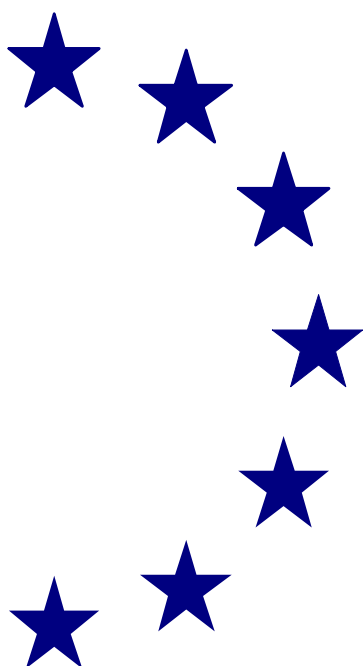


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**Country Study: GROWTH AND
COMPETITIVENESS IN THE POLISH ECONOMY:
THE ROAD TO REAL CONVERGENCE**

by
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Abbreviations

Ameco	Annual macro-economic database DG ECFIN
bn	billion
CPI	Consumer price index
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
ERDF	European Regional Development Fund
EUR	euro
EU-10	Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia
EU-15	Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom
FDI	Foreign Direct Investment
FIFG	Fishery fund
GDP	Gross Domestic Product
GNI	Gross National Income
GNP	Gross National Product
IBFD	International Bureau of Fiscal Documentation
ICT	Information and Communications Technology
I.M.D.	International Institute for Management Development
IMF	International Monetary Fund
LFS	Labour Force Survey
mn	million
MNE	Multinational enterprise
NBP	National Bank of Poland
NEER	Nominal effective exchange rate
OECD	Organisation for Economic Co-operation and Development
PALiLZ	Polish Information and Foreign Investment Agency
PPS	Purchasing Power Standard
RAMS	Recently Acceded Member States
RAMS-9	RAMS minus Poland
REER	Real effective exchange rate
R&D	Research and Development
SME	Small- en medium-sized enterprise
ULC	Unit labour costs
ULCE	Unit labour costs total economy
UMTS	Universal Mobile Telecommunications System
UNCTAD	United Nations Conference on Trade and Development
W.E.F.	World Economic Forum

Summary and conclusions

Poland at a crossroads

Poland has the potential to achieve strong and broadly based gains in income and employment over the next decade. Much has been achieved already in reorienting the economy. But real convergence, so far, has been slow. Employment levels are low and investment is underperforming relative to the economy's potential. Policy-makers have a critical opportunity now to engage a virtuous circle of job creation, sustained productivity gains and enhanced macroeconomic stability. Reforms in the labour and product markets, enhancing the business environment, improving the functioning of the financial sector, budgetary consolidation and selective tax and expenditure measures: all these have role to play. But, crucially, they need to come together in an integrated strategy in order to tap the full potential of EU integration. Deepening competitiveness and strengthening job creation, such a strategy would ensure that the economy does not get caught in a slow-growth, low-employment trap, with regional disparities persisting and restructuring challenges hard to absorb. Poland stands, in this sense, at a crossroads. The goal of this study is to explore what mix of macroeconomic and structural policies would be most efficient in lifting the economy to a new equilibrium, placing it on a fast-convergence track.

A sub-optimal pace of real convergence...

Over the past decade, real GDP growth in Poland has averaged about 4%, faster than the average of other new Member States (3.7%) and the EU-15 (2.1%). Poland has made progress in closing the income gap and its GDP per capita relative to the EU-25 average increased from 38 % in 1993 to 48 % in 2005. Nevertheless, the difference with EU income levels remains wide and Poland's growth performance has lagged behind that of other new Member States with similar per capita income levels at the beginning of the 1990s. As a result, in 2006 of all 25 EU Member States, Poland has the lowest per capita GDP. Benefiting from a revival in the euro area, Poland enjoyed strong growth in 2006. In order to transform the cyclical upturn into a lasting strong growth process, structural reforms and modernisation of the Polish economy have to be stepped up.

...explained by structural and macroeconomic factors

Growth has been mainly driven by domestic demand and productivity gains. Poland compares favourably with the other recently acceded Member States (RAMS) in terms of productivity growth, but this may partly reflect temporary factors such as a better use of the capital stock following massive job cuts in 1999-2002 in the aftermath of the Russian crisis which hit the Polish economy particularly hard. Investment growth was strong until early 2000, when a real decrease in gross fixed capital formation was witnessed and the investment ratio fell far behind the average investment ratio in the RAMS. This can be attributed to higher real long-term interest rates and possible crowding-out due to rising government deficits as well as an unfavourable global investment climate after the internet bubble burst in 2000 and a suboptimal business environment. Poland's exports have benefited

from a high level of cost competitiveness, but its gains in market shares have been smaller than those of some of its major competitors. A common factor behind the inadequate response of the economy to shocks and the relatively poor growth performance, are structural shortcomings in several areas, such as inadequate infrastructure, poor labour and product market regulations, insufficient competition in financial markets and an underdeveloped institutional framework.

Less than optimal policy mix

Poland has experienced a sustained, though not uninterrupted, long-term disinflation trend since the late 1990s, with a reduction of HICP inflation from 15 % in 1997 to a low of close to 0 % in 2003. Inflation picked up in 2004, but fell again to below 1 % at the beginning of 2006. Behind this success is a credible implementation of the monetary policy framework, which helped to bring down inflationary expectations. However, the policy mix has been suboptimal during much of the period, with loose fiscal policy requiring higher than desirable real interest rates with adverse effects on private sector investment and growth. Influenced by the political election cycle, general government deficits have been expenditure-led, tailoring tax revenues to planned spending levels.

Poor labour market performance

Labour productivity growth in Poland has been strong and reflects the catching-up process, but at the same time the unemployment rate (17.7% in 2005) is the highest in the EU and the employment rate (about 53 % in 2005) the lowest. On the back of strong growth, since 2006 a noticeable improvement in the labour market has been observed. While in the long run there is not normally a genuine trade-off between productivity and employment growth, there can be one in the short run – and this seems to be the case in Poland. More importantly, Poland has been lagging behind in large-scale privatisations and this, rather than protecting jobs, has been an element in preventing a significant part of the Polish economy from becoming more dynamic, leading to the creation of new jobs in expanding sectors. A second reason for the poor labour market performance is the large but inefficient agricultural sector and the poorly targeted welfare system. The current structure of non-employment benefits delays restructuring and provides low incentives for job mobility, and is therefore responsible for the excessive employment in agriculture.

Cost competitiveness has been generally good, but competitiveness is broader than that

Significant changes in product specialisation since the start of the transition, the nominal depreciation of the zloty over the period 2001-04, and a drop in relative unit labour costs have all contributed to the boom in exports, especially since 2001. In particular, wage moderation and high productivity growth in the manufacturing sector have played a key role in restoring Poland's cost competitiveness following a protracted period of real effective appreciation between 1995 and 2001. Moreover, FDI has been instrumental in the technological upgrading of Polish exports. However, Poland's competitiveness remains vulnerable to an appreciation of the zloty, which will require squeezing profit margins if strong export growth is to be maintained.

Poland has made smaller gains in market shares in the EU than several of its major competitors

Some aspects of Poland's product and geographical specialisation are a potential source of weakness. Its strong specialisation in traditional industries and in some medium-technology industries may hold back export growth because of increasing competitive pressure from low-labour-cost emerging economies. Poland's underperformance in more high-skill and technology-intensive sectors compared to Hungary and the Czech Republic is a matter of concern given the growth potential of these industries.

Private investment: a problem

Investment is key for catching-up as it permits to step up productivity and modernise the production process. Between 1995 and 2000, investment in Poland increased dynamically and the investment ratio rose from less than 18% to 24% of GDP. However, this period was followed by a strong decline and in 2005 the investment ratio dropped to about 18% of GDP, compared to 22 % of GDP in the other recently acceded countries. With investment growth about 10 % in 2006, the situation is likely to improve. Foreign direct investment should be in a position to make an important contribution to the investment effort because Poland should be an attractive location for foreign firms for several reasons: its EU membership, geographical location, size of domestic market, and relatively cheap and skilled labour force. However, the stock of FDI in Poland remains far below levels observed in neighbouring countries (about 25 % of GDP in 2004 compared to 40 % of GDP in the EU-10), but country size plays a role here as small countries are prone to receive more FDI.

Reasons for the disappointing investment performance are low productivity levels, inadequate infrastructure, restrictive labour and product market regulations, underdeveloped institutional framework and poor absorption of EU funds like in other new Member States due to the short programming period. FDI is important because of its direct impact on aggregate productivity in the host country and on the composition of the domestic industrial sector away from low- to high-technology products. Indirect spillovers from the presence of multinational firms relate to domestic enterprises stepping up their performance through technology transfer, imitation effects and greater competition, triggering innovation and greater efficiency. These effects have been less visible in Poland than in neighbouring countries, partly because of the low technological content of FDI compared to other host markets or foreign firms' protection of their technological advantage, but mostly owing to Poland's difficulty to absorb the new technologies and withstand the increased competition.

Inefficiencies and insufficient competition in the financial system

Despite the progress made, driven by privatisation, EU integration and the prospect of euro adoption, the Polish financial sector remains small and little-developed compared to the EU-15 and other RAMS. However, improved access to foreign financial markets has allowed companies to find cheaper financing. Private sector credit growth in Poland has been slow in recent years, in sharp contrast with the

experience in most of the other RAMS. This is reassuring from a macro-financial stability point of view, but it also reflects disappointing investment activity in Poland. Furthermore, there is some evidence that the poor credit growth may be also due to supply-side factors, namely inefficiency and insufficient competition in the banking sector as suggested by the wide intermediation margins. Furthermore, the development of capital markets is hindered by institutional impediments, among which the burdensome framework for collateral and a slow judicial system.

***Public finances:
inappropriate
expenditure
composition
and...***

As far as public finances are concerned, the structure of expenditure and taxes hampers growth and job creation. Spending on social protection in Poland accounts for a disproportionately high share of total government expenditure compared to the other Central European Member States (about 17 % of GDP compared to 12 % of GDP). It discourages work and limits the scope for increasing public investment in infrastructure while crowding out private investment. High expenditure on social protection in Poland stems mainly from generous indexation rules, poor targeting of disability benefits, the special farmers' pension and disability system (KRUS) and the existence of several early retirement schemes. Furthermore, Poland has a high level of state aid relative to GDP (about 1.5 % of GDP compared to 1 % of GDP in the other RAMS). On the positive side, the overhaul of the general pension system, by creating a second pillar based on capitalised contributions, is an important step towards setting the public finances on a sustainable path.

***... a relatively
high effective
tax rate***

Between 1995 and 2004, Poland's total taxes-to-GDP ratio decreased by 5.6 percentage points, following a sharp decrease in direct taxation partially compensated by a parallel increase in employees' social contributions and in VAT receipts. In particular, the corporate tax rate was gradually reduced from 40% in 1998 to 19% in 2004. While Poland compares well with the other RAMS and the EU-15 Member States as regards the overall tax burden and its statutory tax rates, it is less well positioned in terms of effective tax rates, especially on labour for which Poland has the fifth highest tax wedge among European OECD members.

***Policy
conclusions***

Achieving sustainable convergence will require determined policy efforts over the coming years to increase the economy's growth potential, to which better use of the currently unemployed or inactive labour resources should make an important contribution. This will require action to modernise the economy and to complete the critical task of public finance reform.

***Greater
flexibility of the
labour markets
for more
employment***

The flexibility of labour costs and of labour demand in Poland is on the whole quite similar to the situation in other EU countries, but the lack of regional differentiation in the national minimum wage and the tax wedge are reasons for concern. A large part of the job creation is concentrated in the high-productivity sector or in linked services

suggesting that capital-intensive growth is apparently not detrimental to employment. There is hardly any inter-regional job reallocation; this should be tackled by improving the functioning of the housing market, improving the transport system and revising the special social insurance system for farmers (KRUS). The conditions for eligibility to KRUS should be tightened and the contributions paid aligned with that of the general regime. Poor trans-professional job reallocation should be addressed by getting rid of misdirected vocational training and building up lifelong learning facilities.

Improving the business environment: enhancing competitiveness and attracting FDI and...

Catching up in technology-intensive sectors underscores the need to both improve Poland's innovative capacity and support technology transfer and spillovers of FDI. Poland's potential can be best exploited by taking an integrated approach towards multinational firms and promoting the long-term gains from FDI. Greater economic-policy stability, complementarities between FDI and Polish investment and smaller capital market imperfections should be part of the strategy. Special attention should be paid to ensuring that financial incentives in attracting foreign firms are effective, improving the business environment – in particular the legal and administrative system, and transport and telecommunication infrastructure – eliminating rigidities in the labour market and stimulating education, training and research.

...further development of the financial system and preserving financial stability

By further improving the legal framework for credit markets and contract enforcement, Poland could eliminate the remaining supply-side constraints and improve the financing of the economy. The risks to financial stability associated with a high degree of financial integration appear limited. However, the foreign exchange exposure of corporates and households associated with the rapid rise in loans denominated in foreign currency needs careful monitoring while the high degree of foreign ownership of the financial sector will require Polish financial supervisors to work closely with their EU counterparts.

Expenditure restraint and reform are needed to support employment and investment

In order to maintain a stable macroeconomic environment which is essential for growth and investment, fiscal discipline has to be pursued. Advantage has to be taken from the present good times and the better than expected government balances in the last years to advance with budgetary consolidation. The Hausner plan adopted in 2003 has been the most important attempt at reforming public finances since the late 1990s, but it has been only partially implemented. Additional reform efforts are needed to enhance the contribution of public finances to economic growth and employment. The nominal deficit anchor of PLN 30 billion introduced in 2006 is a step in the right direction, but it is limited to the state budget and not very ambitious. The task oriented budgeting, planned for 2009, whereby funds are allocated to the most needed projects is also a promising initiative. In order to contain the growth in public expenditure, especially on social transfers, an expenditure rule could supplement the EU's fiscal framework and the existing national rules on public debt and deficit. On the revenue side, tax reform is needed to improve incentives to work. The relatively high

labour tax wedge discourages work. However, in view of the need to consolidate public finances, tax reforms should be revenue-neutral and phased in gradually.

Euro adoption

Like the other RAMS, Poland is committed to joining the euro area. This will first and foremost require further progress towards meeting the Maastricht criteria to ensure nominal convergence and macroeconomic stability, particularly in public finances. However, for successful participation in the euro area, the flexibility of the economy will also need to be enhanced and reform efforts must be stepped up in several domains as structural rigidities persist in hampering competitiveness and growth. If the process is well prepared, the adoption of the euro should bring substantial benefits for economic growth through lower transaction costs, the elimination of exchange rate risks and lower interest rates, generating increased trade and investment. Setting a target date for euro adoption should only be considered if it can act as a disciplinary device. For it to do so the time horizon will need to be realistic and there will need to be a commitment to greater structural and budgetary adjustment.

A virtuous policy cycle is possible

A virtuous policy cycle must be established in which budgetary discipline, and in particular a reorganisation of public expenditure, plays a central role in creating room for a favourable monetary stance and an easier implementation of structural reforms. With the Lisbon Strategy and the Stability and Growth Pact, the EU offers complementary frameworks to achieve this goal. The national counterparts of these frameworks are Poland's National Reform Programme and Convergence Programme, which enable it to set out the overall process and detail the measures envisaged.

Introduction

Poland went through a transition process from a centrally planned economy to a market economy and joined the EU together with nine other countries on 1 May 2004. The aim of this Country Study is to analyse this process from the angle of competitiveness and growth. In this respect challenges and requirements for a successful closing of the income gap with the rest of the EU are studied and how fiscal, monetary and structural policies can act together to create the appropriate conditions for growth, employment and macroeconomic stability. Catching-up is a complex and multi-faceted process calling for selectivity in the topics to be treated. This study focuses on the role of exports, foreign direct investment, financial markets, social benefits and employment, expenditure reform and taxation.

The report is structured as follows. The first chapter presents the macroeconomic performance in the last decade by describing the broad trends in growth, employment, inflation and the policy-mix. Integration in the world economy is key for a country which until the end of the eighties was isolated because it belonged to another economic order. The international trade dimension of this is examined in chapter two by analysing Polish export competitiveness. Foreign direct investment and the modernisation of the economy is the focus of chapter three, notably the issue how to benefit more from the presence of multinational enterprises. Starting from the observation that credit growth is rather moderate in Poland, chapter four deals with the financial system and its role in structural adjustment. The dismal performance of the labour market is assessed in chapter five with a special attention for the sensitivity of some social groups to adverse shocks and the existence of a potential employment-productivity trade-off. Chapter six analyses the contribution of public finances to growth and employment. In particular, expenditure reforms and taxation in Poland are analysed.

1. Macroeconomic performance: from transition to EU integration

Over the past decade, real GDP growth in Poland has averaged about 4%. Despite this strong growth performance, Poland's progress in income convergence has been slower than in the other recently acceded Member States (RAMS). Real GDP growth has been mainly driven by productivity gains and capital accumulation. Poland compares favourably with the other RAMS in terms of productivity growth. However, the strong contribution of total factor productivity to output growth may reflect mainly temporary factors such as a better use of the capital stock following massive job cuts in 1999-2002. High investment ratios in the mid-1990s contributed to robust economic growth. Since 2000, investment growth has been sluggish, in part due to the crowding-out of private investment by large government deficits, but in 2006 the situation has turned for the better.

Poland has experienced a sustained, though not uninterrupted, long-term disinflation trend since the late 1990s, with a reduction of HICP inflation from 15% in 1997 to a low of below 1% for the yearly average in 2003. The disinflation process reflected a combination of cyclical and structural factors, including the completion of transition-related adjustments in relative prices, and was underpinned by a credible implementation of the monetary policy framework which helped to bring down inflationary expectations. Following an accession-related inflation blip close to 5% by mid-2004 (Chart 1.9), inflation fell again to around 1% at the end of 2005 and has remained contained since then, supported inter alia by the impact of zloty appreciation.

Despite substantial productivity gains over the last decade, labour productivity per person employed (in PPS) in Poland remains low, at about 54% of the EU-15 average. Furthermore, Poland has the highest unemployment rate and the lowest employment rate in the EU. Poland's labour market has been more severely affected by the transition process than that of the other large Central European countries. This greater vulnerability of the Polish labour market can be attributed essentially to three factors. First, progress with large-scale privatisations has been slow in Poland, which may have prevented an important part of the economy from becoming more dynamic and employment-friendly. A second factor is the particular structure of the Polish economy, characterised by a large, but inefficient agricultural sector. Third, Poland was particularly hit by the Russian crisis in 1998.

Euro adoption, if well prepared, should bring substantial benefits for economic growth. These include lower transaction costs, the elimination of exchange rate risks as well as lower interest rates. This in turn would generate increased trade with the euro area and would boost investment, employment and economic growth. Achieving sustainable convergence - especially reducing the general government deficit and maintaining inflation at a low level - is a major policy challenge for Poland. Even if no clear timetable for euro adoption has been adopted yet, determined reform efforts are needed not only to meet the Maastricht criteria on nominal convergence, but more broadly to enhance the flexibility of the economy in order to ensure a successful participation in the euro area.

This chapter examines Poland's macroeconomic performance over the past decade. Section 1.1 gives an overview of recent macroeconomic developments and examines the sources of economic growth. Section 1.2 reviews the inflation performance and the policy mix. Section 1.3 looks at developments in the labour market and labour productivity. Section 1.4 discusses the key challenges confronting Poland in the run-up to euro adoption.

1.1. Main macroeconomic developments – an overview

Over the past ten years, real GDP growth in Poland has averaged about 4 %, which is comparable to the average of the new Member States (3.8%) and significantly above the EU-15 average (2.3%). The labour market situation and fiscal imbalances are Poland's key policy challenges. The unemployment rate rose continuously from 10% of the labour force in 1998 to a peak of 20% in 2002, owing to a combination of cyclical, demographic and structural factors. Since 2003, labour market conditions have been improving gradually and from mid-2005 at a more rapid pace. The unemployment rate has fallen by about 4 percentage points to ca. 15½% in mid-2006, yet it remains the highest in the EU, reflecting the structural problems of the labour markets. Moreover, at 52.8% of the working age population in 2005, the employment rate is the lowest in the EU-25. Poland's fiscal position has deteriorated markedly since 2000, with the general government deficit increasing to a peak of 4.7% of GDP in 2003 from a low of 2.3% in 2000. This, in turn, has resulted in a rapid increase in the debt ratio which reached 43.9% of GDP in 2003. Mainly thanks to strong growth the deficit improved to 2.5 % of GDP in 2005. Poland has experienced a steady, almost uninterrupted, disinflation process, with HICP inflation dropping from 15% in 1997 to below 1% in 2003. After a temporary surge in 2004, headline inflation fell to 2.2% in 2005. The current account deficit reached worrisome levels in 1999 and 2000, but narrowed markedly thereafter, in parallel with a sharp slowdown. At 1.6% of GDP in 2005, it remains well within sustainable bounds.

Table 1.1: Main macroeconomic developments, 1995 – 2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDP growth, annual % change	7.0	6.2	7.1	5.0	4.5	4.2	1.1	1.4	3.8	5.3	3.4
HICP, annual % change	:	:	15.0	11.8	7.2	10.1	5.3	1.9	0.7	3.6	2.2
Unemployment rate, % of the labour force	:	:	10.9	10.2	13.4	16.1	18.2	19.9	19.6	19.0	17.7
Employment rate, % of the working age population	:	:	58.9	59.0	57.6	55.0	53.4	51.5	51.2	51.6	52.8
Current account, % of GDP	0.6	-2.1	-3.7	-4.0	-7.4	-5.8	-2.8	-2.5	-2.1	-4.2	-1.6
General government balance ¹ , % of GDP	-3.8	-4.6	-4.4	-3.9	-3.1	-2.3	-3.7	-3.2	-4.7	-3.9	-2.5
General government debt, % of GDP	:	:	43.0	38.3	39.4	35.8	35.9	39.8	43.9	41.9	42.5

¹ESA95 definition; pension funds classified within general government; at the end of the interim period (Fiscal Notification of Spring 2007) pension funds will have to be classified outside general government.

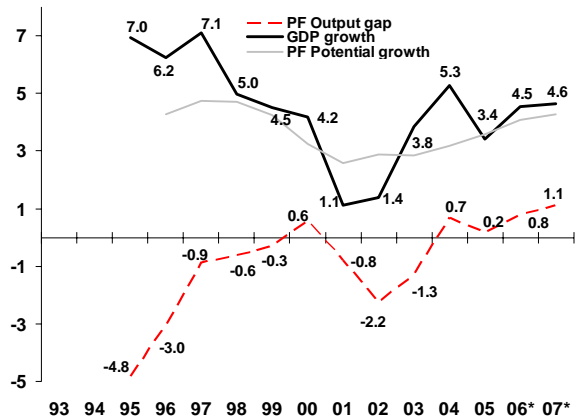
Source: Commission services

After the initial output collapse caused by transition, Poland enjoyed a period of robust economic growth up to 1997 combined with still relatively high inflation. Subsequently, economic activity slowed down. Real GDP growth dropped from an average of 6.4% during 1994-1997 to about 4.5% in 1998-2000, reflecting both the Russian crisis of August 1998 and the maturing economic cycle. Economic activity weakened more sharply in 2001, with output growth falling to a mere 1%. Domestic and external cyclical factors were at the origin of the downturn. In particular, the collapse in investment and the economic slowdown in the EU played a role. From 2002 onwards, the economy started to recover. The export-led upswing gradually gained strength, and real GDP growth reached 5.3% in 2004 as EU accession provided an additional boost to economic growth. In 2005 the accession impulse faded and real GDP growth slowed down to 3.4%.

Calculating potential growth is difficult for countries in transition. With an estimated potential growth rate at 3¾% on average between 1995 and 2005 based on the Commission

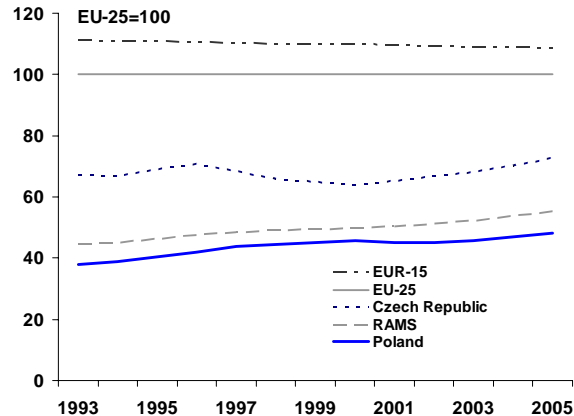
production function approach, Poland is situated in the lower range of the new Member States. The Polish economy grew mostly at a speed exceeding its estimated potential growth (Chart 1.1) between 1995 and 2005, except during the downturn in 2001-02 and in 2005. Spare capacity, characteristic for economies in transition, was mirrored by a strongly negative output gap in 1995. The output gap closed rapidly until 2000 - on the back of robust economic growth - before turning negative again in 2002. In 2004, EU accession had a beneficial impact, and the output gap is projected to stay slightly positive up to 2007.

Chart 1.1: Poland: Output gap and potential growth



Source: Commission services

Chart 1.2: GDP per head



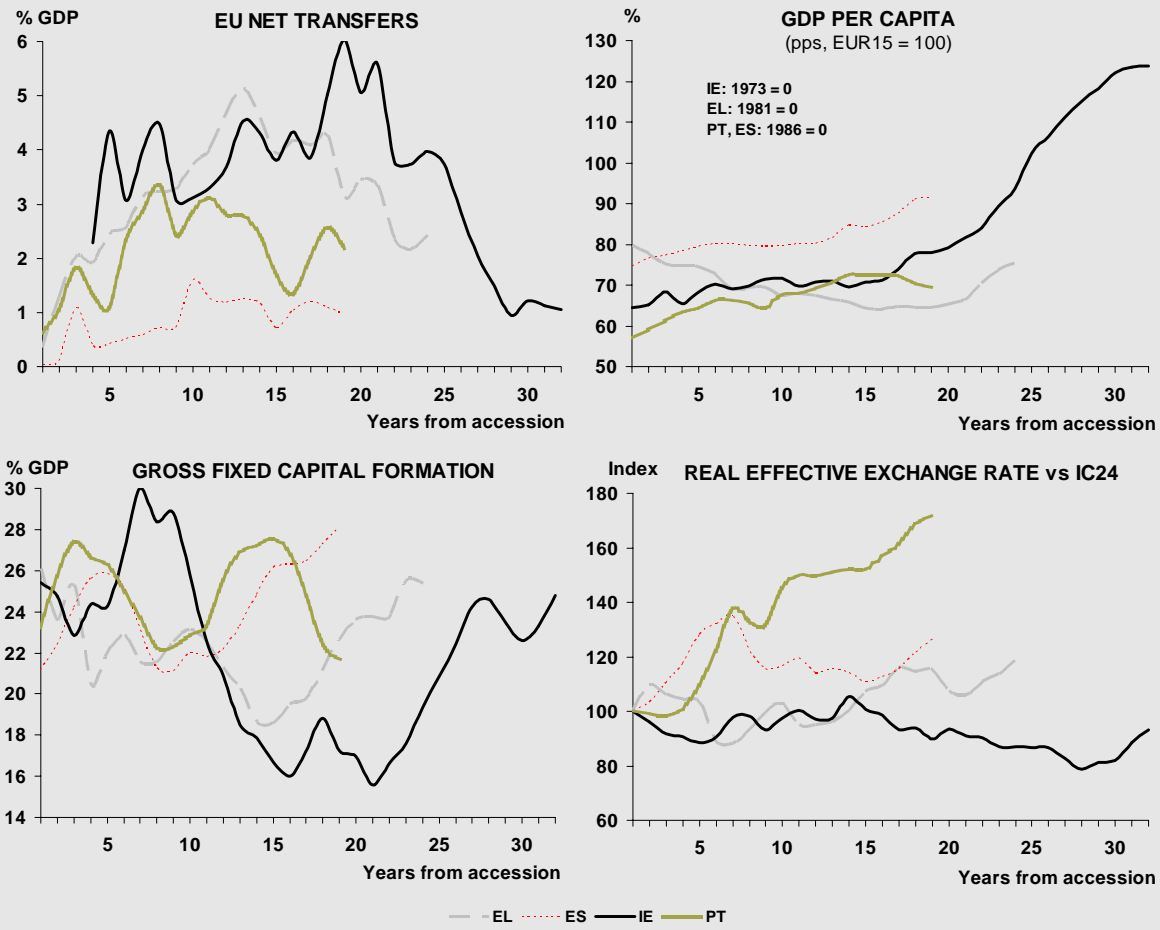
The process of income convergence, measured by GDP per capita in purchasing power standards (PPS), has been relatively slower in Poland than in the other RAMS. In 1993, the Baltic States were the only countries among the RAMS with a lower GDP per capita relative to the EU-25 average than Poland’s (37.9%). Twelve years later, Estonia (55.6%) and Lithuania (51.1%) have already outperformed Poland, and only Latvia exhibits a GDP per capita (46.3%) lower than Poland (48.1%). According to the Commission services’ long term projections (Economic Policy Committee and the European Commission, 2005), Poland’s GDP per capita will attain 75% of the EU-25 average in 2027, while the Czech Republic is expected to reach this level already in 2009, Latvia in 2014 and Slovakia in 2019. The underlying average (potential) growth assumptions in the period up to 2030 are as follow: EU-15: 1.9 %; Poland: 3.5 %; Czech Republic 2.8 %; Slovakia: 3.7 % and Latvia: 4.4 %. As the experience of the “old” cohesion countries illustrates, several factors influence the catching-up process and EU accession and the ensuing availability of financial assistance do not guarantee a fast and successful convergence (Box 1.1). In order to close the income gap, a high investment ratio, an efficient use of EU funds, sound macroeconomic policies and good governance deserve the utmost attention of national policy makers.

Box 1.1: Real convergence: some lessons from the “old” cohesion countries

With a GDP per capita in Purchasing Power Standards equivalent to some 47% of the EU-25 average, Poland ranked as the poorest Member State after Latvia in 2004. Upon accession, Greece, Spain, Ireland and Portugal had some characteristics similar to Poland: relatively poorer, large agricultural sectors, receiving considerable EU financial assistance. Nevertheless, the catching-up paths followed by these countries were very different offering useful insights for Poland.

Convergence takes decades and EU transfers on their own are not a guarantee of success. Within the framework of the new Financial Perspectives 2007-2013, Poland will be entitled to structural and cohesion fund support amounting for about 4% of GDP on average, provided certain conditions are met.

This represents a significant increase relative to the preceding programming period 2004-2006, where the entitled structural support is expected to average some 2% of GDP per year. Also the "old" cohesion countries received a significant amount of EU assistance. While Ireland and Greece received the largest amounts of EU funds relative to their GDP as compared to Portugal and Spain, they followed very different convergence paths. Greece became relatively poorer during the first 15 years following EU accession. GDP per capita in PPS decreased from about 80% of the EU average in 1981 to some 64% in 1996, and the pace of convergence only started accelerating from 2000. In contrast, Ireland showed a spectacular catching up trend, notably accelerating from the late 1980's, and reached the EU average by 1997, up from 64% in 1973. Among the main reasons for the divergent experiences of Greece and Ireland are different policies. In particular, inappropriate fiscal policies and strategies to attract foreign direct investment (FDI), e.g. re-nationalisation of public companies in the 80's, seem to have played a major role in Greece's performance. The Stability and Growth Pact and other economic policy co-ordination procedures in the EU should now set a better basis to avoid fiscal misbehaviour and foster economic activity as compared to the period prior to the late 1990's.



A high investment ratio results in productivity and efficiency gains, which was the case in Ireland. As a result, technology and education indicators performed the best among the old cohesion countries. From 1990 onwards, FDI intensity, high-technology exports as a share of total exports and expenditure in R&D were well above Greece, Portugal and Spain, while education levels (measured by tertiary education attainment) improved the most, together with Spain.

Sound macroeconomic and labour market conditions. The real effective exchange rate (REER), deflated by unit labour costs, moved relatively well after accession in all cohesion countries except in Portugal, which steadily lost competitiveness. Unit labour costs increased significantly in Portugal, reflecting persistent wage growth exceeding productivity gains in a tight labour market, while re-immigration in Ireland relaxed wage pressures and labour shortages. While the appreciation of the REER contributed to

maintain low inflation rates for a given period in Portugal, external imbalances started deteriorating notably in the late 90's, enhanced by an expansionary fiscal policy that became pro-cyclical during the recession of 2003. This highlights the importance for Poland to maintain sound fiscal policies over the cycle, but also to continue with structural reforms when exchange rate flexibility will be abolished, so that excessive real exchange rate appreciation is avoided.

Good public governance. A healthy institutional environment sets good conditions to increase the economy's flexibility and to profit from EU transfers. Overall, Ireland showed the best performance. The public institutions index – a component of the Growth Competitiveness Index of the World Economic Forum – for the last five years shows that Ireland remained at the top, while Greece and Portugal improved, and Spain deteriorated. Likewise, Ireland shows the lowest level of product market regulation, facilitating enterprise creation and business activity, to which also the tax system contributed. The tax wedge declined markedly since 1993 and remained the lowest up to now, while it remained rather constant in the other three cohesion countries.

Composition of growth from three perspectives

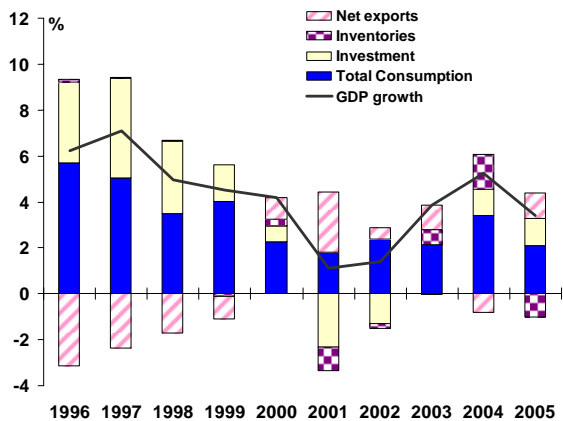
Over the last decade, the composition of GDP growth has varied substantially. The determinants of growth can be examined from three different angles: the demand side, the production side and the sectoral side.

Economic growth in Poland, as in the other RAMS and the EU-15, has been mainly driven by domestic demand in the last decade (Chart 1.3 and Table 1.2). During the economic slowdown between 1998 and 2001, the contribution of consumption more than halved, to about 2 percentage points of GDP growth. Despite the upswing, it has remained at this level since then. Investment, which developed buoyantly in the mid-1990s, turned negative in 2001, reflecting the economic slowdown, and it took three years before it started making again a positive contribution to real GDP growth. The lower contribution of investment to GDP growth in Poland (1.2) than in the other RAMS (1.4) is consistent with the lower input of capital accumulation (see below).

Table 1.2: Demand side contributions and growth in Poland, the RAMS and EU-15

Annual average (1996-2005)	PL	RAMS-9	EU-15
1 Real GDP growth	4.2	3.8	2.2
2 Total consumption	3.2	2.8	1.7
3 Investment	1.2	1.4	0.6
4 Inventories	0.0	0.0	0.0
5 Exports	2.7	6.2	1.8
6 Imports	-3.0	-6.7	-1.8

Chart 1.3: Real GDP growth and contributions from the demand side



Source: Eurostat

Since 2001, the contribution of net exports has turned positive, in part thanks to foreign direct investment in the manufacturing sector (see chapter 2). However, on average over the period 1996-2005, it has been negative, which is a normal feature of catching-up economies.

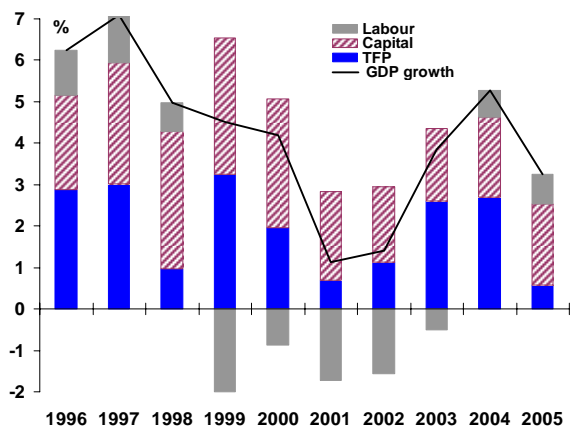
Inventories gave no contribution to GDP growth on average, which is consistent with the experience of the other RAMS. Contrary to what is observed in the more mature market economies - where companies build up their inventories ahead and during an economic boom and decrease the stocks when the economy is slowing down - inventories in Poland were quite insensitive to demand conditions before 2000. Subsequently, market mechanisms seem to have prompted more efficiency in firms' inventories management. In 2003 and early 2004, companies increased stocks before EU accession in anticipation of stronger demand and valuation gains as prices were expected to rise. Thus, the contribution of inventories to GDP growth rose to 0.6 and 1.3 percentage points respectively in 2003 and 2004 to come down to -1.1 percentage points in 2005 as a result of massive de-stocking.

Turning to the sources of growth from the production side, total factor productivity and capital accumulation have been the main drivers of growth, while economic restructuring has led to a negative contribution of employment (Chart 1.4 and Table 1.3). Compared to the other RAMS, the cost of transition in terms of unemployment appears to have been much larger. Also, contrary to expectations and the experience in the EU-15, average working hours of those keeping their job have increased somewhat in Poland, pointing to skills mismatches and other structural rigidities in the labour market, given the high unemployment level.

Table 1.3: Factor inputs and growth in Poland, the RAMS and EU-15

	Annual average (1996-2005)	PL	RAMS-9	EU-15
1	Real GDP growth	4.2	3.8	2.2
2	Total factor productivity	2.0	0.7	0.9
3	Capital	2.5	3.0	0.9
4	Labour	-0.2	0.1	0.4
5	Employment	-0.3	0.2	0.7
6	Hours	0.1	0.0	-0.2

Chart 1.4: Poland: Real GDP growth and contributions from the production side



Source: Commission services, Groningen Growth and Development Centre and the Conference Board (data on employment and hours for RAMS), Table 1.3

Capital accumulation has made a strong contribution to growth, although it fell short of what was observed in the other new Member States, particularly in the Baltic countries. The strongest contributions were observed in the second half of the 1990s. From 2000, with the slowdown in the privatisation and liberalisation processes and increased economic uncertainty, the investment climate turned sour.

