

POLAND

Focus

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Editors: John Whalley (jwhalley@uwo.ca) and Chang Woon Nam (nam@ifo.de)

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POLAND

POLAND: COMBINING GROWTH AND STABILITY

ANDERS ÅSLUND*

Poland used to be the unfortunate battle ground at the center of Europe. Norman Davies (1982, xvi) named his great history of Poland *God's Playground* because of all the disasters that had befallen the nation. This phrase “can be aptly used as an epithet for a country where fate has frequently played mischievous tricks”. In the 18th century, Germans talked about *polnische Wirtschaft* (Polish economy), meaning bad economy, while Swedes used the term *polsk riksdag* (Polish Parliament) for political disorder.

The nation lost all independence from 1795 until 1918. In the interwar period it suffered from hyperinflation and economic stagnation. During World War II, it lost six million citizens, the largest share of any country. After the war, the Red Army occupied the country, and the Soviets guaranteed communist dictatorship until 1989. Poles reacted by emigrating in their millions.

Today everything has changed. Since 1989, Poland has become a consolidated democracy. In January 1990, Poland opted for a radical and comprehensive program of economic reforms that quickly created a market economy. From 1990 until 2011, Poland experienced the greatest economic growth in the former Soviet bloc in Europe by a wide margin. It more than doubled its GDP in real terms (see Figure 1). In 1997, Poland became a member of the North Atlantic Treaty Organization, and in 2004 it joined the Euro-

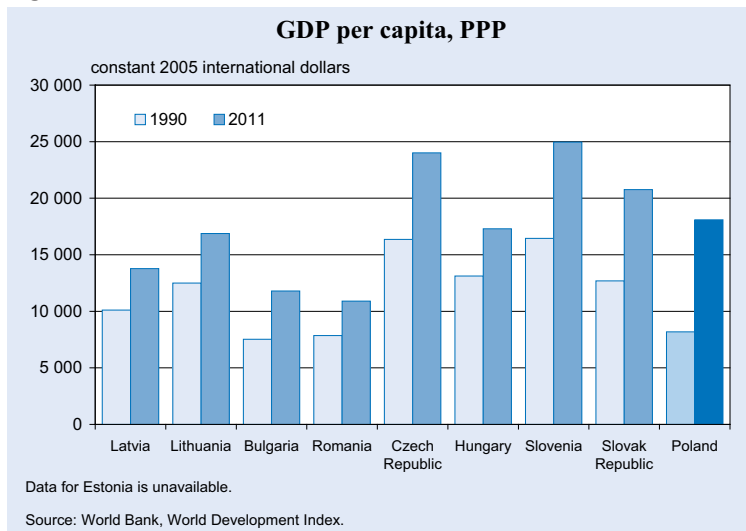
pean Union (EU). No post-communist country, possibly with the exception of Estonia, has been as successful as Poland (Åslund 2012). Never have Poles enjoyed two decades of such peace, freedom, welfare and happiness.

The aim of this article is to review major economic developments and compare Poland with its closest peers – the Czech Republic, Slovakia, and Hungary, as well as the three Baltic countries (Estonia, Latvia, Lithuania) and occasionally with Slovenia, Romania and Bulgaria, which together form the Central and Eastern European 10 (CEE10), the ten former communist countries that became members of the EU in 2004 or 2007. Throughout this paper unweighted averages are used, giving each country equal weight regardless of its size.

Poland's relative economic development from 1990 to 2012 falls into three different periods. In the post-communist transformation, 1990–2000 Poland persistently recorded superior growth. During the global boom from 2001–2007 Poland experienced lower growth than other countries in the region and in the global financial crisis of 2008–2012, Poland outperformed once again (see Figure 2). The final section assesses Poland's strengths and weaknesses facing the future, and suggests what its government should do.

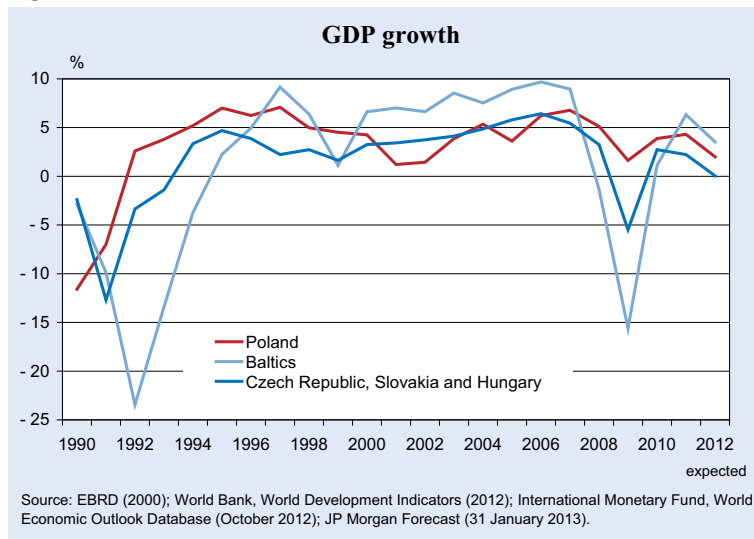


Figure 1



* Peterson Institute for International Economics.

Figure 2



Leszek Balcerowicz's shock therapy worked

The secret of Poland's success lies in the immediate post-communist period. In June 1989, Poland held the first partially democratic elections in Eastern Europe. The opposition could not contest most seats, but it swept those open to it. In September 1989, Poland's first post-communist government was formed.

In spring 1989, Warsaw Professor Leszek Balcerowicz wrote a summary reform program, which included privatization, liberalization of foreign trade, currency convertibility, and an open economy. In September, he became minister of finance and, in effect, the country's chief economic reformer. Before the reform government was formed, the last communist government had liberalized food prices, which led to inflation of some 40 percent in the month of September and 54 percent, or hyperinflation, in October. A financial stabilization program had to be added to the radical structural reforms. Balcerowicz was assisted by his advisors Harvard Professor Jeffrey Sachs and his collaborator David Lipton, who had experience of defeating hyperinflation in Latin America (Balcerowicz 1992; Sachs 1990 and 1993; Sachs and Lipton 1990).

Balcerowicz's program prescribed early, radical and comprehensive reform. It was reminiscent of the 'Washington Consensus', but it went further. Its four tenets were macroeconomic stabilization, deregulation, privatization, and a reinforcement of the social safety net. The big novelty was its timing: to implement all tenets simultaneously, because there was a window of opportunity in the early democratization of 'extraordinary politics' that had to be utilized

(Balcerowicz 1994). Detractors nicknamed this big bang 'shock therapy'.

The outstanding feature of the Balcerowicz program was radical and comprehensive deregulation designed to create a real market economy almost overnight. This radical liberalization was implemented on 1 January 1990. It consisted of four measures: far-reaching price liberalization, a truly radical external liberalization, the breaking up of state concerns and associations into single enterprises and the liberalization of domestic trade.

The most radical measure was a legal act allowing anybody to sell anything anytime in any place at any price to anybody. As a result, the central squares in Warsaw and other big cities were flooded with people who started selling whatever they wanted to get rid of and soon this informal trade transformed into ordinary enterprises. Within two years, the most successful street traders had become shopkeepers. The external deregulation was also highly radical, instantly rendering the *zloty* convertible on current account and abolishing import tariffs, which was popular since it alleviated most shortages (Balcerowicz 1992; Åslund 2012). Poland saw the massive development of new, small enterprises (Johnson 1994). This large-scale deregulation was probably the main reason why Poland suffered less transitional output decline than any other post-communist country and started growing after only two years.

A second reason for Poland's early success was that it received timely and sufficient international assistance. Too often, Poles tend to forget how important that was. From the outset, the West displayed a broad consensus on Poland, gathering in the G24 (the then 24 members of the Organization for Economic Cooperation and Development) and pledging to finance the stabilization fund, which was connected to an International Monetary Fund (IMF) standby program. This strong Western support for Poland was relatively cheap. The upfront cost was about 1.6 billion US dollars (Sachs 1993).

A third cause of the success was related to favourable preconditions. Poland already had a large private sec-

tor in its communist era, primarily in agriculture, but also in urban industries. Therefore, Poland and Hungary were the only post-communist countries with reasonable legislation for the regulation of private enterprise (Åslund 1985). Moreover, because of the country's openness to the West, millions of Poles had migrated to the West at some time during their working lives and returned to their homeland bringing back new skills.

A fourth factor was macroeconomic stabilization, which succeeded, but it was not completely straightforward. The government tried to pursue a strict policy of macroeconomic stabilization, but it encountered serious political opposition, forcing it to soften macroeconomic policy. Monetary policy eased in the summer of 1990, and the budget deficit ballooned to 7 percent of GDP in both 1991 and 1992, leading to high inflation of 44 percent in 1992. As a result, Poland failed to comply with its IMF program in 1991.

The most interesting part of the macroeconomic stabilization was the exchange rate policy. In 1989, the Polish exchange rate fluctuated wildly, inspiring the idea of pegging the *zloty* to the US dollar, which functioned as Poland's informal currency. The government was able to peg the exchange rate thanks to the international financing, and the peg served as a nominal anchor for price stabilization. It was presented as a temporary measure, and when Poland was forced to devalue in May 1991, it adopted a 'crawling peg'. Unlike the Czech Republic and Slovakia, Poland avoided years of an overvalued exchange rate depressing the growth rate in this way.

While these four factors were decisive, Poland's problems should not be understated. It had patently unstable governments, changing about once a year. Its parliamentary elections in October 1991 resulted in a complete fragmentation with no less than 29 parties entering parliament. Instead of consensus there was vitriolic debate, questioning every element of the country's economic policy. Early attempts at large-scale privatization largely failed, leading to a large share of the big enterprises remaining in state hands. As a result, Poland saw much less foreign direct investment in the 1990s than its neighbours to the south.

Poland nevertheless succeeded in transforming itself into a market economy and achieving financial stabilization because it had done enough. In 1992, after

only two years of contracting output, it was the first post-communist country to return to economic growth, and from 1993–2000 its average growth rate was 5.4 percent a year (see Figure 2), superior to that of all other countries in the region. What at the time was widely perceived as an excessively tough stabilization policy turned out to be a wise precaution.

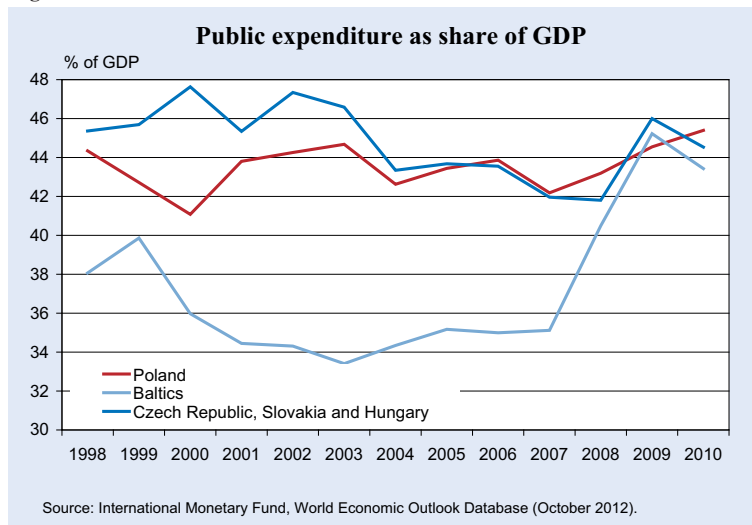
No boom or overheating in 2001–2007

For the post-communist world as a whole, the years 2001–2007 represented unprecedented economic growth. The average annual growth rate of the former Soviet countries was 9 percent. The exception was Central Europe, particularly Poland, which had an average growth rate of merely 4.1 percent (see Figure 2). What had gone wrong? Poland was still the poorest country in Central Europe, so its catching-up potential remained significant. Moreover, in 2004 Poland joined the EU together with seven former communist countries, which added to the growth of all of them, because it opened up large markets, the EU offered substantial subsidies and the region attracted more foreign investment.

There are three major explanations for Poland's slow growth during this period. Firstly, it failed to undertake a second generation of economic reforms. Secondly, the budget deficit expanded because of excessively high public expenditure. Thirdly, the National Bank of Poland (NBP) responded with strict monetary policy and inflation targeting.

While Poland had been a reform leader in 1990, it pursued few reforms in the early 2000s. It had already carried out most of the liberalizing reforms demanded by the EU. Complaints were common about red tape and poor infrastructure, while corruption was comparatively limited. A major concern was that social transfers were too large. The original reform government was actually at fault. It had been so afraid of unemployment and social suffering that it had doubled pensions in 1990. In the mid-1990s, Poland was stuck with the highest public pension expenditure in the world at 16 percent of GDP (Goleniowska 1997). Public expenditure as a whole persisted at an excessive level of some 44 percent of GDP, about as bad as in the rest of Central Europe, and far higher than in the Baltic states (Figure 3). Poland had higher public expenditure than it could finance. As a result, Poland ran an excessive budget deficit in the range of 4–6 percent of GDP from

Figure 3



2001–2006, doing as badly as the other Central European countries. In 2007, Poland finally moved within the Maastricht budget ceiling of 3 percent of GDP (Figure 4). The prime cause of the reduced budget deficit was increased state revenues thanks to high economic growth. The government introduced a ceiling of gross public debt at 55 percent of GDP, which it put into the constitution.

In 2001, Leszek Balcerowicz became Chairman of the NBP, a post that he retained until 2007. He changed Poland's monetary policy. The NBP compensated for the government's loose fiscal policy with very strict monetary policy. Inflation had stayed in the double-digits until 1997, but it was brought down from 8.6 percent in 2000 to 0.7 percent in 2002. Meanwhile, Poland moved from a dirty float to inflation targeting. The NBP maintained positive real interest rates when most other countries failed to do so. It leaned against

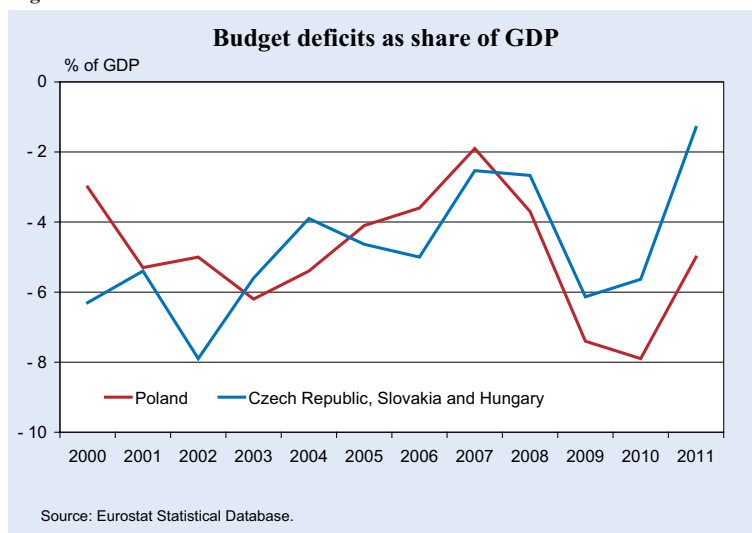
the wind, when it perceived that asset prices, notably housing prices, were rising too steeply. The NBP restricted domestic credits in foreign currencies through a combination of bank regulation and floating exchange rates, which made people aware of currency risks (Balcerowicz 2009). Simultaneously, the Czech Republic made the same policy switch, and Slovakia did so as well. From 2003–2008, these three countries with inflation targeting saw their nominal effective exchange rates rise by 30–40 percent, which impeded capital inflows and inflation (Bakker and Gulde 2010). In 2007, only Poland and Slovakia in this region had an annual inflation rate of lower than 3 percent. Poland had escaped overheating.

Ironically, Jiri Jonas and Frederick Mishkin (2005, 409) criticized Poland and the Czech Republic for their strict monetary policies: “undershoots of the inflation targets have resulted in serious economic downturns that have eroded support for the central bank in both the Czech Republic and Poland”. But the Czech and Polish central bankers successfully contained asset bubbles.

Continued growth during the global financial crisis in 2008–2012

Poland stands out as the greatest success story in the crisis, being the only EU country to grow in 2009 (by 1.7 percent). It experienced no recession and only saw a slight economic contraction in the last quarter of 2008. This compares very favourably with the average euro area contraction of 4.1 percent in 2009, while the CEE countries suffered to an even greater degree. The Czech Republic, Slovakia, Hungary, and Bulgaria faced decreases of around 5 percent of GDP, while Romania experienced a decline of 7.2 percent, Slovenia saw a 7.8 percent downturn, and the Baltics had a 14–18 percent fall.

Figure 4

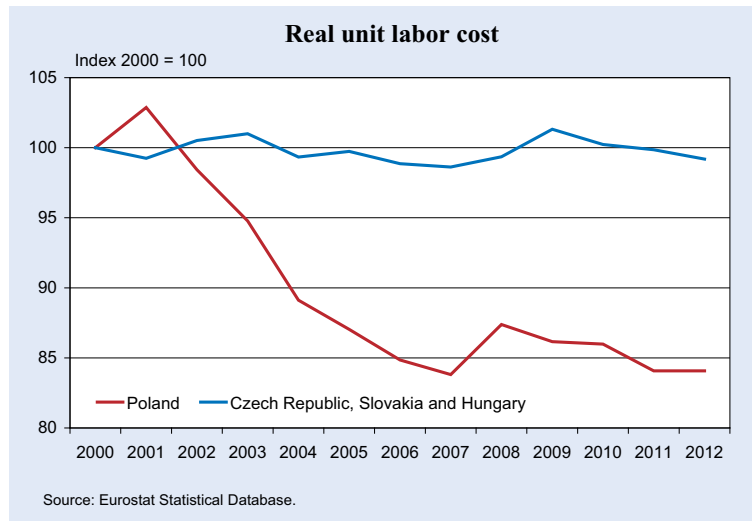


Poland grew solidly at about 4 percent a year in 2010 and 2011, while seeing a slowdown to probably 2.0 percent in 2012. As a result, it experienced twice as much growth from 2009 to 2012 than the next fastest growing EU country (Sweden). This looked quite miraculous. The explanation appears to be Poland's good macroeconomic starting position, its floating exchange rate with controlled wage costs, and fiscal stimulus (see Drozdowicz-Biec 2010). The IMF (2013, 1) summarized the causes of Poland's success succinctly: "Poland's economy performed well throughout the crisis, due to very strong economic fundamentals and effective counter-cyclical policies".

The main reason for Poland's success lay in its previously strict monetary policy. The country did not suffer from any overleveraging, toxic assets, housing bubble or banking problems. Since Poland had not allowed itself any overheating, it had not had any real boom, and no bust was needed. With its strict monetary policy, Poland could get away with a comparatively large budget deficit. Its relatively large domestic market contributed to financial stability.

A second cause of Poland's outperformance was the floating exchange rate. From October 2008 until January 2009, the Polish *zloty* depreciated against the euro by about one third, more than any other EU currency (ECB 2012). In January and February 2009, this posed great concern, because Polish banks suffered from a currency mismatch, and the international financing of the banks became dangerously expensive. However, in February 2009 the *zloty* started appreciating, and this potential bank crisis never came to fruition. Thus, the large depreciation caused no serious harm. Instead, Poland could benefit greatly from European economic integration because it had lower costs than the neighbouring euro countries, notably Germany. Poland is deeply entrenched in the German supply chain, and German companies with production or subcontractors in Poland could maintain full production, there while reducing elsewhere. Curiously, since 2002 Poland has experienced sharply falling real unit labour costs in comparison with its Central European peers. This decline gained fresh impetus with the depreciation in 2008–2009, and Poland has

Figure 5



managed to maintain quite low real unit labour costs (Figure 5). This factor has attracted little attention and appears to have been an outcome of a disciplined labour market.

A third explanation for Poland's strong performance is that it could afford a fiscal stimulus and looser monetary policy when the credit crunch started. Its budget deficit rose sharply from 1.9 percent of GDP in 2007 to 7.9 percent of GDP in 2009. Automatic stabilizers accounted for most of this fiscal stimulus. The government started fiscal consolidation relatively late, in 2011. The main measures taken were to transfer five percentage points of the payroll in pension contributions from the private to the public pension fund, and to implement an increase in the value added tax of one percentage point. On the expenditure side, public wages were frozen and discretionary expenditure was capped (World Bank 2012).

Despite having done so well, the credit crunch in the winter of 2008/09 raised Polish concerns about limited access to international liquidity, as nobody offered Poland any swap credits. Therefore, the nation turned to the IMF and became the first customer of a precautionary 'Flexible Credit Line' facility of 20.5 billion US dollars in May 2009 after the crisis had abated. Poland never drew on this credit line, but the argument ran that it functioned as an insurance policy. It has been renewed repeatedly. Its actual impact is not evident.

Poland's economic performance during the global financial crisis was very impressive. While economic policy was competent, no specific new reforms were carried out. Poland benefited from its good policies in

the past, leaving it with sufficient fiscal space and suitable exchange rate adjustment, as well as from its deep economic integration with the EU and the diversification of its economy.

The future: competitiveness under threat

In October 2011, the coalition government led by Donald Tusk and dominated by his Civic Platform was re-elected for a second term, something unprecedented in post-communist Poland. In 2012, Poland, with a GDP of half a trillion dollars, was the 20th biggest economy in the world measured in purchasing power parities. In GDP per capita at purchasing power parities, it ranked 45 within the world and 22 in the EU (IMF 2012).

Growing complacency based on excellent economic performance raised concerns that Poland was living on past achievements, while the future looked less bright. The country had eaten up its fiscal space, and the Tusk government did not undertake any significant structural reform during its first term. A sense was growing that more reforms were needed. Four areas stood out. Firstly, Poland needs pension reform. Secondly, the economy remains overregulated. Thirdly, the country has an extensive and intrusive bureaucracy. Finally, Poland still has more state corporations than the other Central European countries (EBRD 2010). In view of the nation's advances, the quality of its higher education looks unsatisfactory. Poland's two top universities in Cracow and Warsaw just scrape onto *The Times Higher Education World University Rankings 2012–2013*. A fear arose that Poland was getting stuck in a middle-income trap, which typically occurs at around a GDP per capita of 15,000 US dollars, that is, Poland's level (Eichengreen *et al.* 2011). As economic growth started declining, Poland no longer looked so outstanding.

Atypically of a re-elected government, the Tusk administration started off with an ambitious reform agenda. The financial crisis had prompted the EU to adopt its new fiscal compact, which Poland promulgated on 20 February 2013. The European Commission had adopted a much stricter attitude to fiscal deficits, and Poland's budget deficit was no less than 7.8 percent of GDP in 2011. By EU definitions, its public debt had risen to 56 percent of GDP in 2012, close to the Maastricht limit of 60 percent. In July 2009, the ECOFIN Council decided that an excessive deficit situation existed in Poland and set a deadline

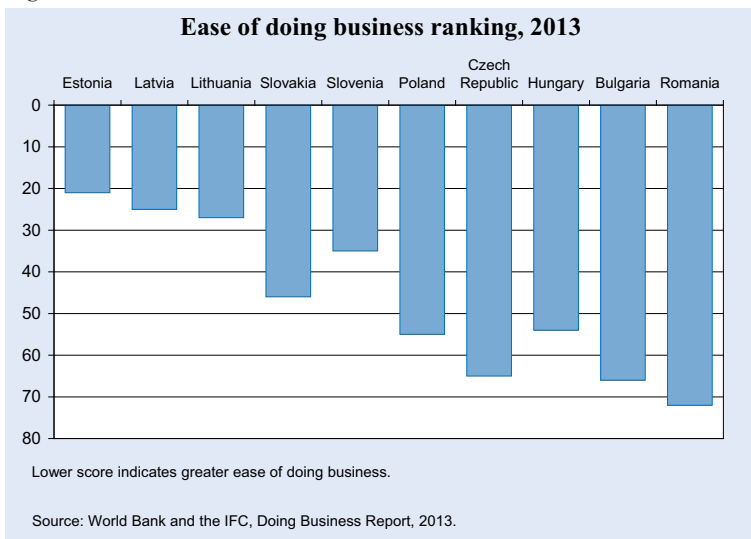
for correcting it by 2012 (ECB 2012). Expenditure had to be cut, but revenues had to be raised as well. The government has proceeded with its fiscal consolidation through several measures. Wages for government employees were frozen, and the real growth of central government discretionary spending was capped, while the value-added tax was temporarily raised (World Bank 2012; Krajewski and Krajewska. 2011). The aim was to reach a budget deficit of 2.9 percent of GDP in 2012, but the preliminary outcome was a deficit of 3.5 percent of GDP.

The re-elected Tusk government first carried out a pension reform. In the midst of the crisis, the government had cut the contribution going to mandatory private pension savings from 7.3 percent of the payroll to 2.3 percent in order to reinforce the public pension fund. However, in May 2012 the government adopted a new pension reform. Its main aim was to reduce pension expenditure by gradually raising the retirement age for men from 65 to 67 years and for women from 60 to 67 years. This increase applied also to certain professional groups subject to early retirement. Another part of the reform was to gradually restore the share of contributions going to private mandatory pension savings (Jarrett 2011; EBRD 2012).

The other major reform is a deregulation of professions. Poland had 380 regulated professions, the largest number of in the EU. In the spring of 2012, the government insisted on 49 being deregulated immediately and 180 later on. This caused great opposition from the professions in question, but the government anticipated that hundreds of thousands of new jobs could be created, and Poland's labour force participation is very low at 65 percent (The Economist 2012).

Poland's business environment is too cumbersome. In the World Bank and International Finance Corporation's (2013) ease of doing business index, Poland ranks 55 out of 185 countries, a considerable improvement of 19 steps from 2012. Yet, Poland is still ranks below all but three of the post-communist EU members (the Czech Republic, Bulgaria and Romania) – see Figure 6. The four greatest administrative obstacles are: dealing with construction permits (ranking 161), getting electricity (137), starting a business (124), and paying taxes (114). All these procedures are impermissibly cumbersome and need to be facilitated, which in turn requires a reduction in state bureaucracy.

Figure 6



Poland has ample higher education, and the number of university students has more than doubled since the end of communism, but the quality of its higher education is not very high. Substantial reforms and international integration are needed to raise the quality of higher education, while financing is satisfactory.

The Polish government needs to focus on the two critical questions of whether it will be able to provide a sufficiently good business environment and higher education with research, so that these sectors can thrive on innovation through sound research and development. That means escaping the middle-income trap.

On 12 October 2012, Prime Minister Tusk made his annual programmatic speech to the Polish parliament, the *Sejm*. He rightly stated that: “the priority is to maintain economic growth”. However, the means he suggested were somewhat surprising. His first proposal was a new state development bank. He also suggested that various state corporations should carry out large-scale infrastructure investments in energy, highways and railways. He mentioned the need to deregulate more and to speed up court proceedings in commercial cases as well as a new liquidation law and a new building code, but these issues were only mentioned in passing. The need for better higher education and research was ruefully missing, and the essence of the speech was reliance on state corporations, or ‘national champions’ as they are increasingly called in the increasingly dirigiste government parlance. The prime minister was dissatisfied with capital flight by the predominantly foreign-owned banks in the country. These corporations should be privatized,

rather than prioritized. Privatization is proceeding, but very slowly.

The big outstanding policy question is Poland’s eventual euro accession. Given that Poland did so well with its floating exchange rate regime during the crisis, neither the public nor the government is in any hurry to adopt the euro. Although the euro enjoys minimal popularity at present, the government is remaining true to its commitment to eventually adopt it. The government emphasizes the need to be completely ready for the euro and it is currently discussing euro adoption in 2017 or 2018.

Poland has had a wonderful run through the global financial crisis. Its government has managed its financial affairs impressively. For the future, however, it is not obvious that Poland will continue to outperform other countries, such as the neighbouring Baltic republics, the Czech Republic, or Slovakia. Its business environment is slightly worse and its public debt is higher. It has more state corporations than the others. Its higher education is hardly better than that of its neighbours. Its public expenditure and taxes are about as high as in the Czech Republic and Slovakia, and much higher than in the Baltics. Its only significant advantage would probably be more and better entrepreneurship stemming from the rampant competition in the early transition. Poland presumably needs to undertake significantly more energetic reforms in order to stay ahead of the pack in the future.

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CHALLENGES TO SUSTAIN POLAND'S GROWTH MODEL

BALÁZS ÉGERT AND
RAFAŁ KIERZENKOWSKI*

Although past growth performance has been strong ...

Poland recorded robust GDP growth since the beginning of the transition process and showed great resilience during the global crisis, which led to pronounced gains in the standards of living. The average annual growth rate in GDP per capita reached 4.0 percent between 2000 and 2011, *versus* 1.8 percent for the OECD average, and was higher than in other Central and Eastern European countries (Figure 1). Between 2000 and 2011, rises in labour productivity fed the catch-up process mainly owing to advances in multifactor productivity, which made a contribution of above 3 percentage points to per capita income growth. The liberalisation of the domestic economy coupled with greater knowledge and technology transfers from abroad led to major improvements in labour efficiency. However, despite significant increases in the capital stock, capital intensity subtracted 0.5 percentage points from annual growth in GDP per capita. This was simi-

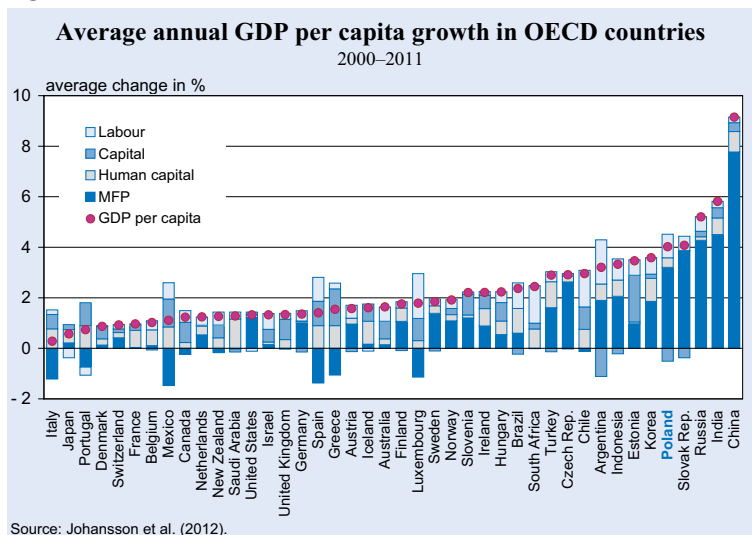
lar to the Slovak Republic, but contrasted with a positive contribution recorded in Estonia, Slovenia and Hungary. Therefore, Poland's growth model benefitted comparatively less from foreign direct investment inflows as the business climate and regulations were less conducive to greater investments. Human capital contributed positively to growth by almost 0.5 percentage points, more than in other regional peers. This reflects Poland's progress in educational attainment and the quality of its secondary education as confirmed by good PISA (Programme for International Student Assessment) scores, particularly in mathematics and science. Finally, steady decreases in the unemployment rate underpinned employment rises and growth, notably driven by better training of the unemployed, a higher share of workers with better qualifications and lower labour market mismatches (Kierzenkowski *et al.* 2008).

... there is a long way to go to close the gap in per capita income to the most developed OECD countries

Despite its strong performance in the recent past, per capita income is substantially lower compared to the United States and this gap is mainly explained by a shortfall in labour productivity (Figure 2).¹ Although overall labour resource utilisation is not significantly lagging behind, its breakdown shows that the average number of annual hours worked are high and the activity rate is low. The combination of low labour

market participation and a high unemployment rate leads to a low employment rate. The participation rate of the working age population (15 to 64 years) in Poland is among the lowest in Europe: around 65 percent against rates close to or even above 80 percent in the Nordic countries (see Figure 3). The main explanation for this trend is the reduced activ-

Figure 1



* OECD Economics Department. The views of the authors expressed here do not necessarily reflect those of the OECD.

¹ Per capita income (GDP over population) can be broken down into labour productivity (GDP over total hours worked) and labour utilisation (total hours worked over population).

ity of older workers, low-skilled workers and women. Figure 3 shows that only every second individual between the age of 50 to 64 years is active against four out of five in Sweden. Even more striking is the fact that only one third of individuals with low educational attainments participates in the labour market, compared to a participation rate of 70 percent in Switzerland. The female participation rate is also low by European comparison, despite the fact that the absolute level of 60 percent is less striking.

