satellite state. As communist rule was applied less strict at times, this allowed a large influx of western credit in the first half of 1970s, boosting Poland's economic growth. However, it also created an unsustainable public debt. When the government wanted to increase the price of meat in order to create extra revenue, it prompted a series of strikes in 1980. Guided by an electrician (Lech Walesa), workers at the Lenin Shipyard in Gdansk reached an agreement to end the strike. Crucial in this agreement was the right to form independent trade unions. This paved the way for the Solidarity movement, which played a key role in the peaceful ending of the communist rule. Solidarity negotiated Polish legislative elections in 1989, which became an important event in the fall of communism in Poland. In December of that year, a non-communist government renamed the country 'Republic of Poland' and introduced a program to reform the Polish economy from a centrally planned economy to a market economy. After almost two centuries of struggles with foreign powers, Poland finally regained full sovereignty. Governments in the 1990s continued with the transformation of the economy and focused foreign policy on the west. In 1999, Poland joined NATO and in 2004 the country entered the European Union (EU).

1.2 Economic growth after fall of communism

- Serious contraction of growth during transition in 1989-1991.
- Economic growth spurred during 1990s and 2003-2008.
- Dips in growth due to the overheating late 1990s and due to global financial crisis.

After the fall of communism, Poland's economy was transformed from a centrally planned economy into a market economy. Part of the turnaround was the end of guaranteed employment, the reduction of many subsidies, and the restructuring or closure of several state enterprises. These changes initially had a negative effect on output in 1989-1991. On the back of latent consumption demand and years of underinvestment, combined with rising availability of (foreign) credit and foreign direct investment (FDI), the Polish economy bloomed in the 1990s. Towards the end of the 1990s, the consumption and investment driven binge pushed up inflation - well beyond double digits. In response, the Polish central bank sharply tightened its monetary policy. Around the same time, major trade and investment partners of Poland were hit by first the Russian crisis (1998) and later the dot-com bubble (2001/02). This depressed trade and especially FDI. In the mean time, employment was affected by the slowdown in investment and consumer spending. This all pushed economic growth down, although growth still stayed in positive territory. On the back of EU entry in 2004, the economy got a new boost supported by a large influx of FDI, ample availability of foreign

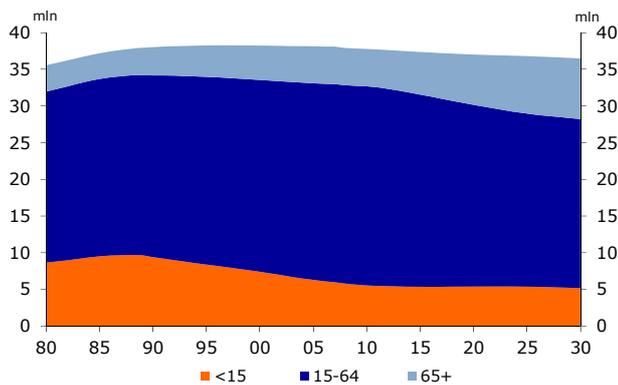
1. History of Poland

credit, rising spending power, decreasing unemployment and looser monetary policy. Economic growth averaged 5.1% in the period 2003-2008. When the financial crisis spread across the globe, Poland was affected too. FDI and foreign credit shrunk. Initially exports fell as well, but a depreciation of the zloty helped compensate. All-in-all, on the back of Poland's large internal market, additional government spending and a partial recovery of the export market, the economy managed to post a positive growth of 1.7%. Poland was the only country in the EU that managed to stay out of recession.

2. People

In this chapter, we take a closer look at the people in Poland and the labour market. Demography, culture, income and education are discussed. Then, we look at labour cost and productivity, unemployment, and participation rate. The chapter finishes with migration.

Figure 2: Population size by age category



Source: OECD

2.1 Demography

- Poland is the sixth most populous state in the EU.
- Population has been shrinking since 1998.
- The population is ageing and the ratio of dependent to active population is rising.

With almost 38 million inhabitants, Poland is the most populous country of the New Member States (NMS) and the 6th most populous member of the EU. Poland had a baby boom after World War II and another small boom

after the period of martial law (1981-83). After the second baby boom, the population growth started to decline and since 1998 the population is shrinking, although this has been a very slow process (figure 2).

Outlook: In the next decade, the total population in Poland is expected to continue to shrink. After 2012, the active population will start to decline, while the number of elderly will rise rapidly as the post-WOII baby boomers retire. The number of children is forecast to stay more or less level after 2015. As a result of these developments, the ratio of dependent population to active population is expected to increase. This ratio stood at 39% in 2010 and is expected to be 50% in 2020.

2.2 Culture

- Strong cultural links with Central Europe
- Poland is a homogeneous society.

Due to the long rule of the Habsburg Monarchy and Prussian Kingdom, Poland is culturally strongly linked to Central European countries³. This region generally includes most NMS, but also Austria and the German state of Bavaria. In fact, calling Poland part of *Eastern Europe* does not go down well in Poland.

The Polish language is part of the Slavic languages and is spoken by 98% of the Poles⁴. This is largely due to the fact that until the 1970s it was strongly discouraged to speak German, Russian or Ukraine as a first language – although

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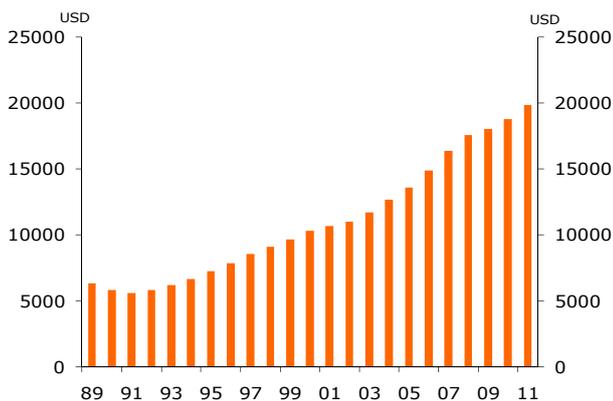
these were still widely spoken as second languages. Also other indicators suggest that Poland is a rather homogenous society. 97% of the inhabitants of Poland belong to the Polish ethnic group. Other groups are German (0.4%), Belarusian (0.1%), Ukrainian (0.1%) and other (2.7%). Moreover, 90% of the Poles indicate that he or she is Roman Catholic, of which 75% are practicing. This is very high in European context, but it is not evenly spread across the country. In general, the young, urban and well-educated population is less religious than the rural and older Poles. Despite the homogenous character of Poland, the country sees spats of extreme right, anti-Semitism and anti-foreigners sentiment. This flares up occasionally, especially in areas with high unemployment.

2.3 Income

- Poland is a high income country with almost USD 19,000 per capita (PPP).
- Income inequality is moderate.
- Progress on convergence path is slow, but steady.

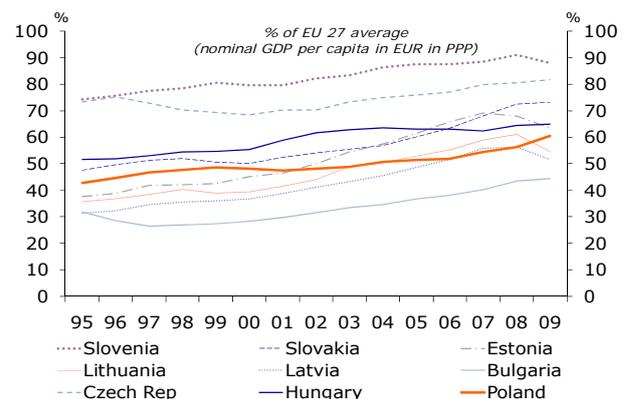
Per capita income of Poland was USD 18,770 (in PPP terms) in 2010. This is just above the cut-off line between high income and middle income countries, as defined by the World Bank. Income per head has seen a dramatic increase since the fall of communism, despite a fall and stagnation in the period 1989-91 (figure 3). Per capita income is expected to almost double again in the next decade.

Figure 3: GDP per capita (USD, PPP)



Source: Economist Intelligence Unit

Figure 4: Convergence of income



Source: Eurostat

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The Gini index, measuring the degree of income inequality, is 35% for Poland⁵, which is moderate. In comparison, the Netherlands has a Gini coefficient of 31%, while Brazil and South Africa (which are known for their inequality) have an index of 55% and 57%, respectively.

The convergence path is often mentioned as a key target in the development of NMS. It focuses on the disparities in income per head in Central Europe and in Western Europe. The general idea is that less developed countries grow faster as they adopt technology and increase efficiency, which allows them to catch up with the more developed countries. Poland's income (measured by nominal income per capita in PPP terms) climbed from 42% of the EU-27 average in 1995 to 60% of the EU-27 average in 2009 (figure 4). The convergence path of Poland is thus slow, but steady.

Outlook: Per capita income is expected to continue rising to around USD 35,000 (PPP) in 2020. This means that Poland would pass Hungary and Portugal and edge close to Greece in 2020. It would still be around USD 5,000 per capita behind Italy, the Czech Republic, and Slovakia in 2020. If Poland stays on track it would be on par with Italy's income per capita in 2030.

2.4 Education

- Education is universal with many Poles attending higher education.
- Mismatch between education and labour market
- Soft skills are generally not a strong point of Poles
- Life-long learning is relatively low.

The education reform of 1999 has been very successful in increasing the number of people with secondary and higher education qualification and improving quality, especially in secondary education⁶. In Poland, 88% of adults (25-64 years) have a medium or high degree. This compares well with the EU-27 average of 71.8%. Moreover, the PISA scores⁷ of Poland are rising, and were just below OECD average in 2006 – except for reading, which was above average (figure 5). Surprisingly, Poland is able to achieve this level with per-student expenditures that are significantly lower than the average in OECD countries⁸. Education is universal in Poland with high enrolment rates, except for pre-primary education. A boom in higher education in the past 20 years had led to a participation rate that is one of the highest in Europe. With about 500 students per 10,000 inhabitants, Poland ranks sixth in the world regarding accessibility of higher education. Admittedly, the quality of teaching and research has had difficulties keeping up with the boom in higher education students (table 1).

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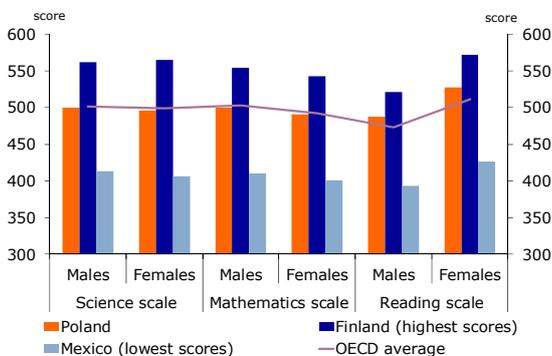
Despite the success of the education reforms, there are several caveats that hinder the full-potential of many Poles. First, there seems to be a mismatch between the studies chosen by students and supplied by schools on the one hand, and the disciplines demanded by employers on the other hand⁹. The focus in Poland is too much on social sciences and too little on science, mathematics and IT. Second, soft skills are often considered below standard. This is said to be a legacy of the communist era, when these skills were neither necessary nor promoted. Considering the many business students and returning emigrants, it is expected to improve in the coming years. A third issue is that in the age group 25-64, participation in education and training, so-called lifelong learning, is about half of the EU average. This suggests that those age cohorts, and especially the older groups, can have difficulties updating their skills to match the demands in a changing economy.

Outlook: As a result of the issues in the education sector, many still work in jobs that are below their potential, leading to the claim that Poland faces a 'brain overflow' (excess of well-qualified people). It also leads to structural unemployment as skills and education do not match demands by employers. To take the education system to the next level, the government will need to focus on pre-primary schooling, the mismatch between education and business community, soft skills and lifelong learning. By addressing these points, Poland can potentially boost long-term economic growth.

2.5 Labour costs and productivity

- Labour productivity is rather low.
- Rapid increase in productivity during transition period, but pace slowed.
- Unit labour costs compare favourable to other OECD countries.
- Strong increase in unit labour costs during 1990s, but stabilization since.

Figure 5: PISA scores



Source: OECD. Data: 2006.

Table 1: Global Competitiveness – education indicator

<i>Selected indicators</i>	<i>Rank (out of 139)</i>
Higher education and training (overall)	26
Secondary education enrollment rate	25
Tertiary education enrollment rate	21
Quality of the educational system	62
Quality of math and science education	40
Quality of management schools	62
Local availability of research and training services	22

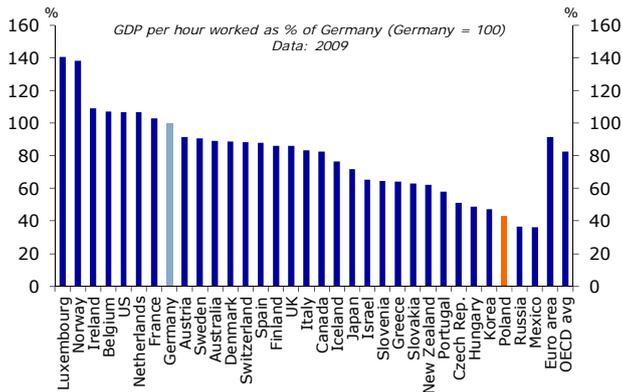
Source: World Economic Forum, 2010.

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Labour productivity¹⁰ in Poland is still rather low. GDP per hour worked in Poland is only about 43% of what Germany produces per hour (figure 6). Also compared to neighbouring countries, such as the Czech Republic, Slovakia and Hungary, Poland is less productive per hour worked. As can be expected, labour

productivity growth in Poland was well above European average during the transition period (figure 7). In the period 1993-2000, productivity growth averaged almost 5% per year. However, this was no 'real' productivity gain, but merely the shake out of unproductive workers – which also occurred in most other former-communist countries. After 2000, productivity growth was based on technological advancement. Average productivity growth was around 2.5-3%, but the trend seems to be downward. At a first glance, this seems to make sense as the economy of Poland is maturing. However, the level of productivity per hour is still lower than in 'new' EU countries, such Slovakia and Hungary.

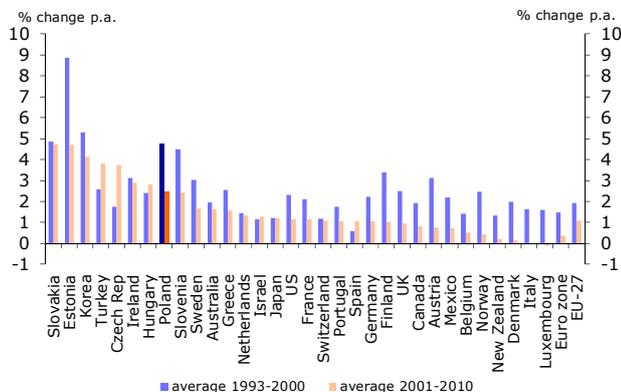
Figure 6: Labour productivity



Source: OECD

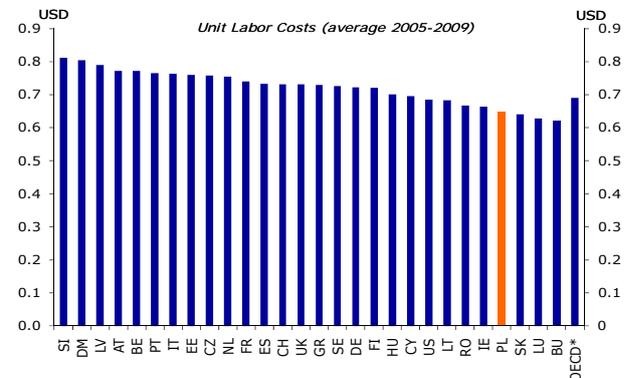
In terms of competitive advantages and investor attractiveness, the low productivity of Poland is partially compensated by the low labour costs. This leads to relatively low Unit Labour Costs (ULC; i.e. labour costs per unit of output). In the period 2005-2009, Poland had lower ULC than many neighbouring countries (such as the Czech Republic, Slovenia, and Hungary) (figure 8). However, if Poland wants to stay competitive in the area of labour costs, the ULC should not increase faster than the countries it is competing against. During 2007/08, the ULC in Poland rose rapidly, as labour costs increased more than 10% per year and real output only grew close to 6% per year.

Figure 7: Labour productivity growth



Source: OECD

Figure 8: Unit Labour costs



Source: OECD (* simple average)

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Outlook: Assuming that Poland will continue to acquire technology and increase efficiency, but that Poland will not receive an extra, special boost (like it did in the 1990s), the labour productivity growth is expected to be around 3% per year in the next decade. This is slightly above developed countries like Australia and the Netherlands and similar to the labour productivity growth in the past years. The ULC is likely to come under pressure due to rising wage costs. This is expected as generally in an ageing society, wages rise as labour becomes scarcer.

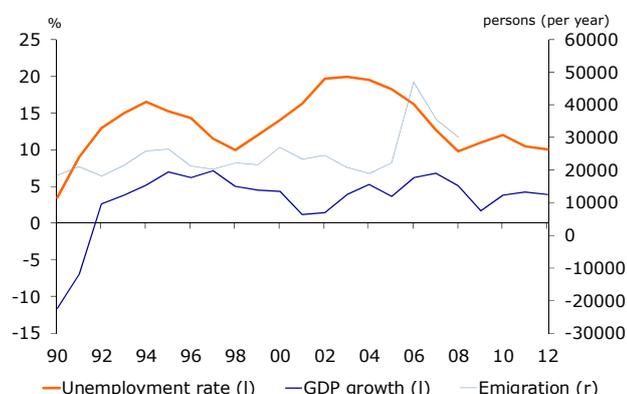
2.6 Unemployment

- Unemployment remains stubbornly above 10%.
- About 25% of the jobless is longer than 12 months unemployed.
- In northern and eastern provinces unemployment is higher.
- Joblessness is higher among well-educated, young people and low-educated and older Poles.

After the fall of communism, two major changes in the economic system were the end of guaranteed employment and the restructuring or closure of several state enterprises (although the latter was postponed well into 2000s in some cases). This pushed unemployment up from a very low (and perhaps understated) 3% of the labour force in 1990, to 16% in 1994 (figure 9). An economic downturn in 2001/02 drove the unemployment rate to 20%. Since 2004, the rate has seen a steady decline –apart from 2009–, but still has not dropped below 10%. It moderately increased again during the financial crisis in 2009, and is currently around 11-12%

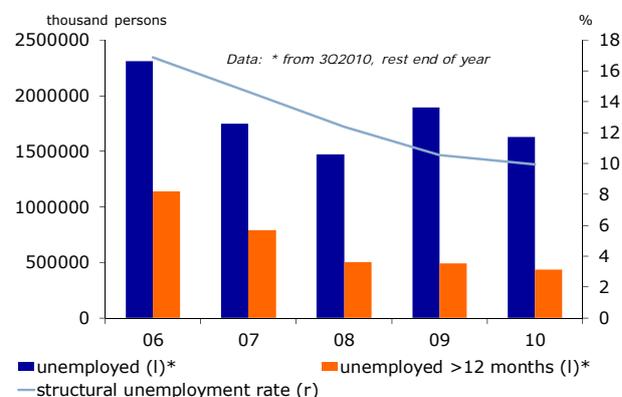
The continuous decline since 2003 is the result of strong economic growth in the pre-crisis years and emigration. Not only the number of jobseekers declined, but

Figure 9: Unemployment rate



Source: Economist Intelligence Unit, GUS

Figure 10: Long-term and structural unemployment



Source: GUS, OECD.

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also the number of long-term unemployed (>12 months) (figure 10). However, still a quarter of the unemployed is jobless for more than a year. Moreover, structural unemployment is around 10% according to the OECD.

There are large differences among the different unemployment groups – in terms of location, age and education (annex 1)¹¹. The northern and eastern *voivodships* (provinces) generally have higher unemployment rates; with unemployment in Warminsko-Mazurskie, in the north-east of Poland, at 20.7% in 2009. Age-wise, the cohort 25-34 years scores worst, as this is the age that people enter the labour market. However, the average duration of unemployment for this group is relatively short, except for those who have a tertiary (university) education - they had been looking for a job for a massive 29 months on average (in 3Q10). For people older than 55 and unretired, the duration of unemployment was close to 40 months in 3Q10. Among the low-educated, more than a third of all active people are unemployed.

Outlook: Unemployment is expected to slowly decline in the next decade, helped by a shrinking working age population. Actual levels will depend on changes in labour market regulation, job creation, pension scheme/early retirement options, educational mismatch and lack of relevant skills and participation rate. Labour market rigidities resulting from regulation (see also next section) is also an important factor in the high structural unemployment.

2.7 Labour market regulation

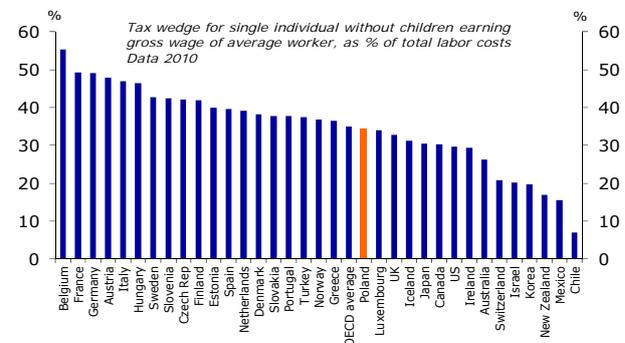
- Restrictive labour regulation makes hiring and firing difficult.
- Tax wedge¹² is moderate and recently reduced.
- Unemployment benefits are not considered as majorly disruptive to labour supply – but early retirement benefits are.

Table 2: Global Competitiveness – labour market indicators

<i>Selected indicators</i>	<i>Rank (out of 139)</i>
Labor market efficiency (overall)	53
Cooperation in labor-employer relations	88
Rigidity of employment	64
Hiring and firing practices	108
Redundancy costs	21
Pay and productivity	54
Brain drain	79
Female participation in labor force	56

Source: World Economic Forum, 2010.

Figure 11: Tax wedge



Source: OECD, 2011.

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Labour regulation is rather strict and unions have considerable influence¹³. This makes dismissing an employee difficult and non-salary costs of employment high. In the Global Competitiveness Report 2010-11, restrictive labour regulations are mentioned as third on the list of most problematic factors for doing business (after tax regulation and bureaucracy). On the indicator 'hiring and firing practices' scores Poland 108 out of 139, but also rigidity in employment and cooperation in labour-employer relations stand out in a negative way (table 2).

The tax wedge in Poland is moderate¹⁴. Between 2007 and 2009, the government reduced the disability contribution and simplified the personal income tax system, thereby decreasing the tax wedge, to stimulate employment and labour participation. In 2010, the tax wedge in Poland was very close the OECD average and below most other NMS (figure 11).

The unemployment benefit system is not overly generous in Poland by OECD standards. The system therefore does not create major labour supply disincentives. The low participation rate is more related to early retirement benefits and disability pensions.

Outlook: The government has not presented any intention to make major changes the labour regulation yet, except the retirement age. The government of Donald Tusk (PO party) has mentioned that it intends to raise the retirement age in the coming years, reduce the early retirement options and make the pension age equal for men and women. The speed of reforms will very much depend on the outcome of the October elections and resulting coalition formation. The reduction of the disability contribution is criticized as it adds to the fiscal challenges. The government will have to decide whether the higher fiscal deficit outweighs the benefits of a smaller tax wedge. As the fiscal pressure is expected to win, the disability contribution could be raised again somewhere in the coming years. Even so, the tax wedge would remain rather moderate.

2.8 Participation rate

- Labour force participation rate is low.
- Inactivity is high among females, low-educated persons and 50+ age groups.
- Early retirement is main reason for inactivity.

Of the total population in Poland older than 15 years, 43.7% or 14 million people were economically inactive in 2009, according to GUS. This means that they were neither working nor looking for a job – it also includes elderly who are retired. The mirror concept of inactive population is the labour force participation

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rate, which was 65% in 2010, according to the OECD (note the slightly difference in definition between OECD and GUS, as OECD looks at people in the age category 15-64 and GUS at 15+). Poland's participation rate is well below

the OECD average of 72.4%. After Turkey, Hungary and Italy, Poland has the lowest participation rate among the OECD countries.

