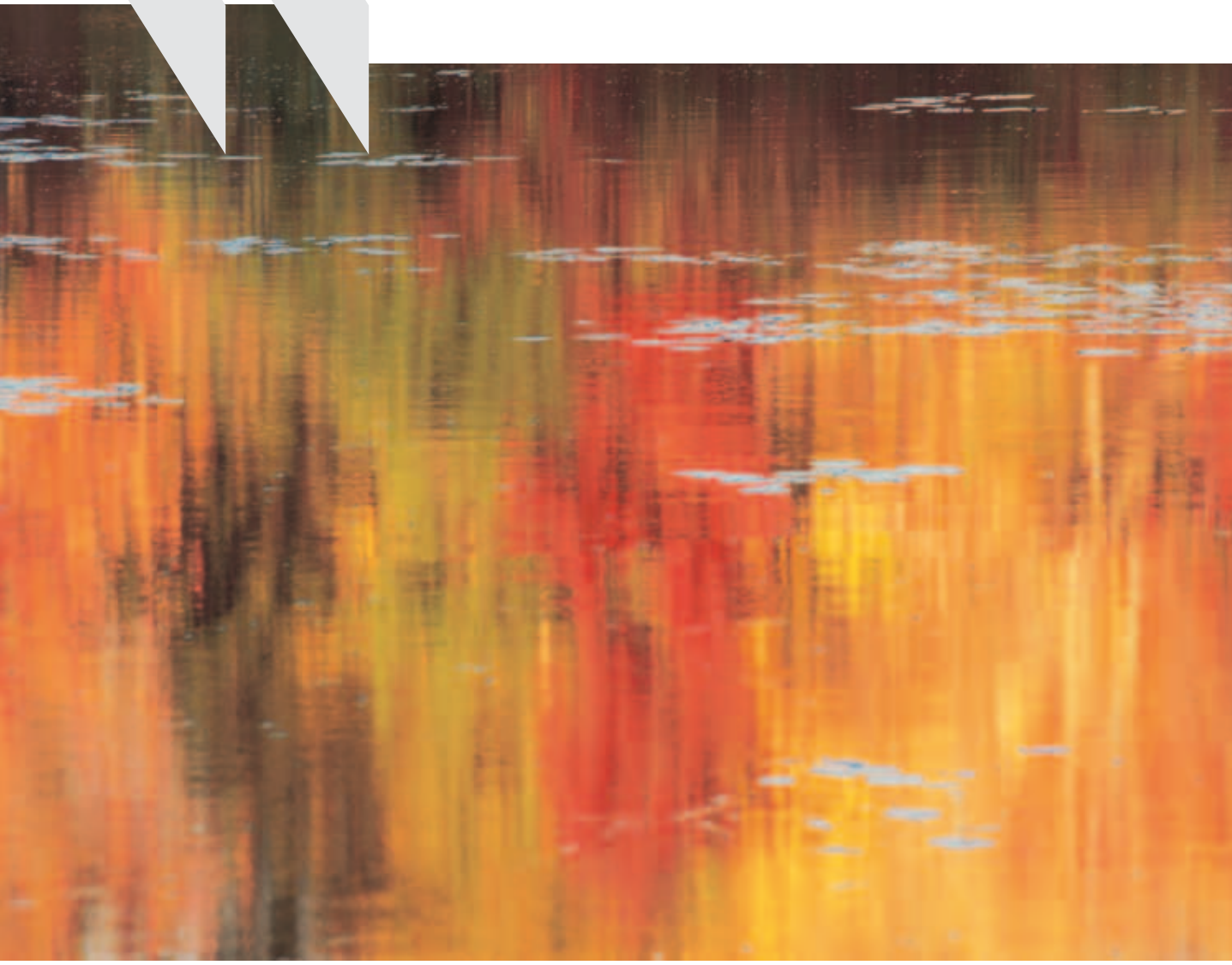
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Table of contents

Executive summary 8

Assessment and recommendations 11

Chapter 1. **Ensuring a balanced recovery after the global downturn** 21

Strong economic performance given the international context 25
Returning to fiscal sustainability 36
Importance of EU transfers 46

Annex 1.A1. Progress in structural reform 56

Chapter 2. **Preparing for euro adoption** 59

Avoid setting another official entry date at this stage 61
Highlighting the benefits and costs of euro adoption 63
Continuing the process of real and nominal convergence 69
Meeting the Maastricht criteria in a sustainable way
and achieving a smooth convergence within the euro area 72

Chapter 3. **Making the most of globalisation** 95

Poland's position in global markets 97
Enhancing the effects of inward FDI 108
Improving export performance 130

Tables

1.1. Recent trends and outlook 24
1.2. Projected evolution in the public debt-to-GDP ratio 38
1.3. Incidence of EU supporting policies, 2009-15 49
1.4. EU structural funds to cohesion countries (1989-2006) 50
1.5. Effects of EU cohesion policy on GDP and employment 51
2.1. Indicative extent of fulfilment of formal nominal convergence criteria 60
2.2. Main actions *vis-à-vis* the European institutions to adopt the euro 62
2.3. Decline in interest rates in Ireland, Spain and Germany 83
3.1. Dependent variable: Trade-to-GDP ratio, 2007,
all explanatory variables in logs 99
3.2. True trade performance, in percentage points of GDP,
based on residuals of above regressions 99
3.3. Poland's export structure 100
3.4. Balassa index, and share of Poland's and world exports in 2007 101
3.5. Polish export shares by technological intensity
as a percentage of total Polish exports and GDP 103

3.6. Share of workers with tertiary education aged between 25 to 34 not occupying a skilled job 124
3.7. Banks' balance sheets in selected countries 133
3.8. Distribution of enterprises and employment by size class in Poland and in the EU27 137
3.9. Percentage of all enterprises providing continuing vocational training courses 138

Figures

1.1. Poland was the best economic performer in the OECD in 2009 22
1.2. Imbalances had been growing before the crisis 23
1.3. Labour market developments in Poland 24
1.4. Private consumption has continued to grow 25
1.5. Economic performance compared with other CEEC4 countries 26
1.6. Foreign direct and portfolio investment net capital flows 27
1.7. Nominal exchange rates and competitiveness in CEEC4 countries 28
1.8. Growth in export volumes 28
1.9. Trade contribution to GDP growth and total domestic demand 29
1.10. Level of openness and real GDP growth in the aftermath of the global financial crisis, OECD countries 29
1.11. Credit and share of foreign-currency-denominated loans 31
1.12. Loans to households and non-financial corporations 32
1.13. Consumer price indices and monetary policy interest rate 32
1.14. The crisis has curbed excess demand 33
1.15. Discretionary fiscal measures and cyclical net revenues 37
1.16. Public debt and fiscal deficits 37
1.17. Life expectancy and retirement age 44
1.18. EU structural and cohesion funds, 2007-13 48
1.19. Distribution of EU funds across countries, 2007-13 48
1.20. GDP per capita developments *versus* EU15 in selected countries (1985-2008) 50
2.1. Cyclical components of GDP and industrial production in Poland and the euro area 66
2.2. Correlations of business cycles *vis-à-vis* the euro area and their volatility 67
2.3. Trade balance developments and nominal bilateral exchange rate 68
2.4. Progress in convergence 70
2.5. Real and nominal convergence 71
2.6. Bilateral exchange rates and the inflation differential *vis-à-vis* the euro area . . . 71
2.7. Cyclicality of fiscal policy, 1997-2008 74
2.8. Sectoral labour productivity 79
2.9. Minimum wage to average wage ratio 80
2.10. Employment protection in a selection of OECD and non-OECD countries 81
2.11. Short- and long-term interest rates 83
2.12. Retail banking interest-rate spreads between Poland and the euro area 84
2.13. The boom-bust cycle in Spain and Ireland 86
3.1. Globalisation trends in Poland 98
3.2. Gains in export share 98

3.3. Differences in bilateral export specialisation between Poland and a selection of countries 102
3.4. Decomposition of the difference of medium-high-tech and high-tech export shares between Poland and other CEEC4 countries 105
3.5. FDI inflows, savings and investment as shares of Poland's GDP 106
3.6. Poland's inward FDI stock 106
3.7. Sectoral structure of FDI inflows 107
3.8. Public ownership 111
3.9. Road transport infrastructure quality 113
3.10. Penetration, quality and price level of fixed broadband in OECD countries 115
3.11. Trends in the ease of doing business rankings 117
3.12. The most problematic factors for doing business in Poland 118
3.13. Tertiary education attainment 122
3.14. PISA scores in OECD countries: Overall average scores and average scores for pupils with a less advantaged economic, social and cultural status 123
3.15. Overall expenditure on education and relative weight of tertiary education spending 125
3.16. Availability of scientists and engineers 126
3.17. Gross domestic expenditure on R&D 127
3.18. Financial support for private R&D investment 128
3.19. University-industry collaboration in R&D 130
3.20. Price-cost margins in the whole economy 132
3.21. Entry in professional services 133
3.22. Net interest margin in the banking sector 134
3.23. Turnover ratio of traded stocks 135

Boxes

1.1. The public finance consolidation plan for 2010-11 39
1.2. Climate change: Available energy resources and objectives 47
1.3. Main recommendations to stabilise the economy following the global downturn 52
2.1. Benefits and costs of euro adoption 64
2.2. The boom-bust cycles in Spain and Ireland 85
2.3. Main recommendations for preparing for euro adoption 90
3.1. Trade performance controlling for size and development levels 99
3.2. Main recommendations to make the most of globalisation 141

This Survey *is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.*

The economic situation and policies of Poland were reviewed by the Committee on 4 February 2010. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 3 March 2010.

The Secretariat's draft report was prepared for the Committee by Hervé Boulhol and Rafal Kierzenkowski under the supervision of Peter Jarrett. Statistical assistance was provided by Patrizio Sicari.

The previous Survey *of Poland was issued in 2008.*

This book has...



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BASIC STATISTICS OF POLAND (2008)

THE LAND

Area (sq. km)	312 679
Arable land (in per cent of total area)	59

THE PEOPLE

Population (million, mid-year)	38.1	Employment (million)	15.8
Rural population (% of total, mid-year)	38.9	Employment by sector (% of total):	
Life expectancy at birth:		Agriculture	14.0
Male	71.3	Industry (including construction)	30.8
Female	80.0	Services	55.2
Infant mortality (per thousand)	5.6		

Labour force survey unemployment (% of labour force)	7.1
Number of pensioners (million)	9.3

PARLIAMENT

Bicameral parliamentary system	
Sejm membership (lower house)	460
Senate membership (upper house)	100
Number of major political parties in Sejm	4

PRODUCTION

GDP (PLN billion, current prices)	1 272.8
GDP per capita (USD, market exchange rate)	1 3861
Gross fixed capital formation (% of GDP)	22.1

PUBLIC FINANCE

General government budget balance (% of GDP)	–3.7
General government revenues (% of GDP)	39.6
General government expenditures (% of GDP)	43.3
Public debt (end-year, % of GDP)	47.2

FOREIGN TRADE AND FINANCE

Exports of goods and services (% of GDP)	40.0
Imports of goods and services (% of GDP)	44.0
Official reserves assets (USD billion, end-year)	76.4
Total external debt (USD billion, end-year)	242.4

CURRENCY

Monetary unit: zloty	Currency units per:	USD	EUR
	Average 2009	3.1191	4.1724
	February 2010	2.9301	3.9768

Executive summary

Poland's economic performance in 2009 was strong, *given the global downturn. Although excess demand was substantial prior to the crisis, the external imbalance was modest relative to some neighbours' and contagion was contained. Macro-policy responses to the slowdown were largely appropriate, and the sharp depreciation of the zloty cushioned the impact of the foreign shock, but contributed to the postponement of euro adoption. The slowdown even cooled off residual inflationary pressure, while the swift turnaround in wages helped limit job losses. A number of issues should be addressed, however, to strengthen Poland's position in a globalising world and ensure sustainable growth, given the prospects of future euro adoption, persistently large EU transfers and desirable inflows of foreign direct investment.*

The risks of a boom in the medium term are growing. *Poland has become the largest recipient of EU cohesion funds, with EU transfers set to reach an annual average of 3.3% of GDP in the coming years. Combined with the impact of large inward FDI inflows, there are widespread high growth expectations, but destabilisation risks, especially as euro-adoption prospects are likely to induce a sharp fall in the cost of capital. Macro-policies should rely on a precise, forward-looking assessment of all the implications of such a combination and be used pro-actively to head off any nascent imbalances. Heightened credit demand and supply might also be contained by tighter prudential regulation.*

Fiscal discipline must be restored. *The 2003-08 economic expansion was not used to improve the structural budget balance, though early retirement pensions were slashed. Recent cuts in the tax wedge, welcome as such, were, however, not totally compensated and thus initially pro-cyclical. The cyclical and structural worsening of the fiscal position together threatens the constitution's public-debt threshold. Consolidating public finance should be achieved by: broadening the tax base; reducing the generosity of support to farmers; extending the retirement age, especially for women; further diminishing early retirement; saving on disability benefits; and improving public-administration efficiency. At the same time, progress in pension reform should be preserved and consistency between the domestic and Maastricht definitions of the public debt ensured. The January 2010 consolidation plan includes some of these features as general proposals, but its effectiveness will depend on an early implementation of concrete measures.*

The ground for euro adoption must be prepared. *The euro would speed convergence only under an appropriate institutional framework. Developing the capacity to stabilise the economy once monetary and exchange-rate policies are abandoned is the priority. Fiscal policy should be based on both a general government structural deficit rule and a multi-year nominal expenditure rule, with the creation of an independent fiscal council assessing and monitoring its effectiveness. Product markets should be made more responsive to shocks through more efficient utilities regulation, downsizing public ownership and easing regulation in retail distribution and professional services. The minimum wage should not be increased relative to the average wage but be differentiated across regions, based on local labour-market conditions. Labour mobility should be fostered by further deepening the rental market for housing and developing urban zoning plans.*

Broad structural reforms are needed to benefit more extensively from globalisation. *Poland has made impressive progress in developing international economic linkages. Yet much remains to be done to attract foreign investors, absorb FDI efficiently and improve export performance. The role of the state should be reduced through a transparent process of privatisation and a faster removal of administrative burdens. Infrastructure needs to be modernised, especially for transportation and broadband Internet. The innovation system should be beefed up by better matching demand and supply for skills, greater competition between higher education institutions and more support for commercial R&D. The foreign investment agency's power should be strengthened and export promotion efforts streamlined. Financial development could be enhanced through consolidation of the co-operative banks and improvement in the legal framework for collateral. Finally, support policies for small and medium-sized firms should be rationalised.*

Assessment and recommendations

Strong relative performance throughout the crisis

Despite a severe slowdown, Poland was less affected by the global recession than other OECD countries, especially in Eastern Europe. Indeed, it is expected to have recorded the best real growth outcome in the OECD in 2009 (at 1.7%), before recovering steadily towards 3% growth in 2011. Resilient final demand and the solidity of the financial system helped to contain the contagion of the economic crisis, which hit some other countries in the region so harshly. At the outset the economy had been suffering from significant excess demand, which has been eliminated by the slowdown, but external imbalances were not so large as to threaten stability.

Incipient capital outflows based on reduced appetite for the heightened risks nevertheless triggered a significant depreciation of the zloty, which cushioned the downturn, but also contributed to the postponement of euro adoption. The prominent role played by foreign-owned banks may have protected the financial system, while still limited financial development explains the low penetration of the complex financial products that were at the core of the global crisis. In this context, the flexible credit line agreed with the IMF in April 2009 helped to restore capital-market confidence. The real trade balance improved as a result of the exchange-rate depreciation: domestic producers became more competitive in both home and foreign markets, and import volumes fell more abruptly than exports, despite relatively robust private consumption. Domestic demand was supported by fortunate pre-crisis cuts in taxes and social contributions, and infrastructure investments related to EU funds and the 2012 European football championships. The labour market adjusted quickly through a rapid slowdown in real wages after hefty increases in 2008, thus limiting employment cutbacks.

Proportionate policy response given an already weakened fiscal position

As the downturn led to prospects of excess supply, the central bank (NBP) swiftly cut official rates by 250 basis points. Unconventional measures were also adopted to ensure liquidity in the domestic interbank market. Maturities for NBP repurchase agreement operations were extended, the range of accepted collateral broadened, and swap lines were negotiated with other European central banks. While excessive borrowing in foreign currency had been actively discouraged already in 2006, the Polish Financial Supervision Authority convinced financial firms to retain their 2008 profits in order to strengthen their capital base and reinforced the supervision of both banks' balance sheets and their funding links with foreign parents. Guarantees for individual deposits were also raised to reassure

depositors, and some other measures were introduced to strengthen the stability and maintain the liquidity of the domestic financial system. On the fiscal side, beyond the partly uncompensated tax cuts implemented since 2006 and the impact of automatic stabilisers, an anti-crisis plan worth about 0.7% of GDP was implemented, including such measures as co-financing of front-loaded investments related to EU funds, allowing firms to temporarily accelerate the depreciation of certain assets and facilitating the tax deductibility of R&D spending.

EU transfers will have increasing macroeconomic impacts

Poland has become the largest beneficiary of EU cohesion policy in absolute terms. Over 2009-15 EU transfers will represent an average of 3.3% of GDP per year (including Common Agricultural Policy transfers). They provide a unique opportunity to modernise the economy, but absorbing them efficiently and managing the macroeconomic repercussions will be a challenge. While various leakages will dampen the demand effect, these transfers are expected to raise real growth by an average of 0.5 to 1.5 percentage points per year. Unless there is available slack, this will generate inflationary pressure, especially if this period coincides with euro-adoption prospects that might raise investors' confidence, leading to a real exchange-rate appreciation, a shift in activity in favour of the non-tradable sectors and an enlarged trade deficit.

In this context, the authorities will have to strive to maintain a balanced growth path. Structural policies to accompany EU transfers should focus on ensuring a smooth labour- and product-market reaction to the stimulus. Due to co-financing rules, EU funds tend to boost national budgetary expenditure and could induce a pro-cyclical fiscal stance, in turn requiring an offsetting fiscal tightening. *Macro-policies should be based on precise assumptions related to the EU-transfers path, and the risks of overheating should be carefully monitored*.

The withdrawal of monetary stimulus should begin soon if fiscal policy is not tightened significantly in the immediate future

As Poland has successfully avoided a major negative output gap, and given the projected pick-up in growth, the 3.50% level of the main official interest rate implies an accommodative stance going forward. In principle, it would be best if fiscal policy were tightened decisively without delay. Should such a consolidation not be forthcoming, however, *it would fall to monetary policy to tighten at an early stage*, with the exact pace depending on economic prospects and forthcoming data. Moreover, *the continuity of monetary policy should be enhanced by introducing overlapping terms to the appointments of Monetary Policy Council (MPC) members*, as recommended in previous *Surveys*.

Implementing a credible fiscal consolidation is the main challenge

The authorities did not use the exceptional 2003-08 expansion to improve the fiscal position in a sustainable way, resulting in the need to use privatisation receipts in the recent period of lower stock prices so as to meet fiscal targets. Indeed, the measures taken in 2007-09 to

reduce the tax wedge across the board are welcome, since they tend to boost employment, though the tax wedge remains larger than the OECD average and progressivity remains relatively low. However, as they were not totally financed in the budget, they resulted in a pro-cyclical fiscal expansion between mid-2007 and mid-2008, with the underlying general government balance deteriorating by around two percentage points of GDP.

Subsequent attempts to cut spending and raise revenues through an ambitious privatisation programme have not been sufficient to contain the debt level decisively below the precautionary thresholds of 50% and 55% of GDP, which are meant to trigger correcting measures. Indeed, adding the effect of the slowdown to the deterioration of the structural position resulted in a general government deficit of over 7% of GDP in 2009. General government debt is projected by the OECD to reach 56.5% of GDP in 2010, threatening the constitution's 60%-of-GDP debt limit in 2011 if no consolidation measures are undertaken. As a result, in order to get around that constraint the government recently debated whether to shift back part of the contribution to open pension funds into the social security's first pillar. This would have reversed a significant part of the pension reform designed in 1999 and led to the replacement of explicit pension liabilities (government bonds purchased by pension funds) with implicit ones (notional accounts indexed on government bond yields). *The recent shelving of that idea is welcome,* given that it would have undermined the commitment to the reformed pension system and may have lessened incentives to lower the deficit down the road.

In late January 2010 the Prime Minister presented the Plan for the Development and Consolidation of Finances 2010-11, which remains to be approved by the government. Some of the foreseen consolidation measures are broadly in line with the recommendations included in this *Survey*: strengthening fiscal institutions; completing the pension reform; broadening tax bases; and generating substantial privatisation revenues. The plan is essentially a set of proposals (without any accompanying draft legislation, many of them being subject to further public debate) to contain the increase in the general government deficit and public debt and create conditions for meeting the long-term development objectives pursued by the authorities. Its success will depend on the degree of ambition shown in the implementing legislation, which is expected to be adopted by the end of 2010. The concomitant update of the Convergence Programme, which projects a reduction of the Maastricht deficit from 7.2% of GDP in 2009 to below 3% in 2012, without providing quantified concrete measures, is disappointing to the extent that the main part of the effort is back-loaded to 2012, threatening the overall credibility of the commitment to resolutely restore sound public finances.

Greater fiscal discipline is a pre-requisite to both internal and external balance. Ensuring sound public finances will require structural reforms. For example, Poland's numerous farmers benefit from an overly generous special social security system, which provides inappropriate incentives to stay in the sector (at least officially) and weighs on public expenditure. Reforming this extensive safety net will be sensitive, however, and costly. With the long-term objective of aligning it with the general scheme, *subsidies should be gradually reduced by better linking contributions to incomes, while adopting complementary measures to develop transport and telecommunication infrastructure, and enhance access to education in rural areas*. Increasing employment rates at older ages, which are among the lowest in the OECD, would also greatly facilitate the management of fiscal policy. The tightening of access to early retirement achieved by the 2008 bridge-pension reform is an important and welcome step; it is officially expected to save PLN 2 billion in 2009 and

PLN 6 billion in 2010. Although the "50+ Programme", designed to raise older workers' labour-market participation, also goes in the right direction, *the statutory retirement age for women should converge steadily with that for men, which should itself be indexed according to increasing life expectancy. Early retirement should also continue to be reduced.* For example, while all pensions paid from the general scheme will become actuarially neutral from 2014, some special regimes applying to certain occupations, beyond farmers, such as miners, soldiers and police officers still encourage early retirement.

Cutting the structural deficit should also be achieved by *broadening the tax base*. In that regard, calculation and publication of the list of tax expenditures would be useful in identifying areas where savings could be made. The VAT treatment of certain professional services should be improved (such as by the requirement to use cash registers as envisaged in the consolidation plan) in order to enhance tax collection, while the option of choosing to pay a lump-sum income tax without keeping accounting books should be restricted in order to link tax receipts more closely to earnings. Farmers should also be made liable for the income tax rather than the lump-sum agriculture tax. These measures should be accompanied by better administrative enforcement. Moreover, receipts can be raised in less distortionary ways such as by *reforming property taxes and introducing a carbon tax*.

On the spending side, although Poland has managed to reduce the inflow of disabled pensioners by tightening eligibility criteria, *a re-evaluation of the large stock of benefit recipients with permanent eligibility built up under earlier lenient criteria could generate additional savings*. Moreover, cutting the wage bill and *increasing public-administration efficiency by linking career development to performance more systematically* would also help to restore fiscal sustainability. All these measures would help Poland meet the Maastricht deficit and debt criteria, which must be satisfied for successful adoption of the euro.

While euro adoption could speed catch-up, policy makers should prepare the economy to contend with the repercussions…

Entering the euro area should enhance trade and financial integration, intensify competition and accelerate convergence in living standards. Reduced transactions costs, the disappearance of currency risk and lower interest rates will all tend to support economic growth. However, the potential gains are not something the authorities can take as given: they must first design the institutional settings that would allow the realisation of these gains and ensure smooth management of the significant impacts of the whole process. In November 2009, the Polish authorities established an organisational structure for euro adoption. *Preparing the ground through implementing a series of key structural reforms would enhance real and nominal convergence, thus making an eventual announcement of the date for adopting the euro more credible.* Setting another adoption date prematurely risks damaging the authorities' reputation.

… implying a need to develop alternative adjustment mechanisms…

Given the level of the remaining income gap *vis-à-vis* the euro area, the substantial room for further real and nominal convergence raises important issues. Economic catch-up tends to be associated with real exchange-rate appreciation, thus creating inflationary pressure in a monetary union. Lower real interest rates will boost investment and domestic

durables consumption, providing an important demand stimulus that will attract foreign suppliers and investors, leading to a deterioration of the trade balance and possibly a distorted allocation of resources. Closing off the possibility of managing specific shocks via interest- or exchange-rate changes puts fiscal policy at the centre of macro-stabilisation, while it is up to structural policy changes to ensure the economy can better absorb economic shocks.

… through a more transparent and effective rules-based counter-cyclical fiscal policy…

Fiscal policy therefore needs to be made more counter-cyclical: at a minimum the working of the automatic stabilisers should not be obstructed and possibly enhanced by measures that would increase progressivity in the tax/benefit system. A rule specified in terms of a ceiling on the structural general government deficit consistent with the medium-term objective of the Stability and Growth Pact of a deficit no greater than 1% of GDP could help achieve this by, for example, preventing a pro-cyclical easing being masked by exceptional revenues during an expansion. A complementary expenditure rule with multi-year limits on the value of general government expenditure, excluding cyclically sensitive items (in particular, unemployment benefits), would strengthen the government's capacity to stabilise the economy. The creation of an independent fiscal council to monitor and assess the implementation of these rules would enhance the overall credibility of the fiscal framework. Indeed, implementing such a deficit rule would require an analysis of the cyclical and structural components of the overall deficit, which should be kept at a safe distance from potential political pressures, as such analysis raises complex technical issues. Fiscal policy also has to be carried out more transparently. Objectives and communication should not apply only to the state budget, but refer explicitly to the Maastricht definition of the general government balance. Likewise, the consolidated public debt should be monitored based on the same definition as Eurostat. In particular, the National Road Fund, which is being increasingly used to finance the heavy transport infrastructure needs and whose debt might already amount to more than 2% of GDP in 2010, should be included in the national definition.

… through structural reforms in product and labour markets…

More competitive product markets and greater flexibility in labour markets would enable faster price adjustments and reallocation of resources in response to shocks. Stringent product-market regulations are restraining competition in various areas, including network industries, retail distribution and professional services. *Regulated prices that are below cost-recovery levels, especially in utilities, should be corrected and efficient regulation developed* to stimulate the needed investments to modernise these sectors. *Public ownership in the potentially competitive segments of network industries (electricity, gas, airline, rail and post) should be phased out. In retail distribution, the administrative costs related to the registration and issuance of licenses and permits should be reduced*. Finally, *regulations on educational requirements and licensing in professional services raise barriers to entry and should be eased*.

Reducing wage rigidities will also facilitate any future need to correct real exchange-rate overvaluation. Although the labour market is not excessively rigid and the wage-bargaining system is largely decentralised, the government remains heavily involved in minimum-wage negotiations. Since 2005, the minimum wage has increased by 14% relative to the average wage, leading the ratio between them to exceed the OECD average. *Policy makers should refrain from further raising the minimum-to-average wage ratio and remove the rule that it has to reach 50% in the future compared with 40% in 2009,* since the current level may already be harming employment prospects for low-skilled workers. Also, given the strong regional disparities in unemployment rates and low internal labour mobility, *the authorities should consider introducing differentiated regional minimum wages* based on local labour-market conditions. Also, while some laudable measures are being taken to deepen the rental market, which will help to stimulate regional labour mobility, *more could be done in this direction by continuing to exert pressure on local authorities to develop urban zoning plans.*

… and a need to contain the risks of a boom-bust cycle

In the run-up to the euro, real interest rates might fall significantly below their natural levels, threatening to destabilise the economy, as the experience of other EU countries suggests. Too low interest rates and a rapid discounting of the resulting permanent income gains by households provide incentives to raise spending significantly, possibly triggering a credit boom through the expansion of consumption and housing loans. Moreover, such circumstances, combined with positive market sentiment and rising inflows of foreign investment, could result in a strengthening of the currency that may be too rapid relative to fundamentals. In turn, this would harm external price competitiveness and, at the same time, distort the allocation of resources towards construction, real estate and other sheltered activities, slowing aggregate productivity gains if competition in these non-tradable sectors is limited. This process could be magnified by the impact of EU transfers if the decision is taken to adopt the euro before implementing the fiscal and structural reforms discussed above.

Some additional changes might offset these destabilising effects of a boom-bust scenario. These include policies to promote competition in services. Beyond those, *macro-prudential regulations could be strengthened to contain uncomfortably high credit demand and supply*. This could be achieved through both dynamic provisioning for banks and higher capital requirements, which would reduce the pro-cyclicality of credit supply. The probability of a housing and/or consumption boom could also be reduced by: introducing limits on both loan-to-value and loan-to-income ratios; removing support for housing demand, such as the reduced VAT rate on new purchases and the tax breaks applying to mortgage interest rates; and by ensuring vibrant competition in construction. Moving property taxes to a market-value basis could lead to a useful increase in receipts while providing more efficient market signals to construction activities. However, if all these changes prove to be insufficient, fiscal policy would need to be more pro-active.

Policies to make the most of globalisation cover wide areas

Poland has made tremendous progress in increasing international linkages in capital, product and labour markets, as reflected by significant shifts in specialisation towards sectors with underlying comparative advantages. Yet, while maintaining macroeconomic stability is a prerequisite, a wide range of reforms could enhance participation in the globalisation process beyond EU integration, so as to better allocate resources, exploit economies of scale and speed up technology diffusion. These include the product- and labour-market reforms discussed above that would help to respond to the ongoing structural changes that characterise globalisation. Given that investment needs easily exceed the flow of available domestic saving, attracting FDI is key. However, the positive effects of foreign capital inflows depend on the capacity of domestic firms to absorb them, and an appropriate institutional setting is necessary to extract all the benefits. Also, while globalisation tends to magnify economic inefficiencies, major obstacles that prevent firms from developing their full potential in export markets should be removed.

Reducing the role of the state and the administrative burden

The privatisation process should be reinvigorated and its credibility strengthened. Poland is the OECD country where the grip of the state on the economy is the tightest, and privatisation was largely stopped in the mid-2000s. While sales of public firms directly attract foreign investors, privatisation also represents a commitment to market-economy principles, which tends to raise investors' confidence. Beyond generating public revenues, greater private ownership would provide more scope to boost investment in a fiscally constrained environment, in addition to improving the governance of state-owned enterprises and productive efficiency more generally. The government recently designed an ambitious privatisation programme involving the sale of 802 firms aimed at generating proceeds representing 2.7% of annual GDP between mid-2009 and end-2010. The plan fell short of its objectives for 2009, in part no doubt because of stock-market weakness. To ensure success this year reasonable asking prices will have to be set. In any case, *the whole approach should be transparent and consistent and avoid overly generous compensation to the specific interests affected by the sales*. Investors might not be inclined to participate in partial privatisations that leave open the possibility of future state intervention. In particular, *the "golden veto" legislation* by which the Treasury was allowed to maintain a privileged position in strategic state-controlled enterprises for public interest reasons may have *de facto* restricted FDI and lowered the market value of these companies. The Sejm has just passed a new law that abrogates the 2005 Golden Veto Act, which had been viewed by the European Commission as incompatible with EU law. In its place the new legislation, based on a December 2008 EU Directive, allows the government to implement various measures to protect critical energy infrastructure.

Improving the business environment has appropriately received increased attention by policymakers. However, despite the creation of a system of one-stop shops, starting a company is still too costly and takes too long because multiple procedures involving numerous decision-making entities have been maintained. Formalities to start up a business, get construction permits and register properties are excessive, risking corruption to get around them. *Ongoing progress achieved under the implementation of the "Better*

Regulation" programme, aimed at improving the regulatory environment for doing business, should be extended. More generally, *inefficient government bureaucracy hampers economic activity, and tax and legal regulations should be made more transparent and predictable*.

Developing transport infrastructure and broadband Internet

Modernising infrastructure would boost potential output growth and allocate resources more efficiently. Insufficient quantity and quality of motorways and under-investment in the maintenance of existing transport infrastructure have combined with increasing transportation needs to make the development of road and rail networks a priority in order to reduce costs and attract foreign investors. As 40% of the EU funds allocated for 2007-13 will be used to develop transport, enhancing the capacity to absorb these funds efficiently will be essential. Progress has been made, and should be continued, to improve the legal framework for public procurement and the issuance of building permits; enhancing co-ordination between all public and private parties involved in the process; systematically defining project priorities based on cost-benefit analysis; and facilitating the issuance of temporary permits for foreign workers to avoid future labour shortages in construction-related activities.

Broadband Internet is insufficiently developed mainly due to the control maintained by the incumbent operator (TPSA) and the inability of the regulator (UKE) to ensure effective competition in the market. Discriminatory treatment of alternative operators limits the use of the incumbent's infrastructure, and it is too soon to assess whether the recent agreement reached between the incumbent and UKE will succeed in ensuring equal access. Despite recent improvements to the regulatory framework, *the power of the regulator should be strengthened further*. Moreover, *UKE should proceed with the functional separation of the incumbent, the effective unbundling of the local loop and the implementation of a wholesale pricing scheme that is consistent with costs and conducive to long-term investments*.

Reducing the skill mismatch and encouraging human-capital deepening

The gap between the skills needed by firms and those provided by the education system has grown despite rising educational attainment. Recent measures encourage training at work; however, *a comprehensive and flexible lifelong strategy should be developed*. *Students should be encouraged to study science and technology, and the links between employers and the education system should be strengthened*. The currently discussed reform of the higher education system could foster FDI absorption and export performance by: *systematically assessing the quality of higher education institutions and putting financing of public and private institutions on an equal footing; simplifying the student-loan scheme; and allocating academic positions based on transparent and competitive procedures*.

Investment in R&D is low compared with other OECD countries in the region as a result of insufficient linkages between firms and universities and the relatively limited technological content of the industrial specialisation. *One direct way to boost R&D expenditure would be to increase tax credits, especially given their currently low levels compared to the OECD average, so long as there is adequate monitoring and evaluation of its efficiency.* Also, the quality of public research institutions is instrumental to increase the return on R&D investment. Current efforts to

concentrate the public funding of research should be intensified in order to link resources to performance more systematically, thereby helping the best centres to reach a critical mass. *Researchers should be encouraged to move in and out of businesses and financial incentives provided to develop scientific partnerships between firms and universities and to promote international research collaboration.*

Strengthening the foreign investment agency and considering creating a separate agency to focus on export promotion

Expanding the financial capacity of the foreign investment agency (PAIiIZ) might boost FDI inflows significantly. PAIiIZ's resources do not compare favourably with those of its competitors in neighbouring countries, and empirical evidence suggests that the size of such agencies' budgets contributes heavily to inward FDI, especially when funds are targeted at activities to improve the quality of the investment and business climate. Moreover, PAIiIZ could be turned into an independent agency so as to participate more efficiently in the decision-making process, with the power to make binding offers to foreign investors without resorting to lengthy approvals by ministries or other relevant authorities.

While the number of export promotion agencies has grown at a fast pace worldwide over the last two decades, this function remains fragmented in Poland. *The creation of such an agency would bring together these activities in one place* with an exclusive focus on export promotion and branch offices in key trading-partner countries. Such an agency could encourage SMEs to co-operate to access foreign markets and offer training support to overcome barriers related to managerial skills needed for engaging in export activities and to the acquisition of knowledge of international markets. It could also seek to raise Polish exporters' awareness of the prohibition against bribing foreign public officials in international business transactions under Polish law and Poland's commitments to combat such bribery under the OECD's Anti-Bribery Convention. Also, *the web presence of export promotion activities should be aligned with international best practice.*

Deepening financial development

Financial development should be encouraged as a way to channel savings towards the most productive projects. The financial system has already been modernised significantly, in part due to the increasing role of foreign banks, but margins remain large, suggesting that competition is insufficient. Banking infrastructure is underdeveloped in rural areas. *Co-operative banks should be consolidated to reduce fixed costs and facilitate access to credit.* Moreover, the legal framework for collateral suffers from the inefficiency of the commercial court system, which generates huge uncertainties for creditors in recovering pledged assets. Recent legislation aimed at simplifying procedures goes in the right direction, but *enforcement should be strengthened and the senior position of the state to call collateral removed.* The planned privatisation of the Warsaw Stock Exchange is of key importance, as it has the potential to enhance the Polish market's integration within the network of European stock exchanges, broaden the listed companies' shareholders base, improve liquidity and provide greater finance for SMEs.

Streamlining support to small- and medium-sized firms

Compared to other OECD countries, including those in Eastern Europe, the distribution of Polish enterprises is heavily skewed toward small firms, suggesting that important obstacles prevent them from developing their businesses. These structural weaknesses might explain why exporters have trouble reaching distant markets. Previous OECD work focusing on Polish SMEs has argued that *the fragmentation of support policies among various entities should be reduced and co-ordination among them improved*.

This is particularly the case for the government financing schemes that provide guarantees and facilitate access to finance. The loan and guarantee funds should be rationalised and their operation and fees standardised through consolidation or increased co-operation. SMEs often lack basic skills in business and financial management, accounting and marketing. Hence, public support should target these areas for SME training. This applies as well to vocational training for which participation is heavily skewed against SME employees compared to other Eastern European countries.

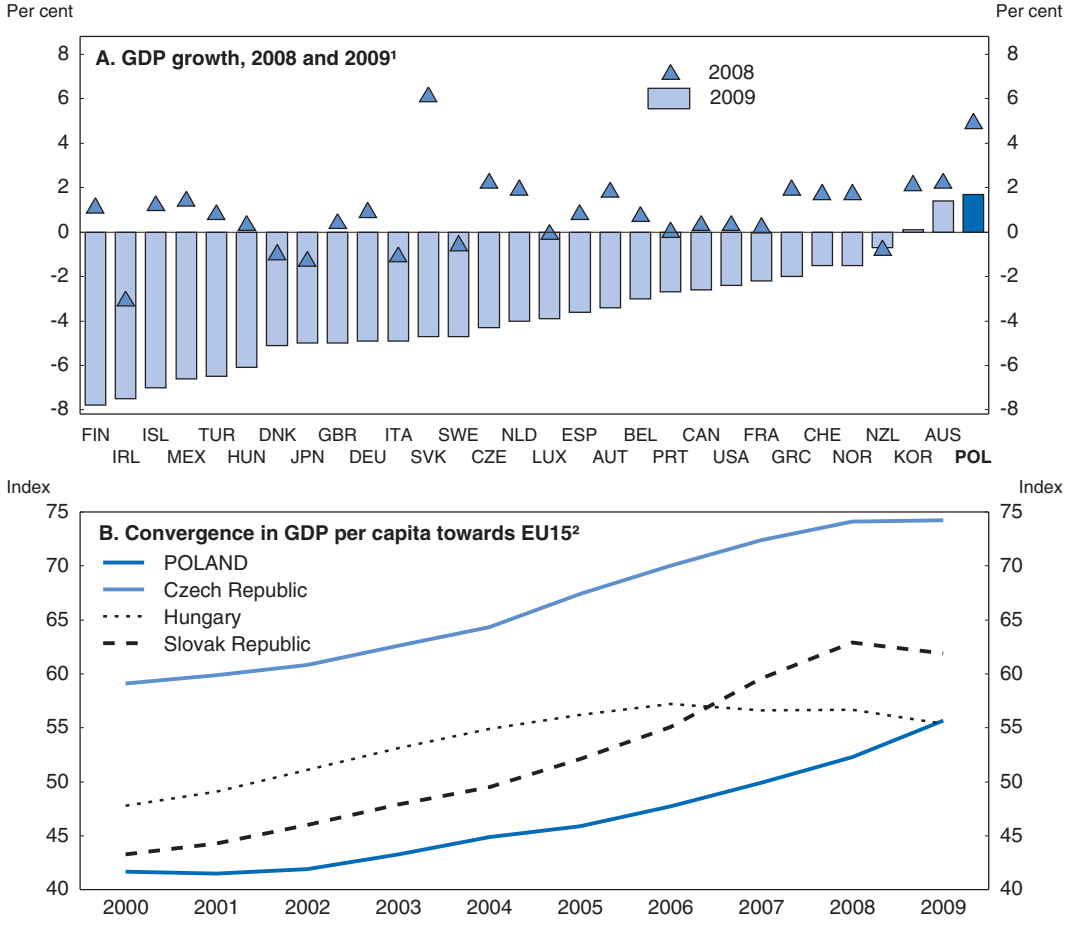
Chapter 1

Ensuring a balanced recovery after the global downturn

Poland recorded the best real GDP growth performance among OECD countries during the global downturn. As it entered the recession with excess-demand pressure, the economic crisis curbed the imbalances that had been growing since 2006 due to an insufficiently tight macro-policy mix. In the midst of the crisis, as a result of the rise in global risk aversion that hit Central and Eastern European countries hard, the fear of collapse of the mainly foreign-owned Polish financial system and of massive capital outflows triggered a sharp depreciation of the zloty, providing a powerful underpinning to the economy. However, foreign parent banks supported their Polish affiliates and outflows seem to have been contained. Swift monetary policy reaction, using both conventional and exceptional instruments, macro-prudential measures, a small fiscal package, absorption of EU funds, government involvement to defend the zloty and IMF support all helped to restore confidence. Nevertheless, Poland was not spared from a significant slowdown, which has left the fiscal position under great strain to meet the constitutional debt rule, especially as the underlying budget deficit had widened pro-cyclically before the crisis. Combined with the unstable exchange rate, Poland had to postpone moving ahead with the euro adoption process. The shorter-term macroeconomic challenges are to restore fiscal discipline through public-finance reforms covering pension, tax and public-sector efficiency, absorb unprecedented transfers from the European Union and avoid overheating pressure and serious imbalances down the road. Given the recovery prospects, the withdrawal of monetary stimulus should begin soon, to avoid the early re-appearance of demand pressure, if fiscal policy is not tightened significantly in the immediate future.

Poland was the best economic performer in the OECD in 2009 (Figure 1.1). While the possibility that the economies of emerging countries would escape a severe downturn rapidly faded away, the subsequent concern that Poland would succumb to the same fate as some other Eastern European countries and be swept away by contagion effects also proved wrong. Fears of massive capital outflows fuelled a significant yet orderly exchange rate depreciation. However, the downtrend in the exchange-rate lasted only seven months and has been since partly reversed. This is attributable to the solidity of the financial

Figure 1.1. **Poland was the best economic performer in the OECD in 2009**



1. Figures for 2009 are based on fourth-quarter projections for Iceland, Ireland, Luxemburg, New Zealand and Turkey.
2. In constant 2005 PPPs, EU15 = 100.

Source: OECD, *OECD Economic Outlook Database*; GUS.

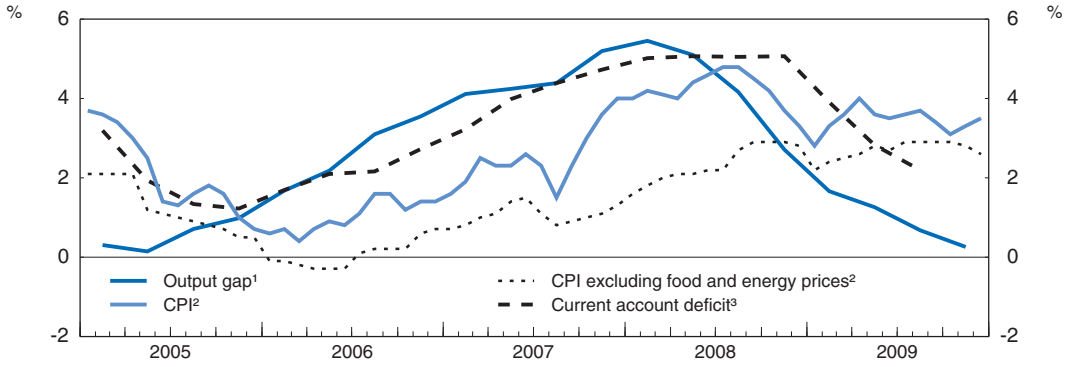
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system, which was well supported by the foreign parents of Polish banks, and both domestic and international public policies that helped restore confidence in the capacity of the country to withstand the shock.

Despite this relative resilience, real GDP growth slowed sharply from 6.8% in 2007 and 5.0% in 2008 to 1.7% in 2009. In fact, the financial crisis helped to curb the growing imbalances that had been building since 2006 (Figure 1.2) due to an insufficiently tight macro-policy mix (OECD, 2008). The (estimated) output gap reached about 5.5% of GDP in mid-2007, the current account had been declining significantly since the end of 2005, and underlying CPI inflation had been growing steadily towards 3% annually. The fast reaction of real wages to deteriorating economic prospects cooled off upside inflation risks (Figure 1.3), despite the exchange-rate pass-through to import prices, and might have contributed to limiting the extent of employment retrenchment. The negative shocks have disqualified Poland from euro adoption in the short term and added to the deterioration of public finances, thus threatening the fulfilment of the constitutional ceiling on public debt. Ensuring credible and sustained fiscal discipline is one of the prime objectives facing policy makers seeking to satisfy the conditions for a balanced recovery.

Growth is expected to pick up steadily over the next two years, driven mainly by fixed investments fuelled by EU funds, the preparations for the 2012 European football championships and still supportive interest rates, though partly offset by tighter credit conditions (Table 1.1). Private consumption is expected to remain subdued due to sluggish income gains and the impact of mandated fiscal tightening. Therefore, the pace of the recovery might not be fast enough to prevent a further rise in the unemployment rate, which is expected to peak at just below 10% (on a standardised basis) around the end of 2010. As a result, underlying inflation should keep receding towards an annual rate of around 2%. After a sharp reduction from the level of 5.1% of GDP in 2008 driven by an accommodative exchange rate, the current-account deficit should stabilise at around 2.5% of GDP.

Figure 1.2. **Imbalances had been growing before the crisis**



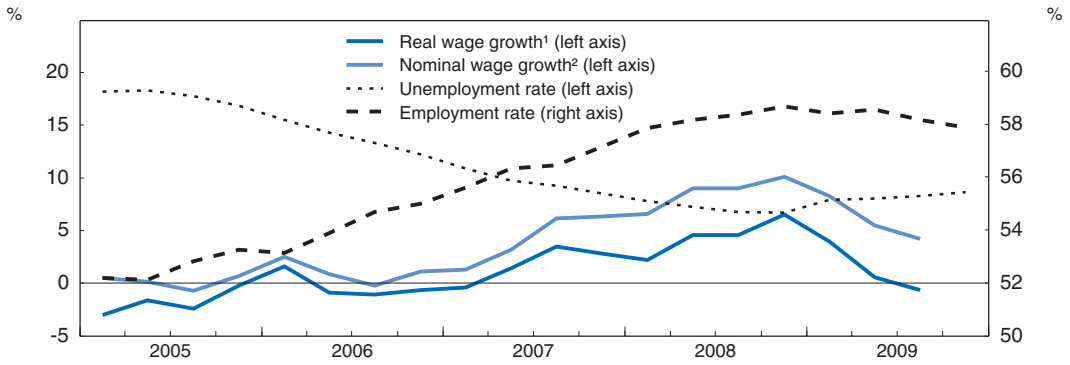
1. Quarterly data.
2. Year-on-year growth rates, monthly data.
3. As a percentage of GDP, quarterly data.

Source: National Bank of Poland (2009); OECD, *OECD Economic Outlook Database*.

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Figure 1.3. **Labour market developments in Poland**

Quarterly data, per cent



1. Wage rate of the private sector deflated through the harmonised consumer price index, year-on-year growth rates.
2. Wage rate of the private sector, year-on-year growth rates.

Source: OECD, *OECD Economic Outlook Database*.

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Table 1.1. **Recent trends and outlook**

Year-on-year percentage change, volume

	Average 2000-06	2007	2008	2009	2010[1]	2011[1]
Private consumption	3.2	4.9	5.9	2.3	1.4	1.4
Government consumption	3.6	3.7	7.5	1.2	1.1	0.5
Gross fixed investment	2.1	17.2	8.2	–0.3	2.3	10.2
Stockbuilding	0.1	1.7	–1.1	–2.5	1.1	0.0
Total domestic demand	**3.1**	**8.7**	**5.5**	**–0.9**	**2.7**	**3.2**
Exports of goods and services	11.7	9.1	7.0	–10.7	1.4	5.9
Imports of goods and services	8.6	13.5	8.1	–14.2	1.0	6.0
Trade balance[2]	**0.6**	**–2.0**	**–0.7**	**2.0**	**0.1**	**–0.1**
GDP at market prices	**3.7**	**6.8**	**5.0**	**1.7**	**2.5**	**3.1**
Consumer prices	3.5	2.5	4.2	3.8	2.2	1.9
Unemployment rate	17.8	9.6	7.1	8.2	9.6	9.6
Total employment	–0.1	4.4	3.7	0.4	–1.4	0.0
Labour productivity	3.9	2.3	1.3	1.3	3.9	3.2
Current account (% of GDP)	–3.2	–4.7	–5.1	–1.7[1]	–2.3	–2.5
General government net lending (% of GDP)	–4.7	–1.9	–3.7	–6.4[1]	–7.8	–6.8
Cyclically adjusted government net lending[3]	–4.6	–3.5	–5.3	–6.8[1]	–7.6	–6.6
Public debt, Maastricht definition[4]	43.4	45.0	47.2	52.2[1]	56.4	59.2
Potential output	3.4	4.9	5.1	4.8[1]	3.9	3.2

1. Projections.
2. Contribution to GDP volume growth.
3. As a percentage of potential GDP.
4. As a percentage of GDP.

Source: OECD, *OECD Economic Outlook 86 Database*, November 2009.

Given the deterioration of the underlying general government balance in recent years, including in the expansion phase, and the disappearance of exceptional pre-crisis revenues, the overall budget deficit is projected to reach a level unmatched since the beginning of the transition, beyond 7% of GDP. As a result, the Maastricht public debt, which stood at

about 52% of GDP in 2009, is expected to increase significantly. Breaching the level of 55% of GDP (based on the domestic definition, see below) would trigger a set of automatic consolidation measures. Even though an ambitious privatisation programme (up to 3% of annual GDP by end-2010) should slow down the rise of the gross debt, the constitutional limit of 60% of GDP will be at risk in 2011 if no consolidation measures are undertaken.

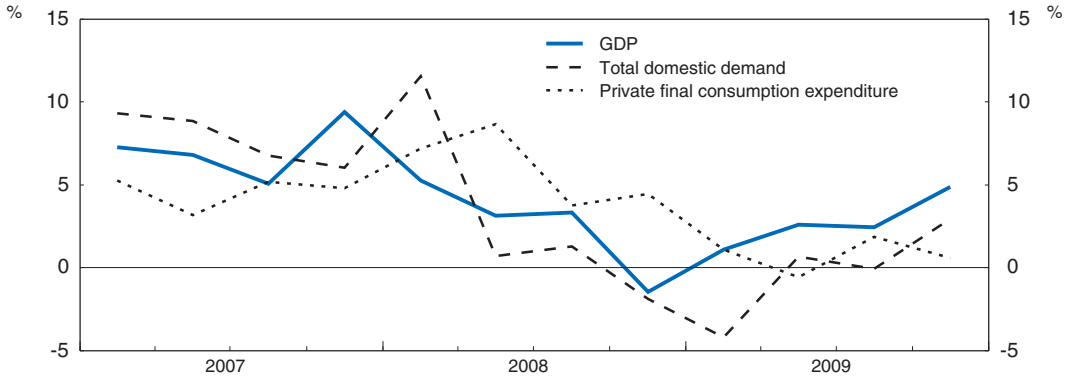
The main official short-term rate has been on hold since July 2009 at 3.5%. As growth is projected to pick up, monetary policy might soon become unnecessarily accommodative. Hence, given the lags in monetary-policy effects, short-term rates should be tightened at an early stage in order to avoid the early re-appearance of excess-demand pressure. The exact pace of interest-rate normalisation should depend on economic prospects and forthcoming data, exchange-rate developments as well as the extent of fiscal consolidation.

Strong economic performance given the international context

Poland's economic performance is especially remarkable when compared with other countries in the region. In 2009, the Czech Republic, Hungary and the Slovak Republic (which, together with Poland, form the CEEC4) are expected to have recorded drops in real GDP of about 4.5%, 7% and 6%, respectively; the Baltic countries have fared even worse. Poland's real GDP growth remained in positive territory, despite decreasing domestic demand both in the last quarter of 2008 and first quarter of 2009 (Figure 1.4). Resilient private and public consumption were not strong enough to fully offset declining private investment and de-stocking. There is no single explanation of this relative strength of the Polish economy: rather it is the result of a confluence of factors.