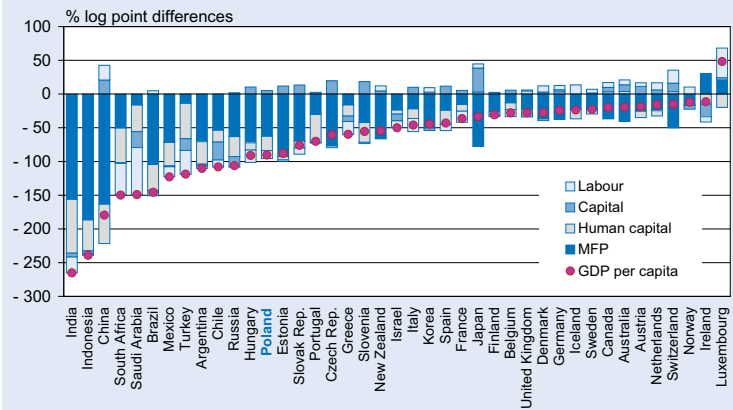
These low participation rates are a heritage of transition from central planning to a market economy: the collapse of heavy industries after the start of the economic transformation left behind a mass of low-skilled middle-age men and women, who did not have the ability to update their competences. Disability and early retirement pension schemes offered them an escape route to withdraw from the labour market. OECD data indicate that the effective retirement age in Poland is among the lowest in the OECD, especially for women, and that the gap between the effective and the official retirement age is substantial. In addition, public spending on incapacity benefits amounted to almost 3 percent of GDP in 2007, above the OECD average, but close to figures of fellow transition countries, indicating the large number of individuals involved.

Population ageing is a major challenge for growth

Recent OECD long-term projections suggest that Poland's growth model will face major challenges as the population ages owing to declines in fertility rates and overall gains in longevity (Johansson *et al.* 2012). These projections indicate that per capita income growth will be among the lowest in Europe over the decades to come (Figure 4). The working-age population (15–64) as a share of the total population, currently above 70 percent, is projected to drop to below 55 percent by 2060. In parallel, the old-age dependency ratio measuring the share of the population older than 65 to working-age population (15–64) is expected to jump from around 20 percent in 2011 to close to 35 percent in 2030 and should exceed 60 percent in 2060. If policies remain

Figure 2

Per capita income in OECD countries at constant USD 2005 PPS, log difference of the US relative to other OECD countries



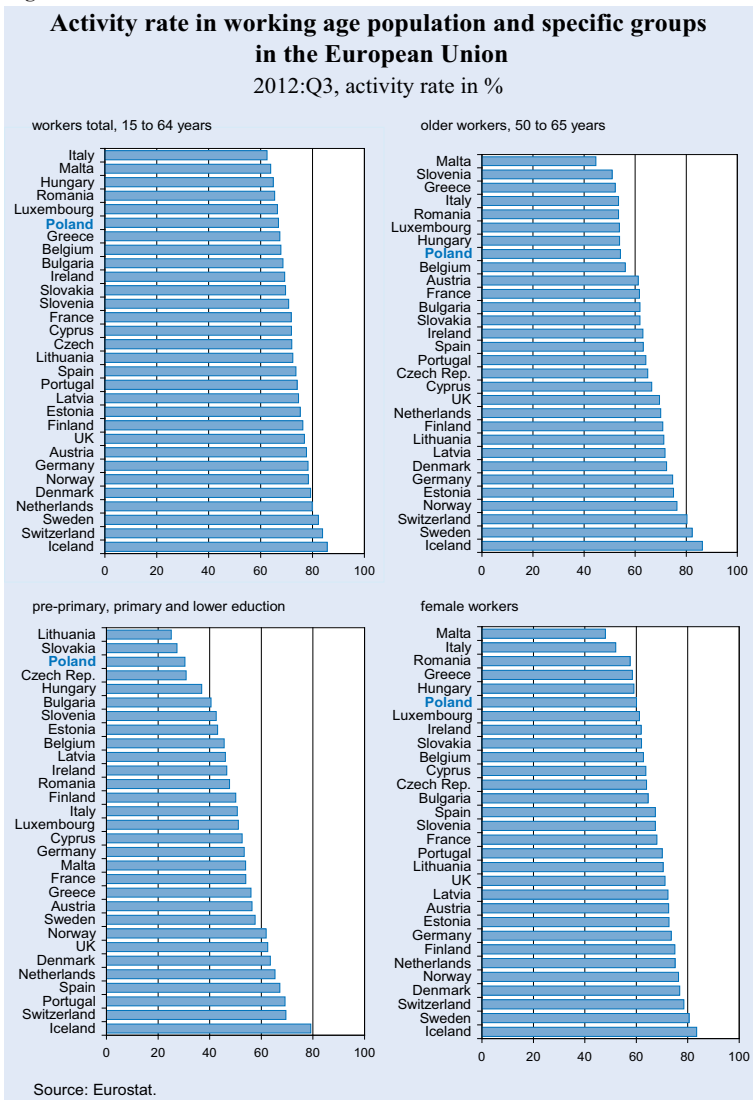
Source: Johansson *et al.* (2012).

unchanged, these developments should lead to one of the largest declines in labour force participation in the OECD over the next 50 years, of over 10 percentage points among the population aged above 15 years. This decline would only be slightly contained by gradual structural reforms in the baseline scenario, notably implemented on the assumption of further trend expansion in educational attainment, an indexation of the legal pensionable age to life expectancy, and a convergence of comparatively stringent product market regulations to the average regulatory stance observed in the OECD. As a result, population ageing will be a major drag on trend growth, which should be mainly driven by efficiency improvements and, to a much smaller extent, improvements in human capital. More precisely, Poland's growth in GDP per capita is projected to fall from 4.4 percent between 1995 and 2011 to 2.6 percent over the next 20 years and to just 1.4 percent between 2030 and 2060 in the baseline scenario. The catching-up should be slow: the gap in GDP per capita *vis-à-vis* the United States should shrink by about 20 percentage points over the next 50 years, but should remain high in 2060.

Policy measures are needed to sustain Poland's growth model

Bold policies are needed to counteract the adverse effects of population ageing as we have seen that per capita income growth will sharply slow down in Poland over the coming decades under the scenario of gradual policy changes. To head off such daunting developments, policymakers have to act more

Figure 3



forcefully to boost labour productivity and labour utilisation.

Increasing labour resource utilisation

Poland's population ageing is projected to be one of the most pronounced in the OECD and an increasing dependency ratio will reduce labour utilisation. Let us start by looking at ways how policies could counteract such developments in Poland.

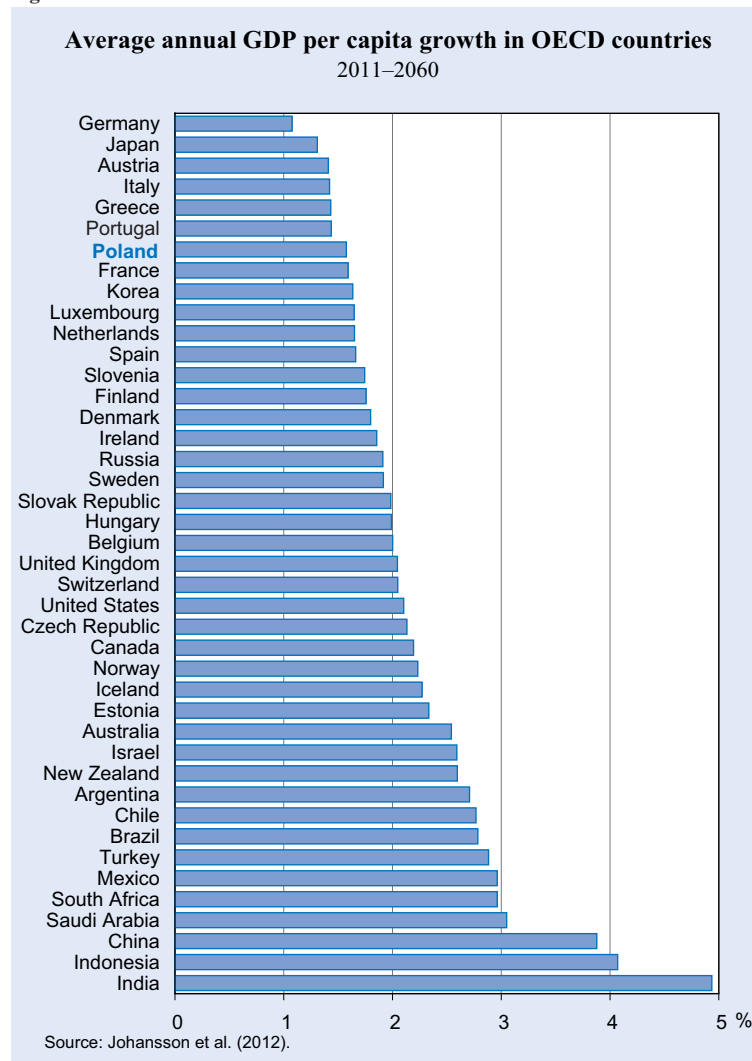
The first avenue for policy action is to keep people at work longer by increasing the effective retirement age. Poland implemented, in a very well thought-out manner, a comprehensive pension system reform in 1999: the first pillar based on notional accounts, and the accompanying fully-funded second pillar, both ensured actuarial neutrality. Such a system offers people the choice to work longer and receive higher pen-

sion benefits or to retire earlier, but at the expense of a low pension benefit. Because the calculation of pension benefits is related, in an automatic fashion, to life expectancy, longer lives would mean that people would need to work longer to get decent old-age pensions. Nevertheless, the legal retirement age serves as an important social benchmark and influences people's retirement decisions. People may also be shortsighted and realise that they should have worked longer only once they receive the pension benefits. Hence, it is important for the government to increase the legal retirement age in line with, or even beyond, gains in life expectancy and to improve the population's financial education so that people understand the need to work longer (OECD 2012). The 2012 pension reform raised the legal retirement age to 67 both for men (from 65) and women (from 62) – although some potentially generous early retirement possibilities were opened up to soften up this increase (OECD 2013). This reform is welcome, but is likely to be insufficient as reflected by the

baseline scenario, and additional policy steps are needed to reduce the negative impact of declining labour utilisation on growth. However, people will only be able to work longer if they age in a healthy manner. In order to improve the relatively poor health status of the Polish population (which can be explained by the country's level of economic development), OECD (2012) recommends, among other things, i) improving access to health care, ii) enhancing hospital management, iii) carefully designing new private health insurance and iv) developing a long-term-care strategy.

Policymakers could further increase participation rates by effectively closing channels of early retirement. In particular, the government should continue to further align, after the 2012 pension reform, the generous early retirement schemes of uniformed service and eliminate those for judges and miners

Figure 4



(OECD 2013). An important driver of the low female activity rate at older ages are generous survivors' pension benefits. Women do not need to have a full career to benefit from an old age pension, especially if their partners pass away earlier (which is likely given the lower life expectancy for men). According to the OECD's social expenditure database, spending on survivors' benefits accounted for 2 percent of GDP in 2007, well above the OECD average of 1 percent. The costs of survivors' benefits should be internalised either *via* higher contribution rates imposed on the primary earner, or through a lower pension benefit if the pension is to be passed on to the survivor partner. Internalising these costs would incentivise women to work longer. In 2008, the length of post-maternity parental leave in Poland was almost three years and the highest in the whole of the OECD. This keeps mothers away from the labour market too long, especially in the case of consecutive childbearing, and thus permanently lowers the female participation rate.

women. Therefore, the government would be well advised to come up with a coherent family policy framework, and in particular to develop pre-school childcare infrastructure (OECD 2013).

Persistently high unemployment rates are also an important factor of subdued labour utilisation. The unemployment rate is high for young people and the unskilled. Active labour market policies, including activation and retraining, is essential to get people back into jobs. Poland clearly has a deficit in this area. The taxation of labour income can also act as a drag on the demand for and the supply of labour. The personal income tax cuts and social security contribution reductions decided in 2008 lowered the tax wedge to the OECD average, but were partly offset by a rise in disability pension contributions and the nominal freezing of the personal income tax schedule. In fact, the OECD has long advocated changing the tax mix by shifting taxes from labour (and capital) to those

The dependency ratio will rise not only because people will live longer, but also because Poland's fertility rate is about 1.4 percent, which is well below the level needed to stabilise the population. Low fertility rates will determine the size of the working-age population for the coming decades. Yet, looking further ahead, policymakers should start to consider how to encourage childbearing. Empirical studies find that family policies that diminish the cost of raising children *via* a combination of financial and non-financial incentives have a significant effect on fertility rates in the OECD (D'Addio and Mira D'Ercole 2005; Luci and Thévenon 2012). In Poland, financial incentives are not particularly high. The insufficient number of places in pre-school childcare also makes it difficult to reconcile family life with work and discourages childbearing. However, the insufficient provision of pre-school childcare also contributes to the low female participation rate as the opportunity cost of staying at home is low, especially for low-income

that penalise growth less, namely green taxes and property taxes.

Boosting labour productivity

The government should also consider reforming the tax system because shifting the tax burden to less harmful taxes would spur productivity gains via capital deepening (more investment). Eliminating tax expenditures and ensuring more neutrality across different asset classes would also contribute to a better allocation of productive resources and reduce administrative costs and the costs of tax compliance. The preferential tax treatment and generous health care insurance system for farmers (KRUS) lead to resource misallocation and inefficiencies in the agricultural sector. An insufficient housing supply of private rentals in urban areas also impedes workers' geographical mobility and thus efficient resource reallocation.

Another important aspect policymakers need to look into in Poland is product market regulation. Despite successive privatisation programmes launched in 2008, the State still plays an important role in the economy. There is no economic reason why the government should be involved in potentially competitive segments of network industries, in the financial sector, airport operators, the mining and chemical industries. Less government involvement would improve allocative efficiency and thus boost productivity. Moreover, indirect government interference *via* complicated regulations also puts an unnecessary burden on doing business. According to government estimates, the costs of regulation for businesses amounts to 5 percent of GDP per year. Against this background, the authorities launched a programme to cut red tape and to simplify legislation governing the economy. Yet, according to the World Bank's Doing Business 2012 report, it takes a month to set up a business and almost a year to obtain construction permits, and it is very complicated to pay taxes in Poland (OECD 2012). The government is aware of these difficulties, but it needs to push ahead more firmly in these areas. Thankfully the Government indeed intends to liberalise a large number of professional services.

Competition in mining, electricity, gas and telecommunication is unsatisfactory. Beyond public disengagement from these sectors, improved overall regulatory framework should enforce more competition (including broadband internet), which could, in turn, help spur productivity. Financial deepening, essential

for better access to credit, could be promoted *via* a consolidation of the fragmented landscape of cooperative banks and an improved legal framework for the use of collateral (OECD 2012).

Network infrastructures are still not very well developed. Despite considerable efforts to expand the motorway and highway networks, largely financed by EU funds, there is scope to improve the road network. Similarly, the railway network needs to be upgraded further. The Doing Business 2012 report identifies that it is not easy for businesses to get connected to the electricity network. This is partly because of the poor state of the distribution network, which critically needs investment. Due to the relative underdevelopment of these networks, additional investment would most likely improve productivity.

Upgrading human capital is crucial for long-term productivity growth. Skill mismatches remain significant in the Polish economy, despite rising educational attainment. Against this background, the government recently announced that a greater emphasis will be put on hard sciences in tertiary education. The primary and secondary educational system has gained strength over time, which is reflected in improved PISA scores. The 2011 tertiary education reform aims to develop vocational education. Further improvements could be achieved by enhancing the training system and encouraging lifelong learning, increasing the feedback loop between the education system and the economy's needs. Raising the quality of the tertiary education system through reinforced quality assessment of higher education institutions and giving more space to competition and transparency in the promotion of staff would also upgrade education (OECD 2012; OECD 2013).

Policies aimed at boosting productivity should encourage innovation to push the technology frontier and/or, more importantly in Poland's nearer future, to close the gap to the technology frontier. How smoothly technology adoption goes depends on the interplay between education, infrastructure and product and labour market regulation. Poland could rely more heavily on tax credits to encourage innovative activities. Research funds should be spent in a way that creates critical mass and maximises spillover effects in academia and the economy. Giving more autonomy to universities in terms of budgeting and human resources would underpin the emergence of research centres. The government should also better intergrade universities with businesses and create a framework

for increased mobility among researchers between the private and public sectors (OECD 2010).

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POLAND – THE GREEN ISLAND SINKING INTO A SEA OF RED

GAVIN RAE*

November 2011: *“I do not hide the fact that the aim is to stabilise the financial situation of Poland. This is positive for the reputation of Poland and connected to the security of our bonds”.*

October 2012: *“The world and Poland face another difficult year. The primary goal before the government is to protect people from the consequences of the crisis”.*

(PM Donald Tusk speaking in Parliament)

Introduction

Although the global economic crisis severely affected most countries in Central Eastern Europe (CEE), Poland enjoys the status of being the only EU member state not to have undergone a recession over the past few years. This led the government to claim that Poland was a green island in a sea of red. Nevertheless, there are now signs that Poland’s positive economic performance is waning and that many of the factors that drove its growth are beginning to dissipate. Moreover, despite continued economic growth, many socio-economic indicators have worsened in recent years, particularly in the labour market, which shows that the benefits of the country’s economic growth have not been felt evenly throughout society.

This article considers the effects of the economic crisis on Poland; the reasons that it was able to avoid a recession; the factors behind its recent slowdown and the future prospects for its economy.

Surviving the crisis

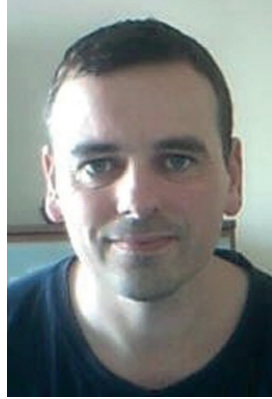
Poland’s GDP rose on average by 3.7 percent between 2008 and 2011, with growth slowing to just 1.6 percent in 2009 (see Table 1). This is down from an average of 5.5 percent in the years after joining the EU and before the outbreak of the economic crisis (i.e. between 2004 and 2007). In the context of the severe downturns experienced by other CEE countries, this represents a significant success for the Polish economy.

Despite avoiding an economic contraction, the slowdown did lead to a worsening situation in the labour market. Unemployment had significantly reduced after Poland joined the EU, falling from over 19 percent in 2004 to 7.5 percent in 2007. However, in the wake of the economic crisis, unemployment rose to 10 percent by the end of 2011. Unemployment only reveals part of the difficulties in the Polish labour market. Poland has the highest amount of workers of any EU country employed on the basis of temporary, insecure contracts; a figure that increased from just 5.8 percent of all employees in 2000 to almost 27 percent in 2011 (the EU average is 14.1 percent).

The slowdown in economic growth, the increase in unemployment, reduced government revenues (see below) and sustained public spending contributed to a worsening of the country’s public finances. Yet these remained manageable when compared to those in many other EU countries. The budget deficit stood at – 5.1 percent of GDP in 2011, after growing from – 1.9 percent in 2007 to – 7.8 percent in 2010. Meanwhile although public debt has risen steadily over the past few years, its level of 56.3 percent in 2012 was still well below the EU average of 82.5 percent. These relatively healthy public finance figures have allowed the government to increase its spending and investment and help offset the worst effects of the economic crisis.

Why no recession?

Poland was able to avoid an economic recession due to a unique combination of internal and external fac-



* Kozminski University, Warsaw.

Table 1

| Basic economic indicators (%) | | | | | | | | | |
|-------------------------------|------|------|------|------|------|------|------|------|------|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| GDP growth | 4.3 | 3.6 | 6.2 | 6.8 | 5.1 | 1.6 | 3.9 | 4.3 | 2.4 |
| Unemployment | 18.3 | 16.9 | 12.3 | 8.6 | 7.0 | 8.8 | 9.6 | 10.0 | 10.4 |
| Budget deficit | -5.4 | -4.1 | -3.6 | -1.9 | -3.7 | -7.4 | -7.8 | -5.1 | -5.0 |
| Public debt | 45.7 | 47.1 | 47.7 | 45.0 | 47.1 | 50.9 | 54.8 | 56.3 | - |

Source: Eurostat.

tors. Firstly, the country suffered no significant collapse in its banking and financial sectors. Personal debt in Poland was relatively low, mainly due to the fact that base interest rates had remained in double figures up until 2003 and therefore the credit bubble was only inflated for a short period of time. The banking sector in Poland was also relatively well regulated compared to many other European countries (Leven 2011).

Secondly, Poland was not as dependent on the inflow of private credit and capital as some other small economies in CEE, such as those in the Baltic States. As the largest country in CEE, the Polish economy is more diversified and reliant upon internal demand and therefore did not suffer so much as international capital flowed out of the region. Poland was also not so heavily reliant upon exports, and in particular not dependent upon one export industry, as is the case in the small export-led countries, such as Slovenia and Slovakia, which have well-developed car industries. It therefore did not suffer as much as other countries from collapsing demand in Western Europe.

Thirdly, Poland had not joined or tied its currency to the euro and therefore could retain some competitiveness through a devaluation of its currency. Although the devaluation of the *zloty* negatively affected those who had taken out credits in foreign currencies, it benefited many export industries.

Finally, throughout the crisis, the Polish government continued to increase its spending, particularly by raising public investment through utilising the money gained from an inflow of EU structural and cohesion funds.

This last point is of particular importance when understanding Poland's on-going growth. Government expenditure continued to increase in Poland throughout the crisis, rising from 15.1 billion euros in 2008 to 16.5 billion euros in the first quarter of 2012. The level of government expenditure in Poland is slightly above the EU average, standing at

around 49 percent of GDP. One of the most important actions of the government was to increase public investment by utilising available EU funds. Poland was the single largest recipient of EU funds from the 2007–2013 budget, as it was liable to receive up to 67 billion euros in structural and cohesion funds. This sum increased to 82 billion euros once the designated national government funds were added. This helped the government to instigate large investments in the country's infrastructure, particularly in preparation for the Euro2012 football championships. As a share of overall investment, public investment increased from 35 percent to 43 percent between 2005 and 2010. This has ensured that although private investment fell sharply throughout the crisis, Poland's overall investment rate only declined slightly (by 0.08 percent) in 2009, whilst in other years it continued to rise. The biggest increase in investment has been in the area of buildings and infrastructure, which increased from 1.8 billion euros in 2005 to 3.1 billion euros in 2010.

Slowing growth

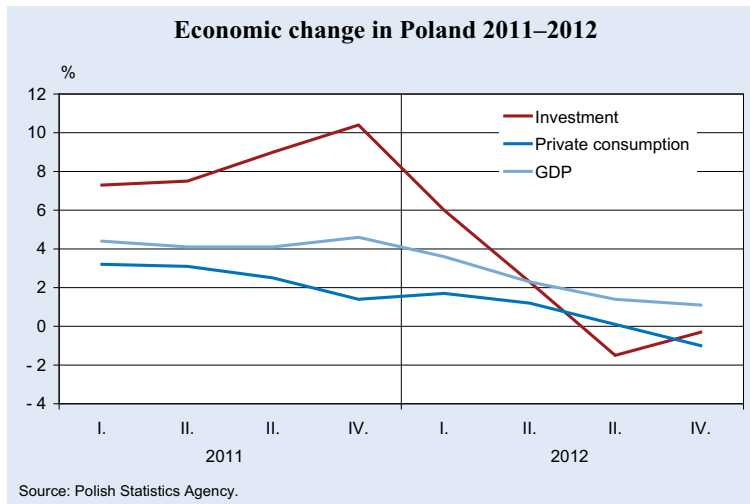
Despite Poland's comparatively impressive growth throughout the period of the economic crisis, this has begun to slow down significantly over the past year (see Figure 1). After expanding by over 4 percent in the fourth quarter of 2011, GDP growth slowed to 1.1 percent in the fourth quarter of 2012. A decrease in personal consumption and investment was mainly responsible for this slowdown in economic growth. The very sharp fall in the rate of investment was primarily due to a decline in public investment, as the large construction projects related to preparations for the Euro2012 football championships came to an end. Private investments did not compensate for the decrease in government investment, with private companies themselves suffering from many public investment projects ending. This led to a deterioration in the situation in the Polish industrial sector. In February 2013 the Purchasing Managers Index (PMI) declined for the eleventh month in a row, with pro-

duction, new orders and employment in the sector falling.¹

Another important contributory factor to Poland's slowdown was the drop in personal consumption. The rate of increase in personal consumption slowed steadily throughout 2011 and 2012, before actually falling in the fourth quarter of 2012. The collapse in the rate of investment means that the situation in the labour market is worsening, which is also having its effect on salaries. According to the calculations of the Polish government, unemployment rose to 14.2 percent in January 2013 up from 13.4 percent in December 2012.² Personal consumption is also being squeezed by declining real salaries, which in January 2013 were 1.4 percent below the level of a year earlier.³ This is of particular significance as it is the first time that real salaries have declined in the country since the early 1990s when Poland was emerging from Communism. The worsening situation in the labour market has meant that poverty (that had declined after Poland joined the EU) has been rising once again since 2010.⁴

Positive economic growth in Poland has been maintained over the past year, primarily through the continual expansion of exports, which rose by 6 percent between January and October 2012. Polish exports tend to involve manufacturing products that are cheaper for many target countries to import, rather than to produce themselves. Furthermore, Poland's

Figure 1



floating exchange rate has allowed for a real depreciation in the value of the *zloty* that has helped to boost its exports. Nevertheless, the continual growth in Polish exports will largely depend upon whether the crisis in the eurozone countries can be contained and economic growth in Poland's main export markets in Western Europe maintained. For example, around 31 percent of all Polish exports go to Germany and France. In the final quarter of 2012 the French economy contracted by 0.3 percent and the Germany economy by 0.6 percent. The outlook for these economies is uncertain and their fate (particularly of Germany) will have a great influence upon Poland's future economic outlook.

Sink or swim

The main question for the Polish economy is whether its present downward trend will continue and lead towards its first economic recession since the early 1990s. This slowdown in economic growth has had a significant impact on shaping public debate around the economy and has led to some change in emphasis in the government's present economic policy.

When PM Donald Tusk's Citizens' Platform (PO) was re-elected in October 2011, it seemed as though his new administration would come more into line with the politics of economic austerity and reduced government spending, being pursued by many EU countries. During his inaugural speech to parliament Tusk pledged to bring the budget deficit down to 1 percent and public debt to 42 percent of GDP by the end of his government's term in office. He announced a series of government spending cuts designed to achieve

¹ Spowolnienie w sektorze przemysłowym trwa nadal, Interia Business, <http://tinyurl.com/cz59sm9>.

² The manner in which the Polish government and Eurostat measure unemployment differs greatly, with the former always calculating a higher rate of unemployment than the latter.

³ http://www.Dalszy_spadek_realny_plac_Rzeczpospolita, 18 February 2013, <http://tinyurl.com/c788eyl>.

⁴ This rise in poverty has been exacerbated by government policies on social benefits. Only around 1/7 of the unemployed receive any benefit. Until October 2012, low income benefits were also accessible for a family (2 adults and 2 children) whose income did not exceed 1,404 *zloty* and for a single person whose income was not above 477 *zloty*. These limits are set by the government every 3 years, yet in 2009 the government did not raise it from the position established in 2006. This ensured that large numbers of people were pushed out of the benefits system, with an estimated 1 million children losing their right to benefits over the past 8 years. In fact, for the first time in 2012, the percentage of those living in households below the statutory poverty line was actually greater than those receiving benefits. From October 2012 the government raised the threshold to 1,824 *zloty* for families and to 542 *zloty* for single people. This was set according to prices existent in 2010, and therefore, as the rate of inflation increases, by 2015 some of those living below the absolute poverty line may not even be eligible to claim social benefits (see *Some Notes on poverty in Poland*, Beyond the Transition, 09 August 2012, <http://tinyurl.com/c24qwf>).

these aims and reduce the amount of government spending in the economy.

The attempt to reduce social spending and reform the tax system has met with the social and political obstacles usually faced by such reform programmes. However, a further major problem for the Tusk administration was that the recent decline in public investment was not accompanied by a corresponding increase in private sector investment. Furthermore, with funds from the EU's present budget coming to an end – and the impetus given to the public investment programmes given by Euro2012 having come to an end – the government found it difficult to sustain its previous policy of raising public investment.

In November 2012, Tusk once again addressed the Polish parliament, and announced new plans for a new programme of public investment in an attempt to stave off an economic recession. He pledged large public spending on areas such as highways, rail modernisation, the army, power plants, a natural gas terminal and new pipelines. He announced that over the next few years Poland would spend around 220 billion *zloty* (= 70 billion US dollars), although some of this was recommitting the government to previous spending plans.

The major part of the funding for this investment programme will come out of funds gained from the next EU budget, that comes into force as of 2014 (see below), with the rest of the money gained from financial institutions, the state budget and private and state companies. Importantly, the government has announced that it will bridge the gap before these funds from the EU begin to arrive by increasing public investment in 2013. It plans to use the state-owned BGK bank to set up a 40 billion *zloty* investment fund, which will be supported by the largest state controlled companies. This will be used in order to encourage private sector lending for big infrastructural projects and it is hoped that over the next six years it can be leveraged up to 90 billion *zloty*.⁵

The ability of the Polish government to maintain large public investments is heavily dependent upon the amount of funds it receives from the EU's 2014–2020 budget. Although for the first time in its history the EU's budget was actually reduced in size, Poland has managed to increase the absolute amount of money it will receive from this budget. Poland remains one of

the poorest countries inside the EU, with many of its regions (particularly in the east of the country) having levels of GDP per capita far below the EU average. This ensures that it is liable to receive significant funds through the EU's structural and cohesion funds that are designed to help develop the poorest regions inside the EU. Poland will have access to around 500 billion euros (adjusted for inflation) from the next EU budget, which will equal around 1,890 euros per head, 82 euros more than the amount that it received out of the 2007–2013 budget. Importantly, the Polish government also managed to negotiate that the level of EU money used to finance an investment project will remain at 85 percent; and that the EU will continue to cover the VAT paid on any EU financed investment project.

The relative success of the Polish government in negotiating an increase in EU funds potentially provides the means for the government to increase its level of investment in the economy. The positive hope for the Polish economy is that it can ride out the present downturn over the next few months and then gain access to new sources of EU funds to once again raise investment levels and invest in parts of its underdeveloped infrastructure, thus boosting economic growth and employment. However, a number of factors could hinder this aim. The government's commitment to bringing down its deficit and debts could mean that there are fewer resources available for new investment projects. The Polish constitution states that public debt cannot exceed 60 percent of GDP and the government has voluntarily signed up to the eurozone's fiscal pact that demands increased fiscal discipline and a reduction in deficits.⁶ There is therefore not that much room for the government to increase its own spending. This is exacerbated as the government's policy of deficit reduction is being pursued partly through local governments, which are the government bodies most responsible for managing EU funded investments, which have been required to balance their income and current expenditure as of 2011.⁷ Furthermore, the priorities for investments funded by money from the EU's next budget have altered. The structural and cohesion funds from the 2007–2013 budget were focused upon infrastructural projects. In the run up to the Euro 2012 football championships

⁵ *Poland: Bye Bye Austerity*, BeyondBrics, 12 October 2012, <http://tinyurl.com/czyu5lg>.

⁶ The Polish constitution (adopted in 1997) limits public debt to 60 percent of GDP, meaning that the government cannot take on any financial obligations if it exceeds this level. In order to ensure that this is not breached, Poland has a self-imposed threshold of 55 percent of GDP and if this threshold is crossed then the government has to take action to balance the budget.

⁷ Local governments have been required to balance their income and current expenditure from 2011.

in Poland, there were large investments carried out in areas such as transport and constructing facilities such as stadiums. In the 2014–2020 budget the priority has shifted to raising innovation and it remains to be seen what impact this will have on the rate of investment and whether it can continue to boost economic growth in Poland.