This suggests that Poland has much to gain in economic terms if it can increase its participation rate. If Poland wants to raise its participation rate to the OECD average, this would require almost 2.4 million people to become active, based on the current size of the population.

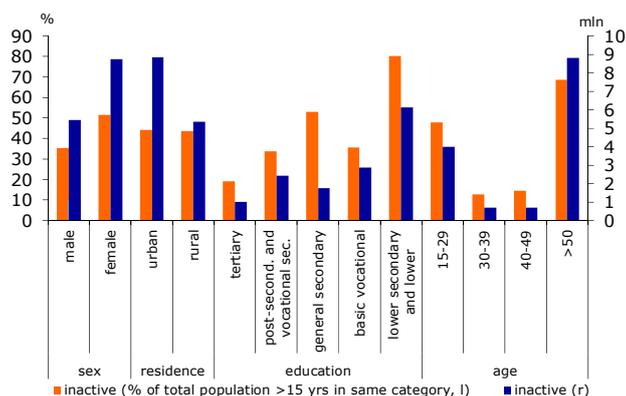
Considering the demographic outlook (see also section 2.1), it is very likely that the 50+ age group will grow in the coming decade. Therefore, if Poland wants to give its economy a boost, it needs to increase the participation rate among women and 50+. All based on the assumption that those who become or stay active are able to

find a job (see also sections 2.6 and 2.7).

The rate of inactivity widely differs across population groups¹⁵. It is high for women, low-educated persons and those who are 50+ (figure 12). About half of the women in Poland (almost 9 million) are not participating – contrary to many post-communist countries where female participation tends to be high. More striking are the numbers of low-educated people who are inactive (80% of that group or 6 million persons) and of those who are 50 years or older (68% or 8.8 million). The reasons for economic inactivity range from retirement and education to disability/illness and family responsibilities¹⁶. With 46%, retirement is the primary reason. Only about 3% of the inactive population can be labelled as discouraged worker.

Outlook: The participation rate is expected to increase slowly over the next decade, but the OECD average is likely to be a bridge too far. Changes to early retirement options and pension age are expected to push participation rate up, although the speed of change is unclear. If the working age population starts to shrink, this will increase pressure from the business community on the government to act to stimulate people to work. The slowly shrinking pensions (see section 4.4) will also stimulate people to work longer. Moreover, among the younger generation of women the participation rate is expected to be higher and stay higher than in the generation of their mothers – also helped by the higher education level.

Figure 12: Economic inactive population



Source: Labour Forces Survey (GUS), data 2009

2. People

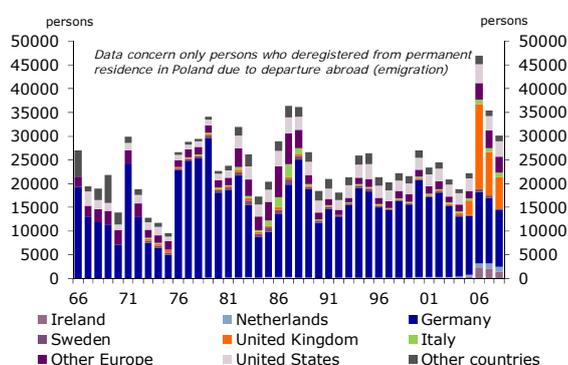
2.9 Migration

- EU entry boosted migration to 'old' EU members.
- End of labour market restrictions in Germany is expected to attract Poles.
- Migrants have become younger and better educated.
- Emigration absorbed part of Poland's brain overflow.
- Migration from rural areas to cities or abroad.

Historically, Poland is a country that has seen substantial emigration. During foreign dominance in the past centuries and in search for economic prosperity, many Poles left to live in exile and tried their luck abroad. With the accession to the EU in 2004, the (legal) migration to the 'old' EU members sped up. In the years before 2004, around 15,000-20,000 Poles emigrated to EU countries each year (figure 13). In 2006, more than 40,000 inhabitants emigrated. Also, the number of Poles temporarily staying abroad in the EU increased rapidly - from 750,000 end-2004 to 1,860,000 end-2007 (figure 14). During the global financial crisis, many Poles returned, mainly from the UK and Ireland. However, this hardly showed up in the unemployment statistics as you need to work several months in Poland before becoming eligible for unemployment benefits, so many did not bother to register.

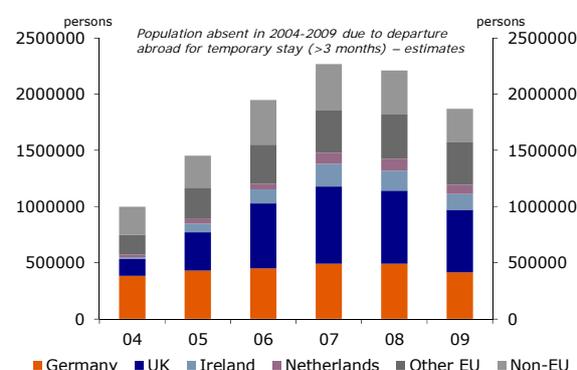
When Poland entered the EU in 2004, all EU members had the choice of opening up to Polish workers directly or have a grace period of up to 7 years¹⁷. While the UK, Ireland and Sweden opened up quickly, many other EU members initially imposed labour market restrictions. Germany and Austria opted for the 7 year grace period (i.e. until 30 April 2011). As a result, before EU entry, most Polish emigrants went to Germany, but the UK was the most popular destination after 2004. Looking at historic patterns, it is expected that the emigration from Poland to Germany will increase as the labour market restrictions were lifted in May 2011. The size of the new impetus to Polish emigration is still unclear.

Figure 13: Emigration



Source: GUS

Figure 14: Temporary stay abroad



Source: GUS

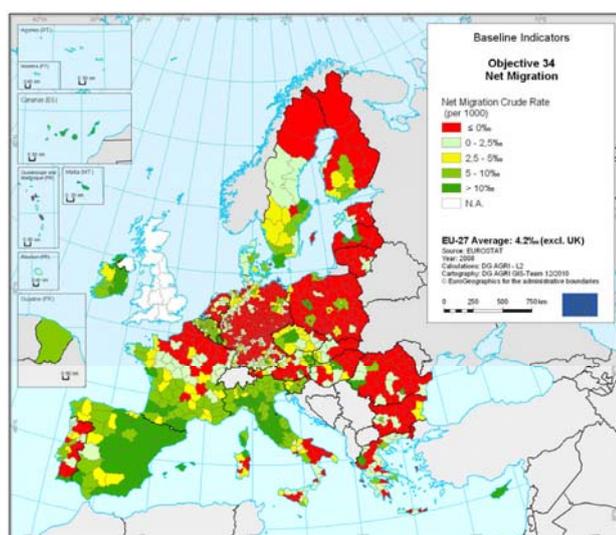
2. People

Outward migration has not only changed in destination, but also in who is leaving¹⁸. Migrants have become younger and better educated, which led to the fear of brain drain. However, migration has not led to shortages in most sectors yet, as the country suffered from a brain overflow. Only in the construction sector and occasionally health care, shortages were witnessed, but Ukrainians seem to fill these gaps. With the ageing population in Poland, immigration from foreigners to Poland is expected to rise.

Migration also takes place within Poland. Generally speaking, people are leaving the rural areas to go to either the large cities in Poland (the green spots in figure 15) or abroad. As it is predominantly the younger population that is moving, many rural areas are faced with a rapidly ageing population. In the case of migration within Poland, urbanization is expected to continue, but the rate is slowing down. In 2010, 61% of the population lived in cities.

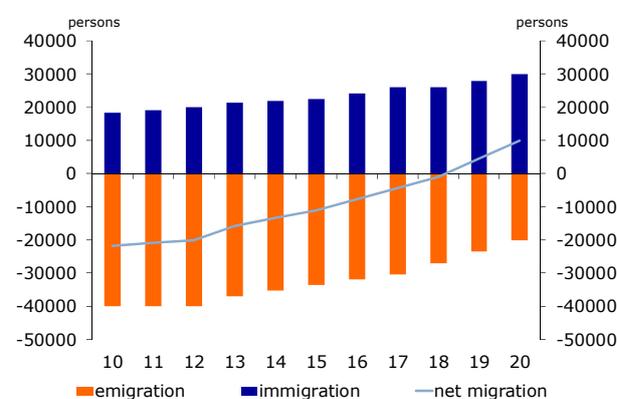
Outlook: The end of labour market restrictions in Germany will provide a new stimulus to Polish emigration in the coming years, although depending on the economic situation. Also, family reunions are likely to increase following the strong increase in emigration after 2004. On the other hand, the increasing wealth level in Poland will make emigration for Poles less attractive and immigration towards Poland more attractive (e.g. for Ukrainians). Moreover, it is expected that at least some Poles who emigrated in the 1980s will return after retirement. The ageing population in Poland will also dampen the number of emigrants. Overall, the boom seen after EU entry is not expected again. Around 2018-2020, Poland is even expected to become a net immigration country (figure 16). The inflow of foreigners could create some tension. Poland is a homogenous society, but anti-foreigners sentiment is present and flares up occasionally.

Figure 15: Net domestic migration per region



Source: European Union

Figure 16: International migration expectations



Source: GUS, 2009.

3. Economy

The economic structure of Poland is the focus of this chapter¹. Below, the structure of economic sectors is discussed with attention for the agricultural, industrial and services sector. The banking sector and financial market are

discussed more extensively. Next, the monetary policy and exchange rate policy are analyzed. Finally, we turn to the business environment, natural endowment, infrastructure and environment.

Table 3: Top 10 largest sectors

	USD bn	% of GDP
Retail Trade - Total	45.4	11.0
Construction	31.9	7.7
Wholesale Trade	29.4	7.1
Real Estate	24.9	6.0
Business Services	22.4	5.4
Public Admin. and Defense	21.3	5.2
Education	18.9	4.6
Agriculture	16.4	4.0
Land Transport	15.9	3.9
Health and Social Services	15.2	3.7

Source: IHS Global Insight. Data: 2010 (Value added)

3.1 Structure of economic sectors

- Agriculture provides only 4% of GDP, but employs many.
- Industry is about a third of GDP and automotive and food processing sectors are important.
- Services account for two-thirds of GDP, with trade as major sector.
- Public sector is very large, but 55% works for state-owned companies.

When looking at the origin of GDP, the division is very similar to more developed countries (table 3). Services account for about two thirds of total GDP, industry for a third and agriculture for about 4%. The industrial and agricultural sectors had been shrinking in terms of GDP contribution since the end of the communist era in favour of services, but this trend seems to halt. The division is not expected to change much in the coming decade, although employment is likely to shift from the agricultural to the services sector.

By providing 26% of employment, the public sector is very substantial in Poland – also in international comparison. However, a little less than half of the public sector personnel works for government units, social security fund and other non-profit institutions (health care, education, etc). The other half, almost 2 million persons, are employed by state-owned enterprises, such as energy companies and banks.

¹ In this chapter, as in the rest of the paper, the focus is on the measurable, registered economy of Poland. However, Poland surely also has a grey economy. A recent study by the World Bank (Schneider, et al, 2010) puts the size of the shadow economy of Poland at around 27% of GDP for the past years. This is rather average in worldwide comparison, as globally the smallest grey economies are estimated to be below 10% of GDP and the largest around 65% of GDP. However, by nature, measuring the size of the grey economy is difficult. Although evasion of taxes and social security contributions certainly is an issue, having a grey economy is not necessarily bad. In economic downturns, it provides a cushion against poverty through the many small jobs.

3. Economy

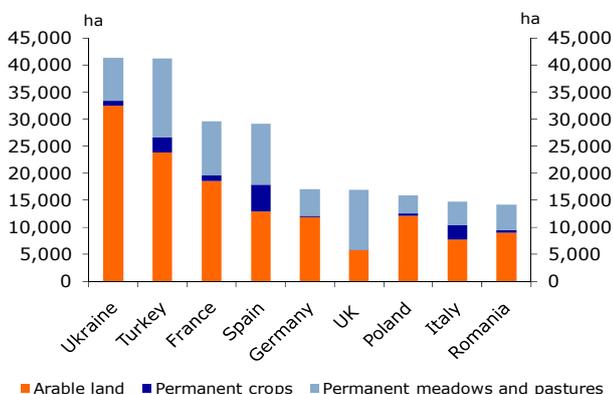
3.1.1 Agricultural sector

- Agriculture is only 4% of GDP, but employs 15% of total workforce.
- Meat, milk and cereal are important agricultural products.
- Generally small farms, low usage of capital and extensive crop farming.
- Land rent system is underdeveloped and sale of agricultural land to foreigners is very restricted.

Poland has a favourable climate for agriculture. Moreover, within the wider European region, Poland is one of the countries with a large agricultural area. Arable land dominates over permanent crops and meadows (figure 17). The agriculture sector is important in Poland, despite its relatively low contribution to GDP of 4%. Almost 10% of Poland’s exports are food and live animals and the sector employs more than 15% of the workforce. This number is even higher in some rural areas. In many districts in the east and south-east of Poland, more than 20% of the population works in the agricultural sector.

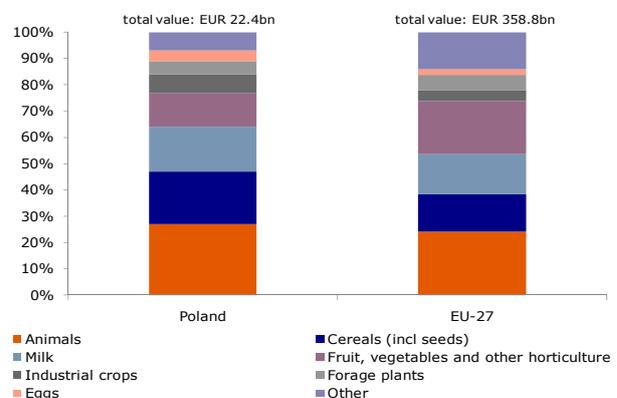
The agricultural sector in Poland is specialized in meat, milk and cereal production (figure 18). Within animal farming, pigs and poultry are very important. The potential of agricultural production in Poland is considered high, especially in the area of crops, forage, soft fruit (mainly raspberry) and milk. Regarding international trade, Poland has a dominant position within the EU for several products, including frozen goose meat (62% of all frozen goose meat traded in EU comes from Poland), smoked salmon, and frozen strawberries (figure 19). About 15% of beef traded in the EU, comes from Poland. There are several agricultural products manufactured in Poland which are important nowadays and can particularly gain in importance in international trade in the long run, such as powder milk, cottage/curd, cheese, mushrooms, chocolate, apple concentrate, beef and poultry. Polish farmers are believed to specialize further in the production of these food categories (in poultry for some time).

Figure 17: Agricultural areal



Source: Rabobank Food & Agribusiness Research (FAR)

Figure 18: Agricultural output



Source: BGZ. Data: 2008.

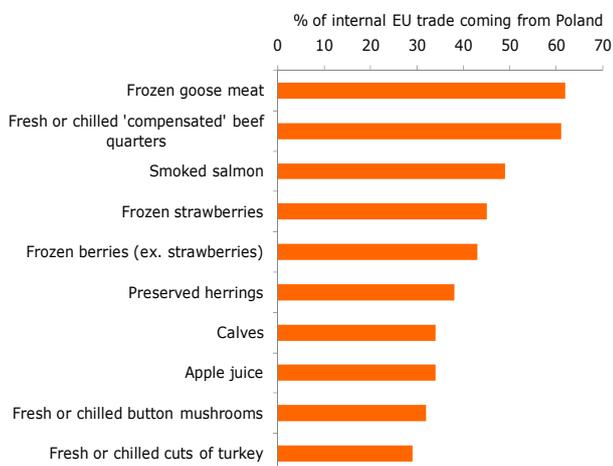
3. Economy

The agricultural sector is characterized by small farms, low usage of capital and (in the eastern part) extensive crop farming. In 2007, the average size of the 2.4 million farms in Poland was 6.5ha per farm. In comparison, in the Netherlands it was about 25ha per farm (figure 20). Productivity is generally lower in Poland than in western EU countries, and opportunities for productivity gains are large in all sectors, but especially for grains, oilseeds and pork.

At 53% of all farms, the importance of semi-subsistence farming seems rather high, but is lower than in most other NMS¹⁹. In the past years, the number of farmers has been decreasing, as many have migrated to the city to work. However, numerous are reluctant to sell their land, which is not only culturally determined but also stimulated by the social insurance system (see box 1). The development of an adequate land rent system would allow farmers to expand their business, while letting ex-farmers keep their land. In its Rural Development Report, the EU has marked 57.9% of the agricultural area in Poland as in danger of abandonment of land-use. Although part of this land will be taken up by expanding cities, large parts could become unused.

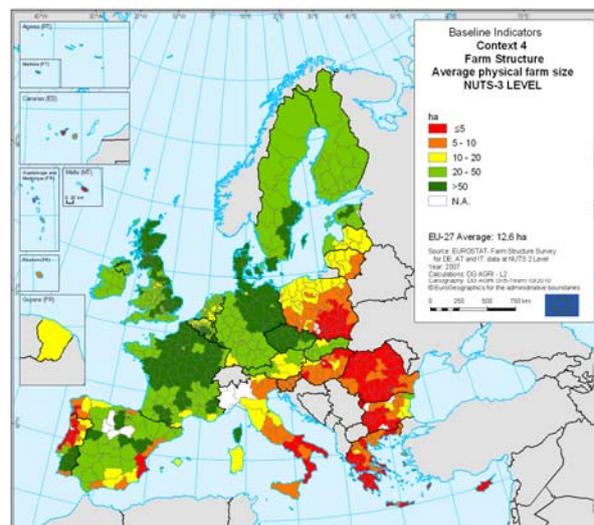
The sale of agricultural land to foreigners is sensitive and rather difficult. Poland was allowed to impose a 12-year ban on agricultural land sales to foreigners when it entered the EU. This will run until 2016. An exception was made for foreigners who already leased land. They are allowed to buy the land after three years of lease in the east of Poland and after seven years of lease in the north and west of the country. Polish farmers benefit from EU entry. On average, the EU finances EUR 160 per hectare per year and Poles are entitled to an increasing fraction of this amount. In 2004, they could only claim 25% of this amount. By 2013, they are looking at the full amount.

Figure 19: Share of Polish exports in EU trade



Source: BGZ, Eurostat

Figure 20: Size of farms



Source: EU, 2010.

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Outlook: With a very extensive agricultural area, low usage of capital and in parts of Poland extensive crop farming, there seems ample room for improvement. The marginal capital productivity in Polish agriculture is considered high – i.e. every euro invested may bring high land, labour and knowledge productivity growth. Moreover, there is still arable land and green area that could be used to expand the agricultural area. However, compared with Russia, Argentina or China, Poland is a country with a relatively small agricultural area, therefore it cannot compete at international level in terms of volume of agricultural production. But there are several agricultural products from Poland, such as milk powder and cheese, which could particularly gain in importance in international trade in the long run. There are some aspects that hinder the full potential of Poland's agricultural sector. For example, the social insurance system for farmers stimulates (ex)farmers to keep their small plots. The land rent system is relatively underdeveloped, thereby hindering the creation of larger scale, modern farms. Moreover, the sale of land to foreigners is very restricted, but this will likely change after 2016 when the ban on agricultural land sales to foreigners ends. It should be noted that a large consolidation wave among farmers would likely increase pressure on the social security system, as the current semi-subsistence is a way to avoid poverty.

Box 1: Agricultural Social Insurance Institute (KRUS)

In the 1999 pension reform, the Agricultural Social Insurance Institute (KRUS) was left untouched²⁰ (see also section 4.4 on the pension system). KRUS offers old-age pensions on defined benefit base, which is financed through a pay-as-you-go system, as well as disability benefits, access to health care and accident and maturity benefits.

The mandatory contributions to KRUS are based on a minimum pension as well as the price of rye (table 4). For ZUS (the general social security fund), the base is personal income tax declaration. As the contributions to KRUS are much lower than to ZUS, the KRUS only covers a small part of its expenditures. In 2008, 88.5% of the expenditures were covered by budget subsidies (but note that 2008 was the first year since 1995 that the subsidies dropped below 90%). The lower contributions to KRUS, but similar benefits, function as an income subsidy for the rural population. However, as you de facto have the option to choose between ZUS and KRUS if you own land or are related to farmers, it also creates a perverse incentive against the sale of (small) plots. Note that you are a farmer as long as you own more than one hectare of land. Moreover, the flat contribution fee also subsidizes the wealthier farmers.

Changes will be difficult to achieve, as many perceive the fund as a way to support the rural population and the farmers' lobby is strong. However, if KRUS is reformed, this will probably increase the size of the contributions paid by farmers and possibly lead to increased pressure on other social transfer

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schemes. Despite this, a reform is expected to have a positive effect on the fiscal balance in the end.

Table 4: Main characteristics of KRUS and ZUS

<i>Parameter</i>	<i>KRUS (Agricultural Social Insurance Insitute)</i>	<i>ZUS (Social Insurance Institute)</i>
Contribution rate (pension & disability)	10%	25.52%
Contribution base	Basic (minimum pension, price of rye)	Actual wage (personal income tax declaration)
Average old-age pension (PLN / % of avg. wage)	PLN 896 30%	PLN 1371 46%
Minimum pension (PLN/% of avg. wage)	PLN 675 23%	PLN 675 23%
Retirement age	65 (men), 60 (women); 5yr less after 30 yr	65 (men), 60 (women)
Beneficiaries	1.45mln	7.4mln
Contributors	1.57mln	14.3mln
Ratio contributors/beneficiaries	1.08	1.93
Expenditures (old-age & disability), % of GDP	1.30%	9.60%
Budget subsidy, % of expenditures	88.50%	24.50%

Source: World Bank, 2010b. Data: 2008

3.1.2 Industrial sector

- Automotive and food processing are major industrial sectors.
- Combination of relatively low labour costs, abundance of (semi)skilled labour, large agricultural sector and proximity to Germany makes Poland attractive for foreign investors.

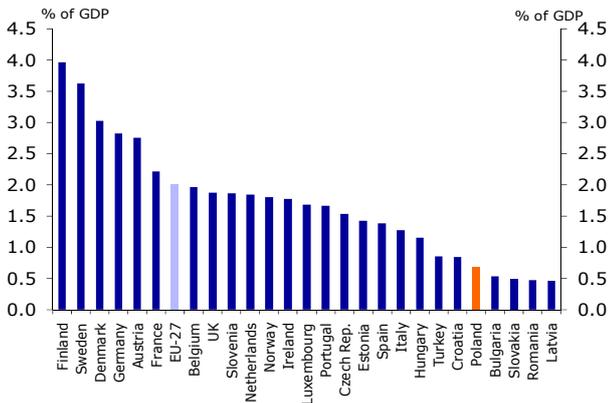
The industrial sector in Poland mainly produces low- and mid-tech products. The automotive and food processing sectors and labour-intensive manufacturing are important. These branches have benefitted from the relatively low labour costs and the abundance of (semi)skilled labour in Poland.

In 2007, Poland accounted for about 1% of the global production of passenger cars and 4% of the European industry. But the country has a more prominent place in the automotive industry with regards to spare parts and accessories than in assembly. In fact, Poland is a leading producer in items such as tires, car seats and upholstery, car electronics, electric cables, car brake's systems. Food processing has profited from the large agricultural sector as well as the relatively low labour costs in Poland. The low labour costs combined with the proximity to

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Germany have been the main drivers for the labour-intensive manufacturing industries, like textiles. While design and marketing stayed in Germany, the production was moved to Poland. However, this sector is losing to countries with lower labour costs, including the Far East. Part of the FDI has been redirected towards business process outsourcing.