Figure 1.4. **Private consumption has continued to grow**

Annualised quarter-on-quarter growth rates, volumes



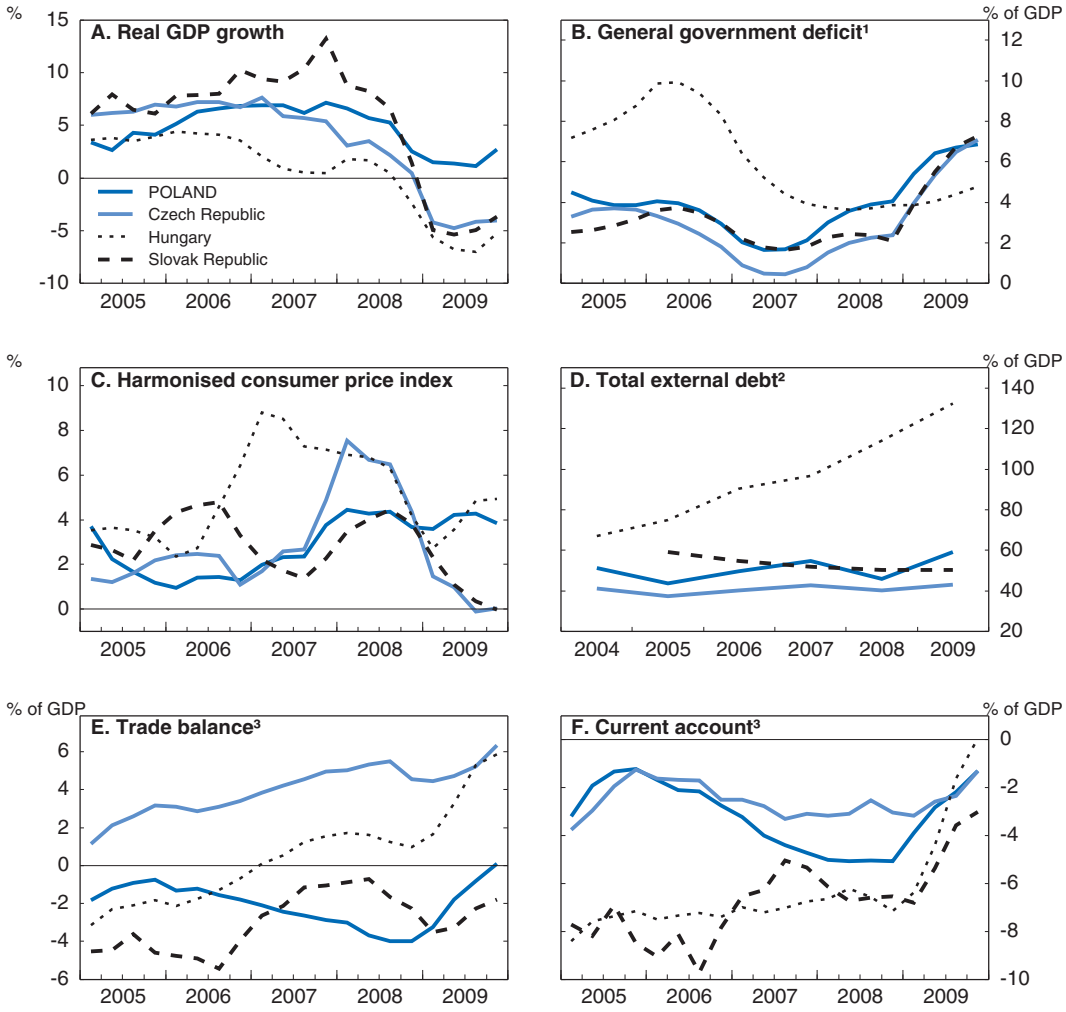
Source: OECD, *OECD Economic Outlook Database*; GUS.

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Before the crisis propagated to Eastern Europe through both the trade and financial channels, the Polish economy enjoyed robust, and probably unsustainable growth, but avoided the excessive growth of, for example, the Slovak Republic since mid-2006 (Figure 1.5), while Hungary already suffered from both severe internal and external imbalances. Poland's general government deficit was being steadily reduced until mid-2007, and underlying inflation, albeit increasing, remained under control. Although external debt as a share of GDP was greater in Poland than in the Czech Republic, its level and dynamics never threatened

Figure 1.5. **Economic performance compared with other CEEC4 countries**

Year-on-year growth rates and percentages of GDP



1. Projections for 2009.
2. Data for 2008 and 2009 are estimates.
3. Four-quarter moving average, projections for fourth quarter 2009 (except Poland in Panel E), national accounts basis.

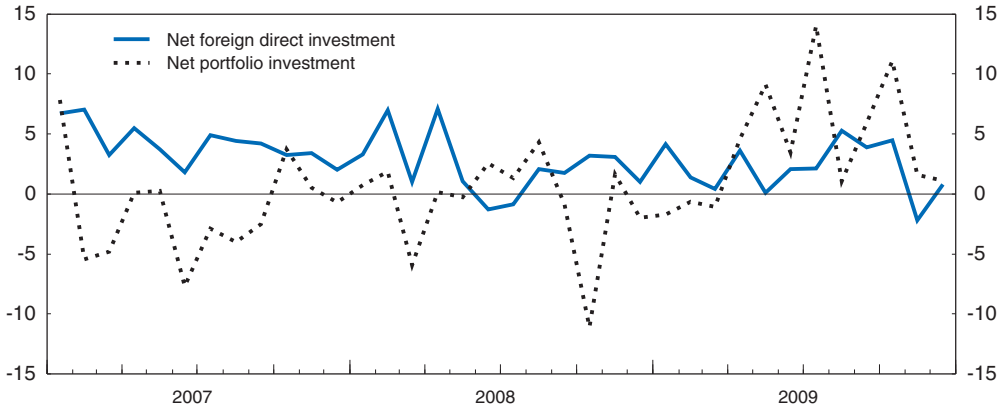
Source: IMF, Latest Staff Reports for each country; International Monetary Fund, OECD, *OECD Economic Outlook 86 Database* and updates; GUS.

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the stability of the economy, in part thanks to sound past prudential policies, in contrast to the situation in Hungary. The key lesson of course is that even though the worst scenario is never the most likely, policy makers must take advantage of the good times to build enough of a cushion against the realisation of downside risks.

The depreciation of the zloty significantly contributed to dampening the effects of the global slump as it directly affected the transmission of the negative shocks from international trade. Fears of massive capital outflows fuelled by perceived risks of collapse of Eastern European economies triggered a rapid depreciation of (floating) currencies. To a large extent, these fears do not seem to have materialised, as outflows were concentrated in only March and October 2008 (Figure 1.6).[1] Nevertheless, interbank interest rates rose

Figure 1.6. **Foreign direct and portfolio investment net capital flows**
Billions of PLN



Source: National Bank of Poland.

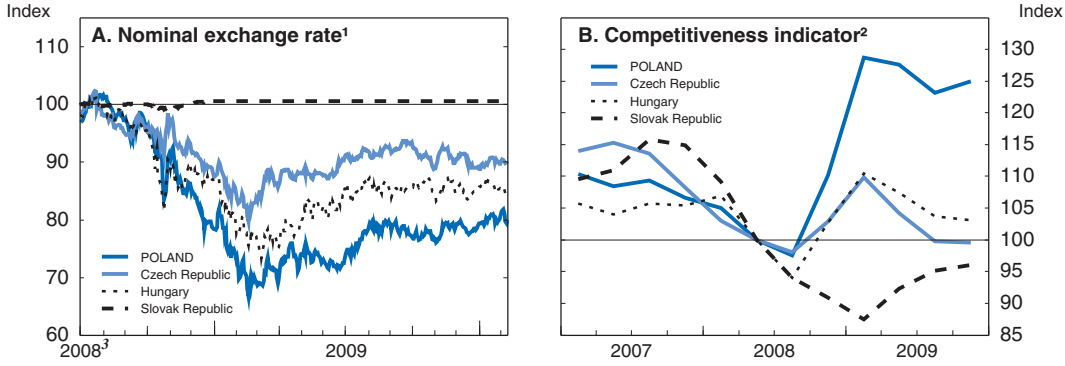
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sharply, the interbank market froze in late October 2008, reflecting increased uncertainty, and a number of banks had difficulty obtaining foreign-currency liquidity to fund their increasingly foreign-currency-denominated mortgage portfolios (IMF, 2009a).

The fall of the zloty stopped as a result of the central bank and government verbal interventions (17 February 2009) and the government's exchange of euro-denominated EU funds against zlotys (18 February). Stabilisation was greatly helped by the subsequent bounce in world financial markets that began in early-March. In that context, the opening by the IMF of a flexible credit line of USD 20.6 billion to Poland in April, based on its relatively sound fundamentals, helped investors to discriminate among the differing levels of risk in Eastern Europe and restore confidence. With a fall of 34% from peak to trough against the euro, the exchange-rate slump was more pronounced than in Hungary or the Czech Republic (Figure 1.7). As a result, the changes in real effective exchange rates boosted the competitiveness of Polish firms, especially with respect to their Slovak rivals after that nation's adoption of the euro in January 2009.

The impact of the exchange-rate depreciation on real GDP is likely to have been strong. Export volumes fell to a lesser extent than in the other CEEC4 (Figure 1.8).[2] On a purely accounting basis, the net contribution of trade to GDP growth was favourable in Poland: from mid-2008 to mid-2009, the core of the crisis, trade contributed 3.2% of GDP, compared with –0.5% for the Czech Republic, +1.6% for the Slovak Republic, but +7.3% for Hungary where domestic demand fell by 10.5%. In order to get a rough idea of the possible contribution of the exchange-rate pattern to GDP performance, the net contribution of trade is compared with the growth of domestic demand over the same period. It is expected that the lower the domestic demand, the higher net trade. Figure 1.9 shows that this correlation is indeed strong across OECD countries for that period (linear correlation coefficient of 0.77). However, for Poland, net trade should have been much worse, given the relative strength in domestic demand: based on this bivariate relationship, *i.e.* all other things equal, and in particular the exchange rate, the contribution of trade would have been –2.5% instead of +3.2% (Figure 1.9). In other words, domestic suppliers substituted for foreign suppliers in serving domestic demand as a result of relative price shifts, which in turn supported employment and domestic demand via second-round effects.

Figure 1.7. **Nominal exchange rates and competitiveness in CEEC4 countries**



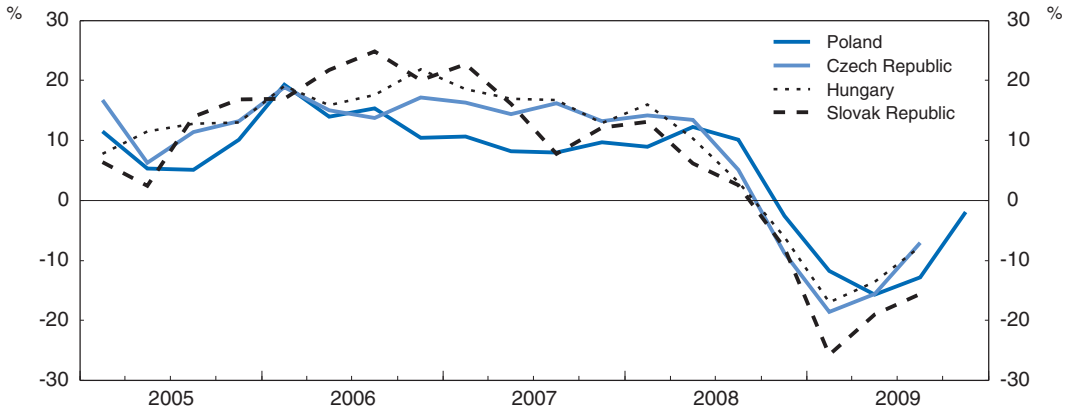
1. Daily exchange rates against euro, July 2008 = 100.
2. Quarterly data, inverse indicator of relative unit labour costs in the manufacturing sector, 2008Q2 = 100; a rise indicates an increase in competitiveness.
3. From July onwards.

Source: Datastream; OECD, *National Accounts* and *OECD Economic Outlook Databases*.

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Figure 1.8. **Growth in export volumes**

Quarterly data, year-on-year growth rates



Source: OECD, *OECD Economic Outlook Database*; GUS.

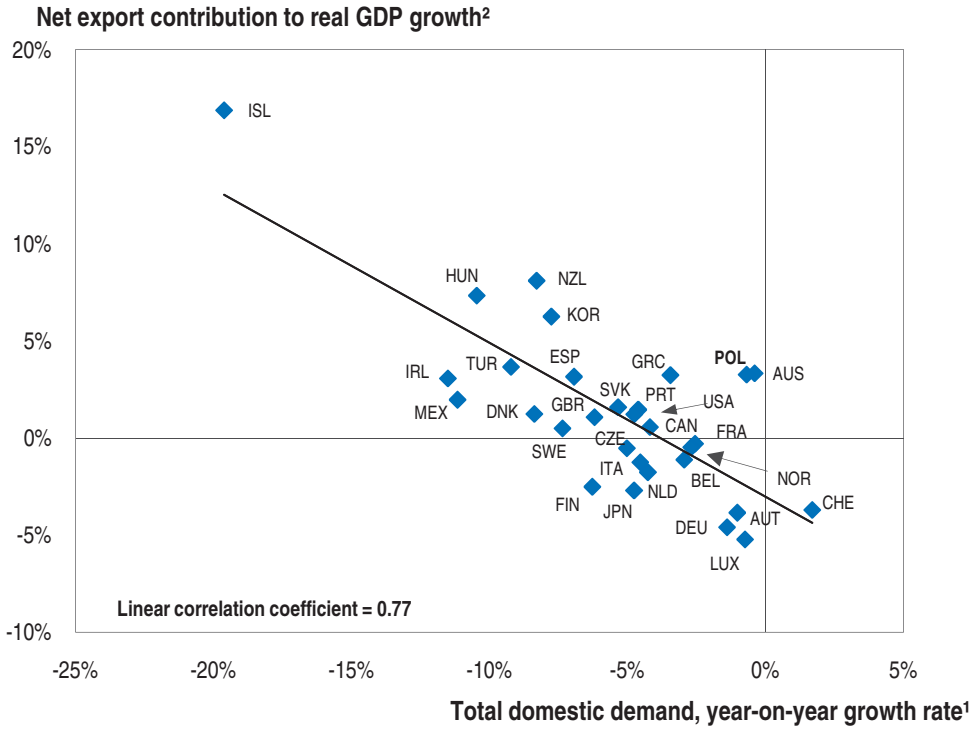
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However, the lower zloty also had adverse consequences, as it increased external debt, expressed in terms of domestic currency, contributed to foreign-currency non-performing loans and generated domestic price pressure. The crisis highlighted the risks of currency mismatches in balance sheets, which policies should aim at limiting.[3] Moreover, the effect of the exchange-rate depreciation on economic growth is a one-off: the stabilisation of the currency (and even more so the recent appreciation) means that this stimulus will gradually disappear.

As international trade was severely affected by the crisis, it seems natural to assume that Poland's lower openness relative to other Eastern European countries, in part related to the large size of its domestic market (Chapter 3), was a factor. A closer analysis confirms that the level of openness indeed probably contributed to Poland's relatively good performance, but the evidence is not very robust (Figure 1.10). The linear correlation coefficient between the drop in real GDP growth rate (between the pre-crisis 2004-07 annual average and 2009)

Figure 1.9. **Trade contribution to GDP growth and total domestic demand**

Per cent

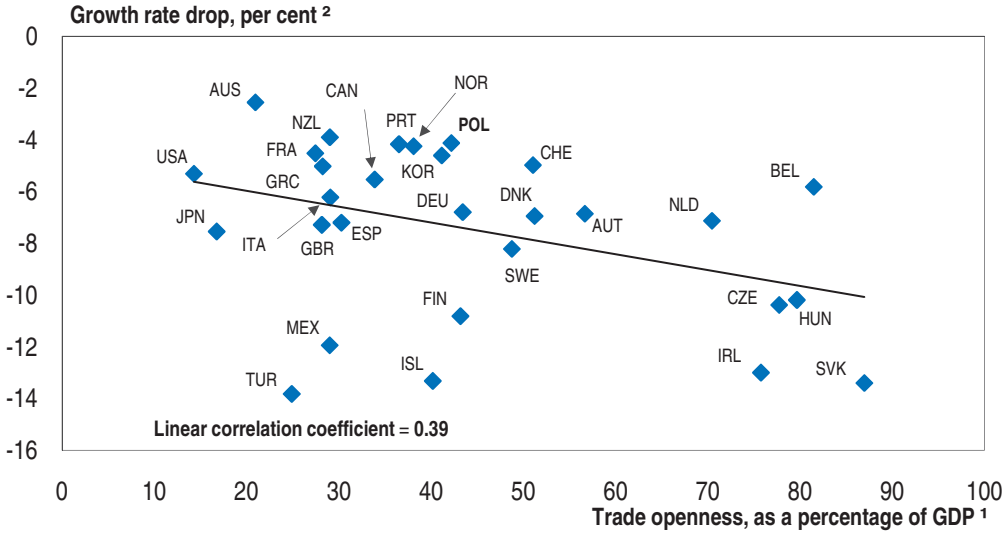


1. Second quarter of 2009 relative to second quarter of 2008.
2. Sum of quarterly contributions, from the third quarter of 2008 to the second quarter of 2009, both included.

Source: OECD, *OECD Economic Outlook 86 Database*.

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Figure 1.10. **Level of openness and real GDP growth in the aftermath of the global financial crisis, OECD countries**



1. Trade to GDP ratios (export + import of goods and services divided by 2), 2007.
2. Difference between the projected 2009 GDP growth rates and the average of annual real GDP growth rates in the pre-crisis 2004-07 period.

Source: OECD, *OECD Economic Outlook 86 Database*.

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and the level of trade openness level is 0.39 across OECD countries. However, this holds mainly because of the contribution of Ireland and the Slovak Republic, which are both very open and were heavily affected by the recession. In contrast, Turkey and Mexico weaken the relation as they recorded bad growth performance despite low openness. Restricting the analysis to EU countries (not shown) suggests a stronger link (with a correlation coefficient of 0.65). Yet Poland did better than simply implied by the level of openness, while Spain and the United Kingdom are outliers (when the sample is limited to European countries), with large slumps that are not explained by their size and resulting openness level.

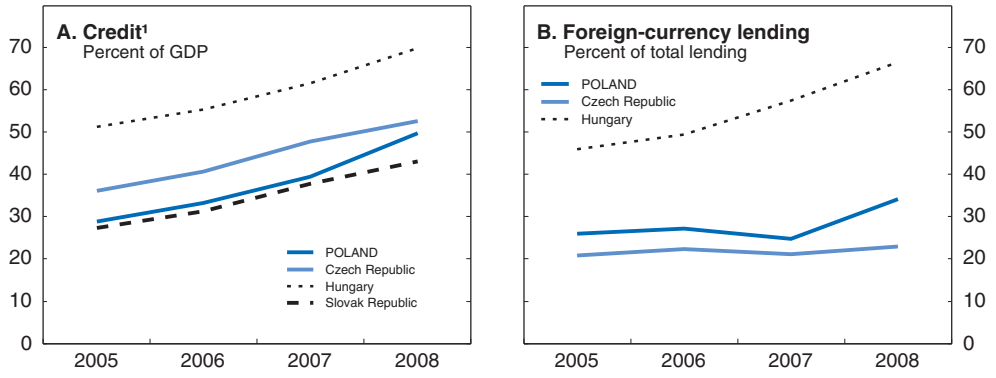
Other trade-related explanations cover the following aspects. Between 2005 and 2008, export growth in Poland lagged that in other CEEC4 (see Figure 1.8), and recent developments could be interpreted as a correction of unsustainable buoyancy. They might also suggest that Polish exports are less elastic with respect to global income. Indeed, Poland tends to import capital goods, while its export specialisation is skewed towards consumption goods. Also, related to this, Poland specialises rather more in low- and medium-technology products and lags other CEEC4 in high-technology products (see Chapter 3). Finally, car-scrapping bonus schemes implemented in many OECD countries (OECD, 2009a) helped sustain exports.

Prior fiscal policy decisions to reduce the tax wedge (that were taken pro-cyclically in the boom phase of the business cycle, see below) and infrastructure investments linked to EU transfers and the 2012 European football championship also helped offset the drop in private investment, which was severely affected by falling foreign demand and credit tightening. A breakdown of construction output growth shows that civil engineering, in particular construction of roads and railways, grew by about 20% between January and September 2009 (CASE, 2009). In the first half of 2009, contracts were signed to construct 186 km of motorways, following the acceleration in 2008 when a total of 241 km of motorways, express roads and ring roads was completed (EBRD, 2009). EU financial support should gain momentum in the coming years as, for example, some 1 600 km of motorways and expressways are to be constructed between 2010 and 2013 (see below).

The strength of its financial sector also contributed to Poland weathering the crisis relatively well. Financial institutions were relatively little exposed to the credit derivatives and structured products that were at the root of financial problems. In turn, this modest exposure reflects the level of financial development, which lags behind that of Western Europe (see Chapter 3). The top-down stress tests of the National Bank of Poland (NBP) suggest that the banking system is robust to adverse scenarios, with no recapitalisation needs at the current juncture (the overall capital-adequacy ratio was 12.9% in July 2009), thanks in part to the encouragement by the Polish Financial Supervision Authority (KNF) to build capital by retaining 2008 profits. The IMF (2009b) recommended that the KNF conduct bottom-up, bank by bank, comprehensive stress tests in co-ordination with neighbouring countries to better capture the regional dimension of the problem.

Despite rapid credit expansion during the boom, Poland has remained less dependent on credit than the other CEEC4, and the share of foreign-currency lending was also more limited (Figure 1.11). Recommendation S issued by the supervisor in 2006 was instrumental in tightening credit conditions through strengthened credit-risk management at banks with regard to housing loans, notably in foreign currencies. It also ensured adequate information about related risks was delivered to customers.[4] The loan-to-deposit ratio is about 1.10, among the lowest in CEECs. Yet, Poland was subject to a huge house price boom until mid-2007, with residential property prices in the largest cities rising by about 70% year-over-year in mid-2007.

Figure 1.11. **Credit and share of foreign-currency-denominated loans**
2005-08



1. Claims on private sector.

Source: IMF, *International Financial Statistics Database* (Panel A); IMF, "Republic of Poland: 2009 Article IV Consultation", *IMF Country Report*, No. 09/266, August 2009 (Panel B).

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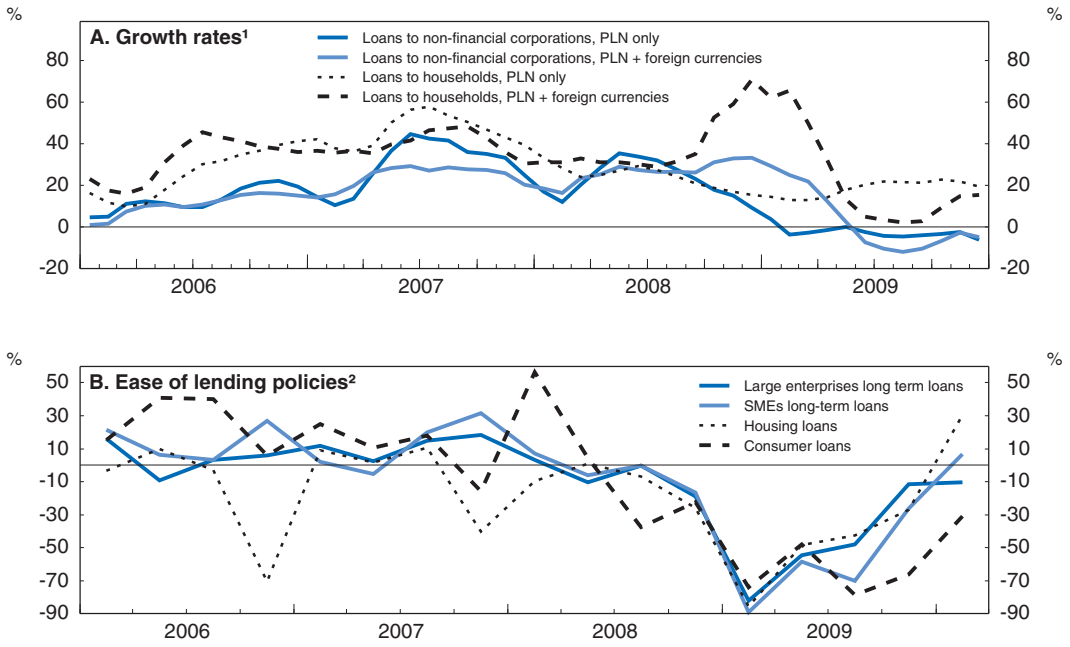
However, this might have reflected a catch-up from undervalued levels rather than a bubble, as prices did not correct downwards and have remained about flat since mid-2008. There is indeed some evidence that both private credit and household indebtedness remain below long-term equilibria despite recent catch-up (Zumer *et al.*, 2009; NBP, 2009a). As elsewhere, credit growth is slowing sharply, especially loans to the non-financial sector (Figure 1.12). While sharply slower economic growth is limiting credit demand, supply conditions were tightened, even at the end of 2009 (NBP, 2009a), as foreign parent banks deleveraged.

Monetary-policy and financial responses to the crisis

The monetary authorities reacted swiftly and appropriately to the ongoing financial and economic crisis. *First,* they lowered the key policy rate by 250 basis points to 3.5% between late November 2008 and end-June 2009. In doing so, the reference rate was reduced to zero in real (CPI-deflated) terms (Figure 1.13). *Second,* although Polish banks have received very significant liquidity support from their foreign-owned parent institutions since September 2008, the NBP has also put a great deal of effort in this direction through a "*Confidence Package*" adopted in mid-October 2008, helping to increase confidence among money-market participants and hence support the normalisation of the interbank market. Measures taken by the NBP under the Package included introducing and gradually extending the maturity of liquidity-providing repo operations; broadening the range of assets accepted as collateral when gaining access to the Lombard credit window (which defines the ceiling rate in the interbank market); lowering the haircut; and enabling banks to obtain funds in foreign currencies through foreign exchange swaps, notably through agreements signed with the European Central Bank and the Swiss National Bank.[5] *Finally,* in January 2009 the NBP conducted early redemption of its 10-year-bonds issued in 2002, and in late May 2009 the reserve requirement was lowered by 50 basis points to 3.0% (effective one month later), thus providing liquidity worth PLN 11.5 billion to the banking sector.[6]

To contribute to the stabilisation of the financial sector, the Ministry of Finance announced a "regulation package" in mid-October 2008, which included: the establishment of the Financial Stability Committee (made up of the Ministry of Finance, the NBP and the

Figure 1.12. **Loans to households and non-financial corporations**



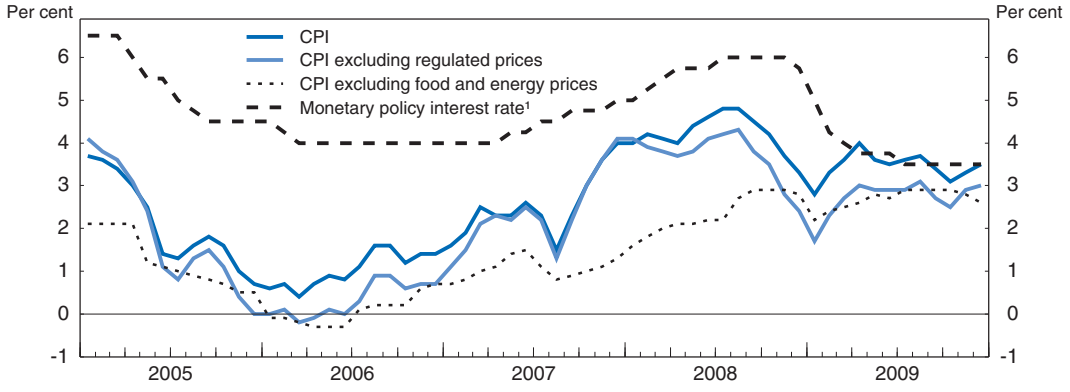
1. Monthly data, annualised growth rates calculated on three months moving averages.
2. The difference between the percentage of responses "Ease considerably" plus "Ease somewhat" and the percentage of responses "Tighten considerably" plus "Tighten somewhat". A positive index indicates a tendency towards easing of lending policies.

Source: National Bank of Poland (2009), Senior Loan Officer Opinion Survey.

StatLink http://dx.doi.org/10.1787/814401074074

Figure 1.13. **Consumer price indices and monetary policy interest rate**

Monthly data, year-on-year changes



1. Level of the interest rate.

Source: National Bank of Poland (2009).

StatLink http://dx.doi.org/10.1787/814426688488

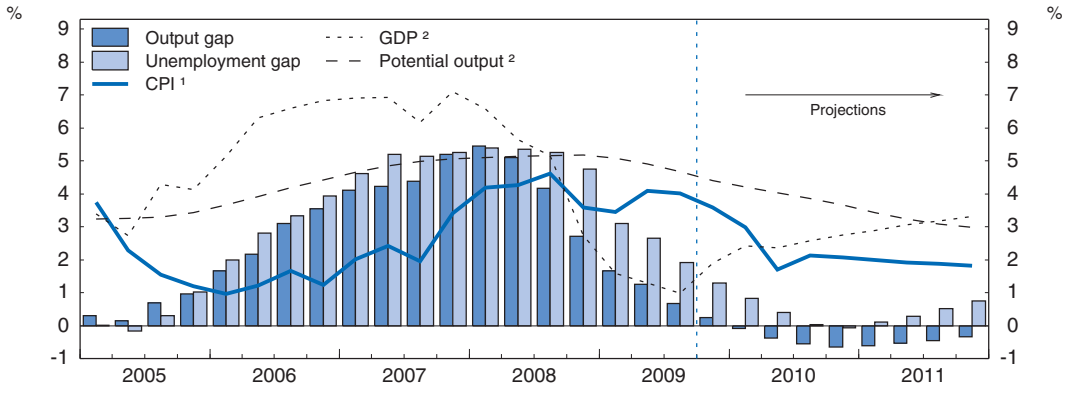
KNF) to enhance co-operation and exchange of information between the key institutions ensuring financial stability; an increase in the level of deposits covered by bank guarantees;[7] and the creation of new instruments to temporarily support the liquidity of financial institutions by the Treasury (notably through the lending of Treasury securities, or their sale

with deferred payment and partial state guarantees in order to refinance loans contracted with the NBP). However, for reasons that remain unclear, but possibly linked to stigma concerns, the last option has not been used by the market, thus leading the NBP to lengthen the maturity of its liquidity-support interventions (NBP, 2009b).[8] The KNF intensified its monitoring of banks' balance sheets and liquidity transfers between foreign-owned banks and their Polish subsidiaries, successfully convinced almost all banks not to distribute dividends for the year 2008 in order to beef up their capital base and authorised banks to enhance their capital ratios by taking into account a wider set of long-term instruments.

Price pressures have nevertheless proved stubborn (Figure 1.13); indeed, the inflation differential *vis-à-vis* euro area countries has increased. The year-on-year inflation rate reached a peak of 4.8% in July-August 2008, thus exceeding the official target of the central bank (2.5% +/–1%), dropped to 2.8% in January 2009, but has since bounced back and hovered around the upper limit of the inflation target. Recent CPI inflation has been driven by various factors. *First,* the large depreciation of the currency pushed up consumer prices, even though the pass-through of 20% based on historical estimates (Grabek *et al.*, 2008) is not high compared with other economies in the region. However, with non-linear effects, the size of the nominal depreciation might explain why the pass-through could have been higher than usual. *Second,* hikes in regulated prices in 2008 and early 2009 added to headline inflation dynamics, with a contribution of 1 percentage point on average during the first three quarters of 2009. *Third,* even though the global downturn significantly curbed excess-demand pressures in the economy in 2009, the output gap as estimated by the OECD remained positive at 1% of potential GDP on average (Figure 1.14). As a result, core inflation trended upward until mid-year, followed by a period of stability at an annual rate close to 2.9% in the second half of 2009.

Based on an unchanged policy rate and in the absence of further exchange-rate swings, price pressures are, however, projected to recede steadily as the output gap stays near zero in 2010 and 2011 (Figure 1.14). Therefore, the Monetary Policy Council (MPC) has rightly left interest rates on hold since July 2009. Should the exchange rate continue to recover and fiscal policy be tightened, this would bring an additional disinflationary effect.

Figure 1.14. **The crisis has curbed excess demand**



1. Year-on-year growth rates.
2. Year-on-year growth rates, volumes.

Source: OECD, *OECD Economic Outlook 86 Database*.

StatLink http://dx.doi.org/10.1787/814428171708

In terms of policy-mix priorities, it would be preferable that fiscal policy moves first with a rapid and decisive introduction of measures consolidating public finances (see below), which could then condition the speed of hiking interest rates. Should such a fiscal tightening be delayed, it would fall to monetary policy to react at an early stage, though with the attendant risk of spurring excessive capital inflows and nominal exchange-rate appreciation. Beyond that perspective, the pace at which policy rates have to be normalised will depend, in part, on the rate at which the economy expands relative to potential as well as on wage dynamics relative to productivity. Despite the enhanced resilience of the labour market, as suggested by the rapid adjustment of wages (see above), tensions in this market, as occurred in the boom phase of the cycle in 2006-08, could build up rapidly, given the lack of available slack. Therefore, to ensure a balanced recovery and minimise the risk of building up excess-demand pressures beyond the 2011 projection horizon, monetary policy will need to be tightened with a view to raising real interest rates back toward the neutral level of 3.5-4% (see Chapter 2). This implies cumulative interest-rate increases of 200-300 basis points. Given existing lags in the monetary-policy transmission, the process should get underway at an early stage, even though the exact timing and pace will inevitably also depend on economic prospects and incoming economic indicators.

To increase the effectiveness of the monetary-policy decision-making process, it would also be useful to address a structural shortcoming, already discussed in detail in previous *Surveys* (for example, OECD, 2006), of an insufficient continuity of monetary policy. This is due to a lack of overlapping terms in appointments of MPC members as the whole MPC (other than the NBP Governor) turns over at virtually the same time (every six years). This is a special concern right now when all MPC members are being replaced. In particular, the current approach creates uncertainty in the market given speculation over the MPC's eventual composition and the way in which it is currently selected: one third being appointed by the *Sejm* (the lower house of the Parliament), Senate and President, respectively. It is also conducive to a loss of human capital, experience and institutional memory that cannot easily be conveyed to new members.

Fiscal responses to the crisis

The fiscal authorities took the first steps to stabilise the economy at end-2008, although the magnitude of their actions was significantly smaller than in other OECD countries. Indeed, confronted with important budget difficulties (see below), the authorities acted cautiously with the public purse, implementing an anti-crisis plan of about 0.7% of GDP in 2009 as measured in terms of changes in the structural balance. They also emphasised possible downside effects on foreign investors' sentiment of large deficits generated by stimulus measures when implemented by emerging market economies.

In late November 2008, the government had presented a "stability and development plan" aimed at strengthening the Polish economy against the global downturn. Support for business investment played a prominent role: investments co-financed with EU funds were frontloaded and related administrative barriers were reduced; tax incentives for research activities have been enhanced; temporarily faster depreciation of certain assets was introduced; a tax break up to EUR 0.1 million per firm on investments for start-ups created in 2008-09 was implemented; investments in renewable sources of energy were supported; the legislation covering public-private partnerships was streamlined; and the capital of a public bank (BGK) was increased so as to guarantee lending to SMEs worth up to PLN 20 billion (or 1.5% of GDP). Regarding the last measure, however, even though relevant

agreements had been signed between BGK and commercial banks by end-July 2009, the extent of its use is unknown (NBP, 2009b). Similarly, although sureties and guaranties to support lending activity in favour of SMEs have been strengthened at the state level, high compliance costs could have limited their take-up.[9]

The authorities have also undertaken welcome steps to increase the resilience and flexibility of the labour market, though these might have been late compared to the business cycle. A law to alleviate the consequences of the crisis on employees and employers came into force in late August 2009 and will apply until the end of 2011 with the following provisions. *First,* it introduces flexible solutions concerning working time: it extends the reference period for working-time limits from four to twelve months (which will allow better smoothing of variations in activity to achieve the normal number of hours worked on average) and allows for a less rigid approach toward starting and finishing the working day without triggering overtime, as long as daily and weekly break periods are respected. It also abrogates the limit on the number of fixed-term contracts for an individual employee (no more than two so far), though with an overall duration no longer than 24 months. *Second,* the law created job subsidies for firms whose turnover had dropped, since July 2008, by at least 25% over a year, thus enabling the preservation of employment by allowing such firms to temporarily diminish the working time of employees along with a proportional reduction of wages, or to temporarily stop business activity. Although the government was forecasting that 60 000 firms and 250 000 employees would benefit from this scheme, only around 102 firms had applied for it by late 2009. This may be the consequence of its late introduction or constraints in the extent of the required drop in sales, but it might also reflect the good performance of the Polish economy, and expectations of even stronger activity going forward. *Third,* active labour-market policies have been scaled up significantly over the period 2009-10 to nearly 0.45% of GDP per year and hence almost double the amount spent in 2008; job-search assistance has been strengthened by attributing an enlarged role to private employment agencies in placing jobseekers; and benefit generosity has been increased combined with a reduction in benefit duration (OECD, 2009b). *Finally,* in early August 2009, a temporary income support scheme was adopted to help the unemployed service mortgage debt for a period of one year, with subsequent reimbursement of the public funds at a zero interest rate. Even though it is probably too early to assess the impact of this programme, anecdotal evidence suggests that it has not taken off so far, which might reflect both the relatively limited increase in the unemployment rate and possibly conservative past bank lending policies.

But it is mainly on the revenue side of the budget where fiscal outcomes weakened the most in 2009. Revenue shortfalls were caused by both structural changes in the tax system, mainly taken prior to the crisis, and cyclical factors directly linked to the crisis. The former turned into a counter-cyclical support for the economy in 2009 and were further amplified by the lowering of income taxes (effective in 2009), changes in the value-added tax (VAT) system (notably by lowering the average delay in tax refunds to 60 days, already planned before the crisis), and some other fiscal measures taken in reaction to the crisis (see above). The cyclical factors were due to: a slowdown in consumption growth and a shift in its structure toward less taxed goods, such as some food items and beverages (implying lower VAT revenues); a drop in sales and business profitability (thus generating lower corporate income tax receipts); and shrinking tax bases linked to a pick-up in unemployment, a marked deceleration in wage growth and the number of business failures. At the same time, social spending rose, notably unemployment insurance payments, which have wiped

out the surplus of the Labour Fund accumulated in 2007-08. Finally, the depreciation of the zloty increased the cost of servicing foreign-currency-denominated public debt, which is 25% of the total debt. As a result, given that increases of excise duties on various goods earlier in the year and the tightening of early-retirement schemes in late 2008 (see below) did not provide sufficient offset, at mid-year the government had to amend the budget law for 2009 (as the state budget deficit cannot be higher during the fiscal year than the level adopted in the budget law) with some modest tightening.

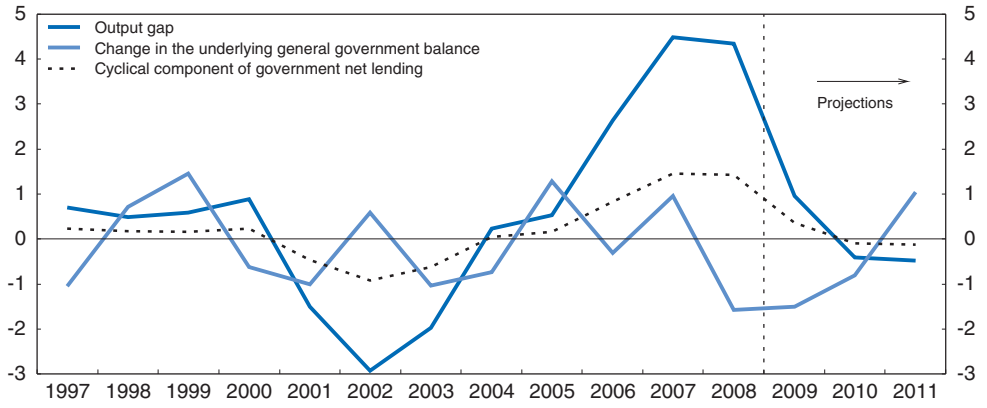
Consistent with the OECD recommendation to postpone major fiscal consolidation measures until the economy recovers in 2010 (OECD, 2009c), this budget amendment was based on an increase in the planned central government budget deficit of 0.6% of GDP, and limited by an additional withdrawal of profits from state-owned firms worth 0.4% of GDP and expenditure cuts of 0.7% of GDP. The central budget was also supported by advance payments of EU funds worth 0.6% of GDP from the new 2007-13 financial perspective and exchange-rate gains of 0.2% of GDP linked to the processing of payments under the Common Agriculture Policy. Finally, it was decided to shift expenditure obligations from the state budget to some public funds, as the authorities were striving to comply with an implicit nominal anchor rule of a central government deficit no higher than PLN 30 billion (see Chapter 2); indeed for 2009 it was set at the level of PLN 27.2 billion in the amended budget. For instance, the National Road Fund had to issue bonds to carry out its investment projects. However, these budgetary shifts do not have any impact on the general government deficit, and the overall deficit is believed to have exceeded 6% of GDP in 2009.

Returning to fiscal sustainability

Structural weaknesses of the fiscal position

Between 2003 and 2007, Poland achieved a sizeable reduction in the general government deficit, from 6.3% to 1.9% of GDP, leading to the ending in mid-2008 of the Excessive Deficit Procedure initiated by the European Commission in 2004. The buoyant conjuncture, and resulting better-than-expected tax revenues and lower cyclical expenditure contributed significantly to this outcome. According to OECD calculations, the reduction in the underlying balance explained only around a quarter of this improvement, just over 1 percentage point of GDP. Benefitting from the favourable economic context and large revenue windfalls, the government launched a broad reform to reduce the tax wedge, which had been one of the OECD's highest and had contributed to the low level of employment (OECD, 2006). Therefore, the reform was most welcome as such, even though tax cuts were not concentrated on low-income individuals and thus preserved one of the least progressive tax wedges among OECD countries. The cuts in the wedge were made through the introduction of a child tax credit (in 2007), reductions in the rates of social security contributions (in 2007-08) and the simplification and lowering of PIT rates (voted in late 2006, but introduced only in 2009). These measures were coupled with other expansionary decisions implemented in 2008 and included significant increases in public-sector wages (with real government consumption expanding at above 7% for the year) and an indexation of pensions in the general system based on annual inflation plus at least 20% of average real wage gains in the previous year. Altogether, as the measures adopted were not entirely compensated by spending cuts or revenue increases elsewhere, they resulted in a significant pro-cyclical fiscal stimulus through to the second half of 2008 (Figure 1.15).

Figure 1.15. **Discretionary fiscal measures and cyclical net revenues**
As a percentage of GDP



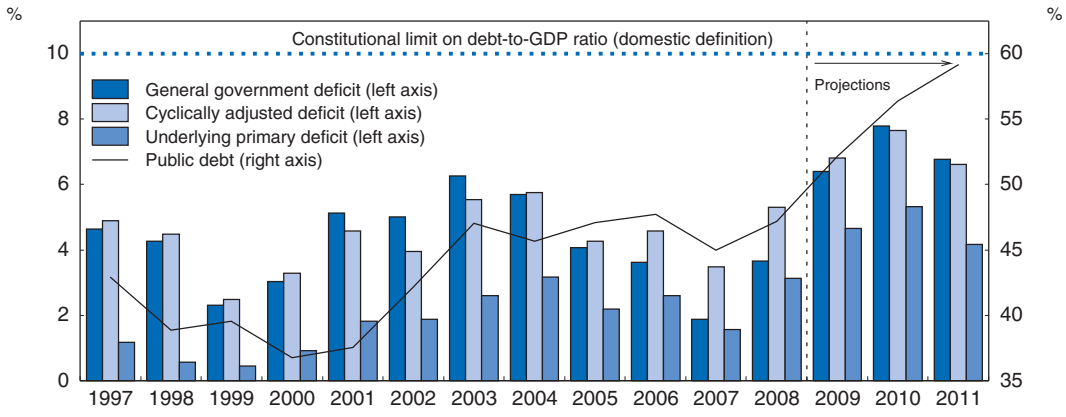
Source: OECD, *OECD Economic Outlook 86 Database.*

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As a consequence, in 2008, the structural budget position deteriorated significantly, leading to an increase in the underlying deficit by 1.6 percentage points and pushing the overall general government deficit to 3.7% of GDP.[10] Thus, despite a still favourable position in the business cycle up to the third quarter of 2008, with cyclical net revenues evaluated at around 1.6% of GDP for the year according to OECD estimates, Poland had one of the weakest fiscal positions among regional peers before the current downturn deepened in the last quarter of 2008 (Figure 1.5).

With output growth below its potential rate and a deficit projected to be above 7% of GDP in 2010, according to various international sources (OECD, 2009d; IMF, 2009b; European Commission, 2009), the authorities are confronted with the issue of a sharp increase in the public debt as a share of GDP (Figure 1.16). Indeed, there is a high probability that various successive domestic limits (that apply to the domestic definition of public debt) on the debt-to-GDP ratios will be breached (see Chapter 2). On an unchanged-policy scenario, the

Figure 1.16. **Public debt and fiscal deficits**
As a percentage of GDP



Source: OECD, *OECD Economic Outlook 86 Database.*

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precautionary threshold at 55% of GDP could be crossed in 2010 (thus triggering a set of automatic consolidation measures), while the constitutional limit of 60% of GDP could be violated in 2011 or 2012 (Table 1.2). The debt-management strategy adopted by the government in September 2009 foresaw that the debt-to-GDP ratio (domestic definition) in the years 2010-12 will stay just below the 55% threshold, even though it indicates a significant risk of breaching it.

Table 1.2. **Projected evolution in the public debt-to-GDP ratio**[1]

Maastricht or domestic definition,[2] in per cent

	2008	2009	2010	2011	2012
OECD (*Maastricht definition*)	47.2	52.2	56.4	59.2	–
European Commission (*Maastricht definition*)	47.2	51.7	57	61.3	–
National Bank of Poland (*domestic definition*)	47.2	–	Above 55	Risk above 60	–
IMF (*domestic definition*)	47.0	49.3	54.2	58.6	61.8
Ministry of Finance (*domestic definition*)	47.0	49.8	54.7	54.5	54.8
Ministry of Finance (*Maastricht definition*)	47.2	50.7	53.1	56.3	55.8

1. Unchanged policy scenario for the European Commission, IMF, National Bank of Poland and the OECD (except a fiscal consolidation of 1% of GDP in 2011 assumed by the OECD).
2. The main quantitatively significant difference between public debt according to the domestic and Maastricht definitions is the debt of the National Road Fund, which is not included in the domestic definition.

Source: OECD, *OECD Economic Outlook 86 Database*; *European Economic Forecast*, Autumn 2009; *IMF Country Report*, No. 09/314 (Table 8); NBP, *Poland and the Global Economic Crisis*; and Ministry of Finance, "The Public Sector Debt Management Strategy in the Years 2010-12 and Convergence Programme", 2009 Update.

In this context, the government has undertaken a number of steps to address the issue of the rapidly rising public debt. *First,* it has launched a massive programme of privatisation aimed at generating revenues of almost 1% of GDP in the second half of 2009 and up to 2% more by the end of 2010. Due to the lack of private interest related to the unfavourable financial climate, the programme brought in around only half of expected revenues for the period to end-2009 (see Chapter 3). *Second,* according to the amended Public Finance Act that came into force in 2010, certain budgetary units will be liquidated or their activities limited, though this could end up entailing rather little in the way of savings. *Third,* changes in laws that would have resulted in a system of tax instalments for firms were put back from 2010 to 2012, avoiding a one-off drop in budget revenues of 0.2% of GDP. *Fourth,* there were tax increases on cigarettes and fuel oil, effective in January 2010. *Fifth,* the government adopted conservative growth and inflation assumptions for 2009 in the mid-2009 budget amendment and in the budget law for 2010, which might lead to better-than-expected revenues. However, these steps have been insufficient to offset the effects of the economic slowdown or remedy the large structural deficit. Indeed, the latter can be expected to deteriorate in 2010, notably because of stronger public investment in infrastructure, additional tax relief (raising of the minimum turnover for VAT payment, a reduction of the excise tax on bio-fuel), pay increases for teachers and higher non-cyclical social expenditure. In this context, in early 2010, the Prime Minister presented a two-year *development and public finance consolidation plan* for the years 2010-11 (Box 1.1), and an update of the convergence programme was sent to the European Commission in relation to the *Stability and Growth Pact*.

The consolidation component of the plan is a set of proposals to contain the increase in the general government deficit and debt; related implementing legislation is expected to be adopted by the government by the end of the year (even though the plan itself has not

Box 1.1. **The public finance consolidation plan for 2010-11**

The fiscal-consolidation component of the *development and public finance consolidation plan* is based on: strengthening fiscal institutions; completing the pension reform; broadening tax bases; and confirming earlier privatisation objectives.

A strengthening of fiscal institutions is foreseen through:

- A sequential **adoption of two expenditure rules** that would reduce and subsequently stabilise the structural general government deficit at the level of the medium-term objective (MTO) of 1% of GDP (see Chapter 2).
- **Greater transparency of public finances,** notably by publishing statistics about implicit public liabilities linked to the first pillar (individual accounts) and explicit liabilities related to the second pillar (open pension funds) of the pension system. As part of pension liabilities (second pillar) is already reflected in the public debt in Poland, another objective is to convince EU countries to consider implicit public pension liabilities in the budgetary surveillance process of the *Stability and Growth Pact*.
- An improvement in the process of **reporting and multi-year planning** of the general government sector.
- **Improved efficiency of budget execution** through a better transfer of information between budgetary units and the Ministry of Finance, as well as an optimisation of the process of financial management of available budget amounts.
- **Better liquidity management in the public sector** through the requirement to hold available assets in accounts managed by the Ministry of Finance and not commercial banks. This measure is expected to reduce gross public debt by around 1.1 percentage points of GDP.

Completing the pension reform is planned by:

- **Raising retirement age for newly recruited soldiers and police officers to the level provided by the general social security system** as from January 2012, and encouraging later retirement of those who are working already. Expected savings resulting from this reform would accrue mainly after 2020 and could reach PLN 16-17 billion in 2060 at constant 2009 prices.
- **Harmonising the rules of calculating disability pensions** for persons borne after 1948 with those prevailing in the two-pillar pension system so as to reduce the incentive for early retirement. Projected savings will grow and could reach PLN 1.6 billion in 2020 at constant 2009 prices.
- **Reviewing the efficiency of the second pillar of the pension system,** notably so as to increase the expected rates of return of the open pension funds (notably by introducing an external benchmark for evaluating their performance, linking remuneration to long-term returns, suppressing investment limits and promoting differentiated investment profiles depending on distance to retirement). However, another objective is to "solve the problem of rising public debt due to differences in the way pension contributions accumulated in the first and second pillars are classified", though it is guaranteed that "accumulated contributions in the pension funds will not change destination".
- **Starting a debate about key steps required to reorganise the pension system.** This includes: *i*) steadily raising and equalising the legal retirement age for men and women for those below 55; *ii*) linking farmers' tax and social contribution payments with their incomes; and *iii*) gradually relating farmers' pension-disability contributions to effective incomes (while maintaining a separate KRUS) and using part of the generated revenues to promote mainly human-capital-deepening investments in rural areas (for instance, the creation of nurseries, educational grants for youths, more retraining opportunities, or the provision of very cheap Internet access).

Broadening the tax base is projected by:

- **Improving VAT collection** for lawyers, doctors and some other professional services (still to be defined) by making the use of cash registers reporting turnover compulsory.
- Limiting **VAT deductions for cars** with so-called "grilles" (to 60% of the purchase price, but no more than PLN 6 000 or EUR 1 500) and fully eliminating VAT deductions for the fuel used by these cars, which together should generate savings by around 0.15% of GDP by 2012.

been approved yet). It is consistent with some of the recommendations discussed in this *Survey* and contains four fundamental orientations: enhancing fiscal institutions and the organisational framework of public finances; completing the pension reform; broadening tax bases; and speeding up privatisation. However, very few details have been provided as to how effective the plan is expected to be in reducing the structural deficit and improving the sustainability of public finances. This is because the document is only a set of proposals, some of them subject to further debate (such as for the pension system). It is unlikely that in its current broad formulation it will achieve the objective of a credible and sustainable reduction in the deficit from above 7% of GDP in 2009 to 3% of GDP in 2012 as recommended by the ECOFIN Council. According to the Finance Minister, the plan would bring savings of 0.7% of GDP until 2012 and an additional of 0.8% of GDP in 2012 if an expenditure rule is adopted (*Rzeczpospolita*, 2010). Therefore, the scope and rapidity of actual consolidation will hinge critically on the range of and details about concrete reform measures included in the implementing legislation. Rather, by emphasising the need to generate substantial revenues from privatisation (up to 2% of GDP in 2010) and by improving liquidity management of the public sector (with an expected cut in the gross public debt by around 1.1% of GDP), it appears that the immediate concern of the authorities is to prevent the debt-to-GDP from violating the second precautionary threshold of 55% that would trigger automatic (imposed by law) consolidation measures (see Chapter 2).

This impression is supported by the concomitant release of the convergence programme, which backloads the major part of the effort to slash the structural deficit, with a targeted cut of 3% of GDP in 2012. The delay in and scale of foreseen consolidation threatens the overall credibility of the commitment of the authorities to resolutely tackle the underlying general government deficit. Such a reduction would represent twice what has ever been achieved by any other Polish government since the beginning of the transition process. It is therefore urgent that fiscal adjustment start without delay and be more equally distributed over time. This would not conflict with growth prospects and is notwithstanding the political cycle (presidential and parliamentary elections in 2010 and 2011, respectively). Otherwise, the temptation to lower the deficit by shifting part of the transfers from the second-pillar open pension funds to the social security system (first pillar) could resurface again (see below). In the global context of persistent financial-market tensions, an insufficiently timely action could also result in adverse investor reactions and hence a further weakening of the fiscal position (through higher interest rates, exchange-rate depreciation and greater difficulty to issue debt).