If the rate of investment cannot be increased and if there is not a significant upturn in the European and international economies then the outlook for the Polish economy could be grim. Presently industrial production is falling, unemployment rising and real wages declining. This economic slowdown has encouraged the Monetary Policy Council (RPP) to aggressively cut interest rates during recent months. In March 2013, interest rates were reduced by 50 base points, which was the fifth month in a row when interest rates have fallen. This has occurred during a time when inflation has stood at its lowest level throughout the whole of the post-communist period. In January 2013 inflation stood at just 1.7 percent, after remaining at around 4 percent for most of 2012. These declining interest rates and falling real wages have contributed to an increase in personal debt. The level of personal debt increased by 11 percent in 2012, reaching a total sum of 38.29 billion *zloty*. At present 2.26 million Poles are unable to meet their debt payments on time, an increase of 170,000 compared to 2011.⁸ This rise in personal debt has to some degree offset the decline in consumption caused by rising unemployment and falling real wages. However, this is an unsustainable way of maintaining domestic demand and the growth in personal credit has decreased as economic growth has slowed (in 2011 personal debt grew by 40 percent).

Conclusion

The Polish economy presently stands at a crossroads. After being the EU's best performing economy, in the initial years following the outbreak of the global economic crisis, its economy has begun to slow, which is having an increasingly negative effect on the labour market and living standards. Although exports remain strong, these are heavily dependent upon continual growth in the major Western European economies; and as a large diversified economy these exports cannot fully compensate for declines in other parts of its economy. Poland was able to avoid an eco-

nomical recession for a number of reasons, but mainly thanks to its ability to maintain investment rates. This was achieved primarily through raising public investment, which was boosted by a large flow of EU funds. The major question now is whether the Polish government will be able to repeat this performance and effectively use the EU funds available in the 2014–2020 budget (both in terms of quantity and quality) and thus help to drive economic growth, modernize its infrastructure and raise activity in its labour market.

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ACTIVE LABOUR MARKET POLICIES IN POLAND

ZENON WISNIEWSKI AND
MONIKA MAKSIM*

The situation in the labour market after Poland joined the European Union

Poland's European Union accession opened up new job markets for Polish people in many countries of the European Community and effectively reduced unemployment in Poland. In 2004 the number of unemployed persons reached 2,999,600 and in 2008 it decreased to 1,473,800 persons, while the unemployment rate dropped by almost 10 percentage points to 9.5 percent. Unfortunately, due to the economic crisis that began in the United States in 2007 and reached Europe in 2008, the number of unemployed started to rise again. At the end of 2009 the number of unemployed persons totalled 1,892,700 (with an 11.9 percent unemployment rate), while two years later the number of unemployed stood at 1,982,700 and the unemployment rate had grown to 12.5 percent.

During the period of 2005–2011 the Polish labour market was characterised by significant liquidity. The inflow of unemployed persons had been decreasing prior to 2008 when it reached the level of 2,476,000, but in 2009 it grew by over 600 thousand persons and stayed at a similar level in 2010; although a slight downward trend was then observed. The year 2011 marked a quick deepening of this trend and the size of the inflow fell to 2,591,000 persons. However, the largest outflow from unemployment occurred

in 2006 and amounted to 3,156,000 persons. In subsequent years unemployment decreased and in 2009 it reached the level of 2,664,800 persons. The situation improved in 2010 – the outflow rose by over 300,000 persons only to deteriorate again in the following year when the outflow decreased by over 400,000 unemployed persons and sank to the level of 2,563,500. Undertaking employment made the largest contribution to the outflow from unemployment; however, its share fell systematically from 45.2 percent in 2005 to 38.0 percent in 2009. In 2010 it increased slightly to 39.7 percent and in 2011 it grew again to 44.1 percent. The share of subsidised employment in the population undertaking employment increased until the year 2010, growing from 13.7 to 21.7 percent. In 2011, due to a significant decrease in the level of expenditure on active labour market programmes from the Labour Fund, the share fell to 9.8 percent. The share of deregistration from the population of unemployed persons resulting from their failure to confirm their readiness to undertake employment, on the other hand, remained relatively stable at 30–33 percent. In the time period 2005–2008 the outflow from unemployment exceeded the inflow (the largest difference was noted in 2007 – over 560,000 persons), which resulted in a decrease in the unemployment level. In subsequent years the situation reversed – the inflow exceeded the outflow (by almost 420,000 persons in 2009; 62,000 in 2010; and 28,000 in 2011), which contributed to growth in the unemployment level.

Table 1

The number of registered unemployed persons and job-seekers in Poland in 2005–2011

| Years | Registered unemployed persons | Unemployment rate (%) | Job seekers |
|-------|----------------------------------|-----------------------|-------------|
| | as at the end of the time period | | |
| 2005 | 2,773,000 | 17.6 | 62,107 |
| 2006 | 2,309,410 | 14.8 | 56,768 |
| 2007 | 1,746,573 | 11.2 | 49,360 |
| 2008 | 1,473,752 | 9.5 | 44,409 |
| 2009 | 1,892,680 | 11.9 | 46,176 |
| 2010 | 1,954,706 | 12.3 | 45,506 |
| 2011 | 1,982,676 | 12.5 | 39,701 |

Source: Ministry for Labour and Social Policy.

* Nicolaus Copernicus University, Toruń.

Table 2

Inflows and outflows from unemployment in Poland in the years 2005–2011

| Years | Registered unemployed persons 'inflow' | Deregistered unemployed persons 'outflow' | Out of which for the following reasons: | | |
|-------|--|---|---|-------------------------------|---|
| | | | Undertaking employment | Out of which: subsidised work | Non-confirmation of readiness to undertake employment |
| | in the reported time period | | | | |
| 2005 | 2,793,181 | 3,019,782 | 1,365,790 | 186,693 | 993,124 |
| 2006 | 2,692,351 | 3,155,941 | 1,412,799 | 163,019 | 972,176 |
| 2007 | 2,491,242 | 3,054,079 | 1,266,439 | 185,766 | 949,210 |
| 2008 | 2,476,583 | 2,749,404 | 1,052,077 | 186,659 | 874,934 |
| 2009 | 3,083,757 | 2,664,829 | 1,012,375 | 202,329 | 837,751 |
| 2010 | 3,041,964 | 2,979,835 | 1,183,296 | 256,343 | 874,100 |
| 2011 | 2,591,458 | 2,563,488 | 1,130,697 | 110,844 | 827,765 |

Source: Ministry for Labour and Social Policy.

The Act on Employment Protection and Labour Market Institutions,¹ which took effect on the day that Poland joined the European Union, laid emphasis on active forms of unemployment prevention. It was possible due to the change implemented in September 2004 which shifted pre-retirement benefits and allowances from the Labour Fund to ZUS (The Social Insurance Company). These changes were accompanied by an economic upswing and, therefore, by increased payments made to the Labour Fund which, in the period preceding 2010, led to covering an increasing number of unemployed persons with active instruments of labour market policies. In 2005 the number of unemployed persons involved in active forms of unemployment prevention was 561,700, but in 2007 this figure increased to 672,800 and in 2010 to 788,000. In the year 2012 the number of the unemployed who completed active programmes on the labour market halved and amounted to 382,300. However, an improvement was noted in the employment effects of those undertakings. In 2009 47.9 percent of the unemployed covered by the employment programmes became employed; however, in 2007 this index was higher by almost 10 percentage points (57.7 percent), but in 2010 it fell to 54.2 percent and in the following year rose to 55.7 percent.

Expenditure from the Labour Fund, which was destined to palliate the effects of unemployment and fight this phenome-

non, remained at a fairly constant level throughout 2005–2008 and fluctuated between 5.4 and 5.8 billion PLN; however, in 2009 alone this expenditure doubled to reach the level of 11.2 billion PLN. In 2010 the rate of increase in expenditure from the Labour Fund was relatively small – expenditure rose by about 10 percent to reach 12.4 billion PLN. The year 2011 saw a decrease in expenditure of almost 30 percent to the level of 8.8 billion PLN. The structure of expenditure also changed. Prior to the year 2008, expenditure as a share of allowances and benefits had fallen from 54.0 to 33.2 percent. In subsequent years there was growth and in 2011 the level of 54.8 percent was reached (this was partially due to the inclusion of the payment of pre-retirement allowances and benefits previously realised by the Social Insurance Company to the Labour Fund). Expenditure as a share of unemployment prevention programmes increased from 37.0 percent in 2005 to 54.5 percent in 2010. However, in 2011 it decreased

Table 3

Expenditure from the Labour Fund in Poland in the years 2005–2011 (in millions of zloty)

| Years | Total expenditure | Allowances and benefits | Unemployment prevention programmes | | Other |
|-------|-------------------|-------------------------|------------------------------------|---------------------------------|-------|
| | | | Total | Active labour market programmes | |
| 2005 | 5,551 | 2,998 | 2,052 | 1,870 | 456 |
| 2006 | 5,500 | 2,805 | 2,219 | 2,029 | 467 |
| 2007 | 5,367 | 2,268 | 2,710 | 2,493 | 390 |
| 2008 | 5,753 | 1,911 | 3,362 | 3,111 | 480 |
| 2009 | 11,245 | 4,504 | 6,205 | 4,016 | 536 |
| 2010 | 12,376 | 5,014 | 6,745 | 5,323 | 617 |
| 2011 | 8,751 | 4,796 | 3,328 | 1,920 | 628 |

Source: Ministry for Labour and Social Policy.

¹ See State Journal of Laws, 2004, no. 99, item 101.

to 38.0 percent and a particularly dramatic fall was noted in expenditure on active labour market policies. In 2011 this expenditure was reduced by 64.0 percent versus the previous year and its share of total expenditure from the Labour Fund fell from 43.0 percent in 2010 to 21.9 percent in 2011 to reach the lowest level of the past decade.

Active labour market measures

By virtue of the aforementioned Act on Employment Promotion and Labour Market Institutions, a new division of active labour market policies was introduced into labour market services and labour market instruments in Poland in 2004. The act specified the following four fundamental types of labour market services: work exchange, vocational counselling and information, aid in active search for a job, and the organisation of training courses.

The following constitute labour market instruments supporting labour market policies:

- Financing the cost of travel to the employer that submits the job offer,
- Financing the cost of accommodation in the work place paid by a person who was sent by a district job centre to undertake employment,
- Co-financing of the furnishing of a work place, of commencing a business activity, of the costs of consultations and counselling, etc.,
- Reimbursing the costs borne for the social insurance contributions paid related to the employment of an unemployed person, and
- Financing unemployment prevention additional allowances.

In order to activate unemployed persons the following instruments have been defined within the labour market policies in Poland: training courses, intervention works, public works, vocational training at the work place, placements, means for creating work places and socially useful works. These instruments impact the supply and demand sides of the labour market. The supply-oriented instruments include training courses, placements, and vocational training at the work place which, since the year 2009, have taken the form of adult vocational training. The demand-oriented instruments, in turn, include subsidised employment, which takes the following forms: intervention works, public works, socially useful works, funds for adults' engaging in a business activity and for furnishing a

workplace for an unemployed person and are assigned by a district job centre.

Vocational training is an instrument of the activation of the unemployed and those seeking employment and is applied in the following situations: the lack of vocational qualifications, the need to change or complete vocational qualifications, the loss of the ability to conduct work in the position occupied hitherto, or the lack of abilities to seek employment actively. Means for training from the Labour Fund may also be allocated to employed persons over 45 years of age who are interested in their professional development. In accordance with the act, training courses may last up to 6 months; however, in cases justified by the training programme developed for a specific occupation, the duration of the training may be extended to 12 months. Training services are delivered in the following two modes: group and individual. As regards the former, a job centre may propose an eligible person to participate in training including in the annual training scheme; within the latter mode, an individual may be directed to a training course selected by himself/herself, providing participation in it is justified. The unemployed covered by training services are entitled to the following forms of financial support:

- a scholarship equal to 120 percent of the unemployment benefit;
- refund of travel, accommodation, and food costs incurred due to the participation in training; and
- refund of child care or of dependant care, up to 50 percent of the unemployment benefit.

Placements are organised on an employer's premises and are intended to enable unemployed persons to gain experience and acquire the skills indispensable to undertake employment. This is especially important for graduates, who naturally lack work experience. At present, however, placements are assigned to all unemployed persons whose situation in the labour market is special. Depending on the category of persons whose situation in the labour market is special, the length of vocational training has been differentiated, but the maximum duration should not exceed 12 months. Placements are regulated by contracts concluded between the district governor and the employer and follow the programme agreed upon. The programme should take into account the unemployed person's psycho-physical predispositions, health condition, his/her level of education, and the vocational qualifications acquired hitherto. It should

also specify the scope of the tasks to be realised both by the unemployed person and by the individual in charge of the unemployed person covered by the programme of placement. Within the duration of the vocational training, the unemployed person is eligible for a scholarship equal to 120 percent of the unemployment benefit. The employer is not obliged to guarantee employment to the intern after the placement is finished.

The purpose of *adult vocational preparation* is to increase adults' participation in continuing education corresponding to employers' requirements. All unemployed persons are eligible for this programme. Adult vocational preparation may take the following two forms:

- learning a job practically, and
- training for a job.

Learning a job practically usually lasts from 12 to 18 months and concludes with a qualification examination granting a vocational title, or with an examination qualifying for a journeyman. Training for a job, in turn, lasts from 3 to 6 months and also concludes with an examination checking whether candidates possess specific skills. Adult vocational preparation follows an established programme, which considers the vocational qualifications standards and both theoretical knowledge and practical skills. It is important to mention that acquiring practical skills must cover a minimum of 80 percent of the time of vocational preparation and must be conducted on the employer's premises. The employer is obliged to assign a person with the qualifications required to supervise adult vocational preparation.

Refunds of costs incurred by employers for creating work places for assigned unemployed persons within the adult vocational preparation programme functions as an incentive to employers. The amount of those refunds should not exceed 2 percent of the average remuneration paid out for each month of the vocational training. Another incentive to employers is a 400 PLN bonus paid out for each month of the vocational training providing the unemployed person passes the final examination. The cost of the examination is also reimbursed from the Labour Fund.

The purpose of *organising public works* is to prevent unemployed persons from becoming accustomed to economic inactivity, particularly if they are in unfavourable and very unfavourable situations in the

labour market, through temporary employment. These programmes are also intended to support the unemployed materially. Public works denote employing an unemployed person for a period of up to 12 months in the case where works are organised by communes or non-governmental organisations that statutorily deal with the following issues: protection of the environment, culture, education, physical education, tourism, health care, unemployment, and social welfare. The organiser of public works is entitled to receive the reimbursement of part of the cost of remuneration, bonuses, and social insurance contributions for a period of 6 months. In the case where the employment period exceeds 12 months, the cost borne by the employer is refunded for every second month.

Intervention works are aimed at vocational activation of the unemployed with a special situation in the labour market, and at creating opportunities for undertaking permanent employment. Intervention works programmes help those groups that are exposed to the threat of being vocationally withdrawn and deactivated to maintain contact with the labour market. Intervention works consist of employing an unemployed person pursuant to a contract concluded between the district governor and the employer. The employer that offers a work place to the unemployed person assigned for intervention works may receive the reimbursement of a part of the cost borne for the payment of the remuneration agreed upon in the contract, bonuses and social insurance contributions corresponding to the reimbursed remuneration. The duration of the programme may vary. The basic period of providing aid for the aforementioned groups lasts up to 6 months (or up to 12 months in cases where the reimbursement is paid out for every second month of the employment period). For some categories of the unemployed intervention initiative may last up to 12 or even up to 24 months (or up to 18 and 48 months in cases where the reimbursement is paid out for every second month of the employment period).

Socially useful works are primarily aimed at the realisation of social purposes and are targeted at the unemployed who are not eligible for an unemployment benefit and are recipients of social benefits. These instruments are to prevent demoralisation and teach persons threatened by social exclusion how to work. Socially useful works may last up to 10 hours per week. These works are realised based on a contract concluded between the district governor and the

commune for the benefit, of which the social works are going to be conducted. The unemployed person assigned to them is entitled to receive an hourly rate of a minimum of 7.70 Polish *zloty* for every effective working hour.

The means allocated to the creation of new work places cover the following: a one-off subsidy paid out to the unemployed person to commence business activity, refunds paid out to the employer, the cost of furnishing or providing additional equipment for a work-stand in return for employing the assigned unemployed person. They are aimed at supporting self-employment and the development of regional small businesses. At present, the amount of means granted to an unemployed person for commencing business activities or providing additional equipment for a work-stand cannot exceed 600 percent of the average remuneration earned in Poland. In addition, an unemployed person may receive the reimbursement of the documented cost of legal assistance, consultations or counselling. The unemployed person who received the support is obliged to continue the business activity for a period of 12 months or must return the subsidy. The employer representing the small or medium-sized enterprise is obliged to maintain the work place for a period of 2 years.

The number of the unemployed engaged in active labour market policies rose in the time period 2005–2010 by approximately 40 percent and the number of unemployed persons in that period fell by 35 percent. Therefore, the number of the unemployed

who were engaged in active labour market policies increased significantly. However, 2011 saw a decline in the number of the unemployed by 1.4 percent and the number of persons engaged in active programmes decreased substantially (by over 46 percent) and the programmes covered merely 15 percent of the total number of the unemployed in Poland.

The largest expansion in undertaking business activities and creating new work places was noted in the years 2005–2010 when the number of the unemployed engaged in these programmes increased by over 300 percent. The number of the unemployed participating in placements rose by almost 84 percent, while the figure for those participating in training courses increased by nearly 21 percent. However, a fall was noted in the number of unemployed persons engaged in intervention works (by 39 percent). The decrease in the proportion of intervention works was related to the rigorous legal requirements related to the employment of an unemployed person after the completion of intervention works. Placements were regulated by less rigorous regulations and after the amendments made in the act at the end of 2008, when the subject scope was extended, it became even more favourable. The year 2011 saw a decrease in the number of persons involved in all of the active programmes. The sharpest fall in the number of participants was noted in training courses, public works and in supporting business activities. The decline was due to the poor situation of public finances and the drastic cuts in the means allocated to the activation of the unemployed.

Table 4

Number of unemployed persons engaged in active labour market policies in Poland in the years 2005–2011

| Years | Total | Training | Intervention works | Public works | Socially useful works | Placements | Vocational training at the work place | Means allocated to undertaking business activities | Furnishing and providing additional equipment to a work-stand |
|---|-------|----------|--------------------|--------------|-----------------------|------------|---------------------------------------|--|---|
| The numbers of unemployed persons engaged in the programmes are expressed in thousands. | | | | | | | | | |
| 2005 | 561.7 | 150.7 | 70.9 | 69.2 | x | 162.7 | 67.0 | 27.9 | 13.1 |
| 2006 | 594.3 | 146.9 | 69.1 | 32.7 | 61.5 | 169.1 | 58.3 | 34.9 | 21.8 |
| 2007 | 672.8 | 178.1 | 59.1 | 40.9 | 73.4 | 173.0 | 65.8 | 45.1 | 37.4 |
| 2008 | 652.3 | 168.3 | 46.0 | 44.5 | 63.9 | 169.9 | 79.4 | 52.2 | 28.0 |
| 2009 | 684.6 | 168.3 | 40.3 | 54.0 | 65.8 | 256.7 | 7.2 | 63.9 | 28.4 |
| 2010 | 788.7 | 182.4 | 43.2 | 74.6 | 67.6 | 299.3 | 1.1 | 77.0 | 44.6 |
| 2011 | 302.0 | 53.8 | 28.5 | 22.8 | 49.7 | 110.5 | 0.3 | 26.1 | 10.7 |

Source: Ministry for Labour and Social Policy.

Placements had the largest share in the structure of the unemployed engaged in specific active labour market programmes in the years 2005-2006. Their share rose from 27 to 37 percent. Training programmes came second; however, their share was on the decrease – it dropped from 29 to 24 percent. The share of intervention works also halved, while the share of public works decreased by one-third. An increase, however, was noted in the amount of means allocated to commencing business activities and creating work places (from 8 to 16 percent).

Effectiveness of active labour market policies

The effectiveness of the fundamental active labour market policies applied in Poland in 2009 was evaluated. The analysis performed was quasi-experimental and was based on a propensity score matching method (Rosenbaum and Rubin 1983). In the view of many evaluation specialists, this method gives satisfactory results in the scope of the evaluation of active labour market policies at the microeconomic level.

The effects of the policies were evaluated based on the information on the unemployed taken from the *Syriusz* database (information system for public employment services in Poland) exclusively. That means that the labour market status of participants of active labour market measures as well as of unemployed persons not participating in the programmes was determined based only on the data stored in the register of a job centre.

In the present research in the case of a group assigned to active forms, the gross effect stands for the percent-

age of persons who, after completion of a programme, were deregistered due to undertaking employment within three months after the date of its completion. The net effect of a programme constitutes the difference between the percentage of the employed from a group of unemployed persons participating in active labour market policies and from a control group matched by means of the nearest neighbour method.

On a nationwide scale, the most effective measures in terms of understanding the impact on employment turned out to be start-up incentives and intervention works. Positive employment effects were also generated by the supply-oriented instruments of the labour market policies, i.e. by vocational training courses and placements; however, these effects were considerably weaker than the effects resulting from means allocated to undertaking business activities or intervention works. Participation in socially useful works had a negative impact on the chances of being employed and the impact of public works proved statistically insignificant.

The employment effects of subsidies for engaging in economic activity as well as of intervention works appear to be overvalued due to the measuring method applied in labour offices, which leads to a considerable overstatement of the gross effects of those instruments.

The interpretation of the obtained effects of training is a more complex task. The training courses analysed concerned various vocational areas and these courses varied in terms of their length and the quality of teaching. For instance, longer training courses due to

the lock-in effect may have had a much weaker impact than short ones. The poor learning outcome may have been influenced by both the factors related to didactic aspects of the training and by mismatching the teaching content to the current needs of the labour market. The low effectiveness of vocational training courses may also be explained by dead-weight loss, which means that those forms of raising qualifications were to a large degree targeted at persons who portended well on the labour market and would undertake employment

Table 5

The gross and net employment effects of active labour market policies in Poland in 2009

| Active labour market measures | Gross employment effects (in %) | Net employment effects – impact (in % points) |
|--|---------------------------------|---|
| Training | 43.2 | 8.7*** |
| Placements | 34.0 | 3.1*** |
| Intervention works | 45.0 | 15.6*** |
| Socially useful works | 11.2 | – 8.9*** |
| Public works | 30.3 | 4.7 |
| Means allocated to undertaking business activities (start-up incentives) | 100.0 | 62.6*** |
| Note: *** p<0.01; ** p<0.05; * p<0.1 | | |

Source: Authors' own calculation based on the data derived from the *Syriusz* system.

without using this type of support. The net effects of training courses may also have been undervalued.

The net effects of placements also seem surprisingly weak, although young unemployed people without any vocational experience willingly apply for them. It is worth mentioning that on 1 February 2009 the body of persons eligible for placements was extended to the whole group of the most disadvantaged in the labour market; and this fact has probably contributed to lowering the effectiveness of this form of activation. In the light of the research conducted by the Institute for Structural Research (see Bukowski 2009), placements constituted an effective form of supporting unemployed youths who completed primary or secondary education. At present placements are becoming a more attractive instrument for employers than intervention works since placements provide employees who do not need to be paid for their work and there is no obligation to guarantee employment to them on completion of the placement. It may be inferred that the inappropriate targeting of placements has become a major factor determining the low employment effectiveness of this instrument.

The results of the analysis confirm that socially useful works are not activating instruments that help individuals to return to employment. Participation in socially useful works negatively impacted an unemployed person's chance to undertake employment. However, it does not mean that using this instrument should be abandoned. Socially useful works are intended to realise goals that are different from other active programmes. Their role consists in preventing demoralisation and in shaping positive attitudes to work in persons endangered by social exclusion. Therefore, the evaluation of this programme based only on measuring employment effects does not appear to be fully justified since undertaking employment is not the only measurement of the success of socially useful works.

Public works, like socially useful works, cannot be looked upon as a means of labour market policies that increase the chances of gaining employment. The earlier evaluation research on active labour market policies in Poland conducted by the Institute for Structural Research as well as other analyses of employment programmes in selected EU member states confirm the occurrence of the negative net effects of public works, or of a statistically insignificant impact of that programme on the likelihood of stopping unemployment (see Caliendo *et al.* 2005;

Kluve 2007). Public works are usually accompanied by a stigmatisation that probably has a significant impact on their effectiveness. Public works cease to fulfil activation functions and increasingly frequently function as an instrument of passive labour market policies whose major goal is to improve the material situation of the unemployed that fall into hard-to-place groups on the labour market.

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STABILITY OF BANKING SYSTEM IN POLAND AND ACTIVITY OF THE KNF – POLISH FINANCIAL SUPERVISION AUTHORITY

BARTOSZ GODZISZEWSKI* AND
MICHAŁ KRUSZKA**

Introduction

This study introduces the activities of the KNF – Polish Financial Supervision Authority during the period of European economic slowdown, i.e. years 2007–2012. It presents a brief outlook of the KNF performance, and shows its influence on financial market and the real sector of the economy. Moreover an attempt has been made to find out how the KNF will look in the future and what are possible threats to the institutional framework of financial supervision in Poland. The paper is divided into three parts. The first contains a short presentation of key macroeconomic figures, the second shows the performance of banking sector, while the third highlights some details about resolutions and recommendations issued by the KNF.

Macroeconomic outlook

Poland's macroeconomic performance over the period 2007–2012 can be considered to be favourable, especially if the country is compared with the EU and eurozone countries. The Polish economy avoided recession, and its output growth was resilient, remaining above the EU average (see Figure 1).

However, despite output growth, labour market remained relatively weak: economic activity did not rise substantially, suggesting so-called jobless growth.¹ The Polish economy had a low employment ratio. This kind of problem had already emerged around ten years previously when Poland was hit by an economic slowdown (although there was no recession), and when weak output development was followed by an extremely high unemployment rate of around 20 percent. It should also be noted that policymakers were aware of the problem related to jobless growth (Ministry of Economy 2004). However, there have been no significant changes to the labour market institutional framework over last years. A deep sensitivity of employment to business cycles may curb demand for credit and pose problems with loan repayments.

The adverse performance of Poland's economy is forcing banks to develop and use proper risk assessment models, combined with a cautious credit policy, in order to minimize the nonperforming loans ratio. On the other hand, the authority responsible for financial supervision should develop proper requirements for the banking sector in terms of the capital adequacy ratio or liquidity performance, while also making recommendations covering the provision of credits and the assessment of borrowers' creditworthiness. Such an issue is extremely important when one considers the effects of loose mortgage lending policy, which resulted in housing bubbles followed by a deep recession in Ireland and Spain.²

In view of the threats linked with the vague assessment of borrowers' creditworthiness it should be noted that, unlike in some other EU countries (for example, Britain),³ all potential borrowers in Poland were subject to income verification. As a result, even the deterioration in the labour market situation did



* Polish Financial Supervision Authority KNF and Poznan University of Technology, Poznan.

** Polish Financial Supervision Authority KNF and Vistula University, Warsaw. The views expressed in this article are exclusively those of the authors and do not necessarily represent the views of the KNF or its management. All errors and omissions remain entirely the responsibility of the authors.

¹ Referring to the term 'jobless growth' or 'jobless recovery' it is important to remember that both the definitions and causes of such a phenomenon are controversial (Cantore, Levine and Melina 2013; Aaronson, Rissman and Sullivan 2004).

² Housing Prices Index published by Eurostat shows that average rate decrease in house prices for the period between 2009 Q4 and 2012 Q3 accounted for 7 percent in Spain and 13 percent in Ireland.

³ FSA (2012) data shows that income verification in Britain ranges from 70 to 87 percent of potential borrowers.

Figure 1

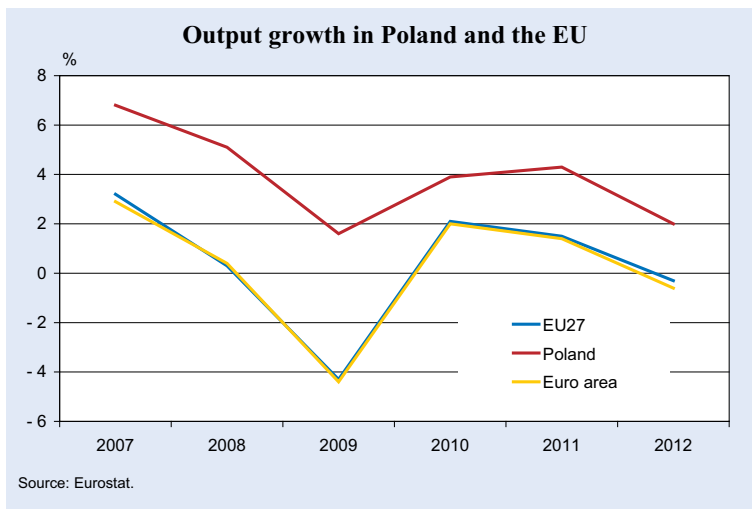


Figure 2

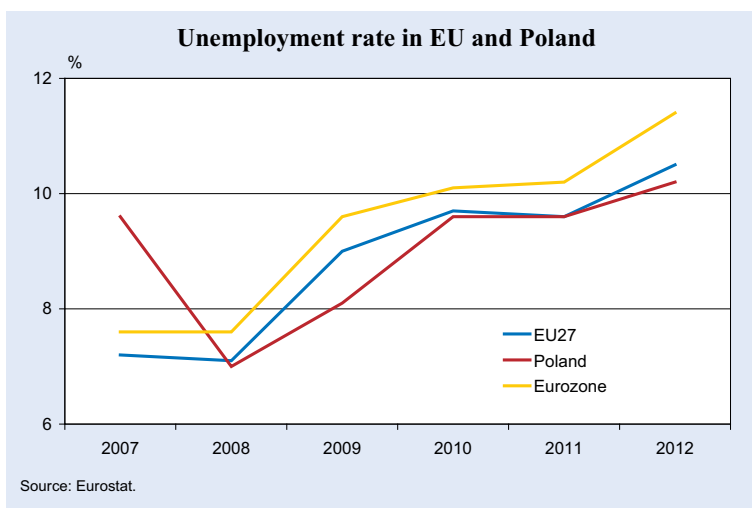
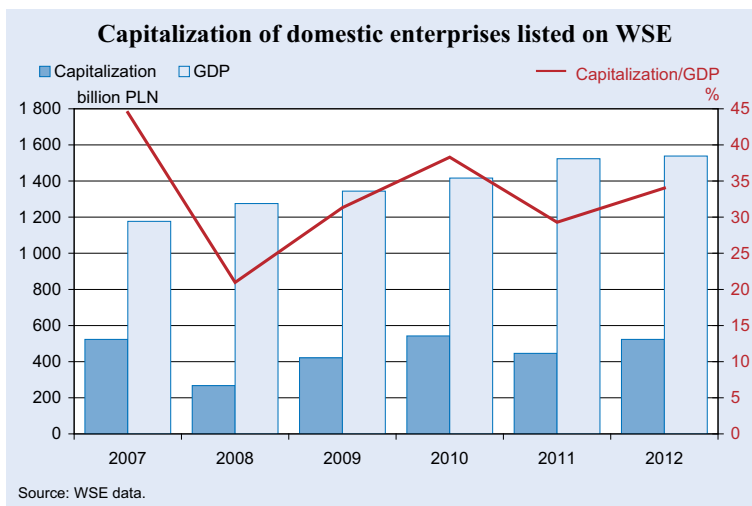


Figure 3



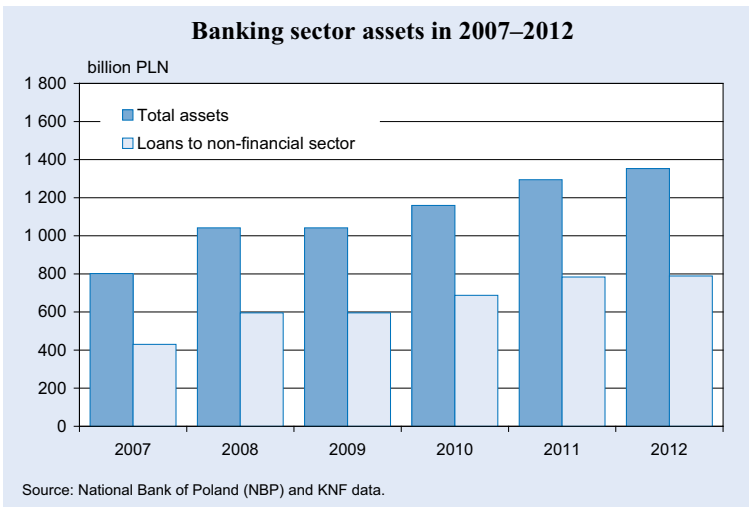
not lead to a sharp increase in the nonperforming loans ratio. In the mortgage sector the relationship between provisions for impaired loans and the net value of credits was recently lower than 0.5 percent in Poland. This figure suggests a proper attitude towards credit scoring policies and risk assessment in the case of both supervision and of banks in this country. In Spain, on the other hand, the ratio of nonperforming mortgages rose from 0.8 percent to 7.6 percent during the period 2005–2011 (IMF 2012).