Total factor productivity, a measure for the efficient combination of labour and capital, has been on average higher in Poland than in both the RAMS and the EU-15 countries. To the extent that it is an indicator of technical progress, which is one of the long-term determinants of growth, this bodes well for the continuation of the catching-up process in Poland. It could reflect the end of inefficiencies related to excess capital, which is a common phenomenon in centrally-planned economies that privilege investment over consumption (Burda and Wyplosz, 2001). The end of these inefficiencies should now be confirmed by a modernisation of the capital stock and by enhancing the quality of the labour force in order to avoid the

impression that the strong growth of total factor productivity is just due to temporarily better use of the existing capital stock after the massive lay-offs in 1999-2002 or underestimation of unregistered labour input.

Looking at the sectoral composition of growth, the services sector has been so far the main driver of Poland's growth, although industry has recently gained in importance (Chart 1.5 and Table 1.4). The contributions to gross value added (GVA) growth from services and industry (excluding construction) have been on average the same in Poland and in the other RAMS (about 60% and 35%, respectively). However, they are different from the proportions observed in the EU-15 (80% from services and 20% from industry). This reflects the catching-up process of the RAMS and their different stage of development compared to the EU-15 economies.

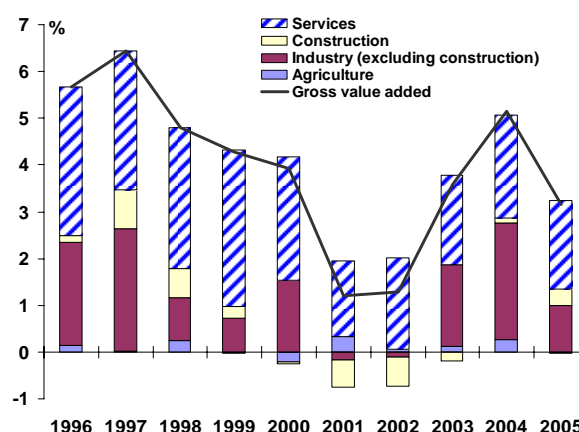
The contribution of industry GVA growth was on a downward trend until 2001, when it reached -0.2 percentage points, but this trend was subsequently reversed and in 2004 the contribution of industry to was greater than that of services (reaching 2.7 percentage points). This can be partially attributed to the acceleration of FDI inflows to industry observed in Poland since 2002, which went hand in hand with a decrease of FDI inflows into the service sector (PAIIZ, 2005). This is also reflected in the growing contribution of investment to GDP growth (see above).

Table 1.4: Sectoral contributions to growth in Poland, the RAMS and the EU-15

	Annual average (1996-2005)	PL	RAMS-9	EU-15
1	Real gross value added growth	4.0	3.7	2.2
2	Agriculture	0.1	0.1	0.0
3	Industry (excluding construction)	1.3	1.3	0.4
4	Construction	0.1	0.1	0.1
5	Services	2.4	2.2	1.7

* Difference with GDP growth due to subsidies and taxes
 ** RAMS-9: excluding Malta
 Source: Eurostat

Chart 1.5: Poland: Growth contributions by sector



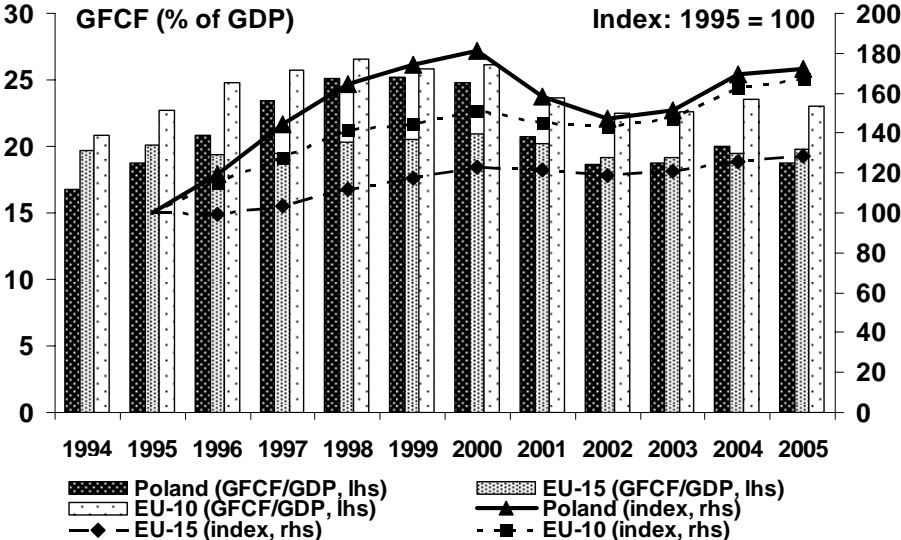
The input to GVA growth from construction and agriculture in Poland has been small (on average 0.1 percentage point), which is similar to the situation in the RAMS and the EU-15. However, in Poland the contribution of construction has varied considerably and has shaped the cycle together with industry.

Investment and domestic savings

Because investment is a key variable determining competitiveness and economic growth, economies which need to catch up in terms of income per capita have post a higher level of investment. This was the case between 1996 and 2001, when the ratio of gross fixed capital formation (GFCF) to GDP in Poland exceeded the corresponding ratio in the EU-15 (Chart 1.6). As Poland is one of the poorest Member States among the RAMS, it should also have an investment ratio above the EU-10 average. However, in the recent decade, the Polish ratio has

never exceeded that of the EU-10. Between 1995 and 2000, investment in Poland increased dynamically by more than 80% in constant prices, and the investment ratio rose from less than 18% to 24% of GDP. However, this period was followed by a strong decline in investment, counterbalancing to some extent the investment boom of the second half of 1990s (IMF, 2005). In 2002–03, the investment ratio was even slightly lower than that of the EU-15. In 2003 the investment ratio decreased to slightly above 18% of GDP. The upsurge in 2004 (when GFCF increased by almost 12% in constant prices, temporarily reaching 20% of GDP) was followed by a small increase in 2005 (by 1.4% in real terms).

Chart 1.6: Gross fixed capital formation in Poland, the EU-15, and the EU-10

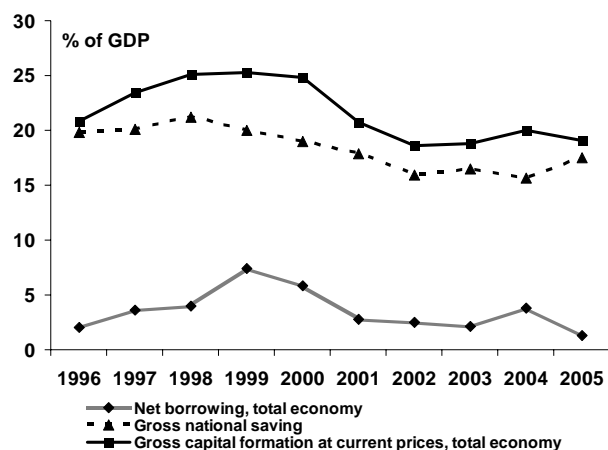


Source: Eurostat

In catching-up countries, like Poland, domestic savings are likely to fall short of investment needs and the gap is filled by foreign savings as a counterpart to the current account deficit. National saving in Poland has been declining slowly: from almost 21% of GDP in 1998 to slightly below 16% in 2004 (Chart 1.7). In spite of this, rising foreign financing (from 1% of GDP in 1996 to 6% in 2000) made it possible for investment to level off at almost 25% of GDP in 1998–2000. However, gross domestic investment declined when the confidence of foreign investors faltered – as a result of a slump in GDP growth along with a rise in inflation – and net borrowing from abroad decreased sharply to 2.8% of GDP in 2001 and further to 2.2% in 2003. In 2002 and 2003, domestic investment amounted to 19% of GDP. A recovery, driven by foreign savings again (increasing to 4.2% of GDP), started in 2004, when investment reached 20% of GDP.

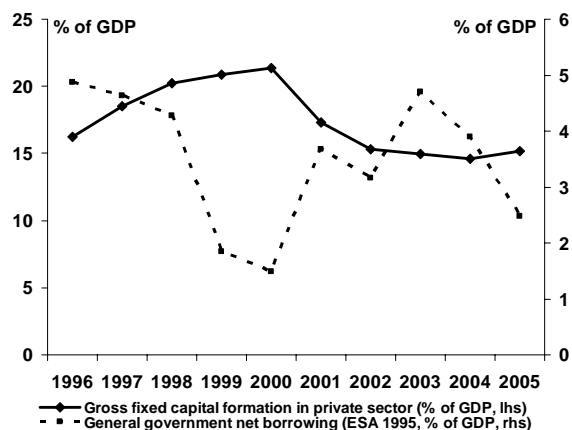
The increase in private GFCF from below 16% in 1996 to more than 21% of GDP in 2000 went hand in hand with a strong decline in general government’s net borrowing from 4.7% to 2.4% of GDP (Chart 1.8). In the following years, the ratio of net borrowing to GDP has been fluctuating but a general upward trend can be noticed. During that period, private GFCF decreased to about 15% of GDP. This points to possible crowding-out effects emphasized in economic literature (high government expenditure driving up interest rates, which dampens private sector investment). The positive impact of declining deficits on private investment up to 2000 is likely to be overstated because of an external factor: privatisation, which increases statistically the share of private firms in the economy and, consequently, the ratio of private investment to GDP too (IMF, 2005).

Chart 1.7: Poland: Investment, saving and net borrowing with the rest of the world



Source: Eurostat

Chart 1.8: Poland: General government deficit and private investment



Source: Eurostat

1.2. Monetary and exchange rate policy, inflation performance and policy mix

Monetary and exchange rate framework

Poland has adopted a series of monetary and exchange rate regimes in the course of its transition process. At the outset of transition, an exchange-rate based stabilisation strategy was followed to combat hyperinflation. The zloty was first pegged to the dollar and later, in 1991, to a basket of currencies. In 1995, the regime was changed to a crawling band combined with monetary targeting, with the aim of pursuing disinflation while also taking account of competitiveness concerns. Over time, tensions between these goals became apparent (triggered in particular by large capital inflows), and the National Bank of Poland switched to a direct inflation targeting framework in 1998. At the same time, preparations for a float of the zloty were pursued through a slowing in the rate of crawl and a widening of the band around the depreciation path, implemented in several steps. Central bank interventions on the foreign exchange market were progressively scaled back. Since April 2000, Poland has operated a fully floating exchange rate regime, with the central bank abstaining from interventions on the currency markets and accepting large swings in the exchange rate (Chart 1.9). After a low in the beginning of 2004, the zloty appreciated about 25 % against the euro until the beginning of 2006, but since then has lost some ground.

Under the central bank law, the National Bank of Poland follows price stability as its main objective, complemented by support of government economic policies as a secondary objective. The central bank sets its own targets for price stability. In the first few years of operation, the inflation targeting framework was based on declining annual end-year target bands for consumer price inflation, with the medium-term goal of reducing consumer price inflation below 4% by the end of 2003. In view of the successful pursuit of disinflation, and reflecting a shift in the main policy focus towards maintaining a low inflation environment, the monetary policy guidelines in force since the beginning of 2004 foresee a rolling annual inflation target of 2.5%. In defining this target, the central bank argued that it was consistent with strong growth, while also noting that it was close to the expected reference value for the inflation convergence criterion, thus facilitating a smooth path of the economy towards euro area membership.

Developments in public finances since 1995

For the last decade, Poland's fiscal accounts have constantly posted a deficit. Poland's fiscal position deteriorated significantly in 1996 and 1997, with the government deficit rising from 3.8% of GDP in 1995 to 4.4% of GDP in 1997¹ despite very strong GDP growth. Afterwards, the deficit narrowed until 2000, when it reached 2.3% of GDP. In both 1999 and 2000, fiscal slippages led to a deviation from the announced tightening path. Fiscal policy was expected to tighten significantly in 2000 to contain overheating, but budgetary slippages (as a result of both cyclical and structural factors) hampered this process. In particular, the costs associated with major reforms launched in 1999 (pension reform, healthcare, education and fiscal decentralisation) continued to weigh heavily on the central government budget.

The general government deficit rose sharply again in 2001, reaching 3.7% of GDP. This was partly a result of the operation of automatic stabilisers - as real GDP growth plummeted to a mere 1% - but also of a discretionary impulse. In 2002, the fiscal imbalance moderated somewhat but the general government deficit deteriorated again significantly in 2003 (reaching a record high 4.7% of GDP) despite the recovery. Fiscal concerns increased in early 2004 in view of the considerable loosening of fiscal policy. However, the deficit outcomes in 2004 and 2005 were lower than the initial targets, thanks to stronger-than-expected growth and better-than-planned revenues, respectively. Nevertheless, although some measures outlined in the government's fiscal reform package (*Hausner plan*) have been adopted (see chapter 6), approximately half of them have not been introduced and "good times" have not been fully used to improve substantially the budgetary balance. While privatisation receipts had a favourable impact, general government debt rose from about 36% of GDP in 2000 and 2001 to about 43% in 2005 mainly as a result of large deficits.

The policy-mix

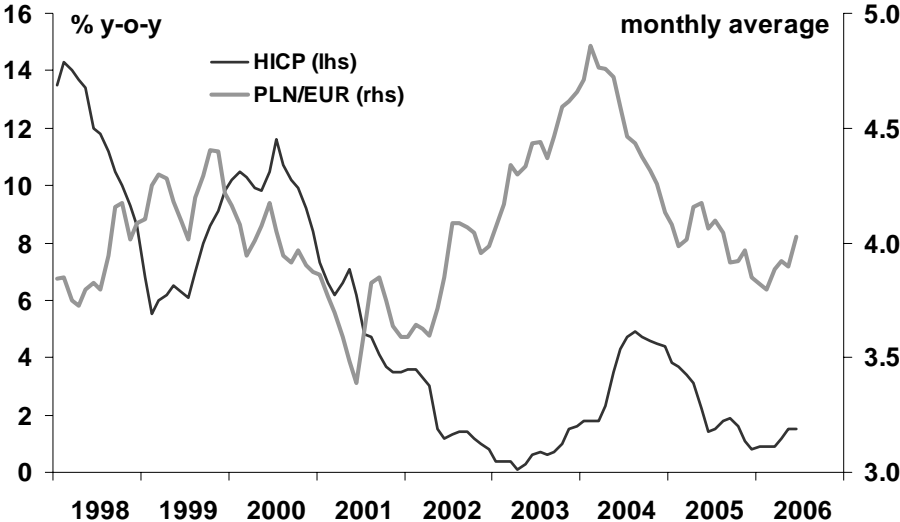
The macroeconomic policy-mix, i.e. the interaction between fiscal and monetary authorities that shapes the overall macroeconomic environment, has arguably been suboptimal for much of the period, making the process of macroeconomic stabilisation unnecessarily cumbersome and imposing economic costs in terms of lost output. Indeed, during the last few years, monetary policy has at least partly been driven by fiscal concerns. In the period 1999/2000, monetary policy was tightened significantly (Chart 1.10) – with policy interest rates rising by 600 basis points between mid-1999 and mid-2000 – against the background of budgetary slippages, a widening current account deficit and a reversal of the disinflation trend. The sharp monetary policy response served to dampen domestic demand pressures, but it led to an environment of high real interest rates and substantial exchange rate appreciation (with the zloty rising by more than 30% in real-effective terms between end-1999 and mid-2001), thus taking a toll on competitiveness – at least in the short-term, before firms had time to adapt to changing conditions – and hampering domestic investment.

From 2001 onwards, inflationary pressures in the Polish economy eased significantly, reflecting *inter alia* a widening negative output gap and weak labour market conditions, but also favourable supply-side factors (lower energy and food prices). The improving inflation outlook allowed the central bank to ease its policy stance again. The reference rate was reduced by 1375 basis points in 20 steps between February 2001 and June 2003. However, the pace of easing was kept gradual in view of a persistently worrisome fiscal situation, leading to

¹ Pension funds classified within general government as allowed for during a transition period according to Eurostat decision 04/117 of 23 September 2004. With the Fiscal Notification of Spring 2007, the pension funds will have to be reclassified entailing an upward shift of the deficit of about 2 % of GDP.

only a slow and hesitant reduction in real interest rates. HICP inflation fell dramatically during that period, despite a strong downward trend of the zloty exchange rate (which recorded a real-effective fall of some 25% until its low in early 2004), reaching an average 0.7% for 2003 and repeatedly undershooting the central bank end-year inflation targets.

Chart 1.9: Poland: HICP inflation and exchange rate

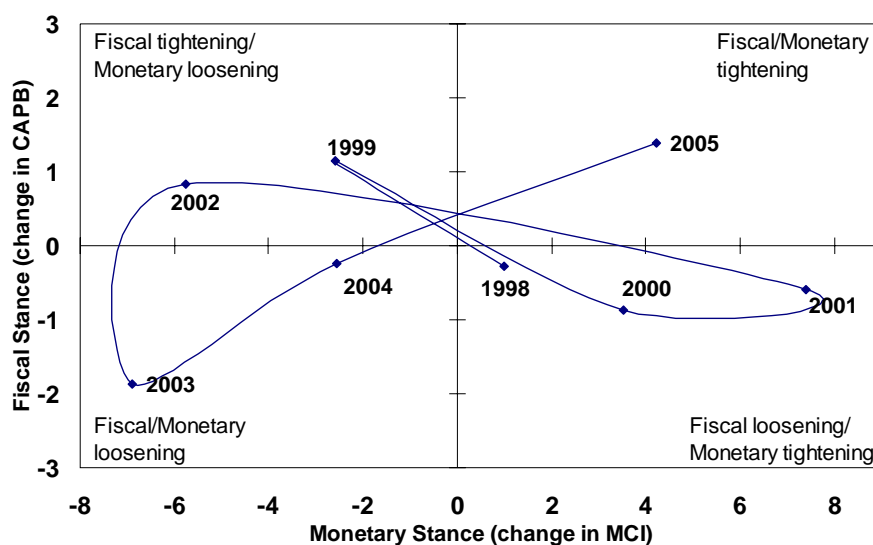


Source: Eurostat

In the course of the last two years, inflation patterns were strongly influenced by temporary factors, partly related to EU accession (such as indirect tax increases to comply with the *acquis*, and an upward impact on domestic food prices of improved EU market access). Year-on-year inflation peaked at close to 5% in mid-2004, with the average annual rate rising to some 3½%. However, underlying inflationary pressures remained muted, reflecting moderate wage developments and the dampening impact of sustained zloty appreciation, which had begun in spring 2004. Still, in order to prevent the emergence of second-round effects and an up-drift of inflationary expectations (also in view of a strengthening cyclical recovery), the central bank tightened its policy stance moderately in mid-2004. As the inflationary picture improved in the course of 2005, supported by favourable base effects and an ongoing strengthening of the zloty, monetary policy could be eased again, with the main reference rate being cut to a record low of 4% by early 2006. On the whole, however, monetary conditions tightened on the back of a strong zloty in 2005 (Chart 1.10).

Domestic inflationary pressures appear relatively well contained at present, and the central bank target of 2.5% seems a realistic benchmark for the medium-term outlook (as supported by the spring 2006 Commission services’ forecast). Short-term risks to the inflation outlook include exchange rate developments (where currency appreciation may not be a sustainable factor in dampening imported inflation) as well as the relatively high importance of notoriously volatile energy and food prices in the HICP basket. In the longer term, inflation dynamics will be strongly influenced by the interplay of trends in wage and productivity growth. Structural reforms that improve the functioning of labour and product markets, thereby raising potential growth and enhancing adjustment mechanisms, may be an important factor in containing medium-term inflationary risks, particularly in a catching-up environment.

Chart 1.10: The policy mix in Poland



Note: CAPB: cyclical adjusted primary balance; MCI: monetary conditions index with a 2 to 1 weight for the real short-term interest rate and real exchange rate

Source: Commission services

Fiscal uncertainties continue to complicate the operation of monetary policy, including through swings in financial market sentiment, and weigh on the overall policy-mix. In 2003, the longer-term trend of yield convergence with the euro area was interrupted following an easing of fiscal policy in response to weak growth. Because of the need to consolidate public finances, fiscal policy was tightened in 2005, making the overall policy stance relatively strict as also monetary conditions became tighter due to the strengthening of the zloty (Chart 1.10). However, uncertainties about economic policies and their interplay cast some doubts on the future direction of the policy-mix. A relaxation of fiscal policy may jeopardise the long-term interest rate convergence vis-à-vis the euro area which has been observed in 2005 and put pressure on the exchange rate. A reaction of the central bank to these developments could unduly tighten monetary conditions resulting in policy-mix as in 2000-2001 which is not best given the economic situation in Poland.

From a theoretical perspective, the relationship between the fiscal and monetary authorities in Poland in recent years has been described as broadly corresponding to a leader-follower model (see Darnaut and Kutos, 2005), in which the fiscal authority (the government) generally acts as the leader, and the central bank responds to fiscal developments when setting its policy in line with inflation targeting. As the follower, it ultimately determines the macro policy stance, but fiscal policy can impose constraints on the conduct and effectiveness of monetary policy. Given recurring episodes in which monetary policy had to counteract fiscal slippages, the resulting policy mix might be interpreted as reflecting a “non-cooperative equilibrium”. Consequently, as suggested by economic theory, the resulting policy mix has been suboptimal, with higher fiscal deficits and higher real interest rates than those obtained under cooperative solutions. This policy mix harms not only nominal convergence (reduction of inflation and of long-term interest rates) but also real convergence (e.g. in terms of growth in income per capita, declining unemployment, and decreasing competitiveness) because of the crowding-out of private investment. The analysis suggests that a credible commitment to fiscal discipline would contribute to better interaction between fiscal and monetary authorities, and hence the policy mix.

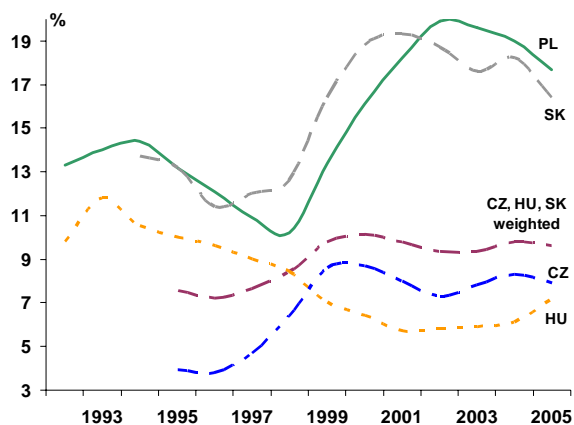
1.3. Labour market developments and productivity growth

At 17.7% of the labour force in 2005, Poland's unemployment rate was the highest in the EU. Between 1998 and 2002, the unemployment rate rose by over 9 percentage points, reaching nearly 20% of the labour force. The impact of structural change on employment and unemployment levels in Poland has been far worse than in the other countries of the region, namely the Czech Republic, Hungary and Slovakia (Chart 1.11). Poland's greater vulnerability is partly attributable to the nature of the structural change. On the whole, the transformation process² is comparable to neighbouring countries, but Poland has been lagging behind as regards large-scale privatisations. Apparently, rather than protecting jobs, these privatisations were probably an element preventing an important part of the Polish economy from becoming more dynamic and employment-friendly.

A second reason for the greater sensitivity of the Polish labour market to the transition process is the different structure of its economy, characterised by a large, but inefficient, agricultural sector. Liquidation of state-owned farms, together with opening of markets and price liberalisation led to increased unemployment among low-skilled farmers.

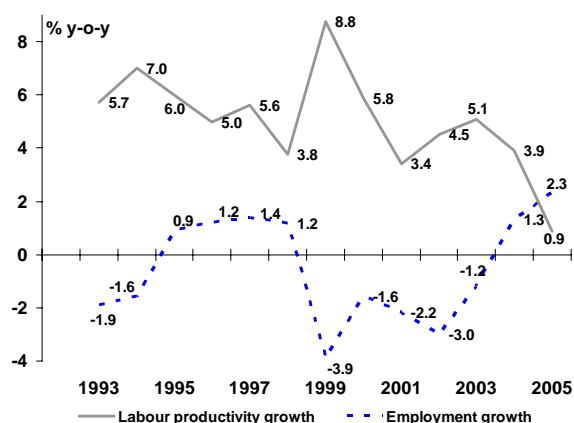
Third, the Polish economy was particularly hit by the Russian crisis in 1998 compared to the other countries of the region. Though it was a common shock for the region, the importance of exports to Russia in Poland's trade (8.4% of total exports in 1997) made its labour market particularly vulnerable. Following this shock, Russia ceased to be Poland's second largest export market, which affected mostly firms in the food and furniture industries (see chapter 2).

Chart 1.11: Unemployment rate in the Czech Republic, Hungary, Poland and Slovakia



Source: Commission services (Ameco)

Chart 1.12: Poland: Labour productivity growth and employment



Source: Groningen Growth and Development Centre and The Conference Board

Between 1994 and 2004, labour productivity has grown rapidly in Poland (4.4% on average), faster than in both the other RAMS (3.8%) and the EU-15 (1.6%). This rapid growth was accompanied by a fall in employment by over 1.5 million jobs. Higher levels of productivity growth in the RAMS reflect the catching-up process. Although labour productivity has been growing fast, its overall level in the Poland is still low compared to the EU-15 average. Measured in PPS, average labour productivity in Poland was only 53.6 % of the EU-15

² Based on the EBRD transition scores (EBRD, 2004) which evaluate from 0 to 4 the degree of liberalisation and privatisation, the quality of infrastructure and the reform progress in product and financial markets.

average in 2004 (56.4% in the RAMS). In view of the large productivity gap, rapid productivity growth is likely to remain a feature of these economies over the coming years.

1.4. Next step in EU integration: euro adoption

Like the other new Member States, Poland joined the EU in 2004 as a “Member State with a derogation” under Art. 122 of the Treaty. It does not participate in the euro area, and the Treaty provisions governing the management of the single currency area do not apply to it. While Member States with a derogation in principle retain their sovereignty over monetary and exchange rate policies, they must treat the exchange rate as a matter of common interest (Art. 124 EC). This implies that they should refrain from competitive devaluations and avoid excessive exchange rate fluctuations, which could hamper the functioning of the single market.³ Looking forward, all ten new Member States are committed to entering into the euro area once they fulfil the necessary conditions, i.e. none of them has an “opt-out clause” comparable to Denmark or the UK.

The potential long-term benefits for the new Member States, including Poland, from joining a stability-oriented monetary union are significant. At the microeconomic level, they include lower transaction costs, increased price and cost transparency and the elimination of exchange rate risks, thus improving the efficient functioning of the economy and enhancing predictability for economic agents. At the macroeconomic level, vulnerability to external shocks would be reduced, given that the bulk of external trade would be conducted within one currency area. Convergence of country risk premia to euro area levels would ease financing conditions, thus bolstering investment activity.⁴ Research also suggests that additional trade could be generated by sharing a common currency, though EU membership as such already seems to have significantly boosted trade intensity between old and new Member States⁵.

Indeed, Poland has already achieved a high degree of integration with its EU partners, which account for around three-quarters of total exports and two-thirds of total imports (see chapter 2). Importantly, Poland has a relatively high share of intra-industry trade with the euro area, which is expected to increase further in the coming years, thereby reducing Poland’s vulnerability to asymmetric shocks.

While Poland is thus in principle well-placed to benefit from further monetary integration, foregoing monetary autonomy and managing the economy within the constraints of a monetary union is not without challenges and requires appropriate preparation.

Poland has no officially agreed target date for euro adoption. In January 2004, an inter-institutional working group on Poland’s euro adoption highlighted that “the euro zone accession process should take place while taking into consideration the macroeconomic conditions, including the ability to fulfil the Maastricht criteria”. While supporting the case for euro adoption in principle, the working group’s report emphasised that domestic adjustment mechanisms (e.g. fiscal policy and the labour market) needed to be strengthened

³ As stated e.g. by the Resolution of the European Council on the establishment of an exchange rate mechanism in the third stage of economic and monetary union – Amsterdam, 16 June 1997.

⁴ The NBP report on the costs and benefits of euro area membership (NBP 2004) emphasises the importance of the interest rate channel in enhancing long-term growth prospects. Together with enhanced FDI inflows, the interest rate effect of euro area membership is estimated to exert a positive impact of some 0.2-0.4 percentage points annually on real GDP growth over 25 years.

⁵ Schadler et al. (2005) provide a survey of the literature, which tends to find positive net effects of a common currency on trade, even compared to fixed exchange rates, but with widely varying quantitative estimates.

in order to enable the economy to operate effectively under a fixed nominal exchange rate regime, while the path towards meeting all convergence criteria (notably on fiscal policy) should be designed so as to minimise short-term growth losses. These conclusions were later confirmed in a working document released in August 2005 (Ministry of Finance, 2005).

A specific challenge in the period prior to euro adoption relates to monetary and exchange rate policies, notably to the issue of participation in the Exchange Rate Mechanism II (ERM II). The ERM II framework can accommodate a range of country-specific exchange rate regimes and the system provides for a significant degree of flexibility. However, it is not compatible with a free float.⁶ Large and sustained exchange rate fluctuations would undermine the role of the central rate in guiding market expectations. They would also raise doubts about the willingness, or ability, of the authorities to preserve macroeconomic stability under conditions of a stable nominal exchange rate, for example, because inflation or fiscal imbalances are not sufficiently under control.

Upon ERM II entry, the exchange rate will have to assume an anchoring role in Poland's monetary framework, though the mechanism allows for fluctuations around the mutually agreed central rate. This will imply a significant regime shift for Poland, necessitating appropriate preparatory measures. Necessary policy adjustments for successfully pursuing an exchange rate anchor involve a sustainable correction of fiscal imbalances as well as broad-based structural reforms to allow a more flexible and efficient allocation of resources in the economy.

It should be noted, however, that reducing exchange rate volatility from past levels, as required in the ERM II context, does not necessarily imply less room for manoeuvre for economic policy. Over the past years, the nominal exchange rate in Poland has clearly not only acted as "shock absorber", but also as a "shock generator" (on this debate, see Gros and Hobza, 2003; Borghijs and Kuijs, 2004; NBP, 2004a). The exceptionally high degree of exchange rate volatility seen in the last years has at least partly been policy-induced, reflecting swings in investor sentiment as well as strong monetary policy responses to unsound fiscal developments. If the root causes of this excess volatility are addressed, ERM II participation can be helpful to guide and stabilise exchange rate expectations (thereby facilitating macroeconomic management), while retaining a degree of flexibility if deemed necessary.

In its monetary policy strategy for 2006, the National Bank of Poland reaffirmed that Poland intends to pursue its floating exchange rate regime until entry to ERM II, but it noted that currency market intervention was an option to prevent excessive volatility. While this does not signal a substantive shift from its current policy of non-intervention, it is seen as preparing the ground for smoothly managing the transition to a more constrained exchange rate system.

1.5. Conclusions

Over the past decade, the Polish economy has been growing on average at 4% per year, somewhat better than the average of other new Member States (3.7%) and significantly faster than EU-15 (2.1%). Progress has been made in closing the income gap and Poland' GDP per capita relative to the EU-25 average increased from 38 % in 1993 to 48 % in 2005. Nevertheless, the difference with EU income levels remains wide and Poland's real

⁶ This was underlined by the Informal Ecofin Council in its statement on Acceding Countries and ERM II (Athens, 5 April 2003).

convergence has lagged behind that of other new Member States with similar income per capita income levels at the beginning of the 1990s. The poor labour market performance is one of main reasons for this. Since 2003, labour market conditions have been improving somewhat, although unemployment has remained very high (at 17.7 % in 2005, the highest in the EU), reflecting the deep-seated structural problems. Poland's fiscal position has deteriorated markedly since 2000, with the general government deficit increasing to a peak of almost 5% of GDP in 2003. Mainly thanks to strong growth the deficit improved to 2.5 % of GDP in 2005. Poland has experienced a steady, almost uninterrupted, disinflation process, with HICP inflation dropping from 15% in 1997 to about 2% in 2005. However, the reclassification of the open pension fund as from 2007, after the end of the interim period granted by Eurostat, will imply a rise in the deficit by almost 2 % of GDP. The current account deficit reached worrisome levels in 1999 and 2000, but narrowed markedly thereafter, in parallel with a sharp slowdown. At less than 1.2% of GDP in 2005, it remains well within sustainable bounds.

The policy mix in Poland has been suboptimal during much of the period, with loose fiscal policy requiring higher than desirable real interest rates with adverse effects on private sector investment and growth. Indeed, investment activity has only recently started to recover, and its share of GDP is still the lowest among the recently-acceded transition economies. Looking forward, ensuring a more balanced policy mix will be a key medium-term challenge, in particular by moving ahead with fiscal consolidation. Lack of progress in this field would complicate the task of the central bank and put a burden on the real economy. Redressing fiscal imbalances would also help to achieve a higher degree of exchange rate stability by preventing policy-induced market disturbances. This would be an important precondition for eventual smooth participation in ERM II and an orderly management of the crucial phase ahead of entry into the euro area.

Achieving sustainable convergence - especially reducing the general government deficit and maintaining inflation at a low level - is a major policy challenge for Poland. Even if no clear timetable for euro adoption has been adopted yet, determined reform efforts are needed not only to meet the Maastricht criteria on nominal convergence, but more broadly to enhance the flexibility of the economy in order to ensure successful participation in the euro area. The range of policies required to achieve this objective is discussed in this study.

2. Competitiveness and export performance

Since the beginning of its transition to a market economy, Poland has experienced a rapid expansion of its foreign trade, together with a geographical reorientation of its trade flows away from the former Council for Mutual Economic Assistance (CMEA) countries towards the EU. As in the case of other small open economies, Poland's vigorous participation in international trade and its integration into the global production networks have been important factors in supporting economic growth and in raising its standards of living. Economic restructuring associated with the transition has triggered deep changes in the country's productive structure and trade patterns. The large inflows of foreign direct investment (FDI) have played a major role in this adjustment process, including in Poland's evolving comparative advantage. While fostering Poland's competitiveness in international markets, these structural changes have been accompanied by labour shedding and rising unemployment, reflecting labour market rigidities.

The purpose of this chapter is to assess Poland's export performance since 1995 and to review its main determinants, such as the country's specialisation pattern and the role of FDI. Poland's competitiveness has been generally good, as is confirmed by its very strong export performance since 2001. The significant changes in its product specialisation since the start of transition, the nominal depreciation of the zloty over the period 2001-04 combined with a drop in relative unit labour costs have all contributed to the boom in exports. In particular, wage moderation and high productivity growth in the manufacturing sector have played a key role in restoring Poland's cost competitiveness following a protracted period of real effective appreciation between 1995 and 2001. Moreover, FDI has been instrumental in the technological upgrading of Polish exports. Poland's competitiveness remains vulnerable to an appreciation of the zloty (as experienced since the second quarter of 2004), but recent evidence shows that Polish exporters are able to limit the impact of adverse exchange rate shocks on export growth by squeezing profit margins.

Poland's strong export growth and relatively low trade deficit should be no reason for complacency, particularly as it has experienced smaller gains in market shares in the EU than several of its major competitors over the past decade. Some aspects of Poland's product and geographical specialisation are a potential source of weakness. First, Polish exports may suffer from their strong orientation towards the slow-growing EU-15 market. Poland's increasing share of exports to the faster-growing new EU countries and CIS countries are likely to continue to support export growth, but the size of these markets is not comparable to the Asian markets, in which Poland is little present. Second, Poland's strong specialisation in traditional industries and in some medium-technology industries may hold back export growth as Polish firms face increasing competitive pressure from low-labour-cost emerging economies in these two groups of industries. Despite its strong export growth, Poland's underperformance in more high-skill and technology-intensive sectors compared to Hungary and the Czech Republic is clearly a matter of concern given the growth potential of these industries.

The chapter is organised as follows. The first section provides an overview of Poland's export performance and compares it to that of its major competitors, including the other three large Central European countries (the Czech Republic, Hungary and Slovakia – the four countries are referred to as the CE-4). The subsequent three sections discuss the main factors underlying this performance: (i) price and cost competitiveness; (ii) the sectoral specialisation of Polish exports; and (iii) the role of FDI. The final section presents some policy conclusions.

2.1. Some salient features of Poland's export performance

Three features of Poland's export performance stand out. First, Poland's export performance has fluctuated substantially between 1995 and 2004, reflecting external shocks and changes in competitiveness. Second, the EU-15 is the main destination market of Poland, a reflection of its high degree of trade integration with the EU. And, third, Poland's good export performance is reflected in an increase in its export market shares both in the EU and in the recently-acceded Member States (RAMS) over the past decade, although its gains in the EU market have been smaller than those of several competitors.

Recent developments in the external accounts

In the first half of the 1990s, Poland's external accounts were in surplus or balanced, pointing to a strong export performance. However, a trade deficit emerged in 1996, as import growth, fuelled by rising investment, outpaced export growth. Subsequently, exports were hit hard by the Russian crisis in August 1998 as well as the economic slowdown in the EU. The trade deficit widened to a peak of 7.9% of GDP in 1998, reflecting the external demand shocks and persistently strong import growth. Weakening export market growth compounded by a deterioration in competitiveness led to a sharp drop in export growth in the following two years. Consequently, the current account deficit rose to a worrisome 6% of GDP in 2000.

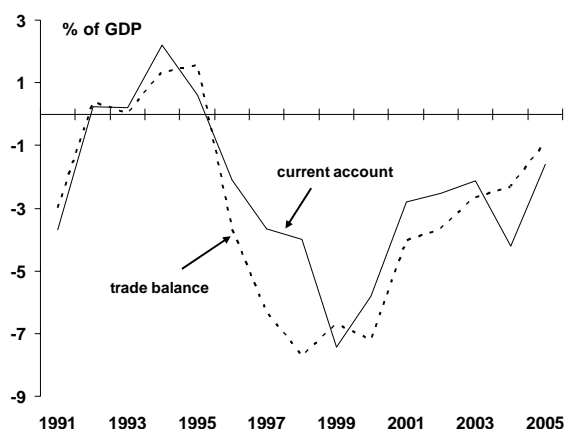
In response to the Russian crisis and the loss of export markets in the Commonwealth of Independent States (CIS), Poland reoriented its trade towards the EU and adjusted its export structure to the new demand. Also, the Russian crisis triggered a new wave of enterprise restructuring, which improved the profitability and competitiveness of private firms. Following these adjustments, exports started to recover in 2001. The sharp nominal effective depreciation of the zloty from mid-2002 to early 2004 contributed to further boosting exports. Weak domestic demand together with strong export growth resulted in a marked reduction in the trade deficit between 2001 and 2004. The trade deficit dropped to 1.1% of GDP in 2004 from 7.4% in 2000. These developments were mirrored in a steady improvement in the current account deficit. Since early 2005, export growth has remained robust despite weak market growth and a considerable appreciation of the zloty, suggesting that Poland's competitiveness has not been undermined.