Some macroeconomic assumptions of the convergence programme are debatable as well. The major consolidation effort planned for 2012 is projected to have only a minor impact on GDP growth compared to 2011 (4.2% instead of 4.5%), which is expected to exceed its estimated potential rate of 3.6% in both years.[11] This is despite the fact that short-term real interest rates are assumed to increase by a cumulative value of 230 basis points between 2009 and 2012 and the nominal PLN/EUR exchange rate to appreciate by 22% over the same period. Although the 2010 budget was built on a deliberately conservative GDP growth hypothesis of 1.2%, the drawback of projecting a much higher economic growth in the convergence programme (3.0%) is that incentives to consolidate public finances could be lessened and the credibility of subsequent conservative budget assumptions reduced. Moreover, unless driven by specific measures, the implicit elasticity of income tax revenues seems high, while the sharp reduction in social security benefits and the foreseen return of

the social insurance fund to surplus do not appear to be consistent with only a modest reduction in the unemployment rate (following the cyclical peak in 2011). Finally, the expectation of nearly balanced budgets of local authorities in 2011 and 2012 may appear optimistic, given the necessity to co-finance substantial amounts of EU transfers and support the organisation of the 2012 European football championships.

However, consideration had also been given to several measures that would represent important backward steps in reaction to short-term difficulties, but with potentially far-reaching deleterious long-term consequences. The *first* was the introduction of amendments to the pension system that would lower the contribution rate to the open (second-pillar) pension scheme from 7.3% to 3% and shifting the proceeds (1% of GDP) to the social security first-pillar system. The official intention, subject to public debate, was to cut the fees for the customers of second-pillar pension funds buying government bonds and thereby to decrease the rising cost of the 1999 pension reform. However, this was notwithstanding the decision taken in mid-2009 to reduce the maximum distribution (from 7% to 3.5%) and management (based on the size of assets) fees as from January 2010. The authorities proposed the creation of notional accounts within the first pillar of the pension system on which the collected proceeds were supposed to be deposited and indexed on the yield of government bonds or the wage bill, according to later suggestions.

This plan would have harmed the credibility of the overall pension reform designed in 1999 (OECD, 1998), by rolling back a significant part of this reform and opening the door to further reversals in the future. The proposal would have been seen as a way to slow down the rise of the public debt according to the domestic definition that is relevant for the constitutional ceiling of 60% of GDP. Indeed, while leaving total net future public debt unchanged, it would primarily transform explicit liabilities into implicit ones. Moreover, by making the fiscal situation appear better, the proposed change might have created perverse incentives to run higher deficits. Following criticism expressed by many private experts, social partners and other governmental institutions (the National Bank of Poland, the Polish Financial Supervision Authority and the Ministry of Treasury), the idea was recently shelved by the authorities, which is welcome. Moreover, the consolidation plan also accepted that changing the national definition of the debt (by excluding pension liabilities of the second pillar reflected in the public debt) cannot be made for the sole purpose of avoiding the violation of the precautionary thresholds for the debt-to-GDP ratio. However, the consolidation plan (Box 1.1) does not rule out that such a methodological change could still occur if Poland does not manage to convince its EU partners to consider implicit public pension liabilities in the budgetary surveillance process of the *Stability and Growth Pact*. This is seen as an important goal for Poland's EU Presidency in the second half of 2011.

Although in accordance with earlier legislation, the *second* backward step would have been to use all accumulated resources of the Demographic Reserve Fund, amounting to 0.6% of GDP, as a one-off measure to partly cover the deficit of the social insurance system in 2010. Indeed, while these funds were supposed to support future spending needs of the first pillar of the pension system over the longer term for demographic reasons, the problem of population ageing will gradually and increasingly start to bite in subsequent years. The *third* concern is the fact that the liabilities of the National Road Fund are not included in the domestic definition of the debt (see Chapter 2). This mitigates the risk of breaching the constitutional rule but introduces a wedge with regard to the Maastricht definition of the debt and is costly: investors require a premium of almost 40 basis points for such securities compared to government bonds.[12]

Structural reforms are necessary to improve the underlying fiscal position. Plans to stabilise and lower the debt-to-GDP ratio should not be based on one-off measures or creative accounting, but on a sustainable reduction in the structural deficit. More generally, strengthening fiscal institutions will help in the implementation of the consolidation process (see Chapter 2). There are several priorities, some of which have been discussed in detail in previous OECD *Surveys* (2004, 2006 and 2008).

Continuing the reform of the social security and pension systems

Poland's special social security system for farmers needs to be reformed. It covers pension, healthcare, disability and other benefits, and is administered by the Farmers' Social Insurance Fund (KRUS). It has around 1.5 million active insured contributors and about the same number of pensioners. Its structure creates distortions in both labour and land markets. There is a huge gap between benefits and contributions, financed by subsidies from the state budget that cover more than 90% of KRUS's expenditure and amount to 1.2% of GDP. Attempts to introduce fundamental changes to the KRUS system have failed so far, most recently in 2003-05 due to a combination of factors including an unfavourable political context, declining pressure for immediate action, the strength of vested interests and mixed motives for reform (OECD, 2009e). A small step forward has been made more recently with a progressive increase in contribution rates for farmers cultivating 50 hectares or more, though these represent only 1% or so of all payers, and its impact on public finances is negligible. One way to further reduce subsidies to the KRUS in the short term would be to link contributions to farmers' incomes. At the same time, in order to facilitate the introduction of the reform, the authorities could consider increasing rural support, including the use of EU structural funds for human-capital-enhancing investments in rural areas (such as subsidised vouchers for tertiary education for low-income households or the development of telecommunication infrastructure). In the medium term, however, the objective should be to merge the KRUS system with the general social security regime. This would not only reduce administrative costs, but also bring additional savings as all pensions paid from the general pension system, following the introduction of the two-pillar pension system in 1999, are to become actuarially neutral as of 2014 in the general regime.

More generally, social expenditure could be scaled back by reviewing some disability pension entitlements. Although Poland has managed to significantly reduce the inflow of disability pensioners by tightening eligibility criteria, a re-evaluation of the large, albeit diminishing, stock of benefit recipients with permanent eligibility built up under the previous lenient criteria would generate additional budgetary savings.

The reform of the pension system has to be continued also in order to raise the effective retirement age and increase overall employment rate. At 59% in 2008, the aggregate employment rate in Poland was one the lowest among OECD countries. Had it been at the EU12 average of 67%, around 4% of GDP of additional social security contributions and taxes would have been collected in 2008 (Fandrejewska, 2009). More specifically, access to pre-retirement benefits for those who were laid off due to problems facing their employers needs to be closed completely, even though the inflows are now limited. The authorities should also gradually adjust special pension schemes for miners (who can benefit from early retirement after 25 years of work), and soldiers and police officers (who can retire after only 15 years of contributions) to actuarial neutrality. In 2007,

government expenditures on early-retirement pensions in the general pension system amounted to 1.5% of GDP, and an additional 1.1% of GDP for pensions paid within the special pension regimes of miners, soldiers and police officers.

The government should not lose the momentum achieved from the major progress made in late 2008, which, while not generating significant net savings in the short term, should contribute to improve the sustainability of the public finances in the longer term. This reform of so-called "bridge pensions" will also contribute to the extension of the average effective retirement age, one of the lowest in the European Union (59.3 years in Poland *versus* 61.2 years in EU27 in 2007). After being postponed for several years, the 2008 reform consisted of a significant tightening of access to early retirement pensions (which in 2009 replaced previous existing possibilities of early retirement) by excluding numerous professions employed in "difficult" work environments from eligibility. While more than one million workers were eligible for early retirement under the previous regime, the effective number has now been restricted to around 250 000. Those who lost early-retirement rights have been granted entitlements for compensation in return. It is essential that their cost does not outweigh the financial benefits of the reform.

The reduction in the tax wedge in 2007-09 and, as from October 2008, the start of the "Programme 50+" to raise the participation rate of seniors have been additional steps in the right direction to boost employment. In accordance with the Lisbon Strategy, the main quantitative objective is to increase the employment rate of people aged 55-64 from around 32% in 2008 (one of the lowest in the European Union, despite recent progress) to at least 50% by 2020. To this end, the Programme aims to improve working conditions, upgrade skills and qualifications, enhance activation policies targeted at the disabled and unemployed, expand the opportunities of employment for women and reduce labour costs of women aged above 55 and men aged above 60 through lower social security contributions. Yet, its implementation seems to have been slower more recently.

Yet, increasing the statutory retirement age should be viewed as a major priority as well. The legal retirement age in Poland is 60 years for women and 65 years for men, which is below the corresponding age in many of the European Union (65 years), especially the Scandinavian countries (67 or 68 years). The 50+ Programme foresees a gradual equalisation of the retirement ages of men and women at 65 years by 2025. In a strategic document "Poland 2030" published in mid-2009, which establishes major challenges and priorities over the medium term, the authorities indicated their willingness to raise the retirement age to at least 67 years by 2030. However, there does not currently appear to be sufficient political support to act more decisively in this direction, even though objective grounds for reform exist. Life expectancy at retirement is lower for men in Poland than in all other OECD countries except Turkey, but is one of the highest for women due mainly to low average retirement age (Figure 1.17). However, spurred by the convergence in real incomes, life expectancy can be expected to rise, adding support to the case for later retirement. In any case, given that the 1999 pension reform will lead all pensions from the general regime to actuarial neutrality as from 2014, longer activity will be favoured. Indeed, the amount of monthly pension will depend on a formula based on the value of accumulated capital and life expectancy at retirement. Moreover, there are no restrictions to continue to work beyond the statutory retirement age (and hence to combine different sources of income), while since 2006 the social security system has provided information to all insured persons about the cumulative value of contributions to their individual accounts and projections of hypothetical pension benefits. However, this does not imply

Figure 1.17. **Life expectancy and retirement age**
2008 or latest available[1]



1. 2008 for Mexico; 2007 for Australia, Austria, Greece, Hungary, Iceland, Japan, Korea, Netherlands, New Zealand, Poland, Slovak Republic, Sweden and Turkey; 2005 for Canada and the United Kingdom; and 2006 for others.
2. CZE: The retirement age for women varies between 62 and 65 depending on the presence and number of children.
3. DEU: The pension is actually payable from age 67 with 5 years' contribution and from age 63 with 35 years' contribution for those born in 1964 and later.
4. GBR: State pension age, currently 60 for women born on or before 5 April 1950, will gradually reach 65 in 2020.

Source: OECD, *Health Database*, 2009; *Pensions at a Glance*, 2009; and OECD calculations.

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the legal retirement age should remain unchanged at a low level. It represents an important social norm that determines actual behaviour of labour supply and demand, and hence the employment rate of older workers. For instance, it may condition the incentive for life-long learning and training, influence the social perception of work capability or represent a benchmark in negotiations over early-retirement entitlements. Overall, the authorities should thus work toward steadily equalising the retirement age of men and women, and linking further increases to life expectancy.

Broadening tax bases and improving tax law

There are various available options to broaden tax bases in Poland. For example, revenues from farming activities are not subject to the income tax. Instead, farmers pay a lump-sum agriculture tax (and/or a forestry tax) that accrues to local authorities and depends only on the area of land farmed and its category. Removing this special treatment would most likely generate net revenues for the general government, even though it would reduce tax receipts for the lower authorities and the tax burden for low-income households (as they might be exempted from the income tax but currently have to pay the lump-sum tax). However, this will require better tax collection enforcement. It is certain that incomes

from farming have increased substantially as a result of the Common Agriculture Policy (CAP) since Poland joined the European Union. Moreover, while GDP per capita is still lagging well behind the most advanced EU countries, direct CAP-related subsidies for farmers, including 30% coming from the Polish state budget, amounted to 90% of the level received by farmers on average in the EU15 countries in 2009 and will reach 100% in 2010. Even though the level of 100% would have been reached anyway in 2013 through EU transfers only, the decision to achieve it earlier by providing a large domestic co-financing component has led to additional expenditure obligations. In any case, the economic census in the agriculture sector planned for 2010 should confirm the extent of income gains since 2004 and set objective grounds for reform.

Another area for broadening tax bases is related to the need to improve the collection of the VAT in the case of certain services (such as lawyers, doctors, real-estate agents, accountants, management advisors, detectives, head hunters, engineers and architects). This should be done by making compulsory the use of cash registers (as envisaged in the consolidation plan), instead of other means of recording turnover (like invoices). By a ruling of the Constitutional Tribunal in July 2009, such exemptions will have to be specified in legislation by April 2010 at the latest. The authorities should take this opportunity to end this practice. Some services (for instance, shoemakers, dress designers, glaziers, hairdressers, individual teachers, veterinarians, nurses, midwives, doctors or dentists) have the option of paying only a lump-sum income tax unrelated to effective income or turnover (through a so-called "taxpayer card"). Indeed, they do not have to maintain accounting books or make tax declarations and need to record employment only. Significantly tightening eligibility for this status would most likely also beef up fiscal receipts. Revenue would also be increased by basing the social security contributions of self-employed workers on actual earnings rather than on a notional income set at a low level (which corresponds to 60% of the average wage). However, as in the case of income taxes for farmers, the effectiveness of these measures will be conditional on better tax collection enforcement. More generally, establishing a list of tax expenditures would be useful in identifying areas where savings could be made.

Increasing efficiency and reducing the wage bill in the public sector

Increasing the efficiency of and diminishing expenditure in public administration as well as improving the quality of tax law are other necessary steps to shore up the fiscal position. The government has planned to reduce the state's payroll by 10%, though details will be set following an ongoing audit. An additional measure would be to contain wages in the public administration, relative to the private sector. Public-sector wages grew by 32% between 2004 and 2008, against 27% in the private sector on average, increasing the average level of the gap to 15% in 2008 (GUS, 2009). However, to stimulate efficiency at the same time, it would be helpful to link promotion to performance more closely.

The quality of tax law has been significantly eroded by countless amendments and interpretations over the last decade, sometimes inconsistent with European law, leading to a substantial decrease in tax efficiency (Institute for Fiscal Studies, 2009). Increasing tax collection efficiency is therefore another major challenge that needs to be tackled; according to some tax experts, this might require a complete redrafting of some legislation. Even though effective tax rates are near the international average, compliance costs (number of payments and time spent on tax formalities) are very heavy relative to other countries (see Chapter 3).

Redesign and increase the least distortive taxes

Property and environmental taxation should be improved and used more widely. One major reform would be to replace the various current property taxes (on agriculture, forestry and real estate) by market-value-based property taxes. The tax rate could be set at a revenue-neutral level in a first step, and then subsequently increased. Moreover, the bias in favour of investment in real estate in the personal income tax should be removed by taxing capital gains on rented properties owned for more than the current 12 months. Finally, climate-change concerns (see Box 1.2) would be efficiently addressed and budgetary revenues generated by introducing a carbon tax and eliminating the tax discrepancy between diesel used as a motor vehicle fuel and that used as heating oil, even though the difference between the two rates is consistent with EU legislation.

Importance of EU transfers

Size of the support from EU funds

With EUR 67.3 billion allocated over 2007-13 to the country, *i.e.* 19% of the EU's total Structural and Cohesion Funds over the period, Poland has become the largest beneficiary of EU cohesion policy. This policy is financed by three funds, the European Regional Development Fund and the European Social Fund ("Structural Funds"), and the Cohesion Fund. It is implemented in Poland under the National Strategic Reference Framework (NSRF) within five operational programmes on national level and 16 regional operational programmes, as well as nine programmes of European Territorial Co-operation (Figure 1.18). The main areas of support covered by the NSRF budget are: transport (35%), R&D, innovation and entrepreneurship (16%), environmental protection and risk prevention (14%), human capital (13%) and information society (6%). The annual average of EUR 9.6 billion over 2007-13 compares with the EUR 2.8 billion annual average for the 2004-06 programme, which highlights the challenge of efficiently absorbing such large amounts. Moreover, the use of EU grants is subject to the co-financing principle, which requires that at least 15% of the value of a project be financed from national resources.[13] Poland is also going to receive a total of EUR 18.3 billion as part of the Common Agricultural Policy and rural-development policies over the years 2007-13.

Structural and Cohesion Funds represent 22% of 2008 Poland's GDP, to be spent over a seven-year horizon, compared with 17% for the Slovak Republic, 19% for the Czech Republic and 26% for Hungary (Figure 1.19).[14] The government's objective is to spend about EUR 7 billion in 2010, after EUR 4.5 billion in 2009, and to gradually increase expenditure up to at least EUR 11 billion a year from 2013. Including support to agriculture and using the yearly profile of both projected spending and projected GDP, EU transfers would amount to 3.3% of GDP per year on average for Poland over 2009-15, given the n + 2 rule which allows the spending to be carried over a two-year period (Table 1.3).[15] This is a comparable share of GDP to FDI inflows (see Chapter 3), which highlights how important the impact of EU funds could be. According to the numbers presented in the table, which are derived from the government's targets, the profile of absorption is rather smooth. However, experience shows that spending tends to lag in the first years and then accelerate through the end of the budget period. Given the amounts involved, being late initially might lead to an undesirably large boost down the road: spending objectives should be met as closely as possible to avoid the build-up of such a peak.

Box 1.2. **Climate change: Available energy resources and objectives**

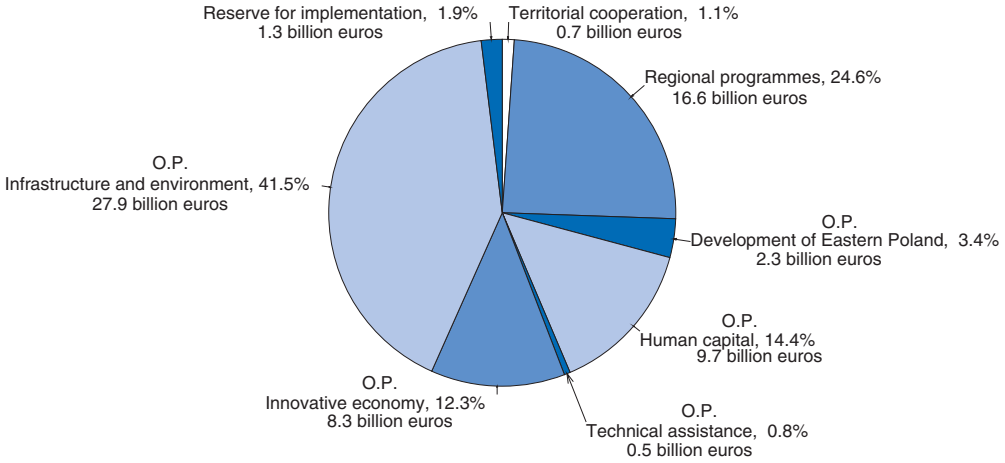
Coal is Poland's main conventional energy resource. After South Africa, Poland is the second most coal-dependent country in the world, producing 89% of its electricity from coal (as against, for instance, 81% in China, 68% in India, and 49% in the United States and Germany). Poland is also the largest coal producer in the EU, and its energy import dependency is correspondingly among the lowest in the EU. It has the world's 10th largest domestic coal reserves (or 7.5 billion tonnes at the end of 2008), of which 25% is comprised of CO_2-intensive lignite or brown coal. The reserves-to-production ratio is estimated at 52 years, but Polish mines have been encountering growing technological problems. The trade surplus of steam coal dropped significantly in 2006 and fell below zero in 2008. Significant new investments are underway in order to maintain production.

The importance of coal in the Polish energy mix implies high greenhouse gas (GHG) emissions and CO_2 intensity. Nevertheless, significant progress was made by the Polish energy sector to reduce emissions between 1990 and 2007: particulates by 94%, sulphur dioxide by 63%, NO_x gases by 44% and carbon dioxide by 13%. Moreover, while under the Kyoto protocol Poland was requested to cut overall GHG emissions by 6% between the base year of 1988 and the years 2008-12, the effective reduction amounted to 29% between 1988 and 2007 albeit only 12% when considering the year 1990 as a benchmark. The decline of energy inefficient heavy industry and the overall restructuring of the economy in the late 1980s and early 1990s were the main driving factors, though emissions increased in transport (especially road transport). Despite the overall progress, which was recently marked by the sale of some carbon emission rights to Spain and Ireland, Poland was the sixth largest emitter in the EU27, accounting for 8% of total EU27 GHG emissions in 2007.

The energy intensity of the Polish economy is high, and demand has been growing steadily over the last decade. Yet, major investments are necessary to enhance the supply side: prior to the current crisis it was estimated that in 2012 Poland could face an energy deficit that could last until at least 2014. At the same time, the national grid is outdated (losses are estimated at 12-15% of produced power, according to the report *Poland 2030* of the Chancellery of the Prime Minister), and cross-border connections to import electricity from neighbouring countries have a very limited transmission capacity. The structure of the electricity sector does not sufficiently encourage investment nor cost efficiency, as it is dominated by four vertically integrated and mainly state-owned companies. It is estimated that investment needs in the energy sector by 2030 could range from a low of 12-15% up to a high of 23% of today's GDP. In this perspective, the government plans to build one nuclear power plant by 2020 and a second one by 2030. However, as coal is considered to be a key resource for energy production, major hopes are associated with "clean coal" technologies that include increasing the efficiency of traditional coal-fired power plants, development of coal gasification technologies and the implementation of carbon capture and storage facilities on a massive scale. In the transition period to more efficient technologies and due to fears of a too rapid increase in electricity prices, Poland has received major derogations from the energy-climate policy of the European Commission. These include free pollution rights covering up to 70% of energy-sector emissions in 2013 with a progressive elimination of that share by 2020, free emissions rights for energy-intensive sectors subject to the risk of offshoring production outside the EU, and additional emissions allowed until 2020 in sectors not covered by the European emission trading system (construction, transport, agriculture). However, there is an ongoing dispute with the European Commission over the level of allowed CO_2 emissions over the period 2008-12. Poland has requested an increase by 36% of the 208.5 million tonnes a year the Commission would allow (its verified CO_2 emissions were 204.1 million tonnes in 2008). The case is being argued before the European Court of Justice, the ruling in the Court of First Instance having been favourable for Poland. The European Commission is reluctant to attribute extra quotas due to fears of downside effects on the market price of carbon dioxide.

Figure 1.18. **EU structural and cohesion funds, 2007-13**[1]

Breakdown by operational programme

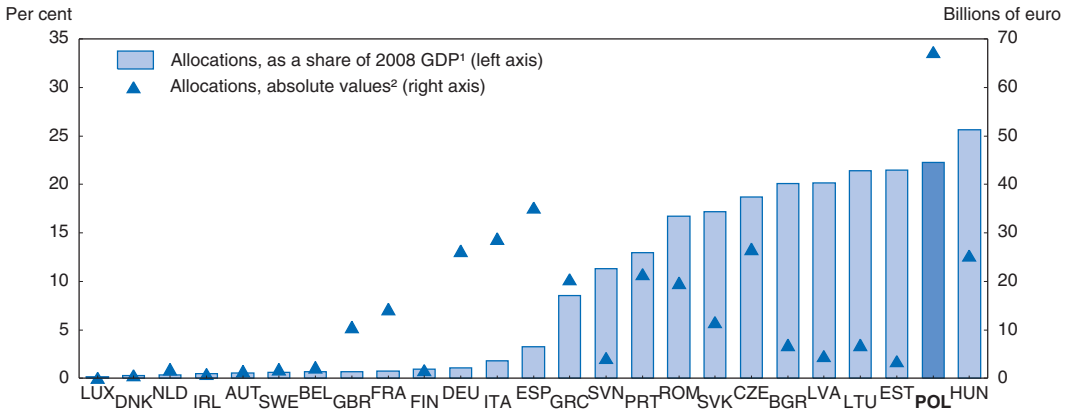


1. Total represents EUR 67.3 billion, 100%.

Source: Ministry of Regional Development.

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Figure 1.19. **Distribution of EU funds across countries, 2007-13**



1. In per cent of 2008 GDP at market prices in national currencies, converted in euros by using October 2009 monthly average exchange rates.
2. Current prices.

Source: European Commission.

StatLink http://dx.doi.org/10.1787/814638380761

Macroeconomic consequences

Such large capital inflows will have significant macroeconomic consequences. The main purpose of providing support through EU funds is to modernise the structure of the economy and accelerate the convergence of countries that are judged to be far from their long-term steady state due to low capital stock and labour productivity. Support from the European Union might affect the economy through both demand-side and supply-side effects. Demand-side effects are channelled through the conventional short-term Keynesian multipliers, while supply-side gains materialise through the enhancement of production capacity via, for example, improved infrastructure and human-capital deepening. Demand effects might dominate in the short term, because the investment

Table 1.3. **Incidence of EU supporting policies, 2009-15**

Billions of euros and per cent of GDP

	Structural and cohesion funds	Agriculture support	Total	GDP projection	Total support (as a percentage of GDP)	Minimum co-financing[1]	
						Billions of euros	As a percentage of GDP
2009	4.5	2.0	6.5	317	2.1	0.8	0.3
2010	7.0	2.2	9.2	332	2.8	1.3	0.4
2011	10.6	2.4	13.0	349	3.7	1.9	0.6
2012	10.7	2.6	13.3	370	3.6	2.0	0.5
2013	11.0	2.8	13.8	390	3.5	2.0	0.5
2014	11.5	3.0	14.5	410	3.5	2.1	0.5
2015	11.8	3.2	15.0	431	3.5	2.2	0.5

1. Based on 15% of cohesion funds and 20% of structural funds, *i.e.* 18.3% overall.

Source: Ministry of Regional Development, OECD calculations; Rosenburg and Siehej (2007); and *OECD Medium Term Baseline Database*.

impact on potential growth takes time to materialise. Supply-side benefits tend to be long-lasting, especially when the stock of new capital has a low depreciation rate, as is the case with infrastructure.[16]

Various leakages can weaken the impact of EU funds, however. *First,* on the supply side, EU-funded investment might crowd out public and private investment that would have taken place without the support. *Second,* on the demand side, forward-looking agents should anticipate that the income support is temporary and smooth consumption over time, leading to an increase in the saving rate.[17] *Third,* if the economy does not have enough spare capacity, such capital inflows can generate inflationary pressure. However, the most likely sequence of outcomes is the following: EU-related inflows induce a positive demand shock, which boosts consumption and increases imports. The real exchange rate appreciates, which, in the case of Poland, is likely to be achieved *ceteris paribus* through both nominal appreciation and inflationary pressure. As a result, the trade balance deteriorates, and even more so when EU transfers boost the construction sector, while domestic output increases compared with the no-transfer scenario. Allard *et al.* (2008), focusing on new EU member states, provide simulations illustrating how these effects depend on the channels of EU support (household income support, public investment, private investment). They find that, due to a combination of leakages, real GDP multipliers of EU funds might be lower than one.

Evidence elsewhere of the effectiveness of support from EU funds is mixed. A first shot consists of looking simply at the experience of EU countries that received EU funds in the past. Greece, Ireland, Portugal and Spain received significant amounts of EU funds from the 1989-2006 Community Support Frameworks (Table 1.4). Average annual support varied from 1.2% of GDP for Spain to 3.1% of GDP for Portugal. At first sight, given the heterogeneous path followed by these countries, the effect of EU funds on the convergence process towards the EU15 GDP level is not obvious (Figure 1.20). Portugal has not caught up at all since the early 1990s, Greece started to grow faster than the EU15 average in 2000, Ireland's growth picked up sharply in the mid-1980s, while Spain's performance stood in between these extremes, gradually converging until 2003.

More quantitatively, there are two general approaches to assess the impact of EU transfers on the speed of convergence: econometric analyses and model-based simulations. Evidence from econometric studies is inconclusive (see Allard *et al.*, 2008, for references). As a result,

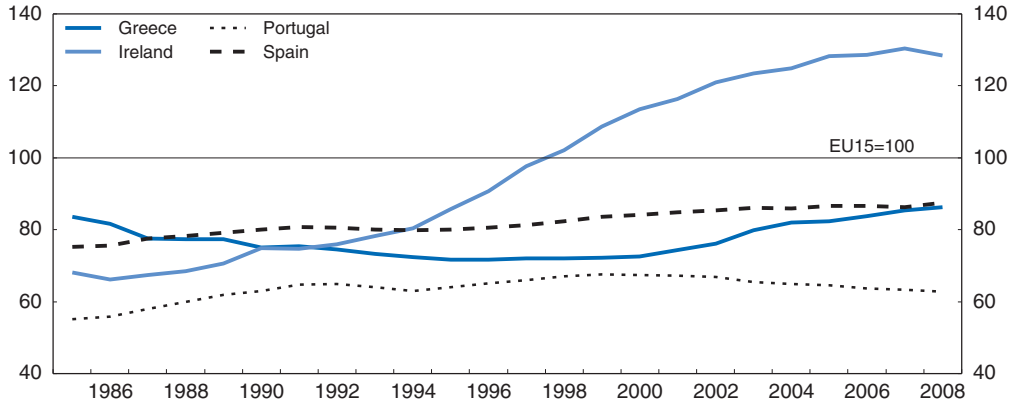
Table 1.4. **EU structural funds to cohesion countries (1989-2006)**

	Greece	Ireland	Portugal	Spain
Share in GDP (%, annual average)	2.8	1.6	3.1	1.2
1989-93	2.6	2.5	3.0	0.7
1994-99	3.0	1.9	3.3	1.5
2000-06	2.8	0.6	2.9	1.3
Share in fixed capital formation (%, annual average)	12.9	8.4	12.6	5.2
1989-93	11.8	15.0	12.4	2.9
1994-99	14.6	9.6	14.2	6.7
2000-06	12.3	2.6	11.4	5.5

Source: Lolos (2001).

Figure 1.20. **GDP per capita developments *versus* EU15 in selected countries (1985-2008)**

In constant 2005 PPPs, EU15 = 100



Source: OECD, *National Accounts Database*.

StatLink http://dx.doi.org/10.1787/814660217677

most estimates of the impact of the EU support rest on macro-model simulations. Depending on the underlying assumptions, these models generate a wide range of estimated impacts. Models with strong crowding-out effects show small impacts of transfers; those including *ad hoc* positive externalities show large ones. The most frequently used model is HERMIN, which combines neoclassical and Keynesian elements to analyse both short-run demand and long-run supply effects, and delivers intermediate estimated effects (European Commission, 2007).[18] As a result of the EU support, HERMIN simulations find that real GDP in Greece, Portugal, Ireland and Spain was initially boosted by between 1 and 4½ per cent, but projected it to be only ½ to 2 per cent higher by 2010 (Allard *et al.*, 2008). For Ireland, Barry *et al.* (2001) estimated that Structural funds contributed slightly more than ½ percentage point to annual GDP growth between 1994 and 1999, boosting the GDP level by about 4%. Other studies referred to in Allard *et al.* (2008) typically find the impact of EU funds over the EU-support period for various countries on annual growth to be about 0.3-0.5 percentage point per year.

Lolos (2001) reviews the experience of Southern European countries and concludes that, based on HERMIN simulations, EU funds of 1% of GDP would be expected to raise the economic activity of the recipient country by 0.5% and to reduce the unemployment rate by 0.25 percentage point, with comparable effects for the CEECs. European Commission (2007) estimates the impact of the cohesion policy for the CEECs. In 2015, EU funds would drive

Table 1.5. **Effects of EU cohesion policy on GDP and employment**
Percentage gains, 2006 and 2015

	Effect in 2006 (of cohesion policy 2000-06)		Effect in 2015 (of cohesion policy 2000-13)	
	GDP gain (% above baseline)	Employment gain (% above baseline)	GDP gain (% above baseline)	Employment gain (% above baseline)
Bulgaria	–	–	5.9	3.2
Czech Republic	1.6	0.8	9.1	7.1
Estonia	1.8	1.3	8.6	5.4
Greece	2.8	2.0	3.5	2.3
Hungary	0.6	0.6	5.4	3.7
Ireland	0.9	0.7	0.6	0.4
Latvia	1.6	1.2	9.3	6.0
Lithuania	1.2	0.9	8.3	4.8
Poland	**0.5**	**0.4**	**5.4**	**2.8**
Portugal	2.0	1.4	3.1	2.1
Romania	–	–	7.6	3.2
Slovak Republic	0.7	0.5	6.1	4.0
Slovenia	0.3	0.3	2.5	1.7
Spain	1.0	0.7	1.2	0.8

Source: European Commission (2007).

the GDP level about 4% above the no-EU-support baseline on (a non-weighted) average across countries (Table 1.5), with supply-side improvements accounting for about half of the effects. For Poland, the gains from EU funds are estimated to reach 5.4% of GDP and 2.8% of employment in 2015.

To sum up the various studies, there are great uncertainties, but it seems reasonable to expect that transfers from the European Union will add between 0.5 and 1.5 percentage points to the normal annual growth rate on average over 2009-15. On the one hand, these estimates could be seen as an upper bound as they assume a full and efficient absorption of the funds. However, to the extent EU funds catalyse other developments, such simulations may underestimate their full benefits. For example, investments in road construction, higher education and job retraining could be expected to generate positive externalities and dynamic effects, and further raise potential growth over time.

Policy implications

Policy implications extend to structural, fiscal and monetary policies. Policy makers need to square the circle of exploiting the enormous opportunities offered by the access to "free money", while guarding against any destabilising macroeconomic effects (Rosenberg and Sierhej, 2007). *First,* the extent by which Poland will benefit from EU funds depends on its capacity to absorb them effectively and productively. Given the size of the transfers, developing this capacity is indeed challenging. Fostering absorption capacity requires an efficient public management process and a framework designed to allocate resources where they are most needed (see Chapter 3). Also, reaping the total gains means not allowing the economic boost to run up against production capacity constraints. Relatively low employment rates are not necessarily indicative of spare capacity: structural reforms will be needed to accompany the implementation of cohesion policy, especially in making the economy more flexible to ensure that the labour market responds smoothly to the stimulus without generating inflationary pressure (see Chapters 2 and 3).

Second, spending related to EU funds affects national fiscal policy. EU funds require domestic co-financing and additionality. Although co-financing does not necessarily imply fiscal expansion if the recipient country can substitute EU funding for domestic spending, according to the additionality rule, spending in a certain category must be at least equal to the amount of average annual expenditure in real terms attained during the previous programming period (2004-06).[19] As a result, by limiting substitution possibilities, EU funds tend to weaken fiscal balances, even though, in practice, it is virtually impossible to establish how much a government would have spent on certain expenditure items in the absence of EU funds.

Rosenberg and Sierhej (2007) estimate *ex post* that the 2004-06 EU funds may have led to a fiscal expansion of up to 1% of GDP in Central and Eastern European countries, on average. Based on the minimum co-financing, the 2007-13 funds should generate extra annual spending of 0.5% of GDP on average between 2009 and 2015 (Table 1.3).[20] Such an expansion will make more difficult the removal of the excessive deficit procedure under the Stability and Growth Pact, and the preparation for euro adoption. To offset this fiscal boost, co-financing would need to be accommodated by reducing other budget lines, thereby affecting the structure of public spending while not obstructing the full effect of automatic stabilisers. An appropriate fiscal policy framework, discussed at greater length in Chapter 2, would help in designing and implementing the appropriate fiscal response.

Third, monetary policy will also be affected by the transfers. While, from the point of view of macroeconomic stabilisation, inflows of EU money are welcome in the aftermath of the crisis, as the economy recovers towards potential, an injection of 3 to 4% of GDP into an economy that is already in a rapid catch-up process might lead to overheating, requiring a tighter monetary policy. Allard *et al.* (2008) argue that the challenge facing inflation targeters is to resist likely temptations to soften the inflation target in the face of EU fund inflows. The monetary tightening necessary to prevent demand pressure from feeding into inflation expectations might lead to a currency appreciation, harming the traded goods sector. Yet, any relaxation of the inflation target would simply worsen the unwanted trends, and "ultimately, the increase in real interest rates is mandated by the real effects of the inflow of funds on the economy" (Allard *et al.*, p. 28). The authorities will have to be cognisant of those interactions and act accordingly, if the full benefits of EU structural funds in aiding convergence are to be reaped.

Box 1.3. **Main recommendations to stabilise the economy following the global downturn**

Monetary policy settings to stabilise the economy and improve institutions

- *Start the process of normalising interest rates fairly soon,* given the absence of substantial economic slack.
- *Introduce overlapping terms for Monetary Policy Council members' appointments* to ensure continuity of monetary policy.

Box 1.3. **Main recommendations to stabilise the economy following the global downturn** *(cont.)*

Measures to restore fiscal sustainability

- *Design and implement a credible and effective consolidation plan* to bring the structural deficit down to the level of 1% of GDP, in accordance with the EU's Stability and Growth Pact.
- *Continue the pension reform* by making pension schemes for soldiers, police officers and miners closer to actuarially neutral. Further reduce subsidies to the farmers' pension regime (the KRUS) by linking contributions to incomes in the short term and merging it with the general social security system in the medium term. Consider introducing temporary "side payments" promoting human capital development in rural areas in return. Equalise steadily the retirement age of men and women and link further increases to life expectancy. Re-evaluate the large stock of disability pension beneficiaries with permanent eligibility built up under earlier lenient criteria.
- *Broaden tax bases* by making revenues from farming activities liable to the income tax, introducing cash registers for all professional services to improve collection of the VAT, significantly tightening eligibility for the lump-sum income tax, and linking social security contributions of the self-employed to actual earnings. These measures should be accompanied by improved tax collection enforcement.
- *Redesign and increase the least distortive taxes,* by establishing market-value-based property taxes, taxing capital gains on rented properties, eliminating the tax discrepancy between diesel used as a motor fuel and that used as heating oil, and implementing a carbon tax.
- *Increase efficiency and reduce expenditure in the public sector* by diminishing the payroll, reducing the growth of wages relative to the private sector and linking promotion more closely to performance.

Measures to smooth the macroeconomic impacts of EU transfers

- *Make sure that monetary and fiscal policy adequately take into account the impacts of EU transfers* by systematically specifying the assumptions related to the forward-looking absorption of EU funds in economic projections. Make macro policies responsive to any imbalances induced by EU funds and smooth the related spending to avoid a transfer peak down the road.

Notes

1. This is based on actual data as shown in Figure 1.6. However, these numbers are subject to uncertainty, since net errors and omissions in the balance of payments increased from PLN –10.1 billion in 2006 to PLN –53.3 billion in 2008. The statistical authorities are analysing the sources of this sharp increase.
2. CEEC4 are the so-called Visegrad countries: the Czech Republic, Hungary, Poland and the Slovak Republic.
3. Banks typically hedge their currency exposure using FX swaps, but as the derivatives markets dried up, rolling over the hedging instruments was not possible, and balance sheets became increasingly exposed to the further depreciation of the zloty.
4. More specifically, it requires that, when considering foreign-currency loans, banks evaluate households' creditworthiness by assuming a 20% depreciation of the zloty and an interest rate at least equal to those on loans in domestic currency (OECD, 2008).
5. The haircut is the level of protection against changes in the market prices of collateral that the lender (in that case, the NBP) requires from the borrower who pledges its securities to get access to finance. A haircut of 10% means that collateral with a market price of 100 would allow the borrower access to funding of 90. Lowering the haircut means that more can be borrowed from a given market value of collateral.

6. At the same time, regular liquidity-absorbing operations have been maintained due to a structural problem of (unevenly distributed) excess liquidity in the banking sector.
7. From a partial guarantee of EUR 22 500 – EUR 1 000 guaranteed at 100% and remaining amount at 90% – to a full guarantee of EUR 50 000.
8. Moreover, although a law was adopted to offer state guarantees for banks seeking to increase their capital ratios, which could have helped to increase confidence, it was not used, as banks operating in Poland have had sound financial and capital positions.
9. At the same time and contrary to what had been planned, so far local authorities have not been allowed to scale up their activity in this area, possibly due to the risk of increasing public debt and the lack of a comprehensive system of monitoring contingent liabilities at the micro level.
10. The general government deficit amounted to 3.7% (3.6%) of GDP according to domestic (Eurostat) definition for 2008.
11. There is an inconsistency in the convergence programme between a flat output gap (–0.2% of GDP) and GDP expanding above potential in 2011-12. In particular, this implies either a lower GDP growth rate at 3.6% in 2012 (for a given output gap) or a higher output gap at 0.5% of GDP (for a given GDP growth). The latter possibility would have obvious consequences for the level of interest rates and debt-servicing costs.
12. The National Road Fund issued bonds worth PLN 7.5 billion in 2009 and the plans are for PLN 7.8 billion in 2010. Additionally, it benefitted from loans from the European Investment Bank of around PLN 5.5 billion in 2009, and that amount is expected to double in 2010. Hence, the overall debt of the Fund not included in the public debt will exceed 2% of GDP by end-2010. The higher costs of servicing debt could be around PLN 30 million in 2009 and PLN 60 million in 2010.
13. More precisely, Poland needs to co-finance at least an additional 15% of cohesion funds ($^1/_3$ of the total allocation) and an additional 20% of structural funds in regions eligible for cohesion funds ($^2/_3$). This represents a minimum co-financing of 18.3% overall, or EUR 12.3 billion for the seven years.
14. Numbers in the figure were delivered by using a 15% co-financing and the exchange rates of the end of November 2009.
15. GDP projections are based on the OECD medium-term balance exercise; the EUR/PLN exchange rate is assumed to be constant at 4.20.
16. Although, such transfers have no impact on the long-term equilibrium in a neoclassical growth model, endogenous growth theories may allow for spillovers that boost investment and output dynamics even in the long term.
17. It should be noted that, in both cases, even if the offsetting effects fully offset the stimulus, leaving GDP unchanged, the net income and wealth of the country increase as a result of the gift nature of that stimulus.
18. This model is extensively used by the European Commission and was initially developed by the Economic and Social Research Institute, Dublin.
19. This principle applies to Structural Funds, but not to Cohesion Funds.
20. This rests on the assumption that the minimum co-financing comes from domestic public funds. In practice, private investment could be mobilised. However, for 2004-06, public co-financing reached 30% of EU funds.

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ANNEX 1.A1

Progress in structural reform

This annex reviews action taken on recommendations from previous *Surveys*. Recommendations that are new in this *Survey* are listed in the relevant chapter.

Recommendations	Action taken since the previous *Survey* (June 2008)
PRODUCT MARKET COMPETITION	
Increase competition in mining, electricity, gas and telecommunication.	Some progress with: steps toward partially privatising electricity and mining sectors; plans to develop a wholesale electricity market through compulsory trading of a higher share of production; and measures taken by the telecommunication regulator against the incumbent firm aimed at enhancing access to infrastructure by competitors and increasing investments, notably in rural areas.
Maintain vigilance over possible collusive behaviour among the main suppliers of construction materials.	Significant progress with a detection of a cartel on the cement market involving Polish and foreign companies.
Improve the efficiency of capital markets.	Creation of a New Depository Settlement System and reduction of fees charged by the National Depository for Securities.
TRANSPORT INFRASTRUCTURE	
Elaborate and publish a precise and comprehensive top-down strategy for the transport sector, addressing long-term prospects and interrelations among projects, based on cost-benefit analysis.	Work has begun on the Transport Development Strategy and should be finalised by the end of 2011. Cost-benefit analysis of projects was strengthened.
Streamline the law on public-private partnerships (PPPs).	Progress with a new law on PPPs, in force since February 2009, which streamlined administrative procedures and provided more leeway for private and public entities for establishing partnerships.
Charge passenger cars for using expressways; determine in a transparent way the level of tolls on EU- and state-funded high-capacity roads; consider the introduction of an explicit congestion tax.	No action.
For providing regional rail services, promote the organisation of competitive tendering procedures and consider creating independent system operators to plan the traffic and rail connections.	New law is being drafted to introduce more competition in the provision of rail transport services.
Split the Polish Airports' State Enterprise (PPL) into different entities, consider their privatisation, and introduce a formula for the transparent calculation of price caps on take-off and landing fees.	No action, but important investment efforts in aviation infrastructure have continued.
Streamline the legal framework related to public procurement, issuance of building permits, environmental impact assessments and archaeological research.	Significant progress with the adoption of various laws streamlining the investment process on public roads, improving public-procurement procedures and aligning Polish legislation on EU environmental protection rules.
LABOUR MARKETS	
Restrict the disability schemes to those who are truly incapable of work, re-evaluate the stock of beneficiaries and introduce a time-limited pension.	No re-evaluation of the large stock of benefit recipients with permanent eligibility built up under old lenient criteria.

Recommendations	Action taken since the previous *Survey* (June 2008)
Improve efficiency of public employment services (PES).	Significant improvement with, notably: compulsory individual action plans for those with spells greater than 6 months; lower entry barriers to the market for private placement agencies; better co-ordination between social assistance institutions and local PES; higher spending on ALMPs.
Proceed with the plan to significantly reduce access to early-retirement pensions so that only those whose work conditions result in substantially lower life expectancy remain eligible. Also cut the benefit for those who remain eligible.	Significant progress made by reducing the number of people eligible for early retirement (bridge pensions) due to "difficult" work conditions from more than one million to 250 000.
Facilitate labour-market access for foreign workers through the issuance of work permits tailored to meet specific project needs. Provide easier access to foreign workers from a broader range of countries than those on the eastern border.	Some action taken by improving access of Moldovan citizens in all sectors.
FISCAL SUSTAINABILITY	
Adopt a medium-term budgetary framework with an explicit expenditure rule.	Amendments to the Public Finance Act have introduced a multi-year financial plan for the state on a rolling four-year horizon (current and three years ahead), medium-term plans at other levels of government and elements of performance-based budgeting. Yet, only annual budgets will be truly binding.
Raise further the profile of the general government concept when establishing budgetary objectives.	The general government concept has been weakened further, notably by shifting expenditure for road building out of the state budget to the National Road Fund.
Reduce subsidies to the KRUS and work towards merging it with the general system. Income from farming should be treated the same as that from other types of activities.	Very small step forward with the introduction of a progressive increase in contribution rates to KRUS for farmers cultivating 50 hectares or more.
TAX POLICIES	
Shift the overall tax mix away from labour taxation and rely more heavily on less distorting tax bases, in particular immovable property tax, but also environmental tax.	No action.
Further reduce the tax wedge on labour income by lowering social security contributions. The reductions should be both significant and targeted at the low end of the distribution.	No action, though the simplification and lowering of PIT rates (voted in late 2006) was introduced as planned in January 2009, lowering the tax wedge by 3.2 percentage points at the average wage. However, the tax wedge remains one of the least progressive among OECD countries.
Consider introducing an earned-income tax credit to encourage labour market participation of marginal groups.	No action.
Simplify VAT procedures for businesses.	Progress made with simplifications in tax declarations and a unification of the term for tax refund at 60 days, introduced in December 2008/ January 2009. The minimum turnover for VAT payment will rise from PLN 50 000 to PLN 100 000 in 2010 and PLN 150 000 in 2011.
Eliminate the tax discrepancy between diesel used as motor vehicle fuel and that used as heating oil.	No action.
MONETARY POLICY MANAGEMENT	
Introduce overlapping terms in appointments of MPC members to ensure the continuity of monetary policy.	No action.
Improve communication by dedicating exclusively to the MPC the role of communicating with the public about the stance of monetary policy.	Done.
Ensure adequate co-ordination and exchange of information between the central bank and the banking regulator recently moved to the Financial Supervision Authority.	Progress made at the operational level, but also at the strategic one with the creation of the Financial Stability Committee including the central bank, the Financial Supervision Authority and the Ministry of Finance.
Foster the debate and continue dialogue and co-operation between the monetary authorities and the government on euro adoption.	Progress made in 2009 with a significant report on euro adoption published by the central bank in February, and the creation of a National Co-ordination Committee for matters related to the single currency (including representatives from different public institutions) in November.

Recommendations	Action taken since the previous *Survey* (June 2008)
SUSTAINABLE DEVELOPMENT	
Reduce emissions of greenhouse gases.	Poland reduced greenhouse gas emissions by 29% between 1988 and 2007, and 12% when considering the year 1990 as a benchmark.
HEALTHCARE	
Continue reforms of the health-care system, and improve hospital financial management.	A law entered into force in August 2009 defining a basket of guaranteed medical services financed from public funds. Some steps taken to improve the quality and effectiveness of public health care service providers through better co-ordination, improvements in contracting terms and efforts to introduce IT solutions.
EDUCATION	
Expand provision of free pre-school education at ages 3 to 5, focusing particularly on poor and rural areas.	Some progress. In September 2009 a law promoting attendance in kindergarten facilities for 5 year-old children was adopted, and should be generalised as from 2011. Steps have been undertaken as well to develop different forms of pre-school education and enhance educational opportunities in poor areas.
Reform the system of student loans to allow repayment along with income tax once graduates are employed.	Plans to increase access to the current system of student loans by simplifying it and introducing higher guarantees for students from low-income families have been translated into guidelines for the reform of higher education. Adopted by the government in October 2009, the guidelines are now the basis for drafting proposals of acts amending the current legal framework.
Reinforce quality assessment of higher education institutions (HEIs) through the State Accreditation Commission. Ensure that career structures in tertiary education are based on open competition and transparent promotion criteria.	The guidelines mentioned above introduce a general rule of filling academic positions by means of a competitive and transparent procedure, open to foreign scholars. The document also provides equal opportunities for public and non-public HEIs in applying for the status of a Leading Domestic Research Centre that will entail stable public funding for additional remuneration for the academic staff as well as for scholarships for undergraduate and doctoral students.
Consider allowing public HEIs to introduce cost-related tuition fees for all students.	No action.
HOUSING	
Introduce escrow accounts to protect buyers' advances against the risk of developers' bankruptcy.	No action.
Make the release of municipal zoning plans mandatory.	No action.
Publish official composite house price indexes for the country as a whole as well as different market segments.	No action.
Ease capacity constraints in the construction sector by strengthening vocational training.	Some progress with various steps taken by the Ministry of National Education to promote vocational education.
Work towards further easing of controls on rent increases.	Some action taken. A new law introducing so-called "occasional renting" for subletting part or all of the real estate has lifted restrictions on rent increases and curtailed the legal protection of tenants. It has also generalised the lower tax rate of 8.5% (instead of 20% above EUR 4 000) on rental income for all type of contracts with the aim to reduce tax avoidance.

Chapter 2

Preparing for euro adoption

The objective of joining the euro area has become an important priority in the policy agenda of the current government. The chapter focuses on the major structural reforms necessary to prepare for euro adoption that should allow a sustainable fulfilment of the Maastricht criteria and maximisation of the ensuing various benefits. These reforms are desirable independent of the effective date of adoption, given the necessity to restore fiscal discipline, maintain price stability and ensure a balanced growth going forward. However, they are even more essential in the run up to euro adoption as the process of real and nominal convergence remains largely incomplete, which requires a substantial strengthening of alternative adjustment mechanisms to domestic interest- and exchange-rate changes. The reforms should aim to: create strong institutions to ensure fiscal sustainability and an efficient counter-cyclical rules-based fiscal policy supported by an independent fiscal council; promote flexibility in labour and product markets; and head off the risk of a boom-bust cycle triggered by much lower real interest rates, too rapid credit expansion and overblown perceived permanent income gains. The timing of euro adoption should therefore be determined by the speed of the implementation of reforms; otherwise the outcome of early membership without appropriate preparation may turn out to be difficult and risky. Yet, provided that adequate reforms are implemented, euro adoption should speed up the convergence process.

There are numerous benefits stemming from membership in the euro area as the adoption of the single currency will notably lead to an elimination of exchange-rate risk, lower transactions costs and reduced domestic interest rates. The resulting boost in trade and financial integration, stronger competition, improved confidence and higher investment rate are all likely to increase economic growth and enhance the convergence in living standards. However, reaping all the benefits should not be seen by the authorities as automatic, as their extent will essentially depend on the implementation of structural reforms that are needed to best prepare the economy for this move. Reforms are necessary for various reasons. *First,* joining the euro area is conditional on meeting formal (Maastricht) convergence criteria. A purely indicative – at a single point in time and for illustrative purposes only – assessment suggests that Poland does not satisfy three out of four nominal convergence criteria at the time of writing (Table 2.1), namely those on price stability, the government financial position and exchange-rate stability. Only the long-term interest rate criterion is satisfied, though the latter indicator is only slightly below the maximum allowed limit for the latest available observation. However, fulfilment of some legal requirements is not ensured as well. *Second,* European institutions may put a greater emphasis on the sustainability with which the Maastricht criteria are met than heretofore, which requires compliance with them in a credible way. *Third,* the adoption of the euro implies abandoning an autonomous monetary and exchange-rate policy. This can prove to be particularly challenging if the process of real and nominal convergence is unfinished and when the exchange rate has played an offsetting role so far. *Fourth,* once the euro is adopted the incentive for structural reforms may be lessened, for instance due to reduced fiscal discipline (notably because of lower public debt servicing costs) or relaxed constraints on financing current account deficits. In any case, supportive structural

Table 2.1. **Indicative extent of fulfilment of formal nominal convergence criteria**

Per cent

	Reference value	Effective value
Fiscal criterion		
General government deficit[1] (2009)	3.0	7.2 (EDP)[2]
Public debt[1] (2009)	60	50.7
Exchange-rate stability in the ERM II	Central parity rate +/–15%	Not member of the ERM II
Inflation (December 2009)[3]	1.6	4.0
Long-term interest rate (December 2009)[4]	6.2	6.1

1. As a share of GDP.
2. EDP – Excessive Deficit Procedure since July 2009. At the time of the examination by the European institutions, the existence of an EDP is verified in the first place when assessing the fiscal criterion.
3. The inflation criterion stipulates that the 12-month average HICP inflation cannot exceed by more than 1.5 percentage points the reference value of the three best-performing EU27 member states with the most stable prices.
4. The interest rate criterion stipulates that the 12-month average of 10-year government interest rate cannot exceed by more than 2 percentage points the average of such interest rates in the three best-performing EU27 member states with the most stable prices.