Contrary to the relatively sound situation in the real sector economy, the global financial crisis hit the Polish capital market more substantially. In 2007 the capitalization of domestic enterprises listed on the Warsaw Stock Exchange (WSE) accounted for 45 percent of GDP, but it fell by 10 percentage points to 35 percent of GDP in 2012 (see Figure 3). The sharpest decrease was observed in 2008 when the corresponding value of companies was below 30 percent of GDP (in nominal terms it expresses the downwards movement from 500 billion PLN to around 250 billion PLN). Yet it has to be stated that such a poor performance on the part of the capital market was not accompanied by a deterioration in the overall economic situation and did not amplify any adverse trends in the real sector.

Situation in the banking sector

In the period from 2007–2012 the development trends in the banking sector can be assessed as fairly positive. In these years assets grew by 68 percent, which implies a solid 13 percent annual growth rate. In absolute terms such a

Figure 4



change means a balance sheet increase from around 800 billion PLN in 2007 to 1.35 trillion PLN in 2012 (see Figure 4).

Growth in total assets was followed by an increase in loans to non-financial sectors. The latter grew faster than the sum of assets: the total increase reached 83 percent (i.e. 13.8 percent per year), rising from 430 billion PLN in 2007 to 788 billion PLN in 2012. Growth, also expressed in relative terms, was rapid, soaring from 36 percent in 2007 to 60 percent in 2012 as compared to GDP, whereas credit as a share of GDP equalled 60 percent (in 2012) and was thus much smaller than that of many other EU countries.⁴

It is important to observe that such rapid growth in exposure was not associated with a worsening of the credit portfolio in Poland. The share of nonperforming loans grew from 5.2 percent to 9 percent between 2007 and 2012. At the end of 2012 nonperforming loans amounted to a total of about 71 billion PLN. One serious problem that has recently emerged is the heavy involvement of banks in lending to the construction industry. Many construction enterprises lost their financial liquidity in the second half of 2012; and some of them (like PBG) declared bankruptcy. Others were liquidated

⁴ According to the World Bank, the comparable ratio for Britain was 186 percent, 208 percent in Denmark and 104 percent in Germany.

while several firms restructured their debt. Such loans reached 60 billion PLN (the so-called 'big exposures'), which account for 11.2 percent of total major exposures. The construction sector accounted for around 24 percent of impaired loans.

Changes in assets were followed by an increase in owners' equity and liabilities. The total amount of deposits grew from 419 billion PLN in 2007 to 931 billion PLN in 2012 (= 120 percent). Such numbers confirm the sustainable growth of the banking sector in

Poland in recent years. The LTD (loans to deposit) ratio was around 110 percent. One flaw was the fact that the majority of long term loans (especially mortgages) were financed by short-term deposits. As a result, the KNF recommended strengthening the capital base, primarily by means of profit retention, in order to stabilize the situation of banks.

The resilience of the banking sector is also confirmed by the Financial Stability Reports published semi-annually by the National Bank of Poland (NBP). For the purposes of the analyses conducted by the NBP, the three main strategies of asset financing are separated into: (1) deposit based, (2) foreign financing and (3) mixed (NBP 2012). The share of deposit-based financing reaches around 70 percent, and amounts to 40 percent when mixed strategy is applied, while it accounts for 30 percent when banks rely on foreign financing. In cases where another significant compo-

Figure 5

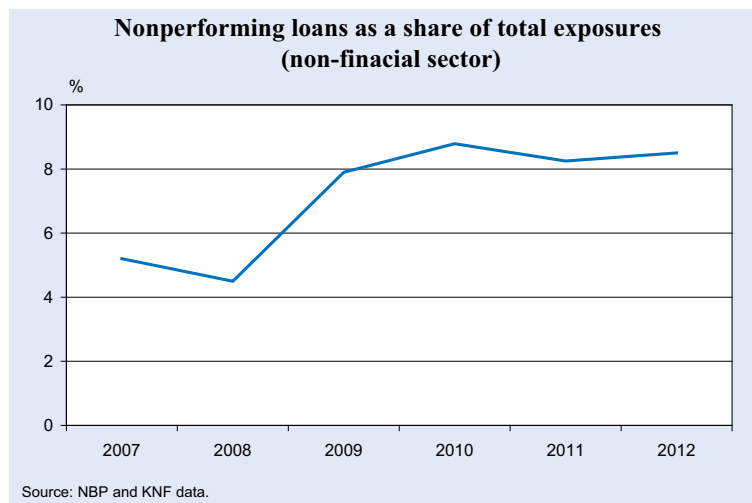


Figure 6

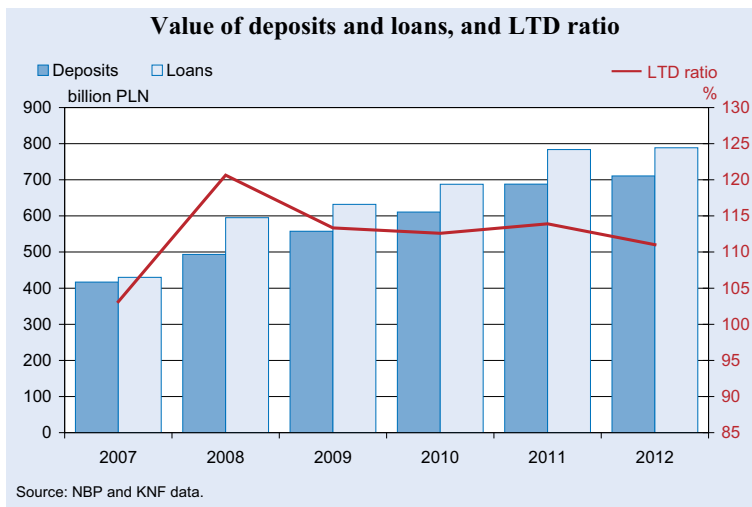


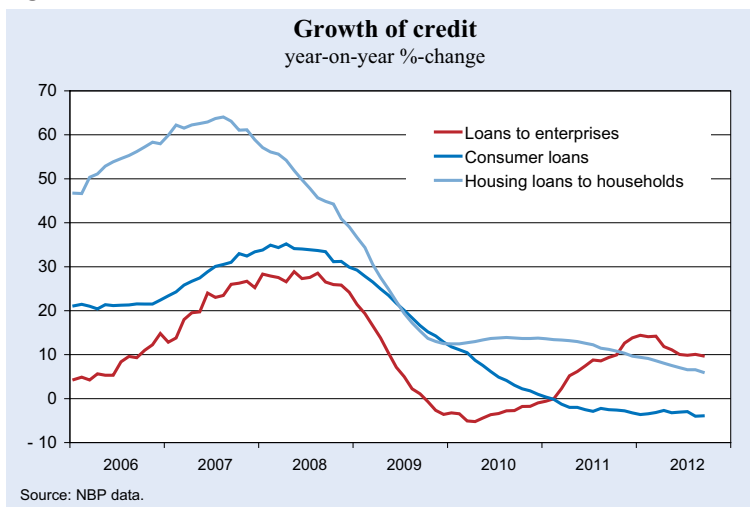
Table 1

Capital adequacy ratio

| Year | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|------|------|------|------|------|------|------|
| CAR | 12.0 | 10.8 | 13.3 | 13.9 | 13.1 | 14.7 |

Source: NBP and KNF data.

Figure 7



ment – the claims of non-resident financial companies (usually parent companies) against banks – is considered, the share is 8 percent for the deposit strategy, 16–18 percent for the mixed strategy and 46 percent for foreign financing. When the structure of total assets financing is analysed, the corresponding numbers amount to 51 percent, 27 percent and 22 percent, respectively. The dominance of a deposit-based strategy is very important when one considers the fact that the majority of Polish banks are subsidiaries of foreign institutions: this made it possible to avoid a sudden outflow of funds during the economic slowdown

when parent companies needed liquidity support.

The Polish banking sector maintained adequate capital buffers, which were higher than those recommended by the Basel Committee. Moreover, the capital adequacy ratio (CAR) in Polish banks was mainly based on Tier I capital, which makes banks even more resilient to adverse economic conditions (see Table 1).

The value of CAR calculated for Polish banks over the period 2007–2012 was above 10 percent, which appears to be a good result.⁵ Moreover, relatively high CAR did not lead to a drastic reduction in credit supply (see Figure 7). The decrease in its growth stemmed mainly from the economic slowdown and was not primarily caused by supervisory regulations. Such a slowdown is clearly visible in the case of mortgages (especially FX mortgages), which can be triggered by the rational restrictions imposed by supervision. The Polish real-estate market behaved similarly to the markets in other countries, however, the downwards movement of housing prices was neither very deep nor did it pose any threat to the stability of the banking system. With regard to the data presented above on nonperforming mortgage loans, it is important to underline once again that the relatively conservative lending policy of Polish banks supported by the KNF protected the Polish economy against ‘bubble prices’ in the real estate market.

Activities of the KNF during the economic slowdown

The Polish integrated financial supervision system was established in 2006, when banking supervision,

⁵ According to the Basel Capital Accords, CAR should not be lower than 8 percent: since 2011 the KNF has recommended to maintain at least 12 percent level.

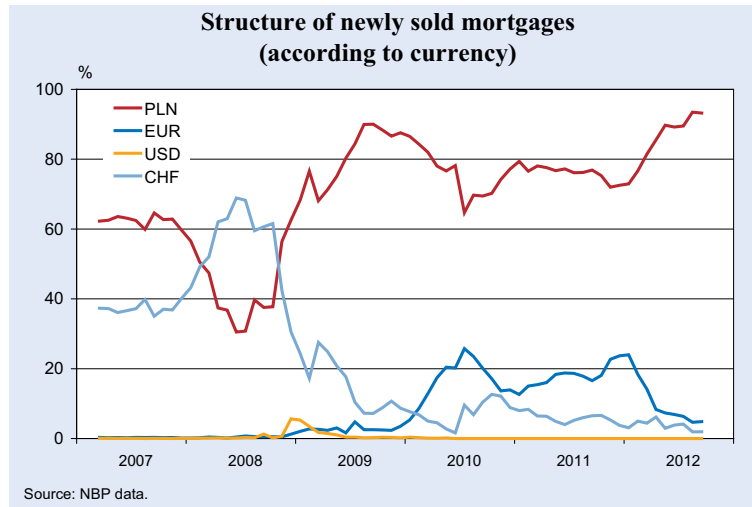
the securities commission and the insurance authority were merged under the single roof of the KNF. Such an action was designed to improve the performance of the authorities and to prevent the country's economy from succumbing to the crisis (Čihák and Podpiera 2006). In general, integrated supervision in Poland has operated properly because:

- There has not been any bank failure since the beginning of the global financial crisis and none of the banks in Poland required recapitalization using public funds;
- Polish banks are well capitalized, liquid and fully capable of satisfying on-going credit demand;
- The off-balance sheet positions of Polish banks are mainly financing provisions or guarantees, but there are virtually no OTC (over-the-counter) derivatives;
- Despite weak labour market conditions, the number of nonperforming loans did not rise sharply; and
- The balance sheets of Polish banks were free of any burdens stemming from investment in the securities or governmental bonds issued by countries struck by financial crisis.

In the period 2007–2012 the KNF drafted numerous recommendations and resolutions aimed at stabilizing the situation in the banking sector. The most notable of these initiatives were the recommendations regarding capital requirements for certain risks. According to the KNF resolution, the 75-percent weight of FX loans was replaced by the 100-percent weight (despite the Basel requirement of 35 percent). As a result, the sales of new FX credits in Swiss CHF were curbed, which reduced the possible exchange rate losses. It is important to note that in the period 2008–2009 up to 60 percent of newly sold mortgages were granted in CHF. After 2010 this share fell to below 10 percent (see Figure 8).

An important solution aimed at stabilizing the Polish banking sector was the establishment of legally binding liquidity norms in 2008. It is worth noting that such a solution was introduced prior to the issue of liquidity norms by the Basel Committee (its recommendations defining the LCR (Liquidity Coverage

Figure 8



Ratio) and the NSFR (Net Stable Funding Ratio) were proposed in 2010 – see BIS (2010)).

In general the activities of the KNF deserve a positive opinion not only because there was no financial crisis caused by banks pursuing flawed policy, but also because the probability of such threats in the future was reduced. Banking supervision in Poland has been active, instead of being reactive. This is important when Poland's rating position is considered. A good credit rating is one of the factors confirming the soundness of an economy, and financial supervision performance is a significant element in rating methodology. Rating agencies assess the activity of supervision and considers its results when determining an overall rating score (S&P 2011). In other words, if any particular country suffered from a financial crisis, especially in cases where banks required state-backed assistance or nationalization (see, for instance, the US Troubled Asset Relief Program – TARP), then the overall grade for supervision is poor. From this perspective the KNF has effectively fulfilled its mission (Fitch 2013).

Other important issues deserving further analysis are the role and position of the KNF in the new institutional framework proposals of the European Commission linked with the Banking Union, or the way that Basel III and the CDR IV have been implemented. The main pillars of the European Banking Union are common supervision rules (the so-called 'single rulebook'), the single supervision mechanism for the entire euro area, the common deposit guarantee scheme, and the harmonized framework for the recovery and resolution of financial institutions. Such supra-national proposals, especially when one looks

into intragroup financing, appear to change the position of the KNF (as a host supervision authority) in the future. Yet it is premature to discuss this issue in detail since the majority of draft proposals require further analysis (some recommendations are controversial even for eurozone members like Germany⁶). Moreover, several foreseen instruments are mandatory for eurozone members, while other EU countries can voluntarily participate in this framework.

Conclusions

In Poland the credit-to-GDP ratio rapidly rose from about 36 percent in 2007 to 60 percent in 2012. Such an increase itself might potentially be a source of risks to financial stability, but it was also coupled with relatively new phenomena, and above all by massive foreign currency lending. Thanks to the proactive attitude of the Polish authorities and sound economic fundamentals, the risks have largely failed to materialize. In its recommendations for banks the financial supervisor has addressed the problem of FX lending, which contributed to the high quality of the portfolio. Before the economy slowed down, the KNF – Polish Financial Supervisory Authority persuaded banks to accumulate an additional capital buffer that helped to protect them from the negative consequences of the downturn. Some regulatory concepts that have been put into practice in Poland in recent years, including quantitative liquidity requirements, are now being implemented globally.

The KNF participates in international debates (especially at the EU level) on a new regulatory regime for the financial system. The major message that the KNF intends to convey is that all new regulations must be tailored very carefully. Regulators should strive to ensure that the benefits of a higher quality capital base, or of the countercyclical buffer, are not compromised by international overregulation that could undermine national authorities' ability to pursue effective country-specific policies.

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⁶ See press release from G. Fahrenschon, President of Deutschen Sparkassen- und Giroverbandes (DSGV), http://www.dsgv.de/download_gallery/Pressemitteilungen_2012/121213_Einigung_zu_EU-Aufsicht_122.pdf.

PRIVATE EQUITY IN POLAND: THE FOUNDATIONAL BLOCKS OF INDUSTRY DEVELOPMENT

DAREK KLONOWSKI*

Introduction

For two decades now, Poland has been undergoing an in-depth economic ‘overhaul’, changing from a socialist to a market economy. The major macroeconomic goals accomplished since then have included the stoppage of ‘galloping’ inflation and its systematic reduction, a decrease in interest rates, the stabilization and convertibility of local currencies, and the privatization of state-owned enterprises. Product and service prices were liberalized and allowed to find equilibrium with the market. The achievement of these ambitious macro-economic objectives, as well as the creation of legal and administrative foundations to encourage competition and free-market economy behaviour, has led to strong private-sector growth.

In the microeconomic scale, private firms in Poland have undergone transformation in two critical areas: competitiveness and external financing. Many firms that previously enjoyed monopolist positions within

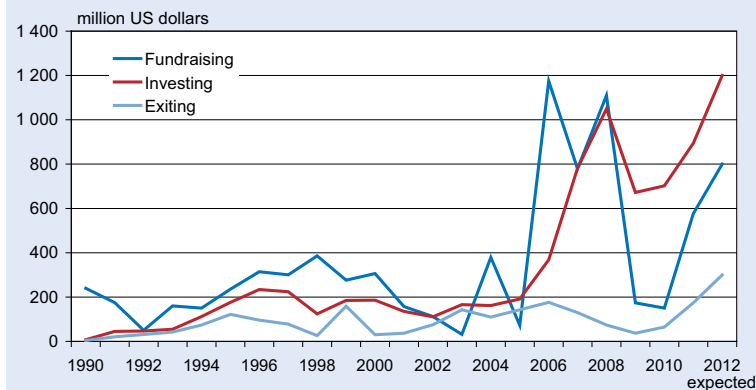
their respective industries began to compete with private, newly created local firms and Western multinationals. In response to this increased competition, many firms in Poland started to better match their products to consumer expectations (both in terms of quality and price), to introduce modern internal management systems (mainly in the areas of finance, marketing and logistics), and to focus on improving human resources. Competition, however, has also produced undesirable results, with many firms either permanently losing their market positions or forced to wind-up their operations.

The development of a strong private equity industry in Poland is no coincidence. Economic stabilization, strong business growth, and a favorable business outlook have provided a strong foundation for an active and developing private equity industry in Poland. There are about 40 private equity firms currently investing in Poland. Around 19 private equity firms are dedicated to the Central and East European (CEE) region, six firms seek to invest in Poland as a part of their global mandate, and 11 firms are only targeting Poland. To date, cumulative statistics from the European Private Equity and Venture Capital Association (EVCA) and other sources indicate that the total amount of venture capital fundraising in Poland is equal to 8.1 billion US dollars (investing equals 7.8 billion US dollars, exiting equals 2.2 billion US dollars – see Figure 1 for the key industry statistics related to fundraising, investing, and exiting).



Figure 1

Development of the private equity industry in Poland between 1990 and 2012



Source: Klonowski (2011).

Venture capital can be most simply defined as risk-equity investing. It is a combination of capital and provided by institutional investors to private firms aimed at accelerating their development and exploiting available market opportunities. In practice, venture capital includes a

* Brandon University, Canada. This article was prepared on the basis of the author's book entitled *Private Equity in Poland: Winning Leadership in Emerging Markets* published by Palgrave MacMillan in 2011.

variety of different types of financing: the provision of start-up finance; specialist portfolio investment in small unquoted companies; the provision of second and subsequent rounds of development capital for later stages of business expansion; and the financing of management buy-outs or buy-ins. It is a ‘business of building businesses’.

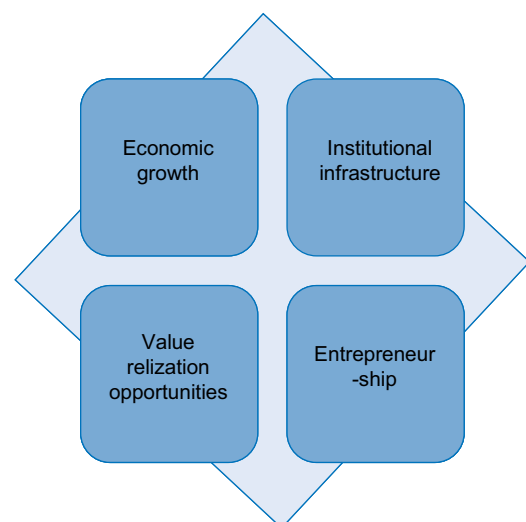
This article focuses on the development of private equity in Poland and, specifically, on its four key developmental underpinnings (economic development, institutional infrastructure, entrepreneurship and exit market development). The topic of private equity in Poland is important for many reasons. Firstly, Poland represents the most developed private equity industry in Central and Eastern Europe as shown by fundraising, investing, and exiting statistics. It also has one of the most developed private equity industries across all emerging market countries. Secondly, research confirms that private equity firms have performed well in Poland in terms of returns. In the last ten years, the average rate of return for private equity deals has been equal to 15.6 percent. The twenty year rate of return is equal to 8.6 percent – a respectable average given that the figure reflects initial developmental challenges, the closure of some underperforming funds, and a significant amount of write-offs. Private equity returns in Poland are also favorable in comparison to other regional averages across CEE (13.9 percent), Asia (7.8 percent) and Latin America (1.9 percent). Thirdly, the private equity industry has been a source of know-how and inspiration to young Polish entrepreneurial firms. The participation of private equity in entrepreneurial firms has often resulted in increased operational efficiency, improved human resources, a more robust strategic management planning process, and enhanced profitability. Lastly, the strong development of the Polish private equity industry may serve as a blueprint for other private equity industries in the CEE region (i.e. Bulgaria, Romania or Croatia) or other emerging market countries that share a development pattern similar to that of Poland. Several initial developmental problems can be avoided through an understanding of the dynamics seen in the private equity industry in Poland.

The four pillars of private equity development in Poland

There are four pillars of private equity development that have played an important role in developing the

private equity industry in Poland (see Figure 2 for the diagram construct): economic transformation, systemic infrastructure improvement, entrepreneurial sector development, and exit market development. These components are interconnected; they co-operate with each other in a symbiotic manner by providing synergistic effects that have collectively amplified the growth of the private equity industry in Poland. As an example, strong economic development, growing market demand for products and services, and the stability of macroeconomic indicators encourages entrepreneurship. Strong economic growth also encourages local policy makers to continue to develop suitable and ‘user-friendly’ institutional infrastructure (i.e. laws, accounting regulations, and corporate governance standards), provide further business development incentives (i.e. reducing taxes), and eliminate unnecessary bureaucratic problems. Strong economic development also invites the entry of foreign capital, either indirectly through public markets or directly by way of mergers and acquisitions. Improvements to institutional infrastructure fuel entrepreneurial and economic growth as the private sector is guided by transparent and consistently applied laws, rules, and regulations. Strong legal, accounting, and fiscal infrastructure also attracts foreign direct investors who – in addition to the strong macroeconomic statistics – appreciate institutional stability and democratic rule. Moreover, a flourishing entrepreneurial sector translates into a thriving economy. The transition of small firms to larger firms and middle-sized firms to large enterprises ensures a steady influx of firms into public markets. Entrepreneurial firms flourish in an environment of friendly institutional infrastructure; it is a

Figure 2
Four pillars of private equity development in Poland



relatively straightforward process to set up a business, bureaucratic requirements are limited, disputes are settled quickly and fairly, and unsuccessful businesses are wound up effectively. Lastly, the sound development of capital markets acts as a conduit for economic growth, a platform of value exchange for local and international investors, and provides firms with access to capital.

It is important to note that the four pillars, especially those related to institutional development and local entrepreneurship, have shifted away from their initial states and are continuously improving. Nevertheless, some areas have continued to present minor or modest challenges to the local private equity community.

Economic transformation of Poland

In 1989, the Polish government opted to pursue an austerity reform program drafted on the basis of neo-classical economics that stressed three components: macroeconomic stabilization, liberalization and privatization. Unfortunately, the implementation of these reforms resulted in a recession – Poland's GDP fell by 11.6 percent in 1990 and 7.6 percent in 1991; industrial output fell by 24.2 percent and 11.9 percent; real wages fell by 32.1 percent and 1.9 percent; and unemployment increased to 6.3 percent and 11.6 percent. By the middle of 1992, however, the effects of the austerity program were becoming visible – GDP grew from 2.6 percent in 1992 to 7.2 percent in 1997, inflation was reduced, and unemployment figures lowered. The period between 1998 and 2002 was one of economic slowdown as the authorities implemented stricter monetary measures to cool off the fast-growing economy; this resulted in a GDP decline from 5.0 percent in 1998 to 1.4 percent in 2002 (unemployment rose to 19.2 percent by the end of the same period). Conversely, the years between 2003 and 2007 marked a return to positive GDP growth, declining unemployment and further public finance reforms. The period of 2006–2010 was one of slower economic growth. To surmise, Poland has achieved the highest average GDP growth per annum among the emerging markets of Central and Eastern Europe, with an average growth of above 3 percent. In 2009, Poland experienced 1.8 percent growth in GDP, the highest and only positive GDP growth among European nations. These facts have led Poland to be nicknamed the 'green island of Europe'. Strong economic growth continued after 2009 too (and at a higher rate than the European Union average).

The economic reforms undertaken in Poland have helped to shape the private equity industry in at least three ways. Firstly, without economic reform, there would not have been as rapid a deployment of capital from the private equity community. Capital flows to countries with stable macroeconomic indicators and political structures, solid institutional infrastructure, liberalized institutions, and modern capital markets; Poland has been able to meet these criteria. Secondly, the privatization program has helped to provide a steady stream of investable projects for private equity firms and propelled other firms further towards development (many of these privatized firms have subsequently become viable investment opportunities). Moreover, the privatization program has proven to be a strong training ground for new investment managers, who – building on their consulting and restructuring experience – have either commenced activities in the private equity sector or become indirectly involved as financial intermediaries. Thirdly and most importantly, the Polish economy and the private equity industry have developed a positive and reciprocal relationship. Private sector firms have been able to obtain access to finance and know-how, and the private equity industry has been exposed to a wide canvas of investment opportunities.

Improvements to systemic infrastructure

Systemic competitiveness broadly relates to the manner by which local governments provide appropriate institutional and administrative support to the private sector. In the case of private equity in Poland, the major determinants of development relate to legal infrastructure (i.e. property rights and ownership laws, various corporate laws, judicial and court systems), accounting regulations (i.e. convergence toward international accounting regulations, overcoming the tax-oriented reporting traditions of the accounting profession, assuring compliance with accounting legislation), and taxation (i.e. fiscal policies, tax collection policies, tax rates and so on).

Issues related to the establishment, dissolution, and activities of firms are regulated by the Commercial Companies Code, which has been regularly amended over the last two decades. The amendments have broadly aimed to limit the role of the government in regulating economic activities. The most significant changes to the Code have included the introduction of new types of legal entities (i.e. professional partnerships, limited joint stock partnerships, and limited partnerships), the concept of authorized but unissued

share capital in a joint stock company, and the extension of provisions related to transformations and mergers. The Code also introduced changes to the minimum amounts of share capital available to limited liability companies and joint stock companies. A significant number of the changes made to the Code were editorial and served to eliminate any confusion related to the interpretation of the practical applications of the new concepts.

Polish regulators have also taken multiple steps to reduce the gap between Polish accounting regulations (PAR) and international accounting standards (IAS). Embracing the idea that higher accounting standards translate into a higher quality of earnings for local firms, the regulators' main goal was to harmonize Polish accounting regulations with those of the EU. It is estimated that about 50 percent of Polish accounting standards are compatible with IAS. No Polish regulations seem to exist for at least 30 percent of international accounting standards on accounting and auditing. An additional 20 percent of international standards are comparable to the Polish regulations in text, but different in practice (resulting in inconsistencies between PAR and IAS).

The Polish tax system has evolved over the last two decades. There have been three general trends. The first trend relates to the reduction of the corporate taxation burden, which encouraged entrepreneurship, new business formation, and scientific research. Corporate income tax in Poland is equal to 19 percent, a figure that establishes Poland as one of the most competitive tax zones in Europe (Britain – 30 percent; Germany – 25 percent; the Czech Republic – 24 percent; Russia – 24 percent) and other emerging markets (Brazil – 34 percent; Argentina – 35 percent; China – 33 percent; India – 30 percent). The second trend relates to the harmonization of local tax laws with the various provisions of the EU. Key elements here include adjustments to VAT regulations, excise taxes, and other direct or indirect charges, and the elimination (i.e. turnover tax) or changing (i.e. VAT regulations, excise taxes) of certain methods and procedures of taxation. The third trend relates to the establishment of special economic zones to provide special corporate incentives (i.e. tax exemptions) to investors willing to establish operations in the geographic regions of Poland characterized by high structural unemployment. Though the tax exemptions depended on the level of investment expenditure, the number of new employees hired, and the length of the employment commitment, the cor-

porate tax could be reduced by 50 percent of the value of the investment.

While significant improvements have been made to institutional infrastructure, there are still some challenges. For example, in the area of legal infrastructure, key challenges relate to enforceability, legal costs, deal structuring, and jurisdictional decision-making. The key concerns in the accounting sphere relate to financial reporting and disclosure, internal procedures used for drawing up financial statements, and taxation disputes (i.e. frequent changes to the tax code as well as random and inconsistent interpretations of Polish tax laws).

Development of the entrepreneurial sector

Small and medium-sized enterprises (SMEs) play a key role in shaping national economies throughout the world. Poland is no exception. There are 1.72 million active firms in Poland. The SME sector accounts for 99.8 percent of all firms in Poland. Total employment in the SME sector is equal to 5.9 million employees, or 70.1 percent of all employed workers, with micro and medium firms as the largest employers (micro – 3.5 million people; medium – 1.4 million people). About 35 percent of all employment comes from the retail sector. The Polish SME sector makes a significant contribution to national GDP (equal to 47.7 percent) and accounts for over 60 percent of the total revenue generated by all firms. The total investment commitment of the SME sector is equal to 17.8 billion US dollars per annum. Firms from the SME sector also enjoy a relatively high rate of survival (60 percent) in their first year of operation, with the four-year rate of survival estimated to be about 30 percent. New firm creation has been increasing steadily at an average rate of 250,000 firms per annum, with the newly created firms generally focusing on wholesale and retail activities.

Entrepreneurship in Poland has evolved in three stages. Local entrepreneurs emerged immediately in the aftermath of economic transformation in Poland. Many of the early 'apparatchiks-turned-entrepreneurs' came from state enterprises, and their political connections proved critical to obtaining favorable access to real estate, external financing, business contracts, a supplier base, etc. This class of entrepreneur is often described as lacking managerial skills and having poor ethical considerations and corporate governance orientation. On the other hand, these entrepreneurs operated in the most difficult business con-

ditions, characterized by a highly fragmented market, cluttered distribution structures, an uncertain taxation and legal infrastructure, the existence of small and inefficient distributors, and problems of access to high quality raw materials. Only a small number of true entrepreneurs were operating in their local regions prior to the 1990s (i.e. limited 'national-wide' entrepreneurs), and the scale of their operations was restricted by the communist regime to a small geographic market and a limited product or service range. Many Polish entrepreneurs set up their operations in the early 1990s having had no prior business experience; these entrepreneurs typically possessed a post-secondary education and varied professional backgrounds. The majority of them began their careers in state-owned enterprises, where they achieved managerial posts before commencing their entrepreneurial activities. The state firms proved to be a good training ground, and the entrepreneurs were able to develop business skills and extend professional contacts. The average entrepreneur of this era was between 35 and 45 years old, communicated well in foreign languages, and was generally optimistic about his business prospects.

The early 2000s marked the development of a new class of entrepreneur: young (between 25 and 35 years old), Western-educated (by local educational programs operated in co-operation with Western universities), and new technology-oriented. Many of the entrepreneurs in this class have spent time abroad studying or working for major international corporations. This era also saw two other trends: a robust growth in female entrepreneurship, and the emergence of serial entrepreneurs and business angels. In the Polish entrepreneurial landscape, female entrepreneurs, generally characterized as 'late bloomers' (i.e. average age between 40–45 years, two children, strong educational background obtained later in their career), represent a large and rapidly growing segment of the Polish private sector. Females now account for about 37 percent of private sector employers (an increase from 3.5 percent in the early 1990s). Serial entrepreneurs and business angels have also been active in the Polish market (since the early 2000s). This group organizes their activities within formal networks and informal associations. It is estimated that they review between 500 and 700 business plans per annum and invest about 155 million US dollars in business ventures.