Compared to the other large Central European countries, Poland's export performance has fluctuated considerably since 1995 (Charts 2.3 and 2.4). While its trade deficit was among the smallest in the region in the mid-1990s, Poland experienced a collapse of export growth following the Russian crisis and the slowdown in EU demand in the late 1990s, which was not observed in the other Central European countries (except Slovakia). Since 2001-02, the export performance of the CE-4 countries has to a large extent followed a similar path. Although they all experienced a slowdown in export growth as a result of the downturn in the EU in the last two quarters of 2001 and first quarter of 2002, their export growth subsequently rebounded (with the exception of Hungary), and each has recorded a steady improvement in its trade balance. In 2004, the trade deficit in Poland (1.1% of GDP) was higher than the Czech Republic (0.8%) but lower than Hungary (3.0%) and Slovakia (3.5%).

Despite this convergence in trade performance, current account balances vary widely across the CE-4 countries. Here again, Poland's position seems favourable relative to its neighbours, with a current account deficit of 1.6% of GDP in 2005, lower than that of Slovakia (8.5%) but

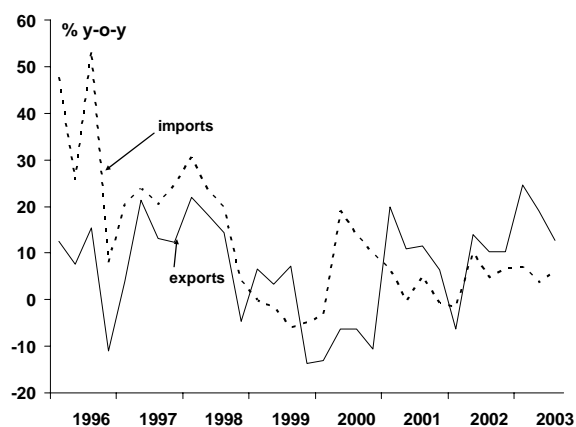
lower than that of the Czech Republic (2.3%) and of Hungary (7.4%).⁷

Chart 2.1: Poland: Trade balance and current account



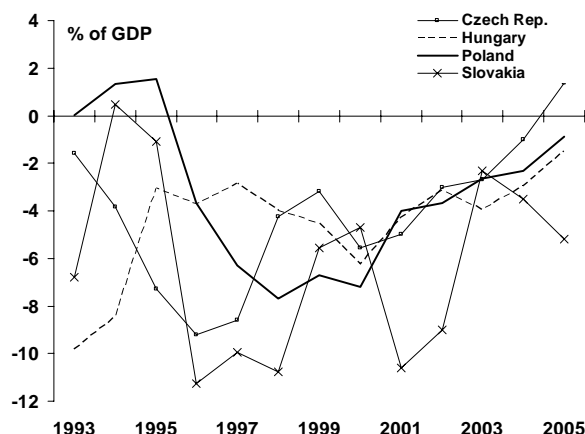
Source : Commission services (Ameco)

Chart 2.2: Poland: Imports and exports of goods in volume



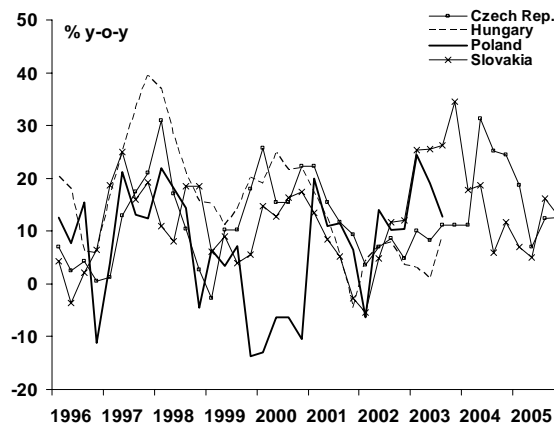
Source : Commission services (Trimeco)

Chart 2.3: CE-4: Trade balance, 1993-2005



Source : Commission services (Ameco)

Chart 2.4: CE-4: Exports of goods in volume



Source : Commission services (Trimeco)

Geographical orientation of exports

The EU-15 is the main destination market of Poland, and Germany is its major trading partner (Table 2.1). The share of the EU-15 in Polish exports has been stable around 70% during most of the period since 1995, although it declined to 65% in 2005 reflecting weak demand growth in the EU. This figure confirms the high degree of trade integration of Poland with the EU and compares well with that of the EU-15 members, whose exports within the EU account for about 60% of total exports. At the same time, the share of Poland's exports going to the

⁷ The current account balance is a reflection of the savings-investment balance of the economy. In this regard, the favourable current account position of Poland partly reflects the fact that investment growth has been weak since 2000 despite strong corporate profitability, entailing a savings-investment surplus of the private sector that is larger than usual in catching-up economies. By contrast, Hungary's large current account deficit mirrors the high government deficit which is not fully offset by the net savings of the private sector.

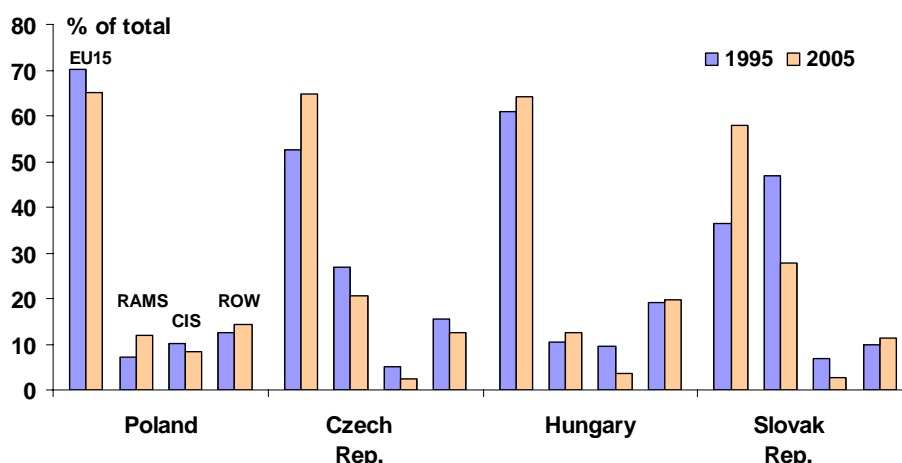
RAMS has steadily increased from 7% in 1995 to 12% in 2005. In contrast, the CIS countries rapidly lost in importance as a destination market following the Russian crisis in mid-1998. Their share in Polish exports collapsed from 15% in 1997 to 6.5% in 2000, but has been rising since then without having yet reached the peak levels of the mid-1990s.

Table 2.1: Poland: Exports of goods by country of destination

% of total	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
EU-25	77.2	74.3	72.7	78.2	81.0	80.6	80.3	80.3	80.8	79.1	77.4
EU-15	67.6	64.0	64.2	68.3	70.6	70.0	69.3	68.7	68.8	67.3	65.2
<i>of which Germany</i>	38.3	34.4	32.9	36.2	36.1	34.9	34.4	32.3	32.3	30.0	28.2
RAMS	7.2	7.9	8.5	9.9	10.4	10.5	11.1	11.5	12.0	11.8	12.2
CIS	10.1	12.3	14.9	11.2	6.5	6.5	6.9	7.1	6.9	7.8	8.6
<i>of which Russia</i>	5.6	6.8	8.4	5.7	2.6	2.7	2.9	3.2	2.8	3.9	4.4
Rest of the world	12.7	13.4	12.3	10.7	12.6	13.0	12.8	12.6	12.3	13.1	14.0

Source: IMF Direction of Trade (DOT) Statistics

Chart 2.5: Exports of goods by country of destination



Source: IMF DOT Statistics

The geographical structure of exports of the other Visegrad countries is quite similar to that of Poland (Chart 2.5). Nevertheless, three differences stand out. First, the Czech Republic, Hungary and Slovakia have increased their export ties with the EU-15 between 1995 and 2004, while the share of the EU-15 in Polish exports has decreased slightly; second, the RAMS account for a larger share of exports in the Czech Republic and Slovakia than in Poland, although this share is rapidly declining; and, third, Poland has kept stronger export links with the CIS countries than the other Visegrad countries.

Export market shares for Poland and its major competitors

Table 2.2 presents the export market shares⁸ for Poland and selected economies in the EU-15 and other markets.

Among the Visegrad countries, Poland is the largest exporter to the EU-15. It accounted for 3.4% of the extra-EU-15 imports of goods in 2005, followed by the Czech Republic (3.1%), Hungary (2.7%) and Slovakia (1.2%). Between 1995 and 2005, Poland increased its market share in the EU-15 by 0.4 percentage points. While its gains in the EU market share have

⁸ For a discussion of export market share as an indicator of export performance, see ECB (2005).

been smaller than those of China, Hungary, the Czech Republic, and Turkey, they have exceeded those of some other competitors (Slovakia, the Republic of Korea, and Romania). Apart from gains in competitiveness, trade policy has played an important role in the good export performance of Poland in the EU market. Clearly, Poland, like the other RAMS, has benefited from the Europe agreement signed in 1991, which established free trade with the EU from early 1995, with restrictions in a few sectors (e.g. foodstuffs, textiles, and clothing), while trade barriers have limited the access of the other emerging countries to the EU market.

Over the period 1995-2005, Poland increased its market share in the RAMS by 1.6 percentage points and became a major exporter in these markets after China and the Czech Republic. By contrast, Poland's market share in the United States and in Asian countries remained broadly stable, while it has experienced a substantial erosion of its market share in the CIS countries. A similar pattern is observed in the other Visegrad countries, although the Czech Republic and Hungary have experienced a marginal increase in their market share in Asia.

Table 2.2: Poland and selected economies: Export market shares

% of total	EU-15 ¹		RAMS ²		US		CIS ²		Asia ²		RoW	
	1995	2005	1995	2005	1995	2005	1995	2005	1995	2005	1995	2005
Czech Republic	2.16	3.08	1.85	4.68	0.06	0.13	1.51	1.56	0.07	0.13	0.05	0.11
Hungary	1.81	2.67	0.62	2.21	0.07	0.15	2.50	1.47	0.04	0.12	0.05	0.15
Poland	2.92	3.38	0.82	3.66	0.09	0.12	4.65	5.13	0.11	0.11	0.07	0.15
Slovakia	0.74	1.16	1.60	2.75	0.02	0.06	1.08	0.58	0.01	0.03	0.02	0.03
<i>Emerging Asia</i>												
China + HK	8.27	14.26	1.23	4.82	7.69	15.53	2.39	14.24	11.25	18.83	4.02	6.01
Rep. of Korea	2.73	2.70	0.46	1.21	3.23	2.63	1.67	2.83	10.27	14.22	0.82	1.14
Indonesia	1.43	0.92	0.29	0.27	1.03	0.75	0.17	0.29	4.71	4.93	0.26	0.34
India	1.75	1.63	0.57	0.28	0.79	1.15	2.95	2.30	1.64	2.78	0.28	0.56
Malaysia	2.03	1.41	0.30	0.45	2.33	2.00	0.06	0.58	8.43	8.43	0.47	0.60
<i>Other emerging economies</i>												
Brazil	2.52	2.06	0.51	0.36	1.22	1.51	0.84	1.69	1.72	2.08	0.52	0.76
Romania	0.82	1.20	0.15	0.79	0.03	0.08	0.58	0.26	0.13	0.09	0.11	0.10
Turkey	2.18	2.82	0.27	0.96	0.25	0.32	2.41	2.45	0.23	0.16	0.15	0.35
South Africa	1.62	1.57	0.38	0.10	0.30	0.35	0.15	0.14	1.15	1.45	0.22	0.25

¹Excluding intra-EU trade

²Excluding trade between countries of the same region

Source: IMF DOT Statistics

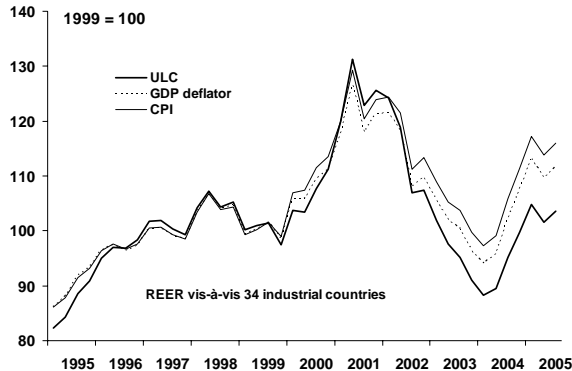
2.2. Poland's price and cost competitiveness

Standard measures of the real effective exchange rate suggest that Poland has experienced a loss in competitiveness since 1995 (Chart 2.6). The CPI-based real effective exchange rate (REER) of Poland recorded a cumulative real appreciation of 35% between early 1995 and the third quarter of 2005. It should be stressed that in transition economies, movements in the CPI-based REER may reflect equilibrium phenomena related to the convergence process (IMF, 2004). In particular, the Balassa-Samuelson effect predicts that the catching-up new EU Members will face higher inflation than the EU-15 due to larger differentials in productivity growth between the tradable and non-tradable sectors of the economy compared with the more mature EU-15. This, in turn, will lead to an appreciation of the CPI-based REER. Other factors, such as price liberalisation and changes in administrative prices, can also give rise to an increase in the overall price level, and hence entail a loss in competitiveness.

In the case of Poland, the average annual rate of real appreciation between 1995 and 2004 (2.7% for the CPI-based REER) exceeds the estimates of the Balassa-Samuelson effect (between 1.2 and 1.5% per year) (see Kovacs, 2002). This suggests that the real appreciation cannot be exclusively attributed to the catching-up process. During the same period, the average annual Unit Labour Costs (ULC)-based REER - which is often considered to be a

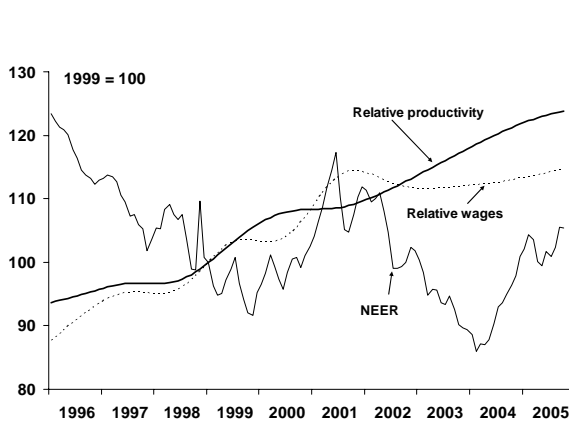
more appropriate measure of competitiveness - appreciated by 1.7%, which suggests also some deterioration in Poland's competitiveness. The sizable appreciation of the real effective exchange rate in the first three quarters of 2005 (14% in ULC-based REER terms compared to the same period of 2004) points to a further loss in cost competitiveness.

Chart 2.6: Poland: Real effective exchange rate, 1995-2005



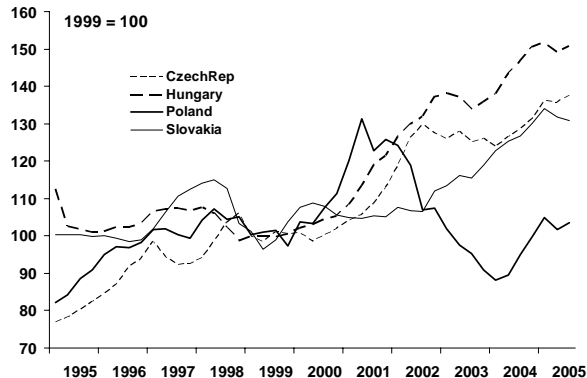
Source: Commission services

Chart 2.7: Decomposition of Poland's ULCE-based real effective exchange rate



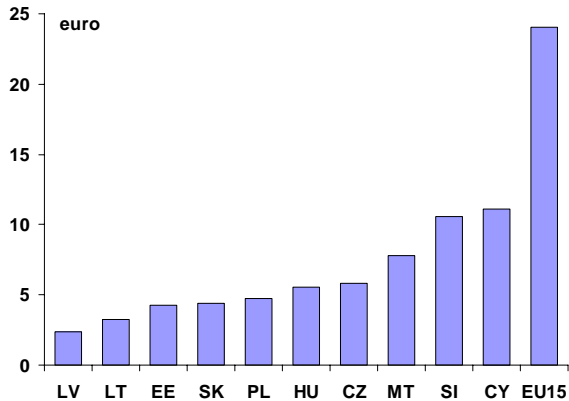
Source: Commission services

Chart 2.8: ULCE-based REER in Poland and some competitors, 1995-2005



Source: Commission services

Chart 2.9: Average hourly labour costs, 2004



Note: for Latvia and Slovenia data is for 2003.
Source: Eurostat

Over the past decade, the ULC-based REER has recorded wide swings. Four distinct periods can be identified (Charts 2.6 and 2.7).

- Between 1995 and 1999, the REER appreciated by 23%. This reflected primarily continuing high (albeit diminishing) nominal wage growth, which more than offset the depreciation of the nominal effective exchange rate (NEER) and the good performance in relative productivity growth.⁹

⁹ This good productivity performance reflected labour shedding associated with privatization and enterprise restructuring.

- A more pronounced deterioration in Poland's competitiveness occurred between end 1999 and mid-2001, with a 35% appreciation of the ULC-based REER. Most of the loss in competitiveness during this period was due to the appreciation of the NEER, in part owing to a sharp tightening of monetary policy triggered by fiscal slippages. Strong capital inflows related to FDI also played a role.
- Between late 2001 and mid-2004, Poland recorded substantial gains in competitiveness with the ULC-based REER depreciating by as much as 30%, and by early 2004 restoring competitiveness to the level recorded in mid-1995. The NEER for the zloty also depreciated, by 21%, during this period. The substantial monetary easing between 2001 and June 2003, followed by increased uncertainty regarding fiscal consolidation from mid-2003 onwards contributed to the depreciation of the zloty. In addition, the fall of the zloty in nominal effective terms reflected to some extent the US dollar depreciation against the euro.¹⁰ Also, favourable developments in Polish ULC relative to its trading partners contributed to the decline in the real effective exchange rate. Relative productivity growth accelerated on the back of intensified enterprise restructuring following the Russian crisis, while relative wage growth eased reflecting both the rapid decline in inflation and the rise in unemployment. The significant improvement in competitiveness was largely responsible for the boom in Polish exports during this period.
- From mid-2004 to date, Poland's earlier competitiveness gains were undermined by an appreciating currency, which has more than offset the positive contribution of persistently low wage and high productivity growth. The ULC-based REER appreciated by 16% between the second quarter of 2004 and the third quarter of 2005. Nevertheless, export growth has remained robust suggesting that Polish exporters have priced to the market and have cut profit margins to contain losses in market shares.

Compared to the other CE-4 countries, Poland's cost competitiveness remains favourable. The other CE-4 countries have experienced significantly higher losses in competitiveness since 1995, and have not recovered these the way Poland has in recent years (Chart 2.8). Moreover, since 2002, Poland has experienced significantly lower nominal wage growth than the other Central European countries, while labour productivity growth has been higher than in the Czech Republic and Hungary. Also, the level of average hourly costs in Poland is one of the lowest among the new EU countries, and well below the EU-15 average (Chart 2.9). In 2004, hourly labour costs in Poland were somewhat higher than in Slovakia but 17% lower than in Hungary and 23% lower than in the Czech Republic.

2.3. Poland's specialisation pattern and its evolution over time

The sectoral specialisation of a country is a major determinant of its export performance and competitiveness. This section reviews Poland's specialisation pattern by analysing the products in which its comparative advantage lies and how the latter has evolved since the mid-1990s. There are several ways to determine a country's comparative advantage. The method used here consists of constructing Revealed Comparative Advantage (RCA) indices as proposed by Balassa (1965).¹¹

¹⁰ Data show that the zloty-euro exchange rate is closely linked to the US dollar-euro exchange rate.

¹¹ This indicator is widely used in the literature; for the EU-15, see, for example, European Commission (2004).

Table 2.3 presents the RCA¹² indices by industry for Poland and the other Visegrad countries over the period 1995-2003. Three major trends can be identified:

- First, Poland has improved its comparative advantage in four traditional industries, namely ‘building and repairing of ships’, ‘furniture’, ‘wood and products of wood’ and ‘railway vehicles’. Poland has a particularly strong revealed comparative advantage in the shipbuilding and furniture industries, with RCA indices of 6.7 and 6.3 in 2003, respectively. Poland’s comparative advantage in shipbuilding is a peculiarity among the Visegrad countries.
- Second, Poland’s revealed comparative advantage for ‘clothing’ and ‘basic metals’ has fallen dramatically since 1995. The largest fall was recorded in the clothing industry where the RCA index was halved (from 3.3 in 1995 to 1.5 in 2003), while the RCA for ‘basic metals’ has decreased from 2.4 to 1.8. As regards the clothing industry, the fall in the RCA index reflects Poland’s declining competitiveness in the face of increased competition from lower-cost/labour-abundant Asian economies. Similarly, the other Visegrad countries have seen losses in their comparative advantage in labour-intensive industries (‘leather and footwear’ and ‘textiles’ in the Czech Republic, ‘leather and footwear’ and ‘clothing’ in Hungary, and ‘textiles’ in Slovakia).

Moreover, the declining comparative advantage in these sectors reflects the ongoing structural change within manufacturing in Poland and the other transition economies, involving a shift away from labour-intensive and low-technology industries towards medium-to high-technology sectors, which is also evident in the evolution of the export structure (Landesmann, 2003). This could also explain the decline in some industries that are intensive in natural resources: ‘basic metals’ in all the Visegrad countries, ‘wood and products of wood’ in the Czech Republic, Hungary and Slovakia. The loss of Poland’s revealed comparative advantage in ‘mineral fuels and mineral oils’ is another sign of this trend towards de-specialisation in resource-intensive sectors.

- Third, the Polish economy has gained a comparative advantage in four sectors, specifically ‘pulp, paper and paper products’, ‘miscellaneous metal products’, ‘rubber and plastics’, and ‘printing and publishing’. While Poland’s comparative advantage in these sectors may still be somewhat low, they provide an indication about the future strengths of Polish manufacturing industry. Interestingly, Poland’s new comparative advantage is mainly in capital-intensive and low-to medium-skill industries.¹³ By comparison, the other CE-4 countries have gained new comparative advantages in mainstream and more technology-intensive industries. Slovakia has recorded a remarkable shift from a comparative disadvantage to a comparative advantage in the motor vehicle industry, while

¹² The RCA index is used as a proxy of a country’s unobserved comparative advantage. It compares the share of the exports of a certain product in the total exports of a country relative to other countries. This index is used here to identify the industries in which Poland has a comparative advantage vis-à-vis the rest of the world. It is defined as follows:

$$RCA_i = (X_{PL,i} / \sum_i X_{PL,i}) / (X_{W,i} / \sum_i X_{W,i})$$

where $X_{PL,i}$ is the exports of product i by Poland, $X_{W,i}$ is the world exports of product i , $\sum_i X_{PL,i}$ is the total exports of Poland, and $\sum_i X_{W,i}$ the total world exports. If $RCA_i > 1$, then Poland has a comparative advantage in product i . If $RCA_i < 1$, Poland has a disadvantage in this product.

¹³ Two taxonomies of exports derived from Peneder (2001) are used. In the first, export products are classified according to their combination of factor inputs. This leads to the distinction of five export groupings: mainstream, labour-intensive, capital-intensive, marketing-driven and technology-driven. In the second taxonomy, exports are grouped by their relative requirement for skilled labour (low-skill, medium skill blue-collar, medium skill white-collar and high-skill). For details, see IMF (2004).

the Czech Republic and Hungary have developed new comparative advantages in some engineering industries ('motor vehicles' and 'machinery and mechanical appliances' in the Czech Republic, 'machinery and mechanical appliances' and 'electrical machinery' in Hungary).

Overall, Poland's specialisation pattern has evolved significantly over the past decade. In 1995, Poland specialised mainly in labour- and resource-intensive industries, while it was disadvantaged in capital- and technology-intensive industries. This reflected the relative abundance of raw materials and of skilled and unskilled labour, as suggested by the Heckscher-Ohlin model. This pattern of specialisation based on factor endowments was close to that prevailing in the early years of transition, as noted by several studies carried out in the mid-1990s (e.g. Neven, 1995; Landesmann, 1995 and 1996; Dobrinski and Landesmann, 1996). Over the period 1995-2003, Poland recorded some significant shifts in the distribution of its comparative advantage: on the one hand, it reduced its specialisation in traditional industries, although it retained large comparative advantages in some of them; and on the other hand, it gained new comparative advantages in some capital-intensive and medium-technology sectors in which it was lagging behind. The emergence of new strengths in medium-technology sectors over such a short period provides evidence of dynamism in Poland's specialisation pattern. This contradicts the predictions of some dynamic growth models which emphasise the fact that the trade patterns of less advanced countries can be "locked in" traditional sectors (Box 2.1). However, Poland has so far been less successful than the Czech Republic and Hungary in catching up in more technologically-advanced and faster-growing sectors.

Table 2.3: CE-4: Revealed comparative advantages vis-à-vis the rest of the world, 1995 and 2003

	Poland		Czech Rep.		Hungary		Slovakia	
	1995	2003	1995	2003	1995	2003	1995	2003
Food, drink and tobacco	1.2	1.1	0.7	0.4	2.4	1.0	0.7	0.4
Mineral fuels and mineral oils	1.5	0.6	0.8	0.0	0.6	0.0	0.8	0.0
Chemicals	0.9	0.7	0.9	0.9	0.8	0.7	1.0	1.0
Pharmaceutical products	0.7	0.1	0.6	0.4	1.6	0.5	1.1	0.5
Rubber and plastics	0.7	1.2	1.2	1.4	1.5	1.0	2.0	1.2
Leather and footwear	1.0	0.9	1.3	0.4	1.7	0.8	1.1	1.6
wood, products of wood and cork	3.1	3.3	2.4	1.9	1.6	1.1	2.5	1.9
Pulp, paper and paper products	0.8	1.7	1.0	1.1	0.5	0.7	1.8	1.6
Printing and publishing	0.4	1.1	1.0	3.1	0.6	0.3	2.0	1.7
Textiles	0.5	0.5	1.8	1.1	0.5	0.5	1.2	0.6
Clothing	3.3	1.5	0.9	0.7	2.7	1.1	1.0	1.1
Non-metallic mineral products	0.9	0.9	1.7	1.5	0.6	0.4	1.2	0.7
Basic metals	2.4	1.8	2.3	1.8	1.5	0.8	3.6	2.3
Miscellaneous metal products	0.6	1.4	1.6	2.0	0.8	0.7	0.5	0.8
Machinery and mechanical appliances	0.4	0.8	0.7	1.3	0.5	1.6	0.5	0.7
Electrical machinery and equipment	0.4	0.8	0.7	1.0	1.0	2.2	0.3	0.7
Motor vehicles	0.6	1.0	0.8	1.5	0.6	0.8	0.6	2.7
Railway vehicles	2.1	3.2	6.9	3.5	0.6	1.3	6.3	4.4
Aircraft and spacecraft	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.1
Building and repairing of ships	5.7	6.7	0.0	0.0	0.0	0.0	1.1	0.3
Scientific instruments	0.2	0.2	0.4	0.5	0.5	0.7	0.5	0.3
Other instruments	0.2	0.1	0.6	0.7	0.1	0.0	0.2	0.1
Furniture	5.4	6.3	2.4	2.7	2.1	1.9	2.4	3.6
Manufactured products n.e.c.	0.4	0.4	1.0	1.0	0.4	0.4	0.3	0.3

Source: Own calculations, original data from Comtrade

These findings are consistent with the conclusions of some recent studies on the trade patterns of the RAMS. Borbely (2004) finds that Poland's comparative advantages vis-à-vis the EU-15 lie mainly in labour- and resource-intensive sectors, whereas the Czech Republic and Hungary have comparative advantages that are spread across low-, medium- and high-technology sectors. She shows that only Hungary is able to compete against Ireland and Spain

for high-quality goods, whereas the Czech Republic and Poland face the competition of Greece and Portugal for low- and middle-quality products. Zaghini (2005) emphasises the emergence of a new pattern of specialisation in the new EU Member States away from the trade structure inherited from the past, with the Czech Republic, Hungary and Estonia showing a fast catching-up in some high-technology products despite an initially large technological gap. The author concludes that these rapid specialisation adjustments towards high-technology sectors validate the approach by ‘jumps’ proposed by Landesmann and Stehrer (2001) (Box 2.1). FDI inflows have obviously played a major role in this process.

Box 2.1: Determinants of trade patterns: a brief survey of the literature

This box reviews the main determinants of trade patterns as identified by international trade theories and highlights the trade implications of the new growth theories.

Traditional trade theories identify differences in natural resources, technology and other relative factor endowments as the key determinants of international trade. The Ricardian model assumes that labour is the only factor of production and predicts that differences in labour productivity determine the pattern of trade. Accordingly, each country will specialise in the production of the good in which it has a comparative advantage, i.e. the good for which it demonstrates the higher relative labour productivity.

The Heckscher-Ohlin model introduces another factor of production (capital), and predicts that relative factor endowments determine the pattern of international trade. Assuming they have the same technology of production, countries will export those goods whose production is intensive in those factors with which they are abundantly endowed. Effectively, factor endowments are reflected in relative factor prices (costs), which are at the centre of the Ricardian theory.

However, the predictions of the Heckscher-Ohlin model have not always been supported by empirical evidence. In particular, Leontief (1953) found that US imports were more capital-intensive than US exports, contrary to expectations. The factor content of trade studies have attempted to explain the Leontief paradox within the neoclassical framework and found that factor proportions are an important determinant of the commodity structure of international trade.

The ‘new’ trade theories emerged in the 1980s to explain the growth of intra-industry trade. Economies of scale, product differentiation and imperfect competition form the basis of explanations for this new feature of international trade. The new trade models assume increasing returns to scale and show that economies of scale and product differentiation can explain specialisation patterns, provided that firms operate in an imperfectly competitive environment. Helpman and Krugman (1985) provide a synthesis of these models.

While the ‘new’ trade theories assume identical production technologies across countries, the neo-technology trade theories emphasise technological innovation and technology gaps across firms and countries as a major factor determining trade patterns. Krugman (1986) presents a technological gap model which explains why more advanced countries produce and export more technologically sophisticated goods. Krugman’s (1979) model of the “product life cycle” shows that the slow diffusion of technologies from the North to the South gives rise to a particular trade pattern: the North enjoys comparative advantage in recently invented goods, while the South has comparative advantage in traditional products whose technologies it has already mastered.

More recently, the ‘new’ growth theories also stress the implications of technological change for international trade. They set the static ‘new’ trade models in a dynamic context and thus shed light on the evolution of comparative advantage. Grossman and Helpman (1994) survey the recent research on dynamic growth models and on the relationship between trade and technology. These models assume that technological change is endogenous: it results either from learning-by-doing or from deliberate

investment in research and development. In the first group of models in which technological change is viewed as the consequence of incidental learning, knowledge spillovers affect the dynamics of specialisation patterns. The initial specialisation and trade pattern is determined by initial factor endowments or the initial stock of knowledge. Over time, a country gains knowledge and experience in producing the goods in which it has specialised, hence reinforcing its comparative advantage in these goods. Ultimately, the initial pattern of trade may get “locked in” (Krugman, 1987; Lucas, 1988). The effects of knowledge spillovers will depend on whether they are local or global in scope (Grossman and Helpman, 1991). Thus the ‘new’ growth models show that history or initial endowments can influence trade patterns in the long term. However, trade or industrial policy can also help to correct an inefficient specialisation pattern.

In contrast, Landesmann and Stehrer (2001) show how a catching-up country can successfully specialise in faster-growing activities by turning an initial technological disadvantage into an advantage. Such an economy may improve its performance quickly in the sectors in which the technology gaps are the largest, i.e. in the technologically more advanced branches, as those sectors offer the greatest potential for productivity growth and product quality upgrading. Clearly, this requires a significant effort in learning, skill acquisition and a jump in organisational and managerial capacities. In this model, the ‘backwardness’ of certain industries becomes an advantage as it is possible to skip the intermediate stages of development by adopting immediately the most advanced technologies. Foreign direct investment is likely to play a decisive role in speeding up this process through technology and knowledge transfer. Yet, as stressed by Landesmann (2003), actual growth may not necessarily be equal to potential as industries might not be able to exploit fully this potential.

2.4. The role of FDI in Poland’s export performance

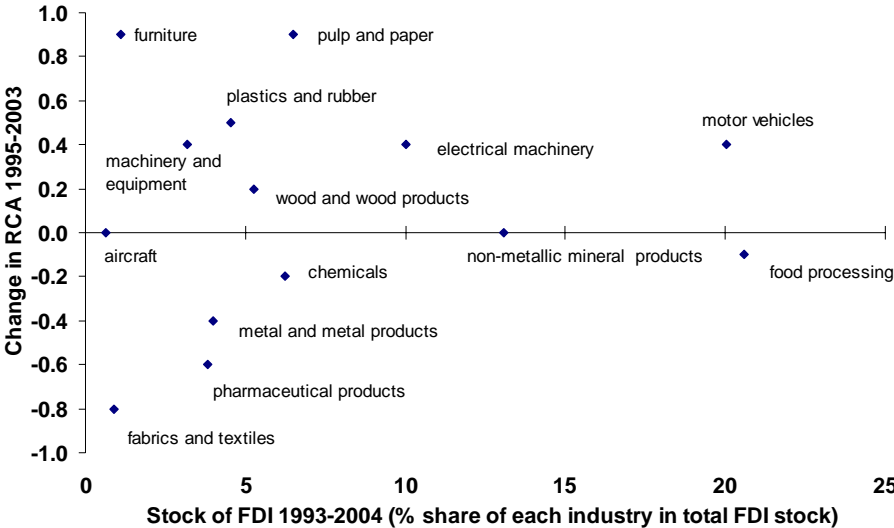
FDI has undoubtedly played an important role in the economic and trade performance of the host countries. The interactions between FDI and trade have been the focus of much attention among economists (for a review of the literature, see Weresa, 2001). In particular, recent research (for an overview, see Markusen, 2002) points out that the direct impact of FDI on trade depends on the motives of foreign firms for investing abroad. In the case of vertical FDI, the objective of multinational firms is to take advantage of cross-country comparative advantages and economies of scale by locating plants in different countries that specialise in different stages of production. Hence, this type of investment is closely linked to the international fragmentation of production (or ‘outsourcing’) and gives rise to new intra-industry and intra-firm trade flows. By contrast, horizontal FDI is motivated by local market penetration. In this case, FDI is likely to substitute for export activities.

Apart from the strategies of multinational firms, other factors play a role. Most importantly, FDI has an indirect effect on trade, which derives from the transfer of technological and organisational knowledge as well as from market-access spillovers. For instance, Eichengreen and Kohl (1998) emphasise that, combined with the high levels of human capital in the RAMS, FDI may enable them to move up the technological ladder into the production of higher-valued added goods. However, countries may differ in their ability to benefit from positive spillovers from FDI.

Empirical evidence suggests that FDI has affected Poland’s export performance positively. This reflects in particular the fact that foreign-owned companies tend to be more export-oriented than local firms (Kaminski and Smarzynska, 2001). Such firms accounted for 57% of Poland’s total exports in 2003, for 37% of fixed capital and 22% of employment. However, as illustrates in Chart 2.10 - which plots the change in revealed comparative advantage against the stock of FDI by industry over the period 1993-2004 - the impact of FDI on Poland’s competitiveness has varied across industries. The distinction between vertical and horizontal

FDI is part of the explanation. Indeed, the motivation of FDI in some sectors may be to supply the domestic market rather than to use Poland as an export base. This seems to be the case to some extent for food processing¹⁴, but also for pharmaceutical products, where Poland's comparative disadvantage has increased between 1995 and 2003.

Chart 2.10: Poland: Stock of FDI and revealed comparative advantages by industry



Source: Commission services, Polish Investment Agency (PAIIZ)

The impact of FDI on Poland's specialisation pattern is also evident. FDI has affected Poland's range of (revealed) comparative advantage in at least two ways (Chart 2.10). First, foreign investment has gone into sectors in which Poland has a traditional comparative advantage (e.g. food processing, wood and products of wood, furniture). This type of FDI, aimed at exploiting existing comparative advantages, has contributed to reinforcing Poland's specialisation in labour-intensive and low-technology sectors. Second, FDI has taken place in medium-technology sectors in which Poland has reduced its comparative disadvantage or gained a new comparative advantage (e.g. motor vehicles, electrical machinery). These sectors have attracted the largest share of foreign capital (70% of total FDI in manufacturing). The large presence of foreign firms is likely to have been a significant factor behind the improvement of Poland's competitive position in these sectors.

These findings are confirmed by some empirical studies. Jensen (2002) finds that FDI has contributed to the technological upgrading of Poland's exports, although the effects are small given the strong inertia characterising Poland's export specialisation in the 1992-96 period under consideration. Likewise, Kaminski and Smarzynska (2001) find that foreign-owned firms have influenced or triggered positive changes in the factor intensities of Polish exports towards human- and capital-intensive products. By contrast, Weresa (2001) finds that over the period 1993-98, FDI did not contribute to improving the competitiveness of the Polish industry in high-tech products. However, she admits that externalities created by FDI inflows will cause a gradual upgrading of local production and influence specialisation patterns in the long run.

¹⁴ Kaminski and Smarzynska (2001) point out that in the early years of transition, the food processing sector attracted large FDI inflows aimed at meeting pent-up local demand.

It seems that Poland has been less successful in benefiting from the positive spillover effects of FDI in medium-technology industries than its Central European neighbours (see also Chapter 3). For instance, in the motor vehicle industry, Poland's comparative disadvantage has only decreased, while in the case of the Czech Republic and Slovakia, the strong involvement of foreign firms in this sector has resulted in a shift from a comparative disadvantage to a significant advantage (Table 2.3). Another example is the electrical machinery industry where the improvement in Poland's competitive position between 1995 and 2003 is less striking than that experienced by Hungary. More generally, Eichengreen and Kohl (1998) find that the increased specialisation of Hungary and the Czech Republic in more technology-intensive, higher valued-added goods is to a large extent due to FDI from the EU-15, while Poland has shown less success in developing exports of more skill-intensive goods. Similarly, Hunya (2002) finds that structural change in manufacturing is closely linked to FDI and that Hungary is ahead of other Central European countries in so far as the upgrading of the export structure is concerned.

