



REPUBLIC OF POLAND

**CONVERGENCE PROGRAMME**

(approved by the Council of Ministers on April 30, 2004)

Warsaw, April 2004



## CONTENTS

I. Frameworks and objectives of macroeconomic policy.....	5
I.1. Objectives of economic policy.....	5
I.2. Institutional arrangements of economic policy.....	5
Fiscal policy.....	5
Monetary and exchange rate policy.....	7
II. Economic developments in Poland.....	9
II.1. Relations with global economy.....	9
II.2. Poland and the EU-15.....	10
II.3. Current economic situation and development prospects until 2007.....	13
External sector, exports and imports.....	14
Domestic demand.....	15
Sources of economic growth.....	16
Inflation, interest rates and exchange rate.....	19
II.4. Comparison between the European Commission's forecast and national forecast.....	20
III. General government balance and debt.....	22
III. 1. Strategy.....	22
III. 2. Actual balances and implications of forthcoming budget.....	22
III.3. Medium-term objectives for the general government.....	24
III.4. Balance by sub-sectors of the general government.....	24
III.5. Structural budget.....	25
III.6. General government debt.....	27
IV. Sensitivity analysis and comparison with PEP 2003.....	29
IV.1. Risk factors and various scenarios for the general government.....	29
IV.2. Comparison with PEP 2003.....	33
V. Quality of public finance.....	34
V.1. Strategy.....	34
V.2. General government expenditure.....	35
V.3. General government revenues.....	35
Changes in the tax system related to the EU accession.....	36
Changes in the tax system aiming at decreasing fiscal burden.....	36
Other changes.....	37
VI. Sustainability of public finance.....	38
VII. Horizontal issues affecting public finance.....	42
Actions planned on the revenues side.....	42
Actions planned on the expenditure side.....	43
Actions on the labour market.....	44
VIII. Statistical annex.....	46

## TABLES

Table 1. Balance and debt of public finance sector/ general government (% of GDP).....	7
Table 2. Growth rates of real and potential GDP and the output gap (%).....	18
Table 3. Comparison between forecasts for 2004-2005 of the European Commission and the Ministry of Finance <sup>a)</sup> .....	21
Table 4. General government balance and debt (% of GDP).....	23

Table 5. Cyclical developments (% of GDP); I method .....	26
Table 6. Cyclical developments (% of GDP); II method .....	26
Table 7. General government debt (% of GDP).....	28
Table 8. Divergence from PEP 2003 (% of GDP) .....	33
Table 9. Revenues and expenditure of the general government (% of GDP) .....	34
Table 10. Fertility rate and life expectancy until 2030 .....	38
Table 11. Demographic assumptions – basic scenario of ZUS forecast .....	40
Table 12. Macroeconomic assumptions <sup>a)</sup> .....	40
Table 13. Forecast results.....	41
Table 14. Additional revenues and savings (PLN billions) .....	42
Table 15. Influence on the general government revenues (PLN billions) .....	43
Table 16. Influence on the general government expenditure (PLN billions).....	44
Table 17. Growth and associated factors .....	46
Table 18. Assumptions on the external economic environment .....	47

## CHARTS

Chart 1. Exports per capita in the EU-15 and some acceding countries in 2002.....	10
Chart 2. GDP per capita in PPS in Poland and some EU-15 Member States .....	10
Chart 3. Labour productivity per person employed in 2003 .....	11
Chart 4. Employment rate in 2003 <sup>a)</sup> .....	12
Chart 5. Unemployment rate in 2003 .....	13
Chart. 6. Real GDP growth, domestic demand and net exports contributions to GDP growth	14
Chart 7. Domestic demand growth rate in 1998-2007 .....	16
Chart 8. Labour market in 2000-2007 .....	17
Chart 9. Output gap .....	18
Chart 10. General government deficit and debt in 2000-2003 .....	24
Chart 11. Sensitivity of the general government balance to a change in nominal GDP growth .....	29
Chart 12. Balance of social security funds .....	30
Chart 13. General government balance without adjustments in the fiscal policy .....	31
Chart 14. General government debt .....	31
Chart 15. Sensitivity of the general government balance to changes in interest rates and exchange rate fluctuations .....	32

## BOXES

Box 1. General government: comparison between the Polish methodology and ESA 95 .....	6
Box 2. Estimation of potential GDP in transition economies .....	19
Box 3. Methods selected for calculation of the cyclically-adjusted balance .....	27

## I. FRAMEWORKS AND OBJECTIVES OF MACROECONOMIC POLICY

### I.1. OBJECTIVES OF ECONOMIC POLICY

1. The main objective of economic policy in Poland is to achieve a high long-term economic growth rate – a prerequisite for real convergence with the 15 Member States of the European Union (EU-15<sup>1</sup>). A high rate of economic growth should be reached while maintaining macroeconomic stability, i.e. at such inflation level and current account balance that help maintain a stable exchange rate.
2. Decrease in budgetary imbalance and public finance reform build a base for maintaining long-term macroeconomic stability. Implementation of the Government's *Programme for Rationalisation and Reduction of Public Expenditure* should lead to a lower rate of the debt growth and a reduction in the general government deficit. A desired path of budgetary adjustments has been presented in the Government's *Medium-term Public Finance Strategy*.
3. Fast economic growth is also dependent on structural changes on the labour market allowing for a sustainable reduction in unemployment level. At the same time competitiveness and innovation should be bolstered by changes in the tax system and reducing red tape (cf. package of the Government's programmes: *Entrepreneurship-Development-Work*<sup>2</sup>).
4. Structural reforms have been covered *inter alia* in programmes of development of infrastructure and environmental protection as well as in restructuring programmes of the hard-coal mining, energy industry, steel industry and the Polish State Railways. Transformation of the regional and sectoral structure of Polish economy will be realised in accordance with the *National Development Plan for 2004-2006* with the assistance of structural funds and the Cohesion Fund.

### I.2. INSTITUTIONAL ARRANGEMENTS OF ECONOMIC POLICY

#### *Fiscal policy*

5. The general rules of fiscal policy and principles of public debt management are set out in the Constitution of the Republic of Poland and the Public Finance Act. Both legal acts limit public (consolidated and nominal) debt which, increased by forecast expenditure on public guarantees and sureties, must not exceed 60% of GDP. Moreover, the Public Finance Act contains precautionary procedures which come into force should public debt exceed 50% of GDP (the precautionary procedures refer to the Polish methodology of calculating the debt of public finance sector).
6. The Treaty establishing the European Union obliges in Art. 104 the Member States to avoid excessive deficits. Art. 104 also sets out the excessive deficit procedure to counter such excessive deficits, including financial sanctions against the participating Member States<sup>3</sup>. If

---

<sup>1</sup> EU-15 means 15 Member States on April 30, 2004.

<sup>2</sup> Implementation of the *Entrepreneurship-Development-Work* package started in 2002; in 2003 the package was updated with the *2003-2004 Pro-growth Action Plan*.

<sup>3</sup> The Stability and Growth Pact clarified the excessive deficit procedure, in particular in the Council Regulation 1467/97 of July 7, 1997.

the European Commission identifies a risk of an excessive deficit in a Member State on the basis of fiscal notifications on general government deficit and debt (provided by the Member States and verified by the Eurostat) or on the basis of its own data, or if it establishes that a Member State has breached reference values for general government deficit (3% of GDP) or debt (60% of GDP), it is entitled to initiate the procedure. Moreover, the Member States are obliged to present in their stability or convergence programmes the adjustment path towards the medium-term objective for the budgetary position of close to balance or in surplus (Member States having adopted the single currency prepare stability programmes, while those not having adopted it prepare convergence programmes – Art. 7(2a) Council Regulation 1466/97 of July 7, 1997). Implementation of both the *Medium-term Public Finance Strategy* and the *Programme for Rationalisation and Reduction of Public Expenditure* is to allow for a sustainable reduction in the general government deficit under 3% of GDP within the next 4 years.

7. Statistical data and forecasts of general government developments (on the basis of ESA 95) used by the European Commission are not identical to those calculated according to the Polish methodology. The box below sums up major differences between the two methodologies.

**Box 1. General government: comparison between the Polish methodology and ESA 95**

***POLISH METHODOLOGY***

According to the Public Finance Act of November 26, 1998 (Art. 5), the public finance sector includes:

1. public authorities, government administration organs, state control organs and law enforcement organs, courts and tribunals, as well as local government units, their organs and communes,
2. budgetary units, budgetary establishments, auxiliary enterprises of budgetary units,
3. earmarked funds,
4. state universities,
5. research and development units,
6. public health care institutions,
7. central or local government cultural institutions,
8. Social Insurance Institution, Agricultural Social Insurance Fund and funds managed by them,
9. National Health Fund,
10. Polish Academy of Sciences and its organisational units,
11. state or local government legal units established under specific acts to perform public tasks excluding enterprises, banks and commercial companies.

Data on the Polish public finance sector are presented on a cash basis.

## ESA 95

The general government comprises public units identical to those listed in the Polish Public Finance Act excluding the Agricultural Market Agency and research and development units. Moreover, in accordance with Polish interpretation of ESA 95 open pension funds are included in the general government.

The general government consists of the following sub-sectors:

1. central government – state budget and off-the-budget institutions at the central level,
2. local government – budgets of local government units and off-the-budget institutions at the local level,
3. social security funds – Social Insurance Fund, Demographic Reserve Fund, Social Insurance Institution, Agricultural Social Insurance Fund, Labour Fund, National Health Fund, open pension funds.

Data according to ESA 95 are presented on an accrual basis.

8. The table below compares key data on Polish public finances according to the two methodologies.

**Table 1. Balance and debt of public finance sector/ general government (% of GDP)**

	2000	2001	2002	2003
balance of public finance sector	-3.0	-5.0	-5.9	-5.7
general government balance (ESA 95)	-1.8	-3.5	-4.0	-4.1
debt of public finance sector	40.0	41.0	46.7	51.5
general government debt (ESA 95)	36.6	36.7	41.2	45.3

### *Monetary and exchange rate policy*

9. According to the Constitution of the Republic of Poland of April 2, 1997 and the Act on the National Bank of Poland of August 29, 1997, the National Bank of Poland (NBP) is exclusively responsible for the implementation of monetary policy. According to the Act on the National Bank of Poland, the primary objective of the NBP activity is to maintain price stability, while at the same time acting in support of Government economic policy insofar as this does not constrain the pursuit of the basic objective of the NBP. The Monetary Policy Council (MPC), chaired by the President of the NBP, is responsible for setting the inflation targets and the levels of monetary policy instruments. The President of the Republic of Poland, the Sejm and the Senate shall appoint the MPC members in equal numbers. The President of the NBP shall be appointed by the Sejm, on the recommendation of the President of the Republic of Poland. The members of the Council and the President of the NBP shall be appointed for a term of six years and this term may be shortened solely under special circumstances strictly defined in the Act on the NBP.