Limited access to finance has motivated the Polish government to embrace the idea of public assistance to the

SME sector in an attempt to close the 'liquidity gap' inherent to the sector. Public intervention has been driven by multiple factors. Firstly, there is pressure on emerging economies like Poland to sustain their level of economic development in order to catch up to their regional competitors. Secondly, in recognizing the importance of the SME sector and its role in stimulating economic development in the West, the SME sector in Poland continues to receive disproportionate attention from government agencies and institutions. Government assistance programs focus on addressing a wide spectrum of issues related to entrepreneurs, including human resource and advisory functions, the provision of finance, encouraging the participation of women in business, and developing exports.

Exit market development

For private equity firms, the most critical part of the private equity investment process is the exit, or the point at which illiquid investments are monetized. The exit serves as a final confirmation for private equity firms that their selection and analysis of investee firms, their negotiations of legal terms and protections, and their collaborations with respect to strategic expansion and operational execution have been performed correctly. Most private equity firms seek to pursue one of the two most desired exit modes: exit through public listing, or exit through a trade sale to a strategic investor.

The experience of private equity firms in Poland with respect to exit opportunities has been vastly positive. Evidence suggests that, on average, a public listing of shares is a more profitable exit route for private equity firms than a sale to a strategic investor (a 3.5 cash-on-cash multiple for public listings versus a 2.5 cash-on-cash multiple for trade sales). Such outcomes are rooted in at least two observations, both of which point to the general unwillingness of strategic investors to overpay for acquired businesses. Firstly, public markets in Poland have experienced extraordinary returns (16.9 percent per annum) over the last two decades, with returns particularly pronounced between 2003 and 2006. Strong increases across all market indexes reflect a combination of P/E multiple expansion, improved operating results for listed firms, and strong demand for new listings from institutional investors (i.e. pension funds, mutual funds, and so on). Private equity firms have benefited by selling their shares to the public at high valuations. Strategic investors, on the other hand, have resisted buying firms at inflated valuations. Generally, strategic investors have been

unwilling to pay for firms on the basis of economic cycles or market anomalies. Cyclical and sharp upward movements in public market indexes have tended to exaggerate and distort business valuations and have ‘crowded-out’ strategic investors from the M&A market.

A strong local public exchange has benefited the local private equity community. Private equity firms investing in Poland have achieved 46 exits through public listing on the Warsaw Stock Exchange (WSE), and private equity-backed firms represent over ten percent of all firms listed on the exchange. Enterprise Investors is the leader among firms on the exchange, with 26 listings.

The local private equity industry has achieved good financial returns from selling its equity stakes to foreign strategic investors or local trade buyers. However, the average cash-on-cash return from a sale to a strategic investor is lower than in the case of public listing. The experience of local private equity firms selling to strategic investors can be summarized in the following manner. Firstly, the best exit results are often generated when strategic investors are involved in competitive bidding for an investee business. Strategic investors are more motivated when they are seeking entry into a new market (as outlined by strategic expansion plans) or when the existing local business is especially difficult to compete against. Secondly, strategic investors seem to pay less for the business if they already have a local presence. Under such circumstances, strategic investors may only be willing to assign value to a specific part of the business (i.e. manufacturing capability, management, consumer list, proprietary supplier access, and so on) or limited value to other areas of operation (i.e. distribution). Lastly, timing is crucial in the sale of any business. Strategic investors prefer to acquire businesses that are profitable, that have an appetite for growth, and that are able to access cheaper external financing (i.e. debt or equity at limited dilution to existing shareholders). Such businesses typically exist in periods of strong economic growth and prosperity; during an economic downturn, strategic investors tend to look inward and focus on either optimizing their costs or restructuring.

Other contributing factors

There are two other forces that have played a role in developing the private equity industry in Poland: financial assistance from major international financial institutions, and Poland’s accession to the Euro-

pean Union. The two organizations that have most made an impact on the development of the Polish private equity industry are the European Bank for Reconstruction and Development (EBRD) and the International Finance Corporation (IFC). The efforts of these two organizations have stimulated the development of the local industry in at least two major ways: they became ‘cornerstone’ investors for private equity firms, and they instilled corporate governance practices into the industry.

EU accession and membership, conversely, has played a vital role in modernizing the Polish legal and accounting systems. Recognizing the need to harmonize Polish business law with EU legislation and international accounting standards, the Polish government introduced significant amendments to local business laws, banking regulations, public equities markets, and so on. Poland has also benefited from a broad European push to implement the general rules of corporate governance.

Conclusions

The private equity industry in Poland experienced its initial ‘teething’ problems in its early days and is now continuing to develop along a steady growth trajectory. There have been many success stories and, surprisingly, relatively few problems across a diverse range of firms in the private equity firms’ portfolios. Private equity firms remain optimistic that the favorable economic conditions in Poland, improvements to the country’s legal, accounting and fiscal infrastructure and balanced exit opportunities will continue to support business in the future.

The main conclusion of this article is that the development of a flourishing private equity segment in Poland has been based on four major pillars (stable economic growth, strong entrepreneurship, improvements to institutional infrastructure, and well-functioning exit markets). These pillars have not developed sequentially, but continue to operate in a symbiotic manner.

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POLAND'S LONG-TERM MACROECONOMIC PERFORM- ANCE AND RECENT TRENDS: A COMPARATIVE ANALYSIS

TADEUSZ KOWALSKI*

The aim of this study is twofold.¹ The first is an empirical evaluation and comparison of Poland's economic transformation from 1990–2012 against the results achieved in the same period by Hungary, the Czech Republic, the Slovak Republic and Ukraine. The second aim is to assess the economic performance of these five countries during the severe test of the 2008–2009 global financial crisis. The study focuses on major economic aspects of the market transformation. Consequently, the empirical analyses center on the initial macroeconomic stabilization frameworks and then on the general growth mechanisms because they are embedded in the standard descriptive growth model.

The paper consists of five sections and conclusions. The first three are devoted to the long-term perspective covering 1990–2012. The first section explains the selection of countries compared with Poland and briefly outlines the macroeconomic transformation context. A conceptual framework of the conventional production function is used to focus attention on the main determinants of economic performance. The second section discusses the initial conditions of the transition in Poland and the other countries under examination. Special attention is paid to major structural and macroeconomic conditions on the threshold of transformation. The third section is devoted to the assessment of selected growth factors and impediments to growth. The fourth section deals with the reactions of the Polish and other economies studied to the global financial crisis. It shows the

economic performance of the five countries in the 2008–2009 global financial crises and beyond. The fifth section focuses on the general outcomes of transformation in terms of GDP per capita and on the international competitiveness rankings of World Economic Forum. The analysis is summarized in conclusions.

Analytical background of comparative analysis of transformation

The selection of Hungary, Czech Republic, Slovak Republic and Ukraine as countries for the comparative analysis with Poland was based on the following grounds. Hungary has been reforming and transforming its economy since the end of the 1960s. An examination of Hungary allows a comparison between the results of gradual reforms and the results of the radical alternative of the quick pro-market shift implemented in Poland (Kowalski, Wihlborg and Vensel 2007). A comparison with Czechoslovakia,² which had considerably higher economic development, a relatively good initial macroeconomic situation and where reforms were introduced one year later than in Poland, should allow the assessment of the significance of initial structural differences and the specific premium resulting from the possibility of watching Polish pioneer experiences during the first months of transformation. Ukraine at the outset of transformation, used to bear a rather significant structural similarity to Poland, i.e. in the major importance of agriculture and natural resources to the economy. Moreover the Ukrainian GDP per capita level in 1990 was the same as in Poland. Furthermore, Ukraine, as a post-soviet economy, should shed some light on the soviet type-institutional and social heritage and its impact on business and macroeconomic performance. Incorporation of Ukraine into the analysis makes it possible to verify whether this country took advantage of a *delay premium*, since it had started the political emancipation process in August 1991. As a result, Ukraine had an opportunity to launch full



* Poznan University of Economics.

¹ This paper draws on and develops my earlier publication (Kowalski 2010). I am grateful for the language and editorial assistance of Peter Wingrow and Anna Bogajewska and for the statistical assistance of Aleksandra Wojciechowska.

² On 1 January 1993 Czechoslovakia ceased to exist. It was replaced by the Czech Republic and the Slovak Republic.

market transformation as the independent country and to base its actions on the experience of Hungary, the then Czechoslovakia and Poland.

Any evaluation of the economic consequences of the transition process of 1990–2012 requires a coherent theoretical and methodological context. For this reason, the transformation process is seen as being composed of two major stages in this paper: a stage of macroeconomic stabilization and the implementation of fundamental institutional changes, and a subsequent stage of growth and adjustments of initial economic policy measures according to the specific challenges of a particular country. Finally, the global financial crisis can be seen as a specific crash test for all of the countries studied and demonstrates their differing ability to adjust to the slowdown that followed in the European Union economic environment.

The initial macroeconomic conditions were of crucial importance for the economic reform package required. In the longer-term perspective, the structural features of a particular economy played a decisive role. The first stage of economic transformation can be investigated both in the context of macroeconomic analysis and in the context of the microeconomic adjustments of companies and households to the new economic environment (Gorynia and Jankowska 2005; Kowalski and Janc 1999). An important analytical context, useful for describing both phases, is provided by the new institutional economics (Williamson 2000; Paldam and Grundlach 2008).

In the second phase of transition, qualitative factors and conditions started to prevail. The most important were: consistency and determination in the process of reforms, flexibility, privatization of the economy, the ability to improve business environment quality and innovation potential. With the exception of Ukraine, consistent implementation of the European Union's *acquis communautaire*, stemming from EU membership aspirations, also played an important regulatory and modernization role in the economic development of the studied countries. Those conditions and factors, together with objective structural constraints, have influenced economic growth and the scale of improvements in living standards. It is useful to analyse long-term aspects of transformation in the context of growth theory and shifts in international competitiveness. This second framework will be used in section four to assess the countries' reactions to the crisis.

Macroeconomics and institutional conditions in the stabilization phase

At the end of the 1980s, there was no normative theory for the transformation of a centrally planned economy into the market-driven economy based on private ownership. At the time, the source of inspiration could have been experiences relating to the consecutive failures of the stabilizing programs implemented under the auspices of the International Monetary Fund in South American economies. J. Williamson's 'Washington Consensus' became a general recipe containing conditions for effective market reforms (Williamson 1990). The Washington Consensus was developed in a context that differed greatly from the transition economies in Central Europe. The South American countries were basically market economies, but with deficient regulatory and political institutions (Wojtyna 2008).

In Poland in 1989, the general conviction regarding the necessity of deep institutional reform was accompanied by an awareness of the geopolitical barriers of the time. The basic problem was designing a macroeconomic stabilization framework. The scale of the problem stemmed from deep domestic and external disequilibria, a spread between the official and the market currency exchange rate, flight from the *zloty*, hyperinflation, biased price structure, an entirely monetized budget deficit, a near lack of a commercial banking sector, a 'tradition' of a negative real interest rate, and administrative credit regulations.³

In the case of each particular country, macroeconomic stabilization and constitutional reforms required designing and implementing a new institutional environment (qualitative policy). At the same time, the new authorities had to design and implement specific instruments of quantitative policy. All of this had to be accomplished under fragile new social and political conditions.

Transformation vs. growth theory and competitiveness

The second stage of the transformation can be described in the context of the growth theory.⁴ Due to the importance of broadly understood institutions for an efficient transformation to a market-led

³ At the end of 1989 the free market exchange rate (at 'bureau de change') was four times higher than the official rate of the NBP, and about 80 percent of household cash holdings were kept in US dollars and German Marks (Kowalski and Stawarska 1999).

⁴ See Campos and Coricelli (2002); Malaga (2004); Gylfason and Hochreiter (2009 and 2010).

economy, the basic framework of the growth theory is enriched with institutional aspects and economic governance and management quality issues.⁵ Following Gylfason and Hochreiter (2009 and 2010), this paper uses the Cobb-Douglas production function scheme to determine the general context for the comparison of the growth phase in the countries under examination:

$$(1) \frac{Y}{L} = A \left(\frac{H}{L} \right)^a \left(\frac{K}{L} \right)^b \left(\frac{N}{L} \right)^c,$$

where:

Y – production,
 L – labour force,
 A – social capital,
 K – physical capital,
 H – human capital
 N – resources, including land, natural resources, etc.,
 a, b, c – product elasticity of Y against H, K and N .

In this framework, growth is represented by changes in product per capita treated as a composition of four groups of factors: social capital (embedded in A), physical capital per capita (K/L), human capital per capita (H/L), natural resources per capita (N/L). Social capital affects efficiency broadly (see below) and can include the following elements: institutional environment quality, business environment and management quality, and the spill-over resulting from the participation of economies in international labour division (i.e. specialization and economies of scale resulting from the intra-industry trade and trade in tasks) – see Rynarzewski and Zielinska-Glebocka (2008); Grossman and Rossi-Hansberg (2008); Kellman and Shachmurove (2012).

The objectives of macroeconomic stabilization and liberal institutional reforms were high sustainable growth based on improved international competition. M. Porter applied an approach and instrumentation originally used to evaluate a company's competitiveness to the macroeconomic level of the analysis (Porter 1990). Porter's approach focuses on four potential groups of economic competitiveness factors: resources, the demand side of a given economy, the network of sectors, and the business environment. The transformation of these potential factors into actual comparative advantages requires beneficial

conditions, including adequate micro- and macro-economic policy (Kowalski 2012). In the context of the Central European transition economies and allowing for EU membership consequences, economy-specific qualitative aspects and the adaptive ability of businesses matter the most (Kowalski and Pietrzykowski 2010).

In general, the competitiveness of a given economy may be assessed using econometric models of real effective exchange rates or by applying uniform and composite performance measures. The latter are composed on the basis of primary statistical data and subjective measures of perception of the business environment quality of economies.

The first phase of the transformation process

Initial conditions in Poland and in the selected countries

The initial political and social conditions in Poland were relatively favourable for the reforms. The Round Table proceedings paved the way for the parliamentary elections and for the election victory of the reforming group – the Civic Committee by Lech Wałęsa. The government of Tadeusz Mazowiecki could count on the support of the Civic Parliamentary Club and of the other parties of the *Sejm*. Polish society demonstrated a relatively high level of self-organization achieved on the basis of the rise and evolution of Solidarity trade union during the years 1980–1981. In this area, the case of Poland and its group of political and trade union activists that had taken power as a result of the election was unique.⁶

The major macroeconomic conditions on the threshold of the transition process are presented in Table 1. The Czech Republic was in the best initial macroeconomic situation in terms of its GDP growth dynamics and industrial production at the time, as well as its inflation rate and the budget situation or public debt (Table 1). The Czech Republic also had the lowest share of agriculture production in the GDP structure and the highest GDP per capita by a clear margin (see also below). The macroeconomic

⁵ See Wojtyna (2008); Kowalski, Wihlborg and Vensel (2007); Gylfason and Hochreiter (2009 and 2010); Rodrik (2007); Dixit (2007).

⁶ The Polish democratic opposition, thanks to the broad social base and a tradition of self-organization, was the best prepared to exercise power. The situation looked different in the other countries. For example, J. Urban, one of the leading dissidents in Czechoslovakia, recalled in the *Lettre Internationale* in 1995 that, in 1989, the active opposition in the country amounted to about 60 people, and they could count on around 500 supporters. According to him, the existing opposition felt totally isolated and their contact with society was very difficult.

Table 1

Macroeconomic conditions in Poland, the Czech Republic, Hungary, the Slovak Republic and Ukraine in 1989

| Specification | Poland | Hungary | Czech Republic | Slovakia | Ukraine* |
|--|--------|---------|----------------|----------|----------|
| GDP dynamics (%) | 0.2 | 0.7 | 4.5 | 1.0 | -4.0 |
| Industrial production dynamics (%) | -0.5 | -2.1 | 1.7 | -0.7 | -0.1 |
| Unemployment rate (%) | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 |
| Inflation rate (average annual %) | 251.1 | 17 | 1.4 | 2.3 | 4.2 |
| Budget balance (% GDP) | -3.0 | -1.2 | -1.2 | -0.6 | ND |
| Currency reserves, excl. gold (billion US dollars) | 2.31 | 1.25 | 5.74 | ND | ND |
| Foreign debt/GDP (%) | 49.3 | 65.8 | 11.4 | 10.3 | ND |
| GDP per capita at PPP** | 8038 | 12399 | 16211 | 12536 | 8063 |
| Share of industry in GDP (%) | 44.1 | 43.7 | ND | 58.5 | 44.6 |
| Share of agriculture in GDP (%) | 11.8 | 15.6 | 6.3 | 9.4 | 25.6 |
| Share of the private sector in GDP (%) | 30 | 5 | 5 | 5 | 10 |

Note: * Data for 1990; **PPP – Purchasing Power Parity (in USD of 2005); ND – no data.

Source: EBRD, World Development Index (WDI) database and national databases.

conditions in the Slovak Republic, together with the Czech Republic, which constituted one country at the time (Czechoslovakia), were thus relatively favourable.

The remaining three countries faced more difficult conditions. The worst macroeconomic situation was in Poland, where the centrally planned economy had ceased to operate, while the new mechanism, although the private sector accounted for the highest share of GDP creation, had not yet started to work properly. Poland was not able to service its foreign debt, and next to the galloping inflation, a discontinuity in the supply of consumption and investment goods emerged. Poland and Ukraine had the lowest GDP per capita (see also the fourth section). Ukraine also had a very difficult start as a market economy. This mainly stemmed from its links with other republics of the then Union of Soviet Socialist Republics and the disintegrating Russian Federation's economy, which were all falling into a deep economic crisis. However, the biggest problem for the Ukrainian economy and society proved to be the heritage of the soviet system that represents the destruction of social capital and the lack of tradition, experience, and the institutions indispensable to the appropriate functioning of a market-led economy. As time has shown, Ukraine, and its political sector, was not able to handle those problems adequately.

Stabilization programs and initial economic reactions

The implemented stabilizing programs had to reflect the specific situation of each particular country (Table 2). However, they all shared some common features: the re-establishing of monetary policy significance (both in the sense of nominal and real anchors) and the targeting of monetary policy at reducing inflation, the initial and step devaluations of the currency exchange rates, the introduction of internal convertibility of currencies for enterprises and limited external convertibility, and the implementation

of tough budget constraints in state-owned firms and entities.⁷

The program that had been implemented in Czechoslovakia since January 1991 was similar to that introduced in Poland a year earlier (see Table 2). The countries analysed differ significantly in the degree of determination and the consistency of the authorities responsible for shaping and implementing the stabilizing programs. A comparison of the situations of Poland and Ukraine clearly illustrates this point. In the latter case, the first attempts at reform were made in the year 1992.⁸ However, the reforms were partial and the authorities' actions lacked consistency. As a result of the worsening economic situation in Ukraine in 1994, another attempt at regulating the monetary, fiscal and exchange rate policies was made. Moreover, monetary reform was implemented in 1996 (Barisitz 1999). Those actions also turned out to be ineffective, and Ukraine can be viewed as an example of a reform failure caused by internal divisions and the inability of the political sector to work for the common good.

At the outset of economic transformation, the countries reforming and stabilising their economies also

⁷ When analysing the experience of the first years of the transformation, O.J. Blanchard emphasizes the importance of the implementation of hard budget constraints (Blanchard 1994).

⁸ Ukraine regained its independence in 1991.

Table 2

Stabilization programs and major initial conditions of the transformation in Poland, Hungary, Czechoslovakia and Ukraine

| Specification | Poland | Czechoslovakia | Hungary | Ukraine |
|--|--------------------------------------|--------------------------------------|------------------------------|--------------------------------|
| Launching the program | January 1990 | January 1991 | Continuum | November 1994 |
| Monetary policy | Restrictive | Restrictive | Adaptive | Restrictive |
| Fiscal policy | Restrictive | Restrictive | Expansive | Restrictive |
| Incomes and wage rate policy | Restrictive | Restrictive | Moderate | Mild |
| Exchange rate policy | Devaluation | Devaluation | Crawling devaluation | Devaluation |
| Nominal anchor | Fixed exchange rate and wage control | Fixed exchange rate and wage control | Currency rate (periodically) | Managed floating rate |
| Real anchor | Interest rate | Money supply and interest rate | Money supply | Money supply and interest rate |
| Internal convertibility (for companies) | Yes | Yes | Yes | Yes |
| Internal convertibility (for households) | Yes | Restricted | Restricted | Restricted |
| External convertibility | Restricted | Restricted | Restricted | Very restricted |
| Main privatization method | Direct | Coupon | Direct | Coupon |
| Date of starting privatization | 1990 | 1992 | 1990 | 1995 |
| Launching the stock exchange | 1991 | 1992 | 1989 | 1991 |
| Year of the lowest level of GDP | 1991 | 1992–1993 | 1993 | 1998 |
| Scale of decrease (1989=100) | 82.2 | 84.6–75.0 | 81.9 | 36.6 |

Source: The author's own synopsis based on national data and also on Gros and Steinherr (2004); Hochreiter (1999); Bennett *et al.* (2003).

faced external negative supply shocks (the rise of the oil price) and demand shocks (a dramatic decline in effective demand for many exported goods and the implosion of economies of the USSR and German Democratic Republic). Those factors, together with the objective path dependence in vast parts of the economy still controlled by state agencies, were responsible for the transformational recession (Table 2).

The course of the transformational recession differed in the individual countries. The Polish recession, measured as the decline in GDP and industrial production, was the mildest among all Central European countries, and the first fresh growth spurts were reported as early

as in 1992. The most difficult situation was in the post-soviet countries. In Ukraine (Table 2), GDP declined the most compared to the level achieved in 1989. Gradually, over the course of macroeconomic stabilization, the prime problem changed from inflation to high structural unemployment (see also below). This had strongly influenced social perception of the market reforms and the political transition, and also contributed to a divergence in income and wealth distribution.

The phase of economic growth

Population and human capital development

The new economic, social and political conditions increased uncertainty on the one hand, but opened up unprecedented new possibilities for social and professional mobility on the other, especially for young people. One of the most visible side-effects of these processes were significant population changes (Table 3 and Figure 1). During the years 1990–2005, all of the countries compared, except for Poland and the Slovak Republic, experienced negative population growth (Table 3).

Ukraine showed the strongest negative dynamics in population growth. These population trends, resulting from the decline in the birth rate and emigration, constitute a major challenge to economic policy.⁹ They also had an effect on the age structure of the region and the development of GDP per capita (see the fourth section). The direction of changes in the dynamics of population growth in the examined countries are continued (Table 3), and Poland and the Slovak Republic will also experience negative population growth in 2005–2015.

⁹ In 2004–2006 Poland had an emigration rate (the number of emigrants per 1000 inhabitants), ranging from 0.1 in the group 5–64 years to 0.7 in the group 15–24 years – see Schreiner (2008).

Table 3

Annual average population growth rate in 1990–2005 and the forecast for growth in 2005–2015

| Country | 1990–2005 | 2005–2015 |
|----------------|-----------|-----------|
| Poland | 0.0 | – 0.2 |
| Hungary | – 0.2 | – 0.3 |
| Czech Republic | – 0.1 | – 0.2 |
| Slovakia | 0.1 | – 0.1 |
| Ukraine | – 0.6 | – 1.1 |

Source: World Bank (2007).

Negative average annual rate of population growth was recorded in all countries of the region with no exceptions. However, at the same time, average life expectancy (Figure 1) increased when compared to 1990 in all of the examined countries except Ukraine. As shown in Figure 1, the biggest improvements in this measure of the quality of life, and of public health operations, were reported in 2010 in the Czech

Republic (77.4 years) and in Poland (76.2 years). It is also interesting that, during the transformation process, the diversification of the measure increased. In 1990, the lowest value was 69.3 (Hungary) and the highest was 71.4 (Czech Republic); thus, the difference between the five countries analysed was 2.1 years (Figure 1). After twenty years of transformation, in 2010, the lowest average life expectancy was 70.2 in Ukraine and the highest was 77.4 (the Czech Republic), so the difference increased to 7.2 years. Therefore, in this specific social rivalry, the Czech Republic (increase in life expectancy of 6.0 years) and Poland (increase in life expectancy of 5.3 years) experienced the greatest improvements.

The countries analysed had previously achieved a relatively high level of primary school enrolment. This aspect of state activity and spending was not significantly negatively affected, even during the transformational recession. Secondary school enrolment in

Figure 1

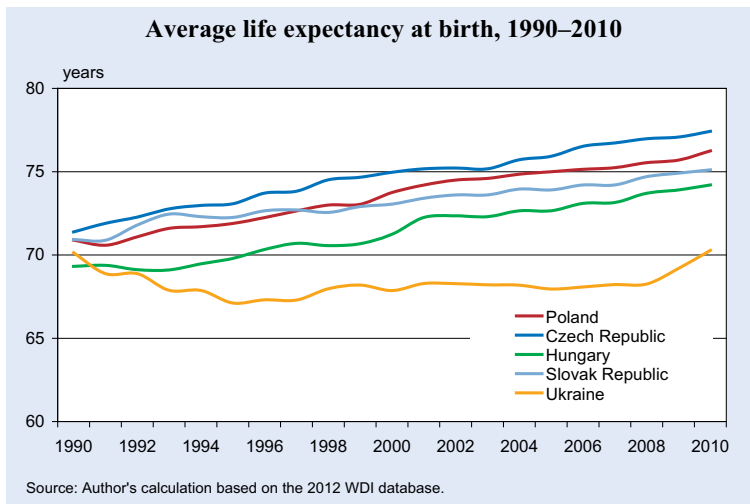
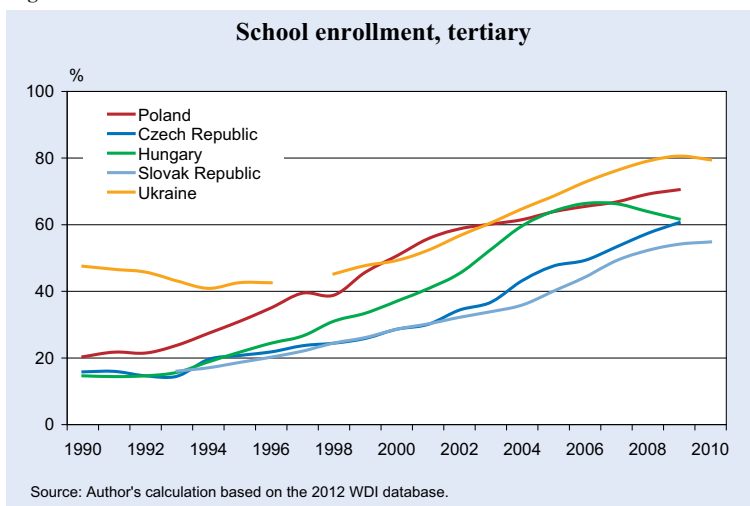


Figure 2



Poland and Hungary continued at 87 percent and 86 percent, respectively in 1991 (see WDI 2012 database). In 2009, the level of enrolment reached 97 percent (Poland) and 98 percent (Hungary). In the Slovak Republic (90 percent in 2010), Czech Republic (91 percent in 2009) and Ukraine (96 percent in 2010) a high proportion of young people also continued their education at the secondary level.

The situation in tertiary education was highly differentiated (see Figure 2). The weakest initial conditions were in Hungary, the Slovak Republic, and the Czech Republic, where only 15, 16 and 16 percent, respectively, of young people continued their education at the tertiary level. By the end of the analysed period Hungary's average tertiary school enrolment ratio reached a high of 64 percent (a spectacular increase of 49 percentage points compared to 1990), and Poland's average ratio reached a level of 69 percent (an improvement of 49 percentage points).

The situation also improved significantly in the Czech Republic

(about 57 percent) and in the Slovak Republic (ca. 54 percent). The highest school enrolment ratios (Figure 2) at the tertiary level of education were achieved by Ukraine (average level of 93 percent). The countries analysed, and particularly Poland, considerably improved the availability of this level of education mainly through their development of private education, focusing on the humanities and social sciences, rather than technical education.

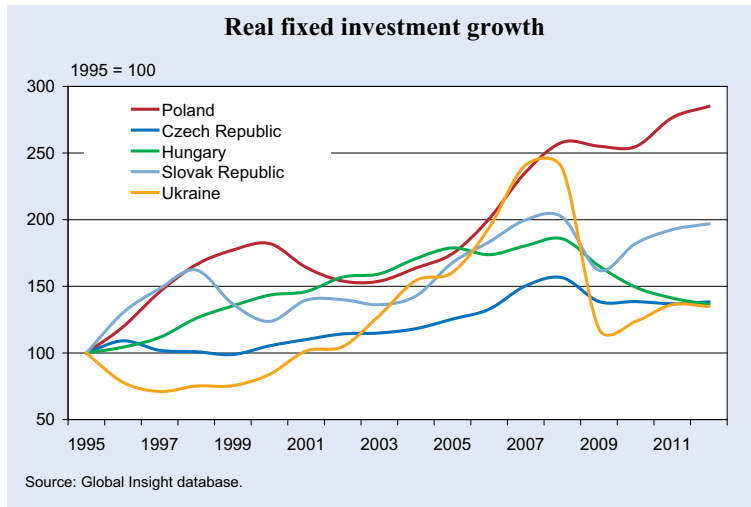
The tertiary school enrolment ratio achieved in Poland and the other countries under examination was higher than in countries with medium-income levels. Moreover, in the cases of Hungary and Poland, the achieved level is similar to that of countries with the highest income per capita, and in Ukraine it was even higher. The quantitative data shows that the development of human capital achieved by the end of the examined period was good. However, rapid growth in the number of students and their concentration in the field of humanities and social sciences contributed to the mismatch between qualification supply and the actual demand for workforce. It also explains the frustration of the young generation and their readiness to emigrate in order to seek jobs in better developed European economies.

Investments

Investments, particularly in fixed assets, are the main driving factor of the increase in physical capital per capita. Figure 3 indicates the pace of evolution of real fixed investment growth since 1995. All of the countries studied sizably increased their fixed investment with Poland achieving the highest increase in comparison with 1995 level. Most striking perhaps is the very high fluctuation of growth in Ukraine and Poland (coefficients of variance of over 39 and 27 respectively).

Figure 4 presents the share of gross capital formation in GDP

Figure 3

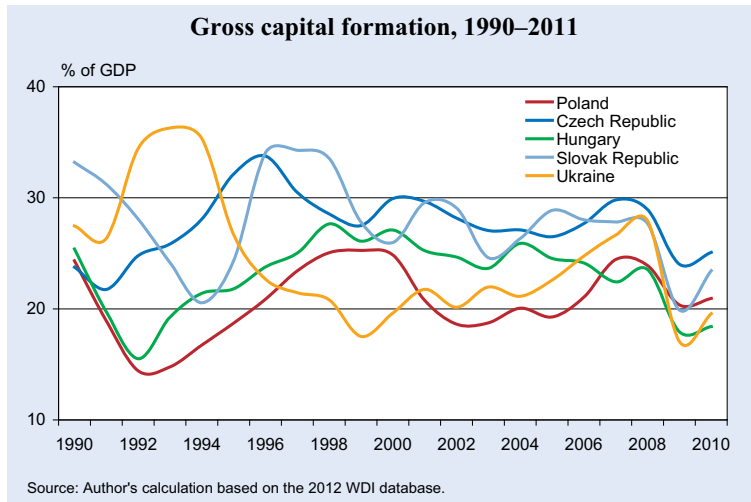


over the period 1990–2011. In the first phase of the transition process, total investment as a share of GDP fluctuated significantly. At the end of the examined period, there was a convergence of gross capital formation shares in GDP. In Poland, for most of the analysed period, total investment accounted for the lowest share of GDP.

During the entire period analysed, the average rate of total investment in Poland was about 21 percent of GDP – the lowest rate among all of the countries included in the study (Figure 4). In Hungary, this rate was 2 percentage points higher, and in the Czech Republic and the Slovak Republic, it was about 7 percentage points higher.

The groundwork of investment and a precondition for the long-term sustainability of the macroeconomic equilibrium is an adequate supply of domestic sav-

Figure 4



ings. Domestic savings in Poland and the compared countries were lower than internal demand. This meant that in the whole period analysed (with the temporary exception of Ukraine) these countries were net borrowers. This trend caused a structural current account deficit.

A supplementary source of funds and an important element in the reconstruction and modernization of the economies was the inflow of foreign direct investment (FDI). FDI supplemented domestic capabilities to invest.