Apart from technology transfer and spillovers, one important advantage arising from the presence of multinationals is the integration of the host country into the global production networks. The international fragmentation of production is generating ever growing trade in intermediate goods and is being driven, among other factors, by the (vertical) FDI activities of multinationals. There are several signs that Poland is increasingly becoming part of this international division of production (Kaminski and Smarzynska, 2001). Poland is experiencing faster growth in trade of parts and components than in trade of finished goods. Most of its top export products consist of parts and components. At the same time, the share of parts and components in total imports is rapidly rising, suggesting that Poland is increasingly specialising in the processing and assembly of such goods. The experience of China, with the rapid upgrading of its exports, shows the benefits that can be derived from such a participation in international production sharing (European Commission, 2005). Here again, Hungary and the Czech Republic appear to be frontrunners compared to Poland, and this is reflected in the fact that they are more exposed to competition from China, or in other words, their comparative advantages lie in similar products.

2.5. Conclusions

Overall, Poland's competitiveness has been generally good, as reflected by its strong export performance since 2001. However, some aspects of its geographical and sectoral specialisation are a potential source of weakness. In particular, its specialisation appears to be less favourable than that of Hungary and of the Czech Republic, which are specialised in faster-growing, more technology-intensive sectors. Against this background, speeding up the catching-up in these sectors is a crucial challenge for Poland. This underlines the need to improve the innovative capacity of the country as well as to support technology transfer and spillovers of FDI (see chapter 3). In addition, measures to improve the business environment and to increase investment in physical infrastructure should help increase Poland's attractiveness as a destination for FDI (see chapter 3). Finally, to preserve cost competitiveness, it is also important to pursue structural reforms aimed at enhancing Poland's productivity performance as well as to maintain wage growth consistent with productivity developments.

3. Foreign direct investment and the modernisation of the economy

After a strong increase in the investment ratio to 24 % of GDP in 2000, the investment ratio fell back to 18 % of GDP in 2005. With an investment ratio below the one of other RAMS during the last ten years, investment activity in Poland has been disappointing for a country which has a considerable catching-up to realise. Recently, investment activity has shown signs of recovery.

In growth theory it well established that investment is a key variable in the catching-up process. An increase in the capital-labour ratio permits to step up labour productivity which is the basis for sustained growth and a rise in real wages. Compared to richer countries, the new Member States will grow faster because investment yields a higher rate of return due to the lower starting position of poorer countries with respect to capital endowment. Savings are essential to finance the necessary investment, but it is a characteristic of poorer countries that national savings may fall short of what is required.

This chapter focuses on inward FDI (Foreign Direct Investment) which can complement domestic savings in the financing of investment. FDI contributes directly to accelerate productivity growth because foreign affiliates are often more productive than domestic firms. Industrial restructuring is fostered through the presence of these foreign affiliates, which may also lead to the emergence of indirect gains as the productivity of domestic firms is boosted. This occurs as a result of technology transfer and enhanced competition in the host market.

FDI plays a crucial role in the process of real convergence towards EU-25 average income levels. During the last decade Poland witnessed an acceleration of FDI (Foreign Direct Investment) inflows triggered by the process of liberalisation of the economy. The total inward FDI stock increased from 0.2% of GDP in 1990 to 25.4% in 2004. Manufacturing has attracted the main share of FDI with financial intermediation and trade and repairs coming next. The EU is the largest investor in Poland. Among the EU-10, Poland is the largest recipient of FDI in absolute terms but its performance in relative terms is less impressive..

The country benefits from a set of intrinsic characteristics which make it an obvious location for MNEs (multinational enterprises). A privileged geographic position at the centre of Europe, the recent accession to full EU membership and a large stock of well educated and relatively inexpensive labour make Poland particularly attractive for foreign investors wishing to develop strategies aimed at supplying the local and neighbouring markets as well as seeking to relocate to Poland parts of the production process to increase the cost efficiency of their European-wide activities. However, there are important structural weaknesses in the economy that hinder its competitiveness in attracting FDI, namely the deficiencies in the business environment, the excessive market regulations and the limited availability of adequate infrastructures. These are also factors which weigh domestic investment in Poland.

This chapter on the role of FDI in catching-up economies, starts with a presentation of Poland as a location for multinational enterprises. The weak and strong points of Poland in attracting FDI are discussed in section 3.2. Finally, section 3.3 analyses the direct and indirect impact of FDI.

3.1. Poland as host for FDI

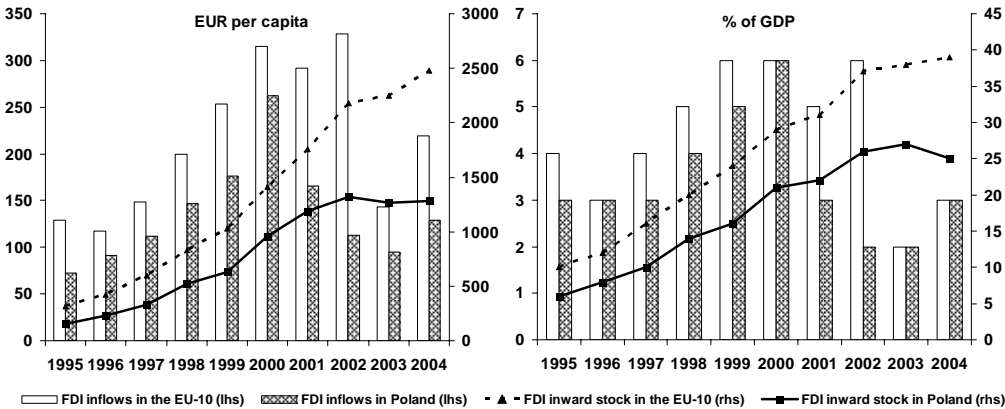
Size

FDI inflows into the new Central-European EU member countries rose by 70% in 2004 (compared to 2003), to EUR 16 bn, with Poland, Czech Republic and Hungary, receiving the

largest FDI inflows. In Poland, the stock of inward FDI reached the level of almost EUR 1.3 thousand per capita compared to almost twice as much in the EU-10 in 2004 (Chart 3.1). In the period 1995–2004, the inward FDI stock per capita increased more slowly in Poland compared to the EU-10. Relative to GDP, differences between Poland and the other EU-10 were smaller. In 2004, the inward FDI stock amounted to 25% of GDP in Poland¹⁵ compared to almost 40% in the EU-10. The share was much higher in other RAMS like the Czech Republic (53%), Estonia (85%), Hungary (61%) and Slovakia (35%) as well as in other catching up EU-15 countries like Ireland (126.3%), Spain (34.9%), and Portugal (39%).

The fluctuations of annual FDI inflows in Poland followed the fluctuations in the EU-10 in general. FDI inflows reached their peak (EUR 262 per capita, 6% of GDP) in Poland in 2000 (compared to EUR 315 per capita, 6% of GDP in the EU-10). In 2004, a recovery may have started in Poland. FDI inflow amounted to EUR 129 per capita and 3% of GDP in Poland (compared to EUR 219 per capita, 3% of GDP in the EU-10) in 2004.

Chart 3.1: Inward FDI in Poland and in the EU-10 in 1995-2004



Source: UNCTAD FDI online, Commission services (Ameco)

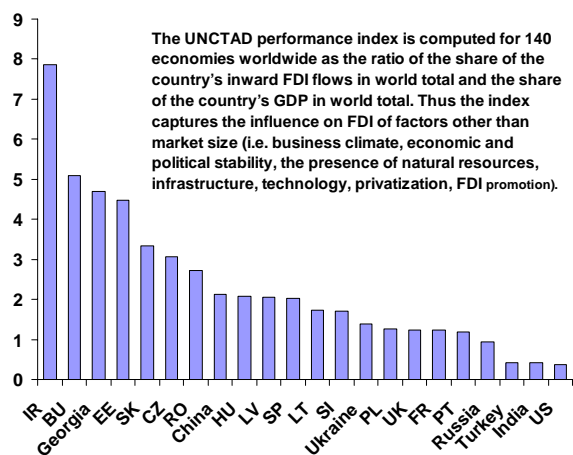
Despite being the biggest host of FDI among the RAMS and the rapid growth of capital inflows in recent years, the stock of inward FDI in Poland remains relatively modest compared to other Member States given the size of the country. In 2004, Poland had a 1.5% share of the total EU-25 inward FDI stock, which was equivalent to that of considerably smaller Member States like Portugal, Hungary, the Czech Republic and Finland¹⁶. According to UNCTAD inward FDI performance index, Poland performs considerably worse than other economies such as Spain, Ireland and all the other Central and Eastern European RAMS as well as transition economies such as Bulgaria and Georgia. The UNCTAD inward FDI performance index relates the share of FDI inflows a country receives to its share in the world GDP¹⁷.

¹⁵ EUR 67.8 bn. The Polish Information and Foreign Investment Agency (PAIiZ) registers inward FDI transactions exceeding ca. EUR 0.8 mn (USD 1 mn). The stock of these smaller FDI transactions was estimated at EUR 3 bn.

¹⁶ Own calculations based on UN data, see UNCTAD (2005). This represents a considerable increase when compared to Poland’s relative weight in the beginning of the liberalisation process. In 1990, Poland’s share of total EU-25 FDI stock was only 0.01% in 1990.

¹⁷ A value greater than one indicates the country receives a share of FDI that is more than proportional to its economic size, a value below one that it receives less. A negative value means that foreign investors disinvest in that period.

Chart 3.2: Inward FDI Performance Index 2002-2004



Source: UNCTAD

Table 3.1: Poland's relative position in business survey rankings in 2005

Scoreboard IMD	Growth Competitiv. index WEF	Global Serv. Location Index AT Kearney
U.S. (1 st)	U.S. (2 nd)	India (1 st)
Ireland (12 th)	Germany (15 th)	China (2 nd)
Germany (23 rd)	Ireland (26 th)	Czech R. (7 th)
China (31 st)	Spain (29 th)	U.S. (11 th)
Czech R. (36 th)	Czech R. (38 th)	Slovakia (16 th)
Hungary (37 th)	Hungary (39 th)	POLAND (18th)
Spain (38 th)	Slovakia (41 st)	Hungary (19 th)
India (39 th)	China (49 th)	Romania (24 th)
Slovakia (40 th)	India (50 th)	Russia (27 th)
Turkey (48 th)	POLAND (51st)	Germany (31 st)
Russia (54 th)	Turkey (66 th)	Spain (38 th)
Romania (55 th)	Romania (67 th)	Ireland (39 th)
POLAND (57th)	Russia (75 th)	Turkey (40 th)

Notes: The rankings (in brackets) are not comparable as their computation rests on different methodologies and country coverage concerns only Mainland China.

Source: International Institute for Management Development (2005), World Economic Forum (2005), A.T. Kearney (2005)

The relatively low ability to attract FDI *vis-à-vis* alternative sites is illustrated in Table 3.1, which shows Poland's ranking in 3 different survey-based composite indicators, reflecting the opinion of business leaders about the competitiveness of several world economies and their potential to attract FDI.

Origin

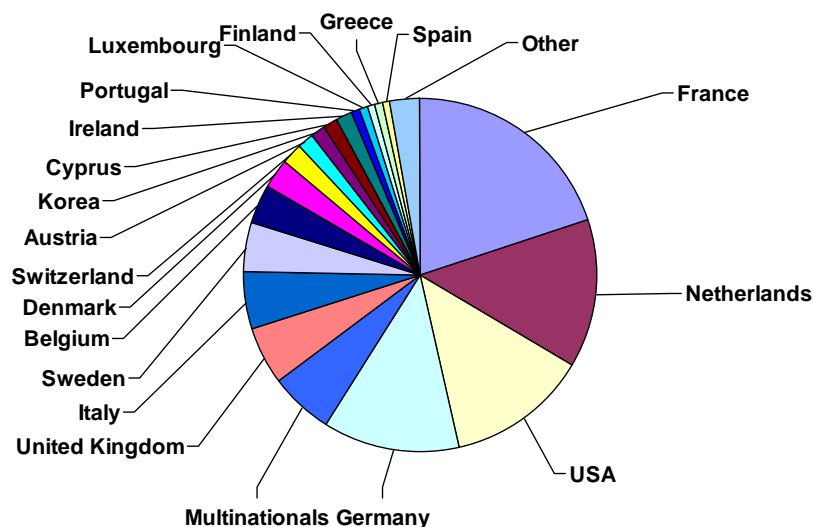
The share of EU-25 in the FDI stock amounted to about 75% (excluding multinational corporations, Chart 3.3). The size of GDP and geographical proximity, were significant determinants of FDI inflows in the manufacturing sector in Poland, as predicted by the traditional gravity model variables.¹⁸ The significance of other determinants of FDI inflows (costs of capital, relative unit labour cost, sector size, trade intensity) varied across industries within manufacturing (Walkenhorst, 2004).

Sectoral distribution

Manufacturing dominates among the destination sectors of the inward FDI in Poland (PAIiZ, 2004). This sector had an almost 40% share in inward FDI stock at the end of 2004, but its share has been declining (Chart 3.2). Within manufacturing, transport equipment and food processing had the highest shares followed by the production of 'other non-metal goods', electrical machinery and apparatus, and chemicals. Among the non-manufacturing sectors, financial intermediation has received most of FDI and its share has increased dynamically relatively recently. As far as other services are concerned, financial intermediation was followed by trade and repairs, and transport, storage, and communication. FDI in services are usually motivated by market seeking but, recently, efficiency-seeking and export-oriented FDI have become more important (ECB, 2005). Market-seeking FDI entail establishing local suppliers who deliver goods to the customers in a host country; this type of FDI often replaces export to the host country. Efficiency-seeking FDI is motivated by benefits from differences in production costs across countries and involves slicing the vertical chain of production and relocating parts of this chain to low-cost locations.

¹⁸ For metal products, the gravity model performed poorly which could be the result of an advanced stage of globalisation for products such as office equipment, medical instruments, or motor vehicles.

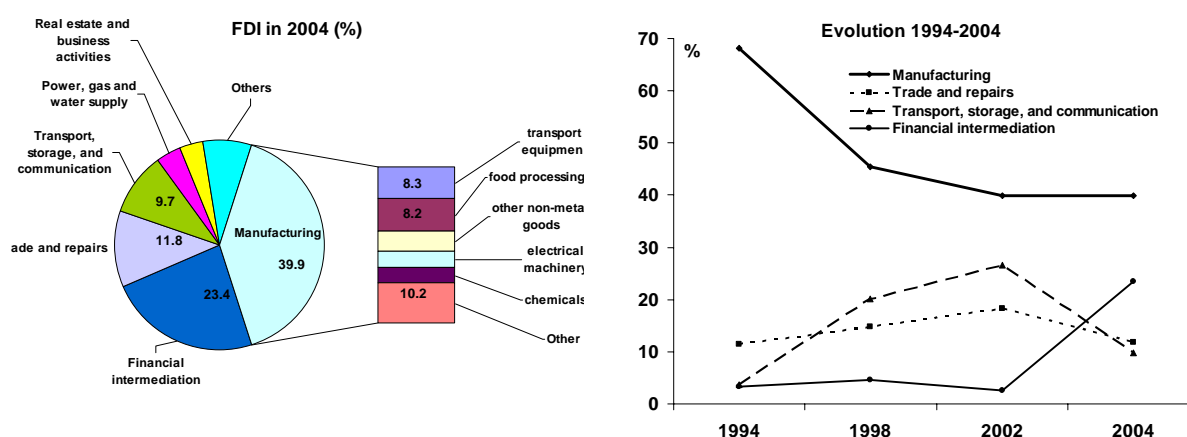
Chart 3.3: The origin of inward FDI stock accumulated in Poland by the end of 2004



Source: PAliIZ (2005)

The highest FDI in manufacturing was undertaken in those industries where Poland had a comparative advantage and FDI contributed positively to competitiveness in international trade (see chapter 2 “Competitiveness and export performance”). The growing share of foreign-owned companies¹⁹ in Polish exports (57% in 2003) was a result of both the creation of completely new trade flows and the acquisition of established domestic exporters (Weresa, 2001).

Chart 3.4: Sectoral distribution of the FDI stock in Poland



Source: Ministry of Economy and Labour (2004), PAliIZ (2005)

¹⁹ Polish data follow the international definition (of the UNCTAD and the OECD): a foreign-owned enterprise is a company where a foreign investor holds directly at least 10% of the equity capital; the investor should be able to influence the management and the investment is conducted for at least a year.

Acquisitions versus greenfield FDI

Acquisitions

The process of privatization has come to an end in many developing and transition economies. Hence, it did not contribute much to FDI in 2004 (UNCTAD, 2005). However, two other relatively new institutional factors, one external and one domestic, contributed to maintaining FDI-related acquisitions. Firstly, private individual and institutional equity investors, who do not possess intangible assets such as technology and brand names (as distinct from transnational corporations), gained significant importance in FDI. Secondly, there was a liberalization of regulations concerning real estate, traditionally closed to FDI in many countries. In Poland, permit requirements for foreign investment in real estate were abolished. The combination of smaller but still ongoing privatisation, liberalization, and the accession to the EU played a major role in the 10% surge of FDI into real estate in 2004. The largest FDI in 2004, EUR 640 mn (by Apollo Rida from the United States) was in real estate.

Greenfield FDI

The number of greenfield projects has been growing dynamically in Poland in the last 3 years: from 91 in 2002 to 154 in 2003 and 230 in 2004 (UNCTAD, 2005, p. 257). In the same period, the number of greenfield projects attracted by the other two major countries in the region amounted respectively to 94, 141, and 136 in the Czech Republic, and 210, 213, and 211 in Hungary, pointing to some levelling off the trends in these countries. In terms of the size of investment, greenfield outlays constituted 37% of FDI inflows in 2002, 51% in 2003 and 58% of total FDI inflow in 2004 (PAIIZ, 2005).

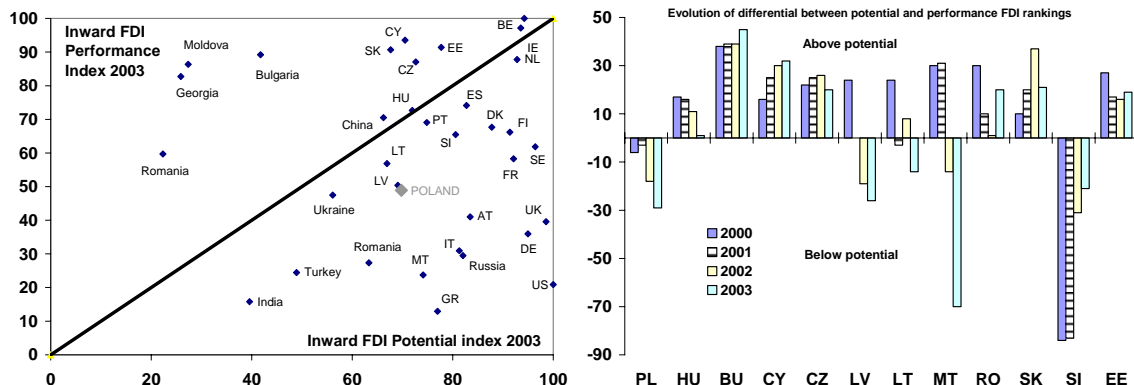
Greenfield projects play a significant role in transferring technology to the new Central-European EU member countries as they expand the R&D activities of foreign affiliates (UNCTAD, 2005, pp. 148-149). Of the 108 R&D projects initiated in the new EU, South-East Europe and the CIS together in 2002–2004, 66 were registered in the new EU member countries, with the Czech Republic, Hungary and Poland taking the lead. Information on key R&D affiliates in these three countries in 2004 points to the dominance of investors from EU-15, but firms from the United States, Japan and some emerging economies (India, Korea) are also among the countries of origin. Most of these affiliates are in the automotive and electronics industries (including spare parts producers and telecom equipment manufacturers). Moreover, some affiliates are reported to be responsible for R&D related to not only domestic but also regional and global markets.

Poland performs below potential

Poland's ranking in terms of the UNCTAD FDI potential index (Chart 3.5) shows, that while the country lags behind all EU-15 Member States and the US (the front runner), it nonetheless reveals a potential to attract FDI inflows, which is similar to that of the majority of the RAMS. Only Estonia and Slovenia show considerable, better potential for FDI attraction. However, Poland stands out, among the Central and Eastern European RAMS with comparable levels of FDI potential, as the economy that is farthest from entirely fulfilling its potential to attract foreign investors. Hungary, the Czech Republic, Slovakia and Estonia are

performing above their potential²⁰.

Chart 3.5: Evolution of differential between potential and performance FDI rankings



The potential index is computed for 140 economies and is based on 12 economic and policy variables: GDP per capita, rate of GDP growth over the previous 10 years, share of exports in GDP, average number of telephone lines per 1,000 inhabitants and mobile telephones per 1,000 inhabitants, commercial energy use per capita, share of R&D spending in GDP, share of tertiary students in the population, country risk composite indicator, world market share in exports of natural resources, world market share of imports of parts and components for automobiles and electronic products, world market share of exports of services, share of world FDI inward stock.

Source: UNCTAD

In Poland the gap has widened sharply in recent years, while some RAMS (Estonia and Cyprus) and candidate countries like Bulgaria and Romania have even improved their performance ranking *vis-à-vis* their potential ranking in recent years (Chart 3.5).

3.2. Determinants of FDI in Poland

A more exhaustive and thorough investigation of the country's intrinsic characteristics is necessary to identify the factors that promote Poland's FDI performance and potential and the factors that hinder the attraction of foreign investors particularly *vis-à-vis* front-runner RAMS like Slovakia, the Czech Republic, Hungary and Estonia²¹.

Different factors determine the attractiveness of a given location depending on the organisational set up of the MNEs. For horizontal MNEs aimed at serving the local market, factors related to market size such as demography and income levels are crucial. For vertical MNEs organised along strategies of fragmentation and relocation of the different parts of the production chain across different countries, geography factors like distance, relative cost differentials and factor availability (unskilled or skilled labour, raw materials, technological assets, etc.) matter the most. In addition, regardless of the nature of the MNEs, foreign investors are also attracted by factors that are associated with institutional and macroeconomic stability, good business environment (including market regulations) and good availability and quality of physical infrastructure of transport and telecommunications. The latter set of factors is key to foster private investment, be it from domestic or foreign sources. In the Polish economy important weaknesses and strengths in all types of factors co-exist.

²⁰ If the country's ranking in performance exceeds potential, it is not necessarily doing well: countries like Romania, Moldova, Georgia and Bulgaria are performing above potential but are nonetheless characterised by very low potential for attracting FDI.

²¹ For a detailed review of the literature on FDI determinants, see Wheeler *et al.* (1992) and Markusen (1995).

Attracting factors

EU membership

The conclusion of the process of EU accession and the adoption of the full body of EU laws promoted further the institutional, political and economic stability and contributed to raising expectations of a fast and sustainable catching-up process towards the income level of the EU-25. In particular, unrestrained access to the Single Market for producers located within Polish territory, access to EU Structural Funds and expectations regarding the future entry to the European Monetary Union contribute to improving the business environment.

Box 3.1: The implementation of Structural Funds programmes in Poland: 2004-2006

A total of EUR 14 bn (2 % of average GDP in 2005-2006) have been allocated to Poland for cohesion policy over the period 2004-2006, the main objectives being the improvement and development of transport infrastructures, the improvement of employment conditions and accompanying restructuring of the economy notably through the transformation of the agriculture sector. Another important priority is to improve the competitiveness of the SME sector which largely dominates the Polish economy. Importantly though, the sectors of activity facing deep structural changes such as textiles, coal mining and steel/shipbuilding (the last two being mainly concentrated in the *Slaskie* region) did not benefit from direct support through the ERDF apart regarding issues concerning environmental protection.

Since the launch of the 2004-2006 programming period, EUR 3.2 bn have been paid to Poland from the Structural and Cohesion Funds, representing an overall absorption rate of 22.9 %. This statistic, however, does not reflect well the efficiency and quality of the programmes entitled to EU assistance as 16 % of the assistance (10 % in 2004 and 6 % in 2005) from the Structural Funds is disbursed unconditionally by way of an advance. Thus, the “real” absorption rate – the total applications for payment - from the Structural Funds is 8.5 %, which increases to 13.4% when the Cohesion Fund is also taken into account. Payments progressed fastest in the Fisheries fund (FIFG) having absorbed 24.6% beyond the advance.

Adding to Structural Funds absorption, the payments from the Cohesion Fund, Poland (13.4%) ranks 8th among the recently acceded Member States: it significantly lags behind Slovenia (26.4%), Estonia (26.3%), Latvia (24.1%) and Slovakia (21.2%), while ranks better than Malta (7,8%) or Cyprus (7,7%).

The short 2004-2006 programming period poses difficulties for all EU-10 countries in the preparation and implementation of large scale (mainly Cohesion Fund) projects, Poland is not an exception. Shortcomings of the administrative system and cumbersome public procurement procedures have also significantly delayed the absorption of Structural and Cohesion Funds in Poland.

Table 3.2: Implementation of Structural Funds and Cohesion funds Programmes

2004 prices, bn EUR	EU assistance 2004-2006		Payments as of 18-01-2006 (2)	Absorption rate (3) =(2)/(1)	"Real" absorption ¹ rate (4)=(3)-16%
	(1) bn EUR	% GDP ²			
Total Structural Funds (ERDF+ESF+FIFG+EAGGF)	8.4	1.2%	1.6	24.5%	8.5%
European Regional Development Fund	5.0	0.7%	1.1	21.2%	5.2%
European Social Fund	2.0	0.3%	0.5	26.0%	10.0%
Finance Instrument for Fisheries Guidance	0.2	0.0%	0.1	40.6%	24.6%
European Agricultural Guidance and Guarantee Fund	1.2	0.2%	0.4	32.4%	16.4%
Total Cohesion Fund	5.6	0.8%	1.2	20.1%	20.1%
Total EU assistance	14.0	2.0%	3.2	22.9%	13.4%

¹ Excluding advance payments from the Structural Funds (10% in 2004; 6% in 2005)

² Total GDP 2004-2006

Source: Commission services

Geographic position

Poland benefits from a central location between the large consumption markets of Western Europe and the Community of Independent States to the East, Scandinavia to the North and the RAMS to the South. This favours trade flows and makes the country particularly attractive for MNEs aiming to set up exporting platforms. The reduced transport costs associated with this privileged geographic location also makes Poland an attractive site for MNEs seeking to take advantage of off-shoring opportunities by setting up activities in the countries which are vertically integrated in cross-border production chains (European Commission, 2005; Rojec, 2005).

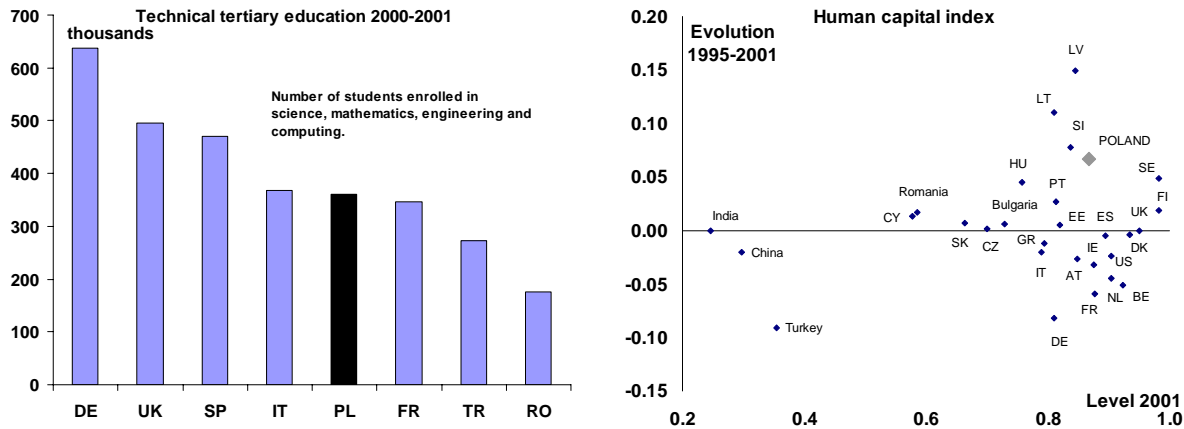
Size of the domestic market

Demographically, Poland is the largest of the RAMS and the 6th largest Member State of the EU-25. While well below the EU average, the income per capita (PPS) is growing at a fast pace and is forecast to reach 50% of the EU-25 level by 2006. The large and growing domestic market is therefore a main attracting factor for market-seeking foreign investors. According to WIIW data in 2001, in RAMS like Estonia and Hungary the export to sales ratios of foreign firms reached 64.9% and 63.9 %, while in Poland this figure is considerably lower at 32.4% (Rojec, 2005).

Low labour costs combined with a relatively highly skilled labour force

Poland is well endowed with relatively cheap and well educated labour, being home to the 5th largest pool of students enrolled in technical subjects in the EU-25 (Chart 3.6). The country’s human capital index increased substantially between 1995 and 2001, which contributes to promote its attractiveness for efficiency-seeking FDI. However, the importance of labour costs differentials as a major attracting factor for MNEs in Central and Eastern Europe is challenged in several studies. Konings *et al.* (2003) present evidence for over 1000 European multinational firms that there is no employment substitution between parents and affiliates located in Central and Eastern Europe. Strategic reasons related to market access often appear more important drivers for investment decisions than labour costs differentials (Lankes *et al.*, 1996; Abraham *et al.*, 1999).

Chart 3.6: Skill level of the labour force in Poland



The human capital index is calculated from the literacy rate as % of population, secondary school enrolment as % of age group and tertiary enrolment in all subjects as % of age group.

Source: UNCTAD

Deterring factors

Structural weaknesses persist in the economy, which increase the costs of doing business and reduce the attractiveness of Poland as a host location for foreign MNEs not only in the context of the EU-25 but also *vis-à-vis* other neighbouring countries and emerging countries like China and India. Furthermore, uncertainty about the direction of the future course of economic policy, in particular fiscal consolidation, may weigh on investment decisions.

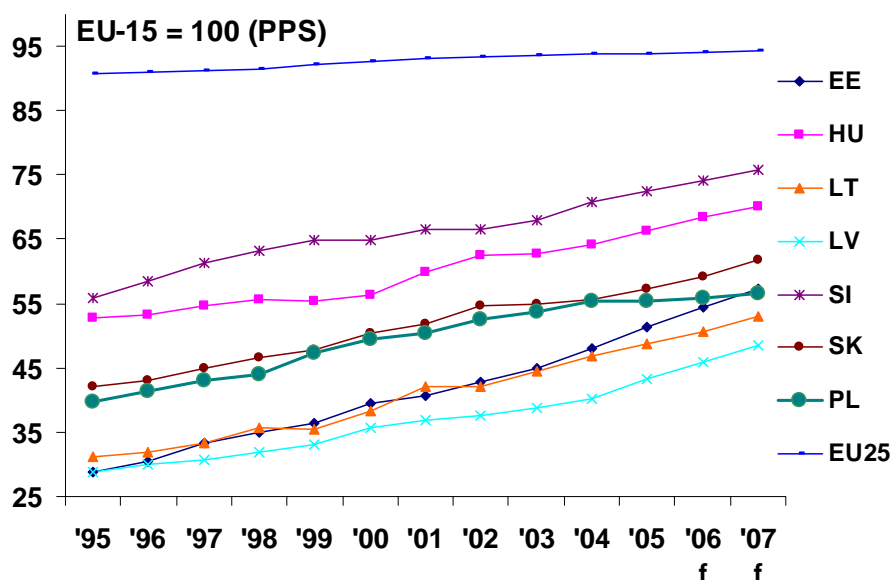
Budgetary uncertainty

With inflation rates at about 2 % and a current account deficit at 1.5 % of GDP in 2005, macroeconomic stability returned after the turbulent period in the beginning of the 1990's when transition started. However, fiscal consolidation does not yet appear to be on a solid footing creating uncertainty with respect to policy decisions concerning public expenditure and revenue categories to which investment decisions are sensitive such as infrastructure, subsidies, personal and corporate income taxes and social security contributions.

A low productivity of labour

Despite the recent catching up of productivity levels, Poland still lags behind all Member States, with the exception of the Baltic States (Chart 3.7). The fact that countries like Slovakia and Hungary, which also benefit from a privileged geographic location, have managed to keep a productivity lead over Poland hampers the relative country's attractiveness as a location for FDI in Central and Eastern Europe.

Chart 3.7: Labour productivity: GDP per person employed relative to EU-15



Source: Eurostat

Rigid labour market institutions

Overall Poland has a relatively more strict labour market institutional framework than other RAMS like Hungary and the Czech Republic. The particular configuration of the labour market institutions (unconditional cash transfers, strict rules for collective dismissals, educational system) reduces the incentives for geographical and occupational mobility and

lowers labour relocation from declining to expanding sectors (see chapter 5 on labour markets). This may have a negative influence on the decisions of foreign investors. In a study (Javorcik *et al.*, 2004) covering 17 Western European economies and 8 Central and Eastern European countries, the degree of labour market flexibility is found to affect both the likelihood of receiving investment and the volume of the capital invested (more evidence in Chor-ching *et al.*, 2005). Labour market rigidities and the weak geographical mobility of workers, hampered by a shortage in the housing market and high rental costs (Deichman *et al.*, 2004; Przybyla *et al.*, 2004), lead to the spatial concentration of FDI in certain regions promoting wage inequality (Skuratowicz, 2005). Indeed, there is evidence that FDI contributes to increase the demand for skilled labour, which put upward pressure on the relative skilled/unskilled wage ratio (from 1.35 in 1994 to 1.86 in 2003).

Business environment

- Restrictiveness of product markets regulations

According to the 2003 OECD indicator for product market regulation, in general the regulatory framework in Poland is one of the most restrictive among all Member States (Conway *et al.*, 2005). While overall legal barriers to entry are not a significant problem, other barriers to entrepreneurship and barriers associated with State control and foreign ownership remain particularly important compared to other OECD economies. The liberalisation of network industries is proceeding slowly and competition remains limited namely in telecommunications and energy.

- Ease of doing business

Among the barriers to entrepreneurship hindering the business environment is the excessive level of administrative burdens²². The country is ranked in the 54th position out of 155 economies in terms of ease of doing business (World Bank, 2004)²³. For example, to launch a business in Poland, entrepreneurs can expect to go through ten administrative steps taking over 31 days on average to complete, at a cost equal to 22.2% of gross national income (GNI) per capita. In the OECD on average, the same procedure can be done in seven steps lasting 20 days representing a cost of 6.8% of GNI. Registering property in Poland involves six steps and 197 days, while the same procedure takes on average 32 days in the OECD.

The structural deficiencies of the Polish tax administration and legal system discourage corporate investment and hamper the country's attractiveness among foreign investors:

- (i) While the decrease in corporate tax rates since the late 1990s may have contributed to attract foreign investors, effective corporate tax rates are relative high compared to other RAMS and an important degree of administrative complexity still characterises the Polish tax system (see chapter 6 on public finances). Fiscal obligations require entrepreneurs to make 43 payments *vis-à-vis* 17 payments on average in the OECD (World Bank, 2005; OECD, 2004).

²² Polish authorities have recently implemented a number of measures within the so-called "Entrepreneurship first" package, which are aimed at reducing administrative burdens and at improving business regulations that were among the most restrictive in the EU (OECD, 2004).

²³ The index is calculated as the ranking on the simple average of country percentile rankings on each of the 10 topics covered in "Doing Business in 2005" (World Bank, 2005). The other RAMS rank better than Poland, namely: Lithuania (15th), Estonia (16th), Latvia (26th), Slovakia (37th), Czech Rep. (41st), and Hungary (52nd). Slovenia (63rd) is the only RAMS performing worse than Poland. However, Poland ranks significantly better than acceding and candidate countries: Bulgaria (62nd), Romania (78th), Turkey (93rd) and Croatia (118th).

- (ii) The lack of transparency and the weaknesses in law enforcement, namely at the local level, increase the perception of risk by foreign investors (OECD, 2004). For example, data show that 41 steps and 980 days were necessary to enforce commercial contracts in Poland *vis-à-vis* 20 steps and 226 days on average for the OECD (World Bank, 2005).

Infrastructure

Given Poland's geographical position, a good transport infrastructure is crucial to fully exploit potential location advantages in many industries. However, Poland lags behind other RAMS investment in infrastructure (about 0.6% % of GDP, which is less than the OECD average; OECD, 2004). Hence, despite the country's privileged geographic location, the accessibility to the large neighbouring markets is hampered by the lack of adequate infrastructure networks in several domains, notably transport and telecommunications.

- (i) The Warsaw centric road network is characterised by poor quality, low density and uneven regional distribution. The railway network is comprehensive but the equipment is poorly maintained due to underinvestment. In the aviation sector, the situation is better due to the noticeable improvements of recent years but the existing monopolies lead to high prices and reduced service availability (OECD, 2004).

Good transport infrastructure is likely to be an important determinant of the location choice (Baldwin et al., 2003; Basile, 2004), but regions are unlikely to benefit equally. In particular, greater market integration also means greater exposure to external competition entailing adjustment costs for domestic enterprises located in former protected markets (Martin and Rogers, 1995). Investment in transport need to be complemented by improving human capital and public and private services to businesses (Markusen and Venables, 1999; Barrios et al., 2005).

- (ii) The ICT infrastructure is relatively underdeveloped. There were only 33 fixed lines per 100 inhabitants (fourth lowest in the EU-10) and 60 mobile numbers per 100 inhabitants (the lowest ratio among the EU-10)²⁴ in 2004 (Eurostat data). The broadband penetration rate is also far lower than in the EU-25. In 2005 the number of broadband lines subscriptions as a percentage of the population in Poland was 1.9% *vis-à-vis* 10.6% in the EU-25 (Eurostat, Structural Indicators).

Relatively backward industrial structure

The low technological profile of the Polish industrial structure (Table 3.3) hinders the establishment of foreign multinationals. This prevents the transfer of technology and the density of foreign MNEs remains low, hampering the emergence of a self-reinforcing industrial restructuring and modernisation.