Figure 21: Total R&D spending



Source: Eurostat

Outlook: The size of the industrial sector is expected to stay around 35% of GDP. The government aims to shift from low- and mid-tech products to higher-end products, both in the industrial and the services sector. However spending on (public and private) R&D is fairly limited (figure 21). Cooperation with (international) companies in the food processing, automotive, financial, business services and IT sectors might help Poland to move to more high-tech products and services.

3.1.3 Services sector

- Rapid development in past 20 years, helped by growth of household consumption.
- Much FDI directed at services sector, especially banking.

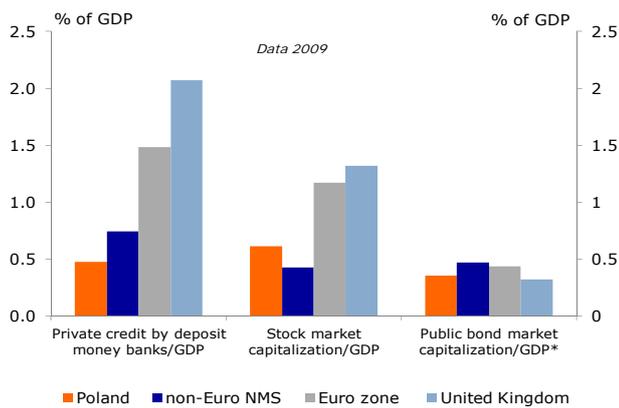
The services sector has developed rapidly in the past 20 years, supported by the strong growth in household consumption. In the 1990s, the sector accounted for about 55% of GDP, which rose to around 65% nowadays. Major sectors are Retail and Wholesale Trade as well as Real Estate. The sector of business services, which includes the financial sector, was responsible for 5% of GDP in 2010. Public administration & Defence, Education and Health & Social Services account for about 14% of the economy. Although these sectors also include private companies, the bulk of these services are provided by the public sector.

Foreign direct investment (FDI) in the industrial sector might have attracted more attention – headlines do better with one mega-investment in a new factory – but the services sector has received much interest as well. The financial sector, especially banking, saw much FDI in the past year (discussed more elaborate in section 3.3). Business process centres and IT industry have benefited from the relatively low labour costs combined with the well-educated workforce. IT hubs are being developed around technology universities in Wroclaw and Krakow.

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Outlook: The steady growth in private consumption will continue to support the services sector, even though the share in GDP is expected to stay broadly the same. Limited R&D spending will also make the services sector dependent on foreign investment to provide a boost to productivity, similar to the industrial sector.

Figure 22: Financial sector development indicators



Source: Financial Structure Database (World Bank)²¹

3.2 Financial markets

- The Polish financial market is the main financial centre in CEE.
- Financial development is lagging economies in similar stage of development.
- Insurance and pension sectors are growing.
- Liquidity and long-term finance are still issues.

The financial market in Poland is considered to be the main financial centre in Central and Eastern Europe (CEE). Especially the stock market is large compared to regional peers.

Therefore, it attracts not just foreign capital destined for Poland, but also receives capital targeted at Central Europe. Despite its size in the region, the Polish financial market is still relatively small and shallow, and therefore rather illiquid, compared to the developed world. This can also be seen in figure 22, which shows several indicators of financial sector development²². An IMF working paper²³ concluded that the financial development of the CE4 countries (i.e. Poland, the Czech Republic, Slovakia and Hungary) are lagging compared to economies that are also classified as upper middle or high income countries. The underdevelopment of institutions²⁴ and access to external funding might be reasons that limit the possibility and necessity, respectively, to develop local financial markets.

To further develop a local capital market it is key to have local institutional investors as well as well-functioning money and government bond markets²⁵. The former creates a critical mass on the demand side, the latter supports the infrastructure and pricing needed for private debt issuance. A steady flow of public debt issuances and attempts to lengthen the tenors of government bonds support liquidity in the money and government bond markets. An important step in this process was taken in September 2009, when the Warsaw Stock Exchange launched a system for issuance and trading of corporate and municipal bonds. Despite this, debt market capitalization is still low at only 30% of GDP.

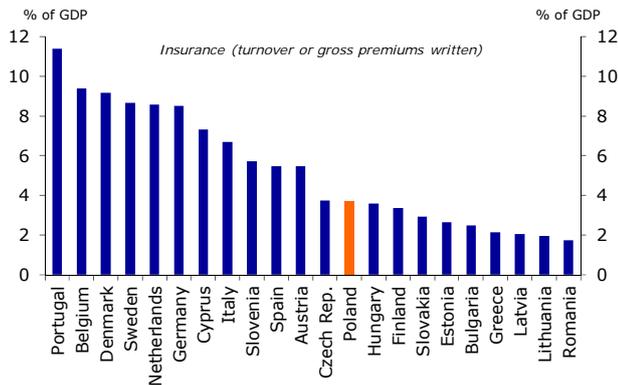
The EBRD publishes government bond market development and money market development indices²⁶, as indicators of the development of the local currency

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market. Both indices focus on market infrastructure and liquidity. Poland scores well on both indicators – it reaches the highest score of the Transition countries²⁷ on the money market index and the shared highest score on the

government index (together with Turkey). In fact, the money market in Poland is considered most developed and used as benchmark. However, the indices are also calculated for several advanced countries. While Poland scores better on the government bond index than Portugal, it is well behind Germany and the Netherlands. The UK outperforms Poland by far on the money market index.

Figure 23: Insurance market



Source: Eurostat

The insurance sector is growing, but still relatively small (figure 23). The introduction of open pension funds in the 1999 pension reforms is supporting the insurance sector, but the sector started at a low point. The

saturation of insurance is moderate by OECD standards, but is the second highest among Transition countries, after Slovenia²⁸. With legislation and regulation close the international standards, the market has attracted a number of foreign investors. However, the largest insurer, PZU, remains state controlled after partial privatization via an Initial Public Offering (IPO) in 2010.

The development of the pension sector resembles the insurance sector – small, but growing, with a portfolio tilted towards government bonds and foreign presence²⁹. Private pension funds manage both mandatory and voluntary pension schemes. After the 1999 pension reform, the private pension funds are restricted to investment in government bonds, listed shares and rated debt securities. In practice, government bonds account for about two thirds of the pension funds’ portfolios. The pension funds have been an important and growing participant in the stock exchange. In 2009, they held about 15% of the stock exchange value. However, in May 2011, the Polish government has introduced reforms, which rerouted and delayed the state’s pension contributions to support the fiscal situation. Although positive for the fiscal situation, it also resulted in lower amounts actually reaching Polish pension funds. This may have an adverse impact on the development of the financial markets.

Since 2006, the financial markets in Poland are supervised by the independent Financial Supervision Authority (Komisja Nadzoru Finansowego, KNF). The KNF covers banking, capital market, insurance, and pension scheme supervision as well as supervision of electronic money institutions. The chair of KNF is appointed for 5 years by the prime minister. The board also has representatives

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of the ministry of finance, the ministry of labour and social policy, the Central Bank of Poland (NBP) and the president of Poland.

The Warsaw stock exchange (WSE) is the largest stock exchange in Emerging Europe. The WSE started in 1991 with five listed companies and grew to 424 listings, as of September 2011 - 59 of which are listed on a second trading platform. The 1999 pension reform and accession to the EU boosted trading. In July 2010, WSE agreed to a long-term cooperation with NYSE Euronext. The WSE was one of the companies targeted for privatization, and in November 2010, the stock exchange was traded for the first time following its privatization by the Polish government. WSE's IPO made the bourse the first publicly traded market in emerging Europe, and highlights its recent performance – market capitalization has tripled in the past two years, while trading volumes more than double those in Budapest and triple those in Prague.

Outlook: With the growing income of Poland, the insurance market and pension sector are expected to grow. The recent pension reforms of the government are expected to slow the development of the financial market. But the government's attempt of regular public debt issuance and aim to lengthen the government bond structure are expected to support the financial sector development. More IPOs, which would strengthen the capital market, are possible if the government speeds up the privatization process (see also section 4.6).

3.3 Banking sector

- Usage of financial products is low, but growing.
- Foreign-owned and state-controlled banks dominate the financial sector.
- Challenges are improving access to credit for SME, financing long-term projects and expanding product range.
- Prevalence of foreign currency loans is moderate compared to other CEE countries.

The landscape in the Polish banking sector is dominated by a few large banks and many small (cooperative) banks. In May 2011, 48 commercial banks, 21 branches of credit institutions, a branch network of 575 cooperative banks and around 1800 small credit unions (SKOK³⁰) were registered in Poland³¹. The largest bank in Poland, PKO BP, is still state-controlled. In total, about 20% of total banking assets are controlled by state banks³². Of the remaining large banks, most are foreign owned (figure 24). Almost 75% of total banking assets are owned by foreign banks. After Poland opened up its market, Western banks entered Poland's financial sector – with an increased interest in the run-up to EU entry. Banks from Italy and the Netherlands have the largest presence, but Germany, France, Spain, Portugal, Belgium, Austria and the United States also play a role.

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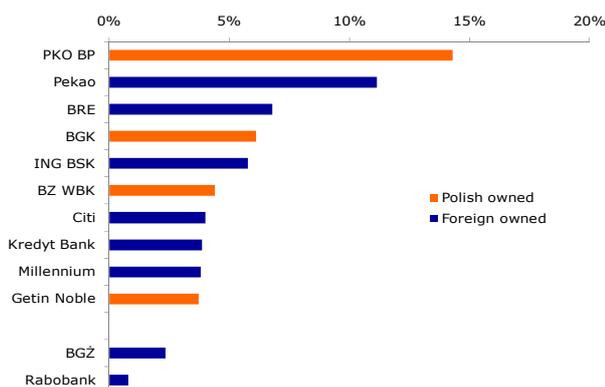
The banking sector in Poland is characterized by low, but growing usage. Mortgage lending is only 15% of GDP, one of the lowest levels in Europe³³. As many as 44% of the Poles do not have a bank account, but this figure is declining³⁴. In 2009, 1.3 million current accounts were opened. In the coming years, banks hope to reach the circa 5 million 'bankless' new clients – supported by the Ministry of Finance's aim to pay pensions, grants and other social transfers to bank accounts rather than via cash transfer by the Polish Post. To reach all the new clients, the banks have been expanding their networks vigorously. As of May 2011, Poland has one bank outlet per 2,700 inhabitants³⁵. However, this is not evenly distributed across the country. Polish cities might have a bank around every corner – almost literally – but in the more rural areas, branches can be spread rather far apart.

Credit growth boomed in the 1990s, helped by the inflow of foreign credit and the strong demand by investors and consumers (figure 25). Towards the end of 1990s, high inflation pushed the central bank to increase interest rates, thereby depressing credit demand. Credit growth remained in single digits until 2006. Between 2006 and 2008, the booming economy and ample availability of credit reinforced each other, which drove annual credit growth up to 40% in 2008. The lack of complex financial products and focus on the domestic market partly shielded the Polish banks from the global financial crisis.

However, the pressure on western parent banks was surely felt in Polish daughter companies. Credit growth fell to 8% in 2009 and 2010. Influenced by the continued unrest in the global financial markets and the modest economic growth in Poland, credit growth is expected to be around 7-9% per year in the next few years. Stock of domestic credit is currently around 65% of GDP, which is relatively low compared to other EU countries.

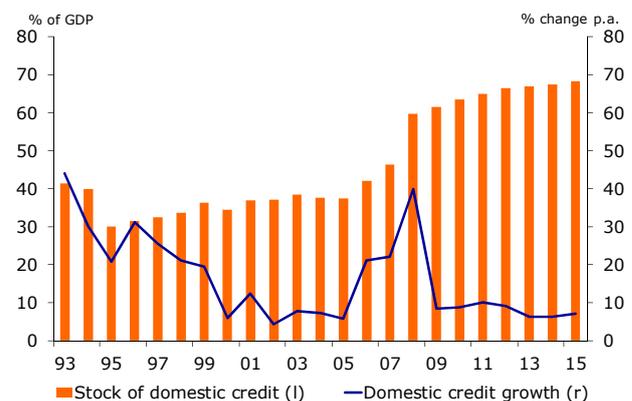
The rapid credit expansion pre-2008, which created issues of asset quality, and the impact of the global financial crisis dented the profitability of Polish banks in 2010/11. In general, the banks are able to charge high fees and commissions and relatively high interest rates, as the competition in the Polish banking sector

Figure 24: Market share of Top 10 banks (plus BGZ and Rabobank)



Source: BGZ

Figure 25: Domestic credit



Source: Economist Intelligence Unit

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is rather mild by European standards. The market is growing, allowing everyone to have a piece of the pie, and there is no one or two parties with much market power. The concentration ratio of the top 5 banks (CR5) is just 44%, indicating there are many players and the monopoly power is limited. Interest income is traditionally the main source of income, followed by fees and commissions. However, also in the Polish market, liquidity and funding issues are present, which drives the savings interest rate up and thereby profit margins down. Moreover, a reduction in credit growth depresses the number of new loans, hence fees and commissions. Operating expenses are expected to remain rather high, as banks continue to expand branches and other infrastructure.

In the run-up to the financial crisis, foreign capital flowed lavishly into Emerging Europe, and many loans were taken out in foreign currency (FX), which proved to be a problem when the financial crisis developed. When the zloty depreciated end-2008 and again in 2001, the debt service costs in zloty terms rose rapidly. Although FX loans were not as widely used in Poland as in some other countries, FX loans did constitute a third of total loans in the Polish banking sector in 2010 (table 5 and figure 26). About half of the FX loans are in Swiss franc, the other half in euro and a few loans in yen. Pre-crisis, the KNF had already imposed stricter requirements on FX loans than on local currency lending and in February 2010 the regulation was further tightened. Despite this, FX loans were attractive, as the spread between local currency and FX lending rates was about 4-5 percentage points in Poland in the period 2006-2010³⁶. The constraints in availability of local currency funding sources (especially for SMEs) has probably also contributed to the expansion of FX loans. To solve the latter issue, the government needs to stimulate the local currency capital market (see also section 3.2 on the financial market).

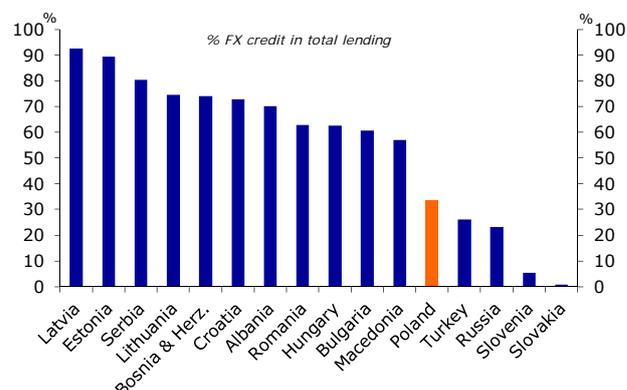
There are several structural challenges regarding the future of the Polish banking sector. Increasingly, the focus shifts from improving the out-of-date and limited infrastructure and standard bank products to more sophisticated

Table 5: Selected banking sector indicators

	Jun-10	Jun-11
Non-performing loans (% of total loans)		
Non-performing loans (corporate)	12,25%	10,99%
Non-performing loans (households)	6,68%	7,16%
Banking assets (% of GDP)	79,6%	83,5%
Private FX loans (% of total lending)	35,1%	33,9%
corporate (% of total FX loans)	25%	23%
households (% of total FX loans)	75%	77%
Capital adequacy ratio (CAR)	13,3%	13,7%
CAR - commercial banks	13,3%	13,7%
CAR - cooperative banks	13,8%	13,9%
Net earnings	PLN 5,466bn	PLN 7,795bn

Source: BGZ

Figure 26: Foreign currency loans



Source: EBRD

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products. Foreign ownership is considered positive in this regard, as know-how is shared. Another challenge to Poland's banking system is to increase access to credit for small and medium-sized enterprises (SMEs)³⁷. Currently, many entrepreneurs still choose to finance projects and start-ups themselves. A third issue is that the capital market is too small to finance large and especially long-term projects, such as infrastructure.

Outlook: First and foremost, Poland can be considered a growth market for banks. More than 40% of the Poles do not have a bank account and mortgage lending is even smaller. However, the increased competition for savings, growing operational expenses and moderate economic growth are expected to depress profitability of Polish banks in the next years. The KNF is likely to further curb FX lending, thereby squeezing the profits of this line of business. Profitability could potentially also be hit by a bank tax, although it is unclear what shape or form this will take. The possibility of strong consolidation in the banking sector is difficult to assess. On the one hand, the many small banks would suggest that there is ample room. On the other hand, many banks are owned by foreign parents who see their Polish operation as a strategic starting point in a growing market, and they will thus not want to sell their stake. If the PO party stays at helm, the privatization drive of state-owned banks might pick up speed again after the October 2011 elections, driven by the need for fiscal consolidation.

3.4 Monetary policy

- *Narodowy Bank Polski* (NBP) is Poland's central bank.
- Primary objective of NBP is price stability.
- NBP is politically independent but has good contact with the government.
- Inflation was a major issue in the late 1990 due to investment and spending boom, but is generally considered under control now.

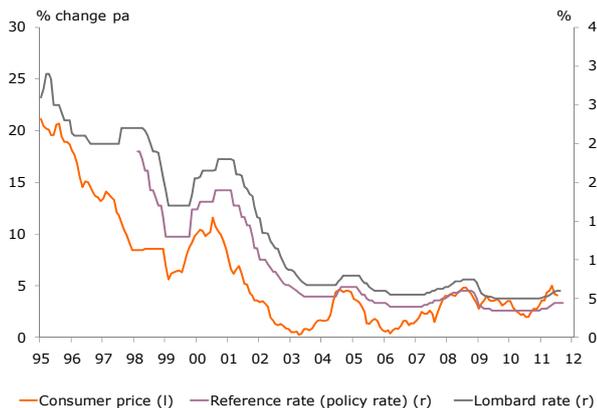
The *Narodowy Bank Polski* (National Bank of Poland, NBP) is the central bank of Poland. The primary objective of NBP is to maintain price stability. Since 2004, the NBP targets an inflation level of 2.5% +/- 1ppt. Next to the price stability, the NBP is also responsible for printing and circulating the zloty, for the stability of the national currency and stability of the financial system. NBP is constitutionally independent from the government. In practice, there is good contact between the government and NBP, which makes that the central bank also keeps economic growth in mind when determining monetary policy.

To achieve price stability, the Monetary Policy Council (MPC) sets the level of basic interest rates, uses open market operations and determines required reserves. The open market operations are done through the issuance of 7-day NBP money market bills. The Council is chaired by the president of the NBP, who is appointed by the Sejm (lower house). The other nine members are appointed

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by the president, the Sejm and the Senate (each 3). The MPC members are elected for a term of six years (which is two years longer than parliamentary sessions).

Figure 27: Consumer price inflation and policy rates



Source: EcoWin

After the transition towards a market economy, Poland struggled with its inflation (figure 27). On the back of strong domestic demand and an investment boom, prices increased by 25-35% per year from 1990-1995. In response, the NBP increased its policy rate to above 20%. As the economy cooled down again, the NBP was able to loosen its monetary policy again. From late 2000, the policy rate was gradually cut from 19% to around 5%. In 2005 and 2008, inflation was pushed up by food and fuel prices as well as a buoyant economic growth. In order to get inflation back within the target range, the monetary council decided to increase policy rates twice, followed by rate cuts.

Outlook: In the coming years, price stability will remain the primary target of NBP. The MPC is concerned with the possible effect of loose economic policies and rising commodity prices. The direction of monetary policy will, among others, depend on the speed of fiscal consolidation, developments in commodity prices and economic growth. The credibility of the MPC is good, which should make price stabilization easier. In the medium term, the focus will shift towards exchange rate stabilization in the run up to and especially during the ERM2 system, which requires two years of pegging to the euro as one of the conditions for eurozone entry (see box 2 on euro adoption, p. 36).

3.5 Exchange rate

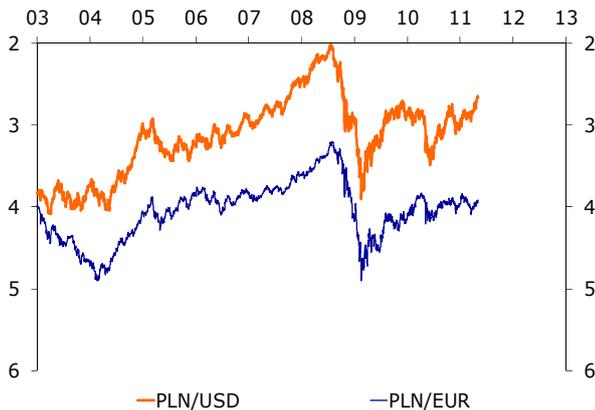
- The zloty is relatively free floating, but occasionally managed by NBP.
- The zloty is strongly correlated with global risk appetite and seen as a thermometer for Central Europe.
- Euro adoption is still far away; 2018 seems a realistic option.

The zloty (PLN) is currently Poland's legal tender. In 1995, the zloty was redenominated from 10,000 old zlotych (PLZ) to 1 new zloty (PLN) after significant inflation in early 1990s. Since 2000, the currency is floating freely and NBP occasionally intervenes to stem the volatility. A strong verbal intervention was in February 2009 when the zloty threatened to break the mental threshold of PLN5 (per EUR) (figure 28). In April 2010, the NBP tried to

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slow the upward trend, while in September 2011, the NBP intervened with small amounts to strengthen the currency again.

Figure 28: Exchange rate of zloty



Source: EcoWin

The zloty has been rather volatile in recent years, because, similar to other emerging market currencies, the zloty is partly defined by its strong correlation with global risk appetite. Moreover, because Poland has the most liquid market in Central Europe, many investors channel their capital to Poland if they want to invest in Central Europe. As a result, Polish assets also react to issues in neighbouring countries like Hungary. The currency is therefore often also seen as a thermometer for sentiment on Central Europe.

In 2009, Poland applied for a Flexible Credit Line (FCL) with the IMF, as a backup plan for its currency and a sign of approval of the macroeconomic strength. The FCL was introduced in March 2009 by the IMF for countries with very strong fundamentals and track records of policy implementation. The first FCL for Poland was approved in May 2009 and the line has since been renewed.

Currently, there is a two-year FCL in place (of USD 29bn), which runs until January 2013.

Outlook: The recent sell-off in the PLN vs. the EUR is likely to eventually reverse. Higher policy interest rates, continued economic growth and potential further privatization would support the zloty in the medium term. However, in the short term, insofar as the eurozone debt crisis is playing out on Poland's doorstep, EUR/PLN has moved into a period of severe volatility and a significant and sustained recovery is unlikely until tensions in the eurozone have calmed. Regarding the euro adoption, we estimate that 2018 is a realistic option, but it will also strongly depend on who wins the next two elections and the developments in the eurozone (see also box 2).

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Box 2: Euro adoption

As part of the accession to the EU, Poland has committed itself to adopt the euro. Based on the two-year waiting period in ERM-II, the time it takes to achieve the Maastricht criteria (especially fiscal deficit), and elections in 2011 and 2015, we expect that eurozone entry will be delayed until the second half of this decade. We see 2018 as a realistic option. There are three aspects that play an important role in the process of euro adoption. The first is the achievement of the Maastricht criteria and necessary constitutional changes. The second focuses on the preparation of Poland to adequately deal with a situation without an own monetary policy and a flexible exchange rate. The third factor is the enthusiasm of Poles to introduce the euro, which will influence politicians.

To start with the Maastricht criteria. Of the three main criteria, the fiscal policy (a fiscal deficit of less than 3% of GDP) will likely be the most difficult to achieve, while inflation and public debt level are much closer or even below the maximum level. The government aims to get the fiscal deficit below 3% of GDP in 2012, but this seems ambitious.