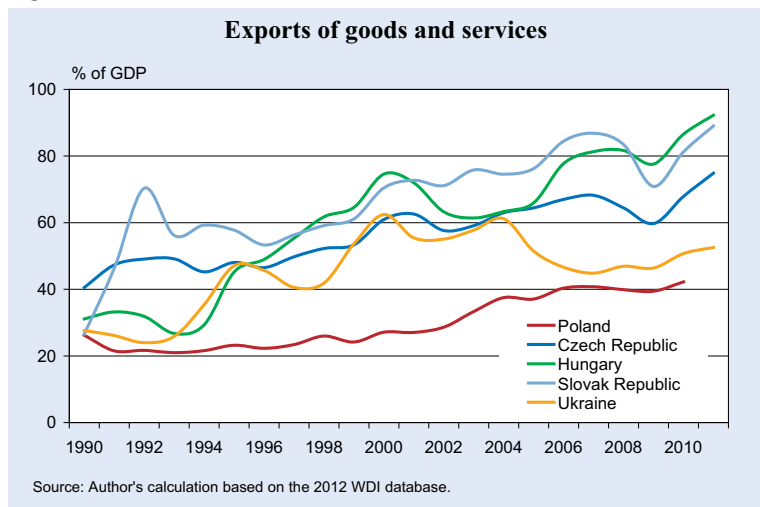
According to the World Development Index (WDI) database, the inflow of net foreign direct investment (net FDI) as a percentage of GDP was very high. The highest volatility of net FDI was registered in Hungary. The Slovak Republic – a country with a significant inflow of large investments in the automotive industry recorded significant fluctuations of net FDI (from 0.6 percent of GDP in 1997 to almost 12 percent of GDP in 2002). During the years 1990–2011, the average scale of net FDI in Poland, Ukraine and the Czech and Slovak Republics was around 3 percent of GDP, and this figure was significantly higher in Hungary (6.2 percent). The FDI inflow was a crucial element in the reintegration of the countries analysed, with the European and global markets affecting both the supply and demand sides of these transition economies.

Foreign trade liberalization

(a) Openness of the economies

As noted above, the liberalization of foreign trade was a common aspect of the stabilization programs implemented in all of the countries analysed. In economies already on the threshold of a market transformation, the importance of exports and imports of goods and services was diversified. It was largely a function of domestic market size, the availability of resources, and the competitive capacity of exports. The structure of foreign trade gradually changed, mainly due to the influence of FDI (Kellman and Shachmurove 2012). The ratio of the export value of goods and services to GDP is given in Figure 5. In 1990 in Poland, the Slovak Republic, Ukraine and Hungary, exports of goods and services as a share of GDP was at a similar

Figure 5



level of around 30 percent, while the Czech Republic started at a level of around 50 percent.

The years of market transformation saw high volatility in exports as a share of GDP. This was due to both changes in the value of the exports and the volatility of GDP dynamics in the countries in transition. The highest variation took place in Ukraine (Figure 5). It resulted from a strenuous search for diversification in the geographical structure of exports and the limitation of the dependence upon the market of the former Soviet Union.

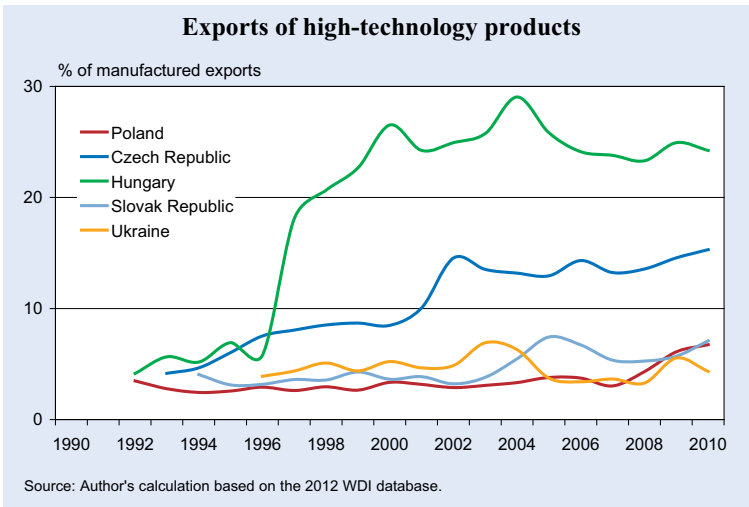
In the case of Poland and the Czech Republic in 2004, the effect of trade creation appeared as an increase in the share of exports in the GDP amounting to 4.2 and 8.3 percentage points, respectively. In general, all of the countries studied significantly increased their ratio of exports to GDP (Figure 5). The increase in export capacity can be interpreted as evidence of the ability of the countries analysed to meet strong competition in the Single European Market.¹⁰ The relatively smaller increase for Ukraine reflects the decline in trade among the former Soviet republics.

(b) Exports of high-technology products

Typically the share of high-technology products in total exports is seen as a major indicator of economies' innovativeness and competitiveness. Figure 6 indicates that the initial situation of Polish exports of high-technology products was disadvantageous.

¹⁰ The analyzed countries (with the exception of Ukraine) export over 65 percent of their goods and service exports to the market of the EU27.

Figure 6



This was due to both longstanding neglect and relatively low spending on research and development and the predominant significance of inter-industry trade, based on the relatively rich endowment of raw materials and labour resources. The low percentage of high technology products as a share of total exports in the first half of 1990s was also characteristic of the other countries of the region (Figure 6). Over time, as a result of FDI, the first significant modernization of the export structure and an increase in the value of high-technology products in total exports took place in Hungary and the Czech Republic. The biggest success was achieved by Hungary with an increase from 4.2 percent in 1992 to an average of 25 percent for the years 2004–2010. The Slovak Republic and Poland were less successful: in 2004–2010 they high-technology products on average accounted for over 6 and 4 percent of total exports respectively (see also Figure 6). This is an interesting outcome because the quality of human capital in Hungary did not differ from that in Poland or Slovakia.

Structural changes triggered by economic growth and transformation

Based on the findings presented in the first section, the focus of this study so far has been on identifying and assessing the most important initial conditions and factors determining the course of the transition from a centrally planned to a market-led economy. Important structural changes occurred as a result of these processes, but they also constrained development. Due to the specific situation in Poland, unemployment has been considered a main side effect of the process. Moreover, in order to emphasize the features of the Polish transition, attention should be paid

to the specific role of agriculture in the employment structure. The very low employment rate and the specificity of Polish agriculture had a significant impact on the growth of income divergence and social inequality and the general assessment of Poland's achievements in the years 1999–2012.

(a) Unemployment

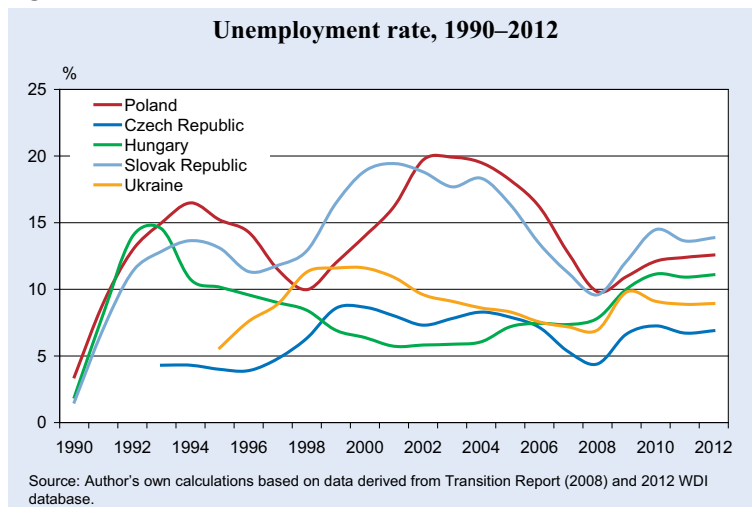
Open unemployment was an unknown phenomenon in centrally planned economies. Nevertheless, the actual scale of wasted

labour resources in the form of over employment was high. The fact of being formally employed blinded most citizens to the actual *status quo*. The implementation of tough budget constraints at a company level and trade liberalization led to the emergence of unemployment. This phenomenon became the most socially severe side effect of the transition process.¹¹ As clearly indicated by the data in Figure 7, there was an increase in the unemployment rate in each country analysed; while the scale of the increase varied considerably. It depended on structural and cyclical factors such as the enterprises' speed and their scope of adjustment to market signals, the degree of workforce mobility, and its supply and demand structural mismatches. In Poland, important factors behind the growth and durability of unemployment were the circumstantial solutions regarding access to benefits for loss of employment and to provision of health care. The path and scale of unemployment in Poland and in the Slovak Republic were similar (Figure 7). Without doubt, unemployment rates were highest in Poland and the Slovak Republic and thus constituted the most nagging side effect of the transformation process.¹² At the end of the period analysed, the unemployment rate in the countries most severely affected by this phenomenon began to decrease. This process was the result of a combination of favourable

¹¹ When looking at the implementation of stabilization programs, it is clear that the main effort and attention was focused on fighting inflation, which undoubtedly, especially in Poland, jeopardized the base of the economy. However, structural unemployment quickly emerged as the biggest ballast of the transformation process.

¹² The relatively mild course of the labour market adjustment process in Ukraine is worthy of attention. It resulted from the long-term state dominance in the economy and the lack of genuine company restructuring. The price of this *status quo* was a low, and sometimes negative, economic growth rate and the expanding gap between Ukraine and the other countries in transition analysed.

Figure 7



conditions: pre-2008 prosperity in major EU trading partners and in the world, the results of FDI and migration opportunities after 1 May 2004 (see, for example, Sinn and Werding 2001).

(b) The changing role of agriculture

In the period directly preceding the reforms and the market transformation, agriculture represented the highest share of GDP in Ukraine (Figure 8). The situation was similar in Hungary too (ca. 15 percent). In Poland, the Czech Republic, and the Slovak Republic, agriculture accounted for less than 10 percent of GDP in 1990. As the years went by, strong tendencies towards reducing agriculture as a share of GDP emerged. This process was particularly visible in Ukraine, where agriculture as a share of GDP decreased by 22 percentage points. During the period analysed, the significance of agriculture decreased in

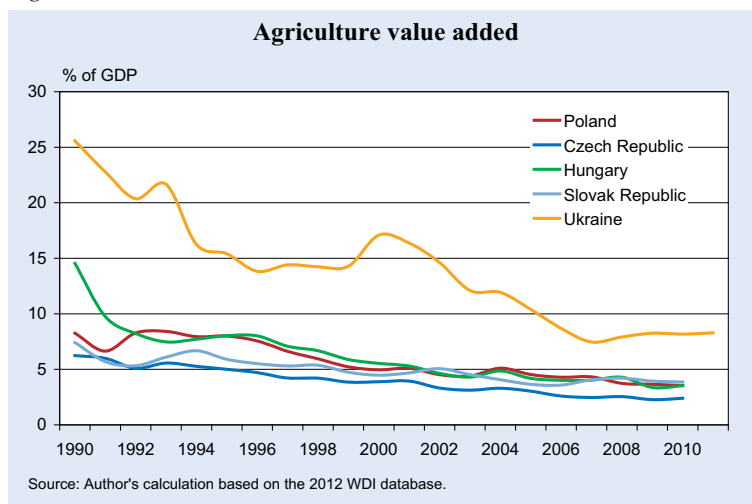
Poland and Hungary to a level of approximately 4 percent of their GDP, and to less than 3 percent of GDP in the Czech Republic and the Slovak Republic (Figure 8).

During the transformation process, the falling in agriculture production as a share of GDP was accompanied by a reduction in employment in this sector as a share of total employment. This stemmed from rationalization of production triggered by the withdrawal of government subsidies to this sector of the economy and

trade liberalization. The highest share of employment in agriculture in 1989–1990 was found in Poland, Ukraine and Hungary – over 25 percent, 19 percent and 18 percent respectively. In 1993–1994 this figure was about 10 percent and 8 percent, respectively in the Slovak and Czech Republics (see WDI 2012). After 20 years of a new economic environment agriculture employment as a share of total employment stabilized in the Czech and Slovak Republics at around 3 percent, and at over 4 percent in Hungary. In 2009–2010 this share was still about 13 percent for Poland and (the last available data for 2007–2008) and around 16 percent for Ukraine. The relatively slower decline in agriculture as a share of total employment in Ukraine and Poland, on the one hand, created some protection against a substantial influx of low-qualified workers to cities in many cases; on the other hand, and led to a continuation of the low productivity of the workforce in this sector.¹³ As Figure 9

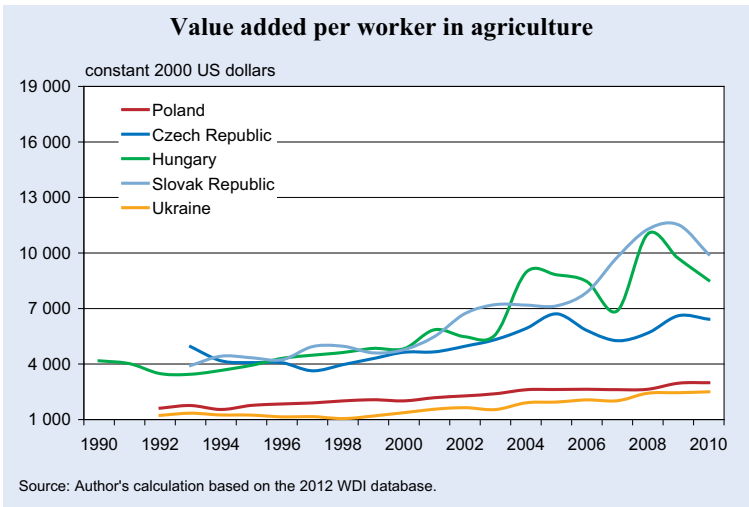
shows, there are two clear regularities in the group of countries analysed. The first is stable and low productivity in Ukraine (from about 1,200 to 2,500 US dollars per employee) and in Poland (from about 1,600 to 3,000 US dollars). The second is the emergence of the group of other countries, where the productivity of employment in agri-

Figure 8



¹³ In Poland the fact that employment in agriculture remained at a relatively high level prevented social tensions from building up in cities. Those tensions could have occurred if an influx of people seeking employment in industry and services had accompanied the low dynamics of job creation in those sectors.

Figure 9



culture was much higher and which experienced higher growth dynamics.

This was particularly visible in the case of Hungary, where the value added per employee in agriculture was about three times higher than in Poland during the years 2009 and 2010. This feature of agriculture in Poland was largely due to the agrarian structure, the production structure and overemployment in this sector. The excessive employment in agriculture was often a consequence of the lack of adequate job opportunities in urban areas located within the vicinity of the residences of agricultural workers. The low labour productivity in agriculture influences both the distribution of income in Poland and the relatively low level of GDP per capita.

Economic performance after 2007

In this study, focusing attention on real economy performance and following the approach by Kowalski (2012), it is assumed that the impact of the global financial crisis accumulated in such performance measures as real effective exchange rates, exports, labour productivity and industrial production growth rates. These general performance measures can signal economies' reactions to external shocks and may have reflected the induced domestic shifts, as particular companies and sectors had to

accommodate new demand and supply conditions.

The data in Figure 10 covering 2007–2011 indicate REER_{CPI} fluctuations; all countries recorded appreciation of their REER_{CPI} in 2008 compared to the 2007 level. All, except the Slovak Republic, subsequently faced the real depreciation of their currencies, with Ukraine and Poland experiencing the highest real exchange rate depreciation compared to the 2007 level (REER_{CPI} = 91 percent and 93 percent, respectively). After the 2009 low

all countries, again with the exception of Slovakia, recorded REER_{CPI} appreciation stemming from inflation rate differences. In 2011, in comparison with the pre-crisis level of 2007, the Czech Republic and the Slovak Republic faced a considerable appreciation of their REER_{CPI}, of 115 percent and over 113 percent, respectively. In the case of Ukraine, Hungary and Poland their annual real effective exchange rates deflated by the CPI were still below the pre-crisis level. Thus, in the course of 2007–2011, the gap between the worst and best performers in terms of this broad price competitiveness measure reached ca. 19 percentage points, reflecting both structural differences and different abilities of the service and manufacturing sectors to react to the demand shock caused by the financial crisis.

Cost competitiveness is well reflected in the quarterly real effective exchange rate deflated by nominal unit

Figure 10

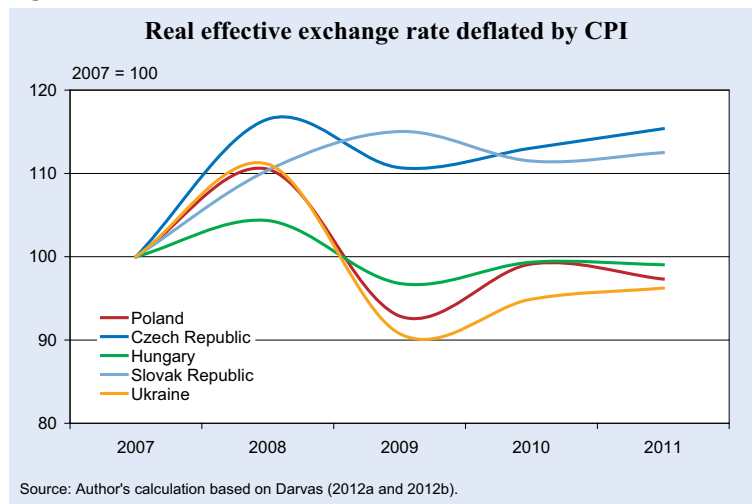
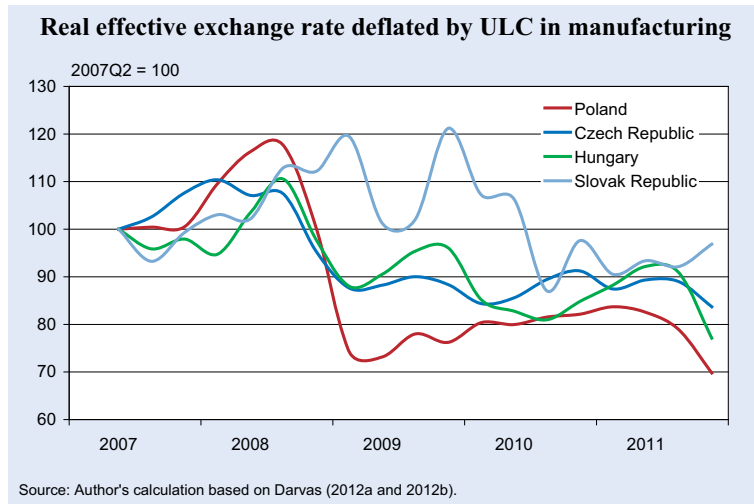


Figure 11



labour costs in manufacturing (ULC).¹⁴ As in the case of the REER_{CPI}, a rise in the REER_{ULC} index means a loss of competitiveness. In 2007–2011, the REER_{ULC} of particular countries displayed sizable fluctuations (Figure 11). In the whole period (2007 Q2–2011 Q2) the highest coefficient of REER_{ULC} variance was in Poland (over 16 percent), while other researched countries recorded relatively lower variance (ca. 9 percent).

The data in Figure 11 shows a rising trend in REER_{ULC} in all countries until mid-2008. Then, after the first signs of the global crisis hit the region, all of its economies had to adjust to its consequences by using their cost advantages embedded in manufacturing. The best performers in this respect were Poland and Hungary. In the Single European Market context of high competitive pressure, all of the countries were able to adjust their prices and costs, and cope with the recession or slowdown in their major trading partners in this way. In fact they had no choice but to reduce their manufacturing costs because of their position in supply chains and thus in intra-industry trade patterns.

Figure 12 shows merchandise exports growth rates in 2007–2011. This simple measure can reflect the countries relative ability to sustain the pre-crisis growth rates and thus show their sustainability capacity. All coun-

¹⁴ No data for Ukraine was available.

tries displayed the same pattern of changes over the crisis period. After a strong boost in 2008 *versus* 2007, all recorded a very sizable decrease in 2009. After 2009 the countries studied recorded a revival in export growth rates. The highest variability in exports growth was recorded by Ukraine (variance coefficient of almost 19 percent), while the other countries displayed a similar variability of about 11 percent–13 percent (Hungary and Slovak Republic, respectively). Exports played a major role in their efforts to cope with the crisis for

all countries. All were able to adjust their cost competitiveness, both through autonomous nominal and real exchange rate adjustments and adjustments in unit labour costs. In this last respect the Slovak Republic was an exception because it became an EMU member in January 2009.

Industrial production still constitutes a sizable part of GDP in Central European countries. The valued added in industry as a share of GDP in 2007–2011 varied from 36–37 percent (Slovak and Czech Republic, respectively) to 30–31 percent of GDP in Hungary and Poland respectively. Despite the relative decrease in the importance of manufacturing as compared with the service industry, it is manufacturing that ought to be given credit for the production of tradables in these economies. Figure 13 shows data on industrial growth rates on an annual basis comparing the levels achieved after 2007. In order to

Figure 12

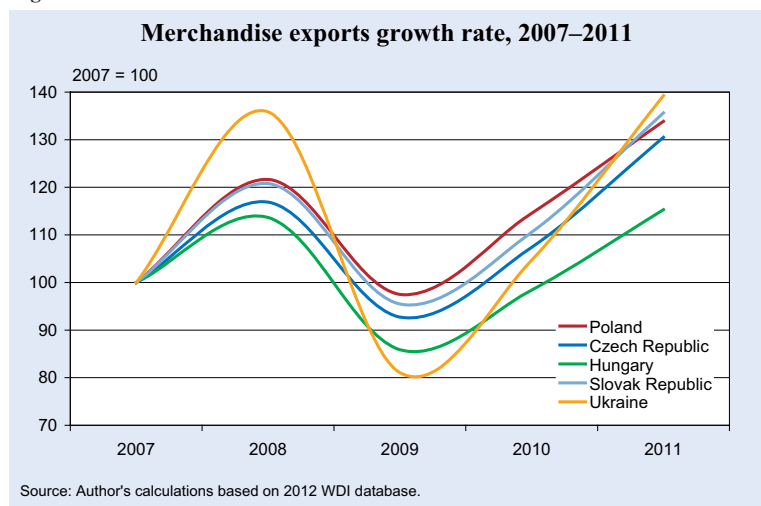
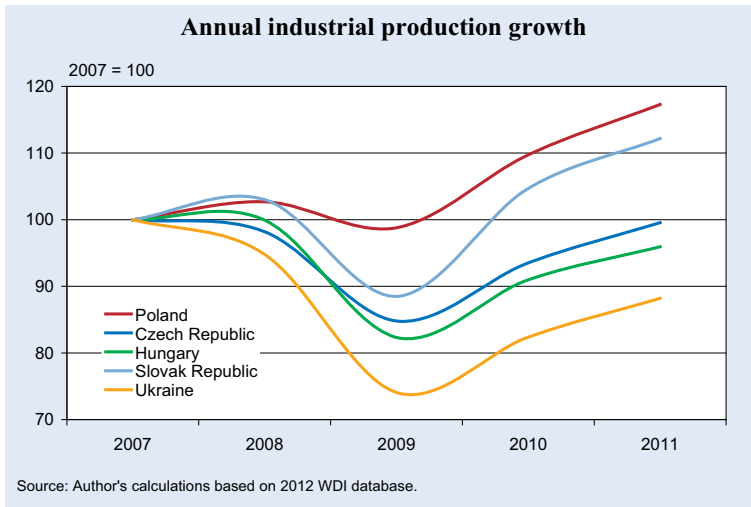


Figure 13



show the timing and scope of adjustments triggered in particular countries by the external shock, the data is set at 100 in the pre-crisis level of 2007 (Figure 13).

The growth of production of total industry was slow or declining as early as 2008 *versus* 2007. It decreased greatly in the crisis year of 2009, with the most severe reaction in Ukraine (74 percent) and Hungary (82 percent). The adjustment in Poland was the mildest (Figure 13). After the 2009 trough all of the countries studied recorded production recovery. In the whole period Poland did particularly well based on its ability to adjust costs and due to its relatively large domestic market. Generally the external shock made Poland and other countries aware of how extensive the imported recession-related phenomena might be. It also shed light on the varying adjustment capabilities of respective economies, including the potential and actual role of the autonomous flexible exchange rates adjust-

¹⁵ The author means the social mobilization and the ability of the society to self-organize themselves (Solidarity trade union). Poland could benefit not only from the Commercial Code existing since the interwar period, but also from an established culture of entrepreneurship and the experience of the relatively large private sector.

Table 4

Poland's GDP per capita as a percent of GDP per capita of each analyzed country

| Country | 1990 | 1992 | 1994 | 1996 | 1998 | 2000 | 2002 | 2004 | 2005 | 2006 | 2007 | 2009 | 2011 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Hungary | 62 | 68 | 73 | 81 | 85 | 86 | 81 | 82 | 81 | 83 | 88 | 100 | 105 |
| Czech Republic | 50 | 52 | 58 | 58 | 66 | 68 | 66 | 67 | 65 | 65 | 66 | 71 | 75 |
| Slovakia | 64 | 76 | 82 | 83 | 86 | 92 | 88 | 88 | 83 | 84 | 81 | 86 | 87 |
| Ukraine | 100 | 114 | 191 | 270 | 313 | 318 | 280 | 246 | 247 | 243 | 239 | 290 | 284 |

Source: Author's calculation based on 2012 WDI database.

ments. This recent experience, together with turbulence in the EMU itself, made Poland and other EU non-EMU members to reflect more on their pace towards ultimate EMU membership.

GDP per capita and competitive position

While assessing the overall course and results of the transformation process, one should take into consideration the circumstances that accompanied this process. It

is clear that some had a unique, specific nature; while others represented a set of common characteristics. Given the inheritance of centralised, totalitarian systems (with its milder variant in Poland and Hungary) and the opportunities those countries could have used in the phase of growth, it can be concluded that the comparative advantages which Poland had on the threshold of the transition process seem to have eroded rather quickly.¹⁵

Table 4 presents data on GDP per capita based on purchasing power parity. The defined measure takes into account the effects of GDP growth, as well as the influence of differences in price levels between countries, and of changes in population. In order to compare the transformation results achieved in Poland to those recorded in the selected countries of the region, Poland's GDP was calculated as a percentage of the GDP of the countries under examination.

As Table 4 shows, the relative level of Polish GDP per capita in 1990 was comparable to that of Ukraine. However, it was equivalent to approximately only 62 percent and 64 percent of the GDP per capita in Hungary and Slovakia, respectively. Poland's GDP per capita was only half of the GDP per capita in the

Czech Republic. These figures clearly show the size of the initial economic gap between Poland, the then Czechoslovakia and Hungary.

During the first years of the transformation in Poland, its GDP per capita was growing faster than in the neighbouring countries. In 2000, the gap in relation to Hungary and the Czech Republic decreased by about 20 percentage points and in relation to Slovakia by about 28 percentage points. Interestingly, Polish GDP per capita at PPP increased more than threefold compared to Ukraine. After the years 1999–2000, the relative levels of the Polish GDP per capita deteriorated (i.e. the Slovak Republic started to develop faster than Poland). The global financial crisis of 2008–2009 unveiled Poland's comparative strength. This was reflected by a faster narrowing of GDP per capita gap (see Table 4). Comparing the relative levels of this measure achieved in Poland in 2011 with the initial values recorded in 1990, the scale of progress is clearly visible. However, structural constraints and unseized development opportunities arising from insufficient determination of consecutive Polish governments to implement further economic and institutional reforms prevented even higher growth.¹⁶

The World Economic Forum provides detailed measures of countries' competitiveness positions. In 2005–2012, the Czech Republic consistently achieved the best position amongst the countries analysed (Table 5). Earlier the relative leading position was occupied by Hungary. Between 2001–2007 Poland's relative competitive position was seen as rather low, and only Ukraine was perceived as having lower than Poland competitiveness. In 2008, the relative position of Poland within the group had improved and since 2009 it has been ranked second in the group of countries analysed.

¹⁶ During the period analysed, Poland had the lowest rate of employment among the EU-25 (Gorynia and Kowalski 2008).

The following observations are also worthy of attention: the stable and relatively high position of the Czech Republic, the improvement of the Slovak Republic, and the worsening position of Hungary (Table 5). Hungary is an example of a country that was a leader in implementing reforms for many years, but which lost this position due to the lack of its will and ability to solve difficult fiscal policy problems. It was also perceived as an economy with a deteriorating quality of the institutional environment.

Throughout the period, Ukraine was ranked lowest among the countries investigated, and the gap between it and the leaders of the group had been increasing. Ukraine is a country that has not been able to seize the opportunities that opened for all the countries of the region after 1989 (see also Tiffin 2006).

Competitiveness ratings are sometimes criticized for their simplifications and diagrammatic view of economies. However, the assessments derived from the GCR are rather consistent with the general picture of transformation that emerges from our analyses. The methodology used in the rankings shed light on the course of the transformation processes and enable identification of problem areas inhibiting the process of catching-up with the developed countries.

Conclusions

In Poland, public disputes and controversies concerning the transformation process and its economic consequences are burdened with a high degree of subjectivity and ignorance about the specific initial conditions and the structural limitations accompanying the market reforms. In Poland, as in the other countries of the region, very recent economic history continues to produce emotions. Moreover, it is instrumentally used, in particular by populist parties to attack the authors of the reforms and those who took the risk of

Table 5

Relative position of Poland and the countries analysed in global competitiveness reports in 2001–2012

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Hungary | Hungary | Hungary | Hungary | Czech R. | Czech R. | Czech R. | Czech R. | Czech R. | Czech R. | Czech R. | Czech R. |
| Czech R. | Czech R. | Czech R. | Czech R. | Hungary | Slovak R. | Slovak R. | Slovak R. | Poland | Poland | Poland | Poland |
| Slovak R. | Slovak R. | Slovak R. | Slovak R. | Slovak R. | Hungary | Hungary | Poland | Slovak R. | Slovak R. | Hungary | Hungary |
| Poland | Poland | Poland | Poland | Poland | Poland | Poland | Hungary | Hungary | Hungary | Slovak R. | Slovak R. |
| Ukraine | Ukraine | Ukraine | Ukraine | Ukraine | Ukraine | Ukraine | Ukraine | Ukraine | Ukraine | Ukraine | Ukraine |

Source: Author's own synopsis based on Global Competitiveness Reports.

managing the process of the institutional and market reconstruction. In the light of the presented analysis, it can be claimed that Poland and Hungary were the best prepared for the transition from a centralized economy to a market-led economy in terms of social capital. In the case of Poland, this was the result of a strong tradition of social self-organisation and the existence, even in a period of dominance of a centralized system, of alternative pathways of social capital development. However, it is often forgotten that the initial economic situation of Poland was very unfavourable. This refers to the stagnation of the 1980s and above all, to the structural characteristics of the Polish economy.

The relative abundance of natural resources and a centralized system of allocation formed the structure of the production capacity. During the transition process, this biased production capacity thwarted the comparative advantage of the economy. In addition, the low ability to generate domestic savings, and consequent relatively low investment level, together with high employment in agriculture led to a low level of capital-labour ratio and, more generally, to relatively low productivity. This feature of the Polish economy, combined with a low employment rate hampered progress in realization of social aspirations.

Despite the limitations mainly arising from the structural specificity of the Polish economy, in comparison to other countries, the results achieved after the institutional breakthrough of the years 1989–1990 should be highly evaluated. Poland has improved its position, measured by the most synthetic measure – the gross domestic product per capita, against all the countries analysed in the region.

While highly evaluating Poland's transformation process, the analyses also show many opportunities for an even more rapid reduction of the economic and social development gap that have not been seized. The most important of them are nonsufficient economic policy responses to one of the lowest employment rate in Europe, failure to bringing the privatization process to a conclusion, reform fatigue and a slowdown in fiscal reforms that could facilitate the ability of the Polish economy to meet the requirements of euro area membership and allow Poland to further improve its competitive position.

An important test for the durability of the economic results achieved and the adaptability of the countries

analysed was the way they responded to the global financial crisis. To date Poland has best proven its ability to withstand this particular crash test. This success should not conceal Poland's need to increase its domestic savings supply and investment rate, and to carry out structural adjustments and release the reserves of efficiency and competitiveness inherent in the improvement of its institutional framework.