Assistance to foreign firms

Despite the existence of several "Special Economic Zones" since the early 1990s offering investment incentives and helping firms to deal with formalities, the assistance provided to foreign investors is still characterised by inefficiencies. The FDI promotion services in Poland are dispersed among several authorities, while legal and financial constraints hamper the performance of the main investment promotion agency (PAiIZ) (OECD, 2004). The situation

²⁴ Data for Latvia for 2004 was missing. In the previous years, the ratio in Latvia was higher than in Poland.

may gradually improve as a network of regional investor assistance centres has been established. The financial incentives given by the Polish government (an accelerated rate of depreciation in the first year of acquisition of some assets) are generally smaller than those offered by other Member States, particularly the other RAMS; on average they reduce the average effective corporate tax rates by only 0.65% (see chapter 6 on public finances). Nevertheless, although relatively limited in Poland, the use of financial incentives to attract FDI is debatable (Box 3.2) and there may be some dead weight losses, i.e. granting subsidies to firms that would have undertaken the investment in any case (OECD, 2004).

Table 3.3: Industrial technology profile of the Central and Eastern European RAMS

2003	R&D expenditure (% of GDP)	% of R&D financed by industry	Number of patent applications (per mio inhabitants)	High-tech exports (% total exports)
PL	0.64	30.3	1.9	2.7
CZ	1.22	51.5	7.4	12.3
EE	0.73	33.0	4.7	9.4
HU	0.95	30.7	8.7	21.7
LT	0.68	16.7	2.7	3.0
LV	0.41	33.2	2.7	2.7
SI	1.56	60.0	21.9	5.8
SK	0.64	45.1	3.4	3.4
EU-25	1.92	55.4	67.3	17.8

Note: Number of patents applications to European Patent Office – provisional data.

Source: Eurostat

Box 3.2: Financial incentives and FDI

Empirical evidence suggests that using fiscal instruments to attract FDI are small (Coughlin *et al.*, 1991 and Head *et al.*, 2000). While research points to idea that tax holidays and other relief are rarely major determinants of firms' location decisions, they can cause an investor to favour one site over another. The use of tax policy as part of a strategy to attract FDI is also not clear cut since the evidence on the effect of tax rates on FDI is mixed, ranging from significantly positive to significantly negatively (see Chakrabarti, 2001). Devereux *et al.* (1998) show that effective tax rates do not play a role in the choice of whether to engage in FDI, but once the firm has decided to invest abroad, the exact choice of location may be influenced by differences in effective tax rates. Nevertheless, in terms of economic significance, Devereux *et al.* (1998) underline that agglomeration effects are important determinants of location choices and that policy-related incentives need to be very large to overcome these agglomeration effects.

3.3. The economic impact of FDI

Direct and indirect effects

Inward FDI can play a particularly important role in the catching-up process as is illustrated, for instance, by the experience of Ireland (Barry *et al.*, 1997). The rationale behind the argument that the presence of foreign firms is a catalyst for economic restructuring relies particularly on the notion that MNEs have a higher productivity performance than domestic firms. This productivity superiority rests on the MNEs' ability to develop and employ technology-based assets in several sites to exploit firm-level economies of scale and to fully

reap the benefits of location-specific advantages in terms of factor endowments and market size²⁵ (Mansfield *et al.*, 1980; Buckley *et al.*, 1989; Markusen, 1995; Caves, 1996).

A priori, the entry of foreign MNEs with higher-than average productivity leads to a direct impact on aggregate productivity levels as it alters the composition of the industrial structure of the host country. In addition, it is argued that FDI inflows may also be associated with a positive indirect effect on the productivity performance of domestically-owned firms (Box 3.3). The higher the R&D content, the higher the quality of FDI, (Nunnenkamp and Spatz, 2004). From a policy standpoint the promotion of spillovers is crucial to the deepening of the restructuring effect and to preventing the development of a dual economy in the host country with marked performance differences and feeble linkages between the foreign and the domestically-owned segments of the production sector.

Box 3.3: Indirect spillovers from FDI

Technology transfer and enhanced competition pressure are the main channels for the emergence of productivity spillovers:

- The presence of MNEs exposes the domestically-owned firms to new technologies which may prompt “learning by watching” demonstration/imitation processes. In addition, training of the local workforce promotes technological diffusion, when workers move from MNEs to domestically-owned firms.
- The increased competition pressure due to the presence of foreign MNEs provides additional incentives for domestically-owned firms to innovate and imitate new technologies and/or to trim X-inefficiencies (Caves, 1971).

Contagion and technological gap play an important role in determining the likelihood of the emergence of spillovers:

- The concept of “contagion” points to the importance of the “thickness” of the linkages (upstream and downstream) that MNE affiliates establish with local firms and with the local labour force (Rivera-Batiz *et al.*, 1991; Rodriguez-Clare, 1996; Javorcik, 2004). The thicker these links, the more scope there is for demonstration/imitation effects as well as competition effects to emerge.
- The role of the technological gap is more controversial. Some argue that the greater the relative backwardness of the host *vis-à-vis* the home country, the greater the scope for technology transfer (Findlay, 1978). However, the opposite view is increasingly gaining acceptance (Glass *et al.*, 2002), based on the argument is that a minimum threshold is necessary to be able to absorb new know-how and withstand increased competitive pressure (Cohen *et al.*, 1989; Wang *et al.*, 1992).

FDI impact in Poland

Evidence of a positive impact of inward FDI can be identified in foreign trade (see chapter 2 “Competitiveness and trade performances). While the presence of foreign firms contributed to consolidate the specialisation in labour-intensive and low-technology industries (like food processing, wood and products of wood and furniture), where Poland traditionally held comparative advantage, it has also promoted the export performance in medium-technology sectors like motor vehicles and electrical machinery.

²⁵ Furthermore, in Ireland, it was found that R&D is an important determinant of the duration of a factory’s activity and of the quality of employment in that plant (Kearns and Ruane, 2001).

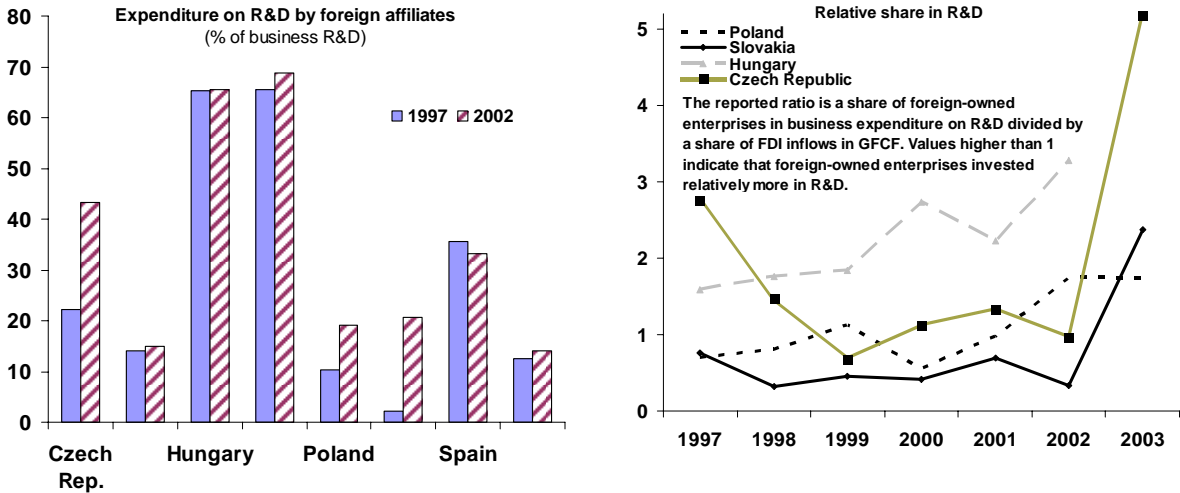
Table 3.4: Productivity spillover in transition economies

Study	Country	Year	Data	Main Findings
Djankov <i>et al.</i> (2000)	CZ	1993-96	- Panel - Firm-level	Negative spillovers. However, when joint ventures are excluded no statistically significant spillovers.
Kinoshita (2001)	CZ	1995-98	- Panel - Firm-level	Statistically insignificant impact of foreign presence on domestic productivity. However, positive spillovers are found in R&D intensive local firms.
Bosco (2001)	HU	1993-97	- Panel - Firm-level	No statistically significant spillovers.
Konings (2001)	BG, PL, RO	1993-97	- Panel - Firm-level	Negative spillovers in Bulgaria and Romania while no spillovers were found for Poland.
Damijan <i>et al.</i> (2001)	BG, CZ, EE, HU, PL, RO, SK, SL	1994-98	- Panel - Firm-level	In general no statistically significant spillovers. If the absorptive capacity of the host country is accounted for (by interacting foreign presence with domestic R&D investment) negative spillovers are found for the Czech Rep. and Poland. Positive spillovers are found only for Romania.
Damijan (2005)	BG, CZ, EE, HU, LT, LV, PL, RO, SK, SI	1995-99	-Panel -Firm-level	Significant positive direct effects are found in five countries, in other (including Poland) they are negative. The impact of backward vertical spillovers is high compared to horizontal spillovers in three countries (including Poland). Evidence of significant horizontal spillovers was found in Czech Rep., Poland, Romania and Slovakia. .

However, the emergence of positive spillovers or indirect effects is less clear cut (Görg *et al.*, 2001; Görg *et al.*, 2004; Lipsey, 2002; Blomström *et al.*, 1998) as several studies point to no impact or sometimes even to a negative impact of the presence of foreign MNEs on the productivity level of domestic firms in transition economies including Poland (Table 3.2). Several reasons can explain this. (i) The absence of positive spillovers may be partly attributed to the success of MNEs' efforts to protect their knowledge-based assets to sustain their competitive position. (ii) FDI may crowd out domestic investment. Although some crowding out may be a price for catching up, as the FDI is more productive than domestic investment (Lee and Tcha, 2004), the more the sectoral composition of FDI and domestic investment is similar (Japan Bank for International Cooperation, 2002), the stronger the negative effect. Furthermore, if foreign investors face lower costs for introducing new goods in the host country, domestic investment becomes unprofitable (Reis, 2001). Crowding-in effects have been detected (Misun and Tomsik, 2002) in Hungary (1990–2000) and the Czech Republic (1993–2000), whereas crowding-out effects have been identified in Poland (1990–2000). (iii) The relative backwardness of the Polish domestic production sector (Table 3.3) limits the absorption capacity of technology transfer. (iv) Moreover, despite the abundance of human capital in the economy, MNEs tend to invest relatively less in R&D activities in Poland than in other host countries. This *per se* limits the scope for productivity spillovers based on technology transfers (Chart 3.8, first panel). Furthermore, contrary to the situation in some of its neighbours, the R&D intensity of FDI in Poland (relative to domestic R&D intensity) has stabilised (Chart 3.8, second panel). This has occurred despite a larger share of

wholly-foreign-owned companies in all enterprises with more than 10% foreign ownership in terms of assets (38% in 1995 increasing to 53% in 2002, Ministry of Economy and Labour, 2004). These companies are usually more sophisticated, because the proprietary control over a state-of-the-art technology is strongest with a full ownership (Smarzynska, 2000; Kaminski and Smarzynska, 2001).

Chart 3.8: Expenditure on R&D by foreign affiliates



Note: The reported ratio is the share of foreign-owned enterprises in business expenditure on R&D divided by the share of FDI inflows in GFCF. Values higher than 1 indicate that foreign-owned enterprises invested relatively more in R&D.

Source: World Investment Report (UNCTAD, 2005), Table A.IV.1 and UNCTAD FDI online

3.4. Conclusions

FDI inflows to Poland have grown rapidly in recent years. This has accelerated the process of economic integration of the country with the EU (up to 75 % of the stock of FDI has the EU-25 as its origin) making the Polish economy the biggest host of foreign firms' activities among the RAMS. With a 40 % share of inward FDI, manufacturing dominates among the destination sectors. However, despite such favourable developments the stock of inward FDI in Poland remains relatively modest compared to other Member States in terms of GDP, but the size of the country should be taken into account in this context. In 2004, the inward FDI stock amounted to 25% of GDP in Poland compared to almost 40% in the EU-10.

There is still room to boost further the role of Poland as a sustainable hub for high value added foreign investment in Central Europe and to seize fully the opportunity of promoting the role of foreign firms as catalysts for the ongoing modernisation of the industrial structure. In this light the country would benefit from increased efforts along an integrated strategy of reforms built around a three-fold objective. First, to realise fully its current potential as a location for foreign firms, it is important to improve further the functioning of the existing FDI promotion agencies and provide more and continued assistance to potential foreign investors. With respect to awarding financial incentives to attract foreign investors it is necessary to examine closely their effectiveness.

Second, the remaining structural weaknesses that affect foreign firms' investment decisions, namely the uncertainty regarding the sustainability of public finances, the deficiencies of the business environment (particularly regarding the legal system and administration) and of transport and telecommunication infrastructures should be tackled. Furthermore, the labour

market framework conditions could also be improved (see chapter 5 on the labour market) to allow greater mobility across sectors, firms and regions.

Third, the linkages between foreign affiliates and the rest of the economy should be strengthened to promote further the emergence of spillovers. To step up the process of industrial restructuring and the technological upgrade of domestically-owned firms, it would be important to boost further the R&D investment of MNEs in Poland, by using for example targeted instruments aimed at fostering cooperation between MNEs and local research institutions and universities.

4. Fostering structural adjustment: the role of the financial system

By facilitating the efficient allocation of resources via the intermediation of savings to investment and by providing wider opportunities for risk sharing across space and time, the financial system contributes to stronger economic growth and wealth creation. There is ample theoretical and empirical evidence linking the long-term performance of an economy with the development of its financial system (e.g. Levine, 1996). Moreover, deep and efficient financial markets provide shorter-term economic benefits by enhancing the transmission of monetary policy (Angeloni *et al.*, 2005). On this basis, a successful catching-up process in the recently acceded Member States (RAMS) should be mirrored in a significant deepening and diversification of their domestic financial systems.

The purpose of this chapter is to analyse the state of development of the Polish financial sector and how it can contribute to investment and growth by improving the business environment. Three factors have been at play in the development of the financial system. First, the process of liberalisation, which began during the transition from a centrally planned to a market economy. Liberalisation was initially driven by a programme of privatisation in the banking sector and has been associated with a substantial rise in foreign participation. Second, the preparation for accession which implied comprehensive institutional reform. Third, the broader process of EU financial integration and the prospect of future euro adoption, which have attracted significant portfolio flows to Poland, mainly via the inter-bank market. These factors have all contributed to a process of financial deepening and have facilitated access to external financing.

But the challenge for policymakers is to foster the development of the financial system, while putting in place a strong institutional framework and conducting appropriate policies to address the risks accompanying financial liberalisation in catching-up economies. In emerging economies, accelerated financial development can lead to domestic lending booms fuelled by inflows of short-term capital, with the possibility of maturity and currency mismatches in financial balance sheets of financial institutions, corporates and households. If these lending booms become unsustainable – either because of an inappropriate macroeconomic framework or inadequate prudential supervision – the ensuing bust can lead to financial instability and/or significant disruption to the performance of the real economy.

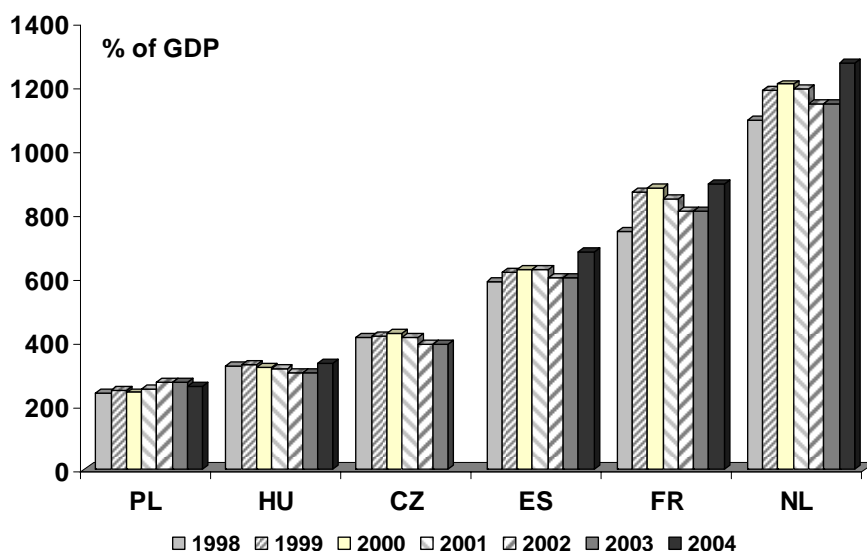
Though expanding fast, the Polish financial system remains relatively small and is predominantly bank-based. Credit growth appears to have been limited by both supply and demand factors. However, there does not seem to be any strong evidence that the economy is constrained by the level of development of the financial system. Moreover, albeit slow, credit growth and financial development seem more balanced than in some of the other RAMS. The integration of the Polish financial sector has contributed to improved financing of the economy and strengthened overall financial stability; the risks associated seem properly monitored.

In analysing how financial development is supporting the catching-up process, this chapter will review the recent trends in the Polish financial system in section 4.1, followed by an examination of corporate and household financing structures (section 4.2). The prospects for a further balanced development of the financial system is then assessed in the context of the current institutional arrangements (section 4.3) and the expected further integration with the rest of the EU (section 4.4).

4.1. The Polish financial sector is changing

The Polish financial system has changed significantly since the mid-1990s, amid a process of liberalisation and reform that has been characterised by widespread privatisation and significant foreign participation. In parallel with these changes, financial intermediation has increased rapidly and has become somewhat more diversified with the emergence of sizeable insurance companies, pension funds and investment funds alongside the banks. Despite the progress made, the financial system remains relatively small and less developed when compared to the EU-15 Member States and, to some extent, also the other RAMS (Chart 4.1).²⁶ However, in contrast to other Member States, Poland's financial sector continued to expand in the aftermath of the equity-market correction in 2000, reflecting a strong underlying momentum in the process of development. At the end of 2004, total (non consolidated) financial assets in the economy were equivalent to 260% of GDP.

Chart 4.1: Financial assets



Source: Eurostat

It is predominantly a bank-based system

As in other catching-up countries, the Polish financial sector is still predominantly bank-based. The banking sector holds 70% of total financial-sector assets, although this share has declined recently amid rapid growth of the value of the assets of insurance providers as well as pension and investment funds. While banking-sector assets have been increasing steadily, the number of banks has fallen by about one third and the sector's labour force has shrunk by about 10% since the mid-1990s. The sector comprises about 60 commercial banks, of which 4 are controlled directly or indirectly by the Treasury²⁷ holding about 22 percent of total bank assets, about 600 cooperative banks (6% of bank assets) and 7 branches of foreign credit institutions. While the number of credit institutions relative to population is high relative to

²⁶ For the purpose of this study, when no data were available for EU-15 (or the euro area) and EU-10 (or the EU-8), we chose to compare data for Poland with the other two large Central European countries (Hungary and Czech Republic), an EU-15 Member States of similar size which went through a catching-up process in the 1990s (Spain), a large EU-15 Member States (France) and a small EU-15 member State with a highly developed financial sector (the Netherlands).

²⁷ Including the largest bank in Poland, PKO Bank Polski, and a fully state-owned bank Bank Gospodarstwa Krajowego (BGK), which acts as a clearing house for payments between the state and the private sector.

the EU-15, the number of branches and ATM machines is low. The sector is not highly concentrated, with the five largest banks holding some 50% of banking sector assets at end-2004 (compared with 40.5% in the euro area, but 64% in the Czech Republic and 53% in Hungary).

The banking sector is well capitalised and profitable²⁸. At the end of 2005, the overall capital adequacy ratio (14.5%) exceeded both EU-15 and RAMS averages. Though loan quality has significantly improved in 2004 and 2005, non-performing loans remain twice the EU-15-average. Following low profitability in the period 2001-2003, the sector posted strong returns during 2004 and 2005, supported by lower provisioning (as a result of stronger debt servicing and the liberalisation of regulation on asset classification and provisioning²⁹), higher net interest and net fee income, and a decrease in corporate income tax. The most dynamic component of the banking business is on the retail side, particularly mortgage lending. Meanwhile, corporate lending sector has been sluggish, with companies apparently preferring to use internal funding for investment.

But capital markets are playing an increasing role in corporate financing

The Polish fixed income market is small (38% of GDP) and is dominated by sovereign issuance (about 92% of total of outstanding debt). Corporate issuance is a relatively recent but rapidly-expanding phenomenon. Although the share of corporate issuance in total outstanding debt remains low (8%), it is comparatively larger than in most other RAMS (e.g. 6% in the Czech Republic, and 2% in Hungary) (Chart 4.2). Corporate debt is denominated in national currency for the short term maturities, but about two-thirds of longer-term debt is euro-denominated³⁰.

Having narrowed significantly ahead of accession, the yield spread on Polish bonds relative to the euro benchmark widened in the period from mid-2003 to mid-2004 amid market concern about budgetary expansion. From mid-2004, yield spreads narrowed again as decelerating inflation was accompanied by an easing in the monetary policy and a "hunt for yield" prevailed on financial markets. Spreads widened again between September and November 2005 as markets reacted to political uncertainty linked to parliamentary elections. Although not the highest among the RAMS, Polish yields are in July 2006 at some 5.6% (170 basis points above the euro benchmark), a level which may still constrain borrowing or increase the incentive to borrow in a foreign currency (Chart 4.3).

Though still small relative to the typical exchange in EU-15 (i.e. a market capitalisation of 32% of GDP at the end-2005, compared to 80% on average in EU-15), the Warsaw Stock Exchange has been growing steadily since its re-establishment in 1991. With about 240 companies listed at the end of 2005, it is the largest stock exchange among the RAMS and has seen the introduction of 35 and 36 companies in 2004 and 2005 respectively (including six foreign ones), among the highest numbers of Initial Public Offerings in the EU-25. As in the other RAMS, the equity prices in Poland have significantly outperformed the EU-15 average since 2001. This performance reflects mainly buoyant economic growth in 2003-2005 and

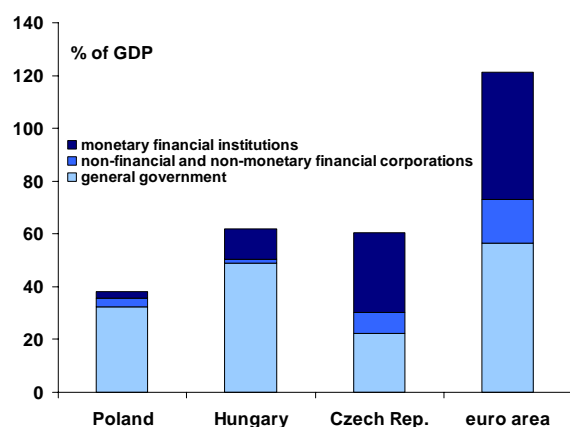
²⁸ Positive assessments have been given by the IMF and rating agencies and have been supported by simulations performed by the NBP in June 2005, showing that banks' potential loss absorbing capacity is considerable (See NBP, 2005).

²⁹ As of January 2004, provisioning rules were relaxed and harmonised with international practice (100 per cent provisioning after 360 days of arrears). Loan classification rules have also been brought closer into line with international norms.

³⁰ ECB (2004a).

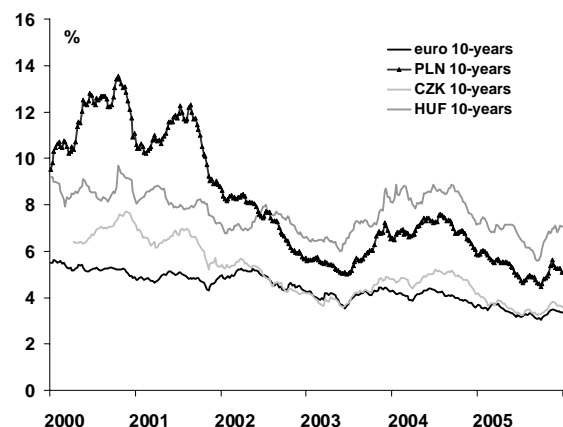
strong corporate profitability, but has also been supported by the pension reform creating private pension funds (see below: *"Institutional investors can be expected to play a growing role in the financial intermediation process"*).

Chart 4.2: Outstanding debt securities, by issuer, end-Dec 2003



Source: ECB

Chart 4.3: Bond yields



Source: EcoWin

With monies raised on the Warsaw Stock Exchange representing some 7% of GFCF in 2004, equity issuance plays a non negligible role in corporate financing. Moreover, the growth of the Warsaw Stock Exchange has been instrumental in the development of other segments of the capital market, notably venture capital. Although usually a small market, private equity and venture capital play an important role in the financing of modernisation and innovation and, in particular in transition economies, may contribute to reducing financial constraints in the segment of small and innovative enterprises (Frag et al., 2004). In the late 1990s, Poland has experienced a high growth of the market. With investments of 0.06% of GDP in 2005 (compared to 0.35 % of GDP on average in the EU), Poland has one of the largest private equity markets in the RAMS. It has attracted foreign investors, with 74% of funds raised in other EU Member States and 26% in non-European countries. However, it is still small compared to the market in some of the EU-15 and investments are mainly focused on later-stage projects (to finance the expansion of a company or the change of ownership), while little is being invested in early-stage projects, partly due to the limited supply of investment opportunities (European Venture Capital Association, 2005). The absence of domestic funding reflects the novelty of the market, the still comparatively small size of institutional investors, and regulatory impediments.

Institutional investors can be expected to play a growing role in the financial intermediation process

Dynamic growth in open-ended pension funds, insurance undertakings and investment funds has resulted in non-bank financial institutions playing an increased role in the financial system.

The insurance sector is the third largest segment of the financial system (after the banking sector and the pension funds) with combined assets amounting to 11% of GDP. It has been expanding rapidly in the past few years and there is potential for further development as market penetration rates remain low. The sector is highly concentrated, with one company

(PZU) controlling 45% of the market. Insurance undertakings are the third largest investor, after banks and pension funds (and apart from non-residents), in Treasury bonds and bills.

The extensive pension reform Poland implemented in 1999 introduced a multi-tier system comprising a compulsory, privately managed fully-funded system which has resulted in the rapid development of open-ended pension funds. The market is heavily concentrated, with the three largest funds controlling over 50% of total assets between them. Despite the reform and an impressive growth in assets, accumulated pension savings in open-pension funds remain moderate.³¹ The main factors behind those low accumulated pension savings are the high share of young contributors (with lower income and higher than average unemployment rate), high administrative costs and the large accumulated arrears to the pension funds from the social insurance collecting agency ZUS (IMF 2005b).

The savings accumulated in the pension funds are mainly invested in Polish Treasury bonds and bills. Although investment rules were relaxed in 2003 to expand the range and share of assets pension funds can hold, quantitative constraints on investment remain significant. Foreign investment by open-ended pension funds remains marginal at about 1.7% of the total assets at end-2005 and significantly below the regulatory limit of 5%. Given the scale of their assets under management and the still limited size of the Polish capital markets, the extent to which Polish pension funds can meet their investment needs domestically remains to be seen. While the new pension system is only in its infancy, pension funds already held 15.3% of the market for T-bills and Treasury bonds, and 21.4% of the free float at the Warsaw Stock Exchange in mid-2005. In addition, concern has been expressed that existing performance rules, which punish firms whose quarterly returns deviate from the average of all funds, may be inducing a wide spread herding strategy, a potentially significant risk for small capital markets.

4.2. Financial balance sheets of the corporate and household sectors reflect a still low level of financial intermediation

Private sector credit growth has remained moderate in recent years

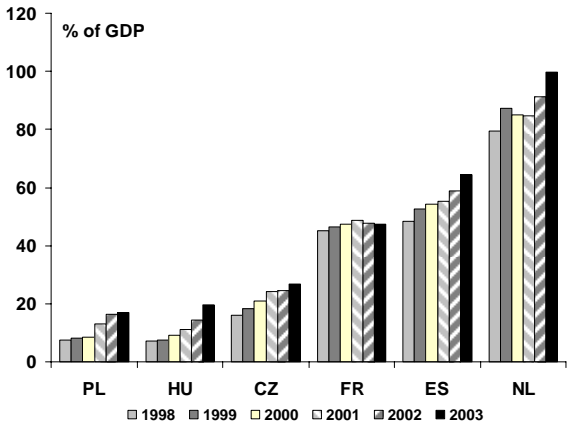
Polish corporates and households hold small but expanding amounts of financial assets and liabilities, reflecting a progressive financial deepening in the economy, but from very low levels (Charts 4.4 and 4.5). While most of the RAMS have experienced dynamic growth in private-sector credit – as might be expected in catching-up economies - private sector credit growth in Poland has weakened during the downturn period 2001-2003 from relatively high levels previously recorded (Chart 4.6). Since 2005, private credit sector growth, in particular the housing loan sector, has been accelerating. In line with these developments, the ratio of private credit to GDP stands at a relatively low level (Chart 4.7) and is only slowly increasing.

External financing of Polish corporations remains fairly limited. Approximately one third of enterprises use retained earnings as the sole source of financing, while studies have shown that only 17% of corporate investment spending is bank financed, compared for example to 42% in the euro area (OECD, 2004). As indicated in the previous section, equity financing and the issuance of commercial paper have grown significantly in recent years from low initial levels.

³¹ After six years, the average accumulated funds per member reached only about Zł 5,500 or about 2 ¼ times the monthly average gross wage in the enterprise sector in January 2005.

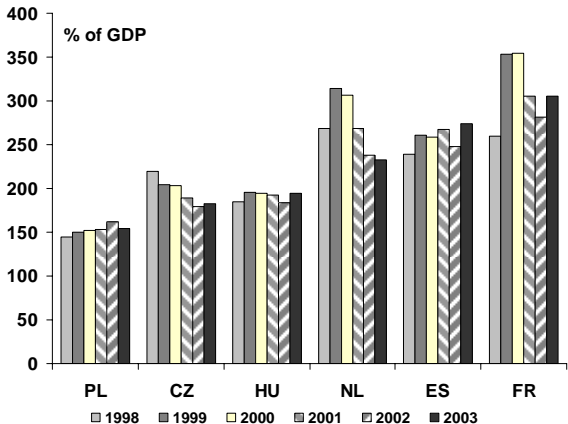
Despite increased borrowing in the recent years, Polish households still have a relatively low loan utilisation level. An improvement in the financial situation of households in 2004 and the first half of 2005 was reflected in a rapid growth in borrowing - especially in relation to house purchases. But the servicing burden has been moderated by a simultaneous growth in household disposable income, and the debt to disposable income remains low by EU-15 standards (20%). However, borrowing tends to be concentrated in a small percentage of households so that the effective debt burden on those households which actually borrow could differ from that implied by aggregated data (NBP, 2004a). Analysis of household budget data collected by the Central Statistical Office (GUS) suggests that low-income households display slightly higher debt burden ratios. The burden ratios exhibit a rising trend across all income groups.

Chart 4.4: Financial liabilities held by households



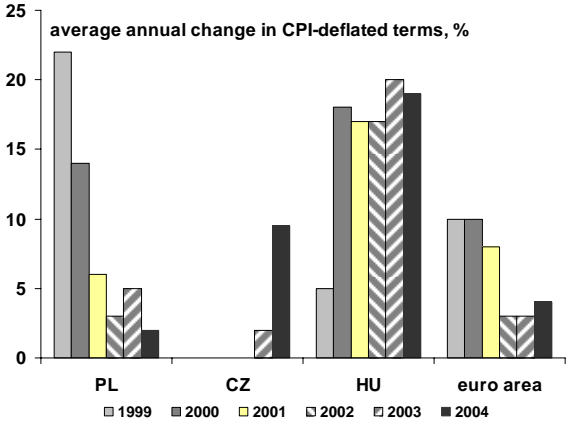
Source: Eurostat

Chart 4.5: Financial liabilities held by the corporate sector



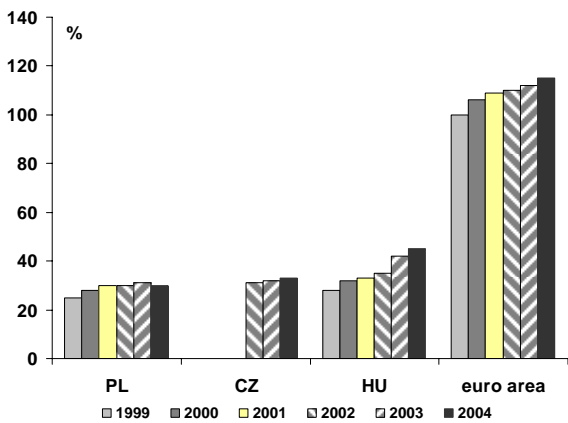
Source: Eurostat

Chart 4.6: Growth of credit to the private sector



Source: Backe and Zumer (2005)

Chart 4.7: Private sector credit-to-GDP ratios



Source: Backe and Zumer (2005)

The Polish mortgage market has been growing steadily since the mid-1990s, but remains small when compared to the corresponding EU-15 markets. The volume of outstanding housing loans is equivalent to about 7% of GDP and about 10% of bank assets, with almost 60% of lending denominated in foreign currency or indexed. The supervisory authorities have reported some evidence of banks relaxing credit standards to maintain market shares, and have issued new recommendations on mortgage lending. In particular, they have encouraged

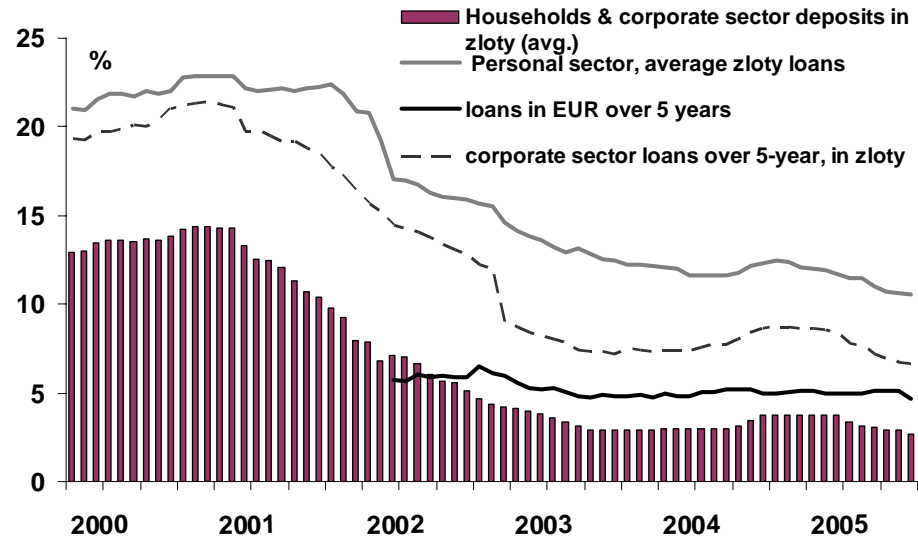
banks to adopt higher collateral requirements and strengthen credit risk analysis, in particular for foreign currency denominated loans.

A credit growth limited by both supply and demand

The limited recourse to external financing by corporates makes Poland rather exceptional when compared to the other RAMS and raises the question whether the low level of corporate lending is a demand-side (i.e. a lack of investment opportunities) or a supply-side (i.e. a lack of access to external finance) phenomenon. On one hand, the evolution in private credit can be partly explained by the economic slowdown in the earlier years of this decade. However it is notable that the economic upswing since 2003 has not been accompanied by a marked acceleration in bank lending overall – notably as the corporate sector has preferred internal financing sources. Strong corporate profitability since 2002 has translated mostly into an accumulation of financial assets (largely bank deposits) indicating a lack of appropriate investment opportunities. On the other hand, while the large number of active banks reflects easy entry conditions (at least during the beginning of the transition), their generally small size may be preventing the exploitation of potential economies of scale, while anecdotal evidence suggests that the financing of medium-size projects frequently requires establishing a syndicate of banks (OECD, 2004).

The effectiveness of the banking system in intermediating savings to investment is often gauged by the spread between lending and deposit rates. High interest intermediation margins (2.8 compared with 0.4 for the euro area and 1.4 for the RAMS on average, Angeloni et al, 2005) and relatively high spreads between lending and borrowing rates (9 percentage points in the retail market and 4 percentage points in the corporate sector, the highest among the large RAMS and compared with 2.9 and 2 for the euro area, Walko and Reninger, 2004) might be a further indication of inefficiency and or insufficient competition among the banks (Chart 4.8). Shortcomings in the institutional framework, in particular the legal system (see next section) could also be part of the explanation for the slow private credit growth.

Chart 4.8: Interest rates on loans and deposits



Source: NBP Statistics

4.3. Supportive institutional setting in need of further strengthening

Economic literature (e.g. Laporta *et al*, 2003) emphasizes the importance of the legal system in determining the level and quality of growth-promoting financial services. In particular, legal rights of investors and the efficiency of contract enforcement are very strongly associated with long-run growth.

The comparatively stronger development of the Polish stock exchange has been explained by the successful case-by-case privatisation process (as opposed to voucher mass privatisation processes), but also by relatively strong law enforcement and good disclosure standards, ownership transparency and takeover regulations (Kominek, 2003). And the European Bank for Reconstruction and Development (EBRD) indicators of financial reform give a relatively high rating to Poland: 3+ for banking reform and interest rate liberalisation and 4- for securities markets and non-bank financial institutions³².

However, to some extent the comparatively slow development of private sector credit growth may also be explained by legal impediments, and in particular the difficulties creditors have experienced in securing assets as collateral for loans. Despite the introduction of a new bankruptcy law in October 2003, procedures remain slow and costly with 1000 days average debtors work-out period (Bielicki, 2005). The inefficiency of the commercial court system seriously hinders banks' capacity to call loan collateral and thus makes collateral valuations uncertain and banks potential losses higher (IMF, 2005a). In its report on the impact of the legal framework of the secured credit market undertaken at the request of the National Bank of Poland, the European Bank for Reconstruction and Development highlights that the Polish legal framework for pledges and mortgages appears to be particularly ill-adapted to the needs of the market. Pledges and mortgages play an important role in stimulating the availability of credit. By reducing the risks to lenders, it allows access to finance to borrowers, who may not have the required credit history and improvements in the terms on which credit is granted. But Poland seems to stand out as the only of the NMS where pledge and mortgage fail to reduce the risk to lenders. The cost to the Polish economy of that failure is considerable (EBRD/NBP, 2005). Some measures were adopted shortly after the publication of the report, but most of the issues remain valid.