10. Since 1998 Polish monetary policy has been conducted within the framework of direct inflation targeting (DIT). The main principles of the adopted DIT strategy are:

- clearly, precisely and quantitatively formulated inflation targets that make possible an assessment of the effectiveness of the activities of the monetary authorities. The medium-term inflation target (consumer price index) set in the *Medium-Term Strategy of Monetary Policy 1999-2003* adopted in 1998 was to reduce inflation below 4% by the year 2003. In December 2003 the inflation was 1.7%. In the *Monetary Policy Strategy beyond 2003* the MPC adopted the continuous inflation target of 2.5% with a permissible volatility band of  $\pm 1$  percentage point. Setting the inflation target at the level of 2.5% means conducting policy of inflation stabilizing at a low level. At the same time the inflation target level is close to the expected level of the reference value for the Maastricht inflation criterion. Thus at the moment of the euro zone accession, any subsequent attempts to adapt the inflation to the requirement defined in the criterion will not require any substantial reduction in the price growth rate in Poland. In case of exceeding the permissible volatility band the monetary policy will aim at bringing inflation closer to the target over a medium-term time horizon; this should assure minimum production volatility;
- floating exchange rate system that allows to respond in a flexible way to unexpected shocks that may occur and that reduces the risk of currency crises. Moreover, floating regime is consistent with choosing the inflation as a nominal anchor. The zloty should remain floating until entering ERM II;
- openness and transparency of the MPC and the NBP activities that should contribute to a better understanding of the motives of decisions taken by monetary authorities. The policy of openness is realized by publishing *The Reports on Monetary Policy Implementation* and submitting them to the Sejm by the MPC Chairperson, publishing the results of MPC members voting, presenting MPC decisions during monthly press conferences, publishing *Press releases from the meeting of MPC*, *Inflation Reports*, *Financial Stability Reports* and other statistical and research studies referring to monetary policy.

11. New Monetary Policy Council appointed in January 2004 reaffirmed the main objectives of monetary policy defined in the *Monetary Policy Guidelines beyond 2003*, especially conducting monetary policy within the framework of direct inflation targeting and maintaining floating exchange rate system until the moment of entering the ERM II. Moreover, the Monetary Policy Council is convinced that Poland would profit the most from the adoption of an economic strategy that fosters optimum conditions for the introduction of the euro at the earliest possible date.

12. The *Communiqué of the Interdepartmental Working Group on Poland's Integration with the Economic and Monetary Union* from January 22, 2004 reiterated that the objective of the Government and the NBP is that Poland becomes a member of euro zone. It has been emphasized that the euro zone accession process should take place while taking into consideration the macroeconomic conditions, including the possibility to fulfil the Maastricht convergence criteria. It has been also agreed that the strategy for the euro adoption should provide for the shortest possible participation in the ERM II and for setting the central exchange rate at the level that would provide conditions for a sustainable economic growth, allow to avoid tensions on the exchange rate market and take into consideration the market exchange rate of the zloty against the euro in the selected reference period.

13. According to the *Monetary Policy Guidelines beyond 2003*, further harmonisation of the NBP monetary policy instruments with those applied in the Eurosystem will be contingent on prevailing market conditions and, in particular, on the liquidity of the banking sector.



## **II. ECONOMIC DEVELOPMENTS IN POLAND**

1. This part of the programme describes current economic situation in Poland and its development prospects for 2004-2007. It presents an analysis of the connections between Polish and global economies and the sensitivity of Polish economy to global economic situation, especially that of the EU-15. A few convergence indicators will further illustrate the gap between Poland and the EU-15. These indicators are a useful starting point for the macroeconomic forecast which takes into account implementation of the economic policy measures presented in this programme.

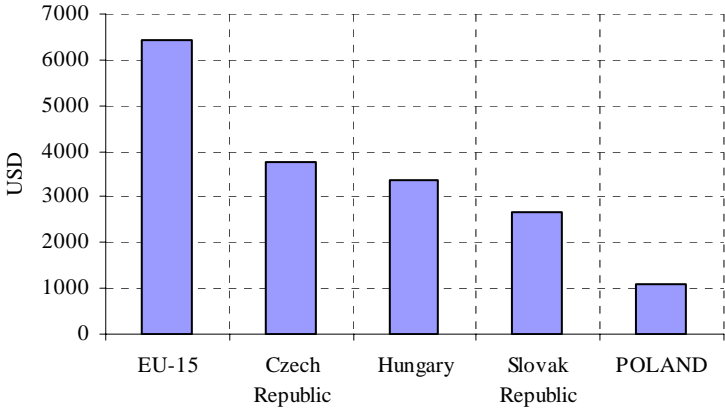
### **II.1. RELATIONS WITH GLOBAL ECONOMY**

2. Polish economy becomes more and more vulnerable to external shocks. On one hand, it is related with ongoing globalisation process, on the other with progressing integration with the EU-15. As a consequence, prospects of external sector are crucial to macroeconomic developments in Poland. This in turn affects significantly the forming of macroeconomic policy.

3. The increasing share of Polish exports and imports in the world trade proves that Polish economy has become more and more open. Polish exports accounted for 0.70% of the world exports in 2003 in comparison with just 0.44% in 1995, while the share of Polish imports in the world imports grew from 0.55% to 0.86%, respectively. The process of integrating with the global economy is expected to continue. Since the early 1990s the 15 Member States of the EU have been Poland's major trade partners. In 2003 almost 69% of Polish exports was placed on the EU-15 market and more than 61% of imports came from this area.

4. Foreign trade has played a significant role in the development and restructuring of Polish economy. However, the exports potential has been underused, hence an expansion of Polish exports can be expected. Not only is exports per capita lower in comparison to the countries of the EU-15, it is also below the level achieved in other acceding countries. In 2002 it amounted to 1072 USD for Poland, 3747 USD for the Czech Republic, 3378 USD for Hungary and 2671 USD for the Slovak Republic. In the same year exports per capita in the EU-15 stood at 6416 USD.

**Chart 1. Exports per capita in the EU-15 and some acceding countries in 2002**

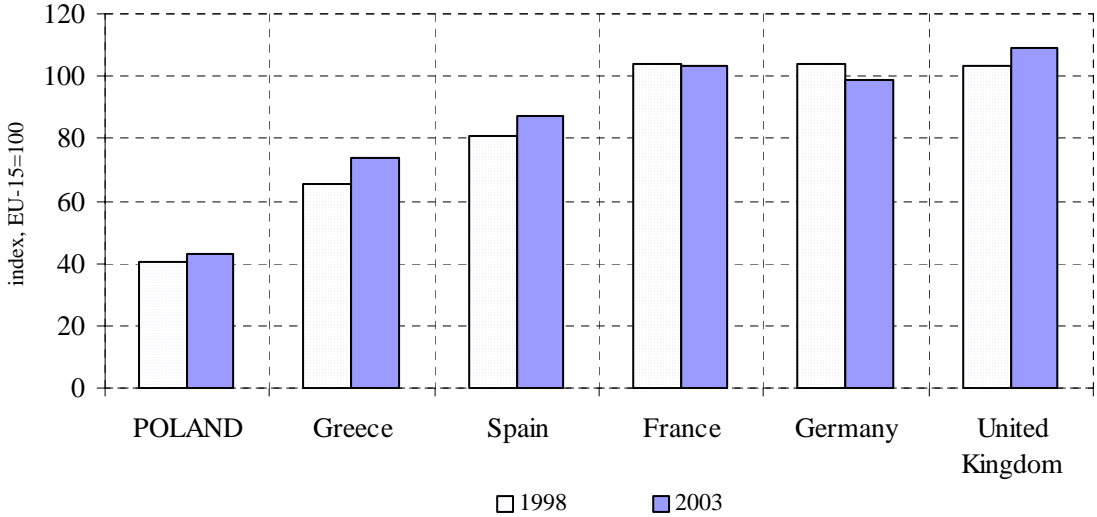


Source: Central Statistical Office, own calculations based on *European Commission Autumn 2003 Economic Forecasts, Statistical Annex* and *International Trade Statistics 2003*, WTO.

**II.2. POLAND AND THE EU-15**

5. Gross domestic product per capita in Purchasing Power Standard (GDP per capita in PPS) is the main indicator measuring real convergence of acceding countries towards the EU-15. In 1998, at the beginning of accession negotiations with the EU, this measure amounted to 40.4% of the EU-15 average. Between 1998-2003 the gap decreased slightly due to a relatively faster economic growth in Poland: in 2003 GDP per capita in PPS was 42.9% of the EU-15 average. The main long-term economic policy objective in Poland is bridging the gap in the level of GDP per capita in PPS.

**Chart 2. GDP per capita in PPS in Poland and some EU-15 Member States**

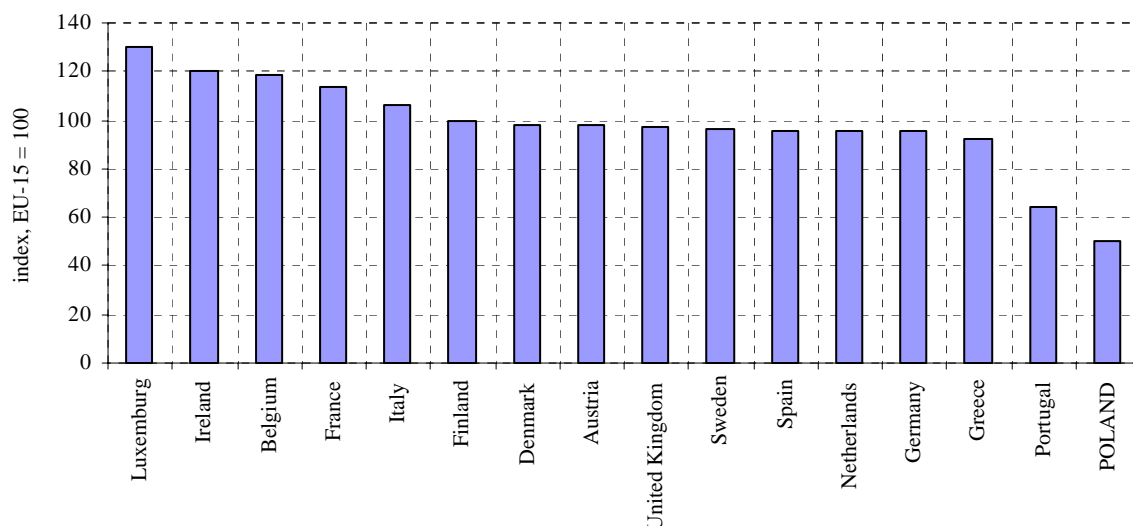


Source: Eurostat.

6. Real convergence can also be measured with the level of production factors productivity comparing to developed countries. This productivity is usually far lower in transition economies. Labour productivity in Poland (measured in PPS) is much lower than the average in the EU-15. It was 42.5% of the EU-15 average in 1998 and is estimated to have risen

considerably to 50.2% of the average in the EU-15 in 2003, due to the restructuring processes. Labour productivity growth rate (expressed as ratio of GDP to average number of employed persons in the national economy<sup>4</sup>) is visibly higher in Poland than in the EU-15: it stood at ca. 5.6%<sup>5</sup> in 2003. However, the increase in labour productivity was accompanied by a fall in the number of employed persons<sup>6</sup>.

**Chart 3. Labour productivity per person employed in 2003**



Source: Eurostat.