When Poland joins the EMU, the European Central Bank will determine the policy interest rate, stripping Polish authorities of this policy instrument. Moreover, the flexible exchange rate will no longer exist, thereby also disappearing as a possible method of stabilizing the economy. To compensate for the loss of these policy instruments, the government should focus on increasing the flexibility of the economy. The OECD mentions enhancing labour market flexibility and introducing counter-cyclical fiscal policy as key measures³⁸.

A third issue surrounding euro adoption is the public opinion. A change in the constitution is necessary to allow the zloty to be replaced by the euro. This will require a two thirds majority in parliament, which could prove to be difficult. The ruling PO is in favour of euro adoption, but the main opposition party PiS is very sceptic. The PO will need support of (some) PiS members to achieve a two thirds majority. Public support has been waning. Not only the current euro-crisis makes the currency less appealing, but the financial crisis made Poles more aware of the benefits of having an own currency. For example, during 2008/09, the export sector benefited from the depreciation of the zloty, which supported economic growth. However, different studies have shown the benefits to Poland from euro adoption³⁹. Convincing the public, however, will likely be challenging.

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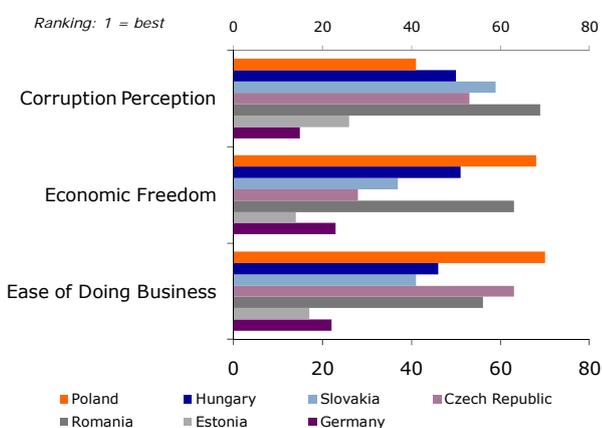
3.6 Business environment and institutional development

- The business environment in Poland lags compared to CEE countries.
- Important obstacles are skills availability, labour regulation, excessive red tape and bureaucracy, infrastructure and a slow judiciary system.
- In the area of institutional quality, government effectiveness, regulatory quality and rule of law require attention.

The business environment of Poland lags behind other Central European countries. According to the EBRD, the main obstacles reported by business are skills availability (i.e. lack of or mismatch in), labour regulation and tax administration⁴⁰. Poland's ranking on the Ease of Doing Business index of the World Bank is 70 (out of 183), which compares unfavourable to others in the region (figure 29). In general, the time and number of procedures drive down the score of Poland. It takes for example 32 days and 6 procedures to start a business. In Hungary, it only takes 4 days and 4 procedures. The Heritage Foundation, which focuses on economic freedom, ranks Poland 68th out of 179 (or 31st out of the 43 countries in the Europe region). Key constraints are the excessive red tape and bureaucracy, a rigid labour market, and a slow and inefficient judiciary system. Positive notes are that trade and investment freedom are high and largely secured through EU membership. According to Transparency International, corruption is an issue in Poland and hinders business, but it is less problematic than in several neighbouring countries. On their Corruption Perception Index, they rank Poland 41st (out of 178).

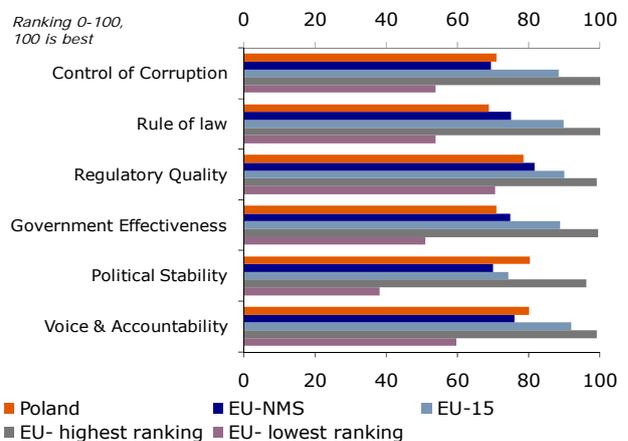
The business environment is also determined by the institutional quality of a country. Solid governance, such as the quality of contract enforcement, makes it easier to operate in a country. Poland scores average in the World Bank Governance Indicators (figure 30). On political stability, accountability, and control of corruption Poland ranks above the average of other NMS. However,

Figure 29: Selected business climate rankings



Source: World Bank, Heritage Foundation, Transparency International.

Figure 30: World Bank Governance Indicators

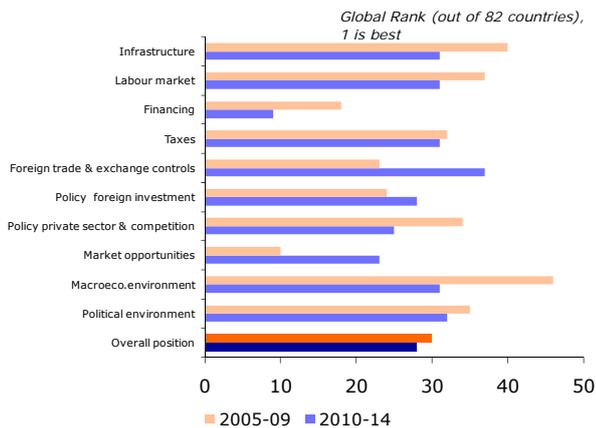


Source: World Bank

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the country lags in the areas of government effectiveness, regulatory quality, and rule of law. In all areas, except political stability, Poland is well behind the EU-15 countries.

Figure 31: Progress business environment



Source: Economist Intelligence Unit

Outlook: In April, the Polish Confederation of Private Employers (PKPP) concluded that despite the government's intention to cut bureaucracy and red tape, the number of administrative and legal barriers increased in 2010. This is an example which fits within the general worry that the pace of business environment reforms is slowing. After rapid reforms improvements in the 1990s, the more difficult, fine-tuning improvements are left. Despite this, some progress is expected (figure 31). The speed, however, will depend much on the political party in charge the next 10 years with the PO party being more business oriented than the PiS party.

3.7 Natural endowment

- Coal, arable land and –potentially- shale gas are the main natural resources of Poland.
- Poland could hold up to 300 years of gas reserves in shale gas.
- Shale gas could reduce dependence on Russia, switch away from coal generated power generation, provide extra government income, and boost the current account balance.
- Environmental objections and technical difficulties are major obstacles.

The natural endowment of Poland is currently dominated by coal and arable land. Metals and minerals that are found in smaller amounts in Poland are copper, sulphur, silver, lead and amber.

Natural gas, mainly in the form of shale gas, is also present. Currently, shale gas is still difficult and expensive to extract, but it holds substantial promises. Poland is believed to be on top of the biggest hidden reserves in the EU⁴¹. How much exactly is difficult to say, as shale gas can only be found by drilling a series of speculative wells. But industry analysts think Poland could hold up to 3trn cu meters of gas, which would increase the EU's total gas reserves by 50% or cover 300 years of Poland's needs. The government has already sold over 90 concessions to international energy companies and granted 15 licenses to the state gas producer PGNiG. Once production starts, this would create welcome additional income for the government and boost the current account balance. Perhaps even more important for Polish politicians, it would reduce the reliance

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on energy imports from Russia. Currently, Russia supplies about two thirds of Polish gas and Poland is keen to escape this dependent position. The production of shale gas would probably also kick-start gas powered electricity generation. Moving away from coal usage would benefit Poland's target for greenhouse gasses.

Although promising, shale gas extraction is far from operational. It could take another one or two decades before large scale production is viable. Moreover, there are serious concerns about the environment. Some scientists claim that so-called 'fugitive' methane emissions, which are part of production, eliminate all benefits of switching from coal to gas powered power generation. And then there is always the NIMBY argument, which makes drilling at land difficult.

Outlook: In September 2011, Prime Minister Tusk stated that commercial shale gas extraction could already be viable in 2014 and that Poland would be self-sufficient in 2035. However, technical difficulties could postpone this and the environmental concerns are still present.

3.8 Infrastructure

- In most areas of infrastructure, Poland lags other European countries.
- Roads, electricity generation, water and waste water require attention.
- Energy security and environmental impact are hot topics.

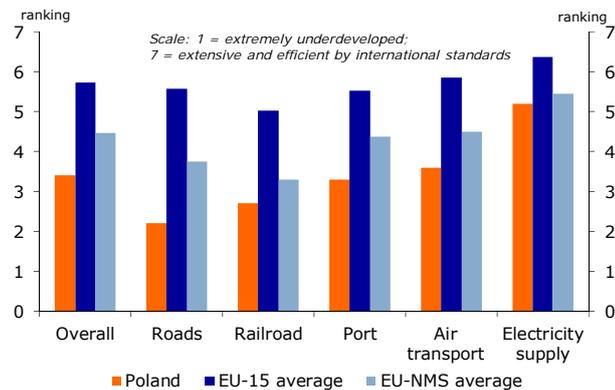
The size of Poland and limited investment in the past have created a significant infrastructure challenge, despite having improved much already. Infrastructure indicators show that Poland lags behind other EU countries, both in quantity and quality (figure 32). The current EU subsidies, increasingly stricter EU regulations in areas of waste and waste water, and the upcoming European soccer championship in 2012 are giving infrastructure investment a boost. Poland built almost 20,000 km of roads in the past 20 years. However, compared to Italy, which has a similar land area, Poland is still 100,000 km behind. Moreover, the road quality could do with an upgrade. Only about two thirds of all roads in Poland are paved, according to World Bank data.

The area of electricity generation also receives (and requires) much attention, with debates on energy security and environmental impact. See also section 3.9 for the latter topic. Currently, 90% of Poland's electricity production comes from coal. Not only are the coal generators ageing, which requires substantial investment to renew them, they are also high in greenhouse gas emissions. Poland has already had to decommission several generators to reach EU targets, which increased the concerns about energy security⁴². Another element of energy security is the increasing reliance on energy imports. In 1991, Poland imported only 1% of its energy needs. This increased to 28% in 2009. A third

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element of energy security is the grid capacity. Without substantial investments in the electricity grid or reduction of energy intensity, the grid will likely not keep up with the economic growth of Poland. In the medium to long term, this could lead to power outages during peaks due to overload.

Figure 32: Quality of infrastructure



Source: World Economic Forum, 2010.

In the *Energy Policy of Poland until 2030*, the government has set out its strategy to decrease energy consumption, reduce the dependency on imported oil and gas by switching to domestic sources (mainly hard coal and lignite), diversification of generating sources (i.e. introduce nuclear power and increase renewable energy projects), and reduce impact on the environment. To achieve these targets, the infrastructure of the power sector will have to change, as well as the business structure. Private (foreign) investors

could be an important source of finance for these plans. To make the sector more attractive, restructuring of and privatization in the power sector are likely necessary.

Outlook: The recent investment boost has supported the development of infrastructure. However, as Poland had to come from far, more will be needed in the coming decade. The end of the EU budget in 2013 could jeopardize EU subsidies for roads and other infrastructural projects. More private-public partnerships could be a good alternative. In the power generating sector, private (foreign) investors are probably also needed to secure electricity supply to the growing economy.

3.9 Environment

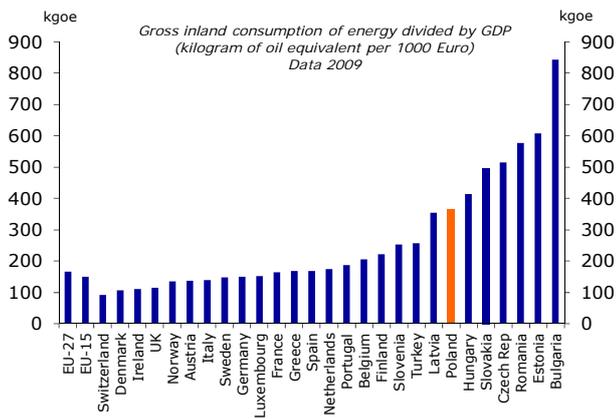
- EU membership pushed environmental laws in the right direction.
- Poland still faces significant issues related to soil, water and air pollution.
- Poland scores poorly on energy intensity and CO2 emissions.
- Environmental awareness and limited long-term financing are important obstacles.

With the entry of Poland to the EU, the country had to upgrade its environmental regulation to EU standards. Despite substantial improvement, Poland still has significant problems related to soil, water and air pollution. Municipals are faced with high costs to deal with past legacies related to landfills. Also waste water plants and district heating generators require more investment to reach European standards. The percentage of population connected to urban wastewater treatment increased from about a third in 1995 to two thirds in

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2009, but this is still well below most EU countries. Power generation and mining sectors are important sources of industrial pollution. The lack of ecological awareness has also hindered swift adoption of Natura 2000 and other EU environmental regulation.

Figure 33: Energy intensity



Source: Eurostat

The energy intensity⁴³ and CO2 intensity in Poland are among the highest in the EU (figure 33). For example, the energy intensity in Poland was 383.54 kgoe (kilogram of oil equivalent) per EUR 1000 in 2008, while the European average was 167.11 kgoe. Reduction of energy usage is hindered by low awareness on energy usage (thanks to low prices in the past) and on environmental issues. In the area of CO2 emissions, Poland scores even worse, as the country's CO2 intensity is the highest of the EU. This is largely due to the usage of cheap coal for electricity generation.

Outlook: Achieving increasingly challenging environmental (EU-driven) targets face two important obstacles. First, the cultural change on environmental awareness, needed to reach the different targets, will be difficult to achieve. Second, the improvement process requires substantial investment, while long-term financing for infrastructural and energy efficiency projects are rather difficult in the current market, especially for SME.

4. Government

In this chapter, the government of Poland is discussed, in a broad sense. First, we look at the governmental structure and political landscape. Next, the attention turns to fiscal policy, the pension and health care systems, and privatization efforts. Then, the focus shifts internationally to the EU budget and Poland's international position.

4.1 Governmental structure

- The bicameral parliament is the legislative branch.
- Political power is concentrated in the cabinet, led by the prime minister.
- The president has a largely ceremonial role, but can veto laws and influence foreign policy.
- The judicial system is regarded as independent.

Poland is a parliamentary republic. The executive power lies with the Council of Ministers headed by the prime minister. The bicameral parliament is the legislative force in Poland. The Sejm (lower house) has 460 members and its members are elected through proportional representation with a 5% entry threshold. The cabinet is accountable to the Sejm. The Senate (upper house) has 100 members, which are selected on a provincial basis, and its main task is to provide checks and balance over the Sejm. Members to Sejm and Senate are elected for four years.

The president of Poland is directly elected for four years and has a largely ceremonial role. But he does have a veto on laws (which can be overturned by a 3/5 majority in the Sejm) and can initiate legislation. Moreover, he is closely involved in foreign policy, although this task is not described in detail.

The judiciary is shaped based on a four-tier system – regional, provincial, appellate courts and a Supreme Court. The judges are nominated by the National Judicial Council and appointed for life by the president. The court system is generally seen as independent from politics – although efficiency has much to gain.

On a regional level, the country is divided into 16 *voivodships* (provinces), which are subdivided into 379 *powiats* (counties), and these are in turn split into 2478 *gminas* (municipalities). The local governments at each level are directly elected.

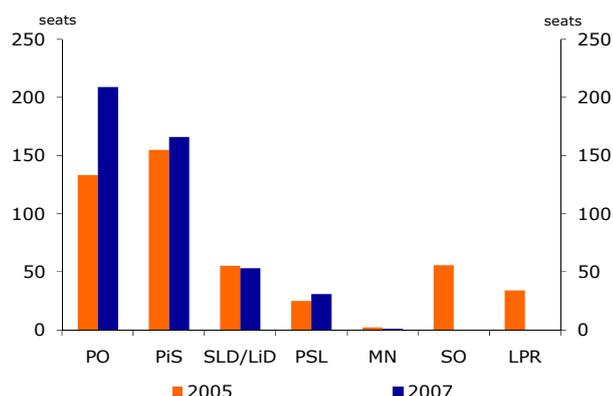
4.2 Political landscape

- The liberal, pro-EU Civic Platform (PO) party is the senior ruling party.
- The conservative, state-oriented Law and Justice party (PiS) is the main opposition party.

4. Government

- Since 1989 no incumbent ruling party has won the next elections. The PO party could break this trend in the October 2011 elections.
- Although there is consensus on the general direction of Poland, there are major differences on certain topics.

Figure 34: Seats in Sejm



Source: IHS Global Insight

Currently, the following political parties are present in the parliament: the Civic Platform (PO), the Law and Justice party (PiS), the Democratic Left Alliance (SLD), the Polish People's Party (PSL), and German Minority of Lower Silesia (MN) (figure 34). Samoobrona (SO) and League of Polish Families (LPR) failed to pass the threshold in the 2007 elections.

The Civic Platform (PO, 209⁴⁴) is a centre-right party that favours market-oriented, pro-business policies. It is strongly oriented towards the EU and takes a relatively mild

stance to Russia. Although the party is said to be liberal, in reality it is also highly pragmatic. Its main support base is in the urban areas. The Law and Justice party (PiS, 166) is a right-wing party that finds its supporters among the rural population. It advocates catholic values and is highly conservative on many issues. The party also has some left-wing characteristics, as it also opposes rapid market reforms and favours a progressive tax system and state intervention. PiS, which was founded by the Kaczynski twin brothers, expresses a strong anti-Russia and anti-Germany sentiment. The Democratic Left Alliance (SLD, 0) stems from the communist party. The party fell apart after the 2005 elections. Several members joined the Left and Democracy alliance (LiD, 53) ahead of the 2007 elections. The Polish People's Party (PSL, 31) is a farmer's party. It is a rather conservative party, which has reservations towards EU integration and occasionally has nationalistic standpoints. German Minority of Lower Silesia (MN, 1) is a very small, pro-EU party oriented at the German minority. Samoobrona (SO, 0) is a party with extreme-right elements. It advocates generous subsidies for the agricultural sector. The League of Polish Families (LPR, 0) is a right-wing, ultra-Catholic, anti-Semitic nationalist party. It strongly opposes the sale of state companies to foreigners and euro-adoption. In the 2007 elections, LPR and SO failed to make the threshold.

A coalition of PiS, LPR and SO was formed after the 2005 elections, headed by Jaroslaw Kaczynski (while his twin brother, Lech, became president). However, this coalition was short-lived and marred with crises. The 2007 snap elections that were won by PO were therefore also an anti-vote. It fits with the 'tradition' of reactionary voting that saw the incumbent ruling party ousted in every election since 1989. The PO could break this trend if they again win in the

4. Government

October 2011 elections. The PO and PSL, as junior coalition party, now form the cabinet. Donald Tusk is the leading man of the PO and prime minister. In the first three years of its term, the PO cabinet of Tusk was confronted with PiS president Lech Kaczynski. Late president Lech Kaczynski, twin brother of Jaroslaw Kaczynski and co-founder of PiS, was a strong proponent of the PiS ideology, which at times clashed with the plans of the Tusk cabinet. President Kaczynski frequently vetoed laws and there was regular and sometimes fierce discussion on who was allowed to do and say what regarding foreign policy. President Lech Kaczynski and almost 100 senior officials were killed in a plane crash near Smolensk in April 2010. The resulting snap presidential elections were won by a PO-affiliated president, Bronislaw Komorowski. Although the plane crash was a major human tragedy, in the end it smoothed the relationship between the presidential office and the cabinet. The PO has been quite successful in introducing market-oriented reforms and improving relationships with the EU and Russia. The consensual leadership style of Tusk has been a major change from the PiS government.

The next parliamentary elections are on 9 October 2011. The latest polls show that PO is leading, ahead of PiS, but the difference is small and both are expected to lose seats. PSL is expected to just pass the 5% threshold, while LiD is expected to lose several seats. The polls indicate that a new party, Ruch Palikot (RP), might win 36 seats. This means that it would become the third largest party, after PO and PiS. Ruch Palikot (or Palikot's Movement) is founded by Janusz Palikot, a controversial and outspoken politician and former PO Member of Parliament. The RP is a liberal and anti-clerical party. If the polls are right, the RP could be 'king-maker' for the PO.

Outlook: The next parliamentary elections are on 9 October 2011. The PO is expected to win these elections again, although the PiS of Kaczynski will try to regain support. If the PO wins, it suggests a continuation of the policy framework. Despite the huge differences on some issues, the general direction of Poland is commonly shared. The return to massive state intervention or withdrawal from the EU is highly unlikely. Not to say that the development path of Poland can be very different on certain issues – e.g. euro adoption, the pace of reform and foreign politics – depending on who is in power. With the PO in power, euro adoption is expected (see also box 2, p.36), reforms will likely be more business oriented and foreign politics more pro-EU. The PiS is expected to be more anti-Russia and less pro-EU and pursue more state-oriented reforms.

4.3 Fiscal policy

- Fiscal deficit ballooned in past years on back of global financial crisis and past structural reforms.
- Long term sustainability supported by reforms in the pension system.
- Constitutional thresholds prevent public debt above 60% of GDP.

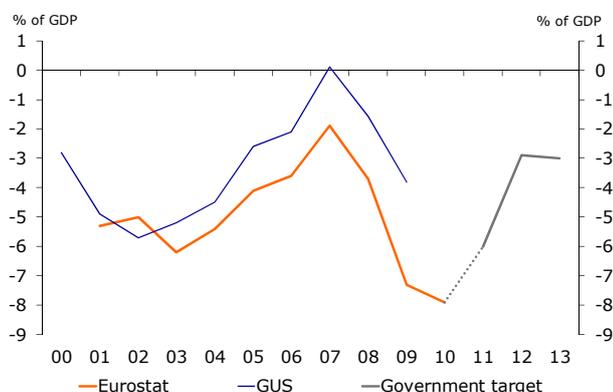
4. Government

- Useful reforms would be widening the tax base, stimulating labour participation and transforming the Farmers' Social Insurance Fund (KRUS).

Fiscal revenues and fiscal spending have been steadily increasing in the past decade. The government of Poland tends to run a deficit on its fiscal balance (figure 35). During the period 2003-2007, the fiscal deficit shrunk, anchored by the target for euro adoption in 2012 and buoyant revenue growth. However, the global financial crisis and global recession pushed the deficit up and led the government to abandon the 2012 euro target. The Polish government attempted to stem the impact of the global financial crisis by increasing public spending. During the same period, tax income decreased and social spending increased due to weaker economic growth. Moreover, the Polish government has urged ministries and local governments to co-invest in infrastructure to make optimal use of the reserved EU budgets (up to 2013 – see also section 4.7). The anticipation of the Euro 2012 soccer championship has boosted investment in infrastructure as well. All this resulted in a deterioration of the fiscal deficit from 1.9% of GDP in 2007 to 7.3% of GDP in 2009 (ESA95 standards⁴⁵). In 2010, the fiscal deficit widened further to 7.9% of GDP – the largest post-communism deficit.