Moreover, though corporate governance has improved considerably in Poland over the last ten years, and though the EBRD corporate governance sector assessment gives a "B" to Poland³³, the oversight of firms and managers could be further enhanced. For instance, a more active role from the fast growing institutional investors would certainly benefit markets' corporate governance.

4.4. Financial integration has improved access to finance

The Polish financial system is substantially integrated with the rest of the EU

Opening the domestic financial sector to foreign capital flows has improved access to finance for Polish companies and fostered the modernisation and diversification of the Polish financial market. As with other RAMS, the Polish financial sector is highly integrated within the EU-25. 43 commercial banks holding about 70% of commercial bank assets were

³² On a scale from 1 to 4+, where 1 represents little or no change from a rigid centrally planned economy and 4+ the standards of an industrialised market economy.

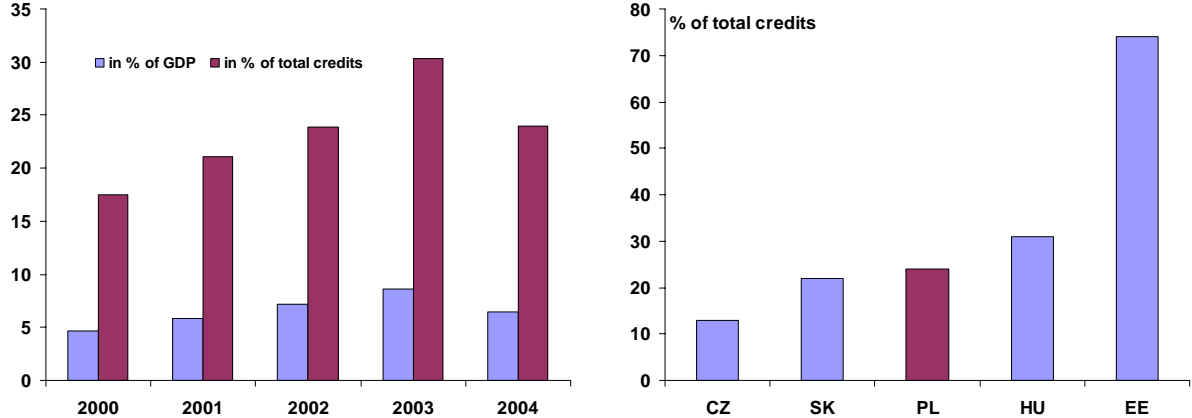
³³ "B" represents a "high compliance" level of corporate governance systems.

controlled directly or indirectly at end-2005 by foreign investors - of which 85% are EU banks. There is evidence to suggest that the high level of foreign ownership and the introduction of regulation and supervision practices in line with EU practices have made the banking sector more efficient and have improved risk management capacity in banks. In terms of productivity, the entry of foreign banks has been instrumental in tackling the problems of overstaffing in some previously state-owned Polish banks. Foreign entry has also fostered the modernisation of the banking industry and the implementation of modern centralised IT systems. Productivity figures indicate that foreign-owned banks have fared better than Polish-owned banks since 1998, in particular as regards the loans or deposits/employee ratios. It also appears that the high penetration of foreign-owned banks has been beneficial to SMEs as their service to SMEs is generally greater than their share in total lending (Farnoux *et al*, 2004).

Capital markets are also highly integrated, both in terms of structure and investors. The WSE has a cross-membership and cross-access agreement with Euronext. This should reduce transaction costs for foreign traders seeking to take a position in Poland and facilitate the floating of shares on the WSE by international firms with important operations in the region.

The integration is reflected in the significant part of bank loan portfolios made up of lending denominated in foreign currencies (Chart 4.9), comparable to that of other RAMS (Chart 4.9). This can mainly be traced to the heavy demand for foreign currency loans in the early years of the decade, when interest rate differentials between Poland and core markets (euro area, the US, Switzerland) were large enough to induce Polish enterprises and households to borrow in foreign currencies. After some decline in 2003 and the first half of 2004 - mainly due to the strong depreciation of the zloty in this period - customer demand for foreign currency loans has rebounded in 2005.

Chart 4.9: Foreign currency loans



Source: RZB (2005) and Backe and Zumer (2005)

Source: RZB (2005) and Backe and Zumer (2005)

Access to foreign financial markets has allowed enterprises to find cheaper financing, stimulating growth in firm sales, assets and leverage (Gianetti and Ongena, 2005) and thereby supporting the catching-up process. As in other RAMS, foreign bank lending and foreign inter-company loans play a significant role in the financing of non-financial enterprises in Poland. In 2002, domestic bank lending accounted for some 40% of the total loan portfolio of the non-financial corporations, as much as the foreign bank lending and commercial credit, while foreign inter-company loans amounted to 20% of the portfolio (Magyar Nemzeti Bank, 2004). And there is some evidence that FDI reduced foreign subsidiaries' financial constraints

without crowding out domestic enterprises from access to credit (Harrison et al, 2004; Rutkowski, 2006)

In capital markets, the impact of foreign investors is visible in the increase of their share in stock market turnover, from 30% in 2003 to 36% in the second half of 2004 and 43% in the first half of 2005. Driven by a global hunt for yield, foreign investment in Polish sovereign bond market rose from 21% to 27% in 2004, and stabilized at such level during 2005. The strong presence of foreign investors in domestic government securities markets was an important factor in allowing Poland to rely primarily on domestic debt issuance to meet its fast rising public sector financing requirements at the beginning of the decade (IMF 2004). In 2004, in a globalised low interest-rate environment and against the background of EU accession, relatively low bond prices attracted foreign investors, which helped to steady bond yields despite some uncertainty about the domestic economic situation. The greater inflow of foreign investment is also likely to have been supported by the enlargement, as Poland's entry into the EU allowed EU undertakings to invest in Polish assets.

The risks attached to the integration of the financial sector require careful monitoring

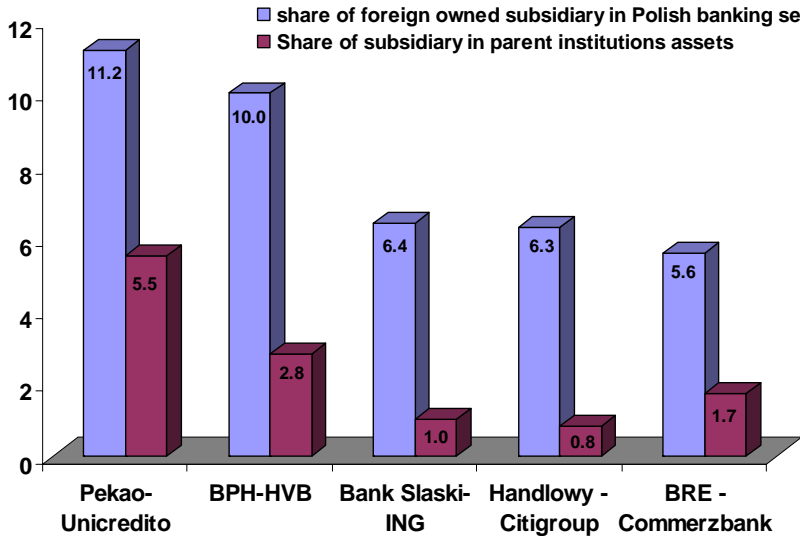
The benefits coming from the integration of the Polish financial sector with the rest of the EU are accompanied by mainly three risks. The most obvious risk is the exchange-rate risk associated with easier access to foreign currency borrowing. Banks face a potential currency mismatch on their balance sheets, with 26% of their assets and only 17% of their liabilities denominated in foreign currencies. But, they are globally insulated from exchange-rate movements as they hedge their exposure using off-balance sheet instruments (Walko and Reininger, 2004, and NBP, 2004a). The banking sector may be more exposed to indirect exchange risk via the balance sheets of their clients, with about 27% of household loans and about 25% of corporate loans denominated in foreign currencies. While corporates may be somewhat hedged via their export earnings or via derivatives, households would be expected to be more exposed. The share of foreign currency loans is particularly high in housing loans. Most of these loans are collateralised by mortgages and are of high quality. However the long maturity of mortgage loans (15-25 years) and the relatively short period in which these have been available from banks in Poland (8 to 10 years) - meaning that the cycle of quality deterioration has not been fully identified - may raise some concerns. The banking supervision authority has found this issue important and prudential measures have been taken to curtail foreign currency lending. Anecdotal evidence supported the belief that low-income customers' financial safety buffers may not have been large enough to take on risks associated with foreign currency loans. Analysis of bank offers has suggested that some banks are granting foreign currency loans to customers with lower repayment capacity (in most banks a given client was able to receive a higher zloty equivalent of foreign currency loan than a loan extended directly in zloty). Still, bank surveys hint at the fact that customer awareness of currency risk inherent in such banking products is on the rise.

Second, integration has also increased the correlation between Polish and global market performance and so has made the Polish market more sensitive to changes in the global outlook. For instance, in March 2005, world market developments causing increased losses for global investors provoked them to realise profits in the Polish market, leading to some correction in the equity market and a sharp widening in bid/offer spreads on Polish Treasury bonds. Despite strong fundamentals, Polish financial markets were also adversely affected by the flight to quality observed in May and June 2006. In view of the size of foreign investment in Poland, any sudden withdrawal of capital could significantly diminish liquidity of the domestic market.

A third issue concerns foreign ownership. Foreign-owned banks can act as a shield against major economic downturns, given that the foreign shareholders are well-capitalised world-wide banks and are assigned the highest rating grades. Nevertheless, any decision they may take concerning their Polish subsidiary (or branch), that would only marginally affect the group due to the relatively small size of the subsidiary (or branch), could have a systemic impact on the Polish financial sector. In this way, financial integration has also made financial supervision more complex.

With over 60% of the banking sector under foreign ownership (Chart 4.10), the Polish Commission for Banking Supervision will have to work closely with supervisors of the parent companies. A high rate of foreign-owned banks may also make the conduct of monetary policy more complex. A recent study investigating the role of banks in monetary transmission in the new Member States (Schmitz (2004) in Angeloni *et al*, 2005) has shown that foreign-owned banks adjust their lending to a greater extent after an increase in euro-area interest rates than their domestic-owned competitors do with respect to domestic rates.

Chart 4.10: Relative importance of subsidiaries in the Polish banking sector



Source: NBP

4.6. Conclusions

The Polish financial sector has developed rapidly from a low base, reflecting the combined influence of a sustained process of liberalisation, preparations for accession to the EU in 2004 and the ongoing process of EU financial integration. Nevertheless, the financial sector remains relatively small, with the ratio of outstanding bank credit, outstanding bond issuance and equity market capitalisation all well below the averages for the EU15 and EU10.

While the relatively modest pace of growth in private sector credit partly reflects demand side factors, the structure of the banking system (with many small banks) and relatively high intermediation margins suggest scope for improvements in efficiency. Shortcomings in the institutional framework – and notably in the legal system where banks have experienced problems in securing assets posted as collateral – might also be addressed as a means to facilitate a more robust evolution of private-sector credit.

The financial system remains predominantly bank-based, despite dynamic growth in the markets for bonds and equities. Further development of these markets can be expected in the

context of an increased role for institutional investors in the financial intermediation process. The venture capital industry is buoyant and the market for private equity is among the largest in the EU10. Nevertheless, these important markets for financing innovation remain small relative to the corresponding markets in the EU15 (which are, in turn, relatively small when compared to the corresponding US markets) and supportive measures in areas such as bankruptcy law, regulatory impediments would be welcome.

The progressive integration of the Polish financial sector into the broader EU financial sector offers the prospect of important benefits in terms of modernisation and diversification of domestic markets and ultimately easier access to finance. Accordingly, the process of financial integration should be supported. However, the risks attached to financial integration – notably via increased contagion/correlation risks and the specific implications of high rates of foreign ownership need to be monitored carefully.

5. A labour market still in transition

As recalled in chapter 1, between 1995 and 2005, GDP expanded in Poland at an average annual rate of more than 4%, faster than both other RAMS (3.7%) and the EU-15 (2.1%). Despite this output expansion, the loss of 1.5 million jobs made the growth jobless and depresses potential growth. Boosting the labour contribution is essential in stepping up potential growth; the strong employment creation in 2006 is an encouraging development in this respect. The fall in the employment rate mitigated the effect of the increase in productivity on GDP per capita, which in 2005 stood at less than 50% of the EU average. Closing this gap will require speeding up the convergence of both labour productivity and the employment rate towards the EU averages, while the emergence of a trade-off between employment and productivity growth may hinder this catching up.

Speeding up the convergence process requires a flexible economic structure that allows stable growth of employment and output. The literature has highlighted the importance of employment-friendly institutions, which do not distort the incentives to participate, promote labour reallocation, and are able to respond to the demand of insurance from those at high risk of unemployment. In periods of economic turbulence, shocks requiring restructuring occur and jobs in mature sectors should be replaced by jobs in sectors where “new skills” will be accumulated. With distorted incentives to participate, laid-off workers may not accept to be relocated in different activities and go through a period of unemployment during which their skills depreciate (Ljungqvist and Sargent, 1998). The more specific workers’ skills are, the more they depreciate and the longer the duration of unemployment.

This chapter is organised as follows. Section 5.1 describes the factors behind the poor labour market performance of the 1990s. Section 5.2 discusses whether this performance reflects the rapid productivity growth, while Section 5.3 analyses the role of labour market institutions.

5.1. Labour market performance in the 1990s

After the “transitional shock” of the early 1990s, Poland was hit by the Russian crisis in 1998 and the global slowdown in 2001-2002. At the early stages of the transition, over-employment in the state sector made labour market adjustment unavoidable. Between 1992 and 1998, employment fell in the state sector at an annual rate of 4% and expanded in the private sector at 3.7%, overall a dismal employment growth. The adjustment of public employment continued after the Russian crisis, which, compared to the other countries of the area, hit the Polish labour market particularly adversely. Between 1998 and 2002, state employment declined at a yearly rate of about 7% while it stagnated in the private sector (World Bank, 2004). From 1998 to 2004, the employment rate declined by more than 7 p.p., the unemployment rate almost doubled, while participation declined only slightly. In 2004, Poland had the lowest employment and participation rates in the EU.

The effect of labour hoarding on the reallocation of labour between public and private enterprises is one reason for this marked adjustment. The fear of social unrest, generated by a rapid shed of excess public employment, led to a gradual consolidation of state enterprises, facilitated by the tight procedures for collective dismissals. However, other factors may have played a role. Indeed, as shown in table 5.1, the rather stagnant unemployment pool reflects relative low outflows rates from unemployment to employment rather than high flows of job destruction (Table 5.1).

Table 5.1: Labour market transition probabilities: 2003-2004

	Employment to unemployment	Employment to inactivity	Unemployment to employment	Unemployment to inactivity	Inactivity to employment	Inactivity to unemployment
Poland	3.9	3.9	21.8	17.5	5.7	6.7
Czech	3.4	4.0	37.5	12.8	11.0	3.7
Estonia	2.8	3.6	33.0	10.2	7.5	4.7
Latvia	3.6	3.7	33.3	24.9	10.2	4.3
Lithuania	3.5	1.8	30.5	13.7	7.4	4.7
Hungary	2.0	4.2	33.8	39.9	6.0	2.1
Slovenia	1.8	1.8	21.2	44.5	10.1	2.3
Slovakia	5.6	3.9	25.3	7.6	7.2	5.8
Un-weighted average	3.3	3.4	29.6	21.4	8.1	4.3

Source: Commission services bases on European LFS

Table 5.1 reports labour market transition probabilities, which give an indication of the probability of change in labour market status (i.e. employed, unemployed, inactive) from one year to another. Hence, each entry in table 5.1 represents the number of people in a particular labour market status in 2004 as a proportion of their status one year earlier, respectively employment, unemployment or inactive. It captures information concerning employment flows (i.e. not job flows). The table reveals that a) compared to other RAMS, the proportion of employed Poles in 2004 that were unemployed in 2003 (at about 22%) is much below the un-weighted average (about 30%). b) Unemployed Poles have a higher chance of leaving the labour market than the unemployed in Slovakia, Estonia, Czech, Rep and Lithuania; c) From a) and b) the probability of staying in unemployment after one year can be derived. After Slovakia, Poland ranks as the country with the highest risk of staying in unemployment. d) The comparison between column 5 and 6 suggests that an inactive Pole has a higher comparative risk of becoming unemployed after one year than of finding a job.

Employment performance of different socio-economic groups

The labour market shakeout was characterised by different responses across sectors, gender and educational levels. Men were hit more adversely than women as restructuring took place in sectors dominated by men. However, the structure of incentives is also responsible for this heterogeneity as suggested by transitions rate from employment in sectors where men are over-represented. On one side, workers in industry and construction have the lowest probability of repeated employment and are more likely to become unemployed than inactive. On the other side, those employed in agriculture or mining have a higher probability of being inactive than of becoming unemployed (Table 5.2). The prevalence of flows out of the labour market in agriculture and mining reflects the liberal access to non-employment benefits in these sectors, especially for those aged 55 and more. The high share of employed in agriculture and of the first baby boomers, exacerbates the decline of the employment and participation rates.

Young and older workers reacted differently to the shocks of the late 1990s, early 2000s. Both experienced a sizeable deterioration of their employment chances³⁴ (Chart 5.1). However, while the flows from employment to unemployment for young workers exceeded those from unemployment to inactivity, for the older workers the opposite occurred (Chart 5.1 third panel). Hence, the young cohorts experienced a deterioration of their employment chances, while the structure of welfare transfers gave older workers the incentives for an early exit

³⁴ But their higher odds of unemployment partly reflects the entrance of the baby boomers of the early 1980s.

from the labour market. In 2005, the employment (26.2%) and participation rates (29.6%) were the lowest in the EU-25 and the average exit age at 57.7 was among the lowest.

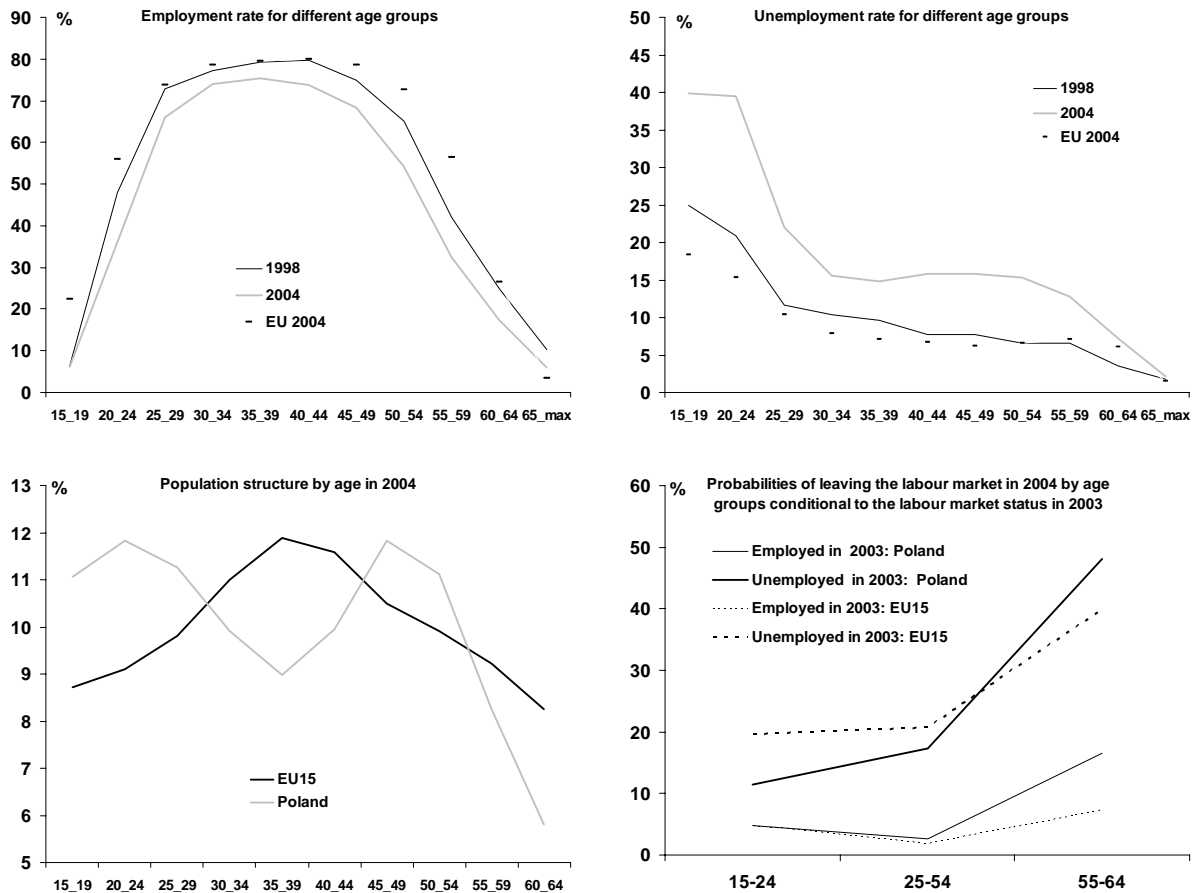
Table 5.2: Employment structure and transitions from Employment by sector

(percent)	Employment structure by sector			Transitions to different status by sector		
	Total	Male	Female	Employment	Unemployment	Inactivity
Agriculture	20.6	21.5	19.4	95.6	1.2	3.2
Mining	1.8	2.9	0.5	95.0	1.0	4.0
Industry	20.6	23.7	16.9	91.1	4.5	4.4
Power engineering	1.8	2.6	0.8	96.8	1.2	2.0
Construction	6.5	10.9	1.1	88.6	7.8	3.6
Simple Services	24.2	23.4	25.2	93.5	3.0	3.5
Business services	5.7	4.9	6.7	95.9	1.5	2.7
Community services	18.8	10.1	29.3	93.2	3.2	3.6
Total	100	100	100			

In p.p.. Pooled for the 1997-2004 period. Men 15-64 and Women 15-59. Simple Services include: retail trade and wholesale trade; repairs of motor vehicles; motorbikes; household and personal goods; hotels and restaurants; transport; storage; communication; municipal services; work for the households. Business services include: financial intermediation, real estate, renting and business activities.

Source: Bukowski and Lewandowski (2005)

Chart 5.1: Age profile of key labour market variables



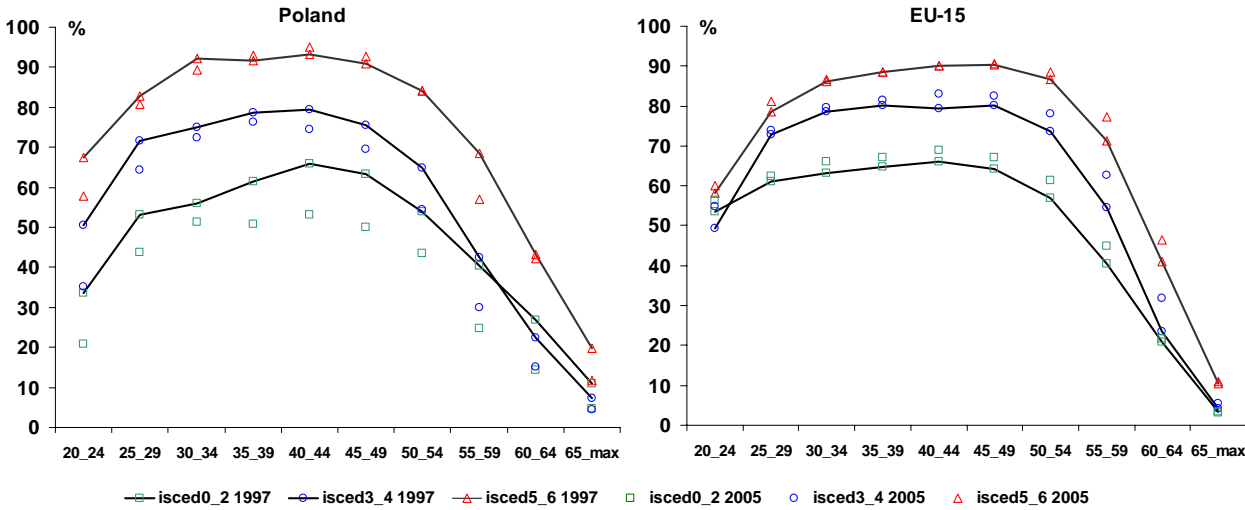
Source: Eurostat, LFS

Education and labour market performance

Human capital differentiates labour market performance and matters for growth. A general trend in the last few decades is the deterioration of employment prospects of low-skilled workers, despite a relatively low increase in their labour supply. Some explain this fact as the

long-run effect of the introduction of technologies that complement skills – skill-biased technological change. Others contend that technological change is biased in favour of highly educated more adaptable people also in the short-run. In addition, by withdrawing a share of the population from the labour force today, human capital accumulation increases productivity in the future. The build up of human capital benefit low-income countries with an undereducated workforce speeding up the catching up with the richest countries. Endogenous growth theory highlighted the generation of new ideas and emphasised the importance of educated workforce employed in innovation-oriented activities. It is not the level of human capital that matters, but its structure by field of knowledge. Technical knowledge would be needed to trigger self-sustained growth while compressed wage structure reduces the incentives to undertake research-oriented education. Finally, the adoption of new technologies may depend on the experience, i.e. the amount of learning-by-doing acquired by changing occupations. In Poland, high-skilled labour performed better than the average and was marginally affected by the labour market shakeout. Employment rates declined for the less educated, especially for those belonging to the central age groups (Chart 5.2), while for the high-skilled these rates stayed not far from the EU-15 averages, and are even higher for those of age 30-49. However, the drop by 20 p.p. below the EU average in the employment rate of high-skilled aged 55-59 suggests that education does not differentiate the performance of the elderly. Institutional setting regulating the access to unemployment, disability benefits, and early retirement are responsible for the poor outcomes of these groups.

Chart 5.2: Employment rates by age and levels of education



Source: Eurostat: ISCED0_2: less than secondary education; ISCED3_4: Upper secondary education and post-secondary education; ISCED5_6: Tertiary education

The formal level of education is a rough indicator of the effective qualification of the labour force. At the onset of the transition, the general opinion was that central European countries had a highly qualified labour force. The reality was a system of basic vocational education which promoted specific skills, badly adaptable to intense restructuring. The 1999 reform reduced the number of graduates with vocational education³⁵. However, the high stock of employed with this level of education, at about 32% in 2003, limits the short-run

³⁵ The reform aimed at reducing the number of students enrolled in vocational education, increasing the level of education and focusing more on general technical education as opposed to vocational education. Steps were taken to reorganise vocational education along the lines of university education. Between 1992 and 2003, the number of students with a vocational education declined by 76%. In 2003, the share of students aged 16-18 enrolled in basic vocational schools was less than 10%, about 20 p.p. lower than in 1994.

improvements in the labour market.³⁶ In a longer perspective, the reduction of students with basic vocational education and a reorganisation of the curricula may turn out to favour growth and employment. The mixed results of the *PISA*³⁷ study raise concerns on the educational system. In 2003, the percentage of Poles aged 15 able to solve complex mathematical problems was low – but higher than in the largest Southern European countries. However, in reading and science literacy young Poles score as well as, if not better than, Northern European students. Compared to 2000, Poland with Latvia is the OECD country with the largest improvement in 2003 in the average achievement in different learning fields. The reform of the secondary education, the achievement of the age of tertiary education of the baby-boomers of the early 1980s and the awareness that better employment prospects come with higher education, contributed to increase the enrolment rates in tertiary education. Also, the structure by fields of study changed in favour of social sciences. This change risks reducing their marketability and creating shortages of technical competences. Factors responsible for this shift are: the low costs of courses, which do not require large investments in laboratories and respond well to the demand of tertiary education; the low tuition fees; the poor performance in mathematics of students aged 15.

5.2. Employment and productivity trade-off

In the long-run, technical change is neutral for employment. When a labour saving technology is introduced some people may lose their jobs while the increase in productivity increases labour demand reducing any labour supply in excess. In addition, an increase in the real wage in excess of productivity growth induces firms to substitute labour with capital, thus strengthening the initial productivity growth. Along a balanced growth path, productivity and real wages grow at the same rate driven by exogenous technical change, while employment grows at the same rate as the total population (i.e. there is full employment). A trade-off between employment and productivity may emerge during restructuring. When sectoral shifts modify the relative demand for labour across industries, the need for reallocation temporarily increases the natural rate of unemployment. Hence, when the economy expands, productivity rises at the expense of employment.

Productivity and employment growth

Since 1995, labour productivity has been growing at about 4.5% per year. The Russian crisis coincided with heavy lay-offs after the expiry of labour-protecting privatisation agreements which kept employment in industry artificially high. While in the EU-15 the relation between employment and productivity growth is weak (Chart 5.3), in RAMS-9 they moved mostly together.

Simple correlation between labour productivity growth and employment growth gives different types of relations (positive or negative) depending on the period taken into account. However, in all cases correlation coefficients are very small (0.01 – 0.11). Only 1% to 11% of the changes in employment growth can be attributed to changes in productivity growth. Impulse responses derived from a VAR model and simulations with DG ECFIN's QUEST

³⁶ According to the data reported in *Employment in Poland 2005*, together with those with a primary education, those employed with a basic vocational education have a higher probability of becoming unemployed but a low probability of being inactive (even lower than those with tertiary education). Together with a high degree of persistence in the unemployment status, these figures imply a high level of structural unemployment for those with this level of education.

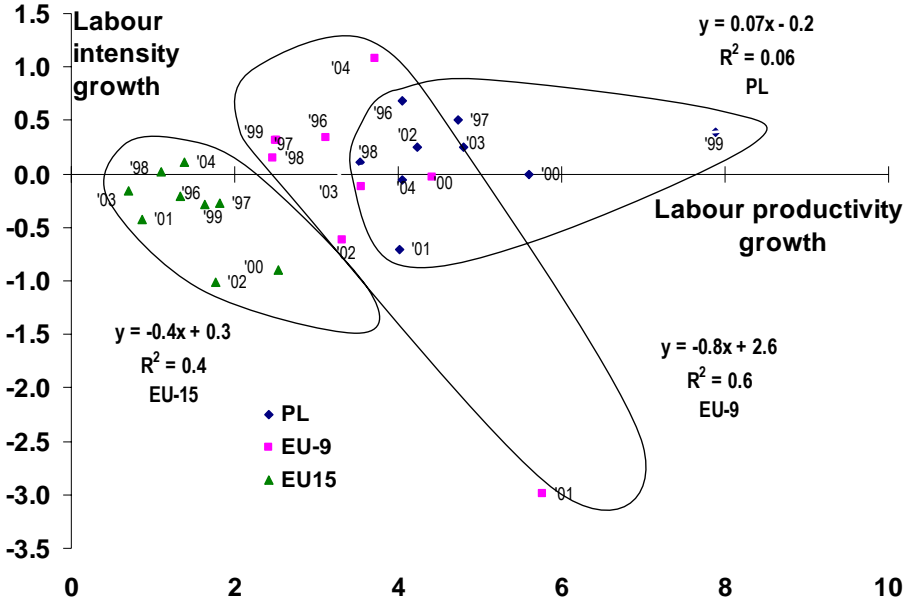
³⁷ The Programme for International Student Assessment (*PISA*) study considers only young people aged 15-16.

model arrive at similar small orders of magnitude for the EU (EC, 2004). VAR impulse responses indicate in the short term a strong negative trade-off between productivity and employment growth (see box 5.1), but the structural improvement in the productivity level has had only a small impact on the deterioration of the labour market.

Productivity growth and labour intensity

Labour intensity is defined as the number of hours worked per person employed. One would expect that rising productivity allows hours worked to fall because the same output can be produced with less input. Indeed, between 1996 and 2004, the labour intensity declined in EU-15 and EU-9. The negative relationship between productivity growth and labour intensity growth is strong for EU-15 and EU-9 (Chart 5.3). For Poland the relation is slightly positive, but not very insignificant. Contrary to the fall in the hours worked in the EU-15, the increase in hours worked in Poland (at an average annual rate of 0.2%) suggests an intensification of activity for those working. Nevertheless, the poor fit of the employment-productivity growth relationship, suggests that other factors are responsible for the jobless growth.

Chart 5.3: Comparison of labour intensity growth with labour productivity growth



Source: Groningen Growth and Development Centre and The Conference Board

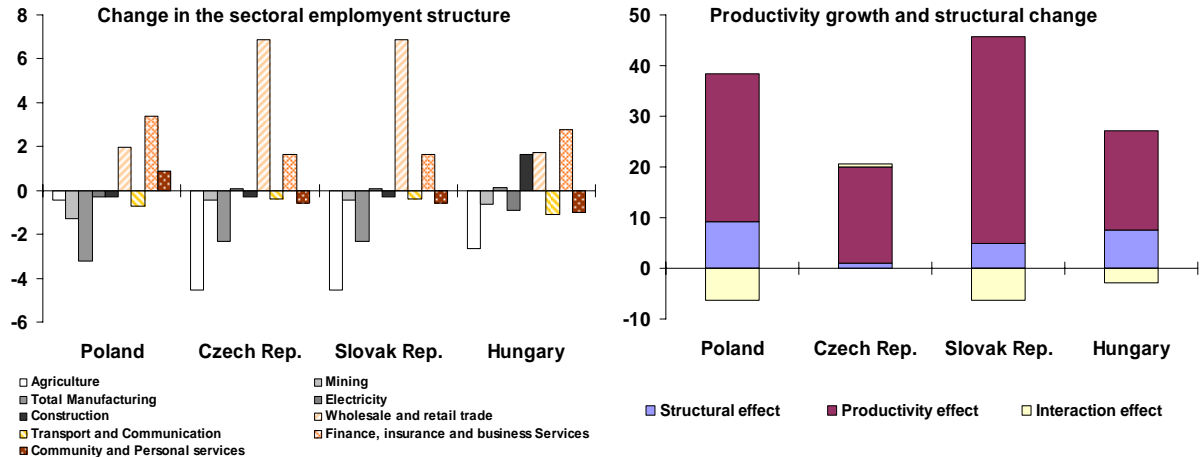
Productivity growth and structural change

Employment and productivity growth can potentially affect each other through a number of channels. For transition economies, skill-biased technological change and structural change are more important. Skill-biased technological change affects the structure of labour demand, favouring skilled labour at the expense of the unskilled. If wages are rigid the structure of labour supply does not respond to skill requirements, while non-participation of low productivity workers compresses the wage structure. In this case, rapid growth may lower employment and raise equilibrium unemployment. As shown above, the shocks of the 1990s and 2000s hit the low-skilled more than the high-skilled. This different response led to a decline in employment share of low-skilled workers and to an expansion of employment in high-tech sectors, an indication of skill-biased technological change. The coexistence of this

change with an institutional setting that retains people in agriculture, despite low productivity, is a distortion that reduces the potential growth of the economy.

When resources are shifted towards the most dynamic sectors, structural change is a source of catching-up. Total productivity growth derives from: a) a relocation of labour from industries with low productivity to industries with high productivity (*structural change* effect); b) the internal dynamics of each industry (*productivity growth* effect); c) the combination of rising (falling) employment in the most (least) dynamic sectors or declining (increasing) employment in the stagnant (expanding) industries (the *interaction* effect). These effects have been decomposed for Poland, Hungary, Czech Republic and Slovak Republic (Chart 5.4). The within-sector productivity growth is the main source of total productivity growth. In Poland, this effect accounts for 90% of the total productivity growth between 1994 and 2002. Labour relocation is an important source of productivity growth, especially in Poland and Hungary. For Poland, this is due to the relocation of labour towards *Business Services* and *Distribution*, where productivity is higher than the average. Finally, the negative sign of the *interaction effect* reveals a mismatch between structural changes and sectoral dynamics of productivity. It followed from the expansion of employment, between 1994 and 2002 by about 450 thousands, in *Real Estate, Renting and Business Activities* which experienced a strong decline in productivity and by the contraction of employment in *Manufacturing* where strong productivity gains occurred. In contrast, the increase of both employment and productivity in *Distribution* contributed positively to overall productivity growth. The high share of employment in agriculture, despite its low share in value added, implies that the convergence process may be speeded up by relocating labour away from low productivity agriculture. This is confirmed by a simulation, where the change in the employment structure between 1994 and 2002 is assumed to be the same as that of Spain in the first years of EU membership (1985-1993). With this different evolution of the sectoral employment, productivity growth would have been 24% higher than effectively registered in Poland. The high share in agriculture is a structural distortion of the Polish economy, which has been stimulated by distortions in the existing system of social transfers.

Chart 5.4: Labour Productivity: Structure and growth



Source: Commission services based on OECD Stan database

Box 5.1: Employment structure and transitions from Employment by sector

To the extent that the strong productivity growth observed in Poland has been realised thanks to employment destruction, productivity gains will not be permanent. A structural VAR approach may shed light on this issue by estimating the impact of an employment shock on productivity. Similarly, one can analyse to the extent to which the fall in employment is due to productivity developments.

A VAR model in three equations

Because aggregate demand may also influence employment and productivity, this variable is also taken into account in the empirical model, which consists of three variables specified in first differences of logarithms: employment (Δn_t), productivity (Δx_t) and inflation ($\Delta \pi_t$). Following Blanchard and Quah (1989), the associated shocks, respectively η_t , μ_t , δ_t , are identified assuming that demand shocks have only temporary effects, while supply shocks have permanent effects, complemented by restrictions based on neoclassical theory to disentangle the two supply shocks (employment and productivity). Hence, the following relations are imposed between the variables (for a similar approach applied to the EU, see European Commission, 2004):

- The labour market shock can have short and long term effects on all three variables;
- The productivity shock has long term effects on productivity and inflation, but only short term effects on employment (for a different approach, see Gali, 1999). This follows from the assumption that real wages are determined by productivity in the long run, but in the short run sticky prices will prevent real wages from adjusting so that employment declines. Furthermore, over long periods employment and productivity appear unrelated.
- The demand shock does not impact on employment and productivity in the long run.

Formally, the model can be written as a distributed lag ($A(L)$) of the three shocks:

$$\begin{bmatrix} \Delta n_t \\ \Delta x_t \\ \Delta \pi_t \end{bmatrix} = \begin{bmatrix} A^{11}(L) & A^{12}(L) & A^{13}(L) \\ A^{21}(L) & A^{22}(L) & A^{23}(L) \\ A^{31}(L) & A^{32}(L) & A^{33}(L) \end{bmatrix} \begin{bmatrix} \Delta \eta_t \\ \Delta \varepsilon_t \\ \Delta \delta_t \end{bmatrix}$$

with long run restrictions $A^{12}(l)$, $A^{13}(l)$, $A^{23}(l) = 0$, implying a lower triangular matrix structure. The model was estimated over the period 1998Q1 – 2005Q3 in 2 lags. Employment and productivity is defined per head terms in the absence of quarterly data on hours. The GDP deflator is used in the demand equation.