7. Capital (its level and growth rate) is one of the factors determining the economic growth rate. The present level of gross fixed capital formation is a result of past investment outlays. Between 1995-2002 level of investments increased substantially (by ca. 57% in real terms). This resulted in a significant rise of capital level, which is, however, still low comparing to the EU-15. Net capital/ output ratio was 1.7 in Poland in 2003 against 3.0 on average in developed countries. Capital assets in many branches are out-of-date and highly depreciated. Still, the main problem is the quality of infrastructure. The composite infrastructure index calculated and published by the *Economist Intelligence Unit* is some 5 points for Poland in comparison with ca. 9 points for Germany or France (10 means a high level of infrastructure, 0 – low).

8. Increasing productivity of labour and capital depends on high research and development (R&D) expenditure. R&D expenditure in Poland was just 0.59% of GDP in 2002, down from 0.75% in 1999 (the EU-15 average in 2002 was 1.99%). Achieving the Lisbon Strategy target in R&D, i.e. 3% of GDP in 2010, means that Poland should almost triple budgetary expenditure on R&D and raise R&D extrabudgetary expenditure ca. 7 times in comparison with the levels forecast for 2004. According to the *National Development Plan for 2004-2006* R&D expenditure would rise to 1.5% of GDP in 2006. In March 2004 the *Strategy of*

<sup>4</sup> According to ESA 95.

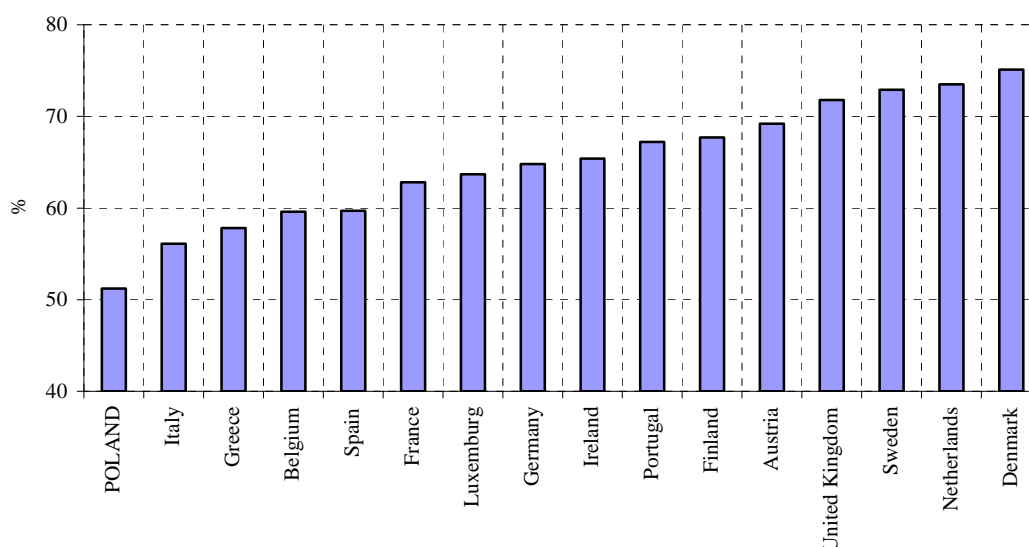
<sup>5</sup> On the assumption of a decrease in the average number of employed in the national economy by ca. 1.8% (the Ministry of Finance estimate) - data of the Central Statistic Office on the average number of employed in the national economy in 2003 will be published in late 2004.

<sup>6</sup> According to the Ministry of Economy, Labour and Social Policy and the Ministry of Finance estimates, 2003 the number of employed fell in by ca. 1% (end of period data).

increasing R&D expenditure towards attaining the Lisbon Strategy targets was adopted by the Government.

9. Average employment rate (on the basis of the Labour Force Survey), calculated by dividing the number of persons aged 15 and more in employment by the total population of the same age group, amounted to 44.0% in 2003: 38.2% among women and 50.4% for men. Employment rate in Poland is lower than in the EU-15. Moreover, it is on a declining path, while in the EU-15 the rise of the indicator can be noticed. In sum, the distance to the Lisbon Strategy employment targets has been widening (employment rate in the EU Member States reaching 70% in 2010).

**Chart 4. Employment rate in 2003 <sup>a)</sup>**

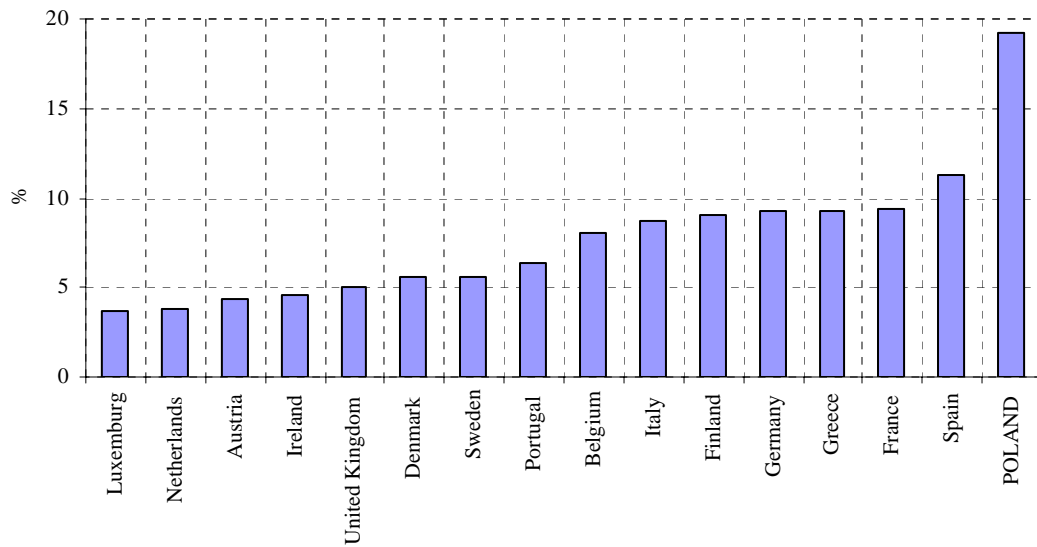


a) Among persons aged 15-64.

Source: Eurostat.

10. Not only does a low employment rate characterise the Polish labour market, but a high unemployment rate is its important feature as well. Average unemployment rate (on the basis of the Labour Force Survey), calculated by dividing the number of unemployed persons aged 15 to 74 by the total population of the same age group, amounted to 19.7% in 2003: 20.4% among women and 19.0% for men. Unemployment rate in Poland was higher than in the EU-15, and more than doubled the average unemployment rate in EU-15.

**Chart 5. Unemployment rate in 2003**



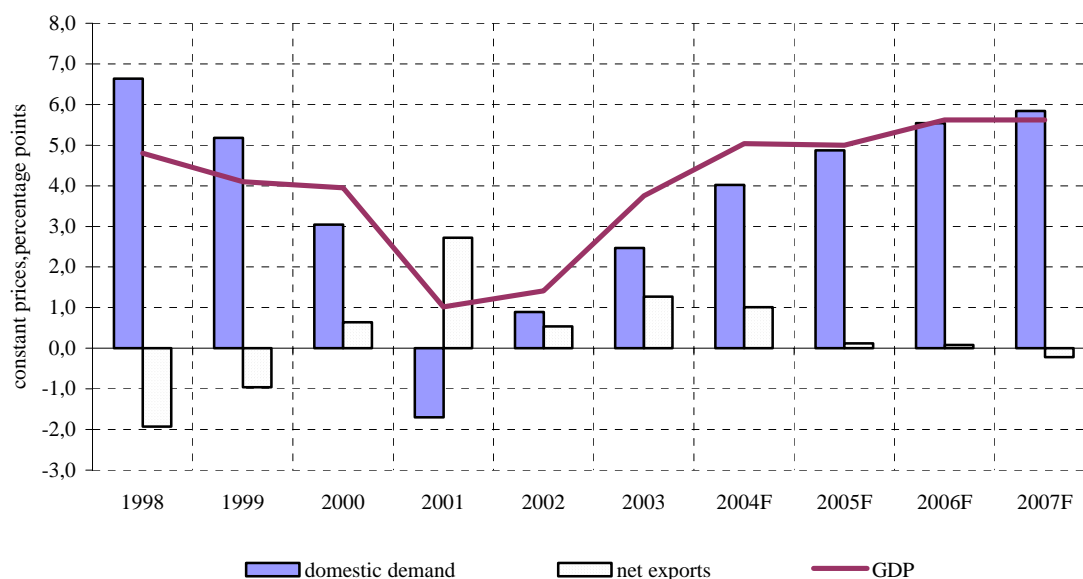
Source: Eurostat.

### **II.3. CURRENT ECONOMIC SITUATION AND DEVELOPMENT PROSPECTS UNTIL 2007**

11. The years between 1998 and 2001 witnessed a steady decrease in the GDP growth rate. In 2002 this negative tendency was reversed and since 2003 a significant recovery of Polish economy has been observed. Since 2002 real GDP growth has steadily increased every quarter and rose to 4.7% yoy in the last quarter of 2003 which translated into 3.7% economic growth rate in the whole 2003.

12. Published data concerning economic activity in the first months of 2004 indicates that in 2004 the GDP growth will continue to increase. Acceleration of economic growth has been caused mainly by a higher growth of domestic demand than in 2003. Contribution of net exports will be significant and is estimated at 1.0 percentage point. It is forecast that in 2004-2005 GDP growth will amount to 5.0% and in 2006-2007 it will go up to 5.6%. As of 2005 economic growth will be driven mainly by dynamic domestic demand, contribution of net exports will be decreasing.

**Chart. 6. Real GDP growth, domestic demand and net exports contributions to GDP growth**



### ***External sector, exports and imports***

13. The recovery of world economy in the second half of 2003 was stronger than expected. In particular, GDP growth in the USA and Japan was faster than previously forecast, and it remained high in other Asian countries, mainly China. There are a few reasons behind that recovery: a stimulating macroeconomic policy (both fiscal and monetary), favourable financial conditions, expected increase in consumer and producer confidence, as well as stable financial markets. Assuming that the trends observed in 2003 are continued, it is forecast that world GDP growth will accelerate to 4.5% in 2004 compared to 3.7% in 2003, whereas in 2005 it will amount to 4.3%<sup>7</sup>. At the same time it is expected that faster growth of global economy will be accompanied by lower discrepancies in economic growth among world regions. It is estimated that in the EU-15 countries, which are Poland's main trading partners, the GDP growth in 2004 and 2005 will amount respectively to 2.0% and 2.4%, comparing to 0.8% in 2003.

14. Moderate domestic demand and favourable exchange rate induced Polish companies to search for foreign markets for their products. Starting from 4Q2002 the Polish enterprises have experienced a revival of exports activity. The Russian crisis and the ensuing economic slowdown forced the Polish firms to reduce their costs which resulted in a significant increase in their efficiency and competitiveness. The share of processed goods in Polish exports increased to a level similar to that of the EU-15. At the same time, the share of raw materials decreased making Polish export less vulnerable to external shocks and exchange rate fluctuations. Beside the above-mentioned supply factors, high exports growth can also be attributed to some favourable price developments. About 60.0% of Polish exports is settled in EUR, so the recent appreciation of the euro has positively affected exports profitability.