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SLOVAKIA: THE CONSEQUENCES OF JOINING THE EURO AREA BEFORE THE CRISIS FOR A SMALL CATCHING-UP ECONOMY

JARKO FIDRMUC* AND
ANDREAS WÖRGÖTTER**

A catching up euro area member in and out of the crisis

With its entry into the euro area Slovakia experienced a significant change in the macroeconomic framework for a small, catching up economy. In the run-up to Slovakia's entry, borrowing costs fell, the exchange rate risk disappeared and the growth outlook for the economy improved (Huefner and Koske 2008). Together with earlier financial sector privatisation and liberalisation, the introduction of the euro reduced barriers for borrowers (Huefner and Koske 2008). However, in the Slovak case, the international financial crisis aborted the expected boom before it could take hold.

For peripheral euro area member economies, the financial crisis worsened access to international financial markets because of perceived liquidity problems and contagion effects, which have only recently been taken into account by enlarging the ECB's toolkit and by establishing a European sovereign debt intervention architecture. As a result, euro adoption did not improve the financial conditions of these economies fully. By contrast, the fact that the exchange rate is no longer available as a macroeconomic stabilisation tool has raised fears that the country cannot adequately deal with adverse external shocks, thereby making it a more likely victim of contagion.

This study describes how Slovakia navigated the crisis and how it returned to strong, albeit jobless, growth. Further insights are provided by a comparison with

Estonia and Slovenia, two other countries which have recently adopted the euro. The combination of a sound financial sector, a stability-oriented macroeconomic policy framework, flexibility-enhancing labour market regulations and competition-friendly product market regulations are of key importance for the ability of a small euro member country to absorb adverse external shocks (Brixiova *et al.* 2009; Berka *et al.* 2012). The specific challenge for Slovakia is to replace its historically important, but now fading, external drivers of growth, which have been dependent on large-scale Foreign Direct Investment (FDI) plants, with domestic sources of growth which emphasise innovation and knowledge-intensive start-ups, while utilising and fostering the opportunities of a transition to green growth. At the same time, public finances will need to be brought back onto a sustainable path.

Interactions between euro adoption and the crisis worked both ways

Although the 2009 crisis was a common factor, economic developments in Slovakia have been different from other small member countries that recently joined the euro area (Figure 1). Like elsewhere, Slovakia's GDP fell significantly; however, unlike in Slovenia and Estonia, its recovery was strong, bringing GDP back to its pre-crisis level during 2011. The labour market reaction was very strong in Estonia, where the unemployment rate fell. However, it was relatively weak in Slovenia, where unemployment has continued to rise. Developments in Slovakia have been in-between, as unemployment has been stuck at high levels. What is not immediately clear is what caused the occurrence of a jobless recovery with relatively high rates of GDP growth in Slovakia and the nature of the institutional constraints that the coun-

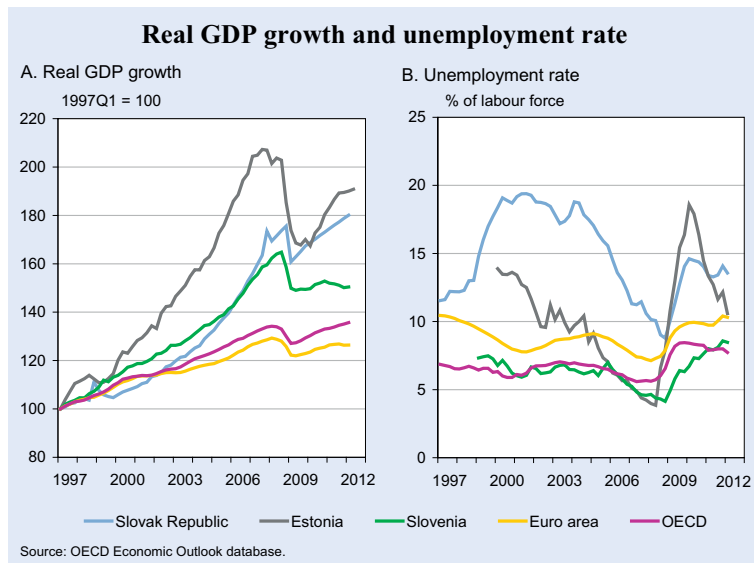


* Zeppelin University, Friedrichshafen and Comenius University, Bratislava.

** OECD Economics Department and University of Technology, Vienna.

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Figure 1



try faces in terms of increasing the job-richness of the on-going strong recovery.

The adoption of the euro in Slovakia happened after a long boom period, but just before the outbreak of the financial crisis. This timing was particularly advantageous in the sense that the accession criteria (in particular the fiscal criteria) were easier to meet than for Estonia, which joined just one year later. Estonia had to implement a 10 percent fiscal consolidation package to keep the general government deficit in line with the euro-accession criterion. At the time of the accession monitoring period in spring 2008, the benchmark Slovak 10-year bond rate was still unaffected by the re-assessment of sovereign risks, fiscal balances were still benefiting from the final stages of the boom and inflation was being restrained by two successive revaluations of the Slovak *koruna*.

The financial crisis radically changed the external environment of the highly export-dependent Slovak economy. Under these conditions, the interaction of the crisis and the strong real appreciation in the run-up to joining the euro area, generated challenges that are still important for recent economic developments. Firstly, the exchange rate was probably locked in at an excessively high level. Secondly, the focus of fiscal policy on nominal targets to meet the Maas-

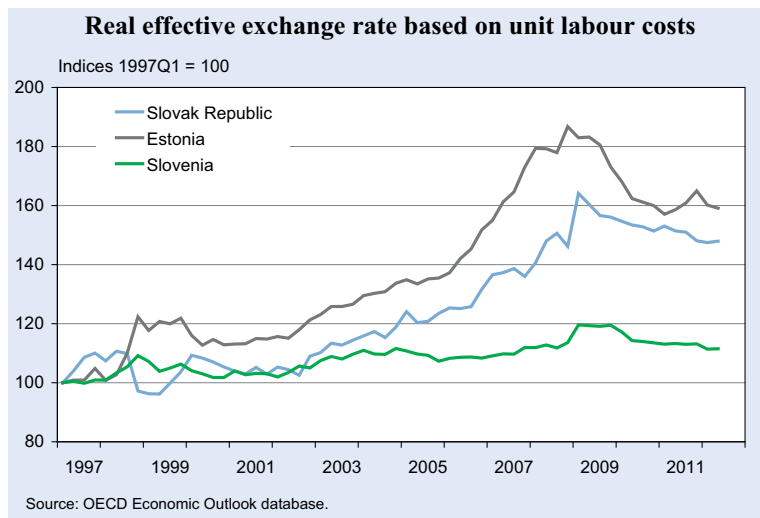
tricht criteria meant that Slovakia possibly missed the opportunity to run a stricter fiscal course during the boom years. As a result, it inherited a pro-cyclical policy bias, which made fiscal expansion during the crisis particularly costly and painful to reverse.

Slovakia entered the euro area with an exchange rate that was probably overvalued

The decade prior to the crisis was characterised by rapid growth in GDP in Slovakia of around 6 percent, or about three times

the euro area average. Rapid convergence came hand-in-hand with the strongest nominal and real appreciation among OECD member countries, outpacing the safe havens of Switzerland and Japan, as well as resource-rich globalisation winners like Canada and Australia. Inflation and unit labour cost growth above the euro area average contributed to nominal convergence and added to the real appreciation stemming from nominal appreciation. Currency revaluations accelerated this development shortly ahead of the crisis. As a result, the Slovak currency appreciated by nearly 30 percent in real terms between 2006 and 2009 (Figure 2). The financial crisis was also accompanied by an external (price) competitiveness shock for Slovakia as several neighbouring economies in Central Europe reacted to weaker external demand by strong competitive depreciations: the real effective

Figure 2



exchange rate appreciated by a further 9 percent in 2009, after the country had entered the euro area.

While rapidly growing economies also experience real exchange rate appreciations, it nevertheless remains questionable whether the acceleration of appreciation immediately prior to the crisis would not have been reversed if the nominal exchange rate had not been fixed just at the outbreak of the crisis. Considering that regional peers had strongly depreciated their currencies by between 5 percent (Czech Republic), 10 percent (Hungary) and 20 percent (Poland), it is not far-fetched to conclude that Slovakia entered the euro area with an exchange rate that turned out to be overvalued in the face of the crisis. This is not in contradiction with the IMF (2012) assessment that Slovakia is not suffering from an external imbalance, because competitiveness has been restored *via* an endogenous adjustment, which has included wage restraint and productivity-increasing investment.

Since euro adoption, real exchange rate movements have been determined by inflation and unit labour cost differentials *vis-à-vis* Slovakia's main trading partners. Inflation has actually shown a relatively large degree of fluctuation in this period. Euro adoption arrested the earlier appreciation of the nominal euro exchange rate and related declines in import prices. Thus, domestic inflationary pressures were fully translated into rising inflation in the second half of 2008. However, the financial crisis exerted a strong downward pressure on inflation. Thus, inflation declined to less than 1 percent in 2009 and 2010, below the average Balassa-Samuelson contribution to inflation¹ because of the nominal convergence of non-traded goods prices. It could therefore be concluded that Slovakia came close to a state of 'effective' deflation, with negative consequences for domestic demand. Simultaneously, wage increases decelerated dramatically from around 8 percent before the crisis to less than 1 percent in 2011. Indeed, nominal price level convergence ground to a halt from about mid-2008. Contrary to other countries, labour productivity increased strongly after the crisis – outperformed only by Estonia, helping to keep unit labour costs down and to reverse the excessive pre-crisis real appreciation to some extent.

¹ Égert (2011) estimates that the Samuelson-Balassa effect (related to productivity differences between the traded and non-traded goods sectors) was, at 1.2 to 2.0 percentage points annually, larger in Slovakia than in other new member states of the EU. According to Oomes (2005), a maximum appreciation of up to 3 percentage points annually can be achieved by price changes related to faster productivity improvements in export-oriented manufacturing relative to domestically-oriented services.

Euro adoption changed the composition of drivers of growth dramatically. Disinflation, enforced by the large output gap and increased unemployment, contributed to wage moderation and imposed a cap on job-rich domestic demand growth. Together with sizeable productivity increases, wage moderation allowed a modest real exchange rate depreciation of about 2 percent in 2010 and 2011. This helped to prevent employment in manufacturing from falling even more, although it did not generate new employment. However, the pace of exchange rate depreciation was considerably slower than that of the appreciation before the crisis, indicating less capacity for internal devaluation than present in Estonia (Figure 2).

It is interesting to note that the development of the real exchange rate was similar before the crisis in Estonia and Slovakia, although in Estonia it was only driven by differences in unit labour costs and not by changes in the nominal exchange rate. Real exchange rate trends were completely different for Slovenia (Figure 2). This pattern also corresponds to the differing trends in unemployment, which fell strongly in Estonia, stayed high in Slovakia and increased in Slovenia. Domestic demand, in turn, showed healthy growth in Estonia, stagnation in Slovakia and appears to have nose-dived in Slovenia.

Sudden stop in FDI inflows hampers competitiveness improvements

The adoption of the euro has not improved the attractiveness of Slovakia to foreign investors in the way that it was expected to before the crisis. In fact, it was the active investment promotion policy, business friendly structural reforms, low corporate income taxes and the prospect of euro accession which resulted in a surge in inflows of FDI from the early 2000s. However, the financial crisis reduced the worldwide supply of investment funds, particularly for emerging economies in the EU and euro area. Furthermore, euro appreciation *vis-a-vis* the Central Eastern European Countries outside the euro area has reduced the relative attractiveness of Slovakia as an investment location for export production, while before the crisis it was assumed that the neighbouring free floaters (Hungary, Czech Republic and Poland) would continue to experience with nominal appreciation.

FDI actually fell significantly in 2010 (the remaining inflows concerned mainly equity investment in the financial sector) and remained negligible afterwards.

Thus, FDI did not contribute to the recovery from the financial crisis, while it was an important building stone of the previous growth model (Fidrmuc and Martin 2011). The successful Slovak business model has thus come under pressure and a new source of stimulus is needed for the rapid catch-up of the Slovak economy to continue.

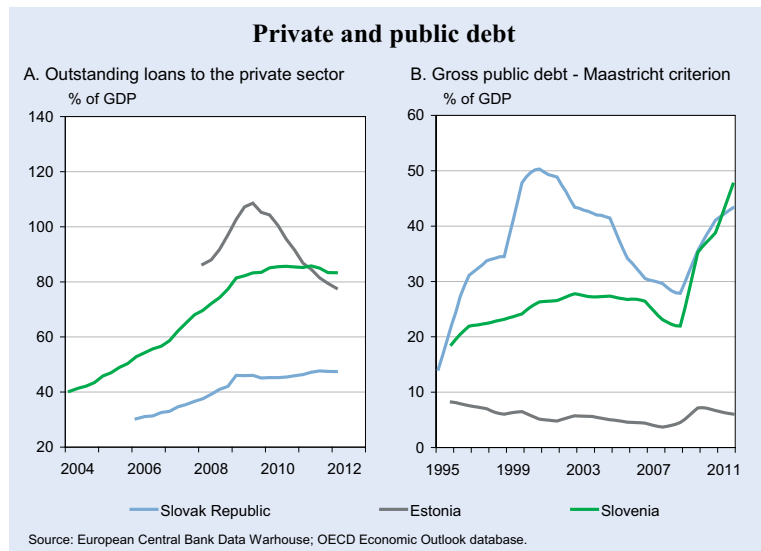
In addition, the nature of FDI inflows has changed. While FDI flows were dominated by large greenfield investments in the years prior to the crisis, the crisis investment in existing plants has since become more important. These investments have created fewer additional employment opportunities and have been undertaken to defend the viability of existing operations in the face of the strong real appreciation before euro adoption, new competitors in the region and the poorer outlook for Slovakia's main export goods (cars and flat screens).

FDI inflows have exerted a strong influence on the Slovak economy. Employment growth was positively correlated with FDI inflows. The real exchange rate appreciated during the periods of large capital inflows, but the overall effects remained moderate, although positive, up to 2011. Until 2009, FDI inflows and employment growth increased as the real exchange rate appreciated, while from 2009 onwards, the real exchange rate depreciated slightly and employment growth and FDI inflows decelerated. Productivity gains were achieved both by new investments and by reduction in low-productivity employment, both contributing to an acceleration of productivity growth in manufacturing. Actually, while industrial employment was roughly constant throughout the 2000s, it continued to fall after the 2009 crisis. Moreover, productivity and export performance are closely related: FDI inflows (e.g. to sectors such as automobiles) appear to be geared towards productivity increases and maintaining export competitiveness.

Domestic demand stagnates as a result of imposed institutional constraints and wage restraints

The sources of domestic demand are limited by institutional constraints that were imposed during euro

Figure 3



adoption and the financial crisis. This study considers the possibilities of increasing both public and private spending. As a result of budget consolidation, low income growth, stagnating employment, stagnating mortgages and increases in the servicing costs of loans as a percentage of income, growth in domestic demand fell by 6 percent in 2009 and has not yet returned to its pre-crisis level of 2008, when it grew on average by around 6 percent.

Slovakia achieved a substantial reduction in its gross public debt during its preparations for euro adoption (Figure 3B). Starting with a favourable public debt position of around 50 percent of GDP in 2000, Slovakia was able to reduce its debt level to a mere 28 percent of GDP during the conversion process in 2008. However, pressure on fiscal discipline was significantly reduced by the euro adoption. Correspondingly, public expenditure revived as a response to the financial crisis and the debt to GDP ratio almost dropped to its initial level of 43 percent. By contrast, fiscal developments in Slovenia were characterised by a smaller decline in debt prior to the euro adoption, yet a much steeper increase in public debt as a consequence of the crisis. Estonia, which did not enter the euro area until 2010, after the financial crisis, has kept the public finances stable and below 3 percent of GDP during the whole period.

Financial constraints increased only moderately after euro adoption

Before the crisis, mortgage loans and other borrowing by private households were facilitated by a large differ-

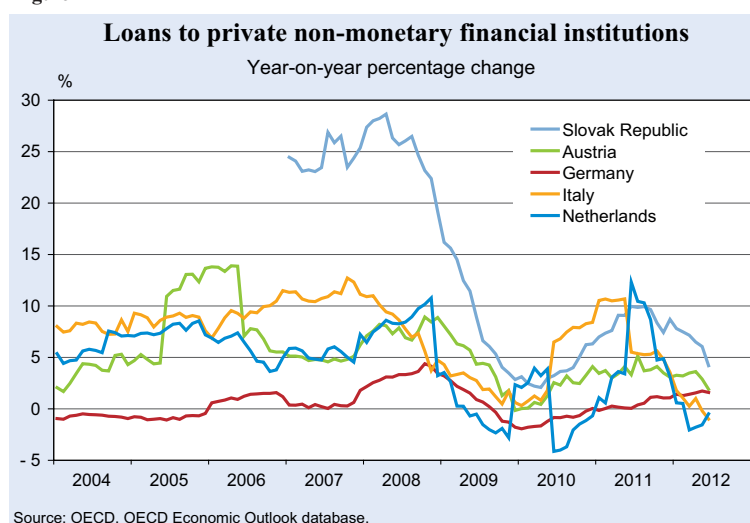
ential between income growth and borrowing costs. Despite soaring real estate prices (Fidrmuc and Senaj 2012), which generated a considerable need for a house price correction after the crisis, loans were easily financeable through income increases, without having to decrease current consumption rates. This has changed dramatically since the crisis; with wages stagnating in 2009 and 2010 and with cloudier income prospects, borrowers (and lenders) have become more cautious, increasing the savings rate. Currently servicing old loans means less money is available for current consumption spending and real estate investments. Consequently, household demand for loans has weakened recently.

Despite its adoption of the euro, Slovakia has avoided a credit boom and bust scenario (Figure 3A). The main reason for this was the outbreak of the crisis simultaneously with euro adoption and the relatively cautious lending policy of banks before that point. Slovenia (euro adoption in 2007) and Estonia (euro adoption in 2010 and currency board since the early 1990s) experienced a rapid credit expansion before the crisis (Brixiova *et al.* 2010). For Estonia, and to a lesser extent Slovenia, strong deleveraging needs imposed a burden on the early phases of the export-led recovery. By contrast, Slovakia recorded a relatively moderate increase in the ratio of credit to GDP, from 30 percent in 2006 to 39 percent in summer 2008 and the credit share hiked further to 46 percent in the first quarter of 2009 immediately after euro adoption. It then stagnated during the financial crisis, avoiding a strong deleveraging episode. Overall, credit development in Slovakia was not characterised by the accumulation of financial vulnerabilities to the same extent as in other emerging economies in Central and Eastern Europe.

Financial contagion through parent banks' lending

One reason for weak credit developments is the adverse shocks which affected the multinational banks active in Slovakia. The financial sector is dominated by foreign-owned banks (based especially in Austria and Italy), which acquired stakes in the

Figure 4



privatisation process and established their own networks (IMF 2012). This implies that shocks such as the sovereign bond crisis rapidly spill over to Slovakia. Banking conditions generally improved in 2011, reflecting the improving conditions of the Slovak economy. The direct exposure of the Slovak banks to foreign assets is fairly low, but they can be affected by the impact of sovereign risk crises on their parent banks, which is the case in some euro area countries.

Lending conditions increasingly depend on the situation of the banking sector in countries from which the parent banks originate (mainly Austria, but also Belgium, Germany, Italy, Netherlands). Figure 4 shows the importance of foreign owned banks in the banking system and their impact on economic development. The high degree of co-movement between Austrian, Italian and Slovak credit growth confirms that credit growth is driven by the situation of the parent banks. In particular, credit growth rates reached 30 percent annually before the financial crisis, this being about four times higher than in Austria. However, credit growth rates dropped to about 5 percent in both countries in 2010. The difference between Slovak and source-country credit developments increased only slightly in the past year, which confirms the role of source country factors.

Correlation analysis confirms these findings. Before the financial crisis, Slovak credit growth reported a medium degree of correlation (0.6) with the source countries (except for Italy with negative correlation). After the financial crisis, the correlation increased to 0.9 between Slovakia and Austria, while it remained largely unchanged for the other countries.

Trade integration declined during the financial crisis

Tight trade linkages with Germany and other euro area countries mean that growth shocks in those countries (often themselves being caused by external shocks, as in the case of Germany) are also transmitted to Slovakia through the slowing of the trade growth. Yet the trade channel is strengthened by strong financial links, including FDI. Slovakia is especially sensitive to developments in Germany and in the euro area (IMF 2012). Figure 5 shows that the weak economic performance of the euro area resulted in declining shares of this region in the exports of Slovakia and other new member states, which had to be compensated by exports to more rapidly growing destinations outside the euro area. As a result, the financial crisis lowered the degree of economic integration of the new member states into the EU.

It is interesting to note that the share of the euro area in Slovak trade started to decline before the country's EU accession in 2005. It confirms that trade between CEECs and the existing EU member states was already at its potential level before EU accession (Bussière *et al.* 2008). Moreover, the declining EU trade shares of Eastern European euro entrants cast doubt on the importance of the trade effects of a currency union, as intensively discussed in the literature (Frankel and Rose 2002), but viewed rather sceptically before the Eastern enlargement of the euro area (Baldwin 2006).

The export-led growth strategy has also had its particular vulnerabilities for the Eastern European euro members. The Slovak economy has become strongly

dependent on foreign demand, especially from Germany and the euro area. Business cycles in the industries concerned are often more pronounced than in other industries, especially services. For example, during the 2008/9 downturn the drop in demand was especially strong for automobiles, iron and steel, and building materials. Furthermore, the export industries that have expanded are mainly capital intensive, meaning that growth of production translated only marginally into a reduction of unemployment. The focus on large companies increases the mismatch in the Slovak labour market, which is characterized by large regional imbalances. A significant number of the unemployed can be found in more remote, rural regions with a low population density. Lastly, the rapid success of the export-led growth strategy was also achieved by the concentration on mobile industries which, though they could move in quickly, could also leave easily, meaning that a relatively minor worsening of business conditions or cost competitiveness could result in significant capacity outflows.

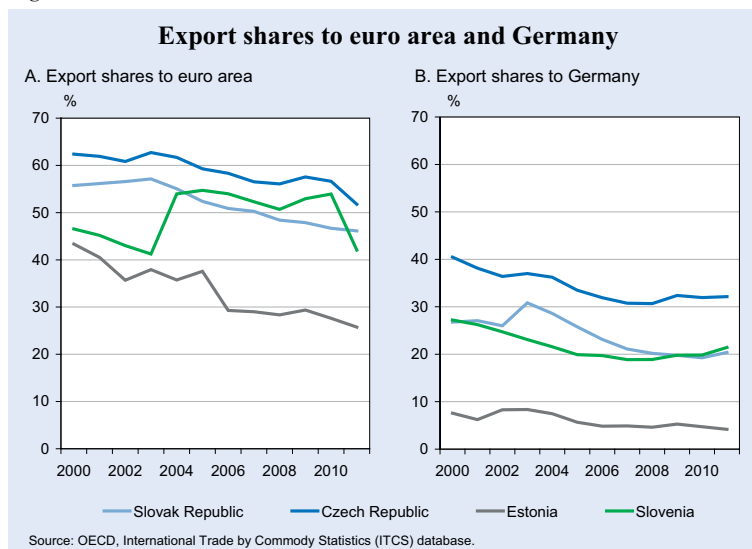
Policy Implications: what are the domestic and foreign imbalances?

Imbalances are illustrated by a jobless recovery, stalling convergence, and a persistently high unemployment rate. Unemployment reached 20 percent of labour force in the early 2000s. However, strong growth and convergence reduced the unemployment rate to a low of 10 per cent in 2008. Following this, the fall in exports in 2008/9 was associated with a new increase in unemployment to nearly 15 percent. The jobless recovery of 2011 did not succeed in improving

the situation in the labour market. Entrants were strongly affected, particularly by the economic downturn, leading to a youth unemployment rate of 33 percent. A similar situation was observed for unqualified labourers, whose situation had actually worsened during the period of economic convergence. Women, on the other hand, have not been significantly more affected by unemployment than men.

The following imbalances – of domestic and foreign origin – need to be tackled in order to push Slovakia's economy further towards job rich growth that is

Figure 5



high and sustainable enough to underpin a continuation of the successful catch-up process of the early to the late 2000s:

- Foreign investors are increasingly concerned about the inability to combine sound public and private balance sheets with sustainable economic growth. For Slovakia there is a tension between the fading external drivers of growth and the large and growing consolidation needs.
- Export capacity is dependent on the competitiveness of existing FDI plants with little or no integration into local supply networks and a weak outlook for job creation. Competitiveness is driven by wage restraints and productivity increases and less by the development and exploitation of comparative advantages in knowledge intensive operations with a high local value added content and a high job creation capacity.
- Domestic demand depends on the income growth generated by the foreign-owned export sector. Adverse external shocks are therefore not mitigated, but rather propagated by the positive correlation of private consumption and residential investment with income growth in the export sector.

Domestic sources of growth are not well-developed. Spending on innovation is low and the interaction between domestic knowledge producers and the economy is weak. Regional mobility is low and regional differences in labour market performance are large. Social housing is not geared towards regions with a growing employment potential. The capital market financing of business start-ups is underdeveloped. The lending of the financial sector is restricted to the local deposit base, which may become a constraint once a new growth cycle sets in. Consumption and mortgage financing are overrepresented.

The jobless recovery in Slovakia fits well with considerations about the recovery pattern after a financial crisis (Calvo *et al.* 2012). The growing risk aversion of lenders increases the ratio of the collateral value to the loan, which favours capital intensive investment projects in existing enterprises. Maintaining the employment level during a financial crisis would therefore require a larger wage adjustment than that which would follow from the cyclical response of wages to increasing unemployment. The consequence of reduced lending by the financial sector is a combination of wage and job restraint. This underlines the importance of a sound financial sector for the recovery from a financial crisis.

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ANALYSING THE STRUCTURE OF GERMAN INVESTMENTS – THE IFO INVESTMENT DATABASE

THOMAS STROBEL, STEFAN SAUER AND
KLAUS WOHLRABE*

Introduction

Investments are an important driver of economic growth and productivity. In turn both macroeconomic variables are essential to obtain a sustainable level of prosperity. In Germany, investment patterns have not been constant over time. Structural changes in sectoral investment patterns can be noticed in the years since the reunification in 1991. In the course of these changes the importance of some sectors for aggregate output growth has shifted. Thus, for example, there was a shift in the importance of the secondary and tertiary sector, but also of individual sectors within the manufacturing sector (German Federal Statistical Office 2012). Besides inter-sectoral changes in investment activity, intra-sectoral changes occurred as well. As of the 1970s leasing in particular, as well as other types of renting, rapidly gained importance in the financing of investment equipment in the former German Federal Republic (Gerstenberger *et al.* 1984).

A detailed analysis of sectoral investment growth beyond employing an aggregate series of investments requires detailed investment time series that, due to limited data availability, are not provided for many sectors. In the following we present a tool that allows for a temporal structure analysis of investment activity of German industries by assets – the *Ifo Investment Database* (henceforth IIDB). It provides annual investment data for 12 investment assets for 50 industries from 1991 onward that is consistent with the officially published national account statistics provided by the German Federal Statistical Office (GFSO).

* Ifo Institute.

Thereby the database contains two main features: a) the diversification of aggregate investment series by assets on the sectoral level and b) the provision of the investment data both defined by the owner concept (which is the standard accounting measure) and the user concept. We finally end up with a 12 x 50 investment linkage matrix separated by year, concept of utilization and current and constant prices.

The 12 investment assets comprise 11 equipment assets (Metal Products; Machinery; Computers and Office Equipment; Electrical Generation and Distribution; Communication Equipment; Instruments, Optics and Watches; Furniture, Music and Sports Equipment; Other Machines and Equipment; Automobiles; Other Vehicles; Intangible Assets) as well as investments in Buildings and Structures according to the Product Classification 2002 by the GFSO (German Federal Statistical Office 2002). The 50 industries correspond to the official Classification of Economic Activities 2008 (German Federal Statistical Office, 2008). Since investment matrices are not published at such a disaggregated level by German statistical offices, this gap is filled by the IIDB.

Furthermore leasing data from the *Ifo Investment Survey Leasing* enables the conversion of investment data by owner concept, which is typically used in national accounts, to the user concept. Thereby the user concept attributes investment assets to the actual user of the assets (and not to its owner) and accommodates the increasing importance of financing, especially by leasing assets. Abstaining from inclusion of rented equipment leads to errors in the measurement of capital employed in industries and important economic indicators such as the capital-output ratio, the capital coefficient, and the return on total investment lose their informative content on the sectoral level (Gerstenberger *et al.* 1986; Gerstenberger *et al.* 1989). Thus the distinction of owner and user concept in the IIDB offers a unique feature for investment research as it provides insights into the development of companies' equipment financing. However, due to lack of detailed sectoral leasing information across countries statistical bureaus agreed to only provide figures by owner concept.

The IIDB is updated annually and the results tables are available in English and German. Current publications and updates can be obtained from the EBDC data center at the Ifo Institute.

Structure and methodology of the Ifo Investment Database

In investment research it is common sense that the formation of the capital stock usually is a heterogeneous aggregate. This is not shown sufficiently by the limited view of the two aggregated classes of equipment and buildings. By including and analysing various data sources the IIDB disaggregates the investment of 50 German industries into 12 asset classes for reunified Germany from 1991 onwards. These classes cover 11 equipment assets as well as investments in structures and buildings. This is accomplished by calculating investment matrices, whose extensive data inputs are explained in more detail below.

In its national accounts the German Federal Statistical Office provides annually updated gross fixed capital formation by asset classes and by industries separately, whereas the latter is divided into the aggregated groups of equipment and other assets, as well as the asset group of structures and buildings. An important feature of the IIDB is its consistency with this data from national accounts.¹ Due to the disaggregated level used in the IIDB there is, however, a delay of two years in the data. Due to the lack of more updated data, the database can only currently be calculated up to the year $t-2$.

The IIDB obtains annual investment data on a number of sub-assets. Specifically, in the case of automobiles the numbers of new car registrations and trailers by groups of users and by car types are collected. In order to obtain the automobile investment by industries, these numbers are weighted with the prices of different car types. Additionally, industry data on production, export, and import is collected, which allows the computation of *domestically available production* by subtracting exports from domestic production while adding imports. In particular, this approach applies to the subsequent asset classes: Machinery; Electrical Generation and Distribution; Communication Equipment; Instruments, Optics and Watches. In case of lacking industry data to calculate domestically available production in sub-assets, gross fixed capital formation provided by the GFSO is used instead. For Other Vehicles investments by sub-assets are pro-

vided by the German Federal Ministry of Transport, Building and Urban Development (FMTBU). Annual leasing data by sub-assets is provided by the *Ifo Investment Survey Leasing*.²

For allocation of the GFSO-adjusted investments by sub-assets to industries, an annually updated investment flow matrix is applied, which contains a pre-determined user structure relating 88 sub-assets to 50 industries and therefore determines how much a certain industry uses of a particular sub-asset. Sources for the determination of the user structure stem from the *Ifo Investment Survey*, implicit industry-specific information on a sub-asset category (the main user of the asset Rubber and Plastic Machines, for example, is the Rubber and Plastic Industry), and explicit information from industry-related associations.

To eventually obtain a sectoral sub-asset-investment matrix that is, in its aggregates, consistent with the officially available GFSO figures, the RAS-procedure is applied (Stone 1961; Stone *et al.* 1963; Bacharach 1970). This procedure is an iterative algorithm, whose goal is to leave the original user structures as unchanged as possible and, at the same time, to erase any discrepancies with the GFSO controls. Finally, after aggregation across sub-assets and including sectoral investments for the 12th asset structures and buildings (as provided by the GFSO), a 50 x 12 industry-asset investment matrix is obtained. This industry-asset investment matrix is available in current prices and in prices for the year 2000.³

Owner and user concept

Following the national accounts conventions, investments in new buildings and equipment assets are allocated to the owner of an asset (owner concept). In addition the IIDB also calculates investments by user concept allocating investments in new buildings and equipment assets to the industry that is actually using it. Thus, detailed information from the *Ifo Investment Survey Leasing* about leasing assets and leasing customer sectors is employed. The leasing investment is then added to the self-financed investment. This procedure derives the exact volume of the investment assets actually used in an industry, which is, for example, very important for studying structural changes in the employment of capital goods.