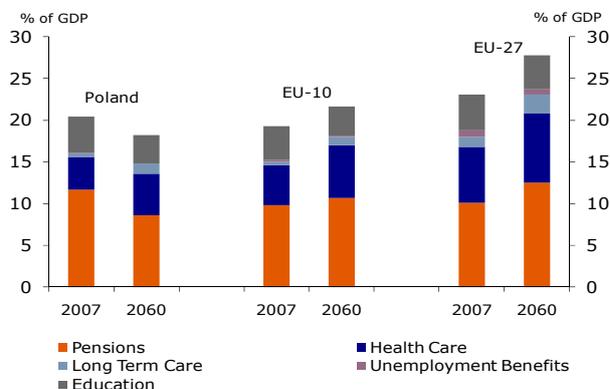
Next to the factors mentioned above, the fiscal deficit also ballooned due to several unfinished reforms and structural factors⁴⁶. The pension system reform, tax wedge and large public sector are causes of the current large fiscal gap. The pension system reform in 1999 (see also section 4.4) still bears costs for the government today of about 3-4% of GDP per year. This is expected to decline to zero in 2023-2025. From 2007 to 2009, the government reduced the tax wedge⁴⁷ to stimulate employment (see also section 2.7). This adds around 2% of GDP to the fiscal deficit of 2009-2011. More than one-fifth of public spending

Figure 35: Fiscal balance



Source: Eurostat*, GUS**, IHS Global Insight.
* ESA95 definition ** National definition

Figure 36: Age-related government spending

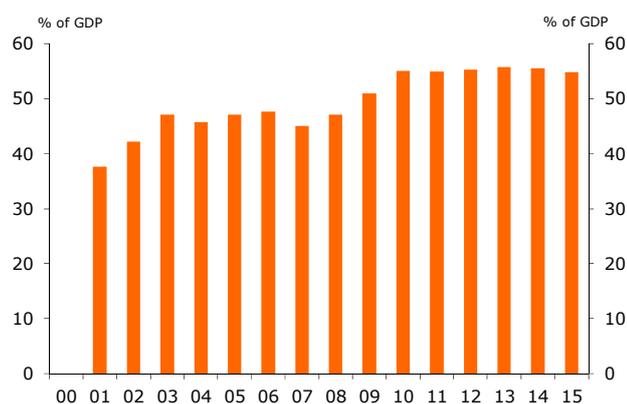


Source: World Bank, 2010a

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(or about 10% of GDP) goes towards the public sector wage bill (see also section 3.1). On the other hand, social sector spending, including education, health and social protection, is moderate compared to peers. In PPP standards, in 2007,

Figure 37: Public debt



Source: Eurostat, Economist Intelligence Unit (forecast)

Poland spent less than half the EU average and less than any other Central European country. Moreover, the government spends about 1% of GDP a year on labour market programs, which include both unemployment benefits and activation programs. Considering the cyclical nature of labour market programs, the expenditures differ per year. In general, it is less than high-income OECD countries, but more than most middle-income OECD countries.

In July 2009, the EC started the excessive deficit procedure, which urged the government to reduce the fiscal deficit to less than 3% of GDP shortly. In their medium

term fiscal plans, the government has announced to reduce the fiscal deficit to 3% of GDP in 2012. This year, the government aims to get the fiscal deficit below 6% of GDP. With the elections in sight, the government is very reluctant to cut fiscal spending and reform, instead it relies strongly on economic growth to reduce the deficit in the next years. This seems a missed chance. With an ageing population, low participation rate and high structural unemployment, the government needs to widen its tax base, stimulate participation and reform the Farmers' Social Insurance Fund (see box 1, p. 25). Moreover, it would be good if the government addressed the issue of growing public debt before the next constitutional thresholds are breached.

The long-term fiscal sustainability is supported by the past reforms in the pension system and the hard budget constraints in the health care system, which make shortages explicit through debt accumulation (see section 4.5). According to EU calculations, Poland is the only EU country where age-related general government spending will decline between 2007 and 2060⁴⁸ (figure 36). The main item that does not contribute to long-term fiscal sustainability is the Farmers' Social Insurance Fund.

In line with the rapidly rising fiscal deficits, the level of public debt increased in the past years (figure 37). In 2010, public debt rose to 53% of GDP (national definition; in ESA95 terms it was 55% of GDP). This year, it is expected to rise slightly again, to around 55% of GDP (national definition). This suggests that Poland might break its second constitutional threshold (see box 3 for more information on the thresholds for public debt). Last year, the government was able to avoid the second threshold, albeit somewhat artificially. The government

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decided to reroute part of the government pension contributions so it did not count towards the public debt. As this seems to have worked, the government will likely apply similar tricks in the future. Despite this, the public debt level will remain restricted to acceptable levels.

Outlook: The government intends to reduce the fiscal deficit to less than 3% of GDP in 2012, which seems rather ambitious as they strongly rely on economic growth rather than spending cuts and reforms. It would be advisable to implement reforms that widen the tax base, stimulate labour participation and transform the Farmers' Social Insurance Fund. The short to medium risk on Poland's fiscal situation is therefore slightly elevated, especially with all European governments under close scrutiny of the market. The long-term fiscal sustainability is supported by the past reforms in the pension system and the budget constraints in the health care system.

Box 3: Constitutional thresholds public debt

Poland has embedded three thresholds regarding public debt in its constitution. If a threshold is breached in 2011, the appropriate constraint would apply to the 2013 budget as the budget of 2012 is approved before the final data of 2011 is available.

The first threshold at 50% of GDP requires the government to propose spending cuts. Next year's budget target should not be larger than this year's deficit.

The second level at 55% of GDP triggers more stringent cuts. The government would need to satisfy the constraint that the public debt ratio next year will not rise above the previous year's level.

If the last hurdle at 60% of GDP is breached the government cannot borrow anymore until the public debt has fallen below 60% of GDP again, which in effect means that the budget has to be balanced. This also implies a freeze on any new government guarantees.

4.4 Pension system

- Pay-as-you-go system transformed into defined contribution system in 1999 pension reforms.
- Long-term fiscal sustainability is good, but pension system adds to the fiscal deficit until mid-2020s.
- Pension benefits are expected to decline, shifting the burden to the retirees.
- Reforms are advised in retirement age, disability pension scheme, second pillar flexibility and integration of special schemes (e.g. KRUS).

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During the 1990s, the pension system deficits were rising due to low retirement ages, early retirement possibilities and generous benefits⁴⁹. Combined with the projected ageing of the Polish population, the system seemed unsustainable in the long term. In 1999, the Social Insurance Institute (ZUS) in Poland was restructured and the pay-as-you-go system was replaced by a two pillar system. The first pillar is a notional defined contribution (NDC) scheme financed through mandatory contributions (table 6). In this method, the benefits of an individual are tracked in an individual account based on a defined- contribution formula, but the underlying financing system remains pay-as-you-go (the contributions from current workers are used to pay current pensions). The calculated, accrued contributions determine the amount of a pension when a person retires. The second pillar is a fully funded defined-contribution (FDC) scheme, which is privately managed. In this pillar, the benefits are actually invested and the pension of a person depends on the actual investment earnings. The second pillar is also mandatory. The combined contribution for both pillars is 19.52% of wages, equally shared by employees and employers.

Long-term fiscal sustainability of the first pillar is good, but the pension system will add to the fiscal deficit until mid-2020s (figure 38). It is commonly shared that the pension system will add around 2% of GDP to the fiscal deficit each year in the coming term. In the long term (2035 and beyond), the pension system will have a yearly surplus of around 1%-1.5% of GDP.

The fiscal sustainability in the long-run is partly achieved by shifting the burden of the pension system to the retirees. The pension benefits are expected to fall from around two-thirds of average wage now (net of social security contributions) to less than 40% in 2040 (and even lower beyond 2040) (figure 39). The pension benefits are among others depressed by the large number of women, who retire earlier (thus accumulate less) and live longer (spread benefits over more years).

Table 6: Key parameters of pension system

<i>Parameter</i>	<i>first pillar (NDC)</i>	<i>second pillar (FDC)</i>
Retirement age	65 (men), 60 (women)	65 (men), 60 (women)
Accumulation	Defined-contribution formula	Actual investment earnings
Participation	Mandatory	Mandatory
Contribution rate	12.22% of wage (pure NDC participants pay 19.52%)	7.3% of wage
Contribution paid by	Evenly; employers and employees	Evenly; employers and employees
Post retirement indexation	Mixed price-wage formula (20% avg wage growth, 80% inflation)	Under discussion

Source: World Bank, 2010b

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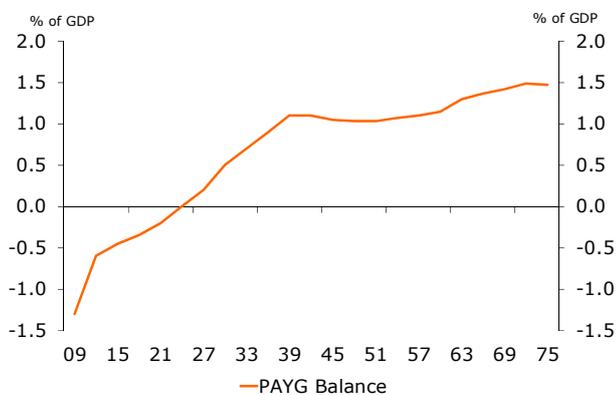
The following pension system reforms are recommended, mostly to increase the pension benefits⁵⁰. First, increase the pension age, especially of women. The criteria for early retirement have been tightened in 2008, which will increase the average pension age as well. Second, link the disability pension system to the old age system, as the former currently has higher benefits which creates a perverse incentive for disability certification. Third, improve the efficiency and flexibility of the second pillar. Finally, integrate special schemes (for farmers, military, police, etc) in the regular pension system, as now subsidies are necessary to cover expenditures. At the end of 2008, 2.14 million people were covered by special arrangements - mostly farmers (1.46 million persons), but also miners, uniformed forces, armed forces, prison service, judges and prosecutors and veterans/military disabled.

Outlook: The fiscal sustainability of the first and second pillar is good in the long term, but the first pillar will show deficits until 2023-2025. In the coming years, the pension system will add around 2% of GDP to the fiscal deficit each year. This deficit will decline to zero around 2023-2025. The pension benefits are expected to fall from around two-thirds of average wage now to less than 40% in 2040 (and even lower beyond 2040). As the social welfare consequences are substantial, this could pressure politicians to act and change the pension system. This will likely have a negative effect on the government budget.

4.5 Health care system

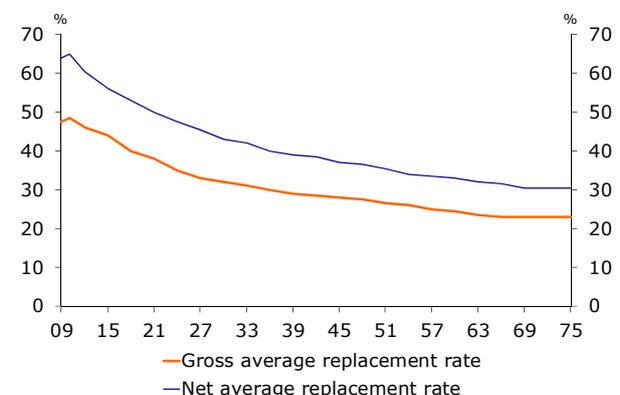
- Mandatory insurance scheme creates almost full access to health care.
- Health care system improved in past years, but more attention to efficiency, service delivery and monitoring is warranted.
- Public spending is rather low, but out-of-pocket spending is quite high.
- Hard budget constraints make extra costs explicit through debt accumulation.

Figure 38: Public Pension scheme (first pillar) fiscal balance



Source: World Bank (2010b) (PAYG = pay as you go)

Figure 39: Projected benefit levels compared to average wage

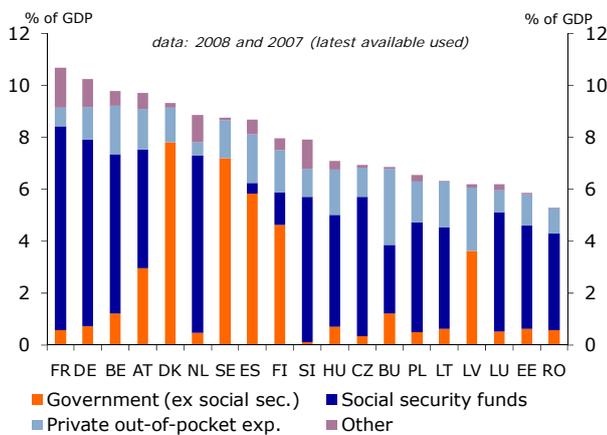


Source: World Bank (2010b)

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In 1999, universal health insurance was introduced in Poland⁵¹. Although health care became available to all Poles, the system did not have a good reputation with poor health outcomes, corruption, and low patient satisfaction. However, the government efforts to improve the health care provision in the past five years have had effect. In the coming years, the government could further improve the health outcomes by increasing efficiency, improving service delivery and develop better monitoring tools to direct spending decisions.

Figure 40: Health care spending



Source: Eurostat

Poland's health care system works with hard budget constraints. This prevents the implicit increase of health care costs, often seen in other countries. However, it also leads to persistent debt accumulation, mostly by hospitals. The government hopes to improve efficiency and monitoring, and thereby reduce debt accumulation, by corporatizing hospitals. It would give hospitals more autonomy and increases accountability, but keeps them in public hands (mainly owned by local governments).

Life expectancy at birth is 72 years for men and 80 years for women, which is an improvement of 5 years since 1991 for both groups. Poland's life expectancies are among

the highest in the NMS, but a few years below the EU-15 countries. A partial explanation for these differences is the death rate due to chronic diseases, which reflects the adequacy of public health provision. In Poland, the rate is 165 deaths per 100,000 (in 2008), which is lower than in most NMS. Only Cyprus, the Czech Republic and Slovenia have fewer deaths due to chronic diseases. On the other hand, the chronic disease rate is higher than in EU-15 (102 deaths per 100,000), largely due to cardiovascular diseases.

Health care spending in Poland was 6.5% of GDP in 2008, which is moderate compared with other EU countries (figure 40). The health care system is financed through mandatory contributions to the social security fund NHF (National Health Fund), government revenues and the out-of-pocket payments⁵². Individuals pay a contribution of 9% based on their income to NHF. It is possible to opt out of the NHF and take private insurance, which tends to be done by higher incomes. The exception is farmers, which pay to the Farmers' Social Insurance Fund (KRUS; see box 1, p.25) and their contribution is based on the price of rye. In practice this leads to a lower contribution for farmers than for non-farmers. In 2007, the state transferred PLN 1.8bn to NHF to supplement the farmers, which was about 60% of the total cost for farmers. The government also subsidizes the system for unemployed and a few other groups.

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Out-of-pocket spending is rather high (i.e. the part that people have to pay directly). About a quarter of health care spending is out-of-pocket and two thirds of this relates to medicine. As elderly tend to use more pharmaceuticals, this method of financing affects them more.

Outlook: Due to an ageing population, improving technology and rising income, which puts upward pressure on patient expectations, the health care costs in Poland are expected to rise in the coming years. This will create the need to increase efficiency and monitoring, while the rising income will also demand a better service. The focus will be on the corporatization of hospitals, reducing the number of hospital beds and liquidating/restructuring hospital debt (especially of university hospitals, which are heavily indebted and are largely barred from the corporatization program). If reform effects are limited, the hard budget constraints would make the rising costs explicit via rising debt accumulation.

4.6 Privatization

- Polish state is very much present in power, natural resources and banking sectors.
- Privatization peaked in 2000, but could receive a boost from fiscal consolidation needs.
- Frequent use of partial privatization and potential state intervention hinder attractiveness.

In Poland, the state is very much present in the economy, especially in the power, natural resources and banking sectors⁵³. Many companies in these sectors are partially or fully owned by the government. For example, the PKO BP is the largest bank in Poland and state controlled. The number of public-private partnerships in infrastructure remains very limited, leaving most of the work to the government.

Following the Mass Privatization Program, initiated in 1994, the privatization process peaked in 2000⁵⁴. Between 2000 and 2007, privatization revenues were only 4.3% of GDP, compared to 13.5% for Slovakia and 9.2% for the Czech Republic. When the PO was elected in office, it had ambitious privatization plans, driven among others by the need for fiscal consolidation. However, the results have been fairly limited. The economic downturn during the global economic recession soured market conditions, which explains the poor results partly. Moreover, the global financial crisis has renewed the question whether privatization is positive at all. Still, it is expected that the ballooning fiscal deficit will speed up the process again. In the case of Poland, there would be substantial benefits if loss-making enterprises were sold or restructured. Moreover, the government will likely be unable (and possibly unwilling) to provide the necessary investment in, for example, energy infrastructure. It should be noted that privatization is not the only option to introduce market

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processes in state-owned enterprises. In the health care sector the focus is on corporatization of hospitals owned by local governments, rather than sale to private companies.

Besides the fact that market conditions worsened, privatization in Poland is also hindered by the frequent use of partial privatization and the potential threat of future state intervention⁵⁵. In previous privatizations, the government often demanded a privileged position, so it could control, for example, restructuring efforts. And in some cases overly generous social agreements were given to employees. The government also lost some credibility by backing out of previously agreed accords.

Outlook: Driven by the need for fiscal consolidation, it is expected that the privatization process will receive new impetus in Poland. And the current government is more open to foreign and/or private ownership in financial services and the energy sector, generally considered 'strategic' sectors. EU and OECD membership will ensure that restrictions to foreign investment will remain limited. However, Poland will need to rebuild the credibility as reliable business partner it lost in the past.

4.7 EU budget

- Poland is the largest net receiver of EU funds.
- Infrastructure and environment receive most funds.
- Direct aid to farmers was EUR 1.5bn in 2009.
- Due to co-financing of investment requirement, Poland's fiscal deficit is expected to be elevated until the EU budget period ends in 2013.

In the 2007-2013 budget period, Poland is expected to be the largest net receiver of EU funds in the European Union (figure 41). Estimates show that the country is expected to collect EUR 87bn and contribute EUR 22bn for the whole period. This will result in a net receipt of EUR 65bn, which is approximately 6% of the total EU budget or 2.5% of Poland's GDP. The contribution of EU funds to the state revenues varies from year to year. In 2009, more than 10% of state revenues came from the EU, but these funds accounted for less than 5% of revenues in the years before. Infrastructure and environment receive most funds from the EU, but there are also programs for human capital, innovation, and development of Eastern Poland. Direct aid to farmers amounted to EUR 1.5bn in 2009.

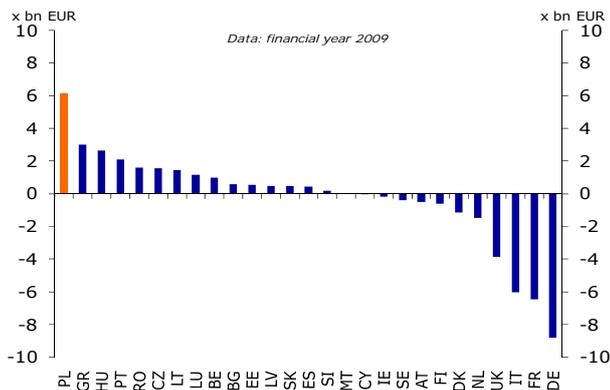
All EU programs are based on the principles of partnership (co-finance) and additionality (complementarity). In practice, this means that national or local authorities need to provide initiative as well as co-financing, except for when individuals (often farmers) are supported directly. During this budget period, subsidies can be financed by the EU up to 85%, the remaining (minimal) 15%

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should come from national funds. Due to a lack of funds or capacity at the (local) government there can be a difference between the allocated EU budget and used EU budget, i.e. the absorption rate. In the period 2000-2006, Poland's

absorption rate was close to 80%. With the lessons learned, the absorption rate is expected to increase for the remainder of the budget period.

Figure 41: Net EU funds



Source: European Commission

Outlook: Discussions about the next budget period 2014-2020 have already started in Brussels, but the contours are still rather vague. Rumour has it that the countries would like to decrease the total budget, but that the European Parliament wants to increase the budget. Moreover, it is rather likely that the agricultural policy will be overhauled. Although it is unclear what the exact figures will be, there is a reasonable chance that fewer funds will be labelled for Poland in the next period.

As it is very unclear how large the change will be, it is difficult to assess what the impact will be on the fiscal situation as well as progress on structural improvement.

4.8 International position

- Good relations with the west and member of several multilateral platforms.
- Foreign politics strongly depends on the ruling party and incumbent president – with different parties having very different views on especially Germany and Russia.
- General direction towards the west is commonly shared.

In the two decades since the fall of communism, Poland's foreign politics have shifted its orientation towards the west. Initially, the relationships with Germany and Russia were difficult, which was deeply rooted in the past. Over time, Poland turned more to the west and tried to improve relations with Germany. The connection with Russia remained problematic until fairly recently. The ruling government and incumbent president play an important role in foreign relations. Former president Kaczynski and the PiS party were highly sceptical of both Germany and Russia. Current president Komorowski and the ruling PO party are more open towards these countries. The plane crash in Smolensk (Russia), in which president Kaczynski was killed, was a major test for relations between Poland and Russia. The initial response of Russia was welcomed by Poland, but the final findings in the investigation report were criticized, especially by the supporters of the PiS party. Poland became a member of several multilateral

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platforms. In 1996 Poland became a member of the OECD and in 1999 Poland joined NATO. Very crucial to the future of Poland was the accession to the European Union in 2004. In the future, Poland is expected to join the eurozone (see also box 2, p. 36).

Outlook: Despite the differences among political parties on some issues, the general direction of Poland is commonly shared. Withdrawal from the EU and other multilateral platforms is highly unlikely. Not to say that the development path of Poland can be very different on certain issues –e.g. euro adoption and foreign politics- depending on who is in power.

5. External position

The external position of Poland is the focal point of this chapter. In sections 5.1-5.4, foreign trade, the current account balance, foreign investment and external debt are discussed.

5.1 Foreign trade

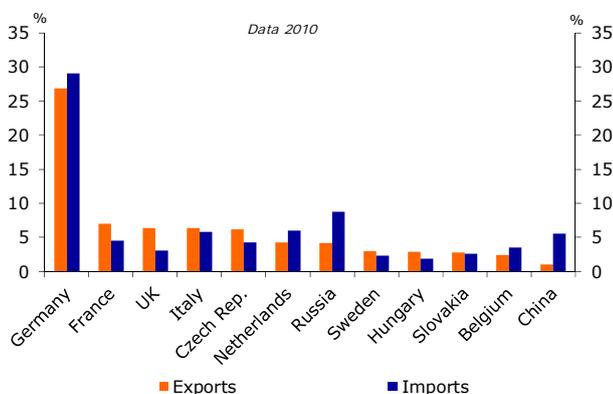
- The EU countries, especially Germany, are main trade partners.
- Automobiles sector is important for trade flows.

Poland's foreign trade is strongly oriented towards Europe (figure 42). Of total exports, 80% goes to the EU (and almost 60% to the eurozone), while 60% of imports come from the EU. Germany is by far the single most important trade partner, as it accounts for more than a quarter of both exports and imports. However, exports to Germany have been declining – in relative terms, while in absolute terms trade quadrupled since 2000. Regional trade has bloomed with the increased purchasing power of neighbouring countries, increasing the share of the Czech Republic, Ukraine, and Hungary in the top-10 trading partners. Moreover, imports from China have grown substantially, likely because of the many semi-manufactured products that Poland imports.

Machinery and transport equipments are both the most exported and the most imported goods in Poland (figure 43). This is closely related to the automobiles sector and other industrial sectors. The automotive industry is not only responsible for almost 20% of exports, but by importing semi-finished products it also pushes the import bill up. Moreover, the boost in infrastructural projects will push up the demand for import of construction materials. Import from Russia is to a substantial extend gas.

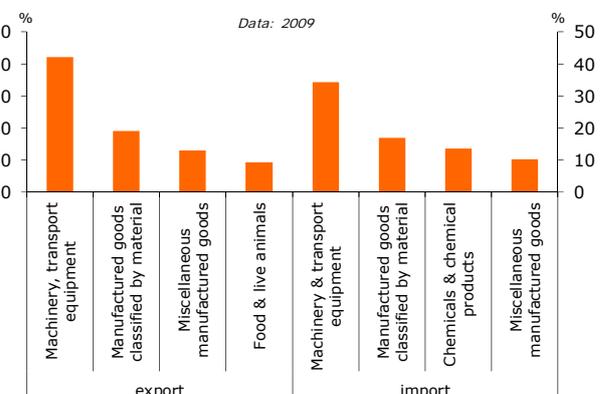
Outlook: The trade patterns of Poland are not expected to change much. The EU is and will remain the most important destination for Polish exports and source

Figure 42: Main export and import partners



Source: IMF Direction of Trade Statistics

Figure 43: Main import and export goods



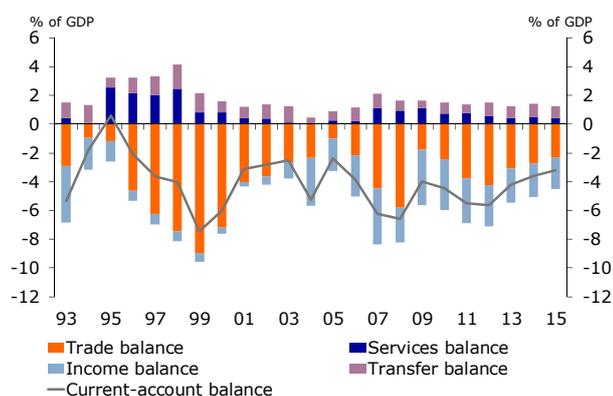
Source: Economist Intelligence Unit.