15. The EU-15 absorbs about 69% of goods exported by Poland. In 2003, despite the low level of economic activity in the EU-15, the Polish exports to this group of countries grew very fast and became the main driving force behind the GDP growth. As a result, the external

<sup>7</sup> Based on *European Commission Spring 2004 Economic Forecasts*.

imbalance of the Polish economy decreased significantly. The ratio of the current account deficit to GDP dropped from 2.6% in 2002 to 1.9% in 2003.

16. Very good exports results in 2003 were accompanied by a modest level of imports. Bearing in mind that the share of investment goods in Polish imports amounts to 19.0% and that about 60.0% of imports are intermediate goods, it is expected that the import growth will accelerate gradually. It is forecast that in 2004 import growth will increase to 8.9% in real terms and in 2005 it will further rise to 11.4%. Polish economy is characterised by a large import intensity, which is quite typical for the transition economies suffering from insufficient levels of high technology and advanced production methods. This is well illustrated by the data for the 1990s, when high GDP growth was accompanied by a sharp growth of imports and an increase in the current account deficit. In 2003, when GDP grew by 3.7%, no sudden increase in imports was observed. Imports in EUR-terms grew by only 3.7% but it mainly resulted the weakening of the domestic currency and a significant appreciation of the euro.

17. It is expected that the good exports results will continue in 2004 due to the projected recovery in the EU and the associated growth in demand. In the next years, the gradual recovery in the domestic demand and a somewhat stronger (but still favourable for exporters) zloty to euro exchange rate will result in a slight slowdown of exports growth from 12.6% in 2004 to 10.5% in 2007. At the same time it is forecast that import growth rate will increase from 8.9% in 2004 to 10.9% in 2007. It will result in a gradual decrease in net exports contribution to GDP growth. In 2007, this contribution is expected to turn negative.

### *Domestic demand*

18. It is forecast that in 2004 the consumer demand will increase by 3.3%, and in 2005-2007 its average growth will amount to 3.8%. The projected consumer demand growth will be mainly driven by an increase in households consumption and, to a lesser extent, by an increase in public consumption. The growth of the former will be influenced by wage developments, a gradual improvement of the situation on the labour market, and by the regulations concerning indexation of pensions and disability benefits. It is expected that wages and salaries fund in the national economy will increase by 4.2% in nominal terms in 2004, and in 2005-2007 it will grow by 6.0%, 7.3% and 8.3%, respectively. An improvement in households' incomes will also be visible in the sub-sector of employers and individual farmers (agricultural subsidies). In consequence, the household consumption is projected to increase in 2004 by 3.8%, compared to 3.1% in 2003. Its growth between 2005 and 2007 will amount to 4.0%, 4.7% and 5.0%, respectively. The growth of non-household consumption will be affected by cuts in public expenditure resulting from the implementation of the public finance reform.

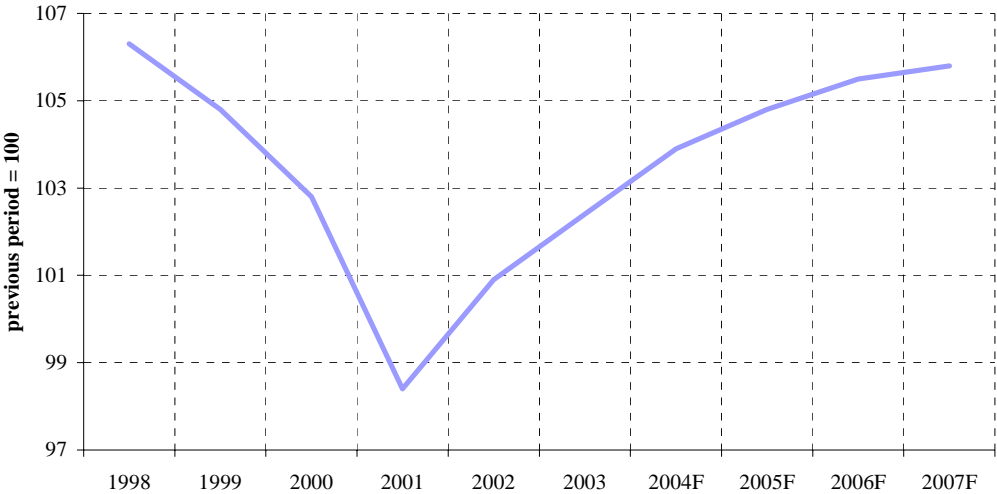
19. In the years 1995-1998 a two-digit growth rate of gross fixed capital formation was recorded. Between 1998 and 2000 the growth rate decreased significantly and in 2001-2003 it was even negative. The share of investments in GDP decreased from 24.0% in 1999 to 18.4% in 2003.

20. Starting from 2004, the growth of gross capital formation will be primarily associated with the recovery of investment activity. The previously observed decreasing trend of gross fixed capital formation was reversed in the second half of 2003 and a 0.2% increase in this economic category was noted. This growth was still very small but its further increase can be considered the most desired and expected factor stimulating permanent economic revival. It is forecast that in 2004 investments will increase by 7.1% in real terms compared to 0.9% drop in 2003 and 5.8% drop in 2002. Starting from 2005 this growth is expected to accelerate further (up to 12.0% in 2007). Investment growth will be stimulated by the inflow of the EU

structural funds after May 1, 2004, improved financial conditions for Polish enterprises (partly because of lower CIT rate and higher depreciation rates of capital), and increased access to investment loans. In result, the contribution of gross capital formation to GDP growth will increase from 1.3 percentage points in 2004 to 2.6 percentage points in 2007. At the same time the share of gross capital formation in GDP will increase from 19.0% to 23.0%.

21. The projected increase in investment and consumption demand suggests that the growth of domestic demand (observed since 2002) will continue. Domestic demand is expected to increase by 3.9% in 2004 compared to 2.4% growth in 2003. In 2005-2007 the growth rate of domestic demand will amount to 4.8%, 5.5% and 5.8%, respectively. Increasing domestic demand growth rate results primarily from recovery in investments. It is estimated that the share of investments in domestic demand will increase from 18.0% in 2003 to 22.3% in 2007.

**Chart 7. Domestic demand growth rate in 1998-2007**



**Sources of economic growth**

22. For some time now the situation on the labour market has been very difficult, which is illustrated by a drop in employment and an increase in the unemployment rate. The GDP growth has been recorded despite the very substantial decline in paid employment (between 2000 and 2003 the average employment in the national economy decreased by about 11% (1.1 million persons). Like in the previous years, the difficult situation on the labour market in 2003 was caused, *inter alia*, by the insufficient flexibility of this market, an increase in the labour force, and the low economic growth (in 2001-2003 the average GDP growth rate amounted to approximately 2.0%). At the end of 2003, the number of registered unemployed<sup>8</sup> amounted to almost 3.2 million persons, which constituted 20.0% of economically active population. However, last year, for the first time in six years, the number of unemployed has declined (by 1.3% comparing to the end of 2002). In spite of the fall in unemployment rate, the number of registered unemployed persons was 73.0% higher at the end of 2003 than at the end of 1997 (which was the last year when unemployment rate decreased).

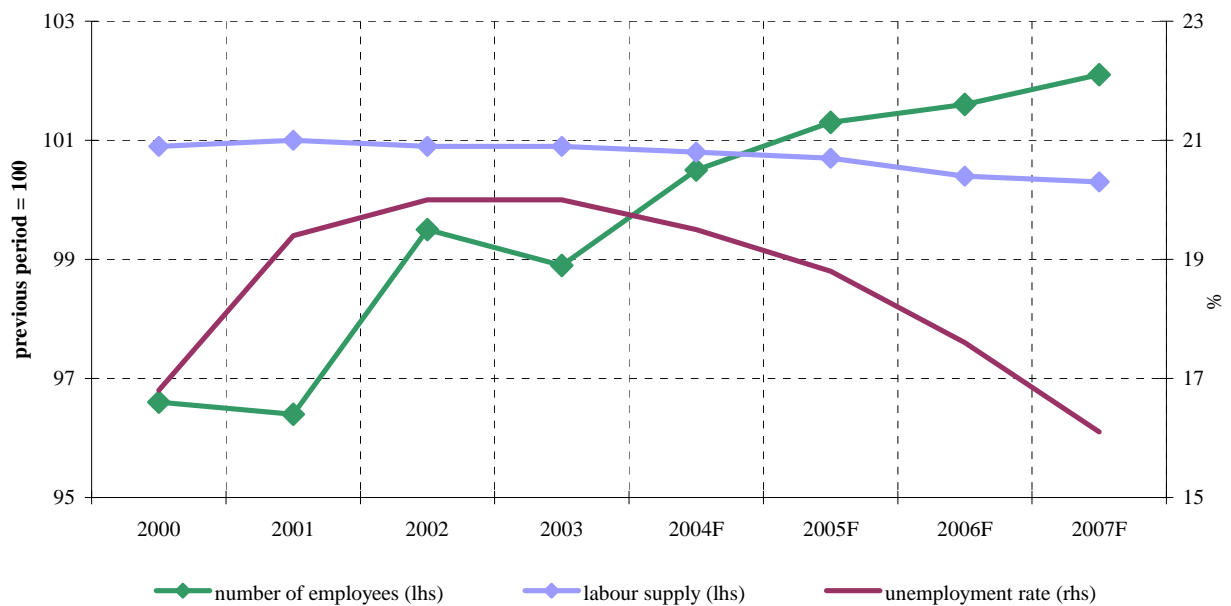
23. Labour market difficulties are of a structural nature, hence they cannot be solved by an acceleration in the GDP growth only. Thus in 2004, despite the high economic growth, there

<sup>8</sup> The data concerning registered unemployment refers to unemployed persons registered with local labour offices. The registered unemployment rate is calculated as the percentage of registered unemployed in civil economically active population.



will be no significant changes in the numbers of unemployed and employed persons. The number of unemployed is expected to decrease to 3.09 million persons at the end of 2004. In 2005-2007 the situation on the labour market will improve thanks to a continued high GDP growth and due to the implementation of the Government's *Programme for Rationalisation and Reduction of Public Expenditure* (in particular the law on employment promotion and labour market institutions, the implementation of the *50+ Programme*, changes in pre-retirement benefits). A gradual but steady increase in employment is forecast (over 5% increase in 2007 in comparison to 2003) which will result in reduction of the unemployment rate to 16.1% at the end of 2007.