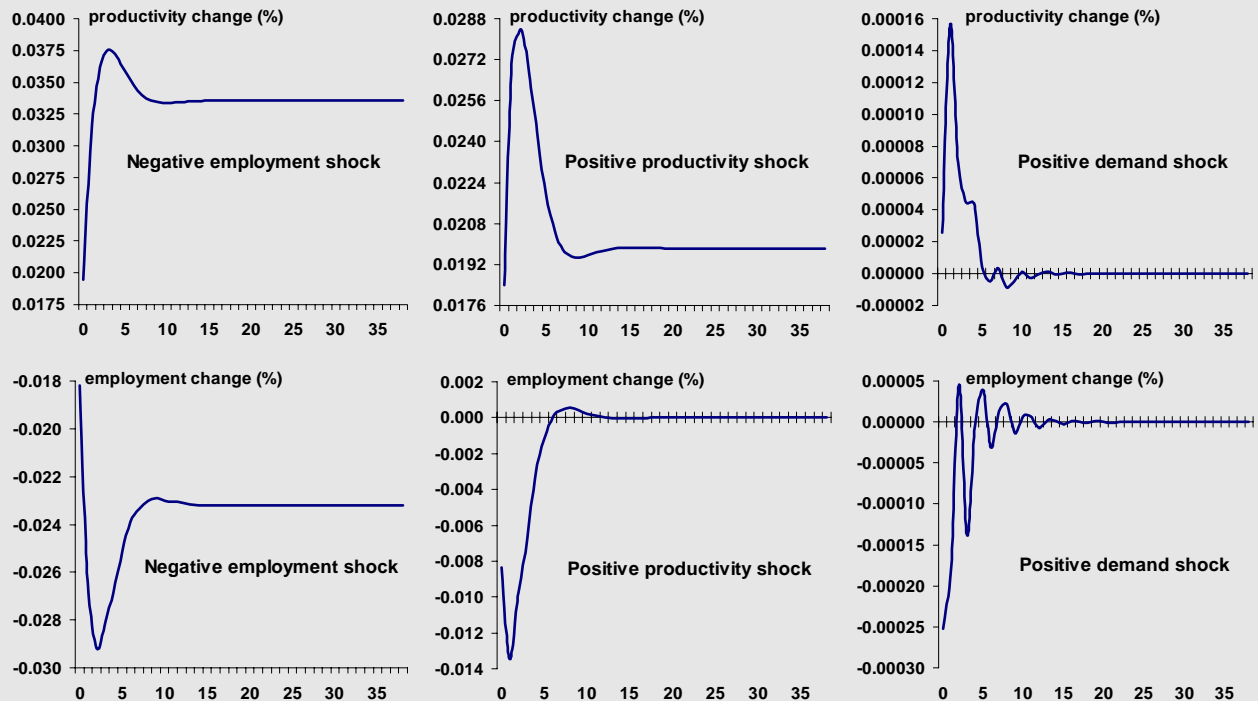
The impulse responses

The impulse responses describe the impact of unit shock to employment, productivity and demand on employment and productivity, which are the two variables of interest. It appears that demand shocks have a rather small impact, while labour market shocks in particular have consequences for employment and productivity. The results should be interpreted with care given the small sample, which is moreover influenced by the transition towards a market economy.

Especially in the beginning of the period under examination, the Polish labour was characterised by massive lay-offs. According to the impulse responses, a 1% permanent decrease in employment boosts productivity in the short run by 3¾ %, then falls back somewhat as output is likely to have suffered from lower labour input, but still leaves a considerable long term impact of 3¼ %. The impact of a negative labour market shock on employment mirrors its productivity effect. A positive productivity shock of 1 % is associated in the short run with a negative employment effect of 1¼ %, which dies out after some 10 quarters. The impact on productivity initially overshoots its long run effect of about 2 %, due to the

interaction with the labour market where it leads to a fall in employment in the short run. The small negative impact of the demand shock on employment is counterintuitive, but could be rationalised by the generation of wage inflation leading to deterioration in the labour market.

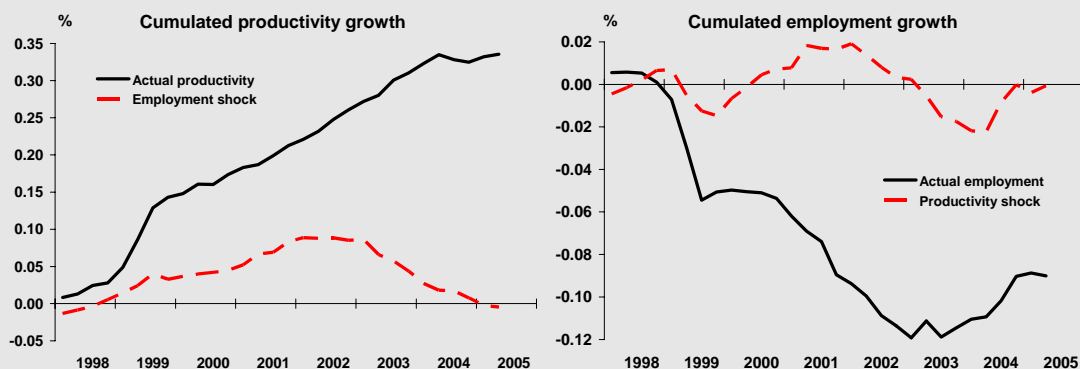
Impulse responses



Historical decomposition

The VAR model allows the cumulation of the historical observed shocks in order to have an idea of their impact on the variables of interest. Up to 2002, the structural deterioration in the labour market contributed to productivity growth in Poland. By that time, compared to 1989, productivity had increased by about 25%, of which about one third is explained by the negative shocks to employment. Afterwards, the labour market shocks ceased to have such a strong positive effect, partly related to the improvement in employment conditions, but this did not prevent productivity from growing further, though at a slower pace. In the period under consideration, employment declined by some 9%, but the VAR model suggests that this cannot be attributed to the productivity shocks experienced by the Polish economy. The structural improvement of the productivity level appears to have had only a small impact on the deterioration of the labour market.

Historical decomposition of productivity and employment growth



5.3. Labour market institutions

After the first transitional recession, one would have expected a widening of the wage distribution and improvements in the labour market. The adjustment to the shocks that hit the economy were mainly in terms of quantities rather than prices, as suggested by the small increase in the wage inequality (World Bank, 2004). Non-employment benefits are the main factor behind this. In a context of rising unemployment and to facilitate social acceptance of job loss, the system of unconditional cash transfers alternative to earned income turned out to be a potent disincentive to participation. Unemployment grew rapidly while participation fell. The decline in participation, especially of low productivity workers, compressed the wage distribution reducing the role of wages as shock absorber. This section briefly discusses the role played by labour market institutions in determining these patterns.

Non-employment benefits and early retirement

After being very lenient at the outset of transition, the degree of generosity of the unemployment benefits has been gradually reduced. Although as in other RAMS, Poland has a restrictive unemployment allowance policy, the rules for setting levels and duration of unemployment benefits, based respectively on work experience and regional unemployment, create strong disincentives for low-productivity workers to take up a job (Chart 5.5) and contribute to a stagnant pool of non-employment in certain regions.

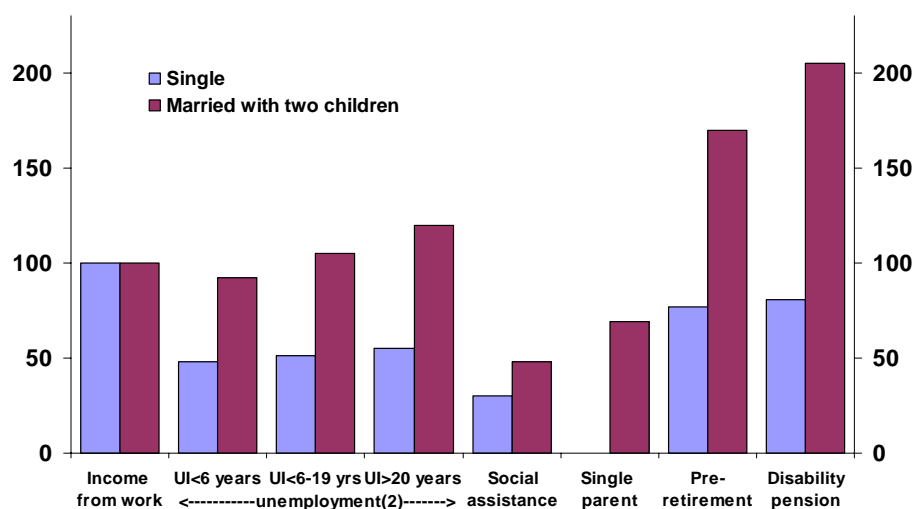
Alongside to the progressive reduction in the spending levels and the numbers of beneficiaries of unemployment and social assistance programmes, an extremely generous and untargeted pension system started to play an increasingly prominent role as buffer for non-employment. Large numbers of workers were granted disability pensions and early retirement as income support and an indefinite substitute for permanent lay-offs. The 1998 reform, aiming at transforming the disability system into a true insurance against the risk of loss of ability to work, tightened the eligibility criteria considerably³⁸. Nevertheless, in 2002 spending accounted for about 3½ of GDP and beneficiaries for 13% of the working-population, the highest share in the OECD countries. While in 1998, the government restricted the provisions for early retirement³⁹, an option expected to phase out at the end of 2006, new benefits - the pre-retirement benefits and allowances funded out of the unemployment insurance scheme – were introduced in 1997. Both available for an indefinite period (until retirement age), pre-retirement benefits and allowances quickly have become a permanent form of income support for the elderly. While the ‘pre-retirement benefits’ were abolished in 2001, the scope of pre-retirement allowances was extended. In 2002, the number of recipients of pre-retirement allowances and benefits were, respectively at 162,700 and 334,000 (World Bank, 2004).

³⁸ Before 1998 any deterioration in health constituted a basis for granting a pension. Thereafter, the main eligibility criterion has become the confirmation of inability to work by doctors employed by the general social security system (ZUS). Moreover, beneficiaries must have at least 5 years of insurance, unless they are under the age of 30, and the disability must arise while employed, unemployed or during the 18 months following employment.

³⁹ According to the general social security system (ZUS) data, over 25% of retirement pensions paid in 1997-2004 were early retirement pensions (Source: Employment in Poland, 2005). The reform did not allow this option for workers dismissed by public enterprises and it introduced longer seniority requirements. However, early retirement pensions remained available to workers in “difficult” professions, such as teachers, miners and steel and railways workers.

Chart 5.5: Net replacement rates

Per cent of minimum wage, 2003



Replacement rates are calculated including other social benefits, such as a 160 zloty housing benefit and family benefits for households with children. Pre-tax unemployment insurance benefits vary with the life-time work record of the beneficiary, rising from 49 per cent of the minimum wage for someone with less than 6 years of experience to 73 per cent for someone with 20 or more years of experience.

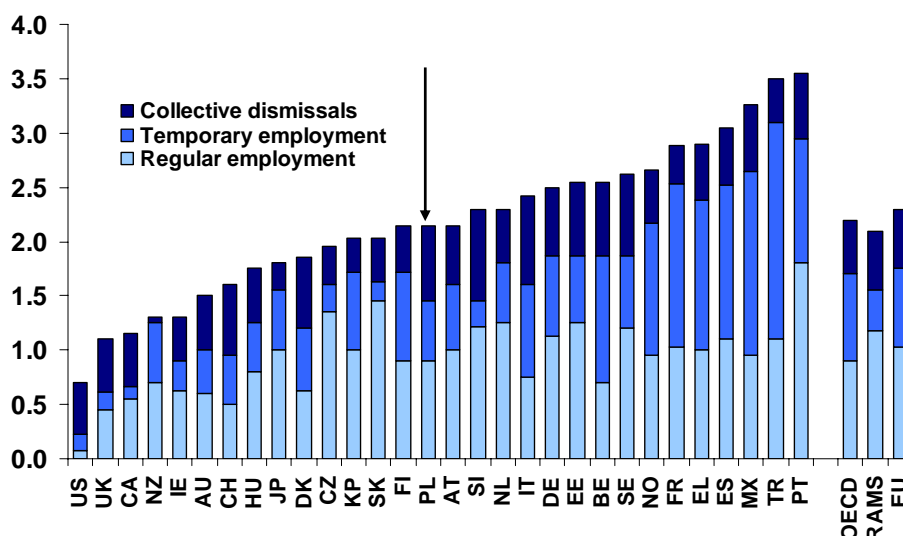
Source: Burns and Kowalski (2004)

Finally, the special social insurance system for farmers (KRUS) adversely affects occupational and geographical mobility. It was established at the end of the 1970s to provide low-income farmers with the same level of pensions and social benefits as people under the general social security system (ZUS), but for a much lower fee. The social insurance system for farmers (KRUS), used as social shock absorber in the early years of transition, has been a source of permanent income for farmers and their family members, an implicit subsidy to agriculture, which has slowed the pace of restructuring in rural areas and reduced the occupational and geographical mobility.

Employment protection, minimum wages, tax wedges and industrial relations

Hiring and firing restrictions are expected to reduce both inflows to and outflows from unemployment, implying ambiguous effects on unemployment stocks. However, by reducing job flows of those with weak labour market attachment (women, young people and older workers), tight employment protection legislation worsens their employment prospects. Moreover, the coexistence of tight hiring and firing rules and wage floors adversely affects low-productivity workers. Although the index of strictness of employment protection legislation is among the lowest in the EU (Chart 5.6), the legislation for collective dismissals is among the most strict. Under the pressure of mounting mass unemployment, substantial amendments to the Labour Code were introduced between 2001 and 2004, aimed at lowering employment costs and increasing flexibility in employment relationships. Measures adopted included the regulation of temporary workers, the reform of collective dismissals procedures, the introduction of the possibility of suspending collective agreements for three years if the employer is in a difficult financial situation, as well as a significant extension of the possibility to shape working hours and forms of employment depending on employer and employees needs.

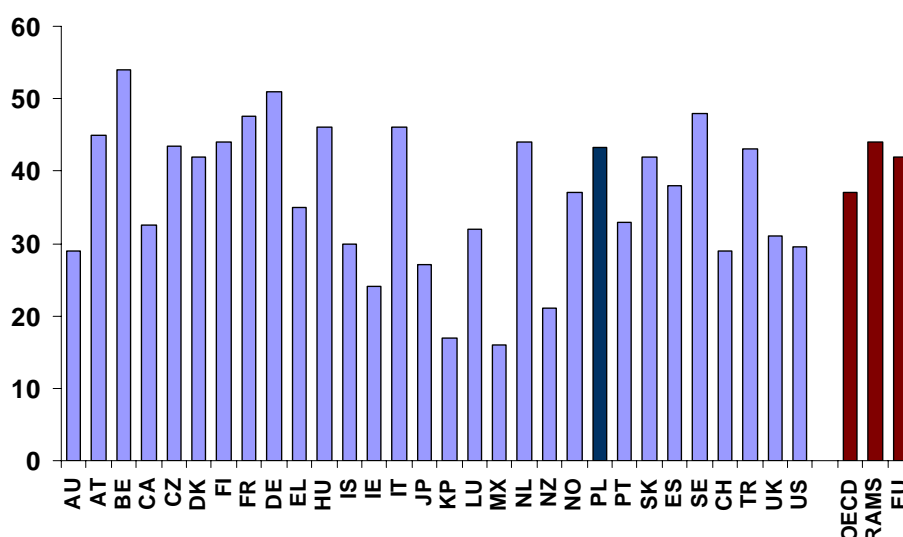
Chart 5.6: EPL strictness



Note: NO - Norway; CH - Switzerland; AU - Australia; CA - Canada; MX - Mexico; TR - Turkey; KR - Korea
 Source: OECD (2004)

Literature suggests that moderate minimum wages are not a problem. In January 2003, the Polish government introduced a law allowing for decreasing the minimum wage for new entrants to the labour market.⁴⁰ Employers could hire people not previously unemployed at 80 % of the national minimum wage in the first year and at 90 % in the second year. From January 2006, the reduced minimum wage is limited to one year. Compared to other Member States, a minimum wage, at about 36% of the average wage in 2005, is not high. However, the existence of a nationwide minimum wage limits downward flexibility in high unemployment regions, mainly rural areas, where usually low productivity workers are located.

Chart 5.7: Tax wedge for a single person without children



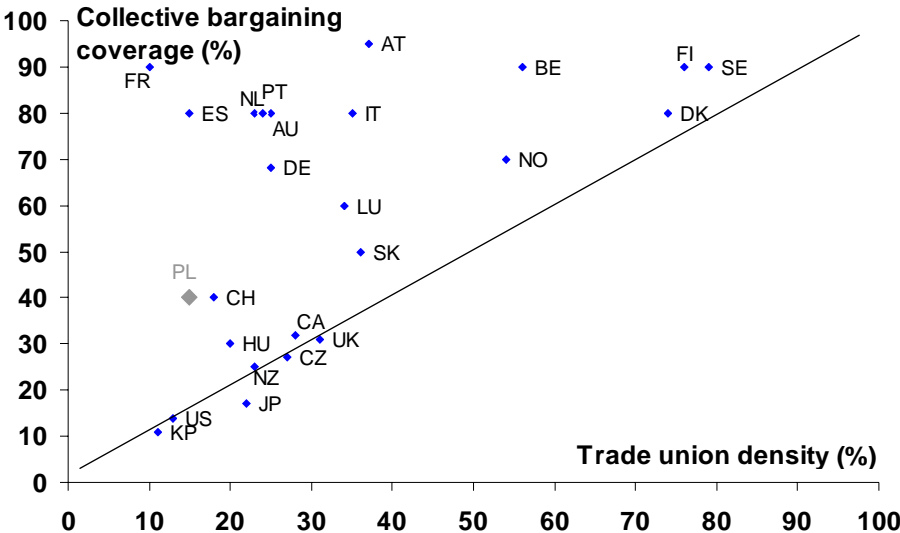
Note: NO - Norway; CH - Switzerland; AU - Australia; CA - Canada; MX - Mexico; TR - Turkey; KR - Korea
 Source: OECD (2005)

⁴⁰ A recent amendment to this act provides for the minimum wage to be increased each year by the forecast inflation rate plus 2/3 of the forecasted GDP growth rate, until it reaches 50% of the national average wage.

The high tax wedge represents a strong impediment to employment growth especially for low skilled workers. According to OECD (2005) data, the tax wedge in Poland (43.1%) is higher than the OECD (36.5%), the EU (41.4%) and RAMS-8 countries average (42.7%) (Chart 5.7). Although in the long-run, changes in labour taxation should be passed on to workers as lower wages, the evidence suggests that high payroll taxation might have depressed labour demand (Riboud et al, 2002). According to the World Bank, each percentage point increase in the tax wedge in RAMS-8 causes a decrease in employment growth of 0.5 to 0.8 p.p. (World Bank, 2005).

Ownership transformation since 1989 weakened employees' representation structures. Trade unions density, the ratio of trade unions members to the total number of employees, is currently ca. 15% in Poland, which is less than half of the EU average (36%). At the beginning of the economic transformation, it amounted to some 40%; this is the largest drop in the rate of unionisation in the EU-25. In May 1991, three Acts were passed on trade union and employers' organisations and the settlement of collective labour disputes⁴¹. The 1994 amendments to the Labour Code increased the importance of enterprise collective agreements and allowed for the conclusion of supra-enterprise agreements. In an international perspective, the level of unionisation in terms of both coverage and union density does not seem to be particularly high (Chart 5.8).

Chart 5.8: Union density and coverage, 2000



Source: OECD Employment Outlook

5.4 Conclusions

The unemployment rate rose continuously from 10% of the labour force in 1998 to a peak of 20% in 2002, owing to a combination of cyclical, demographic and structural factors. Since 2003, labour market conditions have been improving gradually and from mid-2005 at a rapid pace. The unemployment rate has fallen by about 4 percentage points to ca. 15½% in mid-2006, yet it remains the highest in the EU, reflecting the structural problems of the labour

⁴¹ Also, the rapid development of private entrepreneurship was not accompanied by a thorough process of association and representation on the employers' side. Under the 1991 law on Employers' Organisations, employers have the right to establish, without previous approval, any associations as they desire, and may become members of such organisations. Employers' unions, in turn, have the right to create federations and confederations. The law obliges employers' unions to participate in collective negotiations and agreements.

markets. Moreover, at 52.8% of the working age population in 2005, the employment rate was the lowest in the EU-25. This poor labour market performance hinders growth and catching-up. In order to remedy the situation this chapter draws the attention to the following issues:

1. There are significant heterogeneities in the dynamics of the Polish labour market. Young people and older low-skilled workers, especially with basic vocational education, were the groups mostly affected by the shocks of the 1990s.
2. From 1995, the delayed shedding of labour in state enterprises, encouraged by the strict rules for collective dismissals, and the fall in the labour supply influenced the overall labour market performance.
3. The fear of social consequences from the shock therapy led to a large volume of unconditional transfers that reduced the incentives to supply labour and increased the tax wedge. The liberal access to such benefits by able-bodied individuals contributed to reducing the supply of labour, while the generosity of the special social security system for farmers delayed the consolidation of agriculture and reduced geographical and occupational mobility.
4. The combination of benefit sharing and benefit dependency significantly constrains the speed of convergence from the labour supply side, while non-employment benefits influence the reservation wage and compress the wage distribution. The large volume of transfers also is responsible for the high level of the tax wedge, which can weigh on the demand for low-productivity workers.
5. The fall in employment and the increase in productivity reflected mainly the failure of the labour market institutions to take advantage of the sustained output growth rather than a binding trade-off. By delaying restructuring and by providing low incentives to mobility, existing labour market institutions may limit further productivity gains, which could stimulate labour demand.
6. The composition of human capital represents potential constraints on economic growth in the future. The high share of young people with vocational education and non-fungible skills creates important mismatches between demand and supply of labour. Similarly, the high share of graduates in social sciences may generate shortages of highly qualified technical competences.

6. The contribution of public finances to economic growth and employment

Poland has been running high deficits for the recent decade: an average general government deficit ratio reached 3.5% of GDP (pension reform cost not included) in 1996-2005. The debt ratio increased to 42.5% of GDP in 2005. Behind these developments is a high level of government expenditure. Generous social security commitments which are “fixed”, i.e. remain legally or politically binding for several years appear to be main factors behind persistently large general government deficits in Poland. Spending on social protection in Poland accounts for a disproportionately high share of total government expenditure compared to the other Central European Member States. Moreover, Poland has a high level of state aid relative to GDP, and horizontal aid, which is considered as less competition-distorting than sectoral and ad-hoc transfers, accounts only for a minor share of total state aid. High deficits undermine macroeconomic stability and put upward pressure on interest rate leading to a possible crowding out of investment. Furthermore, social spending hampers employment growth by discouraging taking up a job, the scope for increasing public investment in infrastructure and the provision of public goods.

High expenditure on social protection in Poland stems mainly from generous indexation rules, poor targeting of disability benefits, the special farmers’ pension and disability system and the existence of several early retirement schemes. The *Hausner plan* adopted in 2003 was the most important attempt at reforming, among other types of public spending, the benefit system since the late 1990s. While the measures adopted so far constitute steps in the right direction, the fiscal reform plan has been substantially watered down.

Between 1995 and 2005, Poland’s total taxes-to-GDP ratio has decreased by about 3 percentage points, following a dramatic decrease in direct taxation partially compensated by a parallel increase in employees’ social contributions and in VAT receipts. In particular, the corporate tax rate was gradually reduced from 40% in 1998 to 19% in 2004. While Poland compares well with the other RAMS and the EU-15 Member States as regards the overall tax burden and its statutory corporate tax rate, it is less well positioned in terms of effective tax rates, especially on labour. Poland has a large tax wedge on labour, the fifth highest among European OECD members, which discourages labour market participation.

This chapter is organised as follows. Section 6.1 examines the sources and implications for economic growth of high government deficits in Poland. Section 6.2 reviews public expenditure reforms in Poland since 1999, while section 6.3 provides an overview of Poland’s tax system and assesses the recent reform proposals.

6.1. Enhancing the contribution of public finances to economic growth

Cost of large government deficits in terms of lost output

Poland was an early-mover in the transition to a market economy: it implemented its ‘shock therapy’ in 1989-1990 and was quick to dampen hyperinflation and recover from the initial recession. The consistency of fiscal and monetary policies was crucial for these achievements (Van Wijnbergen and Budina, 2001). In early 1990s, a more rapid and extensive implementation of macroeconomic reforms in Poland compared to other new Member States resulted in faster output growth, stronger competitiveness and more rapid disinflation despite worse initial conditions (Lee et al., 2004). However, the political support for fast reforms declined rapidly and the pace of structural reform diminished as time passed. Among other

things, needed public finance reforms were not completed. In view of its past experience as well as the experience of peer countries, Poland has a strong potential for improving its growth performance by reducing government deficits decisively.

As already mentioned, the policy mix has been suboptimal for much of the period since 1995 (see chapter 1). There is in general a negative relationship between the level of public spending and the output growth as well as between public revenue and growth in the new Central-European Member States, attributed in both cases to deterioration of work incentives (World Bank, 2006). Stricter fiscal discipline would have also allowed lower real interest rates, including through a reduction in the country risk premium demanded by financial markets, thereby supporting domestic demand.

Empirical evidence points to a rather positive impact of fiscal consolidation on GDP growth in EU countries (Box 6.1) especially if based on expenditure cuts and if accompanied by a monetary expansion (European Commission, 2003; Giudice et al., 2003). “Non-Keynesian” effects can be generated when a budgetary consolidation creates the expectation that a solution is found for the fiscal problems. Credibility in economic policy increases and consequently monetary conditions can be eased. In these circumstances domestic demand may expand rather than contract because precautionary savings, set aside to finance future deficits, are reduced. In Poland, large persistent government deficits might have dampened private sector investment. The much better growth performance of the Baltic countries relative to that of the Visegrad countries (Czech Republic, Hungary, Poland and Slovakia) suggests that prudent fiscal policy and growth go hand in hand (Coricelli, 2005).

Box 6.1: Fiscal stance and growth

The long-run (1961-2004) panel estimations for the EU member states demonstrate a negative impact of government deficits on GDP growth (Table 6.1). To eliminate endogeneity (impact of changes in GDP on the budget through automatic stabilisers of business cycles such as tax revenues and social transfers), cyclically-adjusted government balances have been used as an explanatory variable. The impact of government borrowing on production and income may appear with some lag: on the demand side, because of the time needed to purchase goods; on the supply side, the lag may be even longer due to the lead time before investments result in a larger supply of final products. Results obtained from different specifications for cyclical adjustment and estimation methods are consistent. The impact is statistically significant and 1 percentage-point deterioration in the cyclically-adjusted general government balance leads to a decline in GDP growth between 0.09 and 0.33 percentage point (median: 0.21). The presented results are consistent with the findings of other studies (European Commission, 2003; World Bank, 2006).

Table 6.1: Fiscal stance and growth in the EU

Estimated impact of cyclically-adjusted general government balance (% of GDP) on real GDP growth (%) for the EU Member States, 1961-2005									
Adjustment based on:	Simultaneous impact	Observations	Countries	1-year lagged impact	Observations	Countries	2-year lagged impact	Observations	Countries
trend GDP (ESA95)	0.112***	475	25	0.115***	451	25	0.120***	426	25
trend GDP (pre-ESA95)	0.314***	386	15	0.328***	387	15	0.310***	387	15
potential GDP (ESA95)	0.097***	471	25	0.088**	447	25	0.090**	422	25
potential GDP (pre-ESA95)	0.295***	374	15	0.304***	375	15	0.293***	375	15

Note: Fixed-effects ordinary-least-squares regressions. Coefficients: * significant at 10%, ** significant at 5%, *** significant at 1%.

Source: Commission services (Ameco)

In the new Member States, fiscal consolidation contributed substantially to the acceleration of output growth already in the short term, according to Rzonca and Cizkowicz (2005) and Dabrowski (2005). The “non-Keynesian” effects of fiscal policy are supposed to be stronger

in the new Member States than in developed economies, as a consequence of a possibly considerable improvement in investors' confidence. Ricardian equivalence between financing of public spending through borrowing and through taxes appears to be relatively strong in Poland because tax payers faced short cycles of high government borrowing followed by high taxation. In these circumstances, government borrowing and taxation should be correlated positively rather than negatively, which is the case in Poland, as in several other new member States, while the correlation is mostly negative in the old Member States. The simultaneous correlation coefficient between general government borrowing (in % of GDP) and the tax burden (also in % of GDP) in the same years is +0.33 for 1995-2004. If the tax burden in the subsequent year is considered, the coefficient reaches +0.47.

Deficit spending can be socially costly and may not generate the desired welfare effects if postponing fiscal consolidation results in lower growth hampering the reduction of high unemployment in Poland (Kaas and Von Thadden, 2004). On the contrary, improvements in the primary balance achieved through expenditure reductions and declining government debt can contribute to higher levels of social development⁴² in the medium run, as observed in the old cohesion countries (Greece, Portugal, Spain and Ireland) in 1980-1999 (Mehrotra and Peltonen, 2004). In addition, high deficits may undermine the hard-earned credibility of monetary policy if interest rates are not adequately increased to compensate for growing country risk. High inflation will re-emerge and monetary policy credibility will be lost (Van Wijnbergen and Budina, 2001; Borowski and Brzoza-Brzezina, 2004).

The composition of public expenditure matters for growth dynamics.

Chart 6.1: Poland and EU-7: Composition of general government expenditure

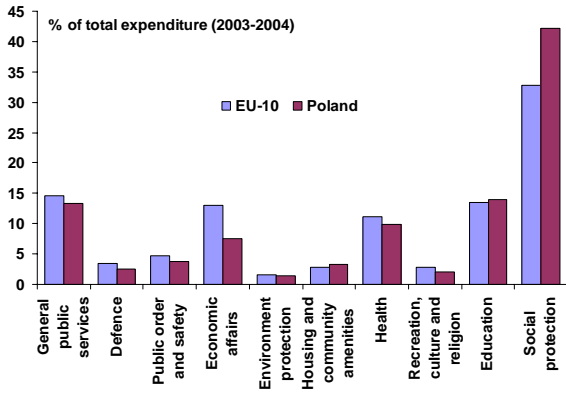
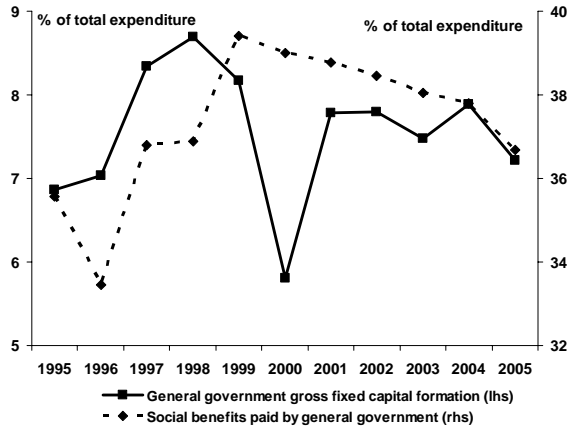


Chart 6.2: Poland: General government social transfers and investment



Note: EU-7 – unweighted average for: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Slovakia, and Slovenia. Classification based on COFOG definitions.

Source: Commission services (Ameco), Eurostat,

Unproductive expenditure does not increase physical or human capital and is strongly and negatively associated with growth in the new Central-European Member States (World Bank, 2006). Productive expenditure e.g. general public services, education, housing, transport and communication have a positive impact on growth, but even these types of public spending, if

⁴² Mehrotra and Peltonen (2004) constructed a synthetic development index comprising the quality of health protection, infrastructure, environment and education. Their index is similar to the United Nations' Human Development Index (HDI) but, unlike the HDI, does not include GDP.

excessive, can become unproductive (World Bank, 2006). In particular, reduction of social expenditure is expected to contribute to faster growth of potential GDP because of increased incentives to supply more skilled labour (Box 6.2).

Box 6.2: Impact of high social spending on growth

A seminal overview of the long-run impact of social transfers in the US (Danziger et al., 1981) showed that these expenditures reduced aggregate labour supply by 4.8% and reduced private savings by up to 20%, whereas the redistributive effects were smaller than expected because of dynamic effects: transfers decreased incentives to work and, thus, increased net-of-transfer poverty. The identified labour-supply loss corresponded to ca. 3.5% lower earnings. An additional increase in the level of transfers (above that present in the US at that time) could lead to even less favourable equity-efficiency trade-off: poverty would be reduced only minimally (because additional payments would target recipients who were relatively far from the poverty line) but the loss in labour supply and earnings could be even higher (because those earning relatively more could leave the labour market). A research encompassing all OECD countries (Arjona et al., 2001) found that more social protection expenditure influenced growth negatively in general. However, ‘active’ social spending (promoting labour market participation) supported growth, whereas other, ‘passive’ social spending (direct and unconditional income transfers) was correlated with lower income growth. In order to reduce income inequalities, ‘passive’ expenditure should be avoided as they come at a cost of slower growth and, furthermore, have the perverse effect of stabilising inequality at a high level rather than reducing it.

Panel estimations for the EU countries in Table 6.2 confirm the trade-off between social expenditures and growth. One additional percentage point in the social spending to GDP ratio appears to have been reducing potential GDP growth by more than 0.1 percentage point on average. The simultaneous impact is of a similar magnitude as the impact of investment (which influences potential GDP growth positively, as expected).

Table 6.2: Social security and growth in the EU

Estimated impact of spending on social benefits (% of GDP) on potential growth (%) for the EU Member States, 1961-2005		
	Simultaneous impact	1-year lagged impact
Social transfers other than in kind (% of GDP)	-0.120***	-0.121***
Gross fixed capital formation (% of GDP)	0.117***	0.049**
Observations	469	452
Number of countries	25	25

Note: Fixed-effects ordinary-least-squares regressions. Coefficients: * significant at 10%, ** significant at 5%, *** significant at 1%.

Source: Commission services (Ameco)

Compared to other Central European Member States (EU-7), the composition of government expenditure in Poland is strongly biased towards social protection (Chart 6.1). In 2003, its share in total general government was over 43% in Poland, i.e. almost 11 percentage points above the EU-7 average. As a result, public expenditure on other functions was evidently lower in Poland, especially health (60% of the EU-7 average) and public order and safety (50% of the EU-7 average). This is reflected in insufficient supply of medical services, the indebtedness of the public healthcare sector as well as the malfunctioning of the judiciary (EBRD, 2005).

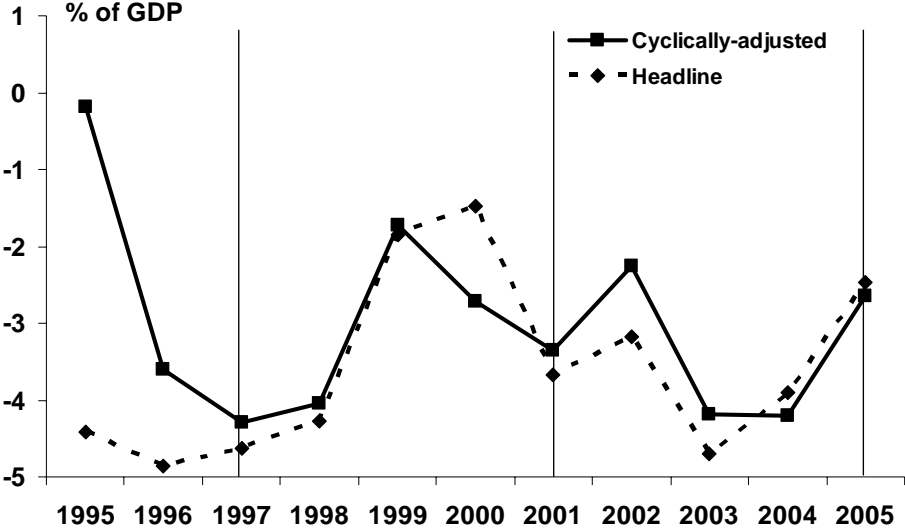
High social spending provides less room for increasing public investment in Poland (IMF, 2005), needed to improve infrastructure (such as motorways, railways or sewage cleaning plants) which is absent or obsolete. In 1999-2000, when the share of social benefits in total general government expenditure reached a peak, the share of public investment plummeted (Chart 6.2). Since 2001, public investment (as a % of total expenditure) has remained below levels observed in late 1990s, while social spending has been declining slowly, but remains

above levels of the mid-1990s. Present levels of social transfers represent the largest challenge to budgetary consolidation and to the long-term sustainability of public finances as there are important equity and efficiency considerations to take into account with implications for growth, employment and social cohesion.

Main factor behind persistently high government deficits: strong public expenditure growth

It appears that Poland’s high general government deficits resulted mainly from the policies pursued rather than business cycles (Chart 6.3). In 2003-2004, the structural component of the general government deficit levelled off at about 4% of GDP. Poland belongs to the group of ‘new democracies’ with strong political budget cycles, which is attributable to lack of experience or information by voters in less mature democracies (Brender and Drazen, 2003). The cyclically-adjusted deficit, which reveals the impact from structural factors and discretionary policy decisions, appears to be subject to a 4-year election cycle in Poland: deficits increase in the parliamentary election years of 1997 and 2001, but not in 2005.

Chart 6.3: Poland: General government balance

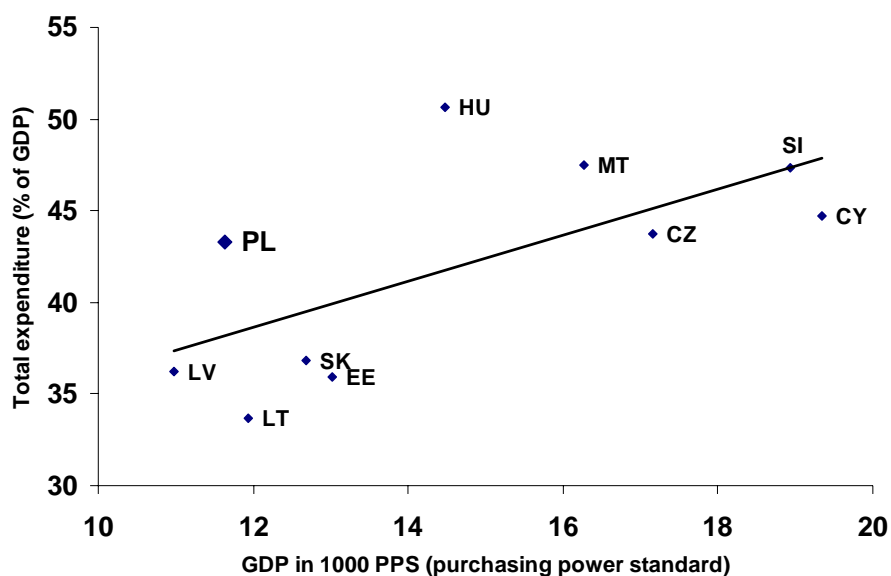


Note: ESA95 definition. Cyclical adjustment based on potential GDP. One-off revenues from mobile phone licences (UMTS) are not included.