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of imports. As such, Poland is vulnerable to economic developments in the eurozone countries and the wider EU region. When income in neighbouring countries increases, these countries could play a larger role. Imports from China

are expected to rise, as Poland stimulates this connection very actively. If shale gas (see section 3.7) really takes off, this could change the trade patterns substantially, especially the product mix. The main destination will likely remain the EU.

Figure 44: Current account balance



Source: Economist Intelligence Unit

5.2 Current account balance

- Poland tends to have a current account deficit between 2%-6% of GDP.
- Deficits on the trade and income balances are the reason behind the current account deficit.
- Transfer balance benefits from EU subsidies and remittances.

As can be expected from an emerging market, Poland tends to run a deficit on its current account balance (figure 44). The current account deficit is rather volatile as it moves with economic prosperity, but in general the deficit is between 2% and 6% of GDP. The main culprit is the deficit on the trade balance. Poland imports semi-finished products, capital goods, consumer goods and basic necessities like fuel and food. Another reason for the current account deficit is the negative result on the income balance. With the influx of foreign investment (see section 5.3), the repatriation of profits rises. Especially in the 2000s, the deficit on the income balance grew. The services and transfer balances are positive. The transfer balance is influenced by EU transfers as well as the transfers of Polish emigrants to their families.

Net errors and omissions in the current account balance statistics were recently revised. After the revision, the current account deficit for the entire 2004-2010 period increased by 0.5% to 1% of GDP. For example, the 2010 deficit was changed from 3.4% to 4.5% of GDP. Especially used car imports and transfers received by Polish households from abroad were understated in the original data. The NBP asked the IMF to assist, which increases the credibility of the revisions. Despite the larger current account deficit, the revision is not expected to have major consequences. The new data are not shocking and have reduced a long-standing uncertainty.

Outlook: The current account balance is expected to stay around 3-5% of GDP annually in the medium term. The infrastructure investments stimulated by the Euro 2012 soccer championship and EU budget are expected to push up imports

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in the coming years, but these imports will decrease after 2013. The trade balance will be influenced by the commodity prices as Poland imports fuel and exports and imports food. The income balance is likely to show rather large deficits in the coming years, if foreign companies in Poland have a healthy profit. This will depend, among others, on economic growth. The transfer balance is forecast to benefit from higher EU transfers up to 2013. Although a continuous current account deficit is generally considered a sign of structural imbalances, we are not too worried about Poland. The country is still in the phase of building up, its access to international capital markets is good and foreign investors are expected to stay interested. However, in the long run, the current account balance should move towards zero or a surplus, which seems feasible considering investment in productive capacity. The production of shale gas could potentially turn Poland into a surplus country.

5.3 Foreign investment

- FDI took off after EU entry in 2004, portfolio investment is growing.
- Poland has the largest stock of FDI in Emerging Europe, although per capita stock is less impressive.
- The Netherlands and Germany are the largest investors in Poland.
- Financial, food processing and automotive sectors are important destinations.

The first years after the transition, foreign investors were wary of Poland because of the political instability and underdeveloped economy. However, from 1995 onward, the inflow of foreign direct investment (FDI) increased rapidly, supported by the promise of a substantial domestic market and privatization drive (figure 45). As the economy slowed around 2000, so did the privatization process and therefore FDI inflow. After EU entry in 2004 and before the global economic crisis, foreign investment really took off. FDI increased from USD 4.6bn in 2003 to USD 23.6bn in 2007. The total stock of inward FDI is estimated at USD 193bn, end-2010. This is the highest level in Central and Eastern Europe since the fall of communism⁵⁶. However, FDI per capita is USD 5,100, which is lower than in countries like Hungary, Czech Republic and Slovakia. The stock of outward FDI (Polish investment abroad) was USD 37bn end-2010. Polish investment abroad was very limited until 2005, but since Polish companies have become more active.

The automotive industry has been one of the early recipients of FDI (ACEA). However, in the past years other sectors have attracted more interest, e.g. telecom, financial sector, food processing. End-2009, the latest date for which this information was available, manufacturing had received USD 59bn of

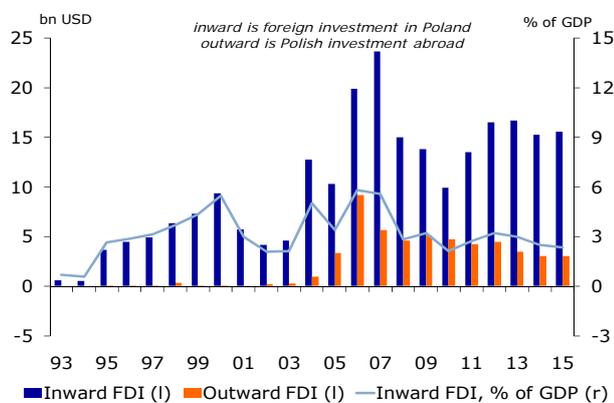
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Investment, of which USD 11bn in food processing and USD 8.4bn in automotive⁵⁷. These investments have made foreign companies an important player in the production of exports. About USD 35bn of foreign investment had gone to the financial sector end-2009. The Economist Intelligence Unit expects inward FDI to be around 2-3% of GDP per year in the medium term.

The Netherlands are the largest investors in Poland (USD 33bn end-2009) before Germany (USD 30bn), Luxembourg, France, US, Sweden and UK⁵⁸. More than 90% of the investment is done by companies headquartered in Europe. Around 2% of total FDI has come from Asia, mainly Japan and South Korea (Daewoo). However, interest from China is rising, especially in the construction sector. The Polish infrastructural investment drive is attracting Chinese construction companies and it is said that they see Poland as a stepping stone for Europe. This is, however, not without problems, as was shown around the construction of the A2 road. Chinese companies had won the tender – the Polish government was excited about the low prices it had to pay – but the Chinese underestimated the work and quit when they discovered that the work could not be done for the agreed price.

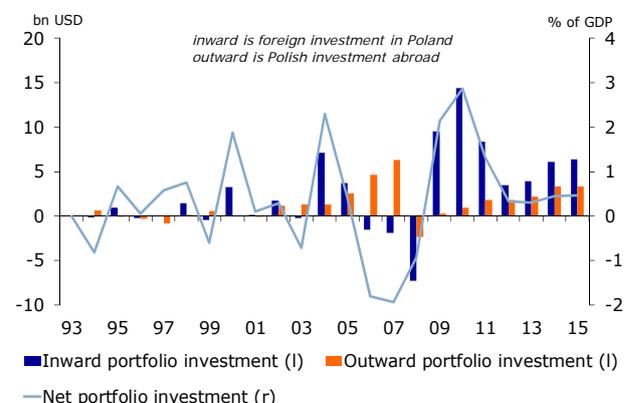
Portfolio investment is becoming more important in Poland (figure 46). The growing role of the Warsaw stock exchange in Central Europe and rising number of IPOs have attracted foreign investors to the bourse in Poland. However, by nature, this source of foreign capital is volatile and depends on market sentiment and investment opportunities. For example, in 2008, many foreign investors withdrew their money from Poland and Polish investors returned their capital to Poland. In 2010/11, Poland received (and is receiving) large sums of portfolio investment on the back of excess liquidity in the western countries and the strong performance of the economy.

Figure 45: Foreign direct investment (FDI)



Source: Economist Intelligence Unit.

Figure 46: Portfolio investment



Source: Economist Intelligence Unit.

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Outlook: The large domestic market, proximity to the eurozone and the rest of the EU and relatively inexpensive, skilled-labour force will continue to attract FDI to Poland. If the business environment is improved, this would likely stimulate interest further. Moreover, the government still has substantial assets, which could be interesting for foreign investors. However, the speed of the privatization drive is unknown and the government is likely to sell its stake through IPOs at the stock exchange rather than directly to foreign companies. This could be an important stimulant for portfolio investment. The bulk of foreign investment is expected to come from greenfield operations and reinvestment. Outward FDI is still small, but growing. Polish firms are expected to invest increasingly in Central and Eastern Europe.

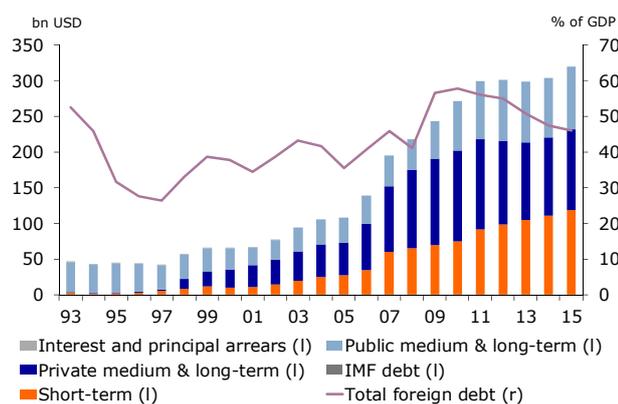
5.4 External debt and foreign exchange reserves

- Foreign debt is currently around 55% of GDP.
- Composition of foreign debt changed to more private debt and shorter tenors.
- Foreign exchange reserves grew to USD 110bn.

Foreign direct and portfolio investment have not been able to cover Poland's external financing needs. Therefore the country covered its requirements by borrowing abroad. As a result, the external debt stock of Poland has been rising (figure 47). In 2011, foreign debt is expected to be almost USD 300bn. In relative terms, external debt is forecast to be 56% of GDP.

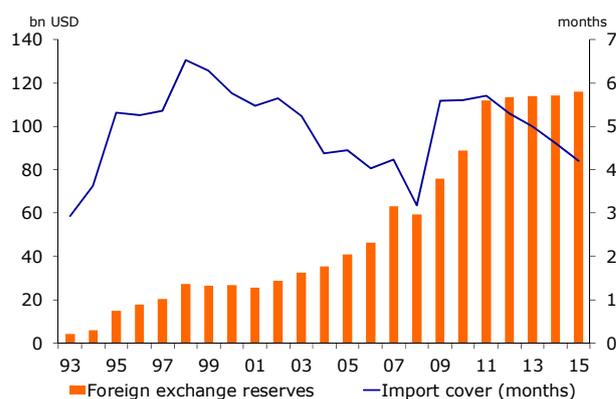
The composition of Poland's external debt has changed substantially in the past 20 years. In the first half of the 1990s, the government was the main debtor and practically all external debt was medium to long-term. With the rise of the private sector, the government's part shrunk and the private sector took over. Moreover, the proportion of short-term debt started to rise, in line with more trade and more parent-daughter bank lines. Currently, about a third of external debt is short-term. A substantial part of Poland's external debt is owed by Polish daughter banks to their foreign parents. This provides a mitigant as foreign

Figure 47: Foreign debt



Source: Economist Intelligence Unit

Figure 48: Foreign exchange reserves and import cover



Source: Economist Intelligence Unit

5. External position

parent banks are expected to roll-over debt more easily. However, it is also a channel of potential contagion if troubles arise in western banks.

Poland did not only accumulate debt, but also foreign exchange (FX) reserves (figure 48). End-2011, the FX reserves are expected to be USD 111bn. To put it in perspective, this would cover about 6 months of Polish imports. This is fairly comfortable, as 3 months is generally seen as the minimum.

Outlook: Poland is expected to meet its external financing needs in the coming years through new debt and rolling over of existing debt. The level of external debt is expected to be around 50% of GDP in the coming years. The FX reserves are expected to level out at around USD 115bn. This would imply an import cover of around 4 months, which suggest that the liquidity position of Poland is acceptable. When Poland joins the eurozone, the FX reserves will partially be transferred to the European Central Bank and partially be reclassified (as the euro would no longer be a 'foreign' currency). The level of external debt is not affected technically, as Poland will still have its debt to foreign parties. However, the debt structure becomes much more favourable, as part of the debt is then denominated in the 'own' currency, namely euro. As a result, the external debt level is generally no longer reported for eurozone countries, reflecting the major improvement in the external position after euro introduction.

6. SWOT Analysis

In this chapter, a SWOT analysis is made of Poland based on the information provided in the previous chapters. A SWOT analysis is a management tool used to identify the current Strengths and Weaknesses of Poland and future Opportunities and Threats for Poland. The SWOT analysis of Poland is given below (table 7) and each category is explained in the next sections.

6.1 Strengths

The strengths of Poland are:

1. Large internal market.

Poland has a sizable population of 38 million inhabitants. Their income is expected to double in the next decade. Moreover, there is a growing middle class in Poland (good for consumption capacity) and the country already has a solid SME sector (good for job creation). This means that Poland is less dependent on foreign demand to create economic growth and that the country is an attractive destination for companies looking for consumer markets.

2. EU membership

Accession to the EU has provided a solid, continuous anchor for reforms and EU entry has eased access to foreign credit and EU markets, as well as facilitated foreign investment. Moreover, Poland is currently the largest net receiver of EU funds, which is used to boost infrastructure improvements and support the rural population.

3. Stable democracy

Notwithstanding major differences between the main parties on certain areas, the general direction of Poland is commonly shared. The return to massive state intervention or withdrawal from the EU are therefore highly unlikely. This rather predictable government climate has resulted in a very workable environment for businesses and people in Poland.

Table 7: SWOT analysis of Poland

Strengths	Weaknesses
1. Large internal market. 2. EU Membership 3. Stable democracy 4. Macroeconomic stability 5. Low labour costs 6. Abundance of (semi-)skilled labour 7. Steady convergence path	1. Lagging business environment 2. Poor infrastructure 3. High structural unemployment 4. Low labour productivity (growth) 5. Low productivity in agriculture 6. Sustained current account deficit
Opportunities	Threats
1. Increase participation rate 2. Stimulate investment in human capital 3. Improve access to financial services 4. Strengthen financial sector 5. Introduce the euro 6. Exploitation of shale gas	1. Ageing population 2. Slow growth in Western Europe 3. Deterioration of fiscal situation 4. New EU budget 5. Stalling privatization 6. Electricity shortage

6. SWOT Analysis

4. Macroeconomic stability

Closely related to the stability in government is the macroeconomic stability. A stable macroeconomic environment is vital to the development of the economy. After turbulent years during the transition, the macroeconomic environment in Poland has stabilized. Inflation is rather low, the exchange rate shows acceptable fluctuations, interest rates are relatively low, and economic growth fluctuates within normal parameters. Only the fiscal situation and current account balance could be a source of concern, especially when these balances show a twin deficit.

5. Low labour costs

The labour costs in Poland are relatively low compared to the other EU countries. Moreover, the increase of labour costs has stabilized since 2000. This gives Poland a competitive advantage over other countries in the region.

6. Abundance of (semi-)skilled labour

Almost 90% of the Polish adults have a medium or high degree. This means that there is an abundance of (semi-)skilled labour at relatively low labour costs.

7. Steady convergence path

In the past two decades, the difference in income between Poland and Western Europe has slowly but steadily decreased. This means that per capita income is growing constantly.

6.2 Weaknesses

The weaknesses of Poland are:

1. Lagging business environment

The business environment is generally considered more difficult than in neighbouring countries. In order to stimulate local businesses and increase its attractiveness for foreign investors, Poland will need to address the issues affecting their business environment. Cutting red tape and simplifying procedures as well as speeding up judicial procedures and improving skills are key.

2. Poor infrastructure

For European standards, the infrastructure of Poland is poor, especially in rural areas. Investment is needed not only in railways and roads, but also in water and waste water facilities, and electricity provision and generation.

3. High unemployment

Unemployment is stubbornly high in Poland. This is not evenly spread across the country, as in northern and eastern provinces joblessness is higher. Moreover, the duration of unemployment is rather long, especially for certain groups - well-educated young people, low-educated persons and older people.

4. Low labour productivity (and productivity growth)

Labour productivity in Poland is low. Not only compared to Western Europe, but also in comparison to NMS, Poland has a relatively low level of production. In

6. SWOT Analysis

fact, it has one of the lowest of all OECD countries. Moreover, the speed of productivity growth is relatively low considering the level of productivity.

5. Low productivity in agriculture

With a very extensive agricultural area, low usage of capital and in parts of Poland extensive crop farming, the productivity in the agricultural sector is relatively low. The underdeveloped land rent system, the social security system and limited access to long-term finance to acquire capital and knowledge are important reasons.

6. Sustained current account deficit

The current account deficit in Poland tends to be between 2-6% of GDP. In the coming years, little improvement is expected with strong investment spending. Moreover, Poland is vulnerable to developments in the eurozone and wider EU region, as the bulk of external demand stems from these countries. Financing for the current account also generally comes from EU countries, which is another way Poland is linked to developments in that region.

6.3 Opportunities

Poland has the following opportunities:

1. Increase participation rate

The participation rate is rather low at 65%, which suggests that Poland has much to gain in economic terms if it can increase participation. Inactivity is especially high among women, low-educated persons and 50+ age groups. Options are to increase the pension age of women to the men's level, increase the general pension age and/or reduce the exceptions for 'uniforms'. Research has shown that increasing the pension age will also reduce early retirement and thereby increase the participation rate among 50+. Another option is stimulate women to work more, but this will to a large extent also be culturally determined. Improving the relatively poor accessibility and availability of pre-schools, especially in rural areas, might be part of the solution.

2. Stimulate additional, but specifically directed, investment in human capital

If you want all the extra Poles (from opportunity 1) to actually get a job, rather than increase the pool of unemployed, you will need to facilitate investment in human capital. Currently, lifelong learning is about half of EU average. The lack of continuous schooling and retraining opportunities makes it more difficult for low-educated and older persons to find a job. Moreover, soft skills are generally not considered the stronghold of Polish employees and training is limited. Another reason why specific investment is needed is the educational mismatch. General spending on education seems sufficient to create universal education in Poland. However, students need to be stimulated to graduate in (health) science, mathematics and IT, rather than social sciences. Private schools are important in higher education, but these focus on social sciences, which tend to require less investment in buildings, appliances, laboratories, etc. Additional government spending, directed specifically at non-social sciences, might be

6. SWOT Analysis

needed to fill the gap. The issue of brain overflow would also be reduced, as this is a symptom of the mismatch in the labour market.

3. Improve access to financial services

Only half of the Polish population have a bank account, even less have a mortgage or business loan. Generally, in economic literature, it is assumed that greater access to financial services stimulates economic growth. Better access to finance for SMEs would fuel entrepreneurial initiatives, which could have a positive effect on unemployment, especially in rural areas. Longer and more complex finance structures are often required by the agricultural sector to boost productivity. Financial services to households would facilitate transactions, possibly smooth consumption/income curves (through short-term loans and insurance) and provide safe options for savings. There is no straightforward solution to increase access to financial services. Some households do not trust banks, for others the nearest bank office is too far away. The risk averse attitude of some banks limits access to finance for small business. And the development of more complex, tailor-made products is in its infancy at most banks, although knowledge transfers from foreign owners are helping. It is also possible that long-term financing is just unavailable to banks – see also opportunity 4. The issues are thus very diverse, but improving access could stimulate economic growth.

4. Strengthen financial sector.

If Poland is able to deepen and broaden its financial sector, this would create easier access to finance for the corporate sector. Moreover, it would improve availability of finance for projects requiring longer terms, such as infrastructure. A deeper financial market would also help to reduce the volatility of the Polish zloty. Increased liquidity is important for this development. The growing pension funds and insurance sector are expected to support the expansion of the financial sector.

5. Introduce the euro.

The introduction of the euro is expected to have a positive impact on growth through the facilitation of trade and investment. Moreover, euro adoption could provide a credible medium-term goal for fiscal consolidation. Political willingness to change the constitution and speed up fiscal consolidation are major obstacles. Perhaps, more importantly, the recent developments in the eurozone have warranted the wait-and-see policy of the government.

6. Exploitation of shale gas

If shale gas can be developed to be commercially interesting, this could provide Poland's economy, current account balance and fiscal balance a major boost. It is not expected that commercial exploration will become substantial before 2020, but it could in the longer term. There are however, also important obstacles. The exploration of shale gas is difficult and environmental issues are still substantial.

6. SWOT Analysis

6.4 Threats

Poland faces the following threats:

1. Ageing population

Around 2012, the active population will start to shrink while the number of elderly will rise rapidly. Without any action, the number of dependent people – especially if the inactive population is included – will increase sharply. This is expected to have a negative effect on the labour force, and thereby on economic growth. Moreover, as labour becomes scarcer, wages are expected to rise. This would jeopardize the unit labour costs of Poland, one of its key competitive advantages.

2. Slow growth in Western Europe

Slow economic growth in Western Europe, and especially if the region is hit by another crisis or continued uncertainty, could seriously affect Poland's economy. The large internal market provides an important cushion against dips in external demand, but Poland is not an isolated country. An extended low growth path in Western Europe will hurt Poland not just through lower external demand, but also via less foreign investment and less availability of foreign credit. The latter two were important growth drivers in the past years. Stricter banking regulation in Basel III will be felt in Poland directly, but also indirectly, as parent banks will be less generous in extending intercompany credit.

3. Deterioration of the fiscal situation

While the government seems to get the fiscal balance in the right direction, Poland is at risk of a deteriorating fiscal situation. A major issue that the government faces is how to get spending of local governments under control. Moreover, in the longer term, pension contributions might need to be increased if pressure on politicians swells over declining pension benefits. From a totally different angle, if the scenarios as mentioned in threat 2 prove to be correct, this will depress tax revenues and increase social transfers. During the global financial crisis, government support for the banking sector was not necessary, but this could change. Foreign parent banks might hit a rough spot, if the situation in the eurozone deteriorates. Then the Polish daughters might need support.

4. New EU budget

The current EU budget period, in which Poland is a net receiver of funds, runs from 2007 to 2013. Discussions about the next budget period 2014-2020 have already started in Brussels, but the contours are still rather vague. Rumour has it that the total budget might be decreased. Moreover, it is rather likely that the agricultural policy will be overhauled. Although it is unclear what the exact figures will be, there is a reasonable chance that fewer funds will be labelled for Poland in the next period. As it is very unclear how large the change will be, it is difficult to assess what the impact will be on the fiscal situation as well as progress on structural improvement.

6. SWOT Analysis

5. Stalling privatization

Although the impact of the financial crisis on the fiscal situation has renewed interest in the necessity of privatization, the risk of stalling privatization is very present. In the very short term, the elections of October provide little incentive to speed up the process. In the medium term, the limited support from various (opposition) parties as well as public dissatisfaction will make it more difficult to pursue substantial reforms. This could have a negative impact on public finances and is also a missed chance to support development of the private sector, attract FDI and increase efficiency in the economy.

6. Electricity shortage

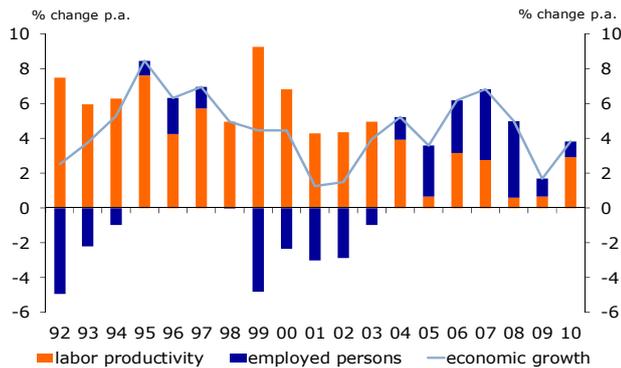
The largest power companies in Poland need to be restructured to improve efficiency and guarantee the ability to fulfil demand in the long term. Moreover, investment in diversification is needed to reduce the concerns over energy security. A third factor is that if the demands for sustainability of the energy sector become stricter (e.g. if EU emission standards are set higher), this will require a huge investment in the energy sector. If too limited attention is given to the energy sector, it may restrict future economic growth through shortage of electricity, high energy costs and/or fines from the EU.