**Chart 8. Labour market in 2000-2007**



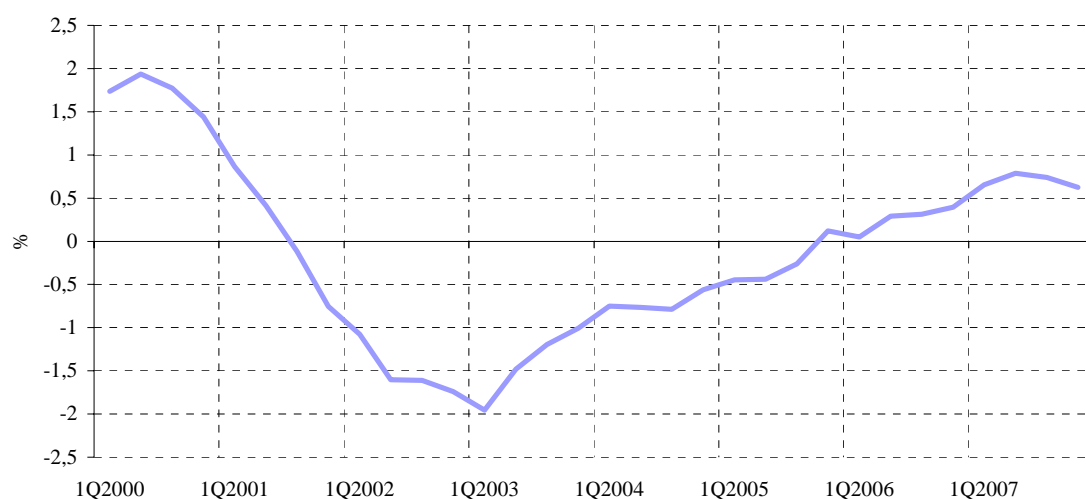
24. Besides labour, capital accumulation is another key factor contributing to economic growth. The previous economic regime left Poland with a largely obsolete and worn out capital base. This is why the recent investments are of particular importance for the assessment of the potential rate of growth of the Polish economy. After the period of increased gross fixed capital formation in 1995-1998, in 1999-2003 a drop in this category was recorded. The forecast rise in investments in 2004-2007 should improve the prospects for long-term potential growth through an increase in production capital.

25. Some simple measures, such as the introduction of new management techniques or reorganisation of production, often are an important factor contributing to economic development. Yet, such simple reserves have already been largely exhausted in Poland. This means that a further rise in factor productivity will be increasingly dependent on imports of new technologies, an increase in innovativeness of Polish enterprises based on higher R&D expenditure, a change in the production structure by increasing contribution of advanced technology sectors and infrastructure development. The Polish Information and Foreign Investment Agency is responsible for promoting Poland abroad and attracting foreign direct investments (FDI) by offering comprehensive services to potential foreign investors. From 1994 to 2000, the level of FDI, often considered an indicator of the inflow of new technologies, had been increasing and reached 10.6 billion dollars in 2000. In the next years the FDI inflow decreased, partly due to a decreased scale of privatisation. In 2003, the value of new FDI amounted to 6.4 billion dollars and was only slightly higher than in 2002. The

total accumulated value of FDI has reached 72.7 billion dollars. Per capita FDI level in Poland is lower than in the highly developed EU-15 countries. Since 1999 the share of R&D expenditure in GDP has been decreasing as well. It is expected that these negative tendencies will be reversed. An increase in FDI inflows should result from the progressing integration and real convergence with the EU-15 countries, lower country risk, a recovery in the world economy, low labour costs compared to the EU-15 countries, as well as the completion of privatisation and the required adjustment to the EU standards of production. For the next years, an increase in FDI, especially in the form of portfolio and greenfield investments and purchases of shares in existing enterprises, is expected.

26. As a consequence of the above-mentioned changes in main macroeconomic categories (labour market, investments, R&D expenditure) the level and growth rate of potential output has changed. It is estimated that following the period of a relatively high potential growth in 1995-1999 (4.9%<sup>9</sup> on average) it declined to 3.2%, on average, in 2000-2003. Taking into consideration that starting from 2004 the investment growth rate will be positive and will continue to increase, the growth rates of capital and potential output will behave in the same way. It is expected that at the end of 2007 the potential rate of growth will be comparable to the levels observed in the mid 1990s.

**Chart 9. Output gap**



**Table 2. Growth rates of real and potential GDP and the output gap (%)**

	2000	2001	2002	2003	2004	2005	2006	2007
Growth rate of real GDP	4.0	1.4	1.0	3.7	5.0	5.0	5.6	5.6
Growth rate of potential GDP	3.4	2.7	3.0	3.6	4.2	4.7	5.0	5.1
Output gap	1.7	0.1	-1.5	-1.4	-0.7	-0.3	0.3	0.7

<sup>9</sup> Potential GDP growth rate was calculated with use of Hodrick-Prescott filter.

## Box 2. Estimation of potential GDP in transition economies

Precise calculation of potential growth rate is very difficult. This is a theoretical category not registered in measurable economy. Its value is highly dependant on researchers' description of economic processes. Current estimation methods of potential output are based on the production function. The advantage of such an approach is that it allows to calculate the contributions of particular growth factors to the potential GDP growth rate. However, estimation of the production function for Poland may be difficult because of data problems. The available time series are short and additionally distorted by changes in methodology of their calculation. Besides, the period of transformation in Poland has been characterised by numerous structural changes which make the estimated elasticities unstable. Similarly to other countries in the region, there is no reliable data concerning the size of capital and its depreciation rate in Polish official statistics. Calculation of potential GDP requires estimation of the NAIRU level, which might be highly biased. It is because of the above-mentioned factors and the fact that after 1989 there was just one economic cycle in Polish economy.

Due to the numerous assumptions that would have to be made when estimating the production function for Poland, and taking into account the highly uncertain nature of potential output calculated with the use of the production function, the potential GDP was computed by using the Hodrick-Prescott filter. This was done by using quarterly GDP time series in constant prices of 2000 calculated with the *over-the-year*<sup>10</sup> technique. The time series was seasonally adjusted in Demetra software with Tramo-Seats procedure. This software was also used to extract the cyclical component from seasonally adjusted series.

The Output Gap Working Group appointed by the European Commission was responsible for the selection of techniques for potential GDP calculation in the EU-15 and acceding countries. The Group decided that the potential GDP for acceding countries might be calculated with the Hodrick-Prescott filter.

### *Inflation, interest rates and exchange rate*

27. In the years 2001–2003 a very substantial reduction in inflation could be observed: average inflation declined from 5.5% in 2001 to 1.9% in 2002 and 0.8% in 2003. This was mainly due to the weakening of domestic demand, accompanied by a high rate of unemployment rate and a low level of food prices resulting from a high supply of agricultural products). The absence of inflationary pressures in this period corresponds with the estimates of a negative output gap. Since August 2002 Poland has been fulfilling the inflation convergence criterion. In December 2003, the average inflation, measured by the harmonized index of consumer prices (HICP), was 0.7% compared with the reference value of 2.7%. In 2003 inflation in Poland was lower than in the EU-15 and one of the lowest among the acceding countries.

28. During the first months of 2004 the inflation pressure continued to be weak. This year's inflation is expected to remain within the inflation target limits. It is forecast that average inflation will rise to 2.2% in 2004 and it will not exceed the level of 3% in the next several years. In the years 2004–2007 the inflation level will be influenced by the economic upswing, a gradual recovery of domestic demand and the still low inflation expectations, resulting, among others, from the still high unemployment rate. To some extent, changes in prices resulting from Poland's accession to the EU, especially from raises in indirect taxes and

---

<sup>10</sup> *Quarterly National Accounts Manual, Concepts, Data Sources and Compilation*; Adriaan M. Bloem, Robert J. Dippelsman, Nils Ø. Mæhle; IMF, Washington DC 2001.

introduction of the Common Agricultural Policy mechanisms, can be proinflation factors. However, inflation growth will be limited by the expected appreciation of the zloty and the low pressure on wage increases resulting from the still high level of unemployment.

29. As inflation was falling, the monetary policy has been eased between February 2001 and June 2003, resulting in as many as twenty cuts in the NBP's interest rates (the reference rate has been reduced in total by 13.75 percentage points). The change in the inflation trend observed since the middle of 2003 brought an end of the interest rates reductions cycle. Taking into consideration the inflation target set at the level of 2.5% with a permissible deviation of  $\pm 1$  percentage point, and the forecast scenario of inflation growth, a mild tightening of monetary conditions can be expected in the years 2005-2006, while for 2007 a decline in the restrictiveness of monetary policy is envisaged.

30. After the period of a strong appreciation of the zloty, the Polish currency depreciated in 2002-2003. In 2003, the zloty depreciated both in nominal and real terms, and its effective depreciation was more than two times higher than in 2002. For 2004, a gradual appreciation of the zloty against the main currencies used in the settlements of the Polish foreign trade transactions is expected. In 2005, a further zloty appreciation in relation to the euro and a change in PLN/USD trend (resulting from expected US dollar strengthening on the global foreign exchange market) is envisaged. The zloty exchange rate projection for 2006-2007 assumes a continuation of the above-mentioned tendencies and a fall in the PLN/EUR rate volatility.

#### **II.4. COMPARISON BETWEEN THE EUROPEAN COMMISSION'S FORECAST AND NATIONAL FORECAST**

31. The main macroeconomic scenario, which forms the base for public finance sector forecasts, is consistent with the latest projections of the European Commission<sup>11</sup>. According to these projections GDP growth rate in Poland will amount to 4.6% in 2004 and 4.8% in 2005 – it is only slightly lower than in national estimates (5.0% in 2004 and 2005). Lower GDP growth forecast, especially in 2004, results from lower expected growth rates of investments and exports, and a higher growth rate of imports.

32. Both scenarios assume similar tendencies for behaviour of the inflation and situation at the labour market. The forecasts of CPI are virtually the same.

---

<sup>11</sup> *European Commission Spring 2004 Economic Forecasts.*

**Table 3. Comparison between forecasts for 2004-2005 of the European Commission and the Ministry of Finance <sup>a)</sup>**

	2003		2004		2005	
	EC	MF	EC	MF	EC	MF
GDP	3.7	3.7	4.6	5.0	4.8	5.0
Individual consumption <sup>b)</sup>	3.1	3.1	3.7	3.8	4.2	4.0
Gross fixed capital formation	-0.9	-0.9	6.0	7.1	9.8	11.0
Exports	13.0	13.0	11.5	12.6	9.7	12.0
Imports	7.9	7.9	9.7	8.9	10.4	11.4
Net exports <sup>c)</sup>	1.7	1.3	0.8	1.0	-0.1	0.1
Unemployment rate <sup>d)</sup>	19.8	20.0	19.6	19.5	19.3	18.8
GDP deflator	0.7	0.7	2.1	1.7	2.6	2.0
CPI / HICP <sup>e)</sup>	0.7	0.8	2.3	2.2	3.0	2.8

a) In %, unless otherwise indicated.

b) The Ministry of Finance – individual consumption of households, the European Commission– individual consumption of households and non-commercial institutions.

c) Contribution to GDP growth rate.

d) The Ministry of Finance – registered unemployment rate at the end of period, the European Commission – unemployment rate average in the period.

e) The Ministry of Finance – CPI, the European Commission – HICP.

### III. GENERAL GOVERNMENT BALANCE AND DEBT

#### III. 1. STRATEGY

33. Convergence criteria relate to price stability, long-term interest rate, exchange rate, government budgetary position and government debt. Fulfilling the criteria entitles a Member State of the European Union to apply for a full membership in the Economic and Monetary Union so as to participate in building the single and stable European market. After accession to the EU, the objective of the Government is to reduce the general government deficit below 3% of GDP in 2007, and to maintain the public debt below 60% of GDP.

34. Being aware of the threats posed by the increasing general government deficit and government debt, the Polish Government undertook measures aimed at restraining these unfavourable tendencies. The *Programme for Rationalisation and Reduction of Public Expenditure*, approved by the Government in the beginning of 2004, builds upon and expands the *Medium-term Public Finance Strategy* adopted in September 2003.