² All data sources for the calculation of investments by sub-assets are listed in detail in Strobel *et al.* (2013).

³ For the methodology of price adjustment – see Nierhaus (2004) and Strobel *et al.* (2012).

¹ A complete list of sources is provided by Strobel *et al.* (2013).

Since detailed information about leasing investments by users and by assets is not adequately collected by the statistical offices, a detailed German investment series for leasing is not officially published. Moreover, there is no reliable source on relationships between leasing assets and the leasing sectors. Using the data from the *Ifo Investment Survey Leasing* the IIDB fills this gap by providing the only available investment data for Germany by user concept.

In the *Ifo Investment Survey Leasing* the Ifo Institute annually surveys – in collaboration with the Federation of German Leasing Companies – all German leasing companies. Since no official data is available to help make projections, the investment survey is conducted as a full survey. The results of the tests include the total amount of annual leasing investments and their share of the overall investment (leasing rate). In addition, the leasing investments are also evaluated by products and by sectors. Furthermore, the results also provide a) information on the annual number of new contracts, b) the investment plans of the leasing companies for the current year –separately for equipment and real estate – as well as c) information on fixed assets of the leasing sector. Thus, the *Ifo Investment Survey Leasing* provides important insights for investment surveys in

other industries and for the IIDB, and it represents a valuable analytical tool for one of the major service sectors.⁴

A descriptive look at the data

For a presentation of the IIDB and its possible applications, this section will provide a descriptive look at the data from different perspectives. As shown in Table 1, the investment data is published in an excel sheet format, which can be transferred to different statistical software packages. As the extract of the 2005 investment matrix for the owner concept in current prices shows, there are two dimensions that link investments by industries and asset groups. For example, in 2005 the Machinery sector, which invested a total amount of around 5,700 million euros, invested 29 million euros in metal products, while 3,462 million euros were invested in machinery equipment. Other investments in computers and intangible assets account for 241 and 413 million euros, respectively. Due to illustration purpose the investment matrix only provides an extract of the entirely available investment data by sectors and asset groups.

⁴ For an exact documentation of the survey – see Goldrian (2007).

Table 1

| Extract of an Investment Matrix | | | | | | | | | |
|---|--------------------------------|----------------|-----------|--------------------------------|-----|-------------------|--------------------------|----------------------------|--------|
| Germany – Investments by Owner Concept, nominal prices Year: 2005 Amounts in Mill. EUR | | | | | | | | | |
| | | Asset Groups: | | | | | | | |
| | | Metal Products | Machinery | Computers and Office Equipment | .. | Intangible Assets | Structures and Buildings | Equipment and Other Assets | Assets |
| Industries: | | | | | | | | | |
| 1 | Agriculture, Forestry, Fishing | 391 | 4380 | 109 | ... | 71 | 1480 | 5450 | 6930 |
| 02–25 | Producing Industries | 1250 | 33832 | 1972 | ... | 2855 | 15060 | 59750 | 74810 |
| 2 | Mining and Quarrying | 74 | 663 | 10 | ... | 12 | 60 | 1160 | 1220 |
| 03–21 | Manufacturing | 782 | 28706 | 1358 | ... | 1924 | 4520 | 46540 | 51060 |
| 3 | Food and Tobacco | 88 | 2830 | 137 | ... | 167 | 530 | 4380 | 4910 |
| 4 | Textiles and Apparel | 2 | 529 | 8 | ... | 5 | 60 | 590 | 650 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 17 | Machinery | 29 | 3462 | 241 | ... | 413 | 530 | 5140 | 5670 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 50 | Other Private Services | 127 | 348 | 105 | ... | 60 | 260 | 1390 | 1650 |
| 01–50 | All Industries | 4551 | 54601 | 12969 | ... | 24410 | 198930 | 199260 | 398190 |

Source: IIDB (2010).

Figure 1



Since the IIDB provides a panel structure of investments by industries and sectors over the period from 1991 onward, different data representations of sectoral or asset group statistics are possible. According to Figure 1 investment shares by particular asset groups can be derived for specific sectors of interest. For example, both charts of Figure 1 show the nominal shares of four aggregate assets groups, which are machinery equipment, vehicles, electronic assets, and other assets for different time dates. Therefore the upper chart of Figure 1 depicts these four asset groups in case of the Manufacturing sector. As the asset shares indicate, the most important investment asset in the Manufacturing sector is machinery equipment, followed by the electronic assets. However, the data suggests that shares of electronic assets are declining, whereas a shift toward investments in other assets is induced.

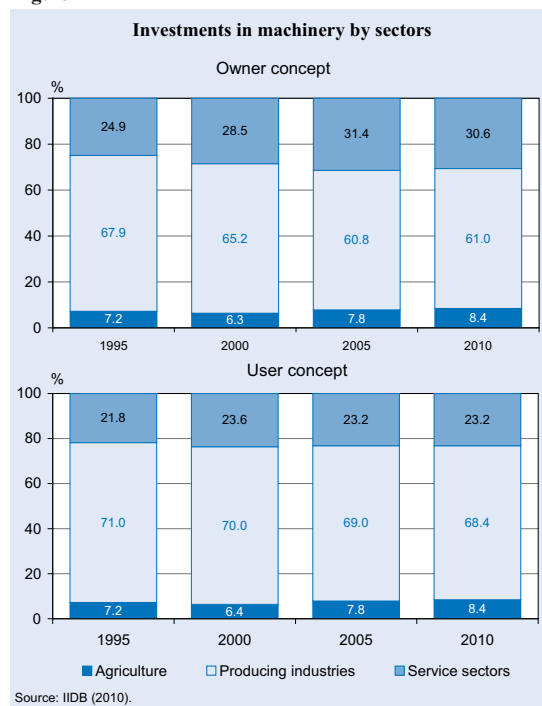
Similarly as in case of Manufacturing, the lower chart of Figure 1 shows investment shares by the four aggregate asset groups for the Trade sector. Although investment in machinery assets plays an important role in this industry, its importance is significantly lower than in Manufacturing. Nevertheless, machinery equipment increases in share post 2000. Furthermore, as the data suggests, the share of electronic assets declines as of 2000, favouring a shift toward vehicles. The use of such graphical representations allows the researcher to investigate the structural change in sectoral investment activity for specific product groups.

Analogously to the representation of investment shares by sectors and assets, the data can also be employed to focus on the importance of a particular asset throughout the entire economy. Therefore economy-wide asset data for a specific asset separated by different sectoral groups and concepts can be analysed. The upper chart of Figure 2 shows an example of machinery assets by owner concept invested by three broad industry groups: Agriculture, Producing industries, and Services sectors.

The data suggests that it is mainly the Producing industries that invest in machinery assets, while Services sectors invest about half the size in this asset compared to Producing industries. However, this picture changes as soon as the user concept is regarded.

The lower chart of Figure 2 illustrates that, when investment data accounted for, leased machinery assets is employed, it is also the Producing industries that invest the largest share in machinery assets and that those sectors' shares significantly increase compared to their investment shares in machinery assets measured by owner concept. The investment shares in machinery assets by Services sectors, on the other hand, are much less important when measured by user concept. This effect results from the reallocation of leasing investments accounted for by leasing companies (owner concept), which are included in the Services sectors, to other sectors actually using these investments (user concept).

Figure 2



Access to data

The IIDB can be accessed only *via* the LMU-ifo Economics & Business Data Center (EBDC) located at the Ifo Institute in Munich (Germany). For data security reasons and the protection of the data providers' confidence in the Ifo Institute, admission to the IIDB has to comply with high security standards. The guest researchers and the EBDC enter into a contractual agreement that serves the interests of all parties. The EBDC is located in a separate, closed-off area at the Ifo Institute and is subject to strict physical access controls; access for unauthorized parties is prohibited. The data can only be accessed on computers, which have no internet access, printer, or other external storage media and which can only be used in the presence of an EBDC staff member. Individuals can apply for access to EBDC datasets by completing a form at the Ifo website www.ifo.de/ebdc. In addition, a short description of the research project and accompanying information as to scheduling must be submitted to gain permission to access the data. The EBDC expressly supports empirical research projects and is thus free-of-charge.⁵ Upon request, extracts of the data of the IIDB can also be obtained at the user's expense.

Conclusion

With its calculation of investment by industries and assets, the IIDB provides a solid database for the analysis of complex relationships and structural changes in the investment activities of German companies. New technological developments and structural changes in investments, which usually begin at a higher leasing rate for new introduced products (Staedtler 1986), can be identified early based on the distinction of investments by owner and user concept.

Furthermore, the collection of sectoral investment series offers various aspects of applied empirical research on sectoral and aggregate productivity analysis. In addition to the parametric estimation approaches usually applied in the case of firm-level data, growth accounting is a common method by which sectoral and economy-wide productivity growth can be decomposed into its components of capital, labor, and technological progress.⁶ The data provided by the IIDB plays an essential role in determining the influence of the input factor capital,

whereas investment series are employed to calculate capital stocks and services (e.g. Eicher and Roehn 2007; Eicher and Strobel 2009). Moreover, the disaggregated level of the asset classes makes it possible to examine the importance of information and communication technologies during the emergence of the New Economy in the mid-1990s.

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⁵ See Seiler (2012) for further details on the EBDC.

⁶ For an application of growth accounting exercises including former versions of the *Ifo Investment Database*, see Eicher *et al.* (2007).

COMPARISON OF REDUCED CORPORATE TAX RATE IN THE EU

CHANG WOON NAM*

Many European countries favour small and medium-sized enterprises (SMEs) by granting them reduced corporate income tax rates (European Commission 2012). There are several reasons for such a type of tax expenditure policy. First of all, the vast majority of

firms that operate in Europe are SMEs. Consequently, SMEs' competitiveness significantly affects the competitive position of a country's economy as a whole. Secondly, the concentration of their activities on the domestic market leads to a bounded business vision: combined with the asymmetric information about profit opportunities abroad, this fact limits the diversification of SMEs' investments in an international context. Thirdly, SMEs are generally more responsive to domestic tax incentives than large companies (Coyne 1995), while taxes play a more important role in the cost structure of SMEs as they do not have the

* Ifo Institute.

Table 1

Reduced Corporate Income Tax Rate for SMEs in the EU (2012)

| Country | Standard rate | Reduced rate for SMEs | Eligibility criteria for reduced rates / thresholds for lower rates |
|---|---------------------|-----------------------|---|
| Belgium | 33% | | Companies that fulfil a number of conditions related to the activities of the company, the shareholding of the company, the rate of return of distributed profits and the remuneration of their managers benefit from reduced rates |
| | | 24.25% | Profits of up to €25,000 |
| | | 31% | Profits between €25,000 and €90,000 |
| | | 35.50% | Profits between €90,000 and €322,500 |
| + 3% austerity surcharge on income tax rate | | | |
| Spain | 30% | 25% | Companies with a turnover below €10 million. Only on a taxable base up to €300,000 ^{a)} |
| | | 20% | In 2009–2012: micro-enterprises with a turnover less than €5 million, employing fewer than 25 employees and maintaining or increasing employment. Only on a taxable base of up to €300,000 |
| France | 33.33% | 15% | Largely independent businesses with an annual turnover no greater than €7.63 million. Only on the first €38,120 of profit |
| Luxembourg | 21% | 20% | Taxable base up to €15,000 |
| | + 5% solidarity tax | | |
| Netherlands | 25% | 20% | On the first €200,000 of profits |
| Latvia | 15% | 9% | Micro-enterprises with a turnover less than LVL 70,000 (= approx. €100,000), employing up to 5 employees (if turnover above, excess taxed at 20%) |
| Lithuania | 15% | 5% | Companies with a taxable profit less than LTL 1 million (= approx. €290,000), employing up to 10 employees |
| Hungary | 19% | 10% | On the first HUF 500 million (= approx. €1.64 million) of profits per annum |
| Romania | 16% | 3% | Privately-owned companies with a turnover less than €100,000, employing up to 9 employees (optional) |
| Britain | 24% | 20% | Companies with profit under GBP 300,000 (= approx. €348,000). Marginal relief is available on profits between GBP 300,000 (= approx. €348,000) and GBP 1.5 million (= approx. €1.74 million) |

^{a)} As of 2011, companies in Spain that grow above the limits applicable for small companies can benefit from the lower rate for three years after losing their small-business status.

Source: European Commission (2012).

financial and human capacity to developed sophisticated tax avoidance strategies (see also Weichenrieder 2007).

In addition, SMEs have limited access to capital markets, partly because of the perception of higher risk, informational barriers and their involvement in smaller projects, etc. As a result, they have often been unable to obtain long-term finance in the form of term debt and equity, and a larger part of their investments have traditionally been self-financed (see also Nam and Radulescu 2007). Furthermore, the corporate tax system encourages debt financing and discriminates against SMEs, since corporate interest payments are tax deductible. Such a type of tax non-neutrality between the financing methods favours large firms, which have easier access to bank loans (Chen, Lee and Mintz 2002).

Some EU countries including Britain have traditionally had lower tax rates for SMEs, whereas such a corporate tax reduction does not exist at all in countries like Austria, Finland and Germany. As shown in Table 1, ten EU member states currently make use of reduced corporate tax rates to support SMEs. Although it is disputable, those countries that provide fiscal incentives and preferential tax treatment to SMEs claim that they (1) create a large number of jobs and (2) enhance the level of entrepreneurship, which implies flexibility, speed, risk-taking and innovation (Chen, Lee and Mintz 2002).

However, the European Commission (2012) argues that using the tax expenditure system to rectify the aforementioned distortions and SME-specific disadvantages does not the first-best solution (see also de Mooij and Nicodeme 2008). According to Santarelli and Vivarelli (2002), those less-efficient SMEs tend to have a higher expected probability of exiting from the market than larger firms do and therefore it is optimal for them to invest more gradually, since entry and other investment costs made at the setting-up phase are sunk. In this context a government subsidy or a tax expenditure system may reduce differences between the efficient and the inefficient firms, and consequently disturb not only investment decisions, but also market selection, as well as the learning process undergone by entrepreneurs.

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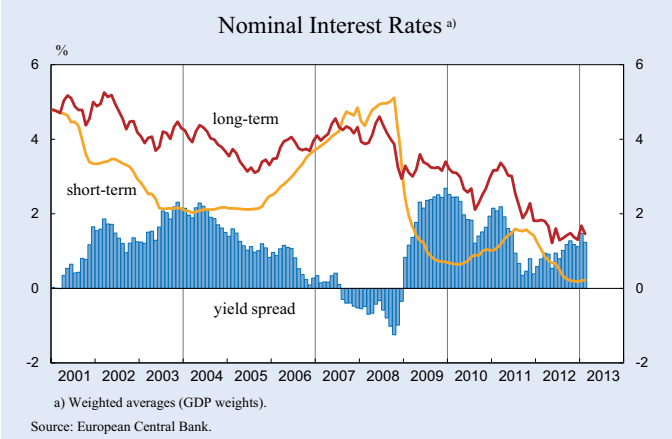
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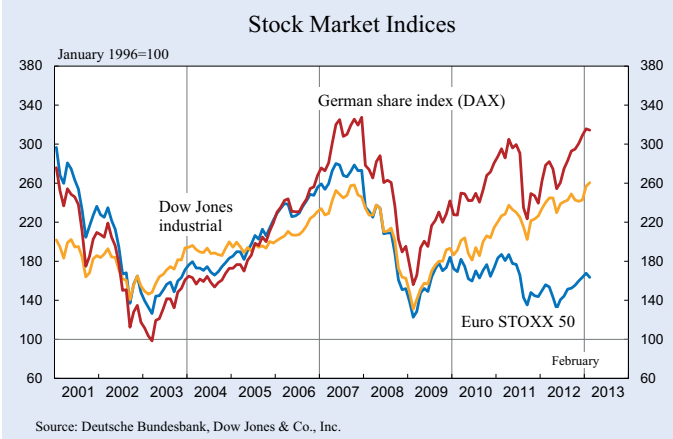
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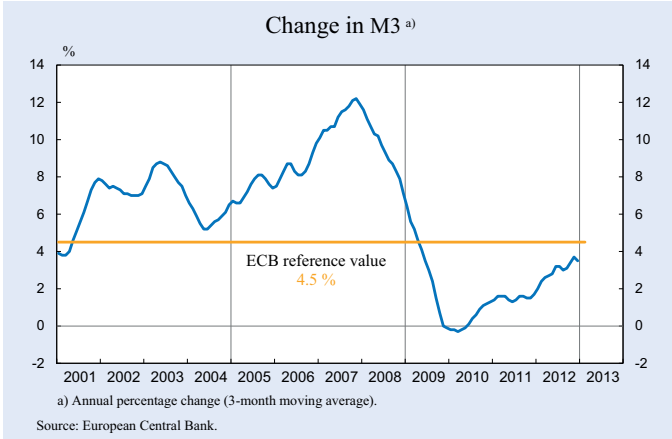
FINANCIAL CONDITIONS IN THE EURO AREA



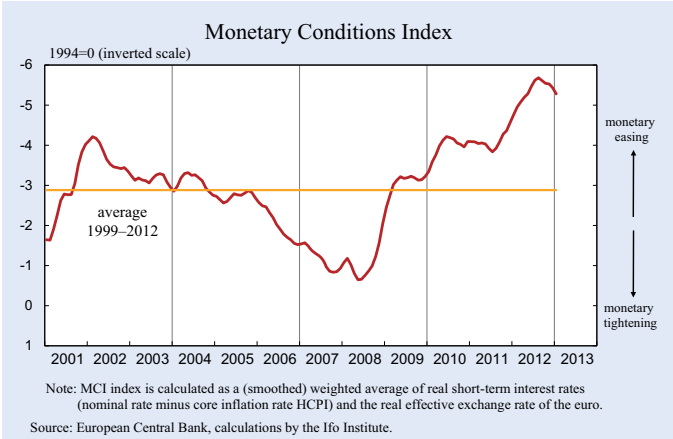
In the three-month period from December 2012 to February 2013 short-term interest rates increased. The three-month EURIBOR rate grew from an average 0.19% in December 2012 to 0.22% in February 2013. The ten-year bond yields also increased from 1.31% to 1.46% in the same period of time. Furthermore the yield spread grew from 1.12% in December 2012 to 1.24% in February 2013.



The German stock index DAX decreased in February 2013, averaging 7,741 points compared to 7,776 points in January 2013. On the other hand the Euro STOXX declined from 2,702 to 2,633 in the same period of time. The Dow Jones International increased, averaging 14,054 points in February 2012 compared to 13,861 points in January 2013.

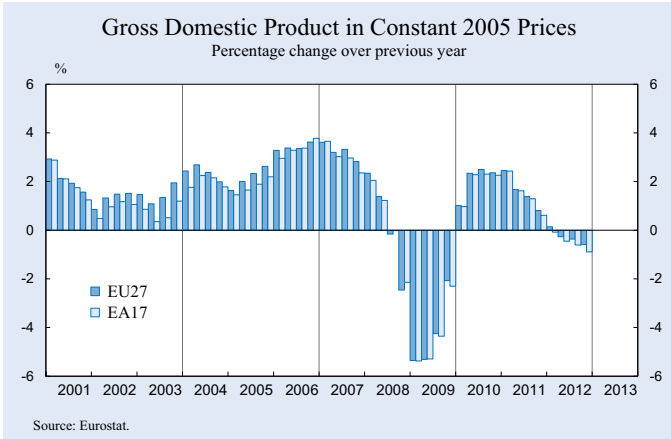


The annual growth rate of M3 stood at 3.5% in January 2013, compared to 3.4% in December 2012. The three-month average of the annual growth rate of M3 over the period from November 2012 to January 2013 increased to 3.5%, from 3.7% in the period from October 2012 to December 2012.

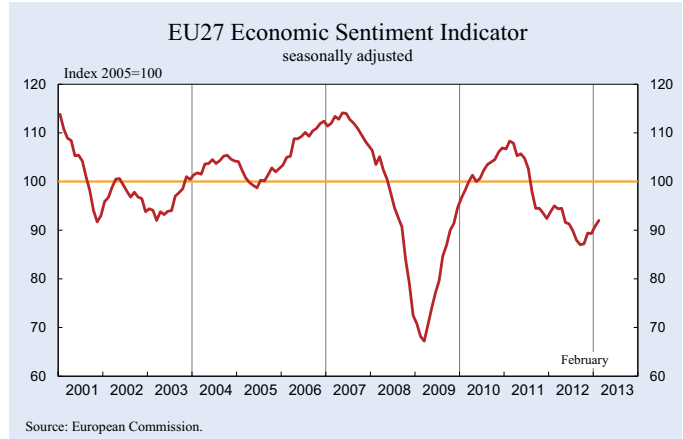


Between April 2010 and July 2011 the monetary conditions index remained rather stable. This index then continued its fast upward trend since August 2011 and reached its peak in July 2012, signalling greater monetary easing. In particular, this was the result of decreasing real short-term interest rates. In January 2013 the index continued its downward trend, initiated in August 2012.

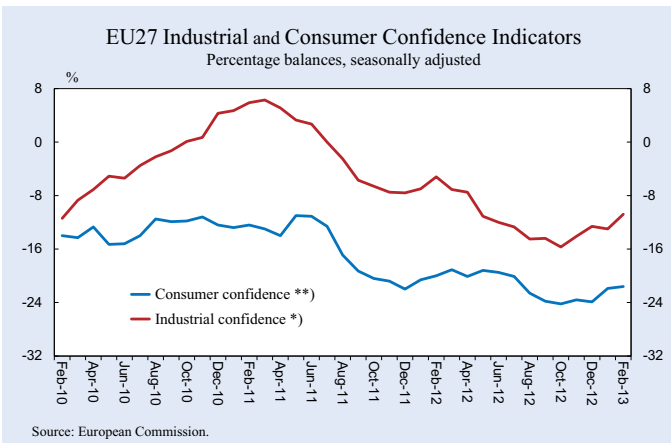
EU SURVEY RESULTS



According to the second Eurostat estimates, GDP decreased by 0.6% in the euro area (EA17) and by 0.5% in the EU27 during the fourth quarter of 2012, compared to the previous quarter. In the third quarter of 2012 the growth rates were -0.1% and 0.1 respectively. Compared to the fourth quarter of 2011, i.e. year over year, seasonally adjusted GDP fell by 0.9% in the euro area and by 0.6% in the EU27.



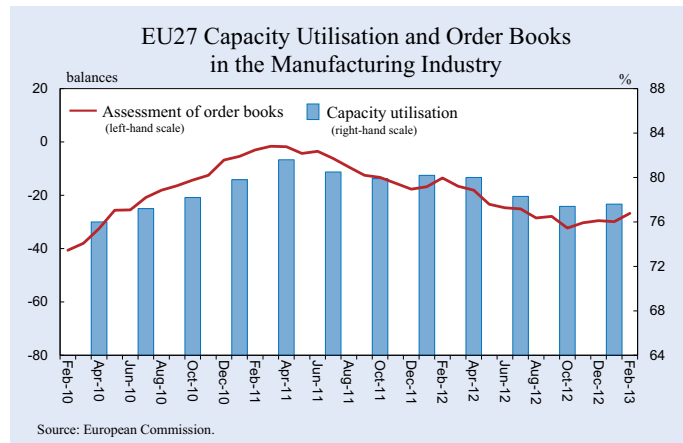
In February 2013 the Economic Sentiment Indicator (ESI) increased by 1.2 points in the EU27, to 92.0, and by 1.6 points in the euro area (EA17), to 91.1. In both the EU27 and the euro area the ESI stands below its long-term average.



* The industrial confidence indicator is an average of responses (balances) to the questions on production expectations, order-books and stocks (the latter with inverted sign).

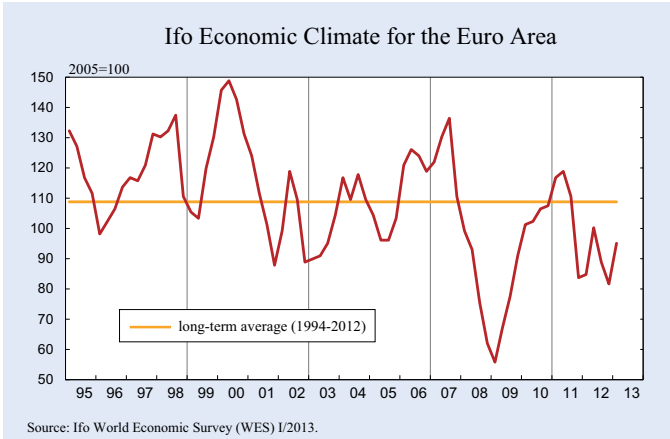
** New consumer confidence indicators, calculated as an arithmetic average of the following questions: financial and general economic situation (over the next 12 months), unemployment expectations (over the next 12 months) and savings (over the next 12 months). Seasonally adjusted data.

In February 2013, the *industrial confidence indicator* significantly increased by 2.2 in the EU27 and by 2.6 in the euro area. The *consumer confidence indicator* improved marginally by 0.3 in the euro area and the EU27.

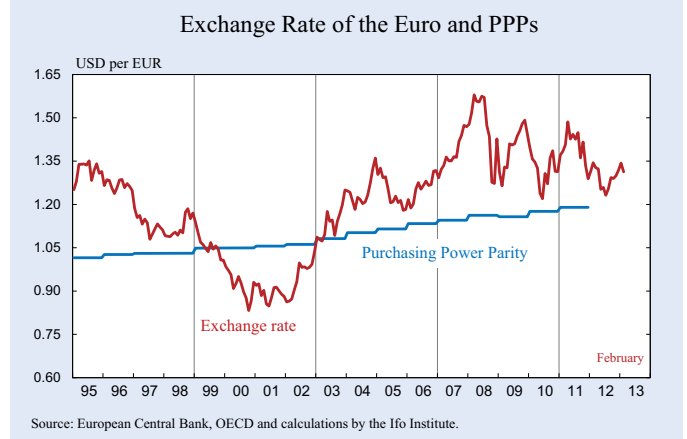


Managers' assessment of *order books* improved from -29.5 in December 2012 to -26.8 in February 2013. In November 2012 the indicator had reached -30.3. *Capacity utilisation* also increased slightly to 77.6 in the first quarter of 2013, from 77.4 in the previous quarter.

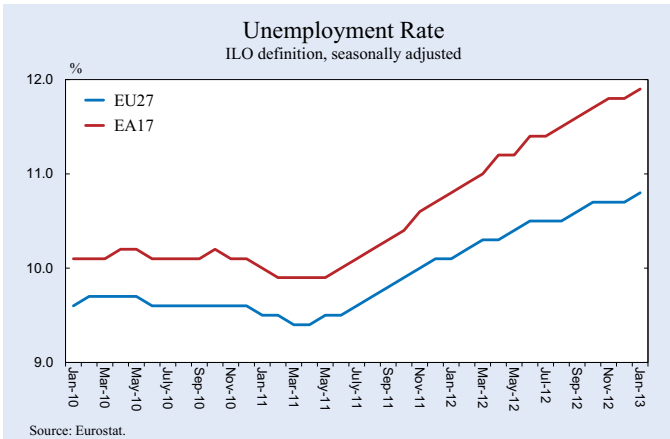
EURO AREA INDICATORS



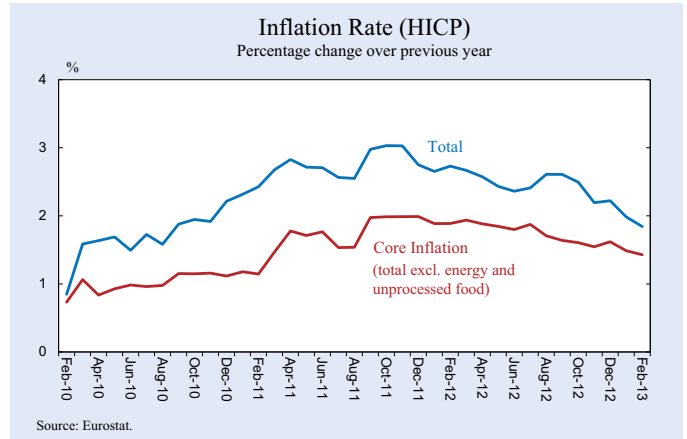
The Ifo Economic Climate Indicator for the euro area (EA17) rose in the first quarter of 2013 after two successive decreases. Assessments of the current economic situation deteriorated slightly. Assessments of the six-month economic outlook, on the other hand, were largely positive and are now at the highest level for nearly two years.



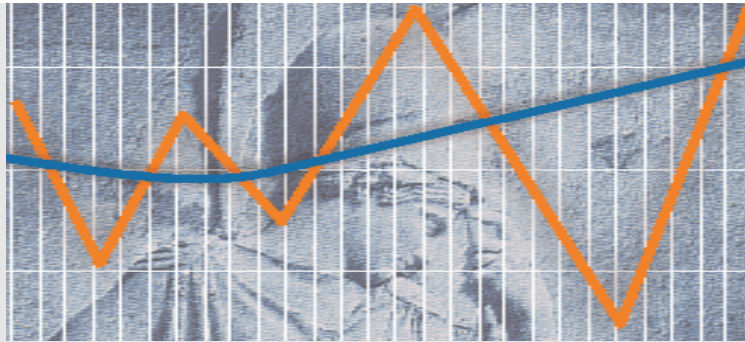
The exchange rate of the euro against the US dollar averaged approximately 1.32 \$/€ between December 2012 and February 2013. (In November 2012 the rate had amounted to around 1.30 \$/€.)



Euro area (EA17) unemployment (seasonally adjusted) amounted to 11.9% in January 2013, up from 11.8% in December 2012. EU27 unemployment rate was 10.8% in January 2013, up from 10.6% in December 2012. In both zones, rates have risen markedly compared to January 2012, when they were 10.8% and 10.1%, respectively. In January 2013 the lowest unemployment rate was registered in Austria (4.9%), Germany and Luxembourg (both 5.3%) and the Netherlands (6.0%), while the rate was highest in Greece (27.0%), Spain (26.2%) and Portugal (17.6%).



Euro area annual inflation (HICP) was 1.8% in February 2013, down from 2.0% in January. A year earlier the rate had amounted to 2.7%. The EU27 annual inflation rate reached 2.0% in February 2013, down from 2.1% in January. A year earlier the rate had been 2.9%. An EU-wide HICP comparison shows that in February 2013 the lowest annual rates were observed in Greece (0.1%), Portugal (0.2%) and Latvia (0.3%), and the highest rates in Hungary (5.2%), Estonia (4.1%) and Romania (3.8%). Year-on-year EA17 core inflation (excluding energy and unprocessed foods) decreased to 1.43% in February 2013, from 1.62% in December 2012.



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ifo Beiträge zur Wirtschaftsforschung

Business Fluctuations, Job Flows and Trade Unions Dynamics in the Economy

Beate Schirwitz

ifo Institut
Leibniz-Institut für Wirtschaftsforschung
an der Universität München e.V.

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22 – 27 July 2013



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Organisers: Alessandra Casarico and Paola Profeta

EMISSIONS TRADING SYSTEMS AS A CLIMATE POLICY INSTRUMENT: EVALUATION & PROSPECTS

Organisers: Marc Gronwald and Beat Hintermann

24 – 25 July

POLITICAL ECONOMY AND INSTRUMENTS OF ENVIRONMENTAL POLITICS

Organisers: Friedrich Schneider, Andrea Kollmann and Johannes Reichl

26 – 27 July

THE ECONOMICS OF LANGUAGE POLICY

Organisers: Bengt-Arne Wickström and Michele Gazzola

THE ECONOMICS OF INFRASTRUCTURE PROVISIONING: THE (CHANGING) ROLE OF THE STATE

Organisers: Arnold Picot, Massimo Florio, Nico Grove and Johann Kranz

Economists working on these or related topics are invited to present and discuss their papers, exchange ideas and participate in panel discussions.

The deadline for paper submissions is 5 April, 2013.

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CESifo Group
Poschingerstr. 5
81679 Munich, Germany
Tel.: +49 (0) 89 92 24 - 14 10
Fax: +49 (0) 89 92 24 - 14 09
Email: office@cesifo.de
www.cesifo.org