Source: Commission services (Ameco)

The fiscal regime in Poland has been ‘expenditure-led’ which has entailed adjusting tax revenues to the planned levels of government expenditure (Green et al., 2001). The size of public employment was constant - while it declined in the Czech Republic and Hungary - despite the declining share of the public sector in the supply of goods and services (OECD, 2004). The level of general government expenditure has remained high: in 2004, it amounted to more than 42% of GDP, that is almost twice as high as the world average for countries at a comparable level of economic development (Rapacki, 2005). This is also high compared to other new Member States, considering the level of economic development (Chart 6.4), being an example of an unsustainable ‘premature welfare state’ (Kornai, 1992; World Bank, 2006). An expenditure rule encompassing general government, which includes the social security sector, may complement the national rules on public debt and the EU’s fiscal framework (Box 6.3).

Chart 6.4: New Member States: government expenditure and GDP per capita in 2005



Source: Commission services (Ameco)

Box 6.3: Improving expenditure management: does Poland need an expenditure rule?

National expenditure rules can supplement the EU fiscal rules in several ways. Firstly, they address the principal source of the fiscal imprudence: political and institutional bias to raise expenditure in good times. Secondly, they support automatic stabilisers by helping prevent tax increases in economic downturns. Thirdly, they can contribute to improving the quality of public spending because, under a binding ceiling, less needed expenditure will have to be reduced to provide room for more desirable expenditure (European Commission, 2005a). Simulations for the EU economies suggest that fiscal consolidations are likely to be expansionary (i.e. stimulating GDP growth) already in the short run, if they are based on expenditure cuts rather than tax hikes (European Commission, 2003).

Poland has national fiscal rules concerning the state budget and the debt. The Polish Constitution (Art. 216.5) stipulates that the public debt (national definition) shall not exceed 60% of GDP. In addition, Art. 220 of the Constitution states that only the government is allowed to increase the level of the deficit, while parliament may only modify the composition of revenue and expenditure. The Polish Public Finance Act (Art. 79) sets additional safety thresholds and adjustment requirements: if the public debt is higher than 50% of GDP, but below 55%, the draft budget for the following year must not propose a higher deficit-to-revenue ratio than in the current year. This constraint applies also to local governments. If the debt is between 55% and 60% of GDP, the draft budget for the following year must not propose a deficit that would increase the level of the debt. If the debt exceeds 60% of GDP despite the previous safeguards, any government borrowing is forbidden in the subsequent year, which means that the state budget should be balanced or even in surplus.

The sanctions associated with breaching the second, and especially, the third threshold provided for by the Polish Constitution and the Polish Public Finance Act are so harsh that they might be unfeasible in reality. This undermines the credibility of these fiscal rules. It should also be stressed that the Polish definition of the public debt is broader, i.e. more restrictive than the excessive-deficit-procedure (EDP) definition (Polarczyk, 2004). Therefore, according to the former, the debt ratio relevant for the application of national rules is significantly higher compared to that relevant for the EDP (by more than 5% of GDP). The incorporation of the EDP definition of general government debt into the Polish law is now being discussed. It will make the critical thresholds more remote and allow for a continuation of high general government deficits. Therefore, an additional fiscal rule may be necessary to eliminate and avoid persistently high deficits.

Two fiscal rules, which were proposed in Poland, have attracted some attention. According to the *Belka rule* proposed in 2001, real growth of public expenditure should not exceed 1% per year. The rule refers to the state budget only and has never been adopted. A four-year nominal deficit “anchor” is mentioned in the 2005 update of the convergence programme, also covering only the state budget.

Effective fiscal rules should respond to a few criteria (European Commission, 2005). Firstly, the rule should be binding i.e. incorporated into law, preferably the Constitution. Secondly, in order to prevent shifting deficits to agencies and funds or local municipalities outside the state budget, the rule should encompass general government. Thirdly, the rule should cover a sufficiently long period to reduce the opportunities for shifting expenditure and revenue across calendar years. Fourthly, the rule should be designed to target the source of imbalances, namely high expenditure. Unlike revenue, government expenditure depends more on discretionary decisions of policy-makers. Expenditure rules may help to eliminate excessive deficits, without increasing the tax burden. As regards social expenditure, it is important to ensure that ceilings are not too high, because they may be legally-binding for many years.

In addition, it has been suggested that expenditure rules should be specified as a real rate of growth rather than as an absolute value or a share of GDP to make them anti-cyclical. With expenditure growth set at a reasonable level, expenditure can increase faster than GDP during slowdowns, while it is capped below the rate of GDP growth during good times.

6.2. Public expenditure reforms in Poland

Fiscal reform attempts since 1999

Since 1999, a number of fiscal reform attempts have failed at different stages due to political lobbyism and inadequate political determination (IMF, 2004). Excessive, mainly social, expenditure has been identified as the root of the fiscal problem. Each year since 2000, the finance minister resigned when his efforts to incorporate reforms into the budget met with political resistance and the government temporarily gave in to pressure.

The 1999 *Balcerowicz strategy* aimed at reducing the general government deficit below 1% of GDP and public debt below 30% of GDP by 2003. The strategy proposed restraining current expenditure but the tax reform was the core of the strategy. The ambitious tax changes were partially vetoed by President Kwasniewski (see section 7.3.). As growth slowed in mid-2000, fiscal slippages emerged, political support for reforms faded, and the ruling centre-right coalition lost its majority in 2000. Still before the 2001 elections, social expenditure cuts of about 1.3% of GDP and an increased control of extra-budgetary expenditure were planned. All these proposals were finally rejected because of the impending elections. Making both policy-makers and the general public aware of the serious current and prospective situation of public finances was the main fiscal achievement of the centre-right coalition. However, because of the political cycle, the structural deficit rose and fiscal reforms came to a standstill. In 2001, the *Belka rule* was suggested. It aimed at limiting the real growth of central government expenditure to 1% (Box 6.1). However, the rule never came into force. The *Kolodko package* of 2003 focused on one-off measures to increase revenue (one-off payments from enterprises in exchange for cancellation of their tax arrears).

The *Hausner plan*, the most comprehensive and specific attempt at expenditure reform so far, was proposed in 2003; it aimed at reducing public expenditure on social protection, public administration and state aids. The initial expected budgetary impact of the plan amounted to PLN 50bn (4.7% of GDP) over the full programme period (2004–2007). The plan underwent extensive public consultations and gained some political support. However, the political

support for the plan has been declining. Consequently, only some of the planned measures have been adopted. According to a report endorsed by the Polish government, 56% of the plan was implemented by May 2005,⁴³ with an expected budgetary impact estimated at PLN 28.1bn (2.8% of GDP) over 2004–2007: 72% of planned savings in the area of public administration spending and state aids have been achieved, while savings in the social part have reached 46%. Full implementation and enhancement of these measures would significantly improve the situation of public finances in Poland.

The *four-year nominal anchor* of PLN 30bn (3% of GDP in 2005) for the state budget, introduced in the January 2006 convergence programme, is aimed at tackling the problem of the excessive deficit. The anchor is a move in the right direction but it has a number of shortcomings. It has not been implemented as a law which reduces its credibility. It covers the state budget only and thus allows for shifting deficits to other parts of the general government sector. It is also not very ambitious: at the current level of the nominal anchor and a nominal GDP growth outlook of around 6-7%, it may not be sufficient to realise the declared goal of complying with the convergence criteria by 2009. Indeed, including the pension reform costs, the initial deficit level is close to 5% of GDP and just sticking to the nominal anchor for the state budget leads to a deficit reduction of merely 0.2-0.3 % of GDP per year. In addition, the anchor does not target the causes of high deficits in Poland, i.e. too fast growth of public expenditure. Consequently, addressing the shortcomings of the anchor or implementing some additional fiscal rule aiming at controlling the increase in government expenditure would be beneficial (Box 6.3).

The present government has also planned introducing *task-oriented budgeting* by 2009 for some of the budgetary expenditure. This measure is expected to reduce unnecessary expenditure and allocate the saved funds to the most needed projects. "Task-oriented budgets" should, at least partly and gradually, eliminate the currently dominating "indicative budgeting" (increasing expenditure between years by some indicator) which hampers moving to a more efficient composition of expenditure. If implemented consistently for a large part of public finances, this change may contribute both to an improvement of the fiscal situation and to strengthening of structural reforms (e.g. in the labour market) through concentration of resources where they are really needed.

Causes of high spending on social protection and policy responses

The high share of social expenditure in Poland results to a large extent from generous indexation rules for pensions and social benefits not related to government revenues or economic growth. However, the *Hausner plan* has reformed indexation mechanisms and strengthened their economic justification: indexation will take place if the cumulated inflation since the previous indexation is over 5%, but the interval between two indexations cannot exceed 2 years. This change was adopted by parliament and can be regarded as the main achievement of the plan (33.6% of total savings in 2004-2007).

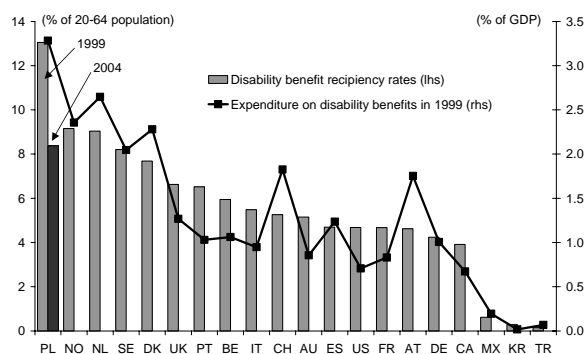
Social spending is poorly targeted in Poland. Among the OECD countries, it still has one of the largest shares of people entitled to partial or full disability benefits and, hence, a high ratio of expenditure on disability benefits (Chart 6.5) despite some reforms in recent years. Eligibility criteria and monitoring of the official medical examinations, which were often

⁴³ Even this ratio was based on the assumption that the implementation of the plan would continue until 2007 as planned in an updated version. This assumption might have been too optimistic because of different policy priorities of the new government formed after the autumn 2005 elections.

biased due to corruption (Praczyk, 2005), have been made more stringent for new beneficiaries but the accumulated pool of old rights has not been scrutinised. Reforms have only been partly implemented in this area because some of the proposed bills have not been approved by parliament. The inspection of disability of people with a permanent right to benefits has been rejected, as well as the replacement of the ‘passive’ system of subsidies for firms employing people with disabilities with a more ‘active’ system⁴⁴, including co-financing projects supported by the European Social Fund. The situation has been improving but further and more radical reform is needed. Furthermore, “decreasing importance of disability benefits seems to be almost entirely compensated by early retirement benefits” (Ministry of Economy and Labour, 2005, p. 139; Chart 6.6).

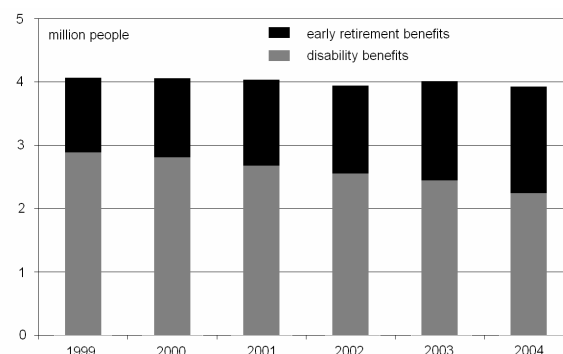
The Polish disability and pension scheme for farmers (KRUS) is actually a social welfare scheme, because fees are small and fixed. The system is an impediment to restructuring of Polish agriculture and rural areas: it discourages farmers from leaving this sector despite low income and, hence, impedes the improvement of productivity. KRUS relies principally on state subsidies rather than contributions. These transfers amounted to almost 7% of total expenditure of the state budget in 2005. The proposals to reform KRUS has not been accepted by parliament.

Chart 6.5: Polish disability benefits and reciprocity rate in perspective



Note: NO - Norway; CH - Switzerland; AU - Australia; CA - Canada; MX - Mexico; TR - Turkey; KR - Korea
Source: OECD, Ministry of Economy and Labour (2005)

Chart 6.6: People receiving disability benefits and early retirement benefits in Poland



Note: Age group: between 45 years and retirement.
Source: Ministry of Economy and Labour (2005), p. 139

Because of ongoing transition and productivity catching-up, unemployment is high in Poland which spends much on unemployment benefits and which led to many sectoral early retirement schemes. There were plans to increase the retirement age for women (less than 50 years old) and to introduce a flexible retirement age. Although this proposal would have not translated directly into expenditure cuts in 2004-2007, it was expected to improve significantly Poland’s fiscal prospects by 2010 and beyond. These plans have not been carried out.

State aid

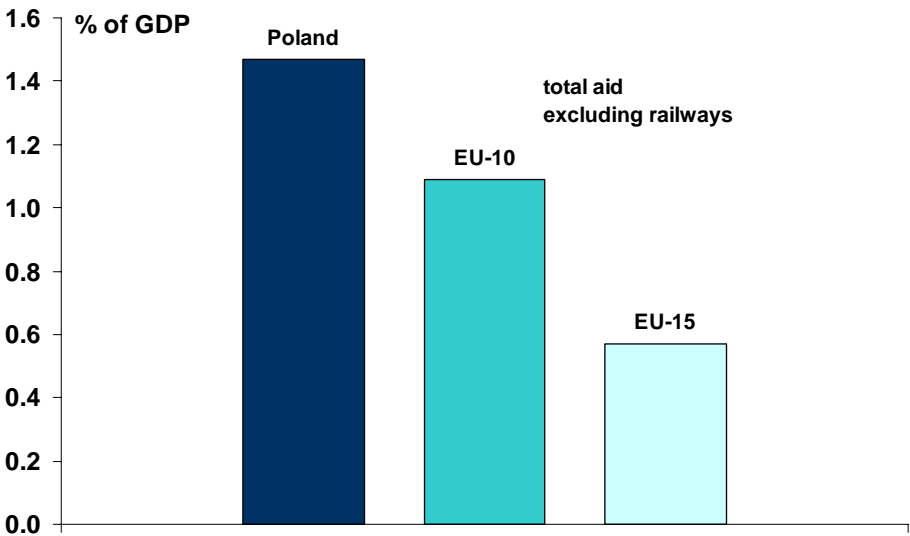
Poland spends relatively more on state aid compared not only to the EU-15 Member States but also in comparison with the new ones (Chart 6.7). The high level of state aid in Poland results mainly from its large heavy industry sector inherited from the previous economic

⁴⁴ Such as training, advising, subsidised loans for starting entrepreneurial activity and promotion of distance working, etc.

system and still undergoing restructuring (European Commission, 2005b). Poland has by far the largest coal industry in the EU and produces far more than the rest of the EU together. Considering the specific situation of this industry in Poland, the Commission approved a long-term restructuring plan amounting to EUR 1.5bn for the period 2004–2006. Whereas the state aid to the steel sector has fallen dramatically in the EU-15 since the mid-1990s, Poland continues to allocate significant amounts to this sector (EUR 500mn in 2003, but none in 2004). As far as other sectoral aid is concerned, the state support to the shipbuilding sector in the EU in 2004 was estimated at EUR 540mn and it was granted mainly by Germany (27%), Italy (24%) and Poland (22%).

State aid for horizontal objectives, i.e. aid that is not granted to specific sectors, is usually considered as less competition-distorting than sectoral and ad-hoc transfers, as well as targeting market failures. Only a minor share of state aid in Poland (26%) is earmarked for horizontal objectives. In twelve EU Member States more than 90% of all the aid granted in 2004 was horizontal. In the Central European Member States, 100% of state aid in Estonia and Latvia was horizontal, 82% in the Czech Republic, 70% in Slovenia, 49% in Lithuania, 48% in Hungary and 35% in Slovakia. In particular, state aid targeting R&D – which promises the highest returns – was only 1% of total state aid in Poland in 2002–2004, compared to an average of 8.2% in six Central European new Member States.

Chart 6.7: The relative size of state aid in Poland, EU-10 and EU-15 in 2004



Source: European Commission (2005b)

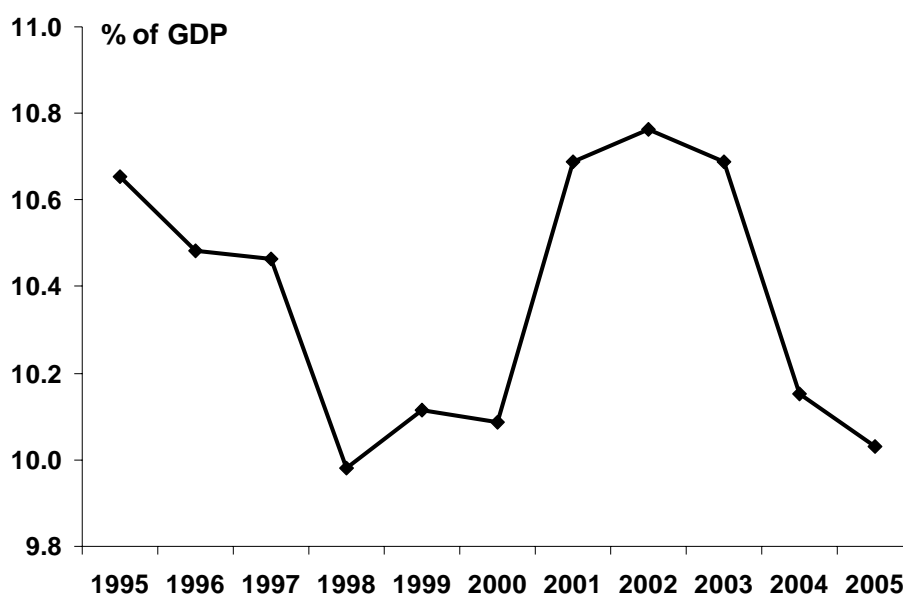
The administrative reforms dealt with high but ineffective state aid concerning coal mining, healthcare and railways. The restructuring of coal mining encompassed employment reductions and mine closures. This reform yielded almost 40% of the savings in 2004. However, it is expected to play a less significant role in subsequent years (5.7% of savings in 2005, declining to 4.2% in 2007). The healthcare providers were going to be transformed into public utility companies with a stricter ownership control. This reform has been rejected by parliament. The implementation of the measures on railways has not yet been completed.

Spending on public administration

General government expenditure on compensation of employees relative to GDP has been declining in Poland especially in 2003-2005 (Chart 6.8). In 2005, it almost reached the record low level of 1998 and was about the average ratio for other Central European Member States (10.0% of GDP). The reductions in spending on public administration included in the some previous reforms seem to have gone in the right direction: in most cases, they aimed at eliminating redundant institutions or entire categories of inefficient subsidies and not just reducing the level of transfers.

The new government plans reducing spending on public wage bill in parallel with creating a number of new institutions. The reduction of wages and salaries in public administration can produce mixed or negative results. In Poland, according to the 2005 budget bill, wages and salaries constituted less than 4% of total expenditure of state budget. The proposal to cut this expenditure should be assessed carefully. Higher wages may attract relatively skilled human capital to the government sector and motivate it to concentrate on their core activities, which should raise the quality of public output, e.g. tax revenue collection (Haque and Sahay, 1996). All in all, drastic reductions in spending on administration may worsen the government balance because of lower productivity of public officers due to adverse selection, encouraging the take-up of additional jobs or even corruption.

Chart 6.8: General government expenditure on compensation of employees in Poland



Source: Commission services (Ameco)

6.3. Taxation in Poland

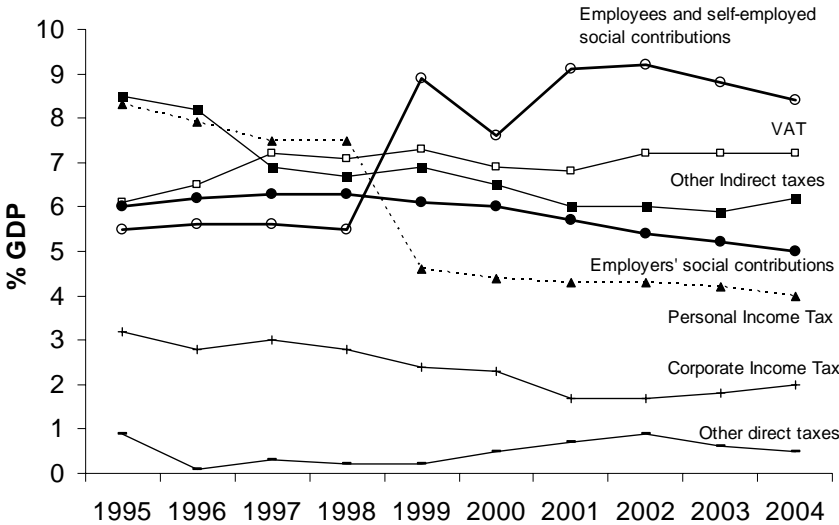
The road towards a modern tax system in the 1990s

By historical standards, the Polish tax system is relatively recent. Until the fall of the Berlin Wall, Poland had two parallel tax systems: one for public bodies and cooperatives and another one for the private sector and individuals. In addition, a large share of taxes was made up of lump-sum payments (Etel, 2002). Poland also had a tax system that taxed several activities under specific regimes only, leading to a complex system of taxes with large exemptions and

loopholes. Some taxes - such as the turnover tax as a predecessor of the value-added tax - were old-fashioned. In 1992, both the corporate tax rate (introduced in 1989) and the top marginal personal income tax rate (introduced in 1992) stood at 40%. To be fair, most developed countries had similar if not higher rates in the early 1990s but, by today's standards, such levels appear high. During these days, Poland not only had high taxes but also an expensive social system. Social insurance contributions were levied at a high 43% rate on gross salaries, with the totality of the burden falling exclusively on employers. Such a system was rather inadequate as it lacked both efficiency and neutrality properties. In a nutshell, the Polish tax system was found to be harmful to employment, to lack neutrality with respect to investment decisions, and to be complex with too many loopholes (Lenain and Bartoszek, 2000).

Since then, several reforms have radically transformed the Polish tax system. The turnover tax was repealed in July 1993 and replaced by a modern VAT system. Its standard rate stands at 22% and there is a reduced 7% rate for some specific goods (such as food products, some books, newspapers, services related to agriculture, etc.). In addition, in the context of its accession negotiations, Poland secured several transitional arrangements, such as being allowed to apply the reduced rate to restaurants and construction and a zero rate on books until end 2007, as well as a super-reduced rate of 3% on agricultural products and foodstuff until April 2008.

Chart 6.9: Evolution of the tax burden



Source: European Commission (2005c)

The speed of reforms picked up in September 1998, when the Polish Ministry of Finance issued a white book on taxes, calling for radical changes in the tax system. One important element of the proposal was to introduce a flat tax at 22% on all revenues, while suppressing at the same time most exemptions, exonerations and other forms of tax rebates. After long debates, parliament adopted a reform in 1999 but President Kwasniewski refused to sign the law on personal income taxation, only approving the one on corporate income taxation.

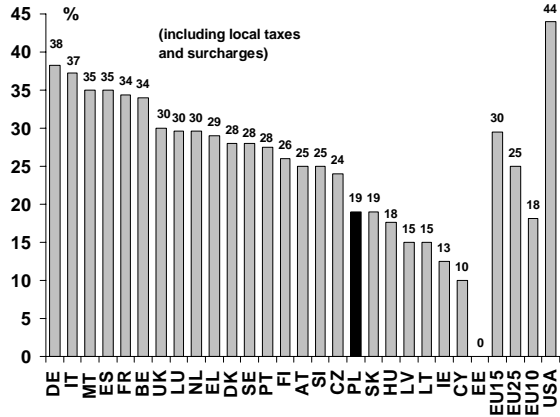
Consequently, the corporate tax rate was progressively reduced from 40% in 1998 to 19% in 2004, while the personal income tax remained a progressive system with three brackets at 19%, 30% and 40%. As envisaged by the white book, the 1999 reform of corporate taxation was accompanied *inter alia* by the abolition or the diminution of several investment

allowances as well as a drastic change in depreciation allowances. Tightening the possibilities for companies to shift profit abroad, Poland introduced thin capitalization rules in the same year to disallow the deductibility of interest payments on debt exceeding three times the size of equity. Not all preferential tax regimes were scrapped though. As one of the few regimes left from accession negotiations, Poland was allowed to keep its Special Economic Zones (created in 1994) until 2017 at the latest. Investment in these zones benefits from specific regional aid.

As a result of these changes, today’s Polish corporate tax system is a classical tax system in which profit is taxed both at the company level (corporate income tax rate of 19%) and at the shareholding level (in the form of a 19% withholding tax, creditable for resident corporate shareholders only).

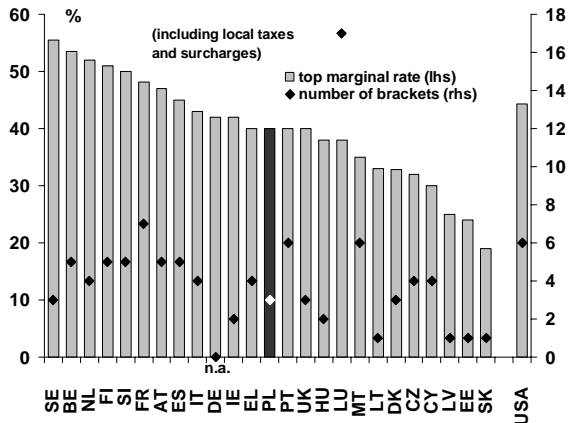
To be complete, this reform was accompanied by a large reform of social security in 1999, which split more equally the burden of contributions between employers and employees, in addition to increasing the sustainability of the system. This led to a drastic shift in the composition of tax receipts.

Chart 6.10: Statutory corporate tax rates, 2006



Note: Estonia: rate on reinvested profit; 26% if distributed.
Source: IBFD

Chart 6.11: Top marginal personal income tax rates, 2005



Source: IBFD

Evolution of tax receipts: a shift from direct income taxes to employees’ social contributions

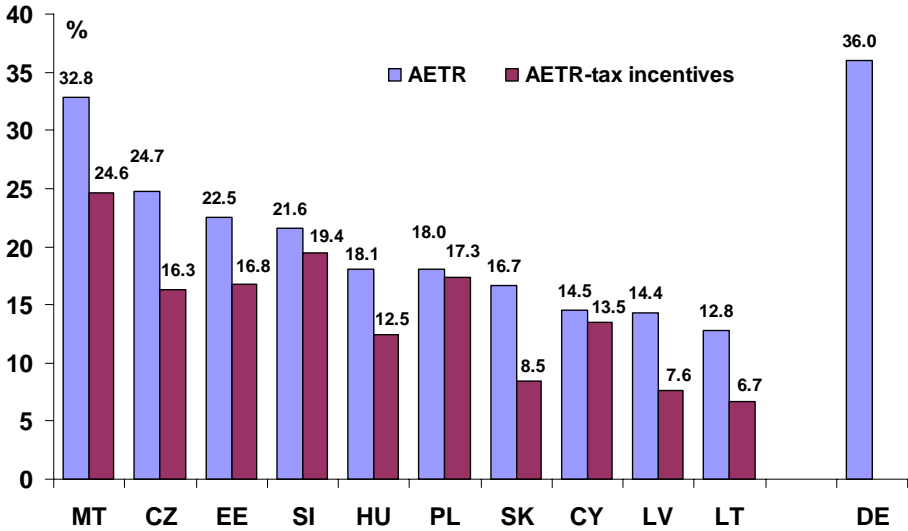
Over the last decade, Polish taxpayers have seen their overall tax burden decrease by about 15%. In 2005, Poland’s ratio of total taxes and social contributions to GDP stood at 34.8%, 2.5 percentage points lower than in 1995. This leaves Poland below the EU-25 arithmetic average of 40.3%. Such a result was achieved via a drastic decrease of direct taxation (i.e. personal income and corporate income taxes), with partial compensation through a parallel increase in employees’ social contributions and in VAT receipts (Chart 6.9). Social security contributions and indirect taxes are now the two main sources of revenues, both at about 40% of total taxes and social contributions in 2005. This situation contrasts with the 40%-30%-30% shares of indirect taxes, direct taxes and social security contributions that prevailed in 1995. Such a shift is actually a trend shared by many RAMS. The central government and the social security funds collect about 90% of these receipts, before some part is transferred to

lower levels of jurisdictions (Lenain and Bartoszek, 2000). This indicates a high level of fiscal centralism.

Taxation in Poland in international perspective

The successive cuts in the statutory corporate tax rate have brought Poland into the club of Member States with low statutory taxes on corporate profit. Its 19% statutory rate is slightly above the 18.2% average for the ten RAMS but is at par with its central European neighbours and remains well below the German and most ‘old’ European Member States’ rates (Chart 6.10). Similarly, Poland has a top marginal personal income tax rate that is close to the European mean and its system is moderately progressive with only three tax brackets (Chart 6.11).

Chart 6.12: EU-10 and Germany: Average effective corporate tax rates, 2004



Source: Ernst & Young et al (2004)

Statutory rates are however only half of the story. They may well have a signalling effect for investors and individuals in their economic behaviour but tax authorities have many possibilities at their disposal to shape the tax base on which the statutory rate will be applied. Investigating this avenue, Poland sees its rank deteriorating in terms of labour taxation. Indeed, when looking at effective tax rates on labour, Poland continues to display a large tax wedge (including all taxes and social contributions), ranking 5th amongst European OECD members (see chapter 5). Poland’s situation in company taxation is more mixed. The average effective corporate tax rate, which is a summary measure of the average tax burden carried by various types of corporate investment using various types of financing, reflects Poland’s position as a middle-of-the-road country amongst the EU-10 countries. Interestingly, the average effective tax rate (as reported by Ernst & Young and ZEW, 2004) for 2004 stood at 18%, very close to the 19% statutory rate, indicating that the Polish corporate tax base does not allow for large exemptions or exonerations. Furthermore, when one takes into account specific tax incentives available in the various RAMS - the Polish incentives being an accelerated depreciation in the first year of the acquisition of some assets and the special economic zones – the Polish average effective corporate tax rates decreases by a meagre 0.65%. This is unlike other RAMS for which tax incentives have a much larger effect (Chart 6.12). This is not to say that Poland shall create new tax incentives. Indeed, these create inefficient loopholes and harm neutrality. The planned phasing-out of these special tax

incentives across Europe will correct the situation. Running average amongst RAMS for effective corporate taxation still makes Poland in a competitive position compared to old member states. Any tax reform shall rather focus on reducing the large tax wedge on labour and make work pay.

The future of taxation in Poland

The 2005 presidential and legislative campaign brought the flat tax issue into the political debate with the introduction of a uniform 15% flat tax as focal point. In the domain of personal income taxation, it would replace the current multiple and progressive rates system. More recently, the government proposed a series of tax measures claimed to be revenue-neutral⁴⁵. The government intends to reduce the labour tax wedge thanks to a cut in employee social security contributions for the disability fund and the sickness fund. In addition, the government has announced the indexation of personal income tax brackets (frozen since 2001) from 2007 and a plan to move from 2009 to a two-bracket personal income tax system (at 18% and 32%). With the lower bracket covering a vast majority of tax payers, this proposal comes close to a *de-facto* flat tax system.

Given the difficult situation of Polish public finances, it is important to consider the budgetary consequences of such reform. There are both static and dynamic effects to be taken into account. The reform of the tax rates would potentially lead to revenue losses, the quantification of which is however difficult to estimate. From a dynamic point-of-view, one should take into account the increase in personal income tax collected due to a decrease in the undeclared economy, an increased number of jobs and maybe an increased number of hours worked, as well as decisions by individuals as whether to incorporate or not. The recent experience in Slovak Republic suggests that such effects may have a non-negligible impact, although not sufficient to offset the losses from reduced tax rates. Based on the Slovak example, the combined result of both static and dynamic effects could result in a loss of personal income taxes collected in the range of 10-15%, would a single tax rate of 18% be introduced. However, any estimate should be viewed with extreme caution. Assessing the dynamic impact of these changes is extremely difficult in the absence of a proper model, especially because both taxes interact via incorporation decisions⁴⁶, themselves based on the differences between the two rates. Moreover, these estimates do not take into account further issues such as profit shifting, location decisions, changes in profitability, and changes in financial structures.

Box 6.4: Flat taxes

While the tax proposals in Poland are not to be considered as an outright introduction of a single tax rate levied on the different types of taxable bases, the contemplated simplifications are steps into the direction of the introduction of a flat tax. This box puts into perspective the issues at stake.

The concept of flat taxes is not a new one. The flat tax debate started in 1985 following the release of Robert Hall and Alvin Rabushka's "The Flat Tax" book and regained vigour in the last few years with the adoption of such a system by more countries. Most scholars date the beginning of flat tax experiment to 1994 in Estonia, which introduced a single uniform rate of 26% on personal incomes.

⁴⁵ Mainly financed by a rise in excise duties and the removal of some personal income tax relied linked to housing.

⁴⁶ Several studies point to an effect of either the level of corporate taxation or its difference with personal income taxation on the decision of people who are self-employed or in a partnership to incorporate as to benefit from more advantageous tax burdens.

Actually, some UK dependent territories seem to have introduced such a system as early as the 1940s. Today, at least thirteen countries (of which 4 current Member States) have introduced a flat tax, but the detailed provisions vary a lot across countries.

Flat taxes are particularly attractive because their proponents usually propose low levels of tax rates. However, one problem with this is that the low rates are not by themselves a characteristic of the flat tax. For example, a progressive tax system with two rates at 10% and 20% could be more attractive than Lithuania's flat tax of 33%. Another argument is that flat taxes are attractive because they are transparent and easy to administer. Transparency is indeed an interesting feature of the flat tax, notably because each worker knows about his marginal tax rate (something more difficult in a progressive tax system). Flat taxes are also easy to administer because they are usually accompanied by a removal of most (complex) tax deductions. However, it is difficult to quantify the exact saving by tax administrations and the few studies available so far tend to give (maybe unrealistically) high estimates.

Table 6.3: Flat taxes on personal income in the world

Country	Rate	Year of introduction
Jersey	20% ¹	1940
Hong Kong	16% ²	1947
Guernsey	20%	1960
Estonia	26% ³	1994
Lithuania	33% ⁴	1994
Latvia	25%	1995
Russia	13% ⁵	2001
Serbia	14% ⁶	2003
Ukraine	13%	2004
Iraq	15%	2004
Slovakia	19% ⁷	2004
Georgia	12%	2005
Romania	16%	2005

Notes:

1 Applied to personal and corporate incomes for both Jersey and Guernsey. None have VAT. The Channel Islands do not tax dividends, interest or capital gains.

2 Taxpayers have a choice between being taxed at a 16% flat tax or under a progressive tax system with marginal tax rates ranging from 2 to 20%. Hong Kong does not tax dividends, wealth, and capital gains and has no VAT, sales tax or payroll tax.

3 With plans to reduce it to 20% in 2007. Estonia has a zero corporate tax rate on retained earnings but taxes distribution (mainly dividends) at 22% in 2006. This is accompanied by a general non-deductibility of interest payments.

4 Both Lithuania and Latvia's corporate tax rates are set at 15% in 2006.

5 Accompanied by a 24% corporate tax rate.

6 On both corporate and personal incomes.

7 On both corporate and personal incomes.

Source: *The Economist* (2005), *Teather* (2005), *Greco* (2004).

Proponents of the flat tax also claim that it raises more tax revenues, because of an alleged Laffer curve effect. It is indeed true that tax revenues have increased in some countries after the flat tax has been introduced (albeit not in all of them, as exemplified by Slovakia or Iraq). However, the introduction of the flat tax has generally been accompanied by stricter rules to combat tax fraud, as in Russia (Ivanova et al., 2005). In general, it is therefore far from clear whether these positive results can be reproduced in all countries, especially those with allegedly lower tax fraud.

Reforms towards flat taxes are not neutral in terms of redistribution. These effects obviously depend on the details of each single proposal. However, if revenue-neutral, flat tax reforms with a single tax rate that is lower than the top marginal tax rate and with larger tax-free allowances would in most cases favour the lower and top-end classes of revenues whilst increasing the tax burden on the middle-class. Finally, flat tax reforms are not neutral either in terms of the equity-efficiency trade-off. Because

there is a tax-free allowance, a flat tax is still a progressive tax (i.e. the ratio of tax paid on income increases with income). However, the progressivity may be less sharp than in the case of a progressive system with several tax brackets (although here again it depends on the details of each system). At the end of the day, the degree of redistribution that can be achieved by taxation and the desired equity-efficiency trade-off – and hence the merits or demerits of a flat tax in this respect – are normative issues that should be left to voters.

6.4. Conclusions

An important macroeconomic challenge for Poland is to reduce the general government deficit and the high share of social spending so as to enhance the contribution of public finances to economic growth and employment. To this end, three priorities can be identified.

First, expenditure restraint is needed to support employment and investment. Additional reform efforts are required to contain the growth in public expenditure, especially on social transfers. Also, Poland should reduce the total amount of state aid relative to GDP, while at the same time increasing the relative share of horizontal aid.

Second, to anchor the fiscal consolidation strategy, an expenditure rule could supplement the EU's fiscal framework and the national rules on public debt. The 60% of GDP constitutional debt limit and the associated safeguarding procedures have failed to prevent a sharp deterioration in Poland's fiscal position in recent years. The recently introduced nominal deficit anchor is a step in the right direction, but it is not very ambitious and limited to the state budget which reduces its effectiveness. This suggests that a new fiscal rule, in the form of a fixed real or nominal expenditure growth rate, might be needed. To be efficient, the rule should be incorporated into law, encompass the general government sector, and target the main source of fiscal deficits, namely social spending.

Third, a reform of the tax system is required to improve incentives to work. The priority should be to reduce the high tax wedge on labour. In view of the need to consolidate public finances, any tax changes should be revenue neutral and phased in gradually.

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