35. The large increase in public debt in the last two years mainly resulted from the need to finance of the large deficits of the central governments. It also has consequences for the future debt levels (costs of debt servicing and debt refinancing). The main objectives of public debt management include:

- maintaining the public debt at a safe level,
- minimising the debt servicing costs, in the time horizon determined by instruments with the longest maturity and a significant share in debt, by an optimal choice of debt management instruments, their structure and issuance dates,
- actions aimed at increasing the efficiency of the treasury market, including adjustments to the standards followed by other EU issuers of treasury securities.

36. The minimisation of debt servicing costs will be pursued while taking into account the need to ensure the financing of the state budget borrowing requirements, including the contribution to the EU budget and co-financing and pre-financing of projects developed with EU funds. The limitations resulting from the current structure will also have to be taken into account.

#### III. 2. ACTUAL BALANCES AND IMPLICATIONS OF FORTHCOMING BUDGET

37. Since the beginning of transition process the general government expenditure in Poland has exceeded the level of revenue. The deficit remained at a quite high level even in the period of the fast economic growth of up to 6-7% in the years 1994-1999. This means that the fiscal policy was pro-cyclical. As a result, a fast growth of the general government deficit and debt was observed during the economic slowdown in 2001-2002. Lower dynamics of economic growth and a change in its structure (decreasing dynamics of domestic demand) over-proportionally influenced the shape and situation of public finance.

38. The main driving force behind the GDP growth in 1995-1999 was the dynamic growth of domestic demand. Increasing domestic demand was a significant factor determining the general government revenues (indirect taxes base grew faster than GDP). The above-mentioned tendency had been reversed in 2000-2001, when the fall in domestic demand dynamics was deeper than the fall in the dynamics of the GDP growth. This contributed to a

fall in indirect tax revenues. Moreover, a drop in budgetary revenues resulted from the following factors: systemic changes in direct taxes, more extensive use of tax exemptions and relief, inconsistent regulations and an expansion of the hidden economy. This is how the economic agents reacted to the emergence, for the first time since the beginning of the transformation, of a demand barrier.

**Table 4. General government balance and debt (% of GDP)**

	ESA Code	2000	2001	2002	2003
General government balance (B9)	S13	-1.8	-3.5	-4.0	-4.1
central government	S1311	-1.9	-4.2	-4.6	-5.6
local government	S1313	-0.5	-0.3	-0.3	-0.2
social security funds	S1314	0.6	1.0	0.9	1.7
General government debt		36.6	36.7	41.2	45.3

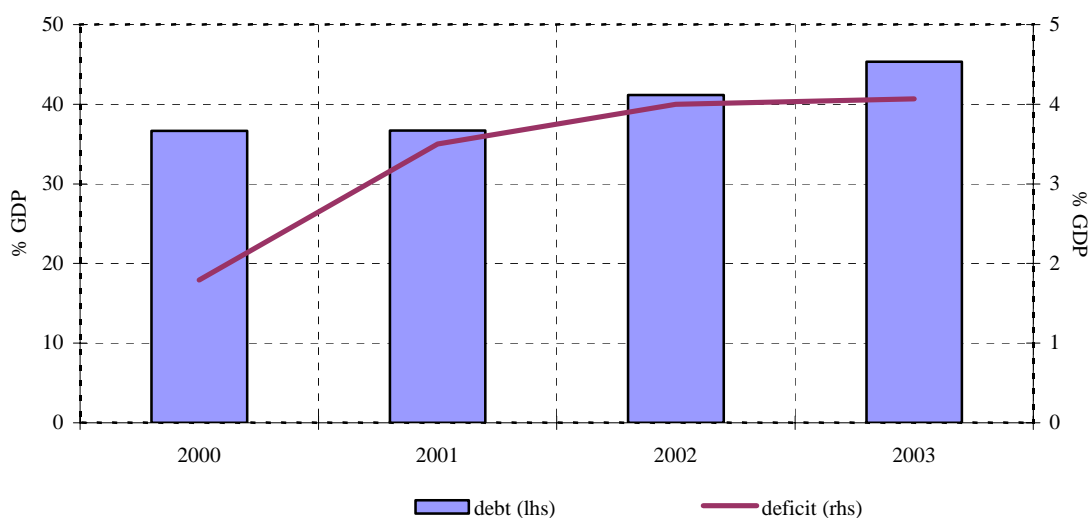
Source: fiscal notification, February 2004.

39. Worsening macroeconomic situation resulted in an increase in the general government to GDP ratio in 2000-2003 by 2.3 percentage points. The unfavourable structure of the general government expenditure (a large share of determined expenditure) as well as the high burden associated with co-financing and the contribution to the EU budget will result in a further increase in the deficit to 5.7% of GDP in 2004. The deficit has continued to be mainly determined by the deteriorating central government balance, including the state budget, and by the surplus of the social security funds.

40. Large general government deficits have caused the government debt to rise. The largest debt increase has occurred in the central government as a consequence of the high borrowing requirements and limited privatisation receipts. Other sub-sectors also show a tendency to increase the level of their liabilities. The structure of debt is dominated by liabilities with an original maturity of more than one year (about 86-90% of the total debt).

41. High economic growth expected in the coming years will be supported by the effects of the accession to the EU. Along with the expected results of the implementation of the public finance reform, it should result in a reduction of the deficit and in a stabilisation of the debt to GDP ratio.

**Chart 10. General government deficit and debt in 2000-2003**



### **III.3. MEDIUM-TERM OBJECTIVES FOR THE GENERAL GOVERNMENT**

42. The accession to the European Union brings new challenges for the general government and responding to them, especially in the first few years, will affect the condition of the economy for many years. Therefore it is very important to make the most of the financial and organisational potential brought by the integration within the Single Market. It also offers the chance to initiate changes in the structure and organisation of the Polish general government.

43. The consolidation of the general government within the framework of the *Programme for Rationalisation and Reduction of Public Expenditure*, approved by the Government on January 27, 2004, will allow Poland to fulfil the fiscal criteria and enter the eurozone.

### **III.4. BALANCE BY SUB-SECTORS OF THE GENERAL GOVERNMENT**

44. Government's programme of reforms is to be mainly based on the rationalisation of the general government expenditure. However, a number of actions on the revenue side has also been envisaged. The reforms proposed by the Government will result in financial consolidation of the general government. According to preliminary data, the general government deficit amounted to 4.1% of GDP in 2003. It is expected to reach 5.7% of GDP in 2004, 4.2% of GDP in 2005, 3.3% of GDP in 2006, and 1.5% of GDP in 2007.

45. A gradual decrease in the central government deficit will mainly result from the reduction of social and administrative spending. A decrease in the debt level should also reduce the debt servicing costs. There will be an additional decrease in other categories of the legally determined expenditure. The central government deficit amounted to 5.6% of GDP in 2003, and is expected to reach 6.4% of GDP in 2004, 5.5% of GDP in 2005, 4.8% of GDP in 2006, and 3.4% of GDP in 2007.

46. The share of the local government deficit in the total deficit of the general government has been relatively small so far. In the coming years the local government units will have to find additional resources for the co-financing of the EU funds and for other outlays needed to ensure an efficient absorption of such additional resources.. With the help of the U money



they will initiate many investment projects, which will be reflected in a permanent increase in the gross fixed capital formation of this sub-sector. The local government deficit amounted to 0.2% of GDP in 2003, and is expected to reach 0.2% of GDP in 2004, 0.4% of GDP in both 2005 and 2006, and 0.1% of GDP in 2007.

47. As for the social security funds, continued transfers of social contributions to open pension funds (OFE), corresponding to the inflow of contributions from insured persons, should permit OFE to accumulate financial assets and begin to pay appropriate amounts of pensions from the capital pension scheme in the future. The gradual improvement of the situation on the labour market and a falling unemployment rate will allow an improvement in the positions of the Labour Fund and the Social Insurance Fund (FUS). The surplus of social security funds amounted to 1.7% of GDP in 2003, and is expected to reach 0.9% of GDP in 2004, 1.8% of GDP in 2005, 1.9% of GDP in 2006, and 2.0% of GDP in 2007. A significant surplus in 2003, compared to 2004, comes from the cancellation of a state budget loan granted to FUS of approximately 8 billion PLN (capital and interest)<sup>12</sup>. The surplus of social security funds results from the fact that the open pension funds (OFE), which are treated as a part of the general government, recorded a significant surplus during the above-mentioned period. This surplus, in turn, was a consequence of transferring to OFE a part of the compulsory pension contributions paid by insured persons, yet without an obligation to pay the retirement pensions (first payments are expected in 2009). Simultaneously, as a consequence of the pension reform introduced in 1999, FUS recorded a reduction in contributions paid to this institution which resulted in a quite large deficit requiring additional financing from the state budget.

### **III.5. STRUCTURAL BUDGET**

48. After a significant slowdown of the GDP growth rate in 2001 and at the beginning of 2002, an economic recovery has been recently observed. It results in a declining share of negative cyclical budgetary component in the general government balance.

49. Owing to numerous changes on both revenues and expenditure sides of the general government and uncertainty connected with potential GDP calculation, results presented below must be interpreted very cautiously. Acceleration of economic growth in Poland may also affect elasticities assumed for calculation of the cyclically-adjusted balance.

---

<sup>12</sup> This operation, according to ESA 95, is treated as a capital transfer (expenditure) from the state budget to FUS (revenues), which in result expands the central government deficit, and improves the surplus of social security funds. It does not have any impact on the general government deficit due to consolidation of this transfer between general government sub-sectors.

**Table 5. Cyclical developments (% of GDP); I method**

	ESA Code	2003	2004	2005	2006	2007
1. GDP growth at constant prices	B1g	3.7	5.0	5.0	5.6	5.6
2. Actual balance of GG sector	B9	-4.1	-5.7	-4.2	-3.3	-1.5
3. Interest payments	D41	3.1	2.9	3.1	3.0	2.8
4. Potential GDP growth		3.6	4.2	4.7	5.0	5.1
5. Output gap		-1.4	-0.7	-0.3	0.3	0.7
6. Cyclical budgetary component		-0.44	-0.22	-0.10	0.08	0.22
7. Cyclically-adjusted balance (2-6)		-3.66	-5.48	-4.10	-3.38	-1.72
8. Cyclically-adjusted primary balance (7+3)		-0.56	-2.58	-1.00	-0.38	1.08

**Table 6. Cyclical developments (% of GDP); II method**

	ESA Code	2003	2004	2005	2006	2007
1. GDP growth at constant prices	B1g	3.7	5.0	5.0	5.6	5.6
2. Actual balance of GG sector	B9	-4.1	-5.7	-4.2	-3.3	-1.5
3. Interest payments	D41	3.1	2.9	3.1	3.0	2.8
4. Potential GDP growth		3.6	4.2	4.7	5.0	5.1
5. Output gap		-1.4	-0.7	-0.3	0.3	0.7
6. Cyclical budgetary component		-0.40	-0.20	-0.09	0.07	0.20
7. Cyclically-adjusted balance (2-6)		-3.70	-5.50	-4.11	-3.37	-1.70
8. Cyclically-adjusted primary balance (7+3)		-0.60	-2.60	-1.01	-0.37	1.10

### Box 3. Methods selected for calculation of the cyclically-adjusted balance

#### *Method I (classic)*

Elasticity of revenues from indirect taxes as well as elasticity of non-tax revenues with respect to potential GDP was assumed at the level of 1. Elasticity of personal income tax (PIT) with respect to potential GDP was derived in accordance with methodology presented in *Estimating Potential Output, Output Gaps and Structural Budget Balances* – it takes into account the current PIT system and the structure of taxpayers.