7. Economic scenarios

In this chapter we look at the long-term economic growth expectations for Poland. After looking at the historical development of economic growth and the growth drivers (section 7.1), we present our baseline scenario for the economy

(section 7.2). In section 7.3, several positive and negative shocks are given to develop different scenarios. We use the econometric NiGEM model⁵⁹ to assess the possible impact. The tested shocks are: (1) increased labour participation, (2) higher emigration, (3) depreciation of the zloty, (4) early EMU entry, and (5) higher oil price.

Figure 49: Historic growth drivers – labour and productivity



Source: NiGEM/Rabobank

7.1 Historical development

Before looking at the potential future development of economic growth, we take a closer look at the historical path. In the short term, economic growth is determined by sentiment, cyclical changes and the output gap. In the medium to long term, the growth

potential of an economy is essentially determined by structural factors such as productivity and availability of production factors labour and capital. In figure 49, a breakdown of Poland's economic growth is given for the past two decades. From the transition in the early 1990s to 2003, labour productivity growth was the main driver of economic growth. During the 1990s, productivity growth was more the result of shedding out unproductive workers (hence, the fast increase in unemployment) than the result of technological advancement. In the 2000s, the productivity growth was 'real'. From 2004 onwards, the 1980 baby boomers entered the labour market, thereby boosting economic growth.

7.2 Baseline scenario

Our baseline scenario of Poland is based on the same two key factors as mentioned in the previous section; the labour productivity growth and the labour force. Below, we first look at the labour productivity and then at how many people will participate. When combined, we expect that economic growth will be around 3% per year on average in the next decade, but gradually decrease to a level around 2% towards the end of the period. This level is the long-term structural growth rate, which means that due to cyclical factors, sentiment and output gap economic growth can be higher or lower in a certain year. See pages 68 and 69 for graphs on the baseline scenario.

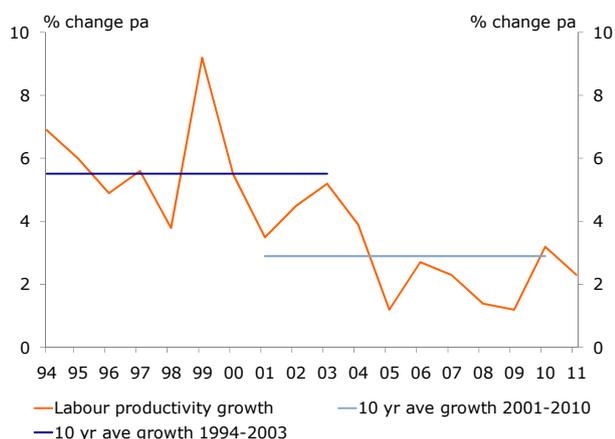
With regards to labour productivity, we expect that average productivity growth will be around 3.5% in the period 2012-2022, helped by gradual adoption of modern ICT and improvements in business environment. This productivity level is well above the expectations for most 'old' EU members and on par with many NMS countries. In the period 2001-2010, average productivity growth was 2.9%

7. Economic scenarios

(figure 50). It could be higher in the next decade, if Poland receives a boost of foreign or domestic capital, or if innovation is strong in Poland. However, neither is very likely for several reasons. First, considering the lagging business environment indicators, it is not likely that Poland will outpace other CEE countries. Second, the state of the financial sector makes long-term financing and complex funding for innovation rather difficult. Third, EU entry provided Poland with a boost of foreign investment. A similar additional inflow of capital will be not easy to achieve, especially with the current situation in the Western European countries. Perhaps that eurozone entry would support investment in Poland again, but this is not expected until close to 2020 and will thus not help much to prop up the average productivity growth. Fourth, R&D spending in Poland is rather low, which will make it more difficult to move up the value chain (figure 51). There is also a significant chance that relatively easy innovations, so called low-hanging fruit, have been implemented in the past years already. More sophisticated, and therefore more difficult, innovations are needed to stimulate productivity growth in the coming years.

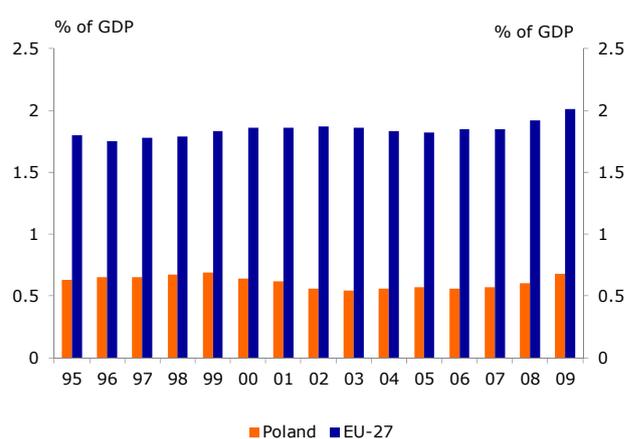
Turning towards the labour market, the most important development is the demographic trend. After 2011, the active population is expected to decline close to 1% per year on average. This would knock off one percent per year of economic growth, but there are some compensating factors. First, the labour participation rate is expected to increase. Reforms in the pension system and a higher participation grade of women could push the participation rate up to 67% in 2022. Second, the unemployment rate is expected to decline. If we assume that the labour market regulation becomes less restrictive and the educational mismatch is reduced and take into account the ageing population, unemployment could drop to around 5%. Combining these trends makes that the total employment, i.e. those who work, shrinks less fast than the working age population. In fact, the sharp drop in unemployment increases total employment initially (see last graph on next page).

Figure 50: Historical productivity growth



Source: Economist Intelligence Unit

Figure 51: R&D spending

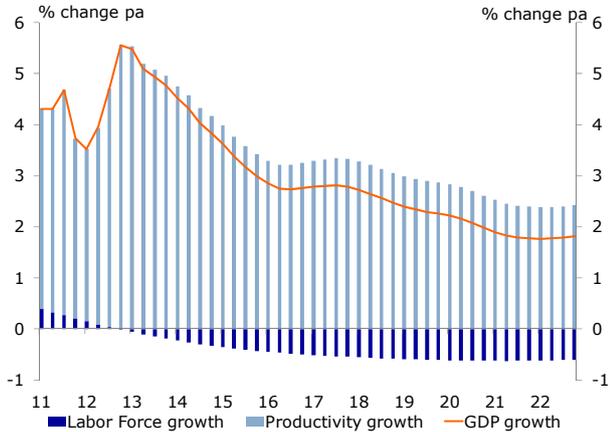


Source: Eurostat

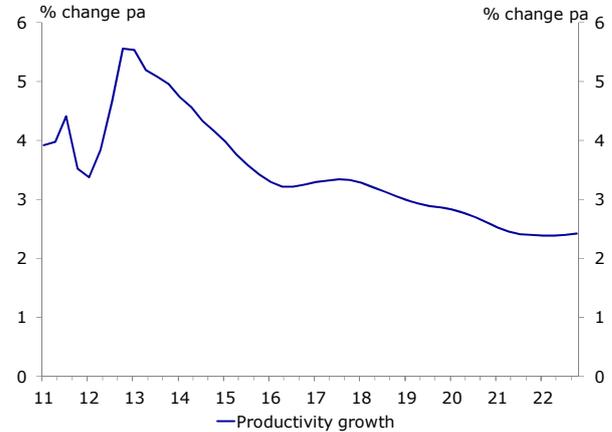
7. Economic scenarios

Baseline scenario – Economic growth

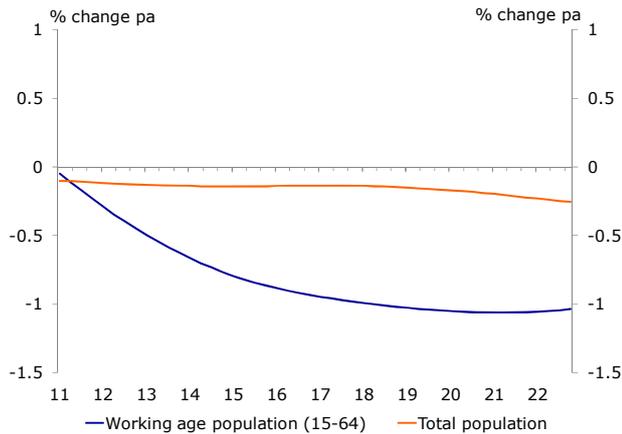
Based on labour productivity and employment growth, growth is around 3% per year on average.



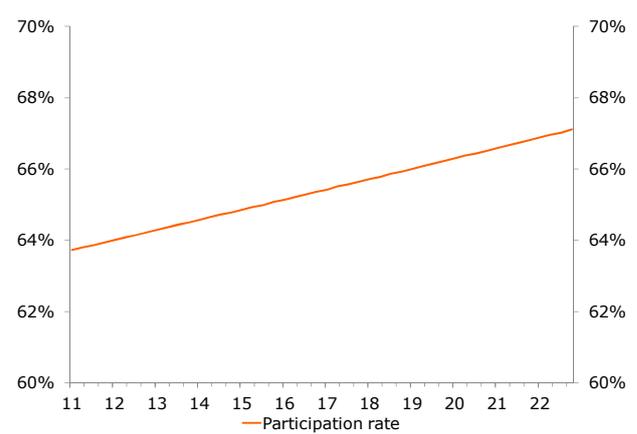
Labour productivity growth is around 3.5% per year on average.



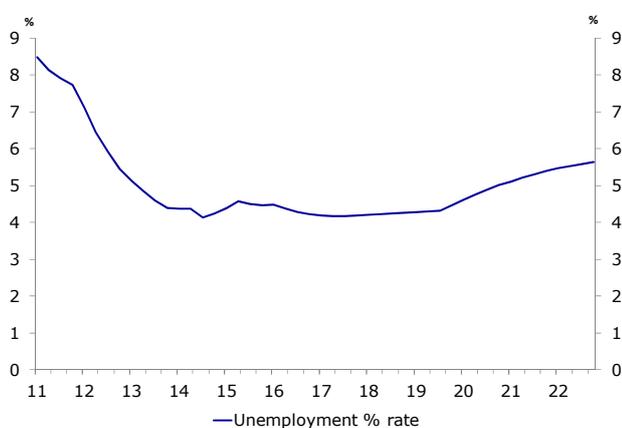
Working age population contracts by close to 1% per year, but ...



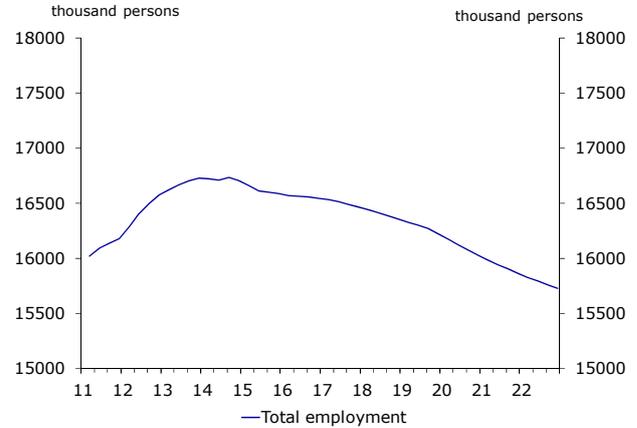
... participation rate increases to 67% ...



... and unemployment drops to 5-6%.



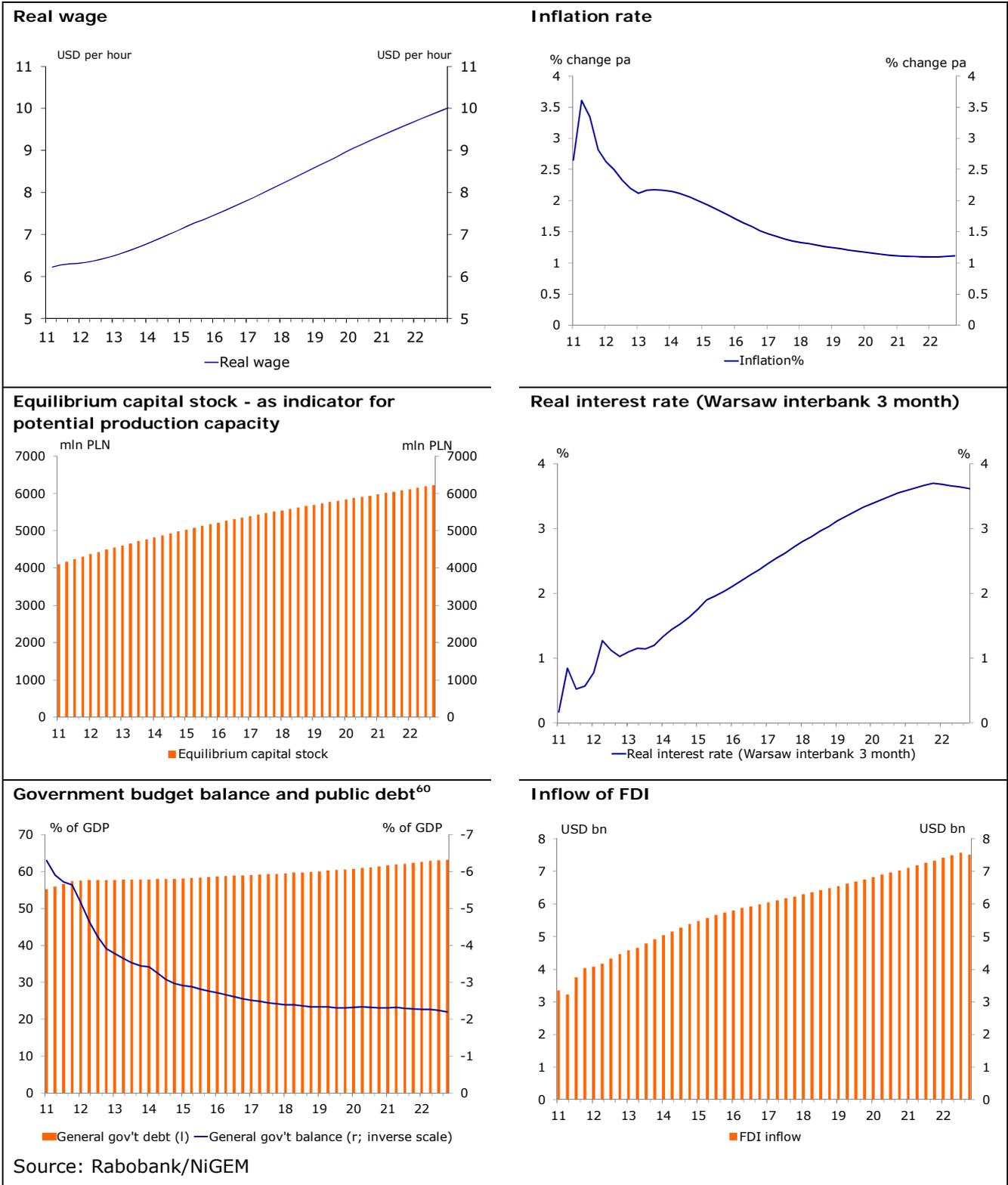
Employment benefits from lower unemployment, but is affected by shrinking WA population.



Source: Rabobank/NiGEM

7. Economic scenarios

Baseline scenario – Some key indicators



7. Economic scenarios

7.3 Different scenarios

To see how the economy of Poland reacts in different circumstances, we have applied several shocks to the baseline scenario. The econometric NiGEM model⁶⁷ is used to assess the possible impact. The tested shocks are: (1) increased labour participation, (2) higher emigration, (3) depreciation of the zloty, (4) early EMU entry, and (5) higher oil price.

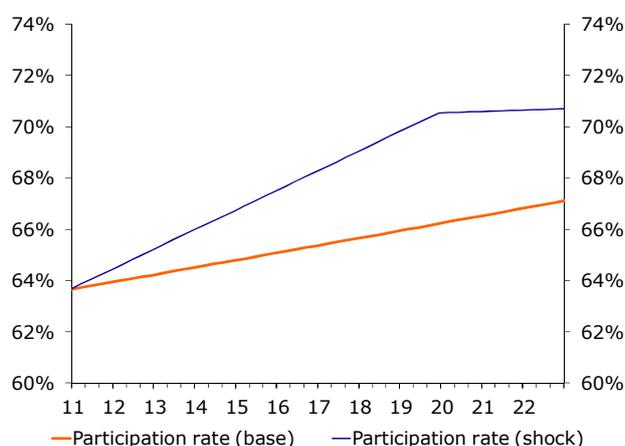
Due to modelling constraints, shocks are applied in 1Q2011. Although this means that the real results in 2011 are misrepresented, for the single purpose of ascertaining the effects of a shock on the Polish economy, this method is reliable.

There is no such thing as "the NiGEM simulation results suggest", but rather "under these assumptions the NiGEM simulation results suggest". This means that in reality, shocks could work out differently. For one, the model is a very comprehensive, but still simplified version of reality. Second, in the very long term, the model gradually adjusts towards an equilibrium after a shock. The speed of adjustment will depend on distance from equilibrium. In reality, the economy can structurally alter over time and thus get a different equilibrium.

7.3.1 Scenario I: Increased labour participation

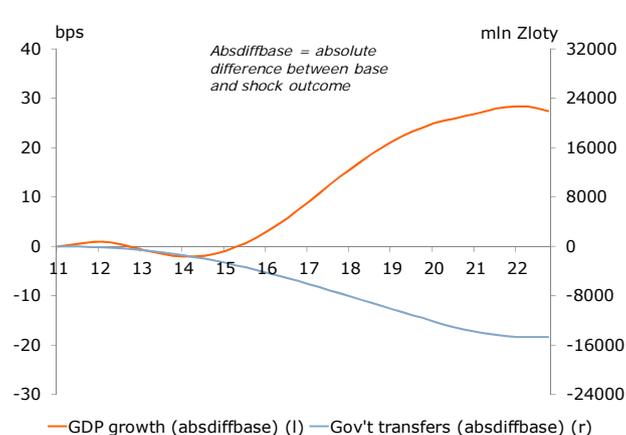
One of the key reasons for a lower economic growth path in the baseline scenario is the shrinking working age population. An opportunity for Poland is to increase the labour participation. In the baseline scenario is assumed that the participation rate slowly rises. In this variance we have sped up this development.

Figure 52: Participation rate increases to eurozone average in scenario I, ...



Source: Rabobank/NiGEM

Figure 53: ... which results in higher GDP growth and lower government transfers.



Source: Rabobank/NiGEM

7. Economic scenarios

Shock:

It is assumed that the labour participation rate increases from the current level to the eurozone average in 2020 (figure 52). This leads to 1.1 million extra workers in 2020 in this scenario compared to the baseline scenario.

Outcome Scenario I:

Higher labour participation expands the labour force, as the labour force is determined by taking the working age population times the participation rate. Initially, unemployment rises, but falls again in the second half of the decade when the market reacts to lower wages. Real wages are lower than in the baseline scenario, as more people enter the labour market. Government transfers (mainly social benefits) are lower than in the baseline scenario. Employment increases permanently, which translates into higher potential production and higher GDP in the long run. The main driver of a larger GDP is private consumption, which increases as more people work and they, in total, earn more. After 2015, when the economy had time to adjust in terms of wages and (un)employment, economic growth in scenario I is on average about 20bps higher than in the baseline scenario. For the period 2012-2022, the average extra growth is 11bps.

Conclusion:

Increasing the labour participation rate is expected to increase the GDP level and annual economic growth up to 2022 compared to the baseline scenario. A benefit to the fiscal sustainability is that the government transfers are lower than in the baseline scenario (figure 53).

7.3.2 Scenario II: Higher emigration

In its population projection 2008-2035, GUS assumes that net migration will decline and that Poland even becomes a net immigration country around 2020 (see also section 2.9). However, in this scenario we would like to see what the effect would be of stronger than expected emigration. Emigration is modelled by decreasing the working age population. This scenario can therefore also be used to analyze the effects of other causes for a smaller working age population.

Shock:

The shock in this scenario is created by decreasing the working age population (WA population; 15-64 years) with 80,000 persons in 2011, 70,000 persons in 2012, etc.. In 2018, the final shock is added by decreasing the WA population by 10,000. In total, the WA population is permanently lowered by 360,000 people (figure 54). Admittedly, this is a substantial net emigration number, but smaller figures yielded no results.

7. Economic scenarios

Outcome Scenario II:

Stronger emigration decreases the size of the WA population, which leads to a smaller labour force. In the short to medium term, unemployment declines, but in the longer run, this difference between the baseline and scenario II disappears. Real wages increase as the number of workers decline. The smaller labour force translates into lower potential production and lower GDP levels in the long term. Private consumption is the factor that contributes most to the difference between the baseline and scenario II. As less people work, they will earn –in total– less. However, the impact on economic growth is very limited. The yoy change in GDP differs from the baseline scenario in the range +2bps and -7bps (figure 55). This means that over the next decade, extra migration supports economic growth by 0.2% in the beginning, but in the longer run it pushes growth down by 0.7%.

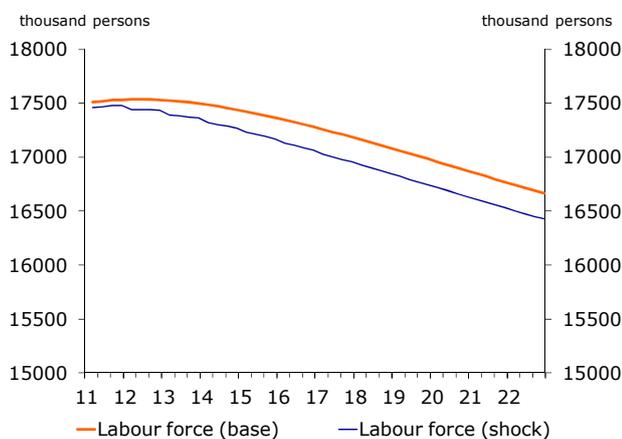
Conclusion:

The emigration figures used in this scenario are probably higher than can be expected in reality. But even with the substantial net emigration used, the impact on the GDP level is rather limited and on economic growth is almost negligible. In case of higher immigration (returning Poles and foreigners coming to Poland), scenario I can be used to look at the effect of a larger labour force.

7.3.3 Scenario III: Depreciation of the zloty

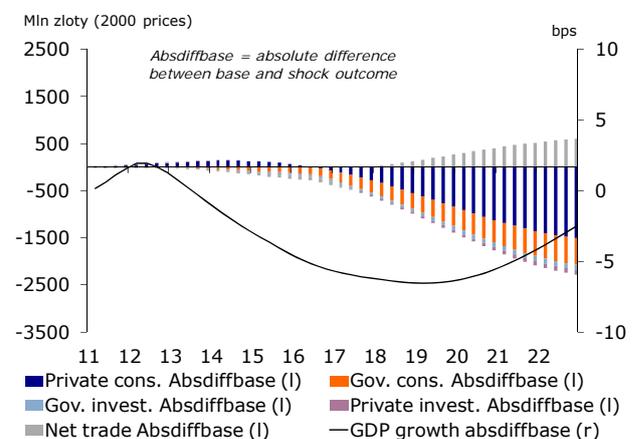
Although Poland is generally not characterized as an open economy, the external sector is still important. Moreover, the country imports essential goods, such as food and fuel, as well as capital and consumption goods. Also in other areas, the value of the zloty impacts Poland. For example, the public debt level will rise when the zloty depreciates considering the share of foreign currency-denominated public debt. In this scenario we look at the impact of a sudden depreciation of the zloty.

Figure 54: Extra emigration in scenario II cuts the labor force..



Source: Rabobank/NiGEM

Figure 55: ... which affects private consumption most.