Source: Based on Ministry of Finance estimates, "Monitor konwergencji nominalnej" and "Convergence Programme. 2009 Update", February 2010.

policies are desirable on their own, independent of the objective of joining the euro area, given the need to consolidate public finances, maintain price stability and ensure high potential growth. They are also all the more necessary should the demand-enhancing impact of EU transfers overlap with falling interest rates in the run-up to the euro area. The contribution of the authorities toward rising public and political awareness about the need for structural reforms in Poland (NBP, 2009b; Chancellery of the Prime Minister, 2009) creates fertile ground for implementation.

The main issues that need to be tackled to adopt the euro are as follows. The *first* priority is to implement a credible fiscal consolidation in order to meet the fiscal criterion, contain the rise in general government debt as discussed in Chapter 1 and, at the same time, prepare for an efficient stabilisation of the economy once it is in the euro area. The *second* issue is to improve the working of labour and product markets to promote smooth adjustment to shocks and efficient use of resources. The *third* priority is to adopt measures that will head off the risk of a lending boom fuelled by much lower real interest rates stemming from the combination of lower nominal interest rates in the euro area and higher domestic inflation, greater financing available to the private sector and potentially overly optimistic perceptions of sustainable income. The experience of some euro area countries (Portugal, Ireland and Spain) or countries participating in ERM II (Estonia, Latvia and Lithuania) shows how a boom-bust cycle can develop. The authorities should focus on these objectives, which will best prepare the economy for membership in the euro area and maximise related benefits, rather than concentrating the public's attention on a specific entry date as a key issue for membership.

Avoid setting another official entry date at this stage

The issue of euro adoption in Poland became a high priority in the policy agenda of the current government following the announcement in October 2008 of the official target date of 2012. This marked a clear break with past practice, as the authorities had never formally committed to a specific date. It also represented a major policy change of the current government, which did not appear to make rapid membership in the euro area a key policy priority when it was formed in mid-November 2007. When taking up power, the current government emphasised the need to prepare the economy and create conditions that would ensure unquestionable net benefits stemming from the adoption of the euro. However, it refused to provide any specific date and stressed that membership was beyond the reach of a single parliamentary term (four years). At the end of October 2008, a roadmap for Poland's euro adoption was prepared by the government; this was a document establishing a timetable with the official target date of 2012 and major actions *vis-à-vis* the European institutions to be undertaken before effective membership (Table 2.2). In April 2009, an additional document indicating the prerequisites for the implementation of the next stages of the roadmap was published, such as conditions for the ERM II entry. These notably included the objective of an ERM II membership reduced to the shortest possible length and the need to ensure the fulfilment of all formal requirements at the time of assessment by the European institutions of Poland's readiness for euro adoption.

However, by late 2008 several difficulties appeared, notably the deepening of the global financial and economic crisis, which precluded the key objective of joining ERM II in the first half of 2009 and the euro area in 2012. The lack of a broad political consensus prevented the fulfilment of some legal aspects, notably related to the need to amend the constitution (for instance, for the fact that monetary-policy and exchange-rate decisions

Table 2.2. **Main actions *vis-à-vis* the European institutions to adopt the euro**

Stage I
Prior to inclusion of the Polish zloty in the ERM II: ● Signing the Partnership Agreement with the European Union. ● Negotiations between the Ministry of Finance, the National Bank of Poland (NBP) and the EU institutions on the inclusion of Polish zloty in the ERM II. The decision on entry of a given country's currency into the ERM II mechanism is taken by the Ministers of Finance of the euro area countries, the European Central Bank (ECB) and the Ministers of Finance and presidents of central banks of the countries participating in the ERM II mechanism. The decision making itself (by way of the decision made by the ERM II Committee or the Session on ERM II) is preceded by the consultations in which the European Commission (EC) and the ECB play the main role.
Stage II
Upon entering the ERM II until the ECOFIN Council's decision on abrogation of the derogation and the subsequent introduction of the euro, the following step are necessary: ● Introduction of the Polish zloty in the ERM II exchange-rate mechanism. ● Poland has to request the EC and the ECB to prepare the convergence reports outside their normal schedule of publication (every two years), unless the EU Council's decision on abrogation of the derogation is taken directly after their regular release. ● Poland has to submit to the EC a fiscal "notification", notably indicating the levels of general government deficit and debt. ● Convergence Reports prepared by the EC and the ECB. ● Decision of the ECOFIN Council on abrogation of the derogation. ● Decision of the ECOFIN Council on establishing the irrevocable euro conversion rate for Polish zloty.
Stage III
Poland enters the euro area.

Source: Based on *The Roadmap for Poland's Euro Adoption*, Ministry of Finance, October 2008.

will be taken at the euro-area level). Although, such legal changes are not a formal requirement for joining the ERM II, their lack was perceived by the government as a risk factor that could have had negative consequences on the stability of the exchange rate. With the global crisis, the volatility of the exchange rate increased sharply, rendering ERM II entry all the more risky. More importantly, the volatility of the currency blurred the assessment of the equilibrium exchange rate at which the central parity will have to be set. The crisis also contributed to a sharp fiscal deterioration, triggering the opening of an Excessive Deficit Procedure by the European Commission in early July 2009.[1] Rapidly falling revenues highlighted the extent of the deterioration of the structural deficit in 2008 and, more generally, the lack of sufficient fiscal discipline during the boom phase of the business cycle. Finally, the combination of domestic inflationary pressures and rapid disinflation elsewhere in the EU has put a question mark on Poland's ability to meet the inflation criterion in the near term. While none of these setbacks represented a formal obstacle to joining the ERM II, it has become increasingly obvious that meeting all the convergence criteria by 2011 would be extremely challenging. These implied that the indispensable conditions of ERM II entry, set by the government in April 2009, had not been met, in particular the requirement of a high probability of fulfilment of all convergence criteria within a two-year horizon of the ERM II participation. In July 2009 the government, represented by the plenipotentiary for the euro adoption, officially postponed the timetable for joining the currency union.

The maintenance of the official date for the adoption of the euro might have helped to anchor investors' expectations in the midst of the crisis and thus have had a stabilising effect. However, failure to meet a commitment once again would have costs in terms of credibility. In fact, an empirical investigation of market expectations reveals that the publication of the budget deficit outcome for 2008 in late April 2009 had a decisive impact on market participants' views in this respect (Ministry of Finance, 2009). While the median of expectations pointed to the year 2013 just before the announcement, the market simply stopped expecting that Poland could join the euro area over the next ten years right

afterward. Moreover, the in-depth report by the central bank on the participation of Poland in the third stage of the EMU published in mid-February 2009 (NBP, 2009a) also clearly signalled the risks of joining the ERM II and the difficulty in meeting the Maastricht criteria in the context of the global downturn.

The main implication of these events is that the government should be very careful when providing any new date and implement structural reforms that will allow Poland to credibly fulfil all Maastricht criteria by the date of assessment by the European institutions. Setting another adoption date prematurely risks damaging the authorities' reputation. To strengthen the credibility of its integration strategy, the government has decided not to set a new official target date while confirming its commitment to adopt the euro as soon as possible. However, frequent comments by top officials as to when the currency could join the ERM II system and/or nominal convergence criteria could be met unnecessarily attract the public's and market's attention to a specific entry date. Instead of focusing on the date as such, a better strategy is to concentrate for the time being on implementing policies to ensure sustainable convergence in the perspective of membership. Establishing a checklist of reforms that have to be implemented prior to joining the euro area in order to fulfil the Maastricht criteria in a sustainable way and best prepare for the adoption of the single currency would be helpful and welcome. The set of recommendations presented in Box 2.3 are those that are the most needed. Put differently, the timing of euro adoption should be determined by the speed of implementation of the reforms that will best prepare the economy for it.

To begin to prepare the Polish economy for the introduction of the single currency, an organisational structure was established for that purpose by a government decree in November 2009. In its current setup it comprises: a National Co-ordination Committee for Euro Changeover, a Co-ordinating Council and eight Working Committees. The Co-ordination Committee and the Council are chaired by the Government Plenipotentiary for Euro Adoption and co-chaired by the Plenipotentiary of the NBP's Management Board. The aim is to take all the steps that are feasible without a target date so as to achieve a high degree of preparation when conditions for euro adoption improve.

Highlighting the benefits and costs of euro adoption

After having judged in 2004 that the balance of costs and benefits of euro adoption would be positive, and recommending joining the euro area as quickly as possible, the central bank published a second, much more comprehensive report on the same issue in 2009 (NBP, 2004 and 2009a). The latter stresses that the benefits of euro adoption would outweigh the costs, although the timing of euro-area entry and conditionality of the long-term net benefits upon the actions taken on the road to the euro area may constitute an important factor. Yet, in the context of the economic crisis, the report assessed that in the short term the benefits of reduced transaction costs and currency risk would be coupled with the risk of an ECB monetary policy being sub-optimal for the Polish economy, while indirect benefits could appear only in the medium term. At the same time, the Monetary Policy Council continuously expressed the view (in its press releases in 2009) that Poland should join the ERM II and the euro area at the earliest possible date, once all legal requirements are fulfilled. Joining a currency union involves many theoretical and empirical considerations (Wojcik, 2008). More specifically, various benefits and costs can be expected from membership (Box 2.1). The benefits are linked to: an elimination of transactions costs; disappearance of exchange-rate risk; enhanced macroeconomic stability and lower country risk; higher investment rate; growth of foreign trade;

Box 2.1. **Benefits and costs of euro adoption**

The various costs and benefits associated with euro adoption can be closely intertwined. The **main benefits** of euro adoption are:

- *Elimination of transactions costs*. Joining the monetary union eliminates the transactions costs linked to the PLN/EUR exchange rate incurred by enterprises and households. These cost savings include financial commitments (bid-ask spreads between the two currencies and fees charged for currency conversions) and in-house administrative expenses borne by firms (linked to the use of human and capital resources necessary to carry out foreign-exchange operations).
- *Elimination of exchange-rate risk*. The uncertainty related to the value of the PLN/EUR exchange rate vanishes with the adoption of the single currency. This cancels the related exchange-rate risk premium in domestic interest rates and allows a removal of the costs of managing currency risk, which should improve business conditions and investment planning as well as facilitate an optimum use of available resources, notably in the trade and financial sectors.
- *Enhanced macroeconomic stability and lower country risk*. The adoption of the single currency eliminates the risk of a currency crisis, which is conducive to a lower macroeconomic risk of the country, translating into a reduced default-risk premium in domestic interest rates as well as higher foreign and domestic investors' confidence.
- *Higher investment rate*. Reduced transactions costs, the elimination of exchange-rate risk and the reduction in the risk of default lower the cost of capital which, along with an improved macroeconomic stability and comparability of prices, favours domestic and inward direct investment (FDI) and thus results in a higher investment rate in the economy. A country adopting the single currency also gains easier access to the euro-area capital market. The increase in the capital stock may strengthen labour productivity and potential growth, while the inflow of new technologies accompanying FDI is likely to speed up the convergence to the technological frontier. Increased domestic and foreign direct investment is also likely to result in enhanced exports.
- *Growth of foreign trade*. The combination of lower transaction costs, removal of exchange-rate risk, a more stable macroeconomic framework and increased price transparency should stimulate foreign trade. This can lead to a stronger trade specialisation and increased economies of scale in production, implying greater productivity gains and higher investment. However, the degree of SME-sector competitiveness and innovativeness may condition the extent of benefits stemming from increased international trade linkages.
- *Integration of financial markets*. Euro adoption enhances the integration of domestic financial markets with those of the euro area. This should encourage the development of the Polish capital market, increase risk sharing, improve access to the deep financial markets in the euro area and induce a lower liquidity-risk premium in domestic interest rates.
- *Stronger competition*. The use of the common currency enhances the comparability of prices across euro-area markets. The latter stimulates competition between enterprises, which can be conducive to lower mark-ups, higher efficiency in the allocation of capital and labour and stronger innovation.

Box 2.1. **Benefits and costs of euro adoption** *(cont.)*

The **main costs** of euro adoption are:

- *The one-time costs of currency changeover.* These include the need to modify IT, accounting and reporting systems, adapt ATMs, train personnel and business representatives, launch information campaigns for the citizenry, mint coins and print banknotes.
- *The risk of rounding up prices*. With insufficient policies to promote competition in product markets and price transparency, practices consisting in rounding up prices at the time of changeover can lead to a one-off adjustment in prices and related temporary inflation blip, hence lowering the public's support for the euro.
- *The cost of giving up an autonomous monetary and exchange-rate policy.* Although a new member country gains some influence on the decision process of the ECB, the inability to use interest rates and the exchange rate for macroeconomic stabilisation purposes, especially in the case of asymmetric shocks, can lead, all else equal, to higher output, employment and price variability. This cost is higher when the exchange rate has been a shock-absorbing rather than a shock-propagating instrument. Moreover, given the long-term commitment to membership, any subsequent hypothetical withdrawal from the EMU could lead to unpredictable costs.
- *The risk of choosing an inappropriate central parity rate in the ERM II and conversion rate in the EMU for the PLN/EUR exchange rate.* While a currency belonging to a fixed exchange-rate system can be subject to speculative attacks, failing to set the central parity rate at an equilibrium value could also trigger excessive short-term capital flows and exchange-rate volatility, potentially inconsistent with the required stability of the latter. This difficulty is all the more significant as the real equilibrium exchange rate is bound to appreciate in catching up countries. So far, European institutions have shown more tolerance for appreciations than depreciations (allowing for re-evaluations), but there is a risk of excessive nominal appreciation. An overvalued conversion rate when joining the EMU could adversely affect competitiveness and the pace of income catch-up, against an increase in inflation and inflation expectations in the case of an undervaluation.
- *The risk of failing to meet the nominal convergence criteria*. With a fixed exchange rate, price-level convergence in Poland can occur only through higher structural inflation (compared with advanced economies), which could create inconsistency with the inflation criterion. Even in the case of supportive structural measures smoothing the price-convergence process, this may require an overly tight policy mix. Moreover, higher public investment needs and larger cyclical swings than in developed economies, all else equal, lead to larger budget deficits and hence stronger consolidation efforts to comply with the fiscal criterion.
- *The risk of experiencing a boom-bust cycle.* A faster trend growth implies that the real interest rate needed to stabilise output and inflation is higher in catching up than in developed countries. With unfinished convergence, membership in the euro area would induce lower nominal interest rates and higher structural inflation, and hence push real interest rates in Poland below the natural (equilibrium) level. A too low cost of capital could lead to its misallocation (housing and/or consumption boom), undermine the stability of the financial sector (excessive risk taking and borrowing) and worsen competitiveness (real-exchange rate overvaluation). This is all the more likely if the absorption capacity of "productive" investments is low. The ensuing bust would lead to a costly adjustment process to restore healthy economic fundamentals.
- *The risk that alternative adjustment mechanisms do not allow for an efficient offsetting of shocks.* This includes the ineffectiveness of fiscal policy, insufficient inter-sectoral and/or international capital and labour mobility and the existence of rigid wages and prices.

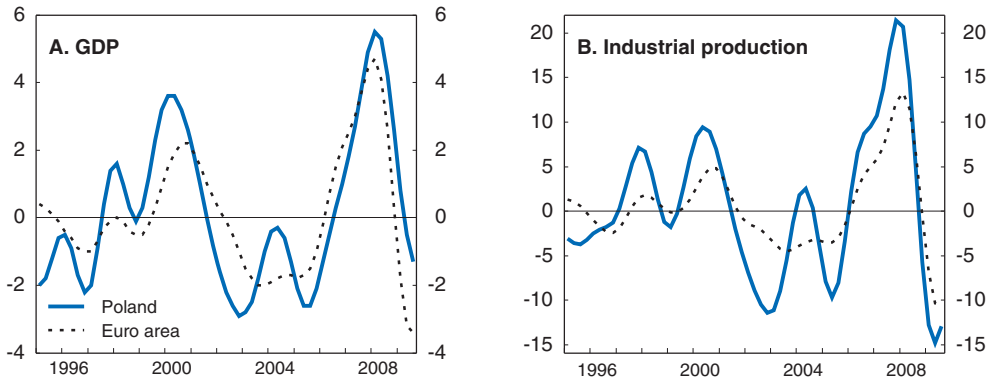
integration of financial markets with attendant liquidity deepening; and stronger competition.[2] On the other hand, the costs are related to: the currency changeover; practices of rounding up prices; inability to use an autonomous monetary policy and smooth the adjustment process in the economy through the flexibility of the nominal exchange rate; and a series of risks: of choosing an inappropriate central parity rate in the ERM II and conversion rate in the EMU for the exchange rate; of failing to meet the nominal convergence criteria; of experiencing a boom-bust cycle; and that alternative adjustment mechanisms do not allow for an efficient offsetting of shocks.

According to the Optimum Currency Area (OCA) theory a key issue in considering the option of joining a monetary union is the correlation of business cycles. High co-movement of business cycles between Poland and the euro area would thus suggest a low cost of relinquishing independent interest-rate and exchange-rate instruments, and signal a reasonable suitability of a common monetary policy. However, beyond limitations of business-cycle correlations based on pre-membership data (see below), there can be uncertainty over effective correlations due to a small sample period of economic transition and the fact that it mostly covers the years of the so-called "great moderation" between 1993 and 2007 , which combined output expansion and stable inflation in leading OECD countries.

With this as background and depending on the measurement method and sample period, empirical studies identify a business-cycle correlation between Poland and the euro area that is: relatively high (Fidrmuc and Korhonen, 2006); intermediate and broadly stable (Skrzypczynski, 2008); moderately strong (Adamowicz *et al.*, 2008); or significant (Konopczak, 2008). Indeed, the estimates of cyclical components of GDP and industrial production using a band-pass filtering technique suggest a marked synchronisation of Poland's business cycle with that of the euro area (Figure 2.1). However, a more detailed analysis reveals an even higher correlation for most of the euro-area members as well as many countries not participating in the currency union, either belonging to the European

Figure 2.1. **Cyclical components of GDP and industrial production in Poland and the euro area**[1]

Percentage points, 1995Q1-2009Q3



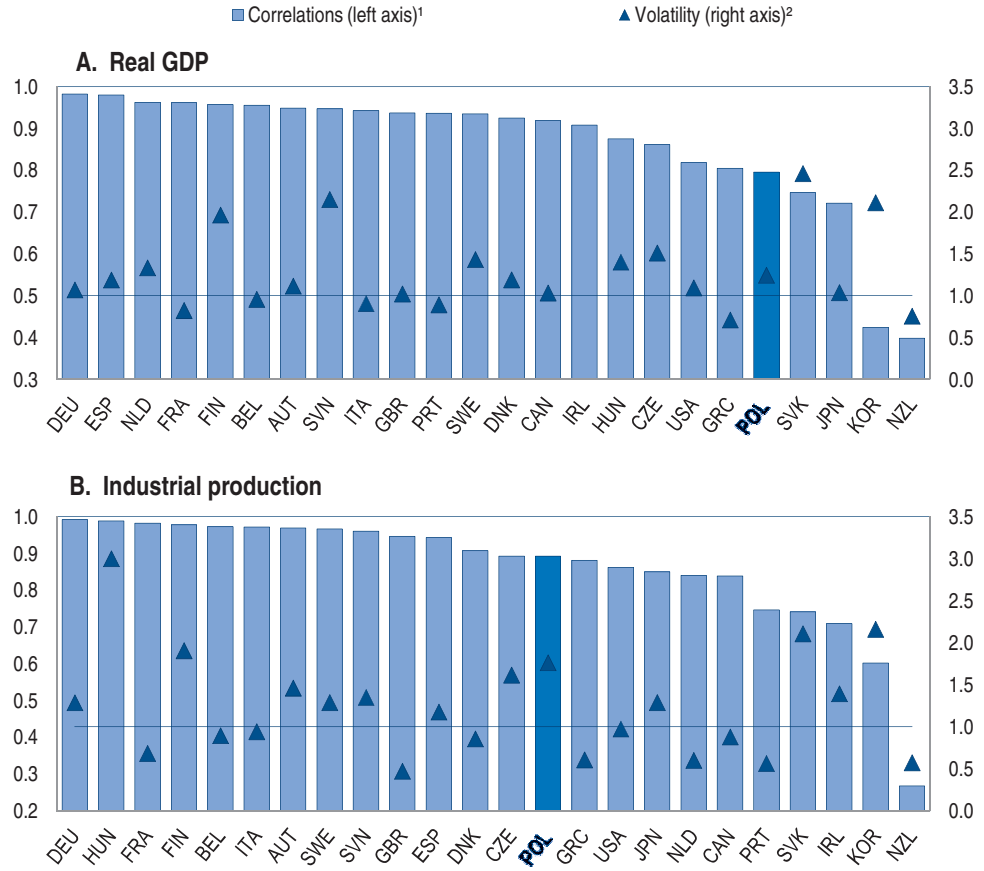
1. The cyclical components are identified using the Christiano-Fitzgerald band-pass filter with a business cycle of between 1.5 and 10 years.

Source: OECD, *Main Economic Indicators Database*.

StatLink http://dx.doi.org/10.1787/814713866823

Figure 2.2. **Correlations of business cycles *vis-à-vis* the euro area and their volatility**

1995Q1-2009Q3



1. Correlations are calculated between cyclical components identified by using the Christiano-Fitzgerald band-pass filter with a business cycle of between 1.5 and 10 years.
2. Volatility is calculated as the standard deviation of cyclical components, normalised by the standard deviation of that of the euro area (equal to 1).

Source: OECD, *Main Economic Indicators* and *OECD Economic Outlook 86 Databases*.

StatLink http://dx.doi.org/10.1787/814736766858

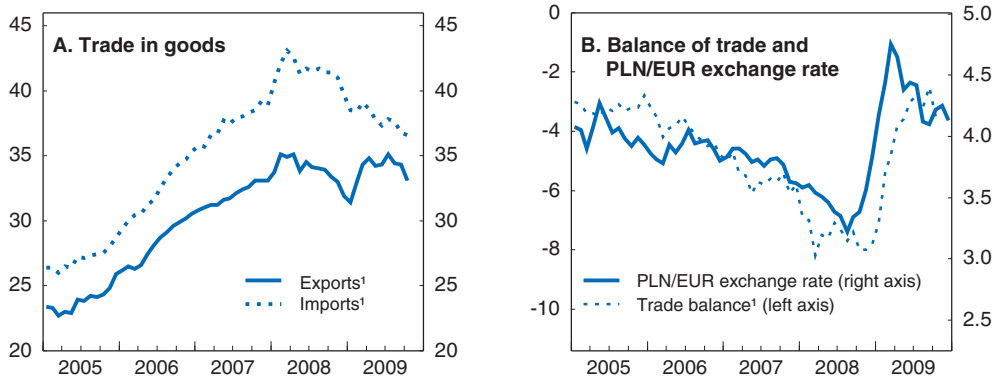
Union or not (Figure 2.2). This underlines the existence of significant economic linkages among OECD countries, but also the fact that the co-movement of business cycles cannot be used as the only criterion when assessing the ability to form a currency union. The volatility of economic cycles is another factor to consider: even if business cycles are well correlated, differences in their amplitudes may require a different interest-rate reaction. Business cycles seem to be more volatile in Poland than in the euro area (Adamowicz *et al.*, 2008; Skrzypczynski, 2008), and this is further confirmed by the higher variability of cyclical components of GDP and industrial production (Figure 2.2). Yet, when considering the former indicator, volatility in Poland seems to be less pronounced than in Slovenia, the Slovak Republic, the Netherlands, Ireland and Finland, though not relative to the largest euro-area countries (France, Germany and Italy). More generally, it appears that catching-up economies seem to exhibit higher variability of their activity even when compared to different advanced economies not participating in the EMU.

Exposure to asymmetric shocks provides an additional insight about the cost of abandoning an independent monetary and exchange-rate policy. Despite the fact that shocks hitting Poland and the euro area as a whole have been rather asymmetric so far (Konopczak, 2008; Stazka, 2008; Mikek, 2009), the estimates also reveal a significant correlation of output responses in both areas to individual shocks (Konopczak, 2008; Adamowicz *et al.*, 2008). Indeed, should an economy be hit by various asymmetric shocks, a high *ex post* synchronisation of business cycles could merely reflect a significant stabilisation role played by mitigating policy measures and/or other adjustment mechanisms such as the exchange rate. In fact, the latter has been a shock-absorbing rather than a shock-propagating instrument in Poland (Stazka, 2008; Blaszkiewicz-Schwartzman, 2008).

Recent developments highlight the stabilisation role of the currency, though with a tendency to overshoot (Figure 2.3). While the nominal appreciation of the PLN/EUR by 25% between July 2006 and July 2008 helped damp growing inflationary pressures and was concomitant with a steady deterioration of the merchandise trade balance over the same period, the subsequent intensification of the financial crisis triggered a sharp fall of the currency by as much as 34% from July 2008 to February 2009. This in turn contributed to a strong rebound of net exports, even though it added to inflation dynamics. However, the real exchange rate most probably overshot its equilibrium value in the midst of the crisis as it was estimated by the IMF to have been undervalued by around 10% in spring 2009 (IMF, 2009a). Although developments in the trade balance have been mainly driven by a large decline in imports, the depreciation of the currency has supported the recovery of exports.

Figure 2.3. **Trade balance developments and nominal bilateral exchange rate**

Billions PLN, monthly data, seasonally adjusted



1. Three-month moving average.

Source: OECD, *Main Economic Indicators Database*; Datastream.

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Going forward, there are various factors that will condition the extent of future business-cycle volatility and correlation in Poland with respect to the euro area such as differences in domestic economic structures, trade intensity and specialisation profile, and the characteristics of transmission mechanisms. While differences and similarities exist in each of these fields (Adamowicz *et al.*, 2008; Boulhol and Lequien, 2010; Grabek *et al.*, 2008), in the long run a country becomes progressively a more suitable participant in a monetary union after joining as suggested by the literature on the endogeneity of OCA criteria

initiated by Frankel and Rose (1998). Haan *et al.* (2008) report that business cycles in the euro area have gone through periods of both convergence and divergence but became more synchronised during the 1990s, notably under the influence of rising trade intensity (even though increased trade specialisation could lead to business-cycle asymmetry). A better synchronisation can be also expected to occur in Poland, though the consensus is less strong as to the timing of expected benefits (Cieslik *et al.*, 2008; Daras and Hagemejer, 2008). Overall, while the common monetary policy and fiscal policy co-ordination within the EMU is likely to ensure effective output stabilisation in Poland in the long term, the objective should be to minimise the short- and medium-term cost of foregoing an autonomous monetary and exchange-rate policy. It is therefore essential that a strong institutional setting with a sound, rules-based, counter-cyclical fiscal policy, tight financial regulation and enhanced labour- and product-market flexibility be put in place prior to the membership. This is all the more necessary as, despite significant progress, the process of real and nominal convergence is still largely unfinished.

Continuing the process of real and nominal convergence

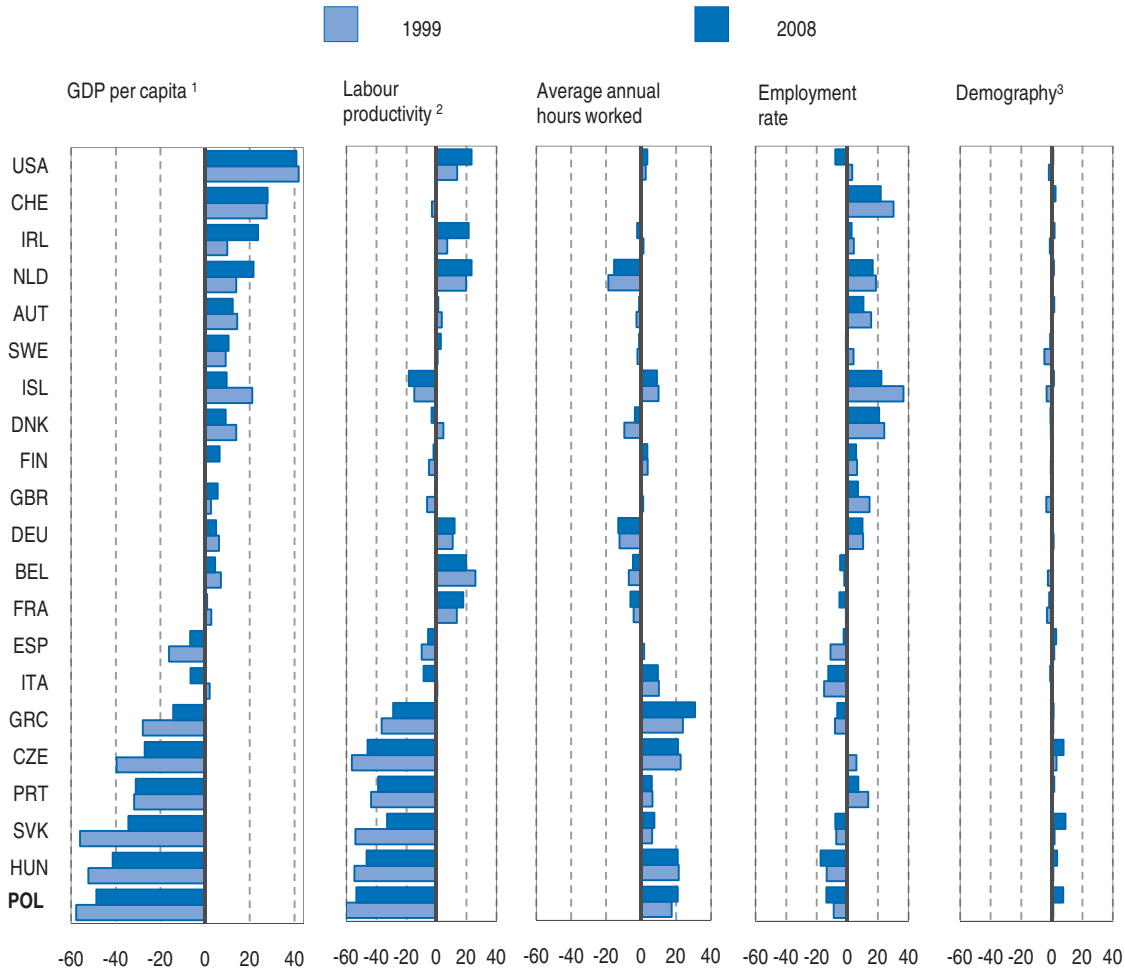
The Polish economy has made substantial progress over recent years in reducing the GDP per capita gap with the euro-area countries. With an average annual GDP growth rate of 4.2% between 1999 and 2008, as against 2.0% for the euro area over the same period, the convergence in living standards has proceeded rapidly and has been even faster since EU entry in 2004. As a result, the percentage gap in GDP per capita relative to the euro area countries shrank from 58% in 1999 to 49% in 2008 and was mainly driven by gains in labour productivity (Figure 2.4). The contribution of labour resource utilisation to income convergence has been comparatively lower, with the impact of higher average annual hours worked and a positive demographic effect partly offset by the drop in the employment rate. As the level of GDP per capita remains well below the euro-area average, measures boosting labour productivity and improving the employment rate are essential to reduce the gap in living standards with euro-area countries, notwithstanding the issue of the impact of euro-area membership on the speed of income convergence.

A salient feature of the new member states of the European Union is that while their GDP per capita is catching up to higher income levels observed elsewhere, the price level is converging as well (Figure 2.5). As richer countries are characterised by higher price levels, the price-level convergence in lower-income countries can be achieved either by the appreciation of the nominal exchange rate and/or higher domestic inflation with regard to the euro area. In the second half of the 1990s, the catch-up in prices was the result of a much higher relative inflation in Poland, while the currency was subject to persistent nominal depreciation under the crawling-band exchange-rate regime (Figure 2.6). The subsequent monetary-policy regime shift to a pure float has been marked by substantial fluctuations of the nominal exchange rate and a much lower inflation differential, leading to a depreciation of the currency in real terms between 2001 and 2004, for instance. However, the convergence in prices resumed afterwards with nominal appreciation being the key driving factor. Several implications can be drawn from these stylised facts.

First, nominal appreciation can serve to accommodate the real-nominal convergence nexus insofar as it allows a catch-up to international price levels while domestic inflation can be kept at a level consistent with price stability. Moreover, the nominal appreciation does not have a detrimental effect on competitiveness as long as it occurs at a rate reflecting the appreciation of the real equilibrium exchange rate. Various supply-based

Figure 2.4. **Progress in convergence**

Gap relative to EU12



1. Based on current purchasing power parities and current prices.
2. GDP per hour worked.
3. The share of working-age population in total population.

Source: OECD, *National Accounts*, *Productivity* and *OECD Economic Outlook 86 Databases*.

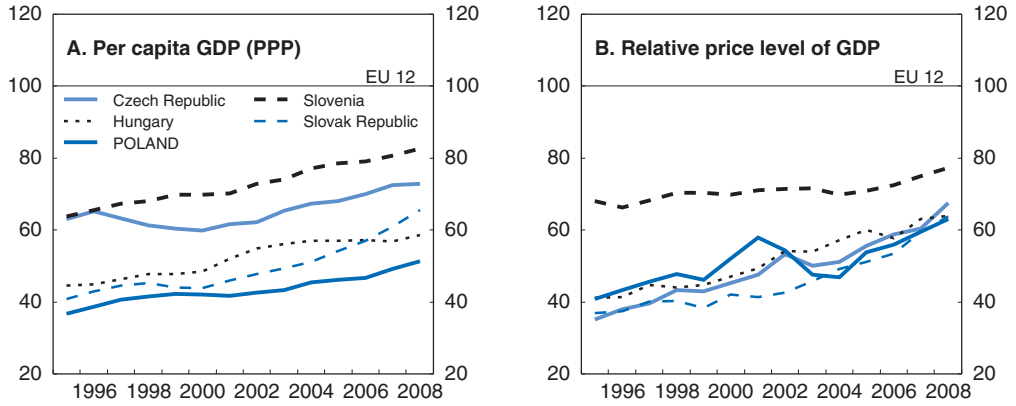
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approaches can explain why in a less mature economy, such as Poland's, the real exchange rate is bound to appreciate along an equilibrium path due to price-level convergence, even though these theories do not deliver a link between real and nominal appreciation of the exchange rate (Dobrinsky, 2006; Egert *et al.*, 2006). One of these is the Balassa-Samuelson effect, which could have accounted for 25% of the gap in headline inflation (or 0.9 percentage point per year) between Poland and the euro area over the last decade (Mihaljek and Klau, 2008).[3] Other factors underlying the appreciation of the equilibrium exchange rate in Poland include the effect of quality upgrading and hikes in regulated prices that may lag behind international averages (Egert, 2007), the latter contributing to increase headline inflation also over the recent past (see Figure 1.13 in Chapter 1).

Second, once the nominal exchange rate is fixed, price convergence can occur only through higher domestic inflation relative to the euro area. Indeed, it will no longer be possible for the trend of domestic inflation in Poland to exceed only marginally that in the

Figure 2.5. **Real and nominal convergence**

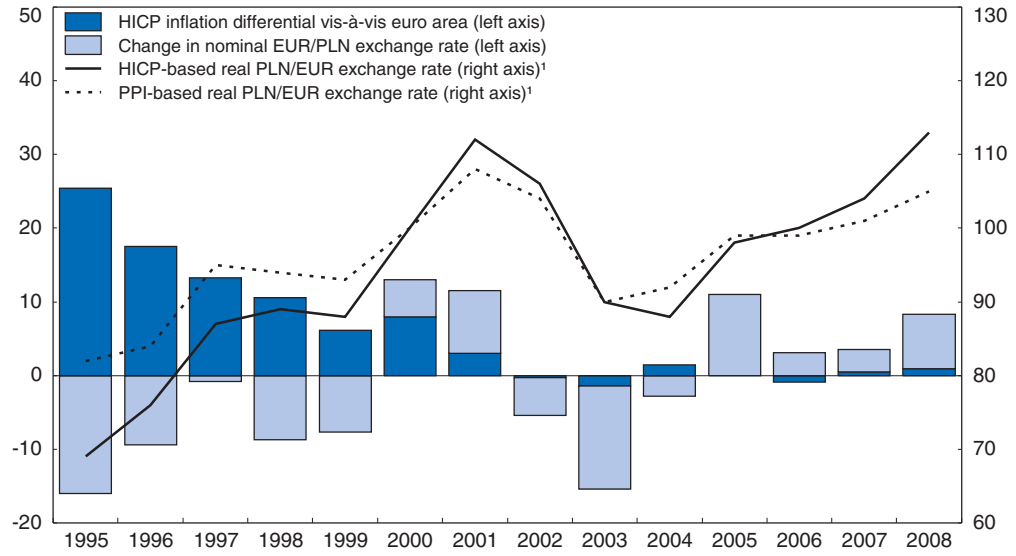
EU12 = 100



Source: Eurostat, *New Cronos Database*; OECD, *OECD Economic Outlook 86 Database*.

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Figure 2.6. **Bilateral exchange rates and the inflation differential *vis-à-vis* the euro area**



1. 2000 = 100.

Source: OECD, *OECD Economic Outlook Database*.

StatLink http://dx.doi.org/10.1787/814808664364

euro area (as for instance, it did on average in 2005-08) (Figure 2.6). Assuming 2% headline inflation in the euro-12 countries, a linear convergence of the price level towards the euro-12 level in 30 years would lead to an average inflation rate of 3.5-4% per year in Poland (Benassy-Quéré and Turkisch, 2009). This implies that inflation will remain relatively elevated in the foreseeable future and has an important bearing on the ability to fulfil the Maastricht inflation criterion. The latter stipulates that the 12-month average HICP inflation in a given country cannot exceed by more than 1.5 percentage points the inflation rate in the three best-performing EU27 member states with the most stable prices. The reference value for inflation could be even lower than 1.5% as, in practice, the exact

definition of the best performers in terms of price stability is defined by the European institutions. When excluding countries subject to deflation (a practice that has been used so far), the reference value seems to have bottomed out at 1.6% (December 2009) in the current global downturn. Moreover, the reference value can be based on inflation outcomes in countries not necessarily participating in the euro area. Achieving a low level of inflation consistent with the Maastricht criterion will therefore depend on the cyclical position of the Polish economy relative to other EU countries and, beyond structural measures, require an appropriate policy mix.

Third, a credible run-up to joining the euro area will lead to a reduction and subsequent disappearance of the exchange-rate risk premium incorporated in interest rates. The rapid convergence of nominal market interest rates toward the euro-area level, along with a structurally higher domestic inflation in Poland, will push down real interest rates.[4] This creates the related risk of triggering a boom-bust cycle, in particular when interest rates are persistently and significantly below the level that would be needed to stabilise output and inflation (Ahrend *et al.*, 2008).

Meeting the Maastricht criteria in a sustainable way and achieving a smooth convergence within the euro area

Achieving sound fiscal policy is a major pre-requisite for respecting the Maastricht criteria. The consolidation of public finances would lower inflation pressure, contribute to reducing the volatility of the currency and favour the convergence of interest rates, while offsetting their expansionary impact on activity at the same time. In terms of implementation, the reduction of the structural deficit backed by the strengthening of the fiscal framework could be phased in gradually. While there is a growing experience with fiscal rules in OECD countries, cross-country empirical evidence suggests that countries which adopt them are able to sustain longer lasting fiscal consolidation (Guichard *et al.*, 2007a; OECD, 2007b, 2009a, b). This would help to create an environment propitious for fulfilling all Maastricht criteria over an extended period of time and, in that sense, be consistent with the notion of sustainability on which emphasis may be put by the EU institutions when assessing Poland's performance in meeting the criteria. Reducing the structural deficit would also reinforce the ability to adjust to asymmetric shocks once Poland becomes a member of the euro area. Reforms in the run-up to euro adoption aimed at increasing labour-market flexibility and labour supply, boosting productivity gains in the non-tradables sector and promoting competition in the product market more generally would also help to achieve the Maastricht criterion on inflation. The speed of financial deepening could be better handled by the implementation of strong macro-prudential regulation. However, such structural transformations are necessary notwithstanding the issue of euro adoption given the need to restore fiscal discipline, keep inflationary pressures in check, make the most of EU funds and ensure balanced growth going forward.

Building a rules-based counter-cyclical fiscal policy

Significantly improving the fiscal position and the efficiency of fiscal institutions is a major policy challenge for the authorities in the perspective of euro-area membership. Under the Excessive Deficit Procedure started in July 2009, the ECOFIN Council recommended that Poland correct its general government deficit by lowering its value to below 3% of GDP by the end of 2012. This, in principle, would also satisfy the corresponding Maastricht criterion. However, as the latter is also assessed by European institutions in terms of sustainability, the

government should not rely on revenues stemming from a possible demand-induced turnaround in the output gap to comply with it. Indeed, even though the focus in Poland is concentrated mainly on the state budget, the general government deficit has systematically exceeded 3% of GDP, except in 1999 and 2007, while the debt-to-GDP ratio is projected to rapidly expand toward the 60% Maastricht ceiling. Therefore, credible compliance with the fiscal criterion is a key policy challenge.

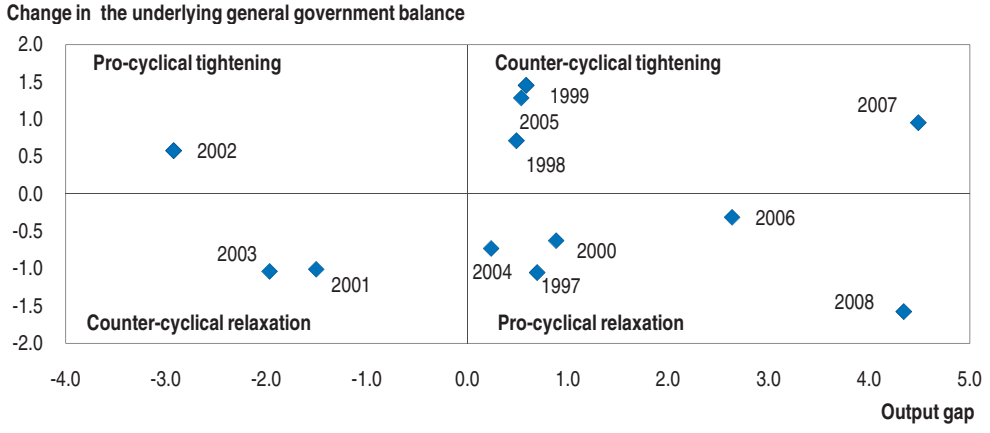
Public finances in Poland are subject to different domestic rules. Since 2006, the authorities informally followed a rule of not allowing the state budget deficit to exceed PLN 30 billion (an amount that represented 3% of GDP in 2006 and 2.3% of GDP in 2009), even though effective targets could have been lower. However, this implicit rule will not be respected in 2010 and has several drawbacks anyway, as discussed below. Additionally, the amount of local-authority debt cannot legally exceed 60 per cent of revenues. Moreover, Poland is unique among the new EU member states in that it also has a rule on the debt-to-GDP ratio, enshrined in the constitution, requiring that it never surpass 60% of GDP. However, that definition of the public debt is not fully consistent with that applied by Eurostat, although both measures led to an almost identical figure in 2006, 2007 and 2008. The major difference is that the debt of the National Road Fund is not included in the national definition, which might create a perverse incentive to get around the constitutional ceiling and intermediate thresholds. Indeed, debt issuance by the Fund to carry out investment projects was intensified in 2009 and the Fund's debt is expected to exceed 2% of GDP by end-2010. This not only undermines the credibility of the constitutional rule, but can lead to confusion. Therefore, for the sake of transparency and good practice, the exclusion of the debt of the National Road Fund in the definition of the public debt should be abolished, and the national definition made strictly compliant with its EU counterpart.

Two intermediate debt thresholds at 50% and 55% have been defined in the Public Finance Act to prevent the 60% ratio from being breached, each of them progressively more binding.[5] Thus, if the public debt exceeds 50% of GDP in year x, the state budget deficit for the following year (x + 2) cannot be larger as a share of total revenues than in the current year (x + 1). If public debt exceeds 55% in year x, this triggers more stringent measures: the state budget deficit must be reduced to zero for the following year (x + 2) or set at a level that ensures that the debt-to-GDP ratio will not exceed the level reached in year x. As a consequence, and laid out in the Act, wages in the public sector cannot be increased, the indexation of pensions is limited to inflation in the current year (x + 1), no new loans and credits can be granted from the state budget and expenditure increases in key budgetary units (Offices of the Parliament, Senate, President, etc.) cannot be higher than in the central administration. There are also restraints on the level of deficit for the subnational governments, with allowed increases in expenditure mainly resulting from the co-financing of EU-related projects. Finally, if nonetheless the public debt breaches 60% of GDP, radical measures have to be undertaken: the government has one month to submit to Parliament an economic programme to lower the debt-to-GDP ratio to below 60%, all automatic consolidation measures at the central government level at above the 55% threshold apply, but also the proposed local budgets have to be balanced for the next year (x + 2) and public finance entities cannot issue new guarantees. The public debt may have exceeded the 50% threshold in 2009; it may well surpass 55% in 2010 and, if no consolidation measures are introduced, breach the constitutional limit of 60% of GDP in 2011 or 2012 according to different projections (see Table 1.2 in Chapter 1).

Poland has a solid (though not yet tested) framework to prevent excessive growth in the public debt-to-GDP ratio that has enabled compliance with the Maastricht Treaty so far. However, the rule might end up being pro-cyclical, given the obligation to tighten fiscal policy independently of the position in the business cycle if the constitutional threshold is in sight. To avoid this risk in the future and limit increases in the debt, the current framework should be supplemented by a stricter deficit rule. If policy had been tighter in the upturn, the government would not have been in such a difficult fiscal position during the current economic downturn, a situation common to many OECD countries. Indeed, the nominal anchor rule at PLN 30 billion on the central government deficit followed until recently has two major drawbacks (OECD, 2006). Because the ceiling concerns the state budget, it does not prevent slippage at the level of overall public finances and, worse, creates incentives to shift expenditure to other parts of the general government sector. In addition, with a ceiling set on the deficit, rather than on expenditure, it is possible to act pro-cyclically by, for example, introducing new spending during the fiscal year if revenues look set to exceed budgeted levels.[6] Even if the reduction of the tax wedge in 2007 and 2008 was a welcome reform, it occurred in the boom phase of the business cycle, which exacerbated excess-demand pressures in the economy and complicated the anti-inflationary policy of the central bank (OECD, 2008a). More generally, fiscal policy has often been pro-cyclical or insufficiently counter-cyclical as attested by changes in the underlying general government balance as compared with the output gap over the last decade (Figure 2.7).

Figure 2.7. **Cyclicality of fiscal policy, 1997-2008**

As a percentage of GDP



Source: OECD, *OECD Economic Outlook 86 Database*.

StatLink http://dx.doi.org/10.1787/814828444251

Emphasising the distinction between the structural and cyclical components of the budget balance would improve the quality of fiscal policy. Polish authorities should consider introducing a rule in terms of the structural general government balance and consistent with the medium-term objective (MTO) of the Stability and Growth Pact. The latter is currently defined as a maximum allowed structural deficit at 1% of GDP, but the authorities have failed to achieve this objective so far.[7] This rule should be inscribed in the Public Finance Act to increase its binding character (in a similar way to the precautionary thresholds of 50% and 55% on public debt), but any deviations from it should be left to the

appreciation of an independent fiscal council. Germany has recently adopted a similar fiscal rule, which imposes a ceiling in the constitution on the structural deficit at a maximum level of 0.35% of GDP for the federal government in 2016 and zero for the *länder* from 2020, with a progressive phasing in of the rule as from 2011.[8]

In Poland's case, a rule defined in terms of the (general government) budget balance would have several advantages. It would be consistent with the fiscal criterion on the budget deficit insofar as it refers to the general government (Maastricht definition) budget position and not just the state budget balance. Shifting the public's attention to the Maastricht indicator would provide a better understanding of the fiscal stance and thus, in terms of the political economy of reform, facilitate consolidation measures aimed at reducing the structural deficit in the perspective of euro-area entry. The rule would also allow for the working of the automatic stabilisers over the cycle, leaving a safety margin *vis-à-vis* the EU ceiling at 3% of GDP on the overall deficit and thus strengthening the commitment to comply with the latter on a sustainable basis. Yet, counter-cyclical discretionary fiscal policy would be possible in a downturn only if the structural balance is better than the MTO during expansion. Keeping the underlying balance at a safe distance from the MTO would be in accordance with the long-term plan of the authorities to eliminate the structural deficit by 2030 (Chancellery of the Prime Minister, 2009). Symmetrically, by not imposing any ceiling on the strong side of the target, fiscal policy could be tightened to head off the risk of a boom-bust cycle. In this respect, the fiscal council could provide a useful *ex ante* assessment as to the appropriate extent of counter-cyclicality of the fiscal stance, which would lower the political cost of consolidation measures and make their implementation easier. Finally, with an explicit target in terms of the general government balance year by year, such a rule would effectively complement the constitutional obligation to maintain the public debt below 60% of GDP and thus alleviate its pro-cyclical bias.

The efficiency of the fiscal framework could be further enhanced if the deficit target were augmented with an expenditure rule. Indeed, there is empirical evidence that budget-balance rules generally work better when combined with expenditure rules (Guichard *et al.*, 2007a; IMF, 2009b). The rule could take the form of multi-year ceilings on general government expenditure in nominal terms. Such a ceiling would allow the automatic stabilisers to operate fully on the revenue side, though they could also do so on the spending side if cyclically sensitive expenditure (in particular unemployment benefits) were excluded from the ceiling. Focusing on the general government sector would prevent expenditure being shifted to other levels of government. At the same time, a nominal rule, compared to a rule specified in volume terms, would be more counter-cyclical and transparent. In particular, the rule would be simpler, easier to monitor and more understandable for the public.

An expenditure rule was proposed in Poland in 2001: the so-called "Belka Rule" foresaw limiting real expenditure growth to 1% annually, though it referred only to the central government. It was never implemented due to insufficient political support. More recently, the authorities have started to reconsider the usefulness of an expenditure rule. At the end of January 2010 the Chancellery of the Prime Minister published a *development and public finance consolidation plan*, which advocated the adoption of two expenditure rules with the intention to reduce and subsequently stabilise the general government structural deficit at the level of the medium-term objective of 1% of GDP. *The first rule* would be temporary and prevail until the structural deficit is reduced to 1% of GDP. It would be based on limiting real

expenditure growth of the central government to 1% annually, though it would apply only to expenditure that is "discretionary", *i.e.* not determined by already enacted laws. Such expenditure represents only around 25% of central government spending and 12% of general government expenditure. Therefore, unless the authorities act energetically to reduce the "rigidity" of public expenditure and implement tighter co-ordination with other levels of the government, it is highly unlikely that the rule would bring significant savings in the foreseeable future. Indeed, no time horizon nor scenarios as to how efficient the rule would be in lowering the structural deficit from an official estimate of close to 7% of GDP in 2009 to just 1% of GDP have been provided. Moreover, the rule could also lead to insufficient spending on public investment, unless such expenditure is taken out of the central budget (as in the case of National Road Fund), thus further damaging the transparency of public finances. *The second rule* would follow with a less restrictive growth-rate ceiling, but details provided so far are scarce. It would be permanent, apply to a wide range of general government expenditure and follow the goal of stabilising the structural deficit at the MTO level. This ceiling would be linked to real GDP growth over a reference period of several years and the inflation target. The rule is intended to be counter-cyclical, though a further undefined effort could be necessary to reduce the share of public expenditure in GDP (which was around 44% in 2009) to an objective of less than 40%. More generally, it remains to be seen how such a rule would operate counter-cyclically across the full cycle, effectively ensure that the structural deficit is kept at a low level and maintain the share of expenditure in GDP at a target level all at the same time.

The recent steps of the government towards a medium-term budgeting framework offer fertile ground for the incorporation of an expenditure rule on a multi-year basis. Indeed, along with the traditional annual budget, the Ministry of Finance has started to prepare and present to the Parliament an indicative performance budget, including programme objectives, a programmatic breakdown of expenditures and key performance indicators. Moreover, the current Public Finance Act introduces multi-annual planning and performance budgeting for a period of four years as from 2010. However, such a budgetary framework might be insufficient on its own to strengthen fiscal discipline (OECD, 2009c). Despite a clear objective to reduce the public deficit over the medium term, commitments to restore budget balance can be systematically postponed, thus tarnishing the credibility of multi-year budget planning.