#### *Method II*

To calculate the elasticities the method presented in *How Serious is the Pact on Stability and Growth?* by Thomas Url was used.

Basic assumption in the method is to accept fixed elasticities of selected categories of budgetary revenues/ expenditure with respect to potential GDP ( $\delta_n$ ) and cyclical changes ( $\varepsilon_n$ ):

$$\ln(B_{n,t}) = a_{n,t} + \delta_n \cdot \ln(Y_t^*) + \varepsilon_n \cdot \ln\left(\frac{Y_t}{Y_t^*}\right) + v_{i,t},$$

where:

$Y_t^*$  - potential GDP level in year t

$Y_t$  - real GDP level in year t

Structural changes in the fiscal system are represented by stochastic trend  $a_{n,t}$  with slope of

$b_{n,t}$ :

$$a_{n,t} = a_{n,t-1} + b_{n,t-1} + \eta_{n,t}$$

$$b_{n,t} = b_{n,t-1} + \xi_{n,t}$$

Due to short annual time series the above system for selected categories of budgetary revenues/ expenditure was estimated on seasonally adjusted quarterly time series (Tramo/Seats procedure). To estimate parameters an Eviews module to state space system estimation was used.

It was assumed that the elasticity of non-tax revenues with respect to potential GDP is 0, i.e. differently from that in method I.

### III.6. GENERAL GOVERNMENT DEBT

50. In the recent years, the government debt has been growing faster than the GDP. According to the forecast, this process will be gradually slowed down. In the coming years, the debt will still be on an increasing path, followed by its stabilisation at the level below 60% of GDP.

51. The forecast debt increase in the coming years is mainly determined by the borrowing requirements of the state budget, and especially by the level of the state budget deficits. Apart from the development of basic macroeconomic indicators, some other factors influencing the debt level shall be mentioned:

- obligation to pre-finance projects developed with the EU funds<sup>13</sup>,
- possible continuation of present tendencies in terms of the debt of general government units other than the State Treasury, in particular - an increase in the local government debt connected with the necessary co-financing,
- the level of privatisation receipts.

**Table 7. General government debt (% of GDP)**

	ESA code	2003	2004	2005	2006	2007
Gross debt level		45.3	49.0 <sup>a)</sup>	51.9	52.7	52.3
Change in gross debt		15.0	15.5	13.5	9.3	7.0
Contributions to change in gross debt						
Primary balance		-1.0	-2.8	-1.1	-0.3	1.3
Interest payments	D41	3.1	2.9	3.1	3.0	2.8
Nominal GDP growth	B1g	-2.0	-3.4	-3.7	-4.1	-4.0
Other factors influencing the debt ratio						
Of which: privatisation receipts		-0.4	-0.8	-0.8	-0.7	0.0
p.m. implicit interest rate on debt (%)		6.8	6.0	6.0	5.7	5.3

a) The level of the debt differs from the one presented in the fiscal notification of February 2004 mainly because of differences in the exchange rate forecast. Changes in the structure of financing borrowing requirements of the state budget also play a role: both within the domestic and foreign component of the government debt and in the relation between the components.

---

<sup>13</sup> Pre-financing projects developed with the EU funds means the obligation to finance numerous actions with national resources which are later reimbursed by the EU. Significant amounts are involved especially in reference to the Common Agricultural Policy because direct subsidies to production in year 'n' are financed from national financial resources and reimbursed in the first quarter of year 'n+1'.

## IV. SENSITIVITY ANALYSIS AND COMPARISON WITH PEP 2003

### IV.1. RISK FACTORS AND VARIOUS SCENARIOS FOR THE GENERAL GOVERNMENT

1. The forecast of the general government is based on the baseline macroeconomic scenario and takes also into account the planned measures to reform the general government. However, there are some risks referring to the assumptions of the forecast. The results of the forecast presented on the charts as well as in the text were based on sectoral models as well as on information and data obtained from the units of the general government.

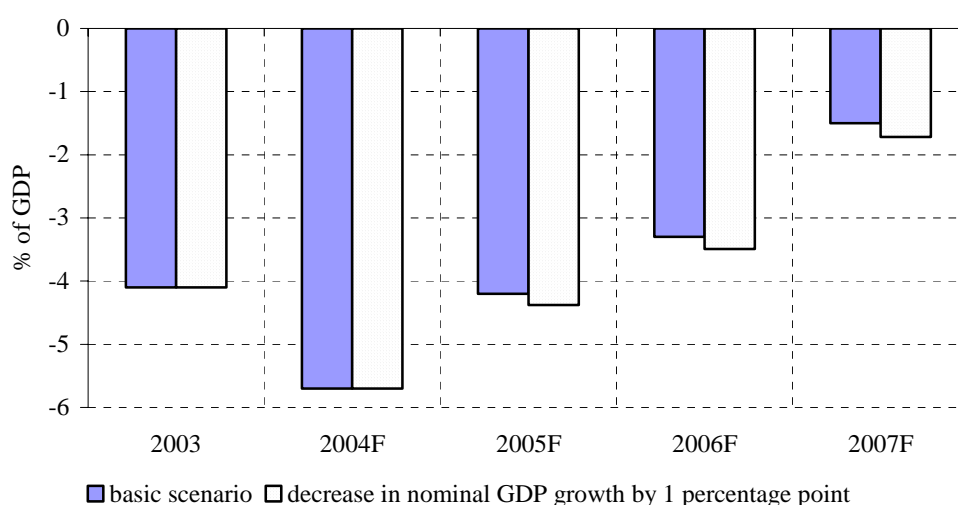
2. Presented path of the general government deficit and debt is the effect of both macroeconomic and systemic changes. The main risk factors are the following:

- lower economic growth,
- a significant weakening of the zloty,
- an increase in inflation and a tightening of the monetary policy,
- the lack of regulations regarding reprivatisation.

3. The main risk factors for the macroeconomic scenario are the following:

- delay in the economic recovery of Poland's main trade partners,
- considerable uncertainty concerning the situation in Iraq and its influence on oil prices, as well as terrorist threats to countries involved in the stabilisation mission to Iraq, including Poland,
- an increase in exchange rate fluctuations in the acceding countries resulting from the so-called convergence play,
- higher than expected accession-related growth of prices, and a possible tightening of monetary policy in reaction to such developments,
- lack of institutional capacities to achieve anticipated absorption of the EU funds.

**Chart 11. Sensitivity of the general government balance to a change in nominal GDP growth**



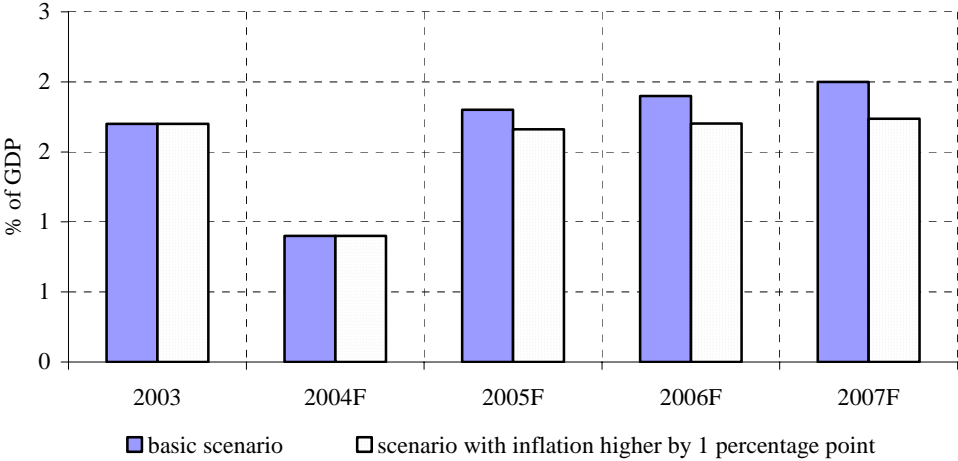
4. The deviation of the exchange rate from the basic scenario towards depreciation may be caused by tensions on financial markets connected with a possible increase in political risk and potential problems with fiscal reform implementation. On the other hand, a movement of

the exchange rate towards appreciation may result from a more intensive convergence play than expected.

5. Taking into account the low dynamics of inflation observed recently in Poland and the high share of food in the basket of goods and services (27%), the major risk for realisation of the inflation forecast may come from factors independent from the conducted policy, such as higher than expected growth in food prices. Possible changes in food prices may result from limited supply of agricultural products (e.g. unfavourable agro-meteorological conditions) in Poland as well as on the world markets. Additional risks may arise from a larger than expected weakening of the zloty. Lower than expected inflation might appear in case of a much stronger appreciation of the zloty or a much stronger fall in prices for raw products on the world markets.

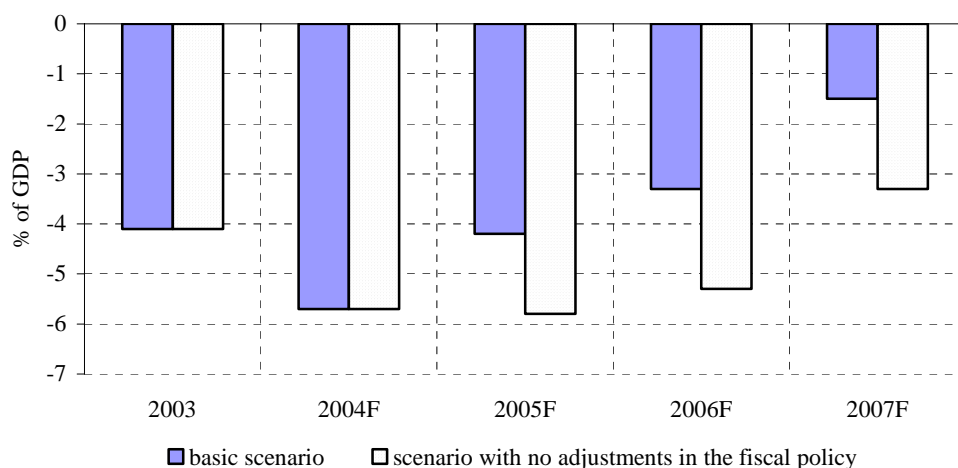
6. Revenues from social contributions and social spending of social security funds are related to the developments in inflation, employment and wages and salaries. The next chart presents a particularly strong influence of inflation on the balance of social security funds. This influence comes from indexation mechanisms linking amounts of pensions and retirement pensions with the inflation rate.