Source: Rabobank/NiGEM

7. Economic scenarios

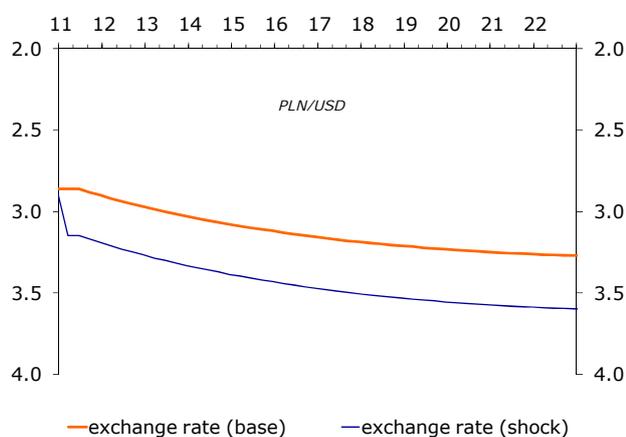
Shock:

The shock in this scenario is created by depreciating the zloty against the USD by 10% in the first quarter of 2011 (figure 56). It is a one-time depreciation, which means that after the shock the zloty runs parallel to the path in the baseline scenario (it does not move back to the path of the zloty in the baseline scenario, but always stays 10% lower).

Outcome Scenario III:

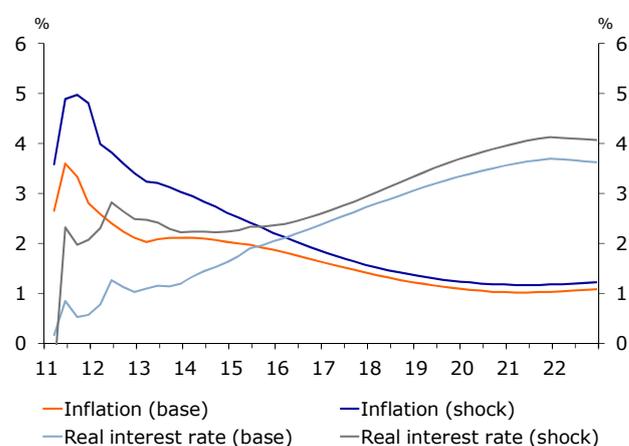
A depreciation of the zloty will make imported goods and services more expensive, while Polish export goods and services become more attractive abroad. As the zloty remains 10% below the baseline scenario, the advantage to export competitiveness holds. This benefits the current account balance and economic growth. Inflation is expected to increase rapidly in the short term and stay elevated in the medium term. Around 2018, inflation will be close to the baseline path, but still slightly elevated (figure 57). It is modelled that in response to the higher inflation, the central bank will increase its policy interest rate. This will trigger an increase in the 3-month real interest rate as well as the 10-year interest on government bonds. Both government investment and private investment are expected to decrease compared to the baseline scenario due to the higher interest rates, although the effect on the government is very limited. As a result of the lower investment levels, the capital stock, and therefore potential production capacity, is expected to be smaller in this scenario than in the baseline scenario. The overall effect on GDP is twofold. On the upside, higher export demand pushes GDP up. On the downside, private consumption and private and government investment are lower, thereby pushing GDP down. On balance, the former upside impact tends to be larger than the latter downside impact. GDP is thus larger in most years in scenario III than in the baseline scenario. Economic growth shows a similar pattern. It is about 50bps higher initially, dips below the baseline scenario thereafter,

Figure 56: Depreciation of the zloty against the US dollar in scenario III, ...



Source: Rabobank/NiGEM

Figure 57: ... is beneficial to trade, but pushes up inflation and triggers higher policy rates.



Source: Rabobank/NiGEM

7. Economic scenarios

while after 2017 economic growth is about 10-20bps higher. On average, GDP growth is pushed up by about 5bps.

Conclusion:

The impact of a depreciation is not straightforward. On the one hand, the current account balance improves, which can be considered as positive. On the other hand, inflation and thereby interest rates increase. Via the effect on investment, the depreciation has a negative effect on Poland.

In this scenario, we administered a depreciation of 10%. If issues in the eurozone deteriorate significantly, a weakening of the zloty of more than 10% is not unthinkable. In this case, the negative impact of a depreciation is expected to outweigh the benefits. Among others, export competitiveness might benefit from a weaker zloty, but with very weak external demand from the eurozone this has little use.

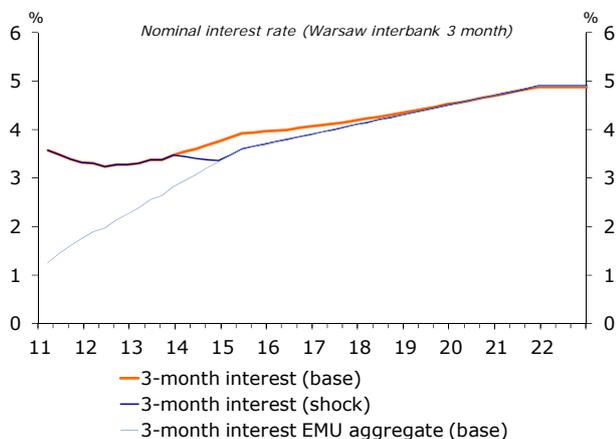
7.3.4 Scenario IV: Early eurozone entry

We think that the euro adoption by Poland will not happen until well into the second half of this decade, i.e. around 2018 or 2019. However, we were curious to see what the impact would be of early eurozone entry. Taking in mind the two-year waiting period in the ERMII, the first possibility of EMU entry would be in 2014.

Shock:

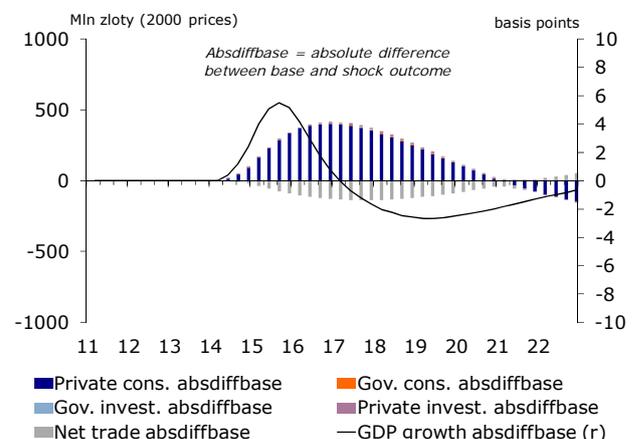
To simulate the effect of eurozone entry on 1 January 2014, we have let the 3-month nominal interest rate in Poland converge to the EMU average in 2014 (figure 58). The convergence is achieved in the period 1Q2014 through 4Q2014. We used the interest rate convergence because this is one of the more prominent effects of euro adoption – although in the current eurozone crisis full

Figure 58: Interest rate converges quicker with eurozone average in scenario IV, ...



Source: Rabobank/NiGEM

Figure 59: ... with initially some positive effects, but overall limited impact.



Source: Rabobank/NiGEM

7. Economic scenarios

interest rate convergence is not observed. Other possible effects on trade, labour market, fixed zloty, etc are not modelled explicitly in this scenario.

Outcome Scenario IV:

After 1Q2014, the interest rate declines compared to the baseline scenario, as it converges to the average interest rate in the EMU. After 1Q2015, it starts to rise again, in line with the EMU average. Lower interest rates create the expectation of stronger economic activity and therefore push inflation expectation up. This translates into a slight increase of the 10-year interest rate on government bonds. Despite the higher inflation expectations, inflation is not expected to be much higher in this scenario, although it is slightly elevated at the start of the decade compared to the baseline scenario. Private consumption, private investment and government spending benefit from the lower interest rate in the beginning, but this effect wanes later (figure 59). The difference in GDP level and GDP growth is also very small. On average, economic growth is depressed by 2bps in the next decade.

Conclusion:

The effect of interest rate convergence in 2014 on economic indicators is very limited. In the NiGEM model, it is already assumed that the interest rate of Poland and EMU will converge between 2015 and 2018/19. In other words, euro adoption is expected around that time in the baseline scenario. The decrease of 24bps between the baseline scenario and scenario IV is too small to make a large impact. This suggests that Poland would not benefit much from attempting to speed up the process of euro adoption. However, if Poland would delay eurozone entry well beyond 2018, it could negatively affect the economy if the interest rate remains above the EMU average.

7.3.5 Scenario V: Higher oil price

A quarter of Poland's energy needs are imported. For fuel, this percentage is much higher. Therefore we were interested in the impact of a higher oil price.

Shock:

In this scenario the oil price per barrel is increased by USD 20 in 1Q2011 (figure 60). It is a one-time increase, which means that after the shock, the oil price runs parallel to the path of oil price as modelled the baseline scenario (i.e. always USD 20 higher than in the baseline scenario).

Outcome Scenario II:

A higher oil prices affects the Polish economy through several channels. First, it pushes inflation up immediately. In the longer run, inflation dips below the baseline scenario as economic activity slows. Second, higher oil prices make imports more expensive, which leads to lower import volume in the medium term – via the age-old supply and demand function. Third, elevated prices for oil put a break on the economy, both domestically and abroad. Via lower economic

7. Economic scenarios

activity abroad and loss of competitiveness (due to inflation), it is assumed that demand for Polish products will decrease. Fourth, an increase in oil prices should lead to a substantial reduction in energy intensity (figure 61). Oil, gas and coal consumption is expected to decline 1 percentage point extra in this scenario. Overall, higher oil prices are expected to have a negative effect on the current account balance in the near to medium term, but a positive effect in the long run. The impact on GDP will be negative, as consumption and investment are lower, despite the positive contribution of net trade. This effect is also visible in economic growth, which is below the baseline scenario up to 60bps in 2013. The difference is reduced to less than 10 bps after 2016 – on average, it will knock 20bps of economic growth.

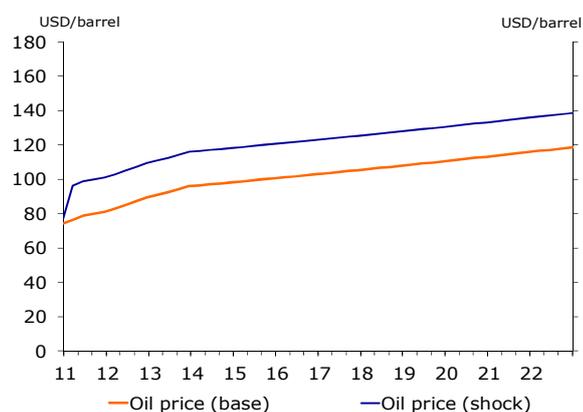
Conclusion:

A permanent increase of USD 20 per barrel is expected to have a negative impact on Polish GDP. As it works through multiple channels, the effect is rather substantial. The positive impact on the current account balance in the long run cannot compensate the other negative side effects. A positive side-effect is the reduction of oil and gas intensity, which would help Poland to achieve emission targets – admittedly this comes at the cost of economic growth.

7.3.6 Comparing scenarios

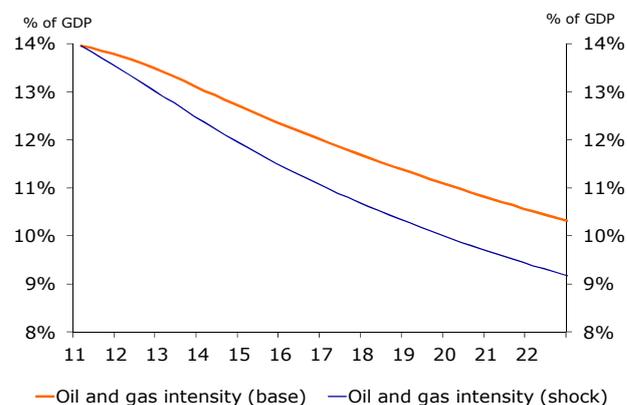
The overall image that sticks is that the impact of the shocks on individual indicators might be substantial in the different scenarios, but the overall impact on GDP and GDP growth tends to be rather limited. The oil price increase is expected to have the largest negative effect (-20bps on economic growth) and higher participation rate the most positive impact (+11bps). This fits with the image of “Fish nor Fowl” portrayed in the subtitle. Poland’s large domestic market provides a cushion towards the shocks applied, which makes the country less sensitive to crisis. On the other hand, trying to boost economic growth is also rather difficult.

Figure 60: Oil prices rises by USD 20/barrel permanently in scenario IV, ...



Source: Rabobank/NiGEM

Figure 61: ... which reduces oil and gas intensity at the cost of lower economic growth.



Source: Rabobank/NiGEM

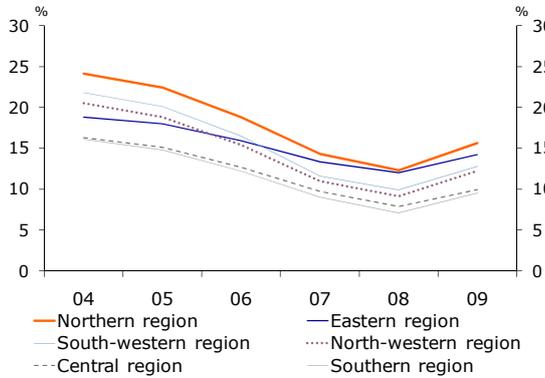
7. Economic scenarios

It should be noted that we consider the shocks to the baseline scenario feasible and realistic, but certainly not exhaustive. Some will require significant effort (e.g. higher participation rate). And others might be grossly under- or overestimated (e.g. oil prices and the zloty). The past few years have shown that large volatility might not be common, but still probable.

Another note to the scenarios above, if eurozone problems deteriorate rapidly or if another global financial crisis materializes, the Polish economy is expected to be affected - possibly more than in the scenarios above. However, as the timing and appearance of a crisis is impossible to model, this is not used as scenario. Please refer to threats 2 and 3 (p. 64) to see how Poland could be affected.

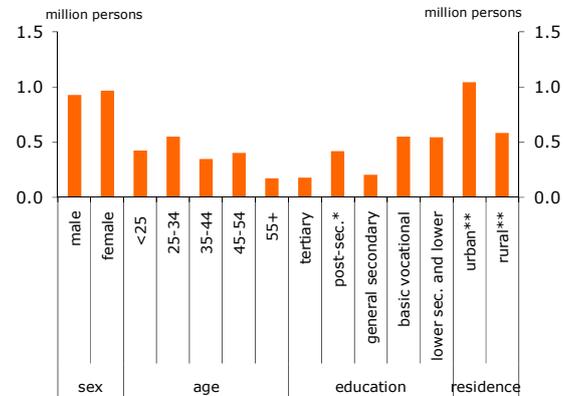
Annex 1

Figure a: Unemployment rate by region



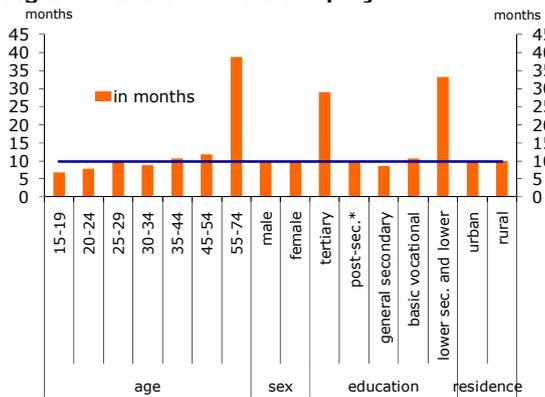
Source: GUS
Data: 2004-2009

Figure b: Unemployment by sex, age, education and residency (persons)



Source: GUS
* Post-secondary & secondary vocational
Data: 2009, ** data 3Q2010.

Figure c: Duration of unemployment



Source: Labor Forces Survey
* Post-secondary & secondary vocational
Data: 3Q2010

List of abbreviations

CEE	Central and Eastern Europe
EC	European Commission
EBRD	European Bank of Reconstruction and Development.
EU	European Union (27 states; if not, this is mentioned)
EU-10	The EU members as per 1 January 1981, i.e. Belgium (BE), Denmark (DK), France (FR), Germany (DE), Greece (GR), Ireland (IE), Italy (IT), Luxembourg (LU), the Netherlands (NL) and United Kingdom (UK).
EU-15	The EU members before the NMS joined, i.e. EU-10 plus Austria (AT), Finland (FI), Portugal (PT), Spain (ES), and Sweden (SE).
EMU	European Monetary Union. EMU and eurozone area are used interchangeably in this paper.
GUS	Główny Urząd Statystyczny (Central Statistical Office)
IPO	Initial Public Offering (at the stock exchange)
KNF	Komisja Nadzoru Finansowego (Financial Supervision Authority)
KRUS	Kasa Rolniczego Ubezpieczenia Społecznego (Agricultural Social Insurance Institute)
NATO	North Atlantic Treaty Organization.
NBP	Narodowy Bank Polski (Central Bank of Poland)
NMS	New Member States; Countries that joined the EU in 2004 and 2007, i.e. Cyprus (CY), the Czech Republic (CZ), Estonia (EE), Hungary (HU), Malta (MT), Latvia (LV), Lithuania (LT), Poland (PL), Slovakia (SK), and Slovenia (SI) (2004); Romania (RO) and Bulgaria (BG) (2007).
OECD	Organization for Economic Co-operation and Development. Members: EU-15 and Australia, Canada, Chile, Czech Republic, Estonia, Hungary, Iceland, Israel, Italy, Japan, Korea, Mexico, New Zealand, Norway, Poland, Slovak Republic, Slovenia, Switzerland, Turkey, and United States.
Transition countries	The EBRD has labelled the following countries as transition countries: Albania, Armenia, Azerbaijan, Belarus, Bosnia & Herzegovina, Croatia, Estonia, FYR Macedonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Mongolia, Montenegro, Poland, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.
SWOT analysis	Management tool to analyze Strengths, Weaknesses Opportunities and Threats on an entity.
ZUS	Zakład Ubezpieczeń Społecznych (Social Insurance Institute)

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- European Bank of Reconstruction and Development (EBRD): www.ebrd.com
- European Union: different sites, e.g.:
 - o www.funduszeuropejskie.gov.pl
 - o http://ec.europa.eu/budget/prior_future/fin_framework_en.htm
 - o <http://ec.europa.eu/social/main.jsp?catId=466&langId=en>
- Eurostat: <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>
- Heritage Foundation: www.heritage.org
- IHS Global Insight: www.ihsglobalinsight.com
- International Monetary Fund (IMF): www.imf.org
- Institute for International Finance (IIF): www.iif.com
- Komisja Nadzoru Finansowego (Polish Financial Supervision Authority): www.knf.gov.pl
- Narodowy Bank Polski (Central Bank of Poland): www.nbp.pl
- NATO: www.nato.int
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End notes

- ¹ Vossestein, 2006; Bideleux, et al, 2002.
- ² For a dynamic version of Territorial Changes of Poland, see http://en.wikipedia.org/wiki/Territorial_changes_of_Poland
- ³ Vossestein, 2006.
- ⁴ CIA factbook.
- ⁵ World Bank Development Indicators.
- ⁶ OECD, 2010a.
- ⁷ PISA stands for Program for International Student Assessment and is an international benchmark for student performance.
- ⁸ Rodriguez et al, 2009.
- ⁹ Rodriguez et al, 2009.
- ¹⁰ Labor productivity is the GDP produced per hour worked (i.e. GDP/worked hours). Unit Labor Costs (ULC) is the labor cost per unit of output (i.e. total labor costs/real output) (OECD).
- ¹¹ GUS, 2010; GUS, 2011.
- ¹² Tax wedge is income tax plus employee and employer social security contributions minus cash transfers (OECD).
- ¹³ Heritage Foundation.
- ¹⁴ OECD, 2011.
- ¹⁵ GUS, 2010; GUS, 2011; website GUS.
- ¹⁶ GUS, 2010.
- ¹⁷ For the first two years after the NMS joined the EU, countries that were already part of the EU were able to determine access to the labour market of workers from that country so that they may need a work permit. If a country wanted to continue to apply these restrictions for three more years, it had to inform the Commission before the end of the first two years. After that, countries could continue to apply restrictions for another two years if they inform the Commission of serious disturbances in their labour market; all restrictions must end after 7 years.
- ¹⁸ GUS, 2009; The Economist, 2006; Burrell, 2009
- ¹⁹ EU, 2010.
- ²⁰ World Bank, 2010b.
- ²¹ Beck, et al, 2000. Dataset used was revised in November 2010.
- ²² IMF, 2011.
- ²³ IMF, 2011.
- ²⁴ Institutional development was measured by looking at control of corruption, rule of law, regulatory quality and government effectiveness. All indicators are from the World Bank. See also section 3.6.
- ²⁵ EBRD, 2010a.
- ²⁶ EBRD, 2010a.
- ²⁷ The EBRD has labelled the following countries as Transition Countries: Albania, Armenia, Azerbaijan, Belarus, Bosnia & Herzegovina, Croatia, Estonia, FYR Macedonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Mongolia, Montenegro, Poland, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.
- ²⁸ EBRD, 2010b.
- ²⁹ EBRD, 2010a; Bank BGZ analysis.
- ³⁰ Under the current legislation the SKOKs are not considered to be banks and hence not supervised by the Polish Financial Services Authority and also formally the National Bank of Poland is not obliged to provide them with liquidity support in a case of liquidity shortage.
- ³¹ KNF website.
- ³² EBRD, 2010a; Bank BGZ analysis.
- ³³ EBRD, 2010b.
- ³⁴ ECFIN, 2010.
- ³⁵ KNF website.

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- ³⁶ EBRD, 2010a.
- ³⁷ EBRD, 2010a.
- ³⁸ OECD, 2010c.
- ³⁹ E.g. OECD, 2010c and NBP, 2009.
- ⁴⁰ EBRD, 2010a
- ⁴¹ Economist Intelligence Unit, 2011a.
- ⁴² EBRD, 2010b.
- ⁴³ The energy intensity ratio is determined by dividing the gross inland consumption by the GDP. Since gross inland consumption is measured in kgoe (kilogram of oil equivalent) and GDP in 1,000 EUR, this ratio is measured in kgoe per 1,000 EUR (Eurostat).
- ⁴⁴ In parentheses, the current number of seats in the Sejm. See also figure 34.
- ⁴⁵ Eurostat works with ESA95 standards. The main difference between ESA95 and national calculations is the inclusion of the National Road Fund (not included in national definition).
- ⁴⁶ World Bank, 2010a and 2010b.
- ⁴⁷ Tax wedge is income tax plus employee and employer social security contributions minus cash transfers (OECD).
- ⁴⁸ World Bank, 2010a.
- ⁴⁹ World Bank, 2010b.
- ⁵⁰ World Bank, 2010a and 2010b.
- ⁵¹ World Bank, 2010b.
- ⁵² World Bank, 2010b.
- ⁵³ EBRD, 2010a and 2010b.
- ⁵⁴ OECD, 2010b.
- ⁵⁵ OECD, 2010b.
- ⁵⁶ Economist Intelligence Unit, 2011.
- ⁵⁷ Economist Intelligence Unit, 2011.
- ⁵⁸ Economist Intelligence Unit, 2011.
- ⁵⁹ NiGEM (National Institute Global Econometric Model) is an estimated model, which uses a 'New-Keynesian' framework in that agents are presumed to be forward-looking but nominal rigidities slow the process of adjustment to external events. There is no such thing as "the NiGEM simulation results suggest" but rather, "under these assumption the NiGEM simulation results suggest". A dynamic error-correction structure on the estimated equations is used, which allows the model to adjust gradually towards equilibrium in response to a shock. The speed of adjustment will depend on expectations as well as distance from equilibrium.
- ⁶⁰ Please note that the NiGEM model does not recognize the constitutional thresholds. Therefore, the general government debt might be slightly higher in the model outcome than in reality. The trend of an increasing public debt, however, is expected to be realistic as the fiscal balance is expected to stay in deficit.
- ⁶¹ See endnote 59.

Colophon

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