The operation of deficit and expenditure rules would greatly benefit from the creation of an independent fiscal council, as has recently been done in Hungary; the longer experience of the Netherlands illustrates the benefits of such an arrangement (Bos, 2008). More generally, independent fiscal bodies assessing the budget are present in about one-fifth (18%) of advanced economies (IMF, 2009b). In the case of Poland, the council could conduct regular surveillance of public finances, evaluate the budget *ex ante* and provide *ex post* evaluations of the government's performance with regard to the rules. In doing so, such an institution could create objective grounds for reforms and therefore reduce the influence of the political cycle on the fiscal stance. Indeed, four-year election cycles have an apparently strong influence on the fiscal stance and politico-economic factors seem to be at the root of persistent budget deficits in Poland (Rutkowski, 2007). Moreover, setting up such a council would overcome the main drawbacks of the rules on the general government expenditure and debt. The difficulty with a rule based on a structural balance is the lack of simplicity and transparency. Indeed, the breakdown between cyclical and structural components of the fiscal balance is subject to uncertainty and hence

measurement errors when assessing past and projecting future potential output (Koske and Pain, 2008), over and above the issue of political influence. The former problem has become even more acute with the current crisis (OECD, 2009d). Data revisions of actual output can also blur the picture of the output gap several years after the initial estimate. The fiscal council could play a key role in analysing such developments and in maintaining the credibility of the rule in the face of inevitable uncertainties. For example, should there be important revisions between initial and final estimates of the output gap published by leading forecasters, a related deviation from the rule on the structural deficit could receive a legitimate justification.

Ceilings on expenditure alone do not lead to a specific debt path as optimistic planning and slippages in revenues are possible. Therefore, the council could evaluate the *ex ante* consistency of budget assumptions *vis-à-vis* both rules and the constitutional rule on the debt-to-GDP ratio, for instance by issuing early warnings and proposing corrective measures to draft bills. The council could also allow for increased flexibility of the deficit and expenditure rules in extraordinary circumstances. If the latter force the government to violate the rules, the council could help to assess the impact of the shock on public finances and deliver an objective rationale for deviation. In order to guarantee its independence, the council should act in strict respect of the constitutional threshold on the debt-to-GDP ratio at 60%. However, the establishment of such a council would not remove control of fiscal policy from elected politicians (OECD, 2010). They would appoint its members and ensure that the new institution is accountable to them, while the parliament and the government would still determine, in a rules-based framework, the size of the public sector and the allocation of taxes and spending. The representation and independence of the council would nevertheless be strengthened if its members were appointed by a "heavy" parliamentary majority and had relatively long-term and overlapping mandates.

Meeting the other Maastricht criteria

Adopting a rules-based fiscal framework would create favourable conditions not only for credibly meeting the fiscal criterion, but also to sustainably comply with the other Maastricht requirements. The fiscal stance can play an important role in favouring exchange-rate stability in the ERM II (Beza-Bojanowska and MacDonald, 2008). More generally, an appropriate combination of monetary and fiscal positions can be helpful in order to maximise the probability of fulfilling the inflation criterion. In particular, by ensuring that the price differential with the best performing EU countries be driven as much as possible by structural factors rather than by cyclical demand-side influences, but also given the possible conflict with the process of price-level convergence.[9] Yet, the conjunction of a tight policy mix, positive market sentiment, inflows of EU funds and further appreciation of the real equilibrium exchange rate could result in a strengthening of the currency. Although it is not necessarily inconsistent with the exchange-rate criterion, it may be too rapid (*i.e.* overshoot fundamentals if it occurs at a pace exceeding the appreciation of the real equilibrium exchange rate) and may be sensitive to a speculation in the foreign-exchange market. Moreover, even if the central parity rate can be re-valued (as the examples of Greece and the Slovak Republic illustrate), an excessive appreciation of the exchange rate is undesirable insofar as it forces the central bank to proceed to unlimited intervention when the 15% maximum allowed deviation has been realised. While such interventions would be easier to conduct than in the case of

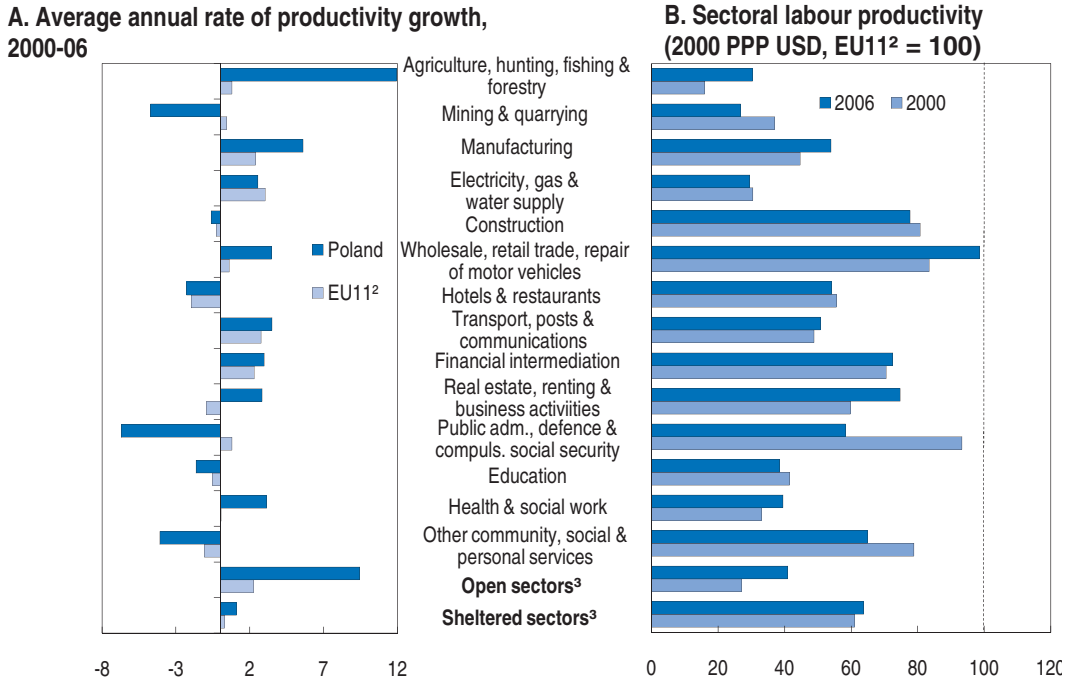
depreciation, their sterilisation through the sales of central bank bills could, once the euro is adopted, leave the banking sector awash with liquidity if such bills would have to be redeemed quickly and possibly trigger a credit boom.

Beyond demand-management policies, structural policies should also help to meet the inflation criterion. Major discrepancies in the level of regulated prices (corrected for the level of GDP per capita between Poland and the euro area) should be eliminated before Poland joins the ERM II. This is particularly true for sectors exhibiting prices at below cost-recovery levels, such as the electricity, gas and water-supply sectors (Egert, 2007). Additionally, a combination of efficient incentive-price regulation aimed at keeping costs under control, coupled with increases in retail prices would increase margins and allow for much needed investments to modernise those sectors. This is particularly true for the electricity sector whose obsolescence and vertical integration represents an obstacle to reaping all the benefits from globalisation, even though ongoing privatisation creates opportunities for improvements. More generally, measures designed to enhance the effects of inward FDI and improve export performance, notably by promoting competition in the product market (see Chapter 3), would strengthen potential output, engender lower price mark-ups and thus lead to a more price-stability-oriented environment.

Consistent with the original theoretical assumption underpinning the Balassa-Samuelson effect (Balassa, 1964), the productivity gap between Poland and the euro area in sheltered sectors is smaller than in open sectors (Figure 2.8). However, measures promoting productivity gains in the non-tradables sector would help to smooth the price-level convergence by lowering the extent of wage spillovers from tradables to non-tradables sectors. In doing so, the structural inflation differential *vis-à-vis* the euro area would be spread over a longer period of time. This is especially relevant for sectors that exhibit low productivity levels such as: electricity, gas and water supply; transport, posts and communications; education; and health and social work (Figure 2.8). Privatising and appropriately regulating utilities, upgrading the transport network and improving education efficiency should create conditions for a faster productivity convergence (Chapter 3). However, it is also critical to avoid the emergence in the boom phase of the business cycle of a kind of Dutch disease effect driven by the real estate sector or any other non-tradables sector getting oversized. In particular, this could occur if wage increases spill over from the non-traded to traded sectors and outpace productivity gains in the latter. The resulting cost-push inflation and losses in competitiveness could have detrimental effects on the ability to achieve the Maastricht inflation and exchange-rate criteria. Moreover, cost-push inflation could be reduced by refraining from increasing the minimum wage faster than the average wage in the economy (see below).

As long as other criteria are fulfilled, Poland should not encounter difficulties in meeting the reference value for long-term interest rates as well. The criterion is designed to test the durability of the price-stability process, but can be respected even if the inflation criterion is breached (as in the case of Poland illustrated throughout the second half of 2008 and in almost all of 2009). In fact, even in the midst of the financial crisis Poland managed to meet the criterion, even if only by a very thin margin. This confirms that, to some extent, progress has been made in the convergence of nominal interest rates between Poland and the euro-area average. Therefore, it is to be expected that, in the context of a credible euro-area roadmap, a combination of further capital inflows driven by expectations of membership, lower inflation and adequate policy mix should safeguard against the risk of violating the long-term interest-rate criterion.

Figure 2.8. **Sectoral labour productivity**[1]



1. Labour productivity is defined as gross value added (in constant 2000 prices) per worker.
2. Austria, Belgium, Finland, France, Germany, Greece, Italy, Luxembourg, Netherlands, Portugal and Spain.
3. The open sectors include agriculture, hunting, fishing, and forestry, mining and quarrying, and manufacturing. The remaining sectors not classified as open sectors are classified as sheltered.

Source: OECD, *National Accounts Database* and Eurostat.

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Enhancing labour-market flexibility

The ability to withstand asymmetric shocks in the euro area will hinge critically on the degree of labour-market flexibility. This includes the extent and speed with which the labour force shifts among sectors and/or geographically. The experience of some of the euro-area countries such as Portugal and Germany also reveals the significance of the competitiveness channel in order to correct an overvalued real exchange rate, which can be achieved either through higher productivity gains in tradables and non-tradables sectors and/or a downward adjustment of real and nominal wages (Blanchard, 2006). However, the greater are real or nominal rigidities, the larger the amount of unemployment necessary to re-establish competitiveness, which can translate into a protracted period of subdued growth performance.

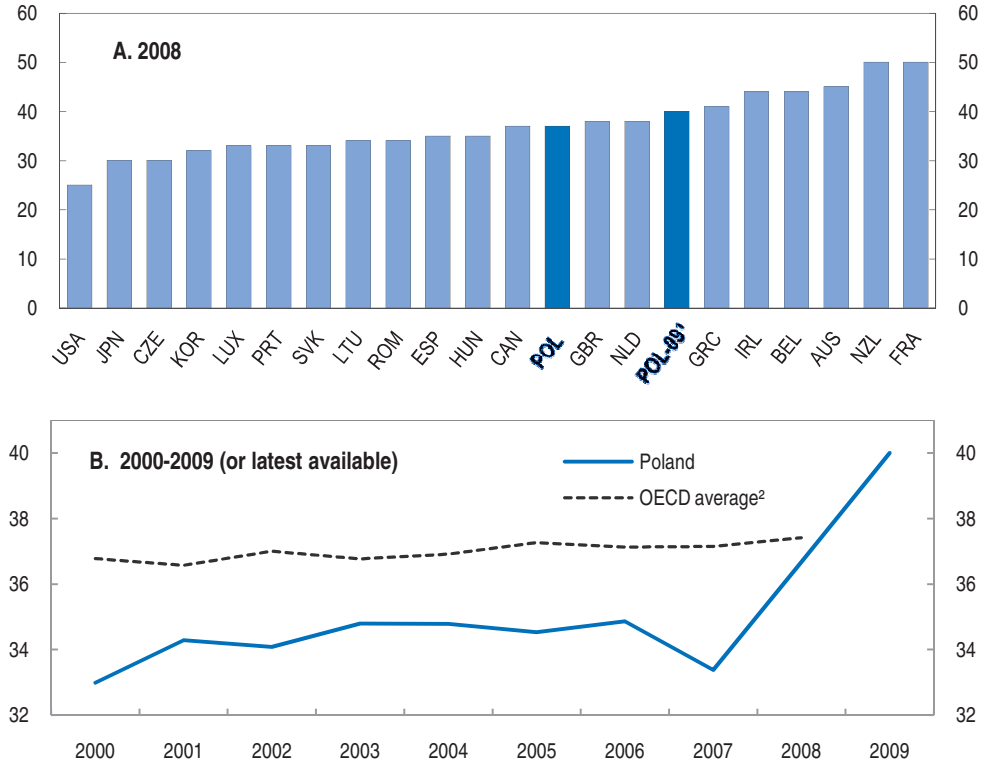
Survey studies suggest that the degree of downward nominal wage rigidity in Poland is comparable to that in the euro area on average. In Poland, only a low percentage of firms resort to nominal wage cuts due to the need to attract the most talented employees (Strzelecki, 2008). Downward nominal wage rigidity may also reflect the catching-up process (implying more leeway to reduce labour costs through productivity increases). Indeed, such rigidity does not seem to be linked to labour-market institutions and their impact on the wage-setting process. Poland has a largely decentralised (company-level) and unco-ordinated wage-bargaining system, which in many aspects is comparable to that in the United States and the United Kingdom (Du Caju *et al.*, 2008). The rate of trade-union density is low and does not exceed 25%, bargaining coverage is limited (between 30 and 40%), the

length of collective agreements is relatively short (one year), and firms have the possibility to legally avoid agreements among multiple employers in the same sector. Sectors dominated by large state-owned enterprises and sheltered from international competition (such as the energy sector) represent a major exception, with strong collective bargaining, the use of inflation expectations in the wage-setting process and high union activity.

There is also government involvement in the minimum-wage-setting process through tripartite agreements, but negotiations are ultimately imposed by the authorities if no agreement is reached. While the ratio of the minimum to the average wage hovered around 34% between 2000 and 2007, substantial discretionary increases in 2008 and 2009 (respectively by 20.3 and 13.3%) lifted the ratio to 40% (Figure 2.9). This also represented a major increase relative to other OECD countries. Yet, the authorities recognised the severe impact of the crisis when setting the 2010 increase at only 3.2%. More generally, an annual indexation rule introduced in 2002 and amended in 2005 aims at compensating for expected inflation developments. The law also stipulates that if the minimum wage is lower than half of the average wage (50% rule), it is additionally increased by two-thirds of the projected real GDP growth. Negotiations within a tripartite commission can lead to large hikes, with a view to meeting the 50% rule. This rule should be abandoned as, by increasing wage rigidity, further hikes in the ratio of minimum to average wage can have detrimental effects on various dimensions of the economy. In particular, they would not

Figure 2.9. **Minimum wage to average wage ratio**

Per cent



1. Projection.
2. Simple average, excluding countries with no nationally applicable minimum wage (Austria, Denmark, Finland, Germany, Iceland, Italy, Norway, Sweden, Switzerland) and incomplete datasets (Mexico and Turkey).

Source: OECD, *Labour Statistics Database*; Ministry of Labour and Social Policy.

StatLink http://dx.doi.org/10.1787/814876210410

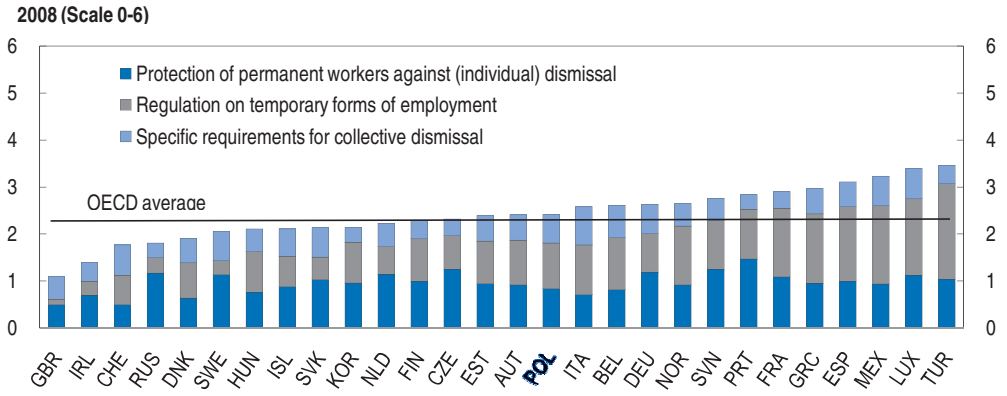
only weigh on employment levels, but might also affect the ability to meet the inflation criterion and improve competitiveness, should there be a need to adjust to a significantly overvalued real exchange rate.

The minimum wage exceeds the reservation wage of many unskilled workers. According to the Labour Force Survey, a third of the unemployed were willing to work for less than the legal floor in 2008, compared to only 11% in 2007. A high minimum wage discourages labour demand for youth and unskilled workers when it is not commensurate with their productivity levels and may promote informal employment. These risks are particularly acute in the case of Poland, given the combination of high youth unemployment (17.3% *vs.* 7.2% for the total unemployment rate in 2008), a large share of the workforce with low skills, strong disparities in regional unemployment rates and a low degree of internal labour mobility related to weaknesses in housing and transport infrastructure (OECD, 2008a). The authorities might consider introducing heterogeneity in the level of the legally imposed nominal minimum wage by differentiating it on a regional basis, as is the case in Canada and the United States. In particular, the differentiation should explicitly take into account conditions on local labour markets.

The restrictiveness of employment protection legislation in Poland is assessed to be close to the OECD average and less stringent than in the largest euro-area countries (Figure 2.10). It is nevertheless tighter than in Ireland and the United Kingdom and regional peers of Hungary, the Slovak and Czech Republics. Moreover, the average stringency of regulation has increased since 2003 as welcome changes in regulation of collective dismissals (reduction of notification periods by more than half) were more than offset by a tightening in legislation of temporary contracts (the introduction of a limit of two successive fixed-term contracts, to conform with EU policies when joining in 2004) (Venn, 2009). Furthermore, while in most other OECD countries there is no notice period during the trial period, there is such protection in Poland (not captured by the EPL index). However, labour legislation has been temporarily relaxed (until end-2011) as part of the anti-crisis package of the government. Net benefit replacement rates for prime-age individuals were very low in 2007, only some 16% on average over a spell of joblessness lasting five years (42% in the first year, 16% in the second and 8% in the remaining three

Figure 2.10. **Employment protection in a selection of OECD and non-OECD countries**

Scale from 0 (least restrictions) to 6 (most restrictions), 2008[1]



1. 2009 for France and Portugal.

Source: OECD, *Indicators of Employment Protection.*

StatLink http://dx.doi.org/10.1787/814888168156

years), compared to 45% in France and Germany, and a median of 28% for OECD countries (OECD, 2009e). While the automatic stabilisers could be made more powerful by raising low unemployment benefit replacement rates, the gap in safety nets is nevertheless much less pronounced once other components related to housing and social assistance benefits are included. Indeed, in that case net replacement rates in 2007 were 52% in Poland as against 63% in Germany, and 60% in France and the median OECD country.

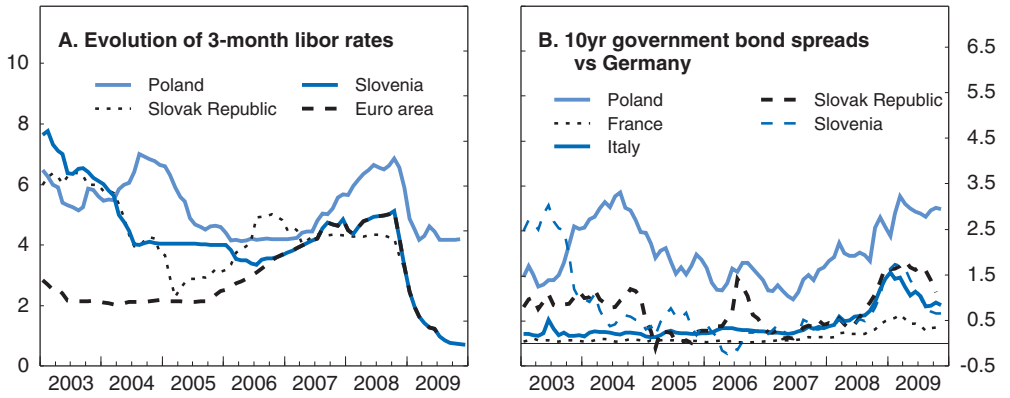
A major challenge for the authorities to ensure real convergence is to increase labour supply. The participation rate of around 64% compared to the euro-area average of 71.5% was one of the lowest among the EU member countries. The gap is particularly high in the group of older workers (aged between 55 and 64), with only a third working in Poland *vs.* 47% in the euro area. Poland is also confronted with the problem of a low and decreasing labour supply of women, with a 7 percentage points gap relative to the euro area for prime-age workers and 16 percentage points regarding older women. While the access to pre-retirement benefits and disability pensions was largely unrestricted in the 1990s, eligibility conditions have been tightened subsequently along with the creation of programmes targeted at older workers. Yet the pension reform has to be continued and the legal retirement age further increased. Other steps to enhance the labour supply of women would include the creation of additional nurseries and kindergartens, but also of nursing and retirement homes for older generations, the lack of which forces many women to retire so as to care for elderly parents. Finally, measures aimed at promoting inflows of foreign workers and return migration would also support higher labour utilisation and thus contribute to smoothing the process of convergence of GDP per capita and the price level. In particular, while cross-border emigration has been high and could represent an important channel of adjustment in the face of asymmetric shocks down the road, return migration seems to have been very limited so far despite Poland's relatively better economic performance in recent years.

Heading off the risk of a boom-bust cycle

The convergence of interest rates would provide an important benefit for the Polish economy, likely to spur gross investment, potential growth and the convergence of GDP per capita. Adopting the euro should generate a significant reduction in long-term interest rates as exchange-rate-risk vanishes. With enhanced macroeconomic credibility and financial-market integration, the liquidity and sovereign components of the overall risk premium can be expected to diminish as well (NBP, 2009a). In late 2009, the spread between short-term interbank (3 months) and long-term government (10 years) interest rates in Poland and Germany amounted to around 350 and 300 basis points, respectively (Figure 2.11). The reduction in nominal interest rates that should start even before Poland joins the euro area will represent a significant expansionary impulse for the economy and will be accompanied by an even sharper drop in real interest rates stemming from the positive inflation differential relative to the euro area due to price-level convergence.

While the reduction in interest rates creates significant benefits by encouraging investment, it does represent a concern for macroeconomic stability as well. The risk is related to the structural inadequacy between the level of real interest rates required by economic fundamentals and the one that will actually prevail. More specifically, with euro-area membership the real interest rate might drop below its natural domestic level, *i.e.* the rate stabilising inflation and keeping output at potential. This equilibrium rate can be influenced by various factors, but most likely exceeds the euro-area benchmark notably

Figure 2.11. **Short- and long-term interest rates**
Per cent



Source: OECD, *OECD Economic Outlook 86 Database*.

StatLink http://dx.doi.org/10.1787/815013478448

because the marginal productivity of capital is higher in Poland.[10] Indeed, the natural real policy interest rate is estimated to be around 2% in the euro area, while it might be closer to 4% in Poland (NBP, 2009a). In accordance with the golden rule (under which the natural real interest rate is equal to the long-run real GDP growth rate) and under a plausible scenario, this gap could persist over a relatively lengthy period. Indeed, assuming a linear convergence in GDP per capita to the euro-12 level in 30 years, this corresponds to a long-run GDP growth rate of almost 4% in Poland *vs.* 2% for the most affluent euro-area countries for the period 2006-36 (Benassy-Quéré and Turkisch, 2009). Therefore, while the natural interest rate will converge to the euro-area level in the long term, in the short and medium terms the Polish economy will be exposed to the risk of a boom-bust cycle.

Assuming that a spread of around 350 basis and 220 basis points in market short-term and long-term interest rates prevails respectively for an output gap close to zero (a scenario that occurred in 2004-05) and considering that the inflation differential could amount to 1.5-2 percentage points once the euro is adopted (Benassy-Quéré and Turkisch, 2009), this would imply that the drop in real interest rates could be as large as in the case of Spain and Ireland. Indeed, while the average real short-term and long-term interest rates were around 5.0% in Ireland and Spain over the period 1991-98, short-term rates fell to almost zero and long-term rates settled slightly above 1% between 1999 and 2008 (Table 2.3). In comparison, short- and long-term interest rates in Germany declined only by around

Table 2.3. **Decline in interest rates in Ireland, Spain and Germany**

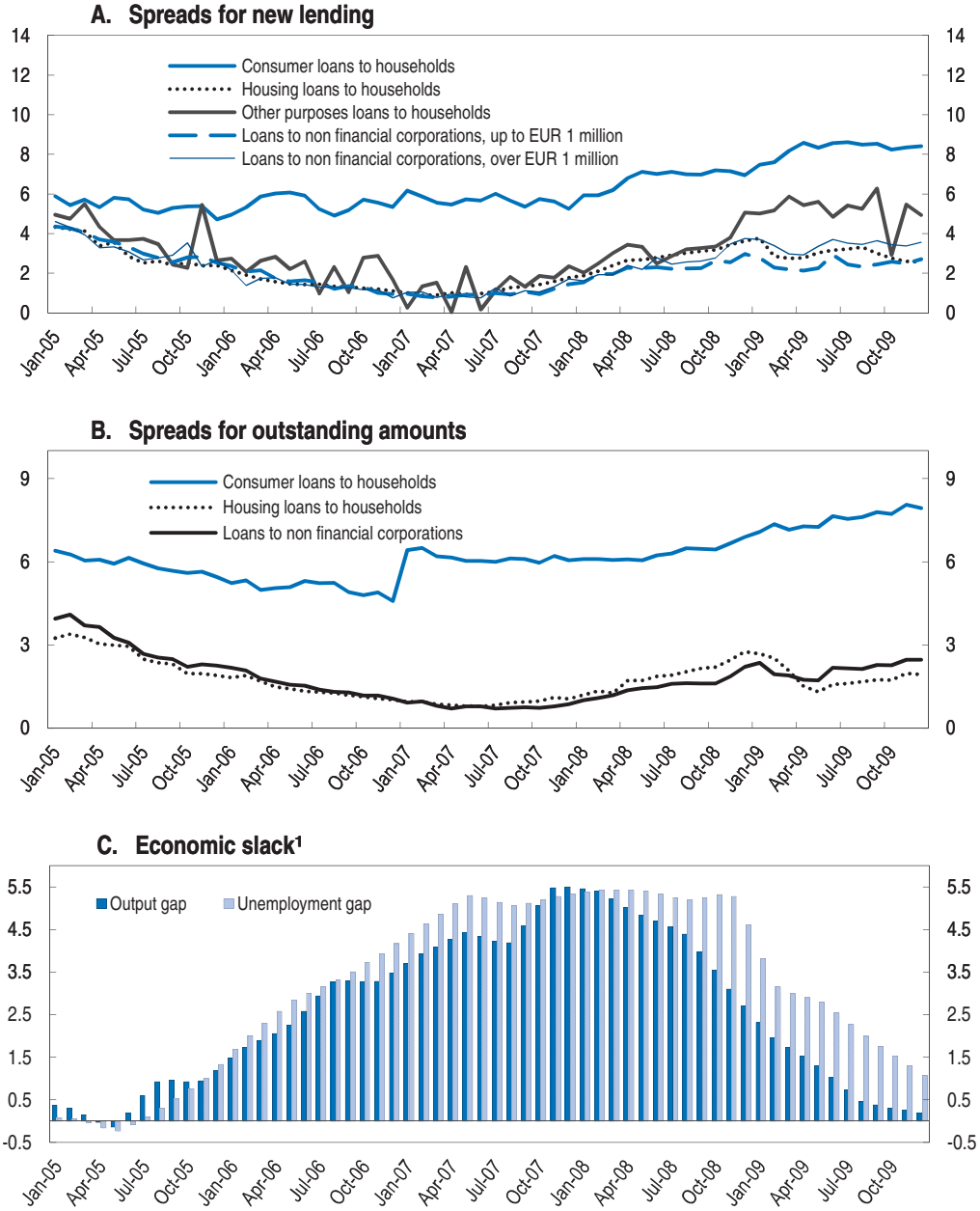
	Inflation[1]			Nominal short-term rate[2]			Nominal long-term rate[3]			Real short-term rate[4]			Real long-term rate[4]		
	IRL	ESP	DEU	IRL	ESP	DEU	IRL	ESP	DEU	IRL	ESP	DEU	IRL	ESP	DEU
1991-98	2.2	4.1	2.7	7.9	9.1	5.8	7.6	9.4	6.6	5.5	4.7	3.0	5.3	5.1	3.8
1999-08	3.4	3.2	1.7	3.4	3.4	3.4	4.4	4.4	4.3	0.0	0.1	1.6	1.1	1.2	2.6
Δ	**1.1**	**–0.9**	**–1.0**	**–4.5**	**–5.7**	**–2.4**	**–3.2**	**–5.0**	**–2.4**	**–5.5**	**–4.6**	**–1.3**	**–4.2**	**–3.9**	**–1.3**

1. Harmonised index of consumer prices (year-on-year growth rate).
2. 3-month LIBOR rates.
3. 10-year government bond rates.
4. Deflated by the harmonised index of consumer prices.

Source: OECD, *OECD Economic Outlook Database*.

Figure 2.12. **Retail banking interest-rate spreads between Poland and the euro area**

Percentage points, monthly data



1. Monthly data calculated by linear interpolations of OECD quarterly estimates.

Source: National Bank of Poland and European Central Bank (Panels A and B); OECD, *OECD Economic Outlook 86 Database* (Panel C).

StatLink http://dx.doi.org/10.1787/815028031700

130 basis points between the two sub-periods. There is also a potential for a decline in retail banking interest-rate spreads between Poland and the euro area (Figure 2.12). In fact, the reduction in bank loan rates *vis-à-vis* the euro-area benchmark between 2005 and 2007 coincided with strong domestic excess-demand pressures as attested by the extent of output and unemployment gaps in Poland. This is probably

another indication that the level of the natural interest rate is higher than in the euro area and that the adoption of the single currency may trigger excessive lending and business-cycle volatility if not adequately addressed through structural, macro-prudential and fiscal-policy measures.

Developments in some catching up economies that have either adopted the single currency in 1999 (Portugal, Ireland, Spain) or plan to do so by belonging to the ERM II with a fixed exchange-rate (Estonia, Latvia, Lithuania) illustrate the important risks linked to a boom-bust scenario (Box 2.2). Although much lower real interest rates played a major role,

Box 2.2. **The boom-bust cycles in Spain and Ireland**

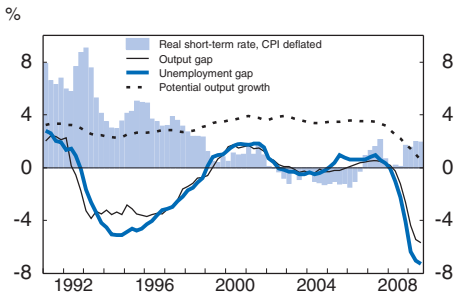
In the case of Spain (Figure 2.13), the decline in real long-term interest rates in the wake of euro adoption led to a significant boost in the investment rate, in particular when real interest rates became lower than real potential growth at the end of the 1990s. The investment rate increased from around 21% of GDP in the second half of the nineties, to above 30% in 2006-07. This development was concomitant with a rapid deterioration of the current account as domestic savings were insufficient to finance the investment boom, with net household saving declining and fiscal policy not contributing enough to close the financing gap. However, the increase in gross fixed capital formation was mostly driven by residential investment. Although business investment increased as a share of GDP, it declined as a share of total investment and, in the 2000s, this drop was mainly fuelled by a falling share of non-construction investments (metal products, machinery and transport equipment). Therefore, in this bubble-prone environment the contribution of vibrant investment growth to the "productive" capital stock was low and the growth of aggregate multi-factor productivity was actually slightly negative on average between late 1990s and 2007, according to OECD estimates. Productivity gains were at a standstill, despite rapid capital accumulation, though very strong increases in the labour input contributed as well. The pre-crisis period was also marked by a strong appreciation of house prices beyond what fundamentals would have suggested, with expectations of additional increases further encouraging residential construction. It was also marked by a sharp increase in households' debt and growing costs of servicing it (absorbing most of household savings), while bank loans contracted at variable interest rates may have amplified the boom-bust cycle (OECD, 2008b). Nevertheless, the statistical provisioning scheme allowed a build-up of a cushion during the boom that strengthened the resilience of the banking sector. As from 2002, unit labour costs in manufacturing were growing at the same pace as for the total economy. This suggests a kind of Dutch disease effect, with rising wages in the non-tradables sector triggering wage adjustments in the traded-goods sector (Zemanek *et al.*, 2009). However, the share of exports of goods relative to euro-area countries (excluding Germany, which has witnessed an outstanding export performance) has not deteriorated, even though it stopped improving in the 2000s. Yet, with the absence of a major worsening of Spain's actual export performance, this may suggest the fragility of traditional competitiveness indicators based on unit labour costs.

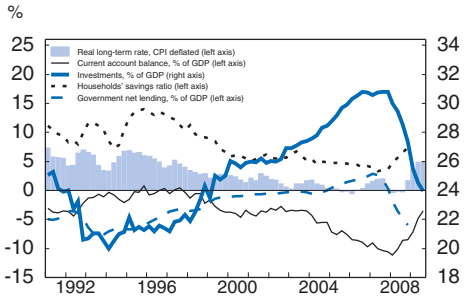
The example of Ireland (Figure 2.13) presents some similarities with the Spanish case: declining real short- and long-term interest rates along with a steadily falling (but positive) net household savings ratio and a sharp increase in the investment rate overwhelmingly driven by housing investment. Although the economy witnessed a continuously strong positive output gap between the mid-1990s and 2007, potential growth has actually followed a downward trend since the beginning of the current decade. The exceptional productivity growth rates of the second half of the 1990s faded away in the 2000s, domestic demand continued to grow very quickly, leading to a pick-up in inflation and hence very low real interest rates. As demand switched from tradables to non-tradables, this hampered competitiveness and favoured a reallocation of resources to the latter sector. Finally, export potential has been also negatively affected by the turnaround in unit labour costs of the manufacturing sector, though the existence of some sectors with very high measured productivity may not reflect the extent of incurred losses in the majority of industries.

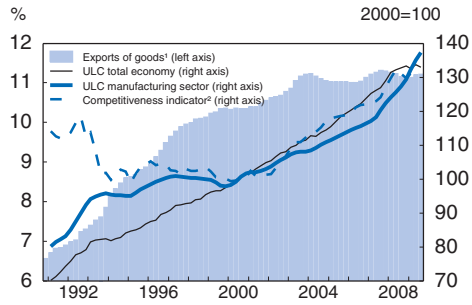
Box 2.2. **The boom-bust cycles in Spain and Ireland** *(cont.)*

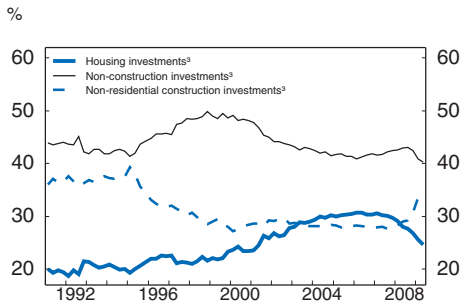
Figure 2.13. **The boom-bust cycles in Spain and Ireland**

Spain

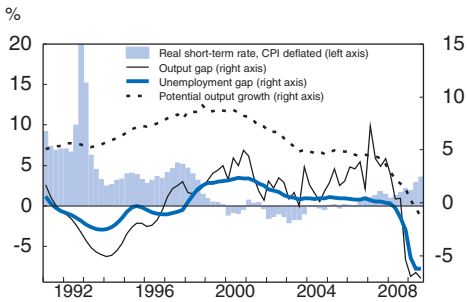


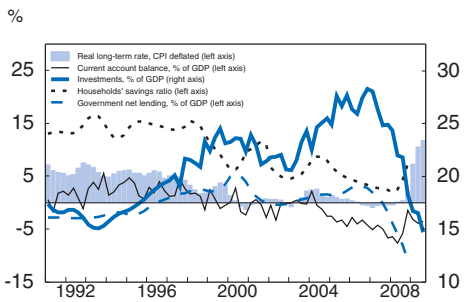


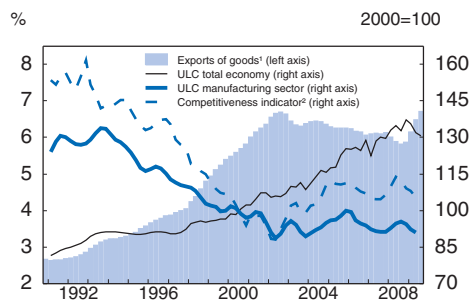


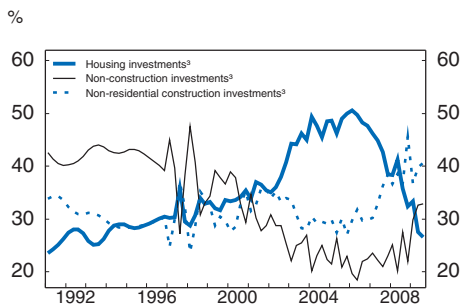


Ireland









1. Ratio of (Spain's/Ireland's) exports of goods in value to the sum of goods exports of countries belonging to the euro area (except Germany), in percentage. The series is smoothed by applying a four-quarter moving average.
2. Relative unit labour costs of the manufacturing sector.
3. As a percentage of gross fixed capital formation.

Source: OECD, *OECD Economic Outlook 86 Database.*

StatLink http://dx.doi.org/10.1787/815030037882

greater financing available to the private sector and overstated perceptions of permanent income gains contributed as well. In this downturn, all these economies are suffering a very deep and painful adjustment (with, for instance, falling nominal wages in Ireland and an unemployment rate of almost 20% in Spain), which may last longer than elsewhere. This highlights how unbalanced their economic growth really had been over the last decade or so, notably leading to a misallocation of resources. More generally, the combination of high foreign capital inflows, a fixed exchange rate and lower interest rates on foreign and/or domestic denominated loans fuelled a dramatic increase in domestic-credit-to-GDP ratios in many Central, Eastern and South-eastern European economies prior to the current crisis (OENB, 2009). Overconfidence about rapid membership in the euro area might have also led to a premature discounting of expected income gains by the private sector. Although the euro has eased access to international capital markets for catching-up countries, it may have amplified current account deficits at the same time, with surging private and external debt in foreign currencies, the build-up of excess-demand pressures and an inefficient use of foreign capital channelled to the housing sector (Nowotny, 2009). Such developments occurred not only in the Baltic countries, but also in Bulgaria and Slovenia. Indeed, empirical research confirms that financial deepening might have occurred at a pace overshooting fundamentals in various countries of the region before the crisis, which suggests a protracted and painful process of adjustment going forward; although Poland also witnessed vigorous lending growth between 2006 and 2008, this seems to have reflected a catch-up with improving fundamentals (Zumer *et al.*, 2008).

There are several lessons and policy implications that can be drawn from the stylised facts for Spain and Ireland presented in Box 2.2. Declines in real interest rates do not necessarily result in an increase in "productive" investments conducive to a lasting pick up in potential growth. Such a scenario is all the more likely as the absorptive capacity of FDI inflows (business environment, R&D incentives, etc.) is insufficient, a framework that still needs to be improved in Poland (see Chapter 3). Remedying such weaknesses is therefore essential for achieving a sustainable increase in potential growth following the reduction in interest rates.

Lending developments can add a significant boost to activity and propel economic growth to excessive rates, as the experience of Spain and Ireland indicates. It is essential that the authorities work toward preventing a lending boom, defined as a faster build-up in credit-to-GDP ratios than implied by improving economic fundamentals. In this respect, Eichengreen and Steiner (2008) consider that there is a risk of an unsustainable lending boom developing in Poland around the time of euro adoption, in particular in the segment of loans to households. There is indeed a significant potential for further financial deepening in Poland. While the ratio of private credit to GDP is close to 100% in the euro area, it is less than 50% in Poland. At the same time, mortgage loans represent 40% of GDP in the euro area *versus* only around 17% of GDP in Poland. This is despite the mortgage boom that led to an increase in foreign-currency lending (essentially in Swiss francs) in 2006-08, but the latest information indicates that new loans are again overwhelmingly in domestic currency. Moreover, the housing market is suffering from an important structural shortage as corroborated by indicators of the density of the dwelling stock, average living area and housing quality (OECD, 2008a). Therefore, even if an increase in residential supply is desirable, there is a risk that, with a much lower cost of capital and overly optimistic expectations of permanent income gains by households, the speed of

bridging the housing gap exceeds what is consistent with the pace of improvement in economic fundamentals. In this context, the Polish Financial Supervision Authority has recently undertaken steps to supplement the "Recommendation S" introduced in 2006, notably by working on a draft new recommendation ("Recommendation T").[11] The purpose is to harmonise credit standards when assessing borrowers' creditworthiness and possibly introduce a cap on loan instalment repayments at 50% of income. However, the cap would nevertheless be high, especially if it applies for foreign-currency lending, compared, for instance, to the unofficial practice in France where it does not exceed a third of income in domestic currency.

In order to rein in any unwelcome lending developments the authorities should consider further strengthening the macro-prudential framework once financial-market conditions and credit growth normalise fully. Given the dominant role of banks in financial intermediation in Poland, drawing on the experience of Spain, one measure would be to adopt an explicit dynamic (or statistical) provisioning scheme to deal with pro-cyclicality in banking.[12] Indeed, international banking practices indicate that loan-loss provisions can be very low during periods of expansion and very high during recessions due to pro-cyclical pricing of risk. According to the framework applied in Spain over the last ten years, the regulator has required the implementation of dynamic provisions that are the sum of specific provisions and general provisions with a counter-cyclical component. Indeed, the latter corresponds to both latent credit losses in a cyclically neutral year and average specific provisions for a full lending or business cycle (Saurina, 2009). Such a backward-looking but transparent rules-based system allows a smoothing of the overall profile of total loan-loss provisions over the cycle. In doing so, it increases the banks' cushion to absorb losses in a cyclical downturn, and therefore the resilience and stability of the banking system. Indeed, in the absence of such a measure Spain would probably have experienced an even more acute lending boom and probably a greater deterioration in banks' and households' balance sheets in the ongoing bust. Yet, Spain's experience also shows that dynamic provisioning is not an all-encompassing remedy as it may not prevent a major lending cycle from occurring. Moreover, given the unprecedented depth of the current recession, it is not certain that the amounts provisioned will be sufficient to absorb all losses that banks are exposed to. As a result, higher capital buffers could effectively complement dynamic provisioning (CEBS, 2009). These could be used to cover unexpected losses. Moreover, given that equity is the most expensive form of funding, they would also contribute to tame the decrease in bank lending rates once Poland joins the euro area. Finally, if tighter domestic rules lead to regulatory arbitrage, for instance through loans granted to the non-financial private sector directly by branches of foreign banks, financial supervision authorities should consider introducing binding limits on loan-to-value and loan-to-income ratios, backed by a comprehensive system of credit registry.

The risk of a housing boom and real estate prices overshooting fundamentals could be headed off by eliminating all fiscal incentives to promote home ownership. This would include the elimination of a reduced 7% VAT rate on the purchase of new apartments and houses (based on a very generous definition of social housing) and the programme of subsidised mortgage interest rates for low-income households introduced in late 2006 (OECD, 2008a). To scale down excessive mortgage lending developments the authorities could even consider introducing tax disincentives, such as the taxation of mortgage interest payments, which would further reduce households' ability to take on debt (FitzGerald, 2009). At a minimum, housing-market policies should avoid creating a negative

tax wedge between after- and pre-tax real interest rates on mortgage loans, as this may contribute to housing market instability (van den Noord, 2005). Market-value-based property taxes would also automatically help cool the market. If complemented by other measures, an increased price elasticity of supply for housing would also help to stabilise housing prices (OECD, 2008a): the establishment of municipal zoning plans has to be made compulsory, vocational training to ease capacity constraints in construction should be further encouraged and the functioning of the rental market improved. Some progress on renting is being achieved with a recent draft law which creates a new segment on the market for "occasional renting", without restrictions on rent increases and curtailed tenant protection. It also generalises the lower tax rate of 8.5% (instead of 20% above EUR 4 000) on rental income for all type of contracts with the aim of reducing tax avoidance. However, competition between housing developers has to be strengthened as well, as there is evidence of very high profit margins.

The experience of Ireland and Spain illustrates that net household saving rates may diminish as households take advantage of new borrowing opportunities. The biggest potential for a lending boom in Poland is in consumer loans as attested by the size of the spreads in bank loan rates between Poland and the euro area, which is the highest for this category of lending (Figure 2.12). Coupled with unleveraged households' balance sheets, this suggests that loan demand could expand following a drop in interest rates around the date of euro adoption. To promote saving, rather than excessive consumption, the authorities could consider enhancing tax facilities promoting voluntary long-term savings, even though this would have the downside of reducing tax revenues and possibly leading to a regressive tax structure.[13]

In the boom phase of the cycle an asymmetric expansionary demand shock linked to falling real interest rates may not be sufficiently offset by the competitiveness channel. From the theoretical point of view, the risk of cycle amplification is elevated when expectations are backward-looking and the output gap is more sensitive to the real interest rate than to the real exchange rate, in particular when labour and product markets are not flexible enough to swiftly react to changes in the latter (Toroj, 2009). Indeed, in a bubble-prone environment there might be a progressive reallocation of resources from the tradables (manufacturing) to non-tradables sectors (services, construction and real estate) driven by higher rates of return on capital and labour, as the examples of Ireland and Spain seem to suggest (Bover and Jimeno, 2007; FitzGerald, 2009). Such reallocation prolongs the expansionary phase insofar as the impact on activity of deteriorating competitiveness is offset by the boom in the shelter sector. This is all the more problematic as in the monetary union current account deficits can get a long way away from fundamentals with little constraint on their financing. However, when the bust occurs the challenge is to swiftly reallocate resources to other sectors of the economy. Yet, as this process might be difficult and protracted, it would be preferable to prevent ending up with an oversized sector (such as construction) in the first place. While macro-prudential and fiscal-policy measures can be important levers to address this issue, promoting economic education of the citizenry would be an additional way of preventing an excessive wave of optimism that could be triggered by the adoption of the euro. In particular, it is important that households bear in mind that income prospects cannot be expected to improve dramatically solely as a consequence of the membership in the common currency area. Such public awareness would help to slow down private debt dynamics and avoid the build-up of macroeconomic imbalances going forward.

Box 2.3. **Main recommendations for preparing for euro adoption**

Meeting the Maastricht criteria in a credible way

- *Avoid setting any new official date for euro-area entry,* establish and periodically assess a checklist of economic reforms that will allow the Maastricht criteria to be met in a credible and sustainable way and ought to be implemented prior to joining the euro area.
- *Reduce the structural general government deficit* to 1% of GDP or lower.

Measures to build a rules-based counter-cyclical policy

- *Make consistent the definition of the public debt with Eurostat's,* notably by including the debt of the National Road Fund in the domestic definition.
- *Introduce a rule in the Public Finance Act in terms of a ceiling on the structural general government balance* consistent with the medium-term objective (MTO) of the Stability and Growth Pact of a deficit no greater than 1% of GDP. This would create room for the operation of automatic stabilisers, but discretionary fiscal policy would be possible only if the structural balance is kept at a safe distance from the MTO. *Implement an expenditure rule with multi-year ceilings on general government expenditure in nominal terms.*
- *Create an independent fiscal council* that will conduct regular surveillance of public finances and provide *ex ante* and *ex post* evaluations of the government's performance with regard to the deficit and expenditure rules. The council could allow for discretion *vis-à-vis* the expenditure and deficit rules but should act in strict respect of the constitutional rule on the debt-to-GDP ratio.
- Before joining the ERM II, *correct major discrepancies in the level of regulated prices vis-à-vis* the euro area, in particular in sectors with prices below cost-recovery levels, and introduce a system of efficient incentive-price regulation to keep costs under control.

Enhancing labour-market flexibility

- *End the rule that the ratio of the legal minimum to average wage* should reach 50% at some point in the future and refrain from further increasing the ratio. *Consider differentiating the minimum wage across regions depending on local labour-market conditions.*

Heading off the risk of a boom-bust cycle

- *Strengthen macro-prudential financial regulation,* notably by introducing a dynamic provisioning scheme for banks and increasing their capital buffers. Consider adopting limits on loan-to-value and loan-to-income ratios.
- *To prevent a housing boom, remove fiscal incentives supporting the residential sector* such as the reduced VAT rate on new purchases and subsidised mortgage interest rates for low-income households. The implementation of market-value-based property taxes could also prevent the market from overheating. *Strengthening the supply side of the market is necessary as well* notably by making compulsory the establishment of municipal zoning plans, encouraging vocational training and strengthening competition in the construction sector. *Tighten fiscal policy if needed,* should economic imbalances start to develop, especially if driven by excessive residential investment and/or private consumption.
- *Promote the financial and economic education of the citizenry* in part in order to prevent an excessive wave of optimism triggered by the adoption of the euro.

Notes

1. The initial estimate of the general government deficit for 2008 came out at 3.9% of GDP, but was subsequently revised to 3.7% (3.6%) of GDP according to domestic (Eurostat) definition.

2. Although in a currency union the need to hold foreign-exchange reserves for currency stability and convertibility purposes is reduced, it is the ECB that in practice is responsible for holding and managing them on behalf euro-area member countries.

3. The Balassa-Samuelson effect stipulates that a catch-up in the level of aggregate productivity can be driven by a higher domestic productivity growth in the tradables than in the non-tradables sector. Assuming wage equalisation between sectors, the relative price of non-tradables will rise and lead to a positive inflation differential through the non-tradable component of inflation *vis-à-vis* countries with lower productivity growth (advanced economies).

4. Using an uncovered interest-rate-parity equation including a risk premium and an appreciation of the real equilibrium exchange rate to account for the convergence process, one could show the following relationship: if the nominal exchange rate is fixed, then the reduction in the risk premium resulting from the adoption of the euro yields an equivalent drop in the real interest rate, which is reflected in some combination of a lower nominal rate and higher inflation.

5. In 2009 there were plans to implement additional precautionary thresholds (at 47% and 52% of GDP) and to tighten austerity measures, but the reform was abandoned, given the expected increase in the public debt.

6. Only the government is allowed to increase the level of the deficit, while the Parliament may modify only the composition of expenditure and revenue. However, the state budget deficit cannot be higher during the fiscal year than the level adopted in the budget law, which otherwise has to be amended and approved by the Parliament.

7. According to the March 2008 convergence programme, Poland was committed to fulfil the MTO in 2011, but the authorities indicated in the December 2008 update of the programme that this would occur only after 2011. No date was provided in the latest update of the programme released in early 2010.

8. The structural or underlying deficit is the nominal outcome adjusted for the influence of the economic cycle and one-off operations.

9. This phenomenon has come to be known as the "boxer effect" or "weighing-in" syndrome: like the boxer who refrains from eating for hours prior to the weigh-in only to consume a big meal thereafter, the candidate country will do whatever is required in order to squeeze down inflation prior to accession, only for repressed pricing pressures to re-emerge once it has joined the EMU (Szapary, 2000). Because of this, Darvas and Szapary (2008) have proposed a modification of the Maastricht inflation criterion, arguing that it has lost its economic logic when applied to catching-up countries, and proposed instead to define it as the euro-area average rate of inflation plus 1.5 percentage points.

10. The Czech Republic is also a catching-up economy, though it exhibits a level of nominal interest rates comparable to that of the euro-area average. However, this might be due to a combination of much higher trade openness, significantly stronger appreciation of the real exchange rate as well as better anchored inflation expectations than in Poland over the last decade.

11. "Recommendation S" aimed at strengthening credit-risk management at banks with regard to housing loans (notably in foreign currencies) and providing adequate information for customers about related risks (OECD, 2008a).

12. Even though consistency must be insured between dynamic provisioning and international accounting rules, the Spanish example illustrates that this is feasible. Indeed, the scheme was adjusted in 2004 to respond to the introduction of the International Financial Reporting Standards.

13. Long-term savings are not very popular in Poland as, for instance, is illustrated by weak development of the current voluntary (third-pillar) TEE pension savings scheme. TEE stands for "taxed-exempt-exempt" and describes a system that forces the taxpayer to pre-pay income tax on pension savings (the first T), but accrued income (the second E) and withdrawals at or shortly after retirement are exempted (the final E).

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Chapter 3

Making the most of globalisation

Since its transformation 20 years ago, the Polish economy has become increasingly connected with the international economy. The implementation of market-economy principles and the increasing participation in globalisation have fostered convergence towards higher living standards and have led to a significant shift in sectoral specialisation. Yet according to most globalisation indicators, Poland lags behind other OECD countries in the region. Challenges are widespread to improve Poland's position in global markets, as reflected by its performance in terms of inflows of foreign direct investment (FDI), benefits reaped from FDI and both volume and technological content of exports. These challenges cover the following areas: the privatisation process; development of transport and telecommunication infrastructures; the business environment; the role of the foreign investment agency (PAIiIZ); the future of Special Economic Zones; human capital; R&D; the role of SMEs; export promotion; and a better allocation of resources via downsized agriculture, enhanced labour mobility, increased competition and financial deepening.

Since the fall of communism, Poland has made tremendous progress in deepening linkages with the world economy. The implementation of market-economy principles and the increasing participation in the globalisation of production and finance have fostered convergence towards higher living standards and led to a significant shift in sectoral specialisation. In that process, true comparative advantages are being revealed, leading to a better allocation of resources and a fuller exploitation of economies of scale. Additional key advantages associated with openness stem from inflows of foreign direct investment (FDI) attracted by high-return opportunities, which facilitate foreign technology diffusion. As long as domestic saving is insufficient to finance investment needs, Poland is bound to try to remain attractive to foreign investors, and both international competition and higher investments help to raise growth prospects. In turn, as a result of the increasing stock of inward FDI, firms with foreign capital play a greater role in the economy, especially by boosting exports. Yet, although there has been undeniable progress, advances have been incomplete, and, according to most globalisation indicators, Poland lags behind other OECD countries in the region. So far, Poland's role in globalisation has been driven mainly by closer EU integration. In particular, the country does not take full advantage of its favourable geographic position between Western Europe and the CIS countries, and its export performance in long-distant markets is weak. A combination of factors might explain Polish firms' poor capacity to benefit from dynamic overseas markets, such as relatively small firm size, insufficient capacity to innovate, limited access to finance, insufficient management skills and a lack of experience in conducting business over long distances.

An appropriate policy framework is required for opportunities provided by international exchange to be seized. Globalisation changes the conduct of macroeconomic policies, for example as capital-market integration tends to lower borrowing costs, thereby enhancing borrowing capacity, and as trade integration alters the transmission channels of shocks, affecting inflation patterns (OECD, 2007a). Also, the ability to move resources across borders quickly induces a disciplinary effect on policies. As a result, strong institutional arrangements for setting monetary and fiscal policy as well as sound prudential regulation (Chapters 1 and 2) are prerequisites to reap the gains from globalisation. This is even truer in the case of a catching-up economy that attracts FDI, as large inflows can lead to real exchange-rate overvaluation that might offset the positive direct effects of FDI. Beyond appropriate macro-policy setting, the challenges that Poland faces in order to continue to attract and make the most of FDI, and improve export performance in terms of quantity and quality of products sold abroad are widespread. This chapter focuses on these structural challenges, while international issues related to the financial crisis are discussed in Chapter 1.

Although Poland benefits from a high level of educational attainment, comparatively cheap labour and plentiful entrepreneurial spirit, it is often feared that these relative advantages might soon be challenged successfully by countries further east in Europe or in North Africa. At the catching-up investment-driven stage, the main challenge is to make connections with international production networks by attracting sufficient flows of FDI, but the best way to respond to this threat in the long term is to build comparative

advantage on the basis of knowledge and innovation and to climb the technology ladder (Porter, 1990). Reducing state ownership is one of the most direct ways to increase the role of foreign capital. The government has an ambitious privatisation programme, and the privatisation framework should be designed carefully to ensure efficient restructuring, as this might influence longer-term competitiveness. Other key determinants to attract FDI include the quality of infrastructure and a friendly business environment. The substantial transfers of EU funds represent a unique opportunity to create modern infrastructure and upgrade the existing stock. They also raise challenges related to the capacity to absorb amounts cumulatively representing about 25% of current GDP by 2015, as well as to the macroeconomic risks associated with such a boom (which are discussed in Chapter 1). In terms of the business environment, the "Better Regulation" programme has started to ease the conditions for setting up a business. Much remains to be done, however, to reduce administrative burdens and simplify tax and legal regulations. Moreover, strengthening the role of PAIiIZ, the Foreign Investment Agency, has the potential to yield significant foreign investment inflows. On the other hand, subsidies designed to attract foreign investors to Special Economic Zones have profoundly changed the nature of such zones compared with the initial objective of eliminating geographical pockets of structural unemployment. In the absence of a thorough cost-benefit analysis, it is unclear whether such incentives are the most efficient way to use public money. Nevertheless, attracting FDI is just the first step to fully benefiting from it, as there is little evidence that it generates *unconditional* spillovers. In contrast, enhancing the positive effects of FDI inflows seems to depend upon the capacity of firms to absorb them, which is determined by such factors as labour quality and innovation performance. Priorities to improve this absorptive capacity should focus on reducing the growing mismatch in the labour market despite the relatively well-educated workforce, and boosting R&D.

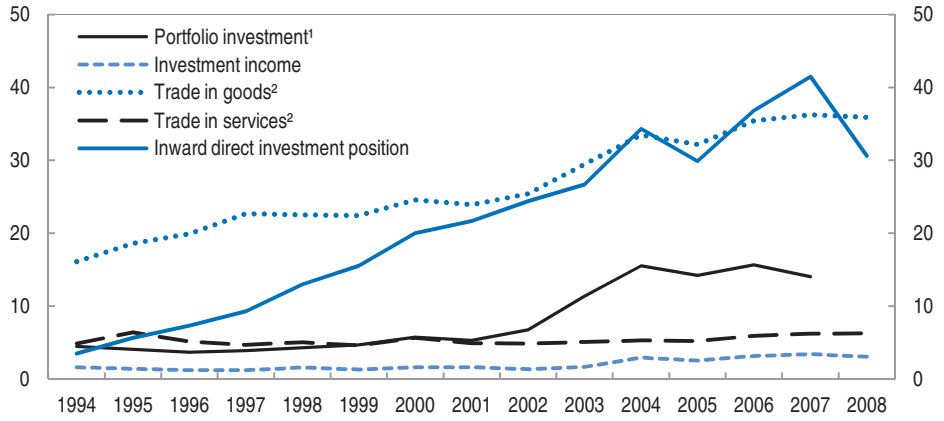
The benefits from greater integration of product, capital and labour markets are mostly channelled through the reallocation of resources to areas of comparative advantage. As globalisation induces ongoing structural changes, reaping those gains depends critically on an environment that is conducive to effective resource reallocation. However, major distortions across territories and sectors remain and hamper export performance. At the same time, globalisation tends to expose those inefficiencies by magnifying their effects. One important challenge consists of getting firms to fully develop their potential, so as to export their products to a wide range of markets. Major obstacles are related to: the policy-supported excessive size of the agricultural sector; low internal labour mobility; labour shortages; competition-restraining regulations; an underdeveloped financial system; barriers to small and medium-sized enterprise (SME) development; and fragmented export-promotion schemes.

Poland's position in global markets

Poland's advances in globalisation are reflected by the developments in goods trade, inward FDI positions and portfolio investment assets relative to the size of the economy (Figure 3.1). Given attractive investment opportunities, access to foreign capital has enabled the nation to consume structurally more than is produced domestically and thereby to finance a current account deficit that was growing steadily prior to the financial crisis (see Chapter 1).

Figure 3.1. **Globalisation trends in Poland**

As a percentage of GDP



1. Assets + liabilities in absolute terms divided by 2 and by GDP.
2. Imports + exports in absolute terms divided by 2 and by GDP.

Source: IMF, *Balance of Payments Database*; OECD, *National Accounts Database*.

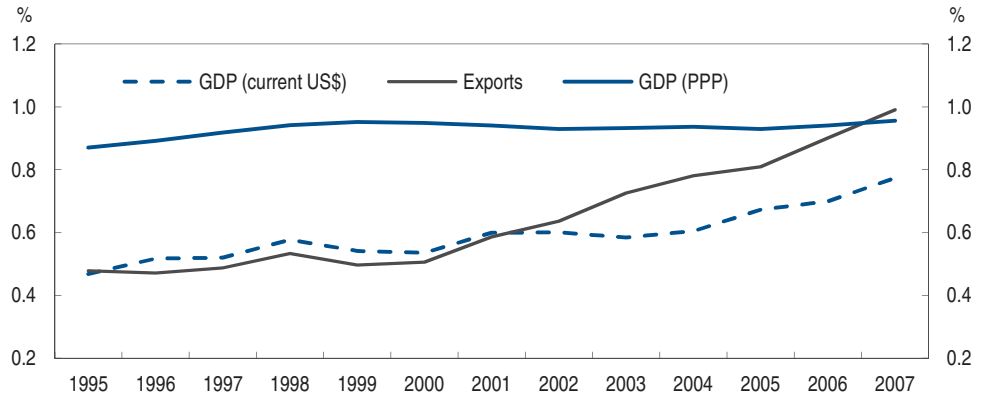
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Gains in world export share, but higher effective openness in other CEEC countries

The share of Poland in world exports has increased much faster than its share in world GDP (Figure 3.2), and total trade of goods and services represented a peak of about 83% of GDP in 2008 with exports reaching EUR 145 billion. This is to be compared with a trade-to-GDP ratio of 44% in 1995. Like most other Eastern European countries, Poland roughly doubled its share in world exports of goods between 1995 and 2008. Despite this overall good export performance, the trade-to-GDP ratio remains below that of other CEEC4 countries.[1] Obviously, Poland is bound to be less open than these similar, but smaller, countries. However, even when controlling for the effect of size, the amount of trade is lower in Poland than in the other CEEC4 countries, implying relative trade underperformance (Box 3.1). More precisely, the trade openness ratio is consistent with the country's size and development level in Poland, while the Czech and the Slovak Republics each over-perform the estimated level by 10-15%, based on size and GDP per capita, and Hungary by as much as 30%.

Figure 3.2. **Gains in export share**

Share of Poland in world exports and world GDP



Source: *BACI – Base pour l'Analyse du Commerce International (International Trade Database at the Product Level).*

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Box 3.1. **Trade performance controlling for size and development levels**

All other things equal, small countries tend to be more open as they specialise in a narrower set of products and rely more on imports to serve the domestic market. As a result, not properly accounting for the effect of size blurs the assessment of true trade performance. Table 3.1 below presents the results of identifying the effect of size, measured as a function of population and area, on trade-to-GDP ratios. The latter are computed based on either GDP at PPP (first three columns) or using market exchange rates (last column). Apart from these regressors, GDP per capita is also added to control for differences in standards of living, although the usual endogeneity issues are not addressed. Column (1) is based on a cross-section of 135 countries, while the rest of the table focuses on OECD countries. The last two columns add another component, market potential, to account for the presence of large neighbouring countries (Boulhol and de Serres, 2010), defined as the sum of world countries' GDP weighted by the inverse of the relevant bilateral distances.

Table 3.1. **Dependent variable: Trade-to-GDP ratio, 2007, all explanatory variables in logs**

	Openness calculated with GDP at PPP			Openness calculated with GDP using market exchange rates
	(1)	(2)	(3)	(4)
Population	–0.083**	0.018	–0.095***	–0.068
	(0.040)	(0.042)	(0.040)	(0.100)
Population squared	–0.013*	–0.032***	–0.018***	–0.013
	(0.007)	(0.011)	(0.008)	(0.016)
Area	–0.030	–0.155***	–0.063***	–0.091**
	(0.024)	(0.038)	(0.019)	(0.034)
GDP per capita at PPP	0.322***	0.568***	0.396***	–0.143
	(0.029)	(0.113)	(0.098)	(0.138)
Market potential			0.366***	0.372***
			(0.049)	(0.069)
Number of countries	135	30	30	30
Adj-R^2	0.627	0.797	0.896	0.770

The residuals of these estimates can then be used to assess the true trade openness once geography determinants and development levels are controlled for. Table 3.2 below shows, for a selected number of countries, the evaluation of this "true performance" based on the more comprehensive specifications in column (3) and (4) above. While the estimate of the true trade performance is sensitive to the specification, there are three main results related to the CEEC4 comparison. *First,* Poland's performance is consistent with its size, geography and development level whatever the specification, that is, average among OECD countries once these "exogenous" factors are accounted for. *Second,* Poland underperforms Hungary by 32 percentage points on average. *Third,* Poland's performance is comparable to that of the Czech and Slovak Republics when using GDP at PPP to compute the trade-to-GDP ratio, while it lags by more than 20 percentage points when using GDP at market exchange rates.

Table 3.2. **True trade performance, in percentage points of GDP, based on residuals of above regressions**

	(3)	(4)	**Average**		(3)	(4)	**Average**
Hungary	21.2	37.6	**29.4**	Japan	–10.8	–11.6	**–11.2**
Australia	13.8	29.1	**21.4**	France	–16.7	–28.7	**–22.7**
Germany	26.8	14.8	**20.8**	United Kingdom	–17.2	–30.8	**–24.0**
Czech Republic	–4.8	28.5	**11.9**	Portugal	–25.2	–26.0	**–25.6**
Slovak Republic	–3.9	21.9	**9.0**	Poland's performance relative to:			
United States	–2.8	18.5	**7.8**	Czech Republic	–1.0	–27.4	**–14.2**
Poland	**–5.8**	**1.2**	**–2.3**	Hungary	–27.0	–36.5	**–31.7**
Italy	0.9	–13.3	**–6.2**	Slovak Republic	–1.9	–20.8	**–11.3**

Trends in export specialisation[2]

Poland is rather well positioned in services trade

Although Poland tends to be more specialised in services than its main trading partners and a surplus of about 1% of GDP has recently emerged on services account, Polish trade in services has not matched the pace of its goods trade expansion, a feature that is common to other Central and Eastern European countries. As a result, the share of services in Polish exports receded from a peak of 30% in 1995 to 17% in 2007, although this was still above those of Hungary (15%) and the Czech and Slovak Republics (12%). Almost 90% of services exports are concentrated in travel (37%), transportation (32%) and "other business services" (19%). In turn, freight road transport is the largest contributor to the exports of transportation services, while exports of "other business services" are more dispersed between legal, accounting, advertising, market research and such technical services as architecture and engineering. In contrast, exports of insurance and financial services, but also of computer, information and communication services, and earnings from non-resident payments of royalties and license fees are limited. Comparing the Revealed Comparative Advantages (RCA)[3] by services mode between CEEC4 countries, Poland has a huge comparative advantage in construction services, and, to a lesser extent, in transportation and travel services. These sectors therefore represent important potential gains for Poland in the event of further liberalisation of services within the European Union.

Deep transformation in the structure of goods exports

The nature of Polish goods exports has changed profoundly over the last decade as a result of a shift from "traditional" to new booming sectors. Indeed, in 1995 Polish exports were still skewed towards traditional industries such as textiles, basic metals, wood and extraction activities, and the following decade saw a striking change in export specialisation (Table 3.3). Vehicles, Boilers and machinery, and Electrical and electronic equipment, the 3 largest among the 100 two-digit sectors in terms of exports, represented almost 40% of Polish exports in 2007, against only 17% in 1995. In contrast, the share of textiles declined substantially, as, for example, the share of Apparel and accessories (HS code 62) alone fell from 8.0% to 1.2% of total goods exports. The share of Mineral fuels and that of Basic metals (copper, iron and steel) was reduced by half.

Table 3.3. **Poland's export structure**

Five largest increases and decreases

Description	HS code	Share of Poland's exports			Change from 1995 to 2007
		1995	2001	2007	
Vehicles other than railway, tramway	87	5.4	9.3	13.5	8.2
Nuclear reactors, boilers, machinery, etc.	84	5.8	10.8	13.2	7.4
Electrical, electronic equipment	85	5.8	10.7	11.9	6.1
Plastics and articles thereof	39	1.9	2.7	3.9	2.0
Rubber and articles thereof	40	1.3	1.8	2.2	1.0
Wood and articles of wood, wood charcoal	44	4.0	3.2	2.4	–1.6
Iron and steel	72	5.8	2.9	3.5	–2.3
Copper and articles thereof	74	5.2	2.0	2.6	–2.6
Mineral fuels, oils, distillation products, etc.	27	8.2	5.3	3.9	–4.3
Articles of apparel, accessories, not knit or crochet	62	8.0	4.4	1.2	–6.9

Note: Only the five sectors with the highest increase or decrease are presented, ranked by decreasing evolution.
Source: BACI; OECD calculation.

Focusing on RCAs, which amounts to comparing each product's share in Polish *versus* world exports, is another instructive way to assess the levels of and changes in export specialisation and illustrate the deep transformation of the structure of goods exports. The changes in RCA over the period are strongly and negatively correlated with the RCA levels in 1995, at the two-digit aggregation level, with a linear correlation coefficient of –0.73. This means that Poland's export structure has moved towards the world's. In 17 of the 18 sectors that had an export share at least twice as great in Poland as in world trade (RCA greater than 2) in 1995, Polish comparative advantages decreased.[4] Table 3.4 provides the levels of RCA for each two-digit sector representing either 1% of Polish or world exports, leading to the following results:

- Furniture, wood and glass are the products in which Poland maintains strong comparative advantages.
- Initially strong relative advantages have been declining at a rapid pace in ships, copper, iron and steel.

Table 3.4. **Balassa index, and share of Poland's and world exports in 2007**

Description	HS code	Balassa index			Share of Poland's exports 2007	Share of world's exports 2007
		1995	2001	2007		
Advantages						
Furniture, lighting, signs, prefabricated buildings	94	5.37	5.91	4.68	5.9	1.3
Ships, boats and other floating structures	89	4.12	5.75	3.00	2.5	0.8
Dairy products, eggs, honey, edible animal product	04	1.57	2.25	2.67	1.2	0.5
Wood and articles of wood, wood charcoal	44	2.89	2.89	2.60	2.4	1.0
Meat and edible meat offal	02	0.89	1.01	2.53	1.5	0.6
Glass and glassware	70	1.89	2.52	2.37	1.0	0.4
Copper and articles thereof	74	5.86	3.26	2.23	2.6	1.2
Articles of iron or steel	73	2.75	2.76	2.13	4.1	1.9
Rubber and articles thereof	40	1.13	1.88	2.09	2.2	1.1
Essential oils, perfumes, cosmetics, toiletries	33	0.67	1.31	2.03	1.1	0.6
Paper and paperboard, articles of pulp, paper and board	48	0.99	1.91	1.92	2.4	1.3
Vehicles other than railway, tramway	87	0.61	1.01	1.55	13.5	8.7
Plastics and articles thereof	39	0.56	0.88	1.18	3.9	3.3
Aluminium and articles thereof	76	0.63	1.27	1.15	1.4	1.2
Iron and steel	72	2.03	1.46	1.07	3.5	3.3
Disadvantages						
Nuclear reactors, boilers, machinery, etc.	84	0.40	0.73	0.99	13.2	13.3
Electrical, electronic equipment	85	0.44	0.76	0.94	11.9	12.7
Articles of apparel, accessories, not knit or crochet	62	4.25	2.50	0.92	1.2	1.3
Articles of apparel, accessories, knit or crochet	61	1.29	0.97	0.42	0.5	1.2
Organic chemicals	29	0.84	0.41	0.38	1.0	2.7
Optical, photo, technical, medical, etc., apparatus	90	0.19	0.20	0.31	0.8	2.8
Pharmaceutical products	30	0.66	0.22	0.30	0.8	2.5
Mineral fuels, oils, distillation products, etc.	27	1.11	0.49	0.26	3.9	15.0
Pearls, precious stones, metals, coins, etc.	71	0.46	0.27	0.20	0.5	2.3
Ores, slag and ash	26	0.33	0.22	0.17	0.2	1.0
Aircraft, spacecraft, and parts thereof	88	0.10	0.32	0.11	0.1	1.3

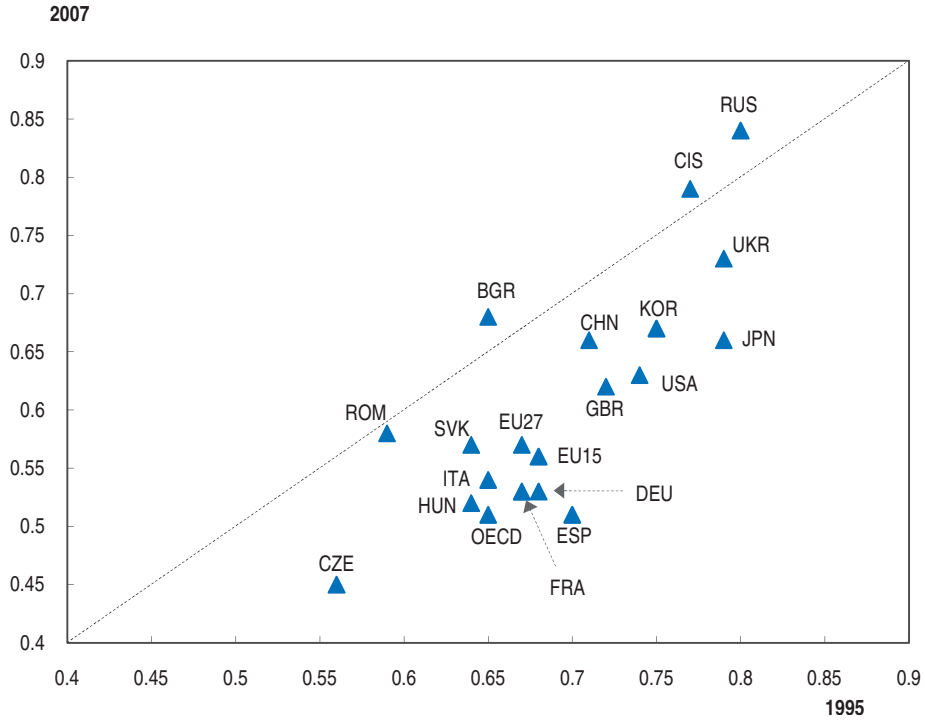
Note: Countries are ranked by decreasing 2007 Balassa index order. For product *k* and country *i*, the Balassa index is equal to the country's export share in *k* divided by the world export share in the same product, hence revealing if *i* is more engaged in the export of product *k* than a world average. If the proportion of product *k* in total exports is higher for country *i* than for the world (the Balassa index is greater than 1), the country is considered to have a revealed comparative advantage in product *k*. The table shows articles which constitute an advantage or disadvantage (Balassa index lower than 1) for Poland and represent at least 1% of either Poland's or the World's 2007 export total.
Source: BACI; OECD calculations.

- Sectors in which advantages have been strengthened are agro-food products (especially dairy products and meat), paper, rubber and cosmetics (HS 33).
- Improvements are noticeable in vehicles, which are now part of Poland's comparative advantages (RCA greater than 1), and, to a lesser extent, in plastics, aluminium, boilers and machinery, electrical and electronic equipment.
- Comparative advantages in textiles have been slashed, and relative performance has deteriorated in mineral fuels and, less importantly, in organic chemicals.
- Poland maintains heavy structural weaknesses in technical apparatus (HS 90), pharmaceuticals, precious stones (HS 71) and aeronautics.

Export specialisation is converging towards those of the most developed and of the other CEEC4 countries (Figure 3.3). Comparing Poland's export specialisation with other countries' reveals that the Czech Republic has the closest specialisation.[5] Among the list of countries shown in the figure, China, Japan, Korea, Bulgaria, Ukraine and the Russian Federation specialise in very different products than does Poland, suggesting that these countries do not compete with Poland in the same products in general. Even though the convergence in specialisations is widespread, it occurs to a lesser extent with Korea, Ukraine and China, while it is not obvious at all with the Russian Federation, the CIS,

Figure 3.3. **Differences in bilateral export specialisation between Poland and a selection of countries**

HS classification at six digit level – Export specialisation differences in 1995 and 2007[1]



1. Export specialisation differences between countries are measured by comparing the structure of export shares of products. The indicator of the difference between countries i and j is calculated as follows: $d_{ij} = \frac{1}{2}\sum_k \left| \frac{X_{ik}}{X_{i.}} - \frac{X_{jk}}{X_{j.}} \right|$, summing over all HS six-digit products k. The "distance" indicator varies between 0 and 1, from the closest to the most distant.

Source: BACI.

StatLink http://dx.doi.org/10.1787/815103146854

Bulgaria or Romania. In parallel, Poland increasingly exports and imports similar goods, implying that competitive pressure intensifies. The share of intra-industry trade at the six-digit level rose from 28% to 50% of total trade between 1995 and 2007, reaching a similar level to that of the Czech Republic and Hungary. This stems mainly from the increase in two-way trade in Vehicles, Boilers and machinery, Electrical and electronic equipment, as well as in Ships and Plastics.

Despite some progress, the technological content of exports lags behind

The technological content of manufacturing exports has shifted markedly from low-technology, and to a lesser extent from medium-low technology, to medium-high technology products since the late 1990s (Table 3.5).[6] While the export share of low-tech products decreased from 38% to 25% between 1995 and 2007, that of medium-high tech increased from 26% to 41%. The decline of textiles and the development of the automobile industry explain most of this overall increase in technological intensity. At the same time, very little progress has been made in the high-tech sectors, which represent only about 7% of exports, while the medium-low-tech share decreased, mostly in the late 1990s, due to

Table 3.5. **Polish export shares by technological intensity as a percentage of total Polish exports and GDP**

Technological branch	As a percentage of Poland's total exports					Net exports as a percentage of GDP	
	1995	1998	2001	2004	2007	1995	2007
High-technology products	**4.2**	**6.7**	**6.8**	**6.6**	**7.5**	**–2.3**	**–4.0**
Aircraft and spacecraft	0.3	0.5	0.8	0.4	0.4	–0.1	–0.1
Pharmaceuticals	1.2	0.9	0.6	0.7	0.9	–0.6	–1.0
Office, accounting and computing machinery	0.2	0.3	0.2	0.3	0.5	–0.7	–0.8
Radio, TV and communication	1.9	4.3	4.4	4.0	4.8	–0.5	–1.2
Medical, precision and optical instruments	0.6	0.7	0.7	1.2	1.0	–0.5	–0.9
Medium-high-technology products	**25.6**	**28.7**	**34.2**	**38.7**	**40.8**	**–3.8**	**–2.3**
Other electrical machines and apparatus	4.3	6.0	6.5	6.2	6.5	–0.1	0.3
Motor vehicles, trailers and semi-trailers	5.7	7.8	13.9	18.1	17.9	–0.6	1.2
Chemicals excluding pharmaceuticals	8.4	6.8	5.5	5.6	6.0	–1.1	–1.9
Railroad and other transport equipment	0.5	0.6	0.9	0.8	0.5	0.0	0.0
Other machinery and equipment	6.8	7.6	7.3	8.0	9.9	–1.9	–1.8
Medium-low-technology products	**31.8**	**26.9**	**26.4**	**27.0**	**26.9**	**1.6**	**–0.7**
Coke, refined petroleum products, nuclear fuel	2.3	1.7	2.2	2.8	2.4	0.0	–0.6
Rubber and plastic products	2.3	3.1	3.8	4.4	5.1	–0.7	–0.1
Other non-metallic mineral products	3.1	3.0	2.7	2.5	2.5	0.0	0.1
Building and repairing of ships and boats	3.5	3.4	4.6	3.9	2.6	0.6	0.5
Basic metals	15.3	10.1	7.6	8.1	8.5	1.5	–0.9
Fabricated metal products, excluding machinery	5.3	5.8	5.5	5.3	5.8	0.2	0.2
Low-technology products	**38.4**	**37.7**	**32.6**	**27.7**	**24.8**	**0.8**	**1.8**
Other manufacturing and recycling	7.0	8.1	8.2	7.7	6.3	0.7	1.3
Wood, pulp, paper and printed products	7.2	7.1	7.1	6.5	5.7	–0.1	0.3
Food products, beverages and tobacco	8.8	8.9	7.4	7.5	8.8	0.0	1.1
Textiles, textile products, leather and footwear	15.4	13.6	10.0	5.9	4.0	0.0	–0.9
Total manufactured products	**100**	**100**	**100**	**100**	**100**	**–3.8**	**–5.2**

Source: BACI; OECD calculations.

the lower importance of basic metals. The trade balance in high-tech products deteriorated to reach –4% of GDP in 2007, with low-technology the only category that contributes positively to net trade in goods.

Despite this "technology" upgrade, Poland's export specialisation *relative* to the other CEEC4 countries is increasingly skewed towards low-technology products. Indeed, in these countries by contrast, the technological upgrade occurred in the high-tech sectors as well. As a result, the Polish high-tech gap in export shares widened by about 10 percentage points over the last decade (Figure 3.4). The sectors that contributed the most to this underperformance are Radio, TV and communication with respect to both the Slovak Republic and Hungary, and Office, accounting and computing machinery relative to the Czech Republic. In the medium-high-tech area, Poland caught up to a large extent, thanks especially to the dynamism of the automobile sector. Nevertheless, although the low-tech sector now accounts for "only" a quarter of manufacturing exports, it is still over-represented compared to the Czech Republic (14% in 2007), Hungary (11%), the Slovak Republic (13%) and even Ukraine (18%). An analysis of trade prices at the detailed product level seems to corroborate that, although Poland enhanced the overall quality of its export products, other CEEC4 countries caught up a larger part of the quality gap with Western European countries (see Boulhol and Lequien, 2010, for details).

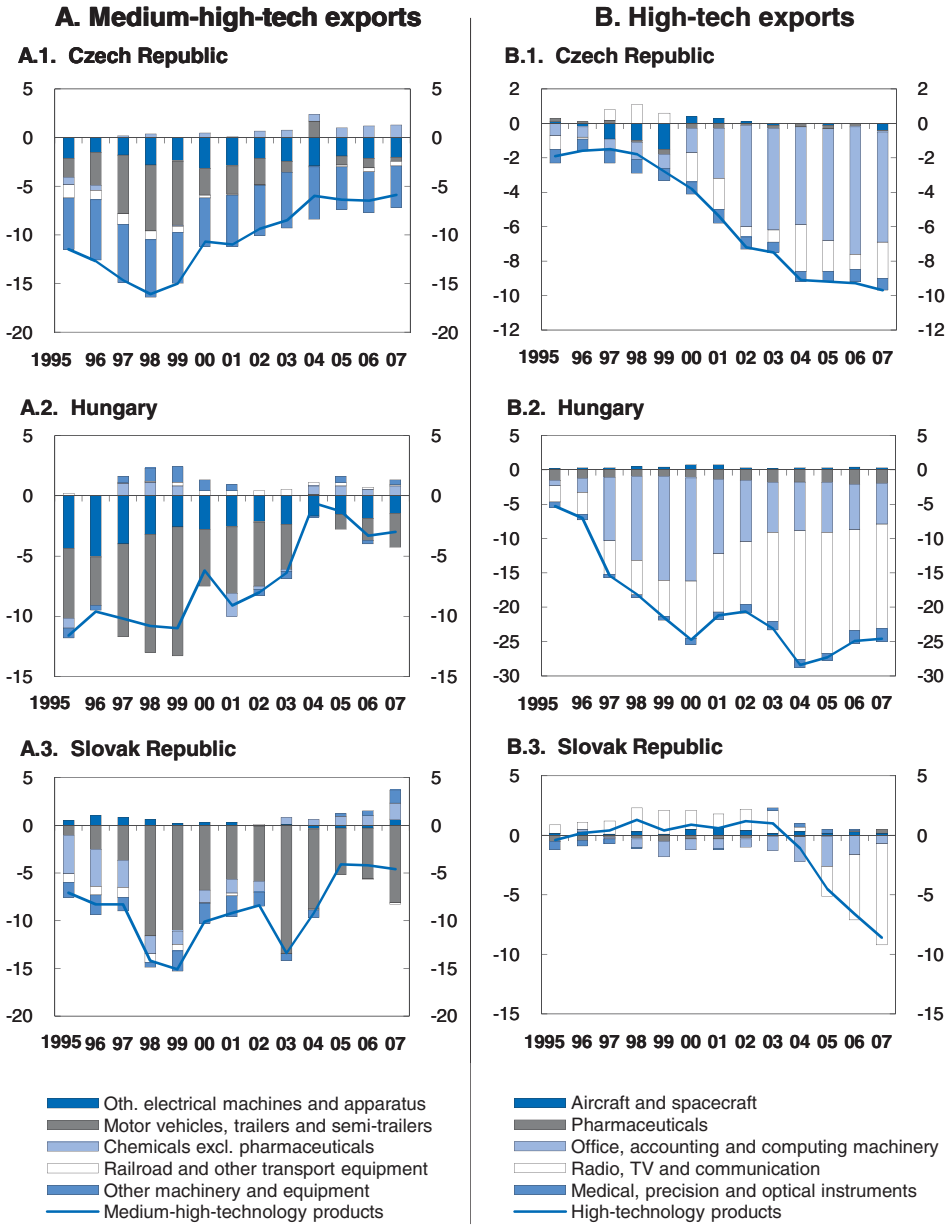
Destination of exports is moving eastwards within Europe

Unsurprisingly, Germany is by far Poland's most important trading partner, representing about one quarter of both Polish exports and imports, though its relative importance has diminished substantially since the mid-1990s. The total share of EU15 countries in Polish exports fell somewhat from 70% in 2000 to 62% in 2008, while that of both the other Central and Eastern European members of the European Union and the CIS countries (recovering from the 1998 Russian crisis) increased. This reorientation of exports suggests that Poland is better exploiting its favourable geographical position between Western Europe and further Eastern countries. One striking east-west difference, however, is that exchanges with EU countries explain the overall increase in intra-industry trade discussed above, while trade with CIS countries and China remains by and large inter-industry in nature. Beyond this, Europe in a broad sense still represents about 90% of exports and 80% of imports. China, Korea and the United States still account for only about 10% of Polish imports. In that sense, Polish globalisation has so far essentially amounted to European integration.

The geographical pattern of exports highlights the poor capacity of Polish producers to export over long distances, even if Polish products might eventually reach remote markets, perhaps as parts of German finished goods. Estimated bilateral trade flows by Bosquet and Boulhol (2009), which take into account the characteristics of countries throughout the world, and such determinants as distances, borders, colonial linkages and free trade agreements, suggest that Polish exports to China, Japan and the United States, for example, should be about five times larger than their actual values. Although true as well for other CEEC4 countries, this feature is more pronounced for Poland. These three large distant countries accounted for only 2.4% of Polish exports in 2007, compared to 3.2% of Czech , 4.5% of Hungarian and 5.5% of Slovak exports. The size structure of exporting firms might contribute importantly to the weakness of overseas exports. Polish firms tend to be small, and most SMEs have started their export activities only recently, and then only with

Figure 3.4. **Decomposition of the difference of medium-high-tech and high-tech export shares between Poland and other CEEC4 countries**

In percentage points



Source: BACI; OECD calculations.

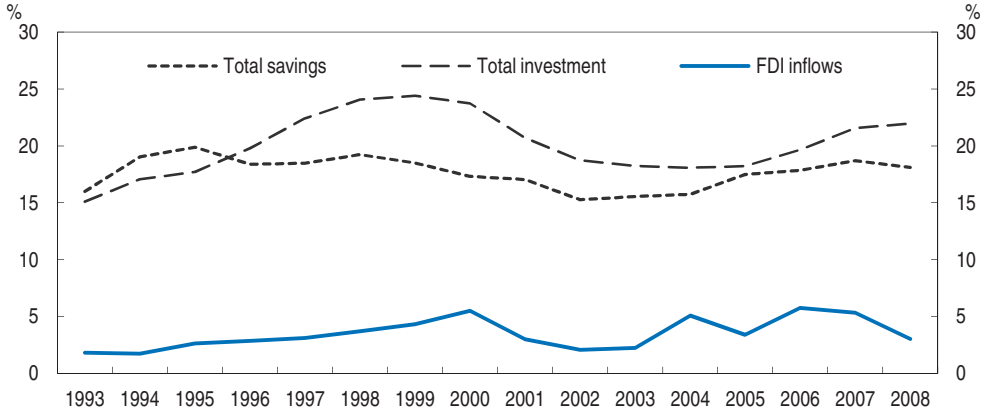
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neighbouring countries. SMEs therefore have a limited knowledge about the possibilities of co-operation with distant markets and about their commercial and legal practices, as well as insufficient financial resources to start more risky projects.

Foreign direct investment and the increasing role of foreign-owned firms

In catching-up economies, inflows of FDI help to bridge the gap between substantial investment needs and potentially insufficient domestic saving (Figure 3.5).[7] In Poland, FDI inflows represent about a fifth of total investment, and attracting FDI is all the more

Figure 3.5. **FDI inflows, savings and investment as shares of Poland's GDP**



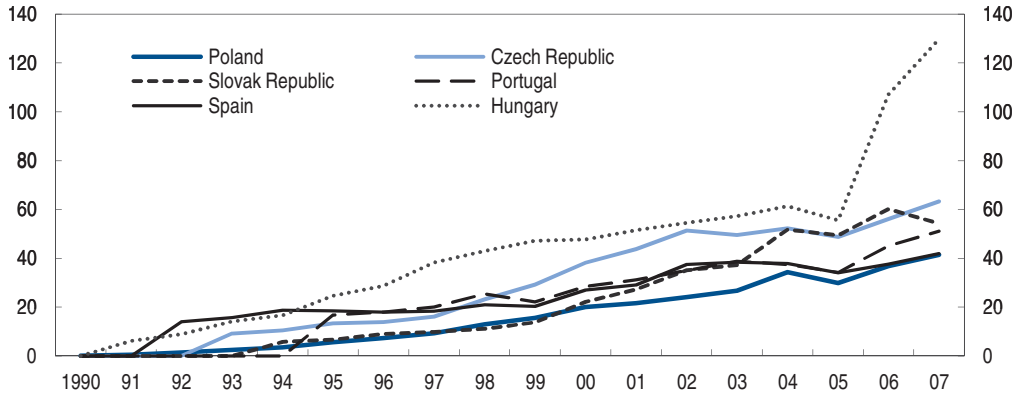
Source: OECD, *Foreign Direct Investment* and *OECD Economic Outlook 86 Databases*.

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important, given that the total investment rate has been structurally lower than in other CEEC4 countries.[8] However, relative to its size, Poland has not performed as well as other OECD countries in Eastern Europe in terms of inward FDI, even though there has been a recent improvement. Between 1995 and 2008, annual FDI inflows represented 3.7% of GDP on average, compared to about 6% for the Czech Republic, Hungary and the Slovak Republic. As a result, at about 35% of GDP, the stock of FDI has tripled since 1995 but lags behind most catching-up countries in the OECD except Turkey and Greece (Figure 3.6).[9, 10] Outward flows have remained limited, and outward positions amount to only about 3% of GDP.

Figure 3.6. **Poland's inward FDI stock**

As a percentage of GDP



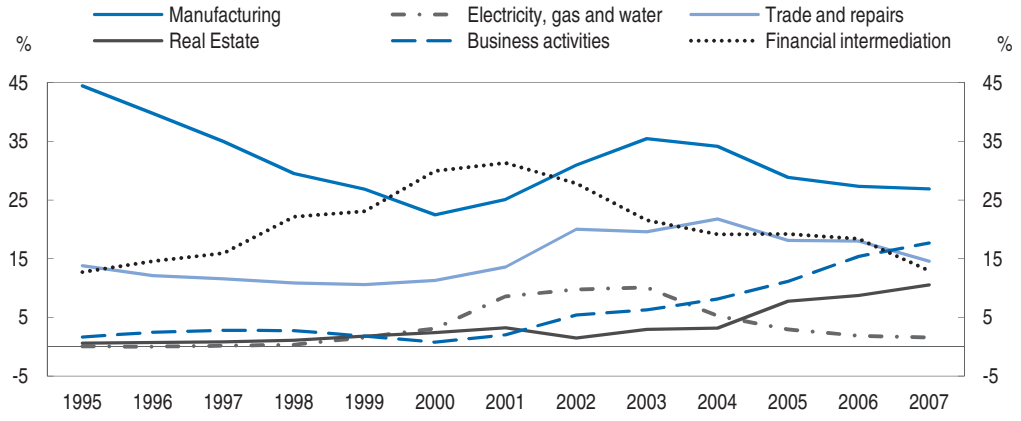
Source: OECD, *Foreign Direct Investment* and *National Accounts Databases*.

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The broad structure of inward FDI has shifted in favour of services. Manufacturing now accounts for about 26% of total FDI flows, compared to 45% in the mid-1990s (Figure 3.7), despite the surge in the "metal and mechanical products" sector in 2003. Similarly to the export structure, the technological structure of FDI in manufacturing is heavily skewed against high-technology sectors: despite the shift of about 10 percentage points in the share

Figure 3.7. **Sectoral structure of FDI inflows**

Percentage shares, smoothed by three-year moving average



Source: OECD, *Foreign Direct Investment Database*.

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of manufacturing FDI positions from low to medium-low technology since 2002, high technology represents only about 3% of FDI positions, with no apparent improvement. The share of services in total FDI positions has reached about 60% in Poland, much above that in the Czech Republic (50%) and in the Slovak Republic (40%). In the 1990s, FDI in services was initially associated with privatisation, especially in the financial sector, which restructured heavily under the influence of foreign capital. The other sectors that have also benefited importantly from FDI are "Trade and Repairs" and, increasingly, "Real Estate" and "Business and Management Services" such as legal and accounting services. In contrast, FDI has been negligible in extracting activities and R&D, and lower in utilities than in other CEEC4 countries. About 85% of inward FDI originates from the European Union.

The steadily increasing share of FDI positions in GDP implies that firms with foreign capital play a greater role in the economy, especially in export activities. In 2007, there were about 18 000 foreign-owned companies in Poland, representing 15% of the total number of entities with more than 10 employees, 27% of employment, 36% of fixed assets, 40% of sales and two-thirds of total Polish exports (IBRKK, 2008b). They employ relatively more skilled workers than firms with domestic capital only, and products exported by foreign companies are also more technologically advanced. For example, the share of high-technology products in exports is estimated at over 8% for foreign companies as against 3% for domestic firms. Foreign investment therefore has a strong influence on export specialisation and the shape of comparative advantage.

Migration flows

Migration flows in Poland are still largely outwards and have markedly increased since its accession to the European Union in 2004 and the opening of most EU labour markets to workers from new member states, although emigration began to slow down in the second half of 2007 (OECD, 2009a). Whereas about 23 000 emigrants had left Poland for permanent residence each year on average between 1961 and 2005, the annual average increased to 37 500 between 2006 and 2008. For these two periods, annual migrant inflows for permanent residence were 3 800 and 13 700, on average, respectively.

Based on the national Labour Force Survey, about 522 000 Poles, or 1.4% of the domestic population, were temporary migrants, *i.e.* had been abroad for more than two months, in the third quarter of 2007, compared with less than 200 000 on average in 2003 (Kaczmarczyk and Okolski, 2008).[11] However, the extent of the phenomenon is subject to large uncertainty. LFS data provide a lower-bound estimate, as most people do not declare emigration and are still registered as permanent residents. Kaczmarczyk and Okolski argue that official statistics are heavily biased for that reason. The main destination countries are the United Kingdom, Germany and Ireland. Relative to their own populations, the countries with the largest shares of emigrants to Western Europe between 2003 and 2007 are Romania, Bulgaria, Lithuania and, then, Poland (Kahanec *et al.*, 2009). A stronger propensity to migrate has been observed among young and relatively well-educated Polish people who originate from economically backward areas characterised by limited employment opportunities. So far, although spectacular, this increase in migration flows seems to have had only a limited impact on the Polish labour market (Kaczmarczyk and Okolski, 2008). According to these authors, this is because the structure of the economy has not responded to the improvements in education outcomes, leading them to interpret outflows in terms of "brain overflow" rather than a "brain drain". There is no consensus on this issue. In any case, emigrants have been sending increasing amounts of their savings back home, with, remittances from Polish emigrants in 2008 at about 0.9% of GDP (Galgoczi *et al.*, 2009).

Despite a recent increase, immigration to Poland remains low. The immigrant share of employment was the lowest among OECD countries at 0.3% compared with 12.0% on average in the OECD in 2007 (OECD, 2009a). That share was also low in other CEEC4 countries, albeit greater than in Poland: 1.9% in the Czech Republic, 1.8% in Hungary and 0.6% in the Slovak Republic. In 2007, changes in migration policy led to a greater opening to those temporary and seasonal workers from the Ukraine, Belarus and the Russian Federation who have the Card of the Pole (karta Polaka) via reduced employer fees for hiring workers from these countries, removal of visa requirements and an extension of immigration periods.

Enhancing the effects of inward FDI

Benefits and promotion of FDI

Economic transition in Eastern Europe has been accompanied by large flows of inward FDI, which offers more stability than foreign portfolio investment due to its closer connection to the so-called "real economy". Inward FDI is generally expected to generate both direct and indirect effects. FDI can directly offset the lack of domestic investment, whether due to sub-optimal savings, credit constraints on local firms or inefficient allocation of domestic capital. Based on an analysis of investment flows across world economies from the mid-1980s, domestic investment is estimated to increase on average by 60 cents for 1 dollar of FDI inflow.[12] As a result, inward FDI tends to boost labour demand, which raises wages and employment when there is slack in the labour market. The positive impacts on output are magnified (as foreign firms are generally more efficient) and hence boost productivity. Moreover, when linked to privatisation, FDI fosters restructuring even though it might not add to the stock of capital initially. Thus, policy makers have been encouraged to create the best economic environment to attract FDI.

Beyond these direct effects, FDI benefits can spill over to local firms as multinationals tend to be more technologically advanced. Indeed, a vast body of empirical literature shows that multinationals are generally larger, more productive, pay higher wages and use capital more intensively (Aitken *et al.*, 1997, among others, and Hagemejer and Kolasa, 2008, for Poland). The theoretical literature identifies various channels through which spillovers from FDI might boost productivity in the host country via technology diffusion or human-capital accumulation: imitation leading to the adoption of new production methods and management practices; skills acquisition transmitted through employment turnover; and intensified competition, which reduces X-inefficiency and speeds up the adoption of new technology (Glass and Saggi, 2002). National companies might also learn how to export from multinationals, and there is evidence that FDI improves export performance of domestic firms (Greenaway *et al.*, 2004; Kneller and Pisu, 2007). The prospect of spillovers could have important policy implications as foreign investors do not take into account these potential externalities, leading to an inefficiently low level of inward FDI. Consequently, the presence of spillovers would justify active FDI promotion policies to bridge the gap between the private and social returns from FDI.

However, surveys of the empirical results on the importance of spillovers are mixed at best (Görg and Greenaway, 2004). Firm-level panel-data studies for developing and transition economies focus mainly on horizontal spillovers and usually find insignificant spillovers from foreign presence. One explanation could be that foreign firms, having strong incentives to prevent leakages of knowledge to competitors, actually succeed in protecting their superior technology. Vertical spillovers towards either customers or suppliers are therefore more likely, and there is some evidence of positive backward linkages with local suppliers, as foreign firms tend to provide assistance in order to upgrade the quality of suppliers' products (Javorcik, 2004; Kolasa, 2008). The failure to find convincing evidence of unconditional spillovers from the presence of foreign firms might also be due to differences in countries' ability to reap the benefits of FDI, making the search for a universal relationship futile (Lipsey and Sjöholm, 2005).[13] In contrast, empirical studies consistently find that FDI flows have positive effects *conditional* on certain host-country characteristics, defined as the absorptive capacity of foreign investment, such as the sufficiency of human capital and R&D, and the efficiency of the financial system (see below).

The main resulting message is that, while attracting FDI might be the easiest step to complete in order to benefit from FDI, developing the recipient's absorptive capacity is likely to be both the most challenging and rewarding component of the overall strategy. It follows that policy should largely strive to provide a supportive economic environment, with an instrumental role for both education and training policies, designed to upgrade general skills, and public investment policies, aimed at developing efficient and reliable transportation and communication networks (Görg and Greenaway, 2004). Besides, such policies would also contribute to overcome impediments inhibiting domestic investment.

On the other hand, economists are generally sceptical about the use of FDI subsidies such as tax incentives or subsidies for the purchase of land, for several reasons (see, for example, Hanson, 2001). *First,* tax incentives are costly, and it is far from obvious that they are cost-efficient, given that FDI spillovers do not occur automatically and that the elasticity of investment to its user cost is not large (Zee *et al.*, 2002). *Second,* subsidising FDI may distort competition and generate significant losses among local firms. *Third,* subsidies, especially when they are non-transparent, as they often are, tend to favour corruption (Blomstrom and Kokko, 2005). One difficulty with this assessment, however, lies in the fact

that foreign investors have become increasingly footloose within a broad area such as Eastern Europe, given that the slicing-up of the production chains diminishes the importance of market size, inducing fiercer competition to attract foreign investment. The temptation to overbid for foreign investment projects has therefore increased. Policy makers should enhance both co-ordination among local and regional authorities and co-operation among countries in the region to avoid creating rents for multinationals at the expense of the public purse.

Making the economic environment more attractive to foreign direct investors

Even though thinking in terms of the determinants of FDI *versus* those of absorptive capacity helps to identify the various channels at work, some factors that boost FDI also enhance absorptive capacity, and *vice versa*. Hence, distinguishing between these determinants, as proposed below, is somewhat arbitrary.

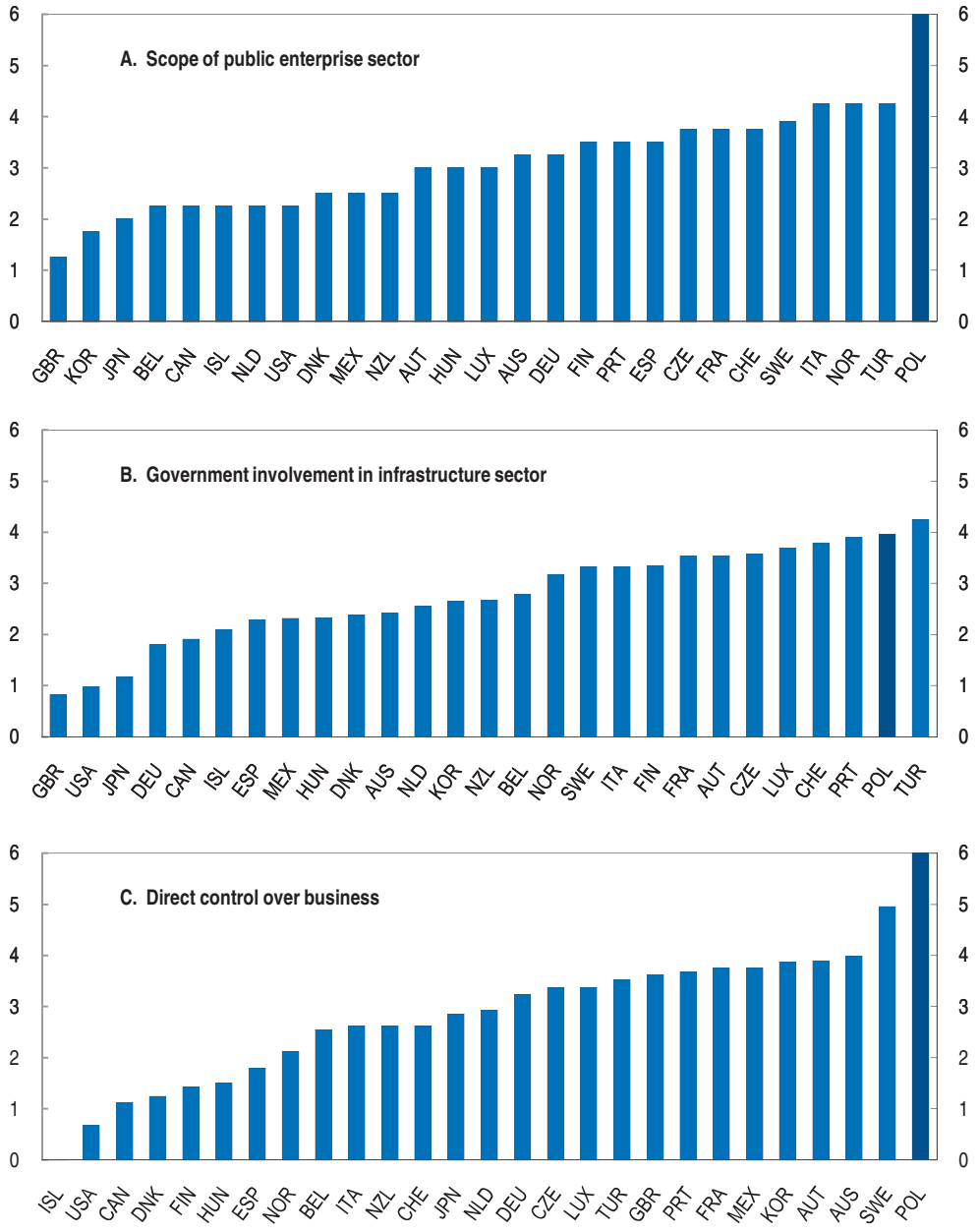
Reducing state ownership

Privatisation directly attracts foreign capital, and privatisation-related FDI played a crucial role in the restructuring of transition economies in the 1990s (Kalotay and Hunya, 2000).[14] Beyond these direct effects, it acts as a signal of commitment to market-economy principles, which might reassure foreign investors. Privatisation generally helps to reduce public subsidies and generates revenues from the sales of public shares, while improving the efficiency of corporate governance and better allocating production factors. In Poland, following the Mass Privatisation Programme initiated in December 1994, 20% of the FDI stock was related to privatised enterprises at the turn of the century (Wojnicka, 2001). After the peak reached in 2000, the privatisation process slowed down substantially. The revenues from the sale of state-owned enterprises slumped from a record PLN 27.2 billion in 2000 to PLN 0.6 billion in 2006, representing only 11% of the government's projection for that latter year. Progress has been particularly slow in mining, defence, heavy chemicals and rail transport. Between 2000 and 2007, privatisation revenue represented 4.3% of 2006 GDP, compared with 13.5% for the Slovak Republic, 9.2% for the Czech Republic and 6.9% for Hungary (OECD, 2009b).

Poland remains the OECD country where the control of the state over economic activities is the tightest according to the OECD product market regulation (PMR) indicators. All three components of the "Public ownership" index, *i.e.* the scope of the public enterprise sector, government involvement in network sectors and direct control over business enterprises, point to this conclusion (Figure 3.8).

When elected, the government had an ambitious privatisation plan for the years 2008-11. The need for private capital has been mounting as the constraints on public finances increase the risks of structural under-investment in state-owned firms. The plan contains detailed information about timing, proportion and identity of companies that should be privatised. These enterprises belong to the financial sector and other industries that have already been subject to privatisation, as well as to the mining, chemical and energy industries, that have been considered "strategic" and remain by and large under state control. The plan includes changes in the privatisation framework in such areas as the transparency and the duration of the process or the adjustment of compensation towards market practices in the targeted companies. This is critical, as the choice of the privatisation method has a large impact on the conditions for successful restructuring of formerly state-owned firms (Aghion and Carlin, 1996). According to applicable law, prior to

Figure 3.8. **Public ownership**
Indicator scale of 0-6 from least to most restrictive, 2007



Source: OECD, *Product Market Regulation Indicators Database*.

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each privatisation an external advisor shall be selected. His main task is to prepare pre-privatisation analysis comprising four elements: an assessment of the legal status of the company's property; an assessment of its prospects for growth; an assessment of obligations resulted from environmental law as well as the law on conservation of historic monuments; and a valuation of the company (OECD, 2009b). Effective privatisation also means reducing both the influence of specific interests (management, staff, unions) and

the constraints imposed on the purchaser's management of the labour force: any downsizing should be dealt with via active labour market policies (see the *OECD Guidelines on Corporate Governance for State Owned Enterprises*).

In 2008, privatisations yielded revenues of PLN 2.4 billion, slightly above the target for that year. Faced with the need for fiscal consolidation, the decision was taken in August 2009 to accelerate the process, with an objective of revenues from privatisation of PLN 37 billion between the middle of 2009 and the end of 2010, or about 2.7% of annual GDP. All in all, 802 companies are involved in the process out of the 1 237 in which the Ministry of Treasury still owned shares at the end of March 2008.[15] The targeted companies include the Warsaw Stock Exchange (WSE), energy companies (Enea, Tauron, PGE, Energa, ZE PAK, Lotos), Ciech (the chemical giant), the main telecoms operator (TPSA) and leading bank (PKO BP).

The first part of the plan, corresponding to the second half of 2009, clearly fell short of its objective, as revenues reached PLN 7 billion as against PLN 12 billion in the budget. The lack of interest is widespread, although the shortfall is mainly due to the failure to sell Enea, potentially related to strong unions in this sector, and the delay in the privatisation of the WSE. The Treasury and the Stock Exchange are working to set up a lightly regulated (simplified IPOs without prospectus) separate alternative trading system (ATS) for state-owned companies.

Although optimistic sales prices may have contributed to the current difficulties, investors might primarily be discouraged by partial privatisation and the possibility of future state intervention. For example, the so-called "golden veto" gave the Polish Treasury a privileged position in strategic state-controlled enterprises. The Sejm has just passed a new law that abrogates the 2005 Golden Veto Act, which had been viewed by the European Commission as incompatible with EU law guaranteeing the free flow of capital and entrepreneurial freedom. In its place the new legislation, based on a December 2008 EU Directive, allows the government to implement various measures to protect critical energy infrastructure.

The case of the insurance company PZU helped to undermine the credibility of the whole process. After Eureko of the Netherlands and the Polish government reached an agreement following nine years of negotiations, PZU is to be privatised and enter the WSE. The Polish government initially sold 30% of PZU to a consortium led by Eureko with a promise to sell an additional 21% at a later point in time. When the subsequent government refused to make good on the promise, Eureko complained to the London Court of International Arbitration, which forced the government to pay compensation. Pointing to the revenue losses from the failed privatisation of energy companies over 2005-08, as well as overly generous social agreements reached to the benefit of employees in those firms, a report by the Supreme Chamber of Control also highlighted inconsistency issues in the stance of the authorities as regards the privatisation process. These are issues which the authorities should address. Now that financial-market conditions have largely stabilised, the privatisation plan should be fully implemented in a transparent way that continues to place domestic and foreign investors on an equal footing.

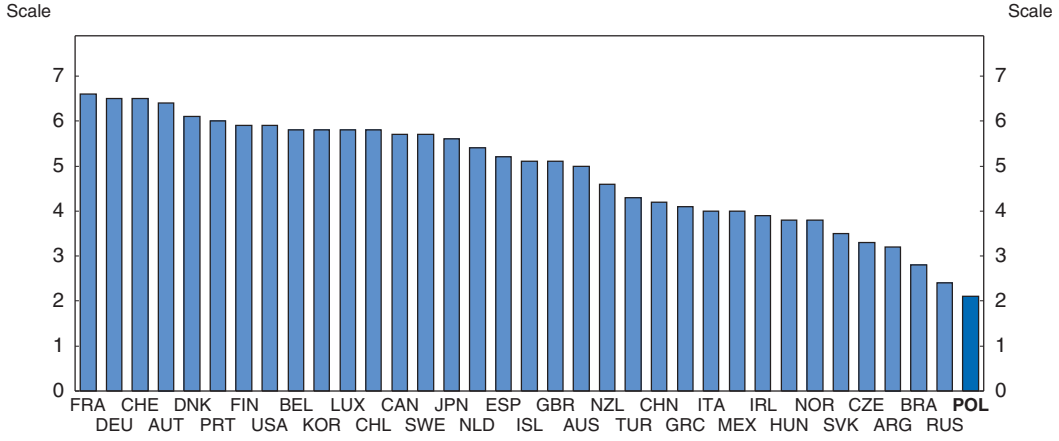
Developing transport and telecommunication infrastructure

There is a broad consensus that greater provision of infrastructure is associated with higher subsequent GDP growth rates, especially in developing countries (Gupta *et al*., 2005),

as infrastructure is associated with economies of scale and network externalities and enhances competition through improved market access (OECD, 2009c). Well-developed transport and telecommunication infrastructure reduces the cost of domestic and international trade, thereby resulting in a more efficient connection among local markets and to international markets. Hence, investors, especially foreign investors, consistently rank the quality of local infrastructure, in particular communication and transportation facilities, as a key determinant of their investment-location decisions.

The main focus of transport policy since 2004 has been road development since insufficient quality and quantity of road infrastructure in Poland are clear obstacles to its economic development (Figure 3.9). The last *Survey* highlighted the need to improve transport infrastructure more generally, and, in particular, impediments to the development of railways, which affect competitiveness (see OECD, 2008a, Chapter 5). A recent business survey on investment climate found that 80% of entrepreneurs considered the condition of Polish roads as bad or very bad, while that share was about 30% for utilities and 25% for telecommunications (PAIiIZ, 2008). Under-investment in roads over the past decades combined with increasing transport activities have contributed to the accelerated depreciation of the current network, congestion, the absence of a cohesive system of high-speed arteries and the dramatic decrease in traffic safety. Rutkowski (2009) estimates that, given its size and compared with other EU member states, there is a lack of about 2 000 km in motorways, which would represent an investment of about 8% of GDP. The last *Survey* recommended charging passenger cars for using expressways, determining in a transparent way the level of tolls on high-capacity roads as well as introducing an explicit congestion tax. Based on the new law passed in December 2008, an electronic tolling system for buses and heavy vehicles only is going to be introduced from 2011. Care must also be taken not to focus on inter-city linkages to the detriment of improving underdeveloped connections between large cities and their surrounding municipalities. Greater investment in regional/metropolitan roads, including ring roads, which do not exist in most cities, might generate considerable economic gains (OECD, 2008b). Overall, cost-benefit analyses of the proposed transport infrastructure investments seem insufficiently systematic, making it difficult to prioritise the various projects.

Figure 3.9. **Road transport infrastructure quality**[1]



1. Scale from 1 (underdeveloped) to 7 (extensive and efficient as the world's best).

Source: World Economic Forum (2009), *The Global Competitiveness Report 2009-2010*.

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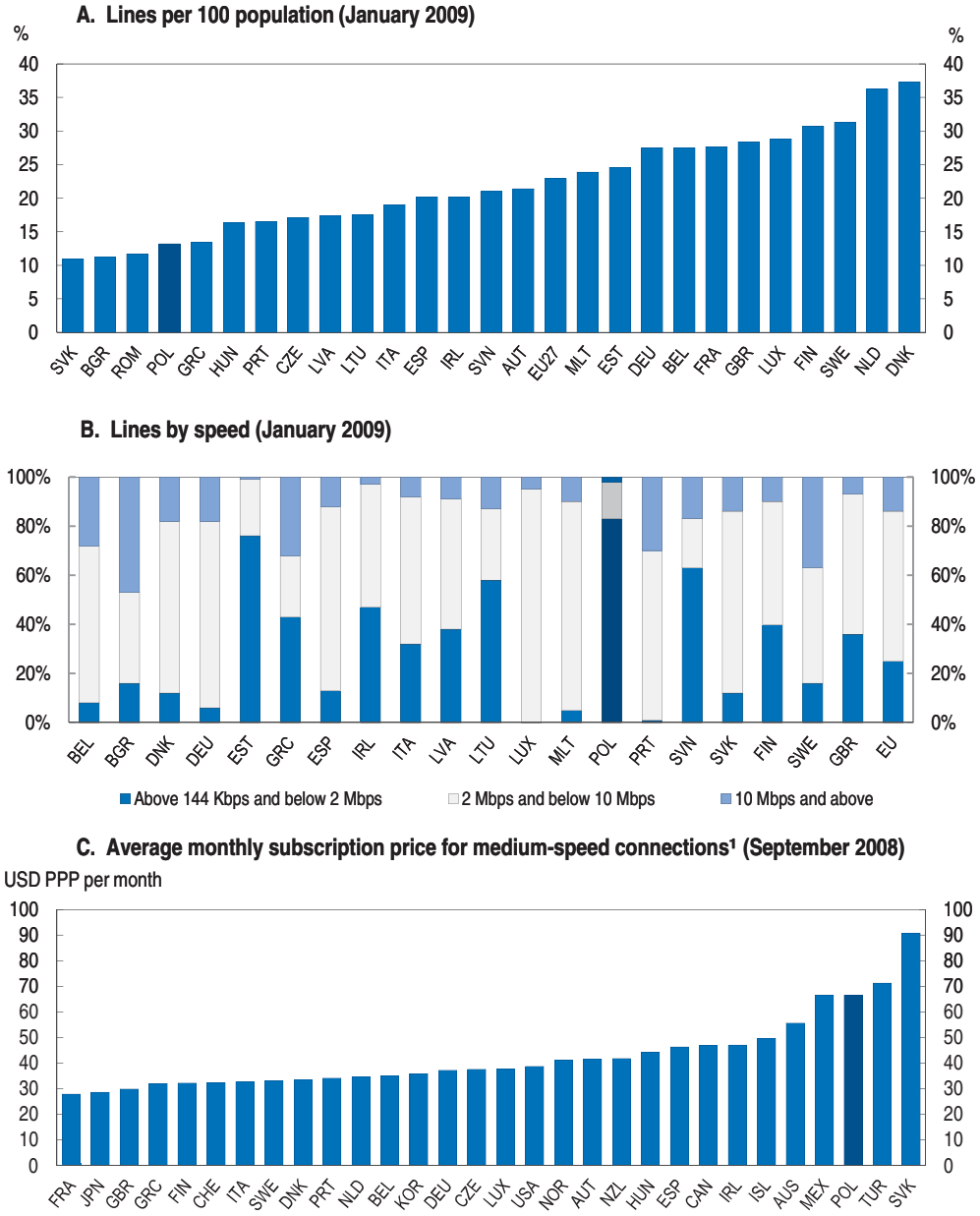
Poland's ability to efficiently absorb EU funds in the coming years will be critical to upgrading the quality of its infrastructure. As part of the EU regional policy over the period 2007-13, Poland has been allocated EUR 67.3 billion, of which about 40% to develop transport infrastructure. Adding the 15% mandatory co-financing by national resources, the funds to be invested over six years exceed 20% of today's annual GDP. Such an inflow of public funds represents a unique opportunity for Poland to design a modern infrastructure system. However, it represents as well both a technical and macroeconomic challenge (see Chapter 1). The lack of collaboration between policy makers and the private sector has been identified as a key reason for the difficulties in absorbing EU funds in the transport sector, even though there have been significant improvements in the absorption rate since 2006. Recent efforts to improve vocational training in order to ease capacity constraints in the construction sector should be strengthened further. Moreover, the previous *Survey* highlighted a number of challenges faced by public authorities, including: a wider opening to foreign labour to deal with the shortage of construction workers, architects, engineers and planners related to construction; organising competitive tenders; streamlining the legal framework related to public procurement and issuance of building permits; and improving the legal framework to develop public-private partnerships (PPPs). In February 2009, a new Act on PPPs was enacted that eases the administrative burden discouraging PPP agreements, especially the regulation pertaining to the scope and detail of required performance analysis. The new legislation allows the possibility of combining PPP with financing through EU funds. According to Rutkowski (2009), underperformance at central government level can be due to: poor integration of numerous concurrent plans within an overarching strategy; slow compulsory land purchase procedures; insufficient use of external audit; complicated tendering procedures; lack of local spatial planning maps; and too frequent changes both in top management and line administration.

In the telecommunications sector, deregulation has already gone a long way as reflected by the OECD PMR indicator of telecommunications regulation. Two important changes in the regulation framework over the past year have reinforced the power of the regulator, the Office for Electronic Communications (UKE). The President of UKE has gained more independence from the government through both a fixed five-year term appointment and the establishment of conditions for dismissal. Also, the responsibility for market definition will be transferred from the Ministry of Infrastructure to UKE, giving the latter full responsibility over the market-analysis process. Following the improvement in the regulatory environment over the past decade, competition has increased, and the market share of the incumbent operator, Telekomunikacja Polska (TPSA), has been decreasing, even though it continues to dominate in both broadband and fixed telephony.[16] Yet, the outcomes in terms of penetration and access conditions leave Poland behind most other OECD countries. For example, at the end of 2008 Poland was the EU country where changing operators while keeping the same number ("portability") took the longest time: 23 days on average for fixed telephony against 7.5 across the EU (European Commission, 2009). Streamlining the portability process would be an important step to ensure efficient competition and the amendment to the Telecommunications Act and a 2009 ordinance of the Minister of Infrastructure aim at reducing the time it takes to transfer a number to just one day for mobile numbers and seven days for fixed numbers.

One area of serious weakness, despite recent improvement, is the development of broadband Internet in terms of penetration, speed and prices (Figure 3.10). This can weigh on economic performance as there is evidence that broadband infrastructure promotes

Figure 3.10. **Penetration, quality and price level of fixed broadband in OECD countries**

Percentage shares and USD-PPP per month



1. 2 500 to 10 000 kbit/s advertised.

Source: European Commission (2009), for Panels A and B; OECD, *OECD Communications Outlook* (2009), for Panel C.

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growth in OECD countries (Czernich *et al.*, 2009), presumably through the general-purpose-technology characteristics of broadband Internet: high-speed Internet may accelerate the distribution of ideas and information, and foster competition. The fixed broadband penetration rate was amongst the lowest in the EU at 13 lines per 100 inhabitants against 23 in the EU on average in January 2009; 83% of fixed broadband lines are below 2 megabits per second against 25% in the EU. This overall weak performance might be

partly explained by the inefficient allocation of resources across the whole territory. Indeed, due to a lack of investment in the existing network, low penetration is even more striking in rural areas where TPSA is in a situation of quasi-monopoly. Poland's broadband lag is mainly due to TPSA's control of most fixed-line infrastructure and the failure of the regulatory authorities to loosen its grip (EIU, 2009).

Four main measures could help Poland to catch up in terms of broadband performance. *First,* the regulator should be further strengthened. UKE's budget should be decided directly by the Parliament, to which it should be made accountable for meeting clear goals. *Second,* the regulator should proceed with the functional separation of the incumbent in order to ensure effective non-discrimination, as alternative operators have alleged discriminatory treatment in the form of frequent technical problems, incomplete and erroneous information and delay in take-up (European Commission, 2009). As a result, most rivals are doing their best to avoid using TPSA infrastructure. *Third,* the regulator should implement an efficient mechanism to allow access to the incumbent's infrastructure via the unbundling of the local loop. Indeed, local-loop unbundling is still not functioning in Poland, even if the situation has improved recently, as only about 24 000 lines had been unbundled by September 2009 (in Spain, a country of similar size, more than 1.3 million lines were unbundled). *Fourth,* network access pricing should be more transparent and consistent with costs in order to better protect consumers and provide appropriate incentives for investment. According to European Commission (2009), the lack of a coherent wholesale pricing approach inhibits alternative operators from moving up the investment ladder. A key reform in this regard would be to limit the ability of the incumbent to use its dominant position to offer below-cost retail prices. Foreign investment could be valuable to improving the telecommunications infrastructure, which suggests the need for close co-ordination between UKE and PAIiIZ to identify investment opportunities.

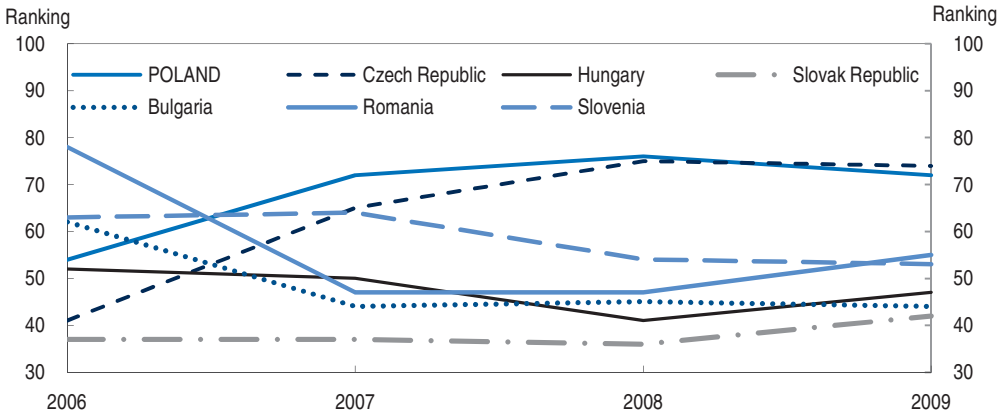
In October 2009, UKE and TPSA signed an agreement ending a long-term dispute with the objective of ensuring equal access to TPSA's infrastructure for all operators, including TPSA's retail arm. The separation of TPSA's wholesale and retail activities has been suspended under the conditions that TPSA builds or modernises existing infrastructure so that within three years at least 1.2 million broadband lines are connected, including 1 million of a bandwidth of at least 6 megabits per second. This, however, means upgrading lines with already old DSL equipment (ADSL). Upgrades should actually involve at least 24 megabits per second (ADSL 2+), and investments should rather focus on fibre optic lines. Instead of a formal functional separation, TPSA has simply agreed to single out the unit dealing with the provision of wholesale services from the retail unit. In addition, UKE will not lower the wholesale line rental, bitstream access and local-loop unbundling rates which TPSA charges for using its infrastructure. The threat of lower access prices and functional separation is maintained if TPSA does not fulfil its new obligations within the coming year. This agreement is a first step showing the President of UKE's commitment to improve the current situation. Its success in boosting broadband performance relies, however, on both the effectiveness of UKE in monitoring developments and its power to enforce tougher measures if needed.

Creating a better business environment

The quality of the business climate in which investors develop their projects is an obvious determinant of FDI, as the legal and regulatory framework should be compatible

with the operation of foreign-owned companies. Evidence confirms that the extent of product market regulations reduces inward FDI (Nicoletti *et al.*, 2003). Despite ongoing progress, there remain serious obstacles to conducting activities in a business-friendly environment, and Poland's *relative* position in the ease of doing business has deteriorated since 2006 (Figure 3.11). Economic crime seems to still be a serious issue affecting organisations in Poland, despite increasing regulatory actions and anti-fraud controls introduced in recent years (PricewaterhouseCoopers, 2009). Inefficient government bureaucracy is consistently reported as one of the most problematic factors for doing business (World Economic Forum, 2009), which applies to the administration, tax and legal frameworks.

Figure 3.11. **Trends in the ease of doing business rankings**[1]



1. Data in the Doing Business indicators are current as of 1 June of each year.

Source: Doing Business 2007, 2008, 2009 and 2010.

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First, starting a business takes a long time and is unduly costly. Poland is second only to Mexico as the OECD country with the highest administrative burdens on start-ups, based on the OECD's PMR Database. According to World Bank indicators, the situation improved significantly in 2009, even though much remains to be accomplished. Poland ranks 117th (145th in 2008) out of 183 countries in the ease of starting a business (World Bank, 2009 and 2010). Creating a business still costs about three times more than in the OECD on average, takes 32 days against 13, requires a minimum capital of about 15% of average income per capita (similar to the OECD average), thanks to the 2009 reduction of the minimum capital requirement for a limited liability company from PLN 50 000 to PLN 5 000, and is achieved through 6 (10 in 2008) procedures, the same as the OECD average. As part of the "Better Regulation" programme (see below), the creation of a system of one-stop shops in 2009 is a step in the right direction, but entrepreneurs must often still deal with excessive formalities, and anecdotal evidence suggests that the reform has had only a marginal effect on the length of the whole process. Investors are critical of the multiplication of procedures and public decision-making bodies involved in the investment process, as well as the lack of co-ordination across different levels of government.

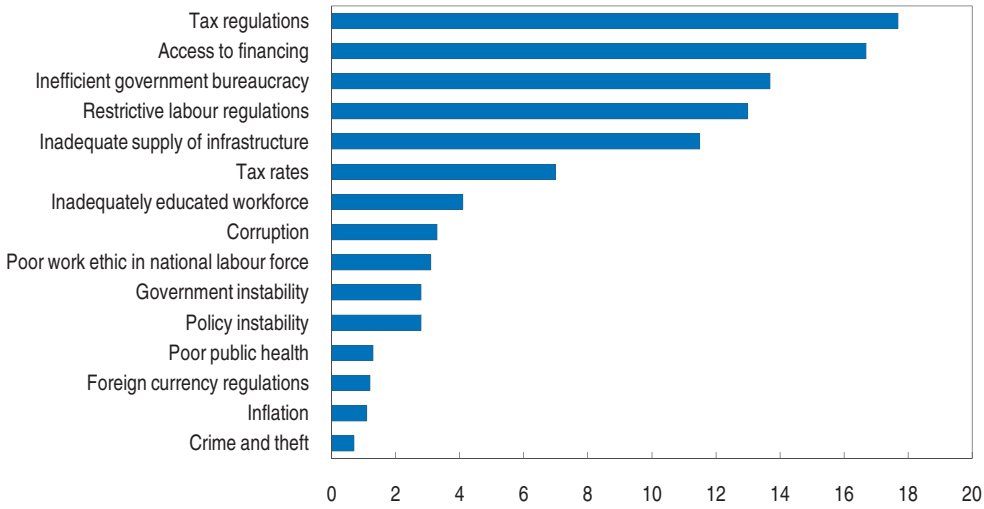
Second, the licence and permits system contributes to regulatory and administrative opacity. For example, there is no single contact point either for getting information on or accepting licences. In particular, based on the World Bank's world development indicators, the number of procedures to be completed as well as the time required to deal with

construction permits, register property or build a warehouse in Poland generate significant barriers to business conduct compared to other countries.[17] Constraints mostly refer to confusion about land-ownership titles, cumbersome legal procedures in establishing satisfactory titles for completing land purchases or lease transactions, a lack of local development plans and overlapping governmental institutions.

Third, tax regulations are the most problematic factor for doing business in Poland according to the various recent vintages of the World Economic Forum's *Global Competitiveness Report*. More than the level of taxation, the lack of transparency and consistency of tax regulations are the major source of inefficiencies (Figure 3.12). This is consistent with the results of a recent survey conducted by the Polish Information and Foreign Investment Agency (PAIiIZ) on the investment climate in Poland (PAIiIZ, 2008). Numerous amendments and interpretations of the tax law are often pointed out as a source of confusion, even though some progress has recently been made (Chapter 1).

Figure 3.12. **The most problematic factors for doing business in Poland**

Per cent of responses[1]



1. From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country/economy and to rank them between 1 (most problematic) and 5. Responses are weighted according to their rankings.

Source: World Economic Forum (2009), *The Global Competitiveness Report 2009-2010.*

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Finally, the legal framework constitutes an obstacle for conducting business in Poland. The assessment of whether the legal framework for private businesses to settle disputes and to challenge the legality of legal regulations is efficient and follows a clear, neutral process places Poland on the 109th rank in a sample of 134 countries, in line with the Russian Federation and ahead of only Italy and the Slovak Republic among OECD countries. In particular, the time and procedures required to enforce contracts, more than the financial costs, are especially burdensome in Poland, and the efficiency of commercial courts is rated low by investors (PAIiIZ, 2008).

The "Better Regulation" programme is the most significant reform aimed at improving the regulatory environment for doing business through simplified regulations and more efficient legal procedures. The measures taken in 2008 include: creation of one-stop shops for start-ups; an increase of the income threshold from EUR 0.8 to EUR 1.2 million for the

obligation to keep complete accounting books; an extension of the role of the Polish Agency for Enterprise Development with a focus on innovation, removing barriers to the growth of firms and enhancing their capacity to adapt to changing economic conditions; an increase in the limit on the size of special economic zones (see below) from 12 000 to 20 000 ha; greater entrepreneurs' freedom to organise themselves in economic chambers; and easing of excessive restrictions on public-private partnerships, whereby the obligation to prepare analyses was lifted, the decision being left to stakeholders. In addition, recent amendments to the legislation on freedom of business activity and pledged collateral were implemented between September 2008 and January 2009, with the objective of shortening and simplifying procedures. It is too early to know how effective these measures are.

Strengthening the Foreign Investment Agency

Even in the absence of spillovers from FDI, asymmetry of information would be another market failure that justifies the role of an Investment Agency in helping foreign investors to better target their projects. Typically, domestic investors are better informed about all essential administrative and legal procedures concerning investment projects. PAIiIZ provides assistance to foreign investors in order to resolve information and co-ordination issues, helping them enter the Polish market and find the best locations, as well as the most appropriate partners and suppliers. Its main task is to attract and support foreign investors, with a recent emphasis on technologically advanced sectors where local spillovers are assumed to be the largest. Targeted sectors are electronics, the automotive industry, biotechnology, aviation and so called Shared Service centres or Business Process Outsourcing, such as IT centres, financial and accounting services, R&D, storage and logistics. PAIiIZ also tries to guide foreign investors through all possible types of public aid, while the promotion of Poland's image abroad involves media campaigns, conferences, fairs and exhibitions. In 2008, for example, on the basis of projects supported by PAIiIZ, 56 investments worth EUR 1.5 billion were located in Poland, generating more than 15 000 jobs. Among them were 4 R&D projects and 19 investments in Business Process Outsourcing, which tend to employ an educated workforce and provide extensive training.

Investment promotion agencies (IPAs) seem to contribute importantly to inward FDI performance (Morisset and Andrews-Johnson, 2004; Lim, 2008). Based on a cross-country analysis using data on 75 IPAs, an increase of 10% in the IPA's budget would be associated with an increase of 7.5% in FDI inflows for an agency of the size of PAIiIZ (Morisset, 2003). There also seems to be decreasing marginal returns, as above a certain budget that would correspond to about EUR 19 million in 2009, promotion expenditures seem to be ineffective. The empirical evidence highlights that the better the investment climate, the greater is IPA effectiveness, and also that amongst the different functions of an IPA, policy advocacy is the most effective measure in boosting FDI. Policy advocacy consists of activities through which the agency supports initiatives to improve the quality of the investment climate and identifies the views of the private sector on that matter, through surveys, participation in task forces, policy and legal proposals, and lobbying (Wells and Wint, 2001).[18] Despite the larger size of the country, PAIiIZ's resources do not compare favourably with other IPAs in Eastern Europe: in 2008, its budget was EUR 2.9 million against EUR 15.3 million for Czech Invest and EUR 3.0 million for Slovak Investment and Trade Development Agency. Increasing the size of PAIiIZ's budget with a focus on policy advocacy would be a particularly attractive option: for example, an extra EUR 3 million might result in more than EUR 1 billion in extra annual inflows.

In addition, the power of PAIiIZ as regards specific aids should be reinforced. PAIiIZ is in fact a joint-stock company, not an agency. It has no competence written in the law, acts on behalf of the Ministry of Economy, is not financially independent and does not have access to EU funds. Currently, the decision-making power of investment promotion services is still fragmented. Although PAIiIZ plays an instrumental role in structuring foreign investment projects and directing them to the best locations, the responsibility for approving offers of support to investors lies with Ministries and the management of the Special Economic Zones. This lengthens the procedures for calibrating investment projects until final approval by the authorities, generating frustration among foreign investors. The overall effectiveness of the "agency" would be enhanced if it were able, as investment agencies in other countries are, to make binding offers of support (OECD, 2008c). In this context, awareness of the damaging effect of foreign bribery on economic performance should be raised. Since 2000 Poland has been a state party to the OECD *Convention on Combating Bribery of Foreign Public Officials in International Business Transactions*. All state parties to the Convention have recognised the importance of raising awareness that it is a criminal offence to bribe a foreign public official.

Special Economic Zones and tax incentives

In Poland, investors benefit from incentives to locate their activities in 14 Special Economic Zones (SEZs), each consisting of several sub-zones. SEZs were introduced in 1994 as part of regional policies to fight high structural unemployment in some peripheral areas. Benefits consist of tax holidays, assistance in handling formalities, availability of land at below-market prices and real estate tax exemptions. Before Poland's membership in the European Union, the incentives provided in the SEZs became the source of heated debates between the Polish authorities and the European Commission, which believes that the measures induce unfair competition. In 2001 regulations on SEZs were harmonised with EU legislation on state aid. Tax benefits were substantially reduced. The rules for granting aid for enterprises which had received authorisation before 2001 were determined in the Treaty of Accession. In 2007 state aid in SEZs was adjusted to the Guidelines for state regional aid for the years 2007-13 issued by the European Commission. In December 2008, the Council of Ministers decided to extend the existence of the zones until 2020 and informed the European Commission.

With time, less focus has been placed on overcoming structural difficulties in a particular location, and, as a result, the nature of the approach shifted importantly. In a number of cases, the boundaries of the SEZs have been re-drawn to include a site preferred by a potential international investor (Easson, 2004). With more than 150 locations enjoying a special status within the SEZs, these regional policy tools have almost become a standard form of public aid for companies, regardless of their location (Gwosdz *et al.*, 2008). At the end of 2008, the 14 SEZs hosted 210 000 workers in more than 1 000 firms with cumulative investments of PLN 57 billion. Since 2001, both employment and cumulative investments in the zones have roughly doubled every three years. Although, in principle, the incentives apply equally to both domestic and foreign investors, in practice FDI represents 80% of the investments in SEZs.

This suggests that the incentives were effective in attracting FDI, and there is little doubt that tax competition between Hungary, Poland, the Czech Republic and the Slovak Republic has been the major determinant of their incentives policies (Easson, 2004). Yet, effectiveness does not imply efficiency, given the induced distortions between firms

inside and outside the zones, and the amount of public aid involved, especially as competition among governments might result in overbidding for investment projects. These resources might be more efficiently used in improving the overall investment climate, especially given the risk that such incentives are given to firms that would have invested anyway, generating deadweight losses. As argued above, co-operation among governments is the first-best solution to resolve the prisoner's dilemma nature of this problem, as suggested, for example, by Oman (2000). If this is not possible, policy makers should conduct a careful cost-benefit analysis of SEZs before trying to extend their life further. In any case, transforming the SEZ approach into a policy clearly focused on developing economic clusters is likely to be more beneficial in the long term in terms of innovation, productivity and export performance.

Benefiting the most from FDI: Absorptive capacity

There is a gap between attracting FDI and benefitting from it, and host-country characteristics make a difference in the extent or speed with which spillovers occur (Nunnenkamp, 2004). In other words, spillovers from FDI are not unconditional. Cohen and Levinthal (1989) were the first to argue that increased R&D activities boost efficiency indirectly, by accelerating the assimilation of technologies developed elsewhere. An underdeveloped business environment or weak technological ability of the labour force could also hamper the diffusion of more advanced foreign technology. Evidence suggests indeed that the absorptive capacity of FDI is positively related to the level of human capital (Borensztein *et al*., 1998; Bijsterbosch and Kolasa, 2009) and R&D intensity (Kinoshita, 2001; Damijan *et al*., 2003; Kolasa, 2008). Other determinants of the absorptive capacity that are often mentioned in the literature include infrastructure, competitive pressure and the quality of the financial system (*e.g.* World Bank, 2008; Barrios and Strobl, 2002). Based on a recent survey on the impact of FDI, Blomström and Kokko (2005) conclude that investment-incentive packages should focus not only on policies to attract FDI but also on projects with the strongest potential for spillovers, including linkages between foreign and local firms, education, training and R&D.

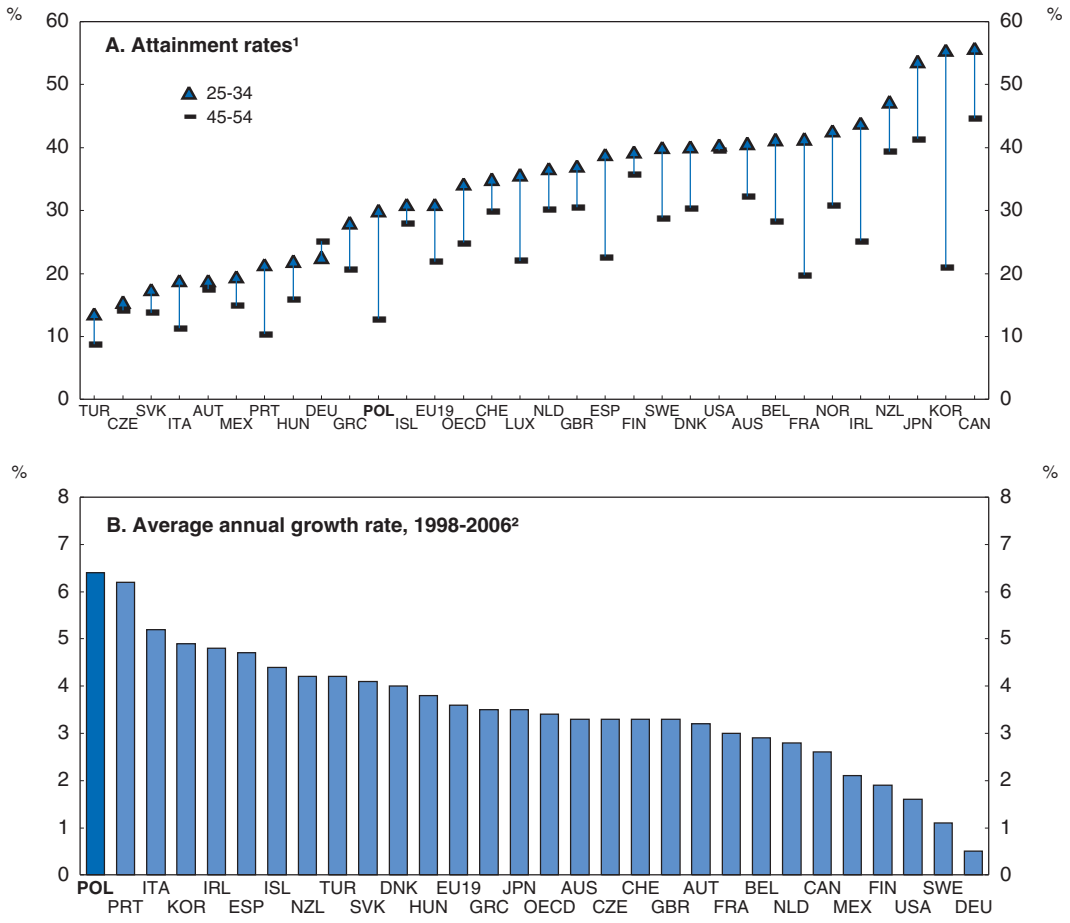
Polish innovation policy

Current Polish innovation policy is laid out in the document *Strategy for increasing the innovativeness of the economy for the years 2007-13*. The main objective pursued by this *Strategy* is the growth of the innovativeness of enterprises in order to maintain the fast development of the economy and to create better jobs. There are five priority axes: human resources, research, intellectual property rights, innovation-related capital and infrastructure. The *Strategy* is being implemented through different tools, including one of the EU structural-fund programme, the Operational Programme "Innovative Economy" devoted to running R&D and innovative activities. EUR 9.7 billion is allocated to this programme, the EU contribution amounting to EUR 8.3 billion. The use of EU funds is an important opportunity to boost domestic capacity for research and innovation. Moreover, inward FDI in R&D activities is likely to be boosted as foreign companies may take advantage of the programme.

Human capital

Labour-force skills are often seen as one of the strengths of the Polish economy, serving to attract foreign investors. Indeed, Poland performs better than the other OECD countries in Eastern Europe in terms of educational attainment (Figure 3.13, Panel A).

Figure 3.13. **Tertiary education attainment**



1. Percentage of population; 25-34 and 45-54 age groups.
2. Growth of the 25-64 year-old population with tertiary education attainment.

Source: OECD, *Education at a Glance 2009 Database*.

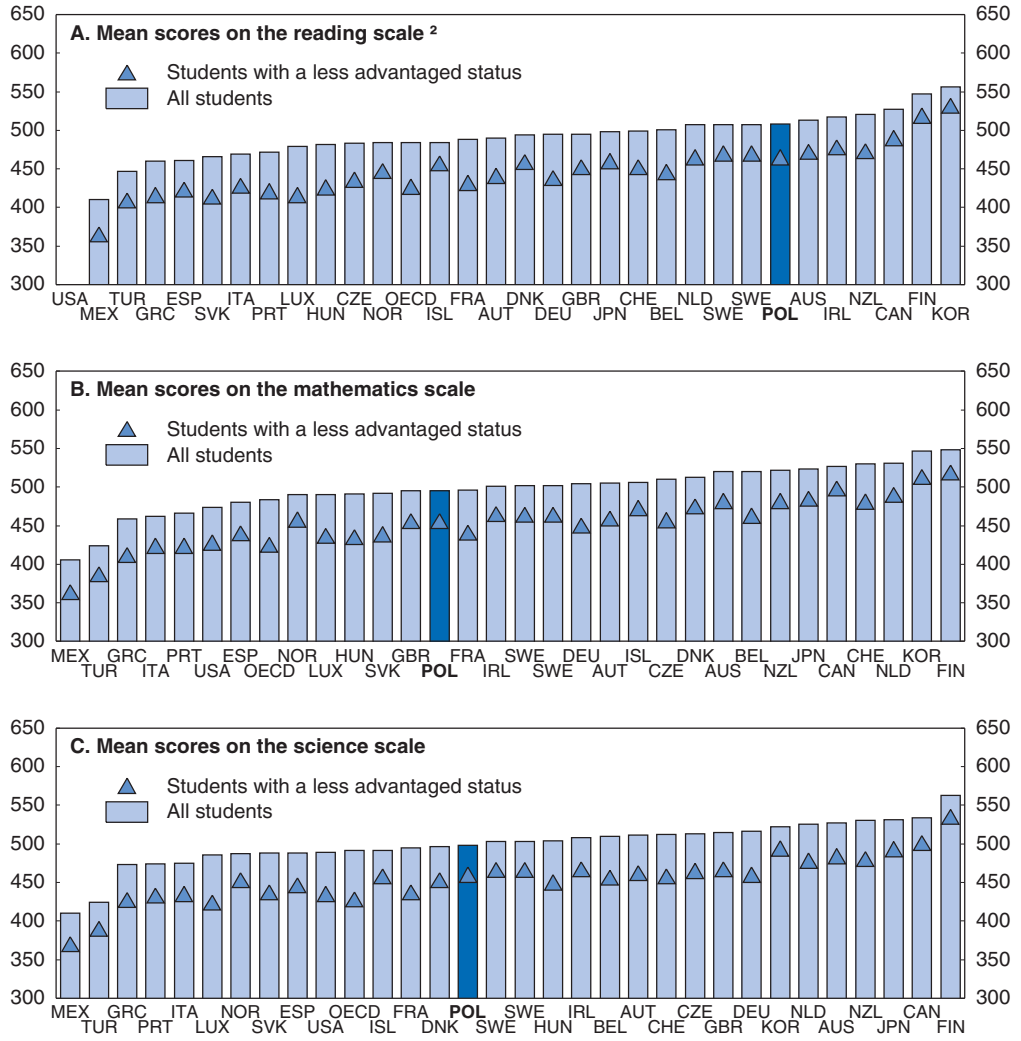
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Recent trends are also encouraging: the average annual growth rate in tertiary attainment levels exceeded 6% between 1998 and 2006, an increase matched only by Portugal (Figure 3.13, Panel B). Moreover, Poland performs relatively well based on PISA scores on average, and more so in reading than in mathematics or science (Figure 3.14) despite recent improvements.

At the same time, only about 40% of investors consider the availability of qualified labour to be either good or very good (PAIiIZ, 2008). In addition, young tertiary educated individuals in Poland have seen their prospects of finding a skilled job deteriorate, as evidenced by an increase in the share of such workers aged 25 to 34 not occupying a skilled job between 1998 and 2006, albeit from a low initial level (Table 3.6). With outsourcing activities of Western European firms in Poland, the demand for skilled labour seems to have even outpaced the increase in skill supply, driving up wage inequalities (Ministry of Labour and Social Policy, 2007; Lorentowicz *et al.*, 2005). This suggests that there is a mismatch between the type of skills needed by firms and those supplied by the education system.

Figure 3.14. **PISA scores in OECD countries: Overall average scores and average scores for pupils with a less advantaged economic, social and cultural status**[1]

Reading, mathematics and science



1. Students with a less advantaged status are the bottom quarter of the PISA index of economic, social and cultural status.
2. Data for the United States on the reading scale have not been published.

Source: OECD, PISA 2006.

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The *OECD Review of Polish Tertiary Education* (OECD, 2007c) highlights that vocational tertiary education is an area of serious weakness. Although the tertiary education system includes, since 1997, vocational Higher Education Institutions (HEIs) in addition to private HEIs and universities (and other academic institutions), creating an appearance of diversity, there does not appear to be any fundamental distinction in missions between these categories. As a result, the specific contribution of vocational HEIs to meet labour demand is not developed, these institutions being rather considered as "second-class" universities. The authorities should strive to promote a distinct vocational sector, dedicated to providing the highest quality of vocational education with a strong orientation towards meeting employer needs within local labour markets. The German

Table 3.6. **Share of workers with tertiary education aged between 25 to 34 not occupying a skilled job**

Percentage of employed population and changes in percentage points

	1998	2006	Change between 1998 and 2006
Sweden[1]	8.3	21.8	13.5
Poland	**8.6**	**19.6**	**11.0**
Portugal	9.2	17.1	7.9
France	20.9	25.9	5.0
Hungary	9.0	12.6	3.6
United Kingdom[3]	20.9	23.6	2.7
Netherlands[2]	12.9	14.8	1.9
OECD average	**19.6**	**21.4**	**1.8**
Norway	20.1	21.5	1.4
Slovak Republic	9.5	10.9	1.4
Italy[3]	20.2	21.5	1.2
Czech Republic	6.4	6.7	0.3
Luxembourg[1]	3.8	3.7	–0.1
Spain	41.2	40.9	–0.2
United States	37.1	36.7	–0.4
Canada	37.5	36.1	–1.4
Denmark	20.7	19.3	–1.4
Belgium	26.1	24.6	–1.5
Austria	23.7	19.6	–4.1
Switzerland	23.0	18.3	–4.7
Germany[1]	25.7	20.7	–5.0
Finland	27.5	18.8	–8.7
Australia	n.a.	23.4	–
Iceland	n.a.	15.2	–
Ireland	n.a.	34.7	–
Turkey	n.a.	27.1	–

1. 1999 instead of 1998.
2. 2000 instead of 1998.
3. Italy: Change in survey methodology between 1998 and 2006 affects comparability. The United Kingdom: change in national occupation coding frame in 2000 affects international comparability.

Source: OECD (2009), *Education at a Glance*.

Fachhochschulen and the recently created AMK sector in Finland are useful examples of well functioning vocational tertiary education (OECD, 2007c).

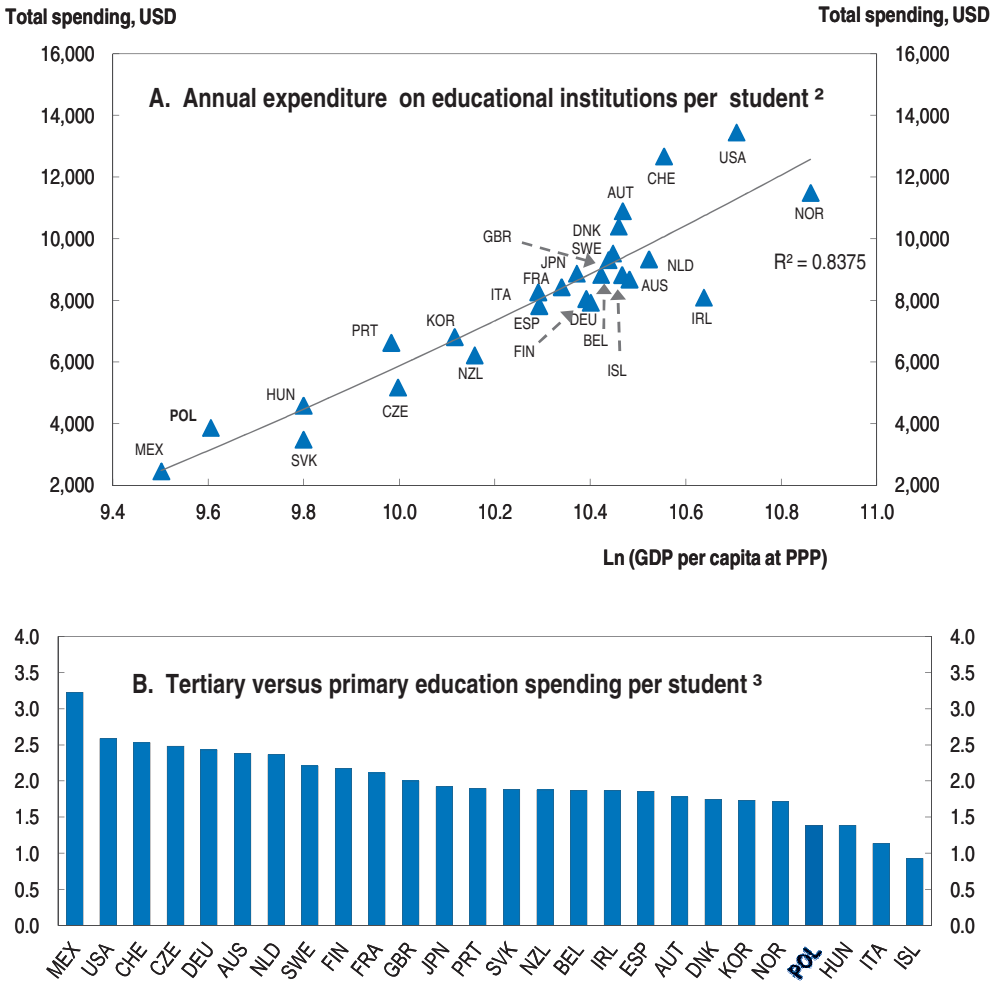
Training at work could also help to bridge the gap between the supply and demand of skills by meeting firms' needs to adapt to the ongoing structural changes induced by globalisation. However, because market failures lead to under-investment in training by both firms and workers (OECD, 2003), policies should be developed to promote an efficient level of training.[19] This is especially the case for Poland, given the weak participation in adult learning; in comparison with other countries, participation in adult education and training is low, especially so for either older or less educated workers (OECD, 2006).[20] On the one hand, the importance of improving the training system seems to be well recognised by the Polish government. Indeed, the first axis of the *Innovation Strategy* for Poland, "Human resources for the modern economy", refers to the development of an accessible high-quality system of lifelong learning. Currently, several measures help low qualified and older workers to upgrade their qualifications or change occupation. Employers can receive reimbursement of up to 50% of the training costs, and the eligibility conditions were eased in 2009 as they are no longer limited to dismissed workers nor conditional on the obligation to employ the

trained person for at least a year thereafter. Also, the reimbursement was increased up to 80% for workers aged over 45. On the other hand, unfortunately, the elaboration of a true lifelong learning strategy keeps being postponed. Although the National Reform Programme for 2008-11 included the elaboration of the *Lifelong learning strategy to 2015*, the Chancellery of the Prime Minister is now supposed to take the lead in co-ordinating the elaboration of a 2020 strategy across ministries.

The absorption of new technology at the firm level could also be bolstered by reforming the structure of education spending and funding through increased efforts in tertiary education. Although overall spending in education is consistent with the level of Poland's development, its structure is unfavourable to tertiary education (Figure 3.15).

Figure 3.15. **Overall expenditure on education and relative weight of tertiary education spending**[1]

2006



1. Annual expenditure on educational institutions per students for all services. Public institutions only for Hungary, Italy (except in tertiary education), Poland, Portugal and Switzerland.
2. In equivalent USD converted using PPPs for GDP; overall spending is compared to the natural log of GDP per capita in current PPPs.
3. Ratio of expenditures on tertiary education to expenditures for primary education.

Source: OECD, *Education at a Glance 2009 Database.*

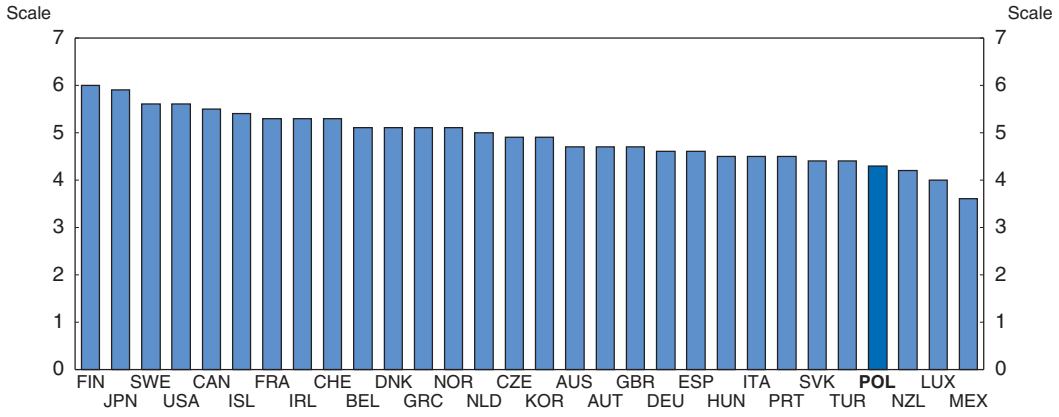
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Indeed, the annual spending per student is only 40% higher in tertiary relative to primary in Poland against 90% in the OECD on average. Moreover, the tertiary education system is split between fee-based private universities and public universities that charge no tuition fees and can select the best students. Whereas the number of students studying in private universities is about half that in state universities, that ratio is only a sixth for full-time studies due to the financial need to combine work and part-time studies in private institutions. Moreover, public universities also provide fee-based programmes under different names that are not called full-time daily studies, as those have to be free of charge according to the constitution. The system is quite unfair and additionally limits the competition between public and private universities. The latter are not supported by the government and usually cannot compete with their public counterparts, which are sponsored by the government but also have a much higher reputation, benefiting from longer traditions, as well as greater physical capital and better human resources inherited from the past. Two recommendations of the 2006 *OECD Economic Survey* (OECD, 2006) are still relevant in this context beyond recent progress highlighted in Annex 1.A1: *i)* the authorities should reform the dysfunctional student-loan scheme, as a way to finance good-quality full-time studies, especially if, as is generally believed, the increasing share of private universities has been accompanied by a decrease in the average quality of tertiary education; and *ii)* they should likewise reinforce the quality assessment of higher education institutions and publicise the results widely. A reform of the higher education system is being elaborated and would do well to include the following features: opening the possibility of equal financing procedures for public and private higher education institutions; simplifying the access to student loans; and introducing transparent competitive procedures to apply for academic positions.

Strong scientific capacity tends also to induce a more active approach to technology adoption. Despite recording the fastest increase in mathematics, science and technology graduates in the European Union since 2000 (European Commission, 2008), Poland still faces acute business needs in certain key professional disciplines. Indeed, Poland is one of the OECD countries most lacking in scientists and engineers (Figure 3.16). In principle, market mechanisms ensure that supply responds to shortages in certain professions, for

Figure 3.16. **Availability of scientists and engineers**[1]

2008/09 weighted average



1. Scale from 1 (underdeveloped) to 7 (extensive and efficient as the world's best).

Source: World Economic Forum (2009), *The Global Competitiveness Report 2009-2010*.

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example through wage increases. However, developing educational programmes takes time, and wage rigidities might prevent wage signals from operating, thereby inhibiting supply adjustments. One priority is therefore to increase the pool of graduates in areas that are considered essential to economic development, such as mathematics, physics, science and technical studies, which is one of the objectives of the National Reform Programme for 2008-11, designed to implement the Lisbon Agenda in Poland.

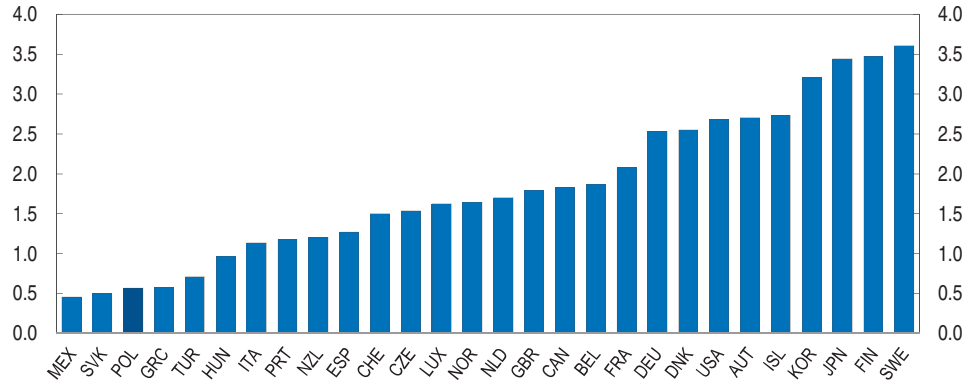
To meet demand in key areas and especially to attract foreign talent, creating a stimulating environment to study sciences and attractive career opportunities are of growing importance, as globalisation seems to generate widespread concerns in many countries about supplies of human resources in science and technology (OECD, 2005a). Domestic supply could be fostered by raising interest in science via science fairs, science days and science years and by revising curricula to make programmes more responsive to students' needs (OECD, 2004). In addition, one way to strengthen the links between universities and industry is to encourage firms to train PhDs and post-doctorates, for example through the facilitation of internships, which reduce the asymmetry of information between employers and employees; these are underdeveloped in Poland.

Boosting private R&D investments

Poland's investment in R&D is low. Gross domestic expenditure on R&D (GERD) represented only 0.57% of GDP in 2007, one of the lowest levels in the OECD and substantially short of the 3% target of the Lisbon Strategy for 2010 (Figure 3.17). By comparison, the Czech Republic and Hungary invest 1.5% and 1.0% of their respective GDPs. Furthermore, Poland's R&D intensity fell from 0.65% of GDP in 1996 before stabilising in 2002. Low R&D investment in Poland reflects the development level of the country, the low level of R&D done by the local affiliates of its foreign multinational firms, weaknesses in the framework conditions for innovation and insufficient linkages between public research and industry (OECD, 2008a). Moreover, it is related to the industrial structure, which is heavily weighted towards low/medium technology, although causation runs both ways: limited efforts in R&D prevent the increase in the overall technological content of Polish products and services.

Figure 3.17. **Gross domestic expenditure on R&D**

As a percentage of GDP, 2008 or latest available[1]



1. 2008 for Austria, Canada, Finland and Iceland; 2007 for all remaining countries except: Italy (2006), Mexico (2005) and Switzerland (2004).

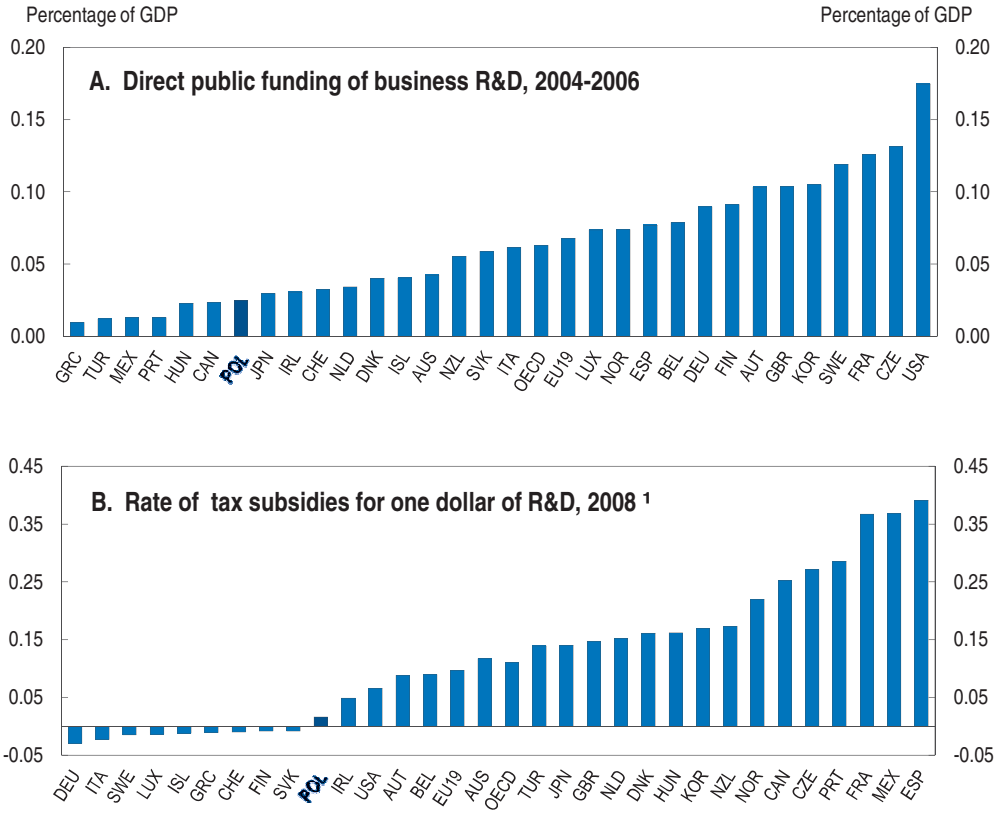
Source: OECD, *Research and Development Statistics*.

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Even though innovation might be less critical for countries that are far from the technological frontier, enhancing R&D investment helps to speed up technology transfer and to make the most of the foreign knowledge imbedded in inward FDI. The underlying justification for public intervention in R&D is that market-driven investment in innovative activities would be less than socially desirable (Nelson, 1959). The main market failures might be those related to knowledge spillovers, financial-market imperfections, skilled-labour shortages and information imperfections (Jaumotte and Pain, 2005). In Poland, despite the low level of GERD, business-financed R&D expenditure represents only one quarter of it, a structure which is typical of a low-R&D-intensity country.[21]

This suggests that R&D policies should aim at associating businesses in R&D efforts. Both direct public funding of business R&D and tax incentives are at a very low level in Poland (Figure 3.18). For example, tax subsidies amount on average to 1.5 cents for each dollar of private R&D investment in Poland, compared with 10 cents in EU19, 16 in Hungary, 27 in the Czech Republic and 39 in Spain. The appeal of transparent R&D tax credits over direct funding stems from their non-discriminatory nature in terms of research and technology fields or industrial sectors, reducing the risk of capture and the temptation to "pick winners" (OECD, 2008d). R&D tax incentives are becoming more widespread among OECD countries as a means to attract foreign R&D investments.

Figure 3.18. **Financial support for private R&D investment**



1. Measures the generosity of tax incentives to invest in R&D, on the basis of the pre-tax income necessary to cover the initial cost of one dollar of R&D spending and pay corporate taxes on one dollar of profit. A value of zero on the chart would mean that the tax concession for R&D spending is just sufficient to offset the impact of the corporate tax rate.

Source: OECD, *Main Science and Technology Indicators Database.*

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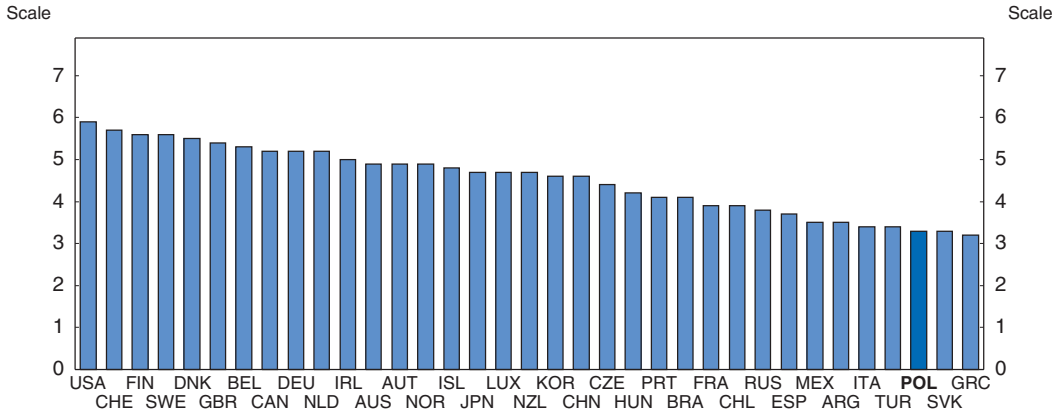
Two recent initiatives have had limited success. Since January 2006, the acquisition of new technologies has been made partially tax deductible. The deduction may not exceed 50% of the price of new purchased technologies and can be carried forward over a three-year period. In 2008, 26 entities had a total tax saving of PLN 1.5 million according to this scheme. Also, enterprises conducting scientific research can be granted the status of Research and Development Centre (RDC), which enables them to write off research costs. More precisely, the RDC status makes it possible to create an innovation fund from monthly write-offs of both fixed costs (which represents an accelerated amortisation) amounting to no more than 20% of incomes obtained by the RDC in a given month and recurring costs from the tax base.[22] The assets of an innovation fund may be assigned to cover the costs of conducting scientific research and development works. So far, the take-up has been low even though 20 RDCs have been created since May 2008, when the threshold of revenues from sales of R&D services required to benefit from the status was reduced from 50% to 20%. There are current discussions to extend the tax reliefs and improve the publicity about the scheme, as it is not well known yet.

The return on R&D investment depends on complementary assets, notably a proper functioning of public research structures. Higher education institutions are key organisations for creating and transferring ideas to the private sector: a strong emphasis on academic research acts as a stimulus for business R&D to conduct further applied research and development (van Pottelsberghe, 2008). In Poland, public funding of research is too fragmented, while reaching a critical mass should help to strengthen the link between research and firms. The revision of the rules governing the allocation of block grants (institutional subsidies) to scientific units helps to concentrate institutional financing on the best research organisations. Still, many specialised government research institutes lack sufficient critical mass, and most public research is unconditional as only 16% is allocated on a competitive basis (OECD, 2008d). Therefore, efforts should be pursued to link resources to performance more systematically and shift spending from institution-based outlays towards competitively awarded project funding. In addition, institutions should be given greater autonomy in establishing procedures for hiring and performance-based promotion. The government currently plans to differentiate universities according to the quality of both pedagogical content and research by creating three categories, instead of five previously: elite universities capable of competing with the best European units; well performing universities within both regions and nationally; and local institutions. The intent is then to enhance the links between financing and performance, following an assessment process that should take place every four years.

Linkages between universities and industries should be strengthened. Based on various indicators, Poland has an unfavourable international ranking in terms of university-industry research collaboration (Figure 3.19). In 2007, the National Centre for Research and Development was established to implement R&D and innovation policy, manage strategic R&D programmes, facilitate technology transfer to the economy and business, and enhance scientists' career development (OECD, 2008d). The centre also represents Poland in international R&D activities. Closer collaboration between public research and industry could be promoted by facilitating the mobility of researchers in and out of the business sector, and by providing financial incentives to the development of scientific partnerships with firms. In addition, fostering the international mobility of scientists and researchers is receiving increasing attention. For example, the Foundation for Polish Science launched a

Figure 3.19. **University-industry collaboration in R&D**[1]

2008-09 weighted average



1. Scale from 1 (underdeveloped) to 7 (extensive and efficient as the world's best).

Source: World Economic Forum (2009), *The Global Competitiveness Report 2009-2010*.

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welcome programme for both Poles abroad and foreigners in order to attract eminent scientists and researchers to conduct research in Poland. Tax incentives should also be available to private firms co-operating with foreign research organisations.

Improving export performance

Most policies that enhance inward FDI tend to promote exports as well, as they help to increase productivity overall.[23] For example, skill-deepening helps to upgrade the quality of Polish products. In turn, accelerating the shift to more processed goods should increase exports to Asian markets and, more generally, help to overcome the difficulties encountered by Polish exporters to sell on distant markets. Better infrastructure reduces trade and transport costs, which directly increases the competitiveness of Polish exporters. In addition to the specific issues discussed above, ensuring an efficient allocation of production factors (for example through a proper functioning of product, labour – see Chapter 2 – and financial markets), removing obstacles to the development of SMEs on export markets and designing cost-effective export promotion programmes are key ways to improve Polish export performance.

Promoting a more efficient allocation of resources

Downsizing agriculture employment

The oversized agricultural sector is the most visible misallocation of resources affecting the Polish economy. Employment in agriculture, although declining, remains high at about 15% of total employment, while the sector accounts for only 3-4% of GDP. This highlights the very low productivity of Polish agriculture, even when taking into account the overestimation of agricultural employment due to the incentives to self-declare as a farmer, which generates hidden unemployment in rural areas. Although the Common Agricultural Policy has fostered the modernisation of large farms, it has had little impact on the restructuring of small farms. Thus, the sector remains characterised by a marked dualism, combining competitive large farms contributing to the dynamic agro-food sector, especially in export markets, with very fragmented and technologically backward small farms.

The challenges raised by the most needed consolidation of the agriculture sector are well known. Previous OECD analyses tackling this issue (OECD, 2008a and 2008b) can be summarised as follows. Farmers in small farms are able to live on a semi-subsistence basis thanks to a mix of subsidies and work in the informal sector. The wrong incentives induced by the overly generous social and taxation system for farmers (including KRUS for pensions, see Chapter 1) means that huge rents are maintained that slow restructuring, inhibit labour mobility and waste labour resources. At the same time, because this generous system provides a wide safety net, reforming it is politically sensitive and costly in the short term. However, long-term budgetary gains could be substantial due to both savings on transfer payments and increases in tax receipts. Therefore, aligning the farmers' safety net with the general scheme remains a top priority for policy makers. This would help to free up resources that will be needed in the implementation of the massive infrastructure programmes and avoid labour shortages in construction. In turn, developing transport and telecommunications infrastructure is one of the key complementary measures of such a reform that will improve the links between rural and urban areas. Encouraging labour mobility also requires enhancing access to education in rural areas and removing obstacles to a better functioning of rental housing markets in urban areas.

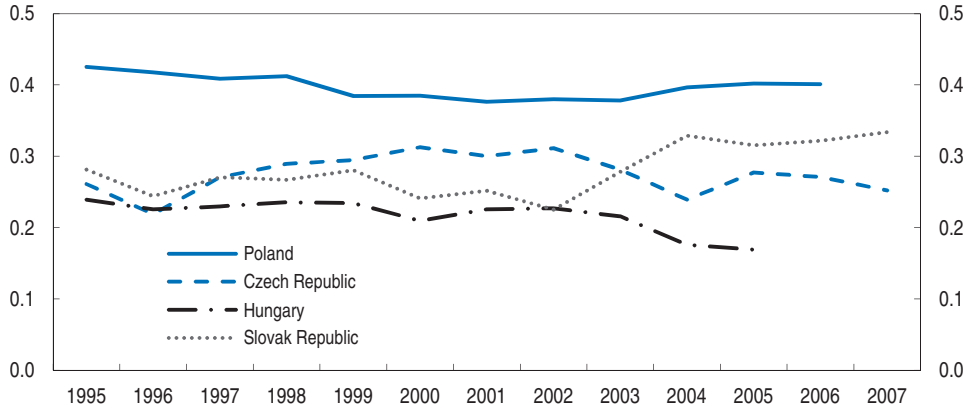
Reducing widespread competition-restraining regulations

A competitive environment is conducive to an efficient allocation of production factors, both between sectors and across firms within sectors, resulting in overall productivity gains. Indeed, competition-restraining regulations reduce the adjustment capacity of the economy by protecting uncompetitive firms and industries and slow the adoption of best-practice techniques. Besides, globalisation (as an ongoing process of structural changes) might reinforce the need for an increased reactivity of the economy.[24] Although the most regulated industries are often sheltered from international competition, promoting competition in non-tradables is also relevant for performance in tradables. Reducing rents should lead to an expansion of activity and attract resources to sectors that are being deregulated, which might negatively affect the tradable sectors. However, this would tend to boost overall employment (and improve the general government fiscal balance). Moreover, in the medium term, dynamic productivity gains in these deregulated sectors would free up resources for tradables and foster export performance. The last two effects most likely dominate over time.

Despite steady improvements, Poland remains the OECD country with the most stringent product market regulation (PMR) based on the latest aggregated PMR index. Focusing on outcomes rather than on policy indicators confirms this diagnosis. Indeed, the overall size of rents, as measured by the average price-cost margin – a common proxy for the mark-up between prices and marginal costs and the extent of product-market imperfections – is 10 to 20 percentage points higher in Poland than in other CEEC4 countries (Figure 3.20). As expected, price-cost margins are lower in manufacturing, as foreign competition tends to squeeze margins (Boulhol, 2010 for a survey and evidence across OECD countries, and Gradzewicz and Hagemejer, 2007 for Poland). Rents seem to be overly large (in absolute and relative to other countries) in nearly all sectors (except transport), notably real estate, construction, financial and other business services, retail trade and agriculture.

The analysis of more detailed regulation indicators enables a more precise identification of the obstacles to competition in network industries, retail distribution and professional services. The evolution of the Energy, Transport and Communication Regulation (ETCR)

Figure 3.20. **Price-cost margins in the whole economy**



Source: OECD, *STAN Database*.

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index shows that Poland, like most OECD countries, has made substantial progress in network regulation, leading to a reduction in barriers to entry. In contrast, government ownership of networks remains prominent, and little progress has been achieved except in the telecommunications sector: public ownership still dominates in electricity, gas, airline, rail and post, including in their potentially competitive segments. Even in telecommunications, the market structure is very concentrated, as the incumbent operator holds 68% of the market share in fixed lines; the mobile segment was operated by an oligopoly of three firms until 2007, however, a fourth operator secured a 7% market share by the end of 2009. In the retail distribution sector, barriers to opening large outlets were removed in 2008, but competition remains hampered by administrative burdens related to the registration and issuance of licences and permits to engage in commercial activity. As discussed above, this characteristic is widespread, as administrative burdens affect the economy beyond their sole impact on retail distribution. In professional services, legal activities are the most regulated both in terms of conduct (prices and fees, form of business, etc.) and entry. However, Figure 3.21 shows that regulations on education requirements and licensing are general across professional services, severely restricting entry.

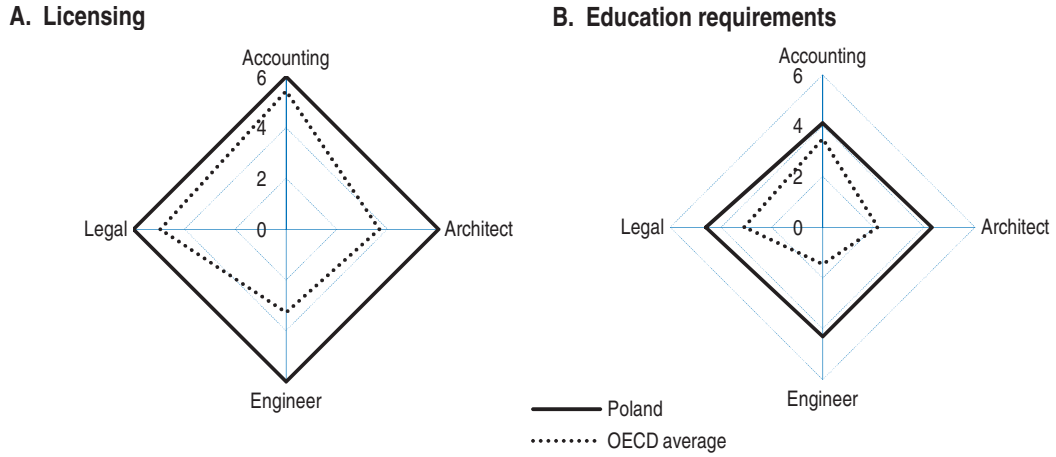
Consolidating the financial system to increase competition and efficiency

A developed financial system channels domestic savings towards the most worthy investment projects rather than towards the politically connected, thus raising overall productivity and technology-adoption capacity through a more efficient allocation of resources. Reducing financial-transaction costs also raises capital returns, which contributes to higher saving, and more dynamic growth, at least in the medium term, along the transition path in a neoclassical-type growth framework. Moreover, empirical evidence suggests that a strengthened financial system enhances the absorption of FDI (Alfaro *et al.*, 2004; Carkovic and Levine, 2005; Hermes and Lensink, 2003), as it makes domestic financial resources available to complement foreign investment.

All financial indicators show that financial systems have been considerably improved in CEEC4 countries, but are still under-developed relative to the EU15 (Allen *et al.*, 2005; ECB, 2009). The level of financial intermediation, measured by total assets of credit institutions as a share of GDP, as well as total credit and deposits are orders of magnitude lower in Eastern

Figure 3.21. **Entry in professional services**[1]

2008



1. Indicator scale of 0-6 from least to most restrictive.

Source: OECD, *Indicators of Regulation in the Professional Services*.

StatLink http://dx.doi.org/10.1787/815534602118

Europe. Furthermore, Poland lags behind Hungary and the Czech and Slovak Republics (Table 3.7). With total assets of about 85% of GDP in 2008, the banking sector dominates the Polish financial system. By comparison, stock-market capitalisation represented about 40% of GDP, debt-market capitalisation 30%, pension-fund assets 10%, insurance assets 10% and mutual-fund assets 6%.[25] Yet, banking infrastructure is underdeveloped, as only a small majority of the working-age population has a bank account, and as payments are still mostly done through a countryside network of post-office branches (Allen *et al.*, 2005). According to these authors, evidence of poor bank efficiency is provided by relatively high overhead costs compared to other EU15 and CEEC4 countries, probably reflecting over-employment in credit institutions. The fact that net interest margins remain around 4% of banks' total assets (Figure 3.22) strongly suggests that the lack of competitive pressure enables banks to maintain a high level of profitability despite their poor cost efficiency.

Foreign capital and investors have greatly contributed to the modernisation of the Polish financial system, enhancing its efficiency (Pruski and Szpunar, 2009). As a result of privatisation-related FDI and acquisition of shares on the Warsaw Stock Exchange (WSE),

Table 3.7. **Banks' balance sheets in selected countries**[1]

As a percentage of GDP

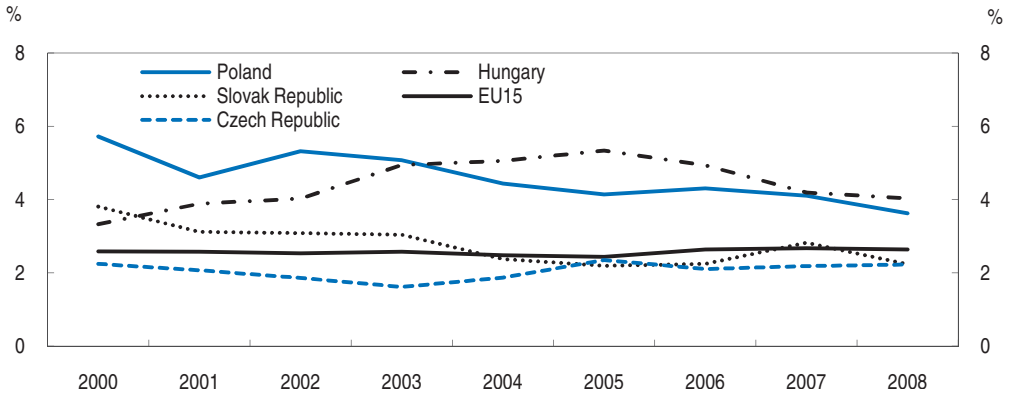
	Assets/GDP			Loans[2]/GDP			Deposits[3]/GDP		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
Poland	**59.6**	**64.3**	**67.7**	**26.7**	**30.4**	**36.3**	**33.5**	**35.4**	**35.6**
Czech Republic	81.6	90.5	101.5	32.8	42.1	50.0	56.1	63.0	68.1
Hungary	70.4	91.6	100.0	45.0	59.5	65.3	36.9	46.6	48.2
Slovak Republic	83.9	92.6	95.8	33.4	43.6	48.1	52.0	61.0	61.8

1. All banks (excluding national central banks) whose balance sheets were available for all the three years considered. Data refer to unconsolidated balance sheets, except in those limited cases in which banks provided only consolidated data.
2. Total loans to customers.
3. Customer deposits.

Source: KNF and GUS for Poland; Bankscope for remaining countries.

Figure 3.22. **Net interest margin in the banking sector**

As a percentage of banks' total assets



Source: Bankscope.

StatLink http://dx.doi.org/10.1787/815578785736

foreign investors are majority owners of most financial institutions, although to a lesser extent than in other CEEC4 countries (NBP, 2009). In Poland at the end of 2006, they controlled 70% of the capital of the banking sector, 77% of the insurance sector, 40% of pension funds and 26% of investment funds (Pruski and Szpunar, 2009). The participation of foreign strategic investors has led to transfers of know-how, increased competition, wider availability of financial products and better risk management by granting credit to more efficient firms rather than to traditional customers as often is the case with state-owned banks. Moreover, even though there are general concerns that foreign-bank penetration may lead to credit rationing to small firms (Agenor, 2003), SMEs in Poland seem to have benefited from the high penetration of foreign-owned banks (Farnoux *et al.*, 2004). On the other hand, widespread foreign ownership of financial institutions creates new channels of contagion from parent banks (Arvai *et al.*, 2009, see also Chapter 1); hence, there is a need for close supervision, especially to limit the concentration of capital flows. However, whereas exposure to short-term inflows by foreign investors increases the likelihood and severity of financial crises (Eichengreen *et al.*, 2006) the presence of long-term foreign investors in the financial sector seems to improve the overall stability of the financial system (Clarke *et al.*, 2003), especially via diversification of both assets and liabilities of households and firms. In deep financial crisis, foreign-owned financial institutions might even protect against capital outflows (Peek and Rosengren, 2000). The fears of massive credit-line withdrawals by foreign parent banks did not in fact materialise during the recent crisis episode.

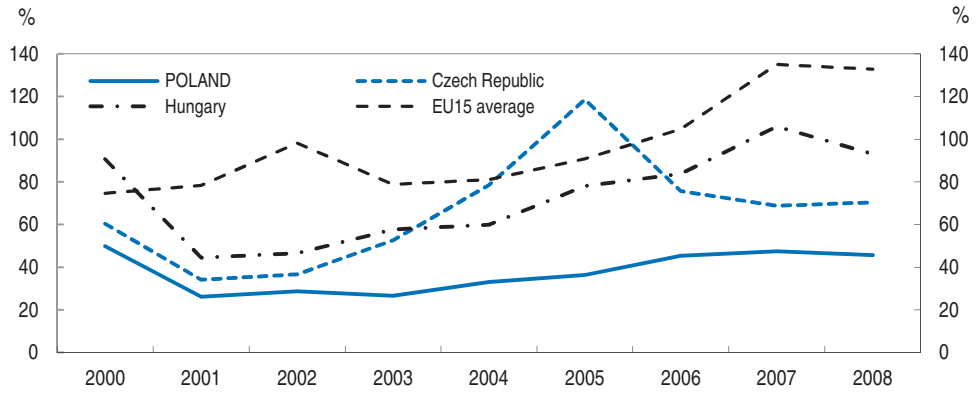
Despite ongoing financial development, much remains to be done. Major imperfections in financial markets constrain firms' access to credit, which affects investment decisions, while the limited availability of banking services throughout the country discourages savings. One structural obstacle to financial deepening lies in the fragmentation of the Polish financial system, as the large number of small-sized banks leads to inefficiently high aggregate fixed costs and prevents the exploitation of scale economies. In 2008, there were 649 domestic credit institutions, broken down into 64 commercial and 585 co-operative banks, with basically no consolidation since 2002. Yet, these numerous co-operative banks accounted for only 5% of total banking assets (Kowalewski, 2009).[26] By increasing efficiency, consolidation should broaden the availability of banking and financial services, while

improving their overall quality. In addition, previous analyses have identified serious weaknesses in the legal framework for pledges and mortgages, which impedes credit growth. The banks' capacity to call loan collateral is hindered by the inefficiency of the commercial court system (IMF, 2005). As securing assets is made uncertain, lenders tend to restrict their credit stance, and Poland seems to stand out as the EU country in southern and Eastern Europe where the mortgage collateral system contributes the least to reduce risks to lenders (European Commission, 2006). Recent legislation on pledged collateral, discussed above as part of the "Better Regulation" programme, goes in the right direction, but weak enforcement could still penalise financial-system development as banks and shareholders seem to continue to have problems enforcing their rights. One important issue arises from the senior position of the state to call collateral, as it has priority in its claims over the banks.

The state still holds 20% of bank assets, a share that has been roughly stable since 2000.[27] The majority of public-sector ownership is in 4 out of the 64 commercial banks. The Treasury controls 51.5% of PKO BP, the largest Polish bank and 100% of BGK, and, indirectly, Bank Pocztowy and Bank Ochrony Srodowiska (NBP, 2009). Among the 47 private commercial banks, 40 are controlled by a majority of foreign equity. Although government ownership in the banking sector does not seem to generate significant distortions, full privatisation would eliminate any concern of conflict of interest (IMF, 2005). Also, the planned privatisation of the Warsaw Stock Exchange should play a key role in the development of the Polish capital markets. There is consistent evidence that equity-market liberalisations improve economic growth, even though these estimated growth effects could be picking up the influence of other reforms that tend to accompany these liberalisations (Kose *et al.*, 2009). So far, the WSE has expanded with past privatisations, but liquidity remains low (Figure 3.23). In 2008, 374 companies were listed (of which 25 were foreign firms) against 215 in 2000. A new alternative trading system was created in 2007, NewConnect, for young companies that do not fulfil the requirements of the main market (Kowalewski, 2009). The WSE has a cross-membership agreement with NYSE Euronext and has acquired a 25% stake in the Ukrainian stock exchange Innex. The identification of strategic partners should allow Poland to participate in the deepening of European stock-exchange networks that are at the centre of equity-market integration. Stock-exchange

Figure 3.23. **Turnover ratio of traded stocks**[1]

As a percentage of average market capitalisation



1. Turnover ratio is the total value of shares traded during the period divided by the average market capitalisation for the period.

Source: World Bank, *World Development Indicators*.

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networks lower transaction costs, boost liquidity, improve efficiency through the use of cross-listing and greater information, and enable firms to broaden their shareholders' base (Allen *et al.*, 2005). For Poland, enhanced integration would represent an important step towards exploiting its comparative size advantage in the whole region to become the Central European centre for financial instruments against its main rival, the Vienna Stock Exchange. More generally, there is little doubt that euro adoption would boost financial market development significantly and widen investors' options (see Spiegel, 2009, for useful references on the link between EMU and financial integration). It will contribute to the emergence of a liquid corporate-bond market, which could reduce borrowing costs substantially. In September, 2009, the WSE launched CATALYST – the first organised market in debt securities in Central and Eastern Europe – which will facilitate corporate- and municipal-bond issuance. IMF (2009) highlights that the non-government bond market remains small and illiquid, and that measures to facilitate corporate debt issuance, such as enhancements in market infrastructure in the areas of custody and depository services and streamlining issuance procedures, could support the development of the market. The scope for financial development thus remains huge.

Removing barriers to SME development[28]

SMEs play an important role in the Polish economy, but their development is hindered by structural weaknesses. In 2007, the number of active enterprises totalled 1.78 million, which represents an increase of 60% over 1995. SMEs, *i.e.* firms with less than 250 workers, accounted for 99.8% of active enterprises, 70% of non-agricultural workers and 56% of value-added. On average, labour productivity is thus about 40% lower in SMEs than in large firms. SMEs account for 22% of total exports, and about one third of those having more than 10 workers are exporters, this share being steady since 2000 despite ongoing increases in trade openness. Comparing with the EU27, the distribution of Polish firms is heavily skewed towards micro-enterprises to the detriment of small firms (Table 3.8).[29] In addition, although large firms represent in both cases 0.2% of the total number of firms, large firms in the EU27 have 37% more workers per firm on average. Also, survival rates of new Polish enterprises are clearly at the bottom of the range among OECD countries.

To a large extent, problems that SMEs face to be able to compete internationally are those that have been identified above, including bureaucracy, poor infrastructure, complex legal and tax regulations, low innovation capacity and insufficient availability of skilled labour. The main additional and specific export barriers for SMEs are well known. Most SMEs lack information about and experience in international markets to identify business opportunities, and cannot afford to pay the related informational costs; they tend to be more financially constrained, which limits their investment capacity and competitiveness;[30] and they do not have the level of management skills needed to deal with relationships at a distance and compete internationally. Based on separate surveys conducted by the Ministry of Economy and the Polish Agency for Enterprise Development (PARP), the main barriers to SME development and entrepreneurship as perceived by Polish SMEs themselves are: complex legal provisions; high administrative costs; high tax rates; inadequate access to financing; lack of qualified labour supply; and deficiencies in knowledge and management competence. Thus, public policies might have a role to play in providing the impetus to overcome these obstacles, especially since plentiful entrepreneurial spirit is widely recognised as an asset for Poland.

Table 3.8. **Distribution of enterprises and employment by size class in Poland and in the EU27**

Size class (number of workers)	Number of enterprises (000s)	Share of enterprises (%)	Share of workers (%)	Average firm size	Share of value added (%)
Poland, 2007					
Micro (1-9)	1 713	96.4	40.1	2.1	28.0
Small (10-49)	45	2.5	11.2	22.3	10.4
Medium (50-249)	15	0.9	18.0	104.8	18.0
Subtotal	*1 734*	*99.8*	*69.3*	*3.5*	*56.0*
Large (250+)	4	0.2	30.6	773.5	44.0
Total	**1 777**	**100.0**	**100.0**	**5.0**	**100.0**
Micro-enterprise share of SME contribution	–	96.6	57.8	–	50.0
EU27, 2005					
Micro (1-9)	18 016	91.7	29.7	2.1	20.2
Small (10-49)	1 375	7.0	20.7	19.1	18.8
Medium (50-249)	216	1.1	16.8	98.5	17.9
Subtotal	*19 608*	*99.8*	*67.2*	*4.3*	*57.0*
Large (250+)	39	0.2	32.8	1 057.6	43.0
Total	**19 647**	**100.0**	**100.0**	**6.5**	**100.0**
Micro-enterprise share of SME contribution	–	91.9	44.2	–	36.4

Source: PARP, for Poland; European Commission, *Key figures on Europe* (2009) for EU27.

One important message from the in-depth analysis of the Polish SME framework conducted in OECD (2009d) refers to the dispersion of policies oriented towards the development of SMEs among the different authorities. Ministries and agencies implicated in SME policies include mainly the Ministry of Economy, the Ministry of Regional Development, the PARP, but also the Ministry of Education, the Ministry of Science and Higher Education, the Ministry of Labour as well as several regional institutions such as the Regional Financial Institutions (RFIs). Although policy-makers have recognised that a long-term strategy for SMEs requires co-ordinated actions across this wide range of policy domains, in practice there appears to be limited co-ordination among the numerous SME-related activities. The 2003-06 SME policy was not renewed, and the authorities asked for the OECD's expertise in the development of a new strategy on SME and entrepreneurship policies (OECD, 2009e).

At the same time, support to SMEs is provided through a well developed structure, requiring co-operation between PARP (at the central level), RFIs (at the regional level) and the services provided at the local level by the National SME Services Network (KSU), a network of support centres managed by PARP. Since its creation in 1996, the KSU includes non-governmental organisations, regional development agencies, organisations of employers, credit guarantee and loan funds, business schools, chambers of commerce and industry, etc. Within the 212 organisational units, this network provides SMEs with free information and advisory, training and financial services. The KSU is considered one of the best tools of state aid allocated to SME development, thereby encouraging the expansion of training and coaching services.

Enhancing SME access to financing is a priority for most countries in order to facilitate the process of starting and developing enterprises. In Poland, there are three types of government financing schemes: guarantee funds, loan funds and equity funds. Government-backed guarantees are provided by BGK, and about 50 local and regional

funds offer guarantees to banks as collateral for SME loans. In 2007, there were just over 11 000 guarantees granted, including 6 084 by BGK, totalling about PLN 2 billion of loans. In addition, the loan funds, which manage about PLN 1 billion (end of 2008), target micro and small enterprises that cannot provide collateral for bank loans. The capital in loan funds has more than doubled since 2004 due to injections from the EU Structural Funds. Finally, equity financing schemes are provided by the National Capital Fund, created in 2005 and owned by BGK, but the private equity/venture capital market plays a minor role in supporting SMEs. An alternative for financing high-potential SMEs might be provided by the development of the NewConnect platform on the WSE.

The *Review of SME and entrepreneurship issues and policies in Poland* (OECD, 2009d, Chapter 3) highlights that there is a low take-up and reach of guarantee and loan funds, and suggests a number of explanations. Commercial banks prefer lending to existing SMEs, and preferably larger enterprises, than to start-ups with government-backed guarantees. The processing fee payable by SMEs for guarantee services is generally around 3%, which seems above international good practice. Despite the amendment of the Guarantee Law in 2009, which raised the guaranteed share of the loan to 50%, this ratio might remain below the comfort level estimated by banks to deliver credit more efficiently. There is scope for rationalising loan and guarantee funds to generate economies of scale in lending, as well as for increasing co-operation between the funds to standardise their operation and fees.

SMEs often lack basic skills in fields that are central to creating and growing businesses, such as business and financial management, accounting and marketing. According to a 2008 PARP survey, Polish SMEs pay little attention to strategic planning, record-keeping and innovation. The introduction of an entrepreneurship curriculum at all education levels by the Ministry of Education is clearly an important step to raise entrepreneurial awareness among students in the long term. In the meantime, priorities should focus on promoting training in these areas of weakness, as PARP started to do in 2008 by using the Human Capital Operational Programme financed by the European Social Fund to meet these objectives.[31] In addition, whereas adult education and training are insufficiently developed in Poland in general, as discussed above, participation in vocational training is heavily skewed against SMEs, in comparison with other countries (Table 3.9). Therefore, government support for vocational training should target SMEs more specifically.

Table 3.9. **Percentage of all enterprises providing continuing vocational training courses**

By employee size class, selected countries, 2005

	10-19	20-49	50-249	250+	Total
Czech Republic	52	63	88	100	63
Poland	**11**	**22**	**43**	**72**	**24**
Slovak Republic	30	39	57	80	38
EU27	37	53	68	84	49

Source: Eurostat (2005), Continuing Vocational Training Surveys (CVTS3) 2005.

Streamlining export promotion

Whether it is meant to address market failures related to information externalities and export spillovers or to help SMEs to overcome obstacles to internationalisation, most countries provide a package of services and programmes designed to help firms to internationalise. According to a recent World Bank study, the number of export promotion

agencies has increased by a factor of three over the last two decades (Lederman *et al*., 2006). Previous research has identified five main barriers to SME export performance: shortage of working capital to finance exports; difficulties to identify foreign business opportunities; limited information to locate/analyse markets; inability to contact potential overseas customers; and lack of requisite managerial knowledge about internationalisation (OECD, 2009e). Evidence that export promotion instruments improve export performance is provided by Wilkinson and Brouthers (2000), Spence (2003) and Volte Martincus and Carballo (2009), among others. Alvarez (2004) also finds a positive relation, but not for all types of instruments. In particular, neither trade shows nor trade missions would affect the probability of exporting permanently, according to this study, while both training of workers in export operations and the formation of exporter committees, composed of a group of firms with more targeted common objectives in international business, would.

The Ministry of Economy believes strongly that promoting exports can have a long-lasting and sustainable effect on economic growth. It has therefore developed a range of programmes to support Polish exporters. These can be classified into four groups. The *first* set of instruments is in the form of *de minimis* public support and includes subsidies for product certificates, publishing and trade promotion projects. These instruments can be applied until the end of 2013 to companies that conduct business activity in Poland. A product certificate subsidy benefits SMEs and covers up to 50% of the cost of consulting, translation of product specification, transport and insurance of product samples, conducting tests and issuing the product certificate, with an annual limit per SME of PLN 50 000. The aim of a publishing subsidy covering up to 50% of eligible costs is to support the production of printed and promotional materials for a group of enterprises. Trade promotion projects are organised by a group of at least four enterprises and must include at least two promotional events, for example trade shows, exhibitions, product sampling, seminars, shows, etc. The subsidy covers no more than 50% of eligible costs with a limit of PLN 50 000 per project and PLN 8 000 per enterprise within a project.

Second, some measures included in the Operational Programme "Innovative Economy" (OP IE) are directed at export promotion; specifically Measure 6.1 "Passport to Export", Measure 6.2.1 "Support for the Network of Investor and Exporter Service Centres" and Measure 6.5 "Promotion of Polish Economy". The aim of "Passport to Export" is to promote a comprehensive model of entering a foreign market with export goods. The programme is directed at SMEs wanting to start an export activity or whose export share in total sales is below 30%. "Passport to Export" finances a tailor-made consulting evaluation of export opportunities and promotional events required to raise awareness of an exported product on a target market. The total amount devoted to this programme is EUR 122 million, with a limit of PLN 210 000 per enterprise. Measure 6.2.1 aims at creating a system of 16 Investor and Exporter Service Centres located in Polish voivoidships, which will provide companies conducting business in Poland with information about foreign markets and facilitate co-operation with foreign business partners. The budget of this Measure is EUR 18 million. "Promotion of Polish Economy" is a comprehensive programme, which seeks to increase awareness of Polish products on a global market and to improve the worldwide image of Poland. The programme comprises a number of activities, such as a promotional campaign, the evaluation of the image of Poland in target markets, industry promotion activities and establishing an export promotion Internet portal, all of which being implemented by Trade and Investment Promotion Sections of Polish Embassies. Currently, these offices are often the first contact point to get information about foreign markets and practices.

Third, the Export Credit Insurance Corporation (KUKE) uses financial instruments to offer credit insurance with the guarantee of the State Treasury to exporters who are unable to provide banks or commercial credit insurance companies with adequate collateral. KUKE focuses on covering trade receivables related to the sales of goods and services with deferred terms of payment. Shareholders are the State Treasury (87.85%) and BGK (12.15%). It is the only institution in Poland that is authorised to provide export insurance backed by the State Treasury.

Fourth, another instrument consists of providing enterprises with information about markets they are interested in via an Internet portal *www.eksporter.gov.pl*. The intent is to encourage Polish companies to present their products and to facilitate co-operation between Polish and foreign enterprises. Navigating on the site, however, reveals that very limited interesting information is available. Many links do not work properly, and documentation is outdated. In addition, the economic image of Poland abroad is to a large extent promoted by the Trade and Investment Promotion Sections of Polish Embassies. The role of these sections is to promote economic co-operation with the country of residence and to support the internationalisation of Polish enterprises. Since 2008, they share an Internet portal (*http://polska.trade.gov.pl*), which is meant to be used by enterprises to obtain information about any given market in which they might be interested in conducting business activity, but that seems to contain essentially information about Poland. PAIiIZ also contributes to the image building of Poland via "Designed in Poland", an event presenting products designed by Polish companies and individual artists. The exhibition is supposed to draw attention to some unique features of the Polish craft and encourage foreign consumers' interests in Polish products.

Some avenues that might be worth exploring to enhance the effectiveness of export promotion services follow. To overcome informational and contact barriers beyond the useful measures included in the "Innovative Economy" Operational Programme, consolidating related services within a single framework seems promising. Among the programmes in other OECD countries aimed at identifying foreign business opportunities, locating or analysing markets, and contacting potential overseas customers and partners, International Trade Canada's Trade Commissioner Services draws on its 500 offices in more than 140 cities worldwide in helping SME exporters (OECD, 2009e). In France, all services to help exporters have been concentrated into one single agency, Ubifrance, and removed from embassies, as the organisation of promotion activities within embassies' sections was considered inefficient. In Poland, in contrast, the various functions are dispersed, as shown above. Even though the idea of transforming PAIiIZ into an Agency for Economic Promotion is often discussed, a better alternative might be to create a separate agency focused on international business development, a one-stop shop for Polish exporters. Such an agency would have branch offices in key foreign markets and closely co-operate with Polish regions, thereby following one of the guidelines in the Strategy of Promotion of the Polish Economy for 2007-15 published by the Ministry of Economy in March 2007.

Such an agency could address internationalisation barriers related to limited managerial skills and knowledge. Examples of such programmes include: the Export Academy provided by the Czech Republic; the six-month Global Economic Development Programme provided by the Economic Development agency for Scotland; Austrade's New Exporter Development Programme delivered through Austrade; and the Tradestart network in Australia and an innovative 18-month export-coaching programme offered by Ubifrance (OECD, 2009e). Given resource constraints, SMEs might be encouraged to co-operate

and put considerable efforts into networking in order to increase their chances of internationalising successfully (Lindell and Karagozoglu, 1997). Specific networking focus on export markets could also be strengthened within the KSU. Finally, the web presence of export promotion should be reviewed carefully and benchmarked against available best practices, through the implementation of Measure 6.5 of the OP IE. According to OECD (2009e), good examples worth emulating include those of the relevant agencies in Australia, Canada, New Zealand, the United Kingdom and South Africa.

Box 3.2. **Main recommendations to make the most of globalisation**

Policies to attract foreign direct investment

- *Reduce state ownership* by implementing the ambitious privatisation plan in a transparent way. Ensure consistent access of foreign investors to acquire privatised firms, and resist the influence of special interests to impose constraints on the purchasers. Further privatisations will still be needed after this plan is completed.
- *Enhance the absorption of EU funds to create a modern road infrastructure*. Streamline the legal framework related to public procurement and the issuance of building permits; encourage public-private partnerships; pursue active labour-market policies to avoid labour shortages in occupations related to construction; strengthen co-ordination between central and local governments in designing investment plans; and define priorities based on systematic cost-benefit analysis.
- *Develop broadband Internet* by further reinforcing the power of the regulator, proceeding with the functional separation of the incumbent, ensuring effective unbundling of local loops, and defining a transparent wholesale pricing scheme in line with costs.
- *Reduce the administrative burden to doing business*. Cut the direct financial costs of starting up a business; reduce unnecessary formalities to creating a business, getting construction permits and registering property; and make the tax and legal regulations more transparent and predictable.
- *Consider strengthening the role of PAIiIZ* by increasing its budget significantly, reinforcing its decision-making power on investment project approvals and making it more independent from the Ministries.

Policies to benefit the most from foreign direct investment

- *Reduce the skill mismatch in the labour market*. Improve the training system and develop a flexible lifelong learning system; promote a clearly distinct vocational education at the tertiary level with separate mission and staff from the other higher education institutions; raise students' interests in science and technology; and encourage internships as a way to strengthen the links between firms and education institutions.
- *Improve tertiary education* by: reforming the structure of education spending and funding through increased efforts in tertiary education; reducing the funding advantages of public over private higher education institutions; developing student loans; and reinforcing the quality assessment of higher education institutions.
- *Promote R&D efforts* through the increased use of transparent tax credits along with a close monitoring scheme so as to assess their efficiency. Concentrate public research funding to help the best research institutes to reach a critical mass, by linking resources to performance more systematically and giving universities more autonomy in hiring and staff management. Strengthen linkages between industry and universities by facilitating the mobility of researchers in and out of business and by providing financial incentives to the development of scientific partnerships with firms and to international collaboration among research institutions.

Box 3.2. **Main recommendations to make the most of globalisation** *(cont.)*

Policies to improve export performance

- *Ease competition-restraining regulations* by reducing public ownership in the potentially competitive segments of network industries, eliminating administrative costs to obtain licences and permits to engage in commercial activity and scaling down regulations in professional services regarding both education requirements and licensing.
- *Deepen financial development* through a consolidation of co-operative banks and an improved legal framework for collateral. Proceed with and use the privatisation of the WSE to enhance participation in the network of European stock exchanges, boost liquidity and broaden the shareholders' base.
- *Enable SMEs to grow to exploit their potential*. Concentrate the currently fragmented support to SMEs, and improve the co-ordination between the various activities. Rationalise loan and guarantee funds to standardise their operation and fees. Continue to use the EU-financed Human Capital Operational Programme to target SMEs for management and vocational training.
- *Streamline export promotion* by consolidating services related to export promotion, and consider creating a specific agency focusing exclusively on export promotion with branch offices in key foreign markets. Provide training support to overcome internationalisation barriers, encourage SMEs' networking with a focus on export markets and align web presence of export promotion on best international practices.

Notes

1. The CEEC4 grouping, made up of the Czech Republic, Hungary, Poland and the Slovak Republic – the so-called "Visegrad" group, is often used in this chapter for comparison purposes.
2. A more detailed underlying analysis for this section is found in Boulhol and Lequien (2010).
3. Revealed Comparative Advantages are measured by the Balassa index computed for each product as the ratio of its share in a country's total exports relative to its share in total world exports.
4. The exception is "Products of animal origin", whose RCA increased from 2.6 to 2.7, but which accounts for only a marginal amount of Polish goods exports.
5. The figure is based on the sum of the absolute differences in export shares between countries across the 5 000 six-digit sectors. Using the linear correlation coefficient instead leads to similar conclusions, except that the Slovak Republic is almost as close to Poland as the Czech Republic, a very recent phenomenon based on this indicator. Using correlations between RCAs would be misleading, as they tend to give high weights to products that are little traded across the world.
6. The OECD classification ranks the manufacturing sectors as producing high-, medium-high, medium-low and low-technology products depending on their R&D intensity.
7. The level of domestic saving still influences investment importantly due to capital-market imperfections, a stylised fact known as the Feldstein-Horioka puzzle.
8. Not all forms of FDI increase the capital stock. For example, FDI includes mergers and acquisitions, in particular privatisation transactions, that may involve no additional physical investment. On the other hand, transfers of technology might occur with mergers and acquisitions even when they are not associated with physical investment. Also, "capital in transit" has been a growing share of FDI flows, which distorts temporal comparisons. Capital in transit includes inward FDI that increases the equity of domestic companies before being reinvested in branches or subsidiaries set up abroad. The National Bank of Poland estimates that capital in transit amounted to 21% of FDI inflows in 2006 (IBRKK, 2008b). However, looking at the FDI outflow series suggests that this problem affects mostly the figures for 2006.
9. Figure 3.6 shows that in 2007, the most recent year for comparable data across countries, Poland's FDI position amounted to 40% of GDP. However, in 2008, its FDI position fell to 32% of GDP (Figure 3.1).
10. With such an accumulation of FDI, reinvested profits now account for an important share of FDI flows, around 40% in 2007 according to IBRKK (2008).

11. Based on Poland's Central Statistical Office estimates, which combine population census and LFS data, supplemented with statistics concerning the stock of Polish migrants in major destination countries, the stock of temporary migrants from Poland would be 2.3 million at the beginning of 2008 compared with 1.0 million three years before.

12. A sensitivity that is lower than unity can be explained by FDI flows not resulting necessarily in new investments, as, for example, in the case of privatisation or takeovers, or even destroying domestic capital as some domestic firms are forced to exit.

13. It might also come from the existence of negative spillovers, such as the crowding-out of domestic firms (Aitken and Harrison, 1999) or the absorption of limited high-skill labour by foreign firms.

14. These efficiency gains resulting from restructuring help to dissipate the potential concerns about the loss of national sovereignty that the sales of state-owned companies to foreign investors might induce.

15. This compares to more than 8 500 in 1990 and about 2 100 in 2002.

16. The incumbent's market share in the fixed telephony declined to 68% (end of 2007) but is still higher than in the advanced EU on average. In the whole broadband market, it declined to 50%, even though the incumbent still holds 80% of broadband DSL lines.

17. This is the case even though, for example, the financial costs of property registration were reduced in 2007.

18. According to grouping proposed by Wells and Wint, other functions of IPAs are image-building, investor facilitation and servicing, and investment generation.

19. Employers might be investing less than is optimal in training, since a significant share of skills acquired from training are transferable across firms. Current employers are unable to internalise the benefits that will accrue to other employers when a trained worker switches firms (OECD, 2003). Even though training policies differ importantly across OECD countries and no consensus has emerged yet about the best practices in this area, empirical evidence highlights that training generates productivity gains on average (*e.g.* Ok and Tergeist, 2003; OECD, 2007b).

20. In 2004, the cost of training by companies represented about 0.8% of their labour costs, compared with about 2% on average in the European Union (OECD, 2005b).

21. The ratio of BERD to GERD is well explained across countries by a quadratic function of total R&D intensity defined as GERD as a percentage of GDP ($R^2 = 0.92$). Based on this quadratic function, Poland's ratio is in line with its total R&D intensity.

22. RDC status may be granted to the entrepreneur whose: *i*) annual net incomes on sale of goods, products and financial operations amounted to at least EUR 1 200 000; and *ii*) net incomes on sales of generated research or development services works constitute at least 20% of incomes so defined.

23. This link is not systematic, however. For example, competition most likely increases export performance, but might deter foreign investors as intense competition tends to squeeze rents. Evidence suggests that competition enhances the absorptive capacity of FDI (Abraham *et al*., 2006; Grodnichenko *et al*., 2006).

24. Competition may facilitate FDI spillovers by strengthening domestic firms. Firms in protected sectors are often inefficient, and several studies find supportive evidence of the positive impact of competition on spillovers (Abraham *et al*., 2006; Grodnichenko *et al*., 2006).

25. *Source:* Polish financial supervisory authority.

26. Despite this fragmentation, the Polish financial sector is at the same time highly concentrated. The respective top three companies control more than 50% of the market in banking, insurance as well as in asset management.

27. State-owned banks accounted for 80% of total banking assets in 1993, 68% in 1995 and 23% in 2000 (Kowalewski, 2009).

28. This part draws heavily on OECD (2009d).

29. In comparison, the structure of firms in other CEEC4 countries is much closer to the EU average.

30. In 2007, almost half of Polish enterprises incurred no investment expenditures, 33% of them reporting the lack of access to capital and 27% high risks of legal changes and resulting instability as causal factors.

31. The programme pays for direct training to SMEs and their workers.

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