**Chart 12. Balance of social security funds**



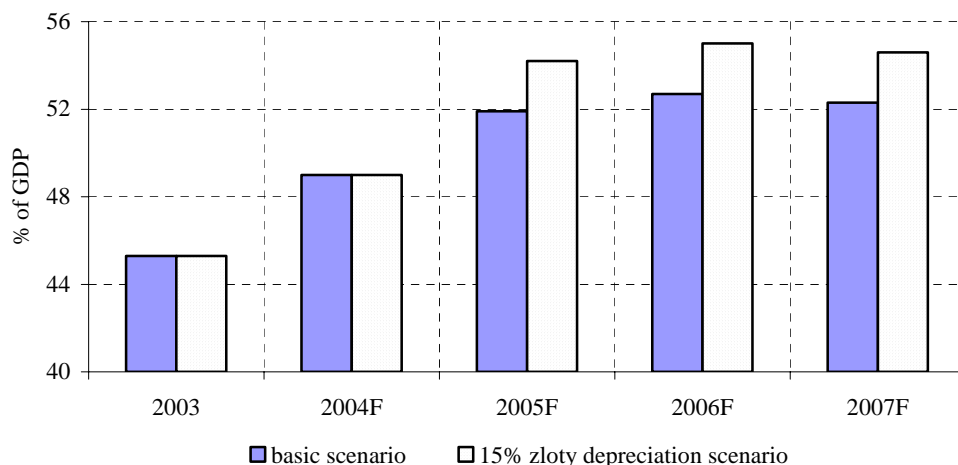
7. Current political situation raises some doubts whether the next government will be able to effectively implement the *Programme for Rationalisation and Reduction of Public Expenditure*. Two scenarios can be considered in the current situation. In the first, the creation of a new government that will continue to implement budgetary savings approved by the Government in January 2004 is assumed. Thus, parliamentary elections would be held in 2005. Under the second scenario, establishment of the new government fails and earlier parliamentary elections are necessary. This would mean a several month delay in the implementation of the reforms. Real effects of the *Programme for Rationalisation and Reduction of Public Expenditure* for the general government, i.e. spending cuts, are scheduled for 2005. Hence, under the second scenario urgent decisions of the new government will be necessary to prevent the deficit in the general government from further widening. Some political parties that could form a future government show determination in implementing fiscal reforms, including a reduction in the general government deficit and debt.

**Chart 13. General government balance without adjustments in the fiscal policy**



8. The level of the government debt is characterised by a considerable vulnerability to the exchange rate because the share of debt denominated in currencies other than the zloty is significant although decreasing (representing ca. 30% between 2004–2007). In a given year the zloty weakening by 1% against the euro (and a proportional weakening against other currencies, in which the foreign debt is denominated), *ceteris paribus*, will effect in an increase in the debt-to-GDP ratio by 0.15–0.16 percentage points compared to the basic scenario.

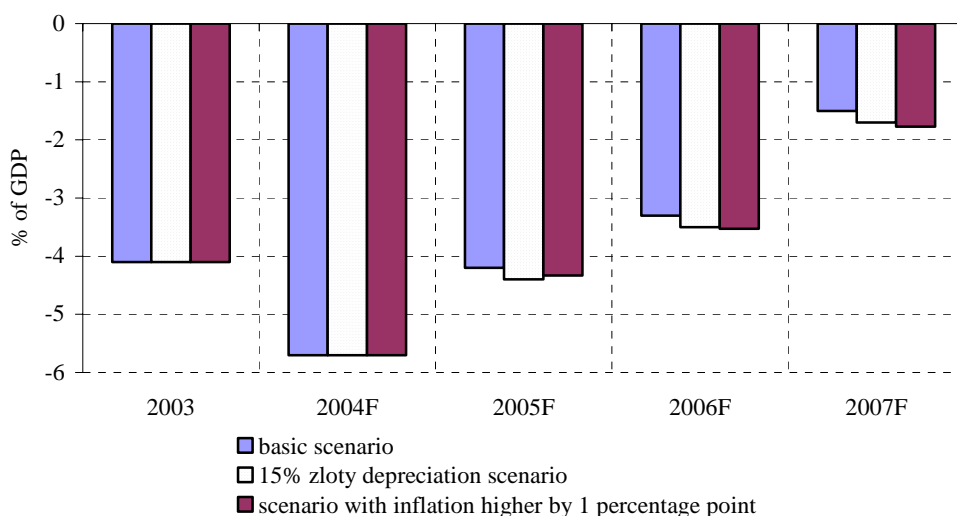
**Chart 14. General government debt**



9. In the short run, a rise in interest rates affects the nominal debt level through the channel of new issuances of discounted instruments (mainly Treasury bills and zero-coupon bonds). Financing the same level of gross borrowing requirements means a positive correlation between a rise in interest rates and nominal debt. In the long run, an additional factor appears: increase in interest rates pushes up debt servicing costs and the deficit simultaneously. The period of full adjustment to the new level of interest rates depends on the debt structure. Duration of the domestic market debt, which reflects adjustment time to the new level of interest rates, is slightly more than 2 years.

10. Sensitivity of debt servicing costs to a change in interest rates in a given year is small. Major costs in a given year are determined by the structure and amount of issuances in previous years. Therefore, there is some delay in reaction of debt servicing costs to a change in interest rates. A change in interest rates in the year ‘n’ has little effect in this particular year and a significant impact on costs in the following years. Sensitivity of debt servicing costs to a one percentage point shift of the yield curve is reflected in their change between 2004–2007 by 0.8%, 4.2%, 7.7% and 9.6%, respectively, in comparison to debt servicing costs in the baseline scenario. Debt servicing costs are not very sensitive to exchange rate fluctuations, which is reflected on the next chart.

**Chart 15. Sensitivity of the general government balance to changes in interest rates and exchange rate fluctuations**



11. One of key elements of fiscal risk in Poland are compensations owing to the takeover of private property by the State Treasury in the years 1944–1962. This issue has not yet been regulated by any new legislation.. However, estimation of the property value, which was taken over without equivalent payments, has already been finished. Potential liabilities of the State Treasury resulting from this source amount to about 40 billion PLN. Lack of detailed regulations causes a constant flow of claims, and their proper evaluation is sometimes difficult. The *Programme of privatisation of the State Treasury property until 2006*, approved by the Government in 2003, assumes such a way of settling claims which presents the least possible burden for public finance. The main assumptions of a possible future regulation concerning the reprivatisation issues are as follows:

- replacement of 100% compensation by 15% indemnity,
- centralised collection of reprivatisation claims and centralised management over the reprivatisation process within the Ministry of Treasury,
- spreading the compensation payments over a 20 year period.

12. Reprivatisation payments would be supported by shares of state-owned enterprises, receipts from the sale of real estate owned by local government units and from the sale of property managed by the state agencies. Considering the stability of public finance such a solution appears the most appropriate, and it also gives some guarantee of meeting the reprivatisation claims.



## IV.2. COMPARISON WITH PEP 2003

13. Economic growth in Poland reached 3.7% in 2003 and was higher than the forecast 3.0% presented in the *Pre-accession Economic Programme 2003 update* (PEP 2003). The main reason explaining the difference is a higher than estimated growth in exports and the related higher net exports contribution to the GDP growth. Higher exports growth reflected the considerable improvement in the competitiveness of Polish enterprises which resulted from the significant and unexpected exchange rate depreciation (real effective depreciation of the zloty exchange rate weighted by the geographic structure of Polish exports and CPI deflated was 13.2% in comparison with 2002) as well as from the decline in labour costs in industry by approximately 8.0% and an increase in labour productivity in this sector by almost 12.0%.

14. The most significant difference in comparison with PEP 2003 is the projected increase of the 2004 general government deficit by 0.7% of GDP. This results from bigger than previously expected central government deficit (by 0.4% of GDP), as well as from a lower surplus in social security funds (by 0.4% of GDP). Increase in the central government deficit mainly reflects a higher state budget deficit. Decrease in the social security funds surplus stems from a deterioration in FUS and the Labour Fund associated with lower revenues from social contributions as well as with an increase in financial transfers from FUS to the Social Insurance Institution.

15. In PEP 2003 the government debt was assumed to reach the peak in 2005. A declining deficit was supposed to ensure preliminary stabilisation of the debt and its gradual fall in the coming years. According to preliminary calculations, the government debt reached 45.3% of GDP, which is over one percentage point more than previously expected. There are two reasons which can explain such development. First, realised privatisation receipts amounted to just 40% of the plan. As a consequence, higher issuances of Treasury securities followed. Secondly, depreciation of the zloty in 2003 was higher than previously forecast. As a result the debt rose sharply due to exchange rate losses (approximately 24% of the total increase in debt).

16. The current scenario assumes a higher growth of debt of the central government and social security funds compared to PEP 2003. The main changes concern the central government debt, especially the State Treasury debt. This will be caused by growing borrowing requirements. Mainly due to a decrease in the projected local government deficit, the forecast debt growth of this sub-sector is currently lower in comparison to 2003 PEP.

**Table 8. Divergence from PEP 2003 (% of GDP)**

	ESA code	2003	2004	2005	2006	2007
GDP growth	B1g					
PEP 2003		3.0	5.0	5.0	5.6	n.a.
Convergence Programme		3.7	5.0	5.0	5.6	5.6
Difference		0.7	0.0	0.0	0.0	n.a.
Actual budget balance	B9					
PEP 2003		-4.1	-5.0	-4.0	-3.4	n.a.
Convergence Programme		-4.1	-5.7	-4.2	-3.3	-1.5
Difference		0.0	-0.7	-0.2	-0.1	n.a.
Gross debt levels						
PEP 2003		44.3	46.9	49.2	49.1	n.a.
Convergence Programme		45.3	49.0	51.9	52.7	52.3
Difference		1.0	2.1	2.7	3.6	n.a.

## V. QUALITY OF PUBLIC FINANCE

### V.1. STRATEGY

1. The objective of the Government's *Programme for Rationalisation and Reduction of Public Expenditure* is to eliminate the high general government deficit and to constrain the debt growth through reducing expenditure by about 31.0 billion PLN and by improving revenue by about 22.6 billion PLN.

2. The basic activities within the framework of the above-mentioned programme on the revenues side will be an increase in the efficiency of tax administration and an expansion of the tax base without introducing additional tax burdens. Actions on the expenditure side focus mainly on reductions in administrative spending through limiting employment in the public administration, liquidating certain units of the general government, cuts in other costs and the reform of social expenditure (see chapter VII).

3. The next table presents the situation in the general government until 2007 taking into account the baseline macroeconomic scenario and related assumptions as to the future fiscal policy.

**Table 9. Revenues and expenditure of the general government (% of GDP)**

	ESA Code	2003	2004	2005	2006	2007
General government (B9)	S13	-4.1	-5.7	-4.2	-3.3	-1.5
Central government	S1311	-5.6	-6.4	-5.5	-4.8	-3.4
Local government	S1313	-0.2	-0.2	-0.4	-0.4	-0.1
Social security funds	S1314	1.7	0.9	1.8	1.9	2.0
General government (S13)						
Total revenues	ESA	50.9	50.6	50.4	50.0	49.1
Total expenditure	ESA	55.0	56.3	54.6	53.3	50.6
Budget balance	B9	-4.1	-5.7	-4.2	-3.3	-1.5
Net interest payments	D41	3.1	2.9	3.1	3.0	2.8
Primary balance		-1.0	-2.8	-1.1	-0.3	1.3
Components of revenues						
Taxes	D2+D5	21.2	20.5	19.9	19.6	19.9
Social contributions	D61	14.4	14.2	14.2	14.1	13.9
Interest income	D41	1.0	0.8	0.8	0.8	0.9
Other		14.3	15.1	15.5	15.5	14.4
Total revenues	ESA	50.9	50.6	50.4	50.0	49.1
Components of expenditure						
Collective consumption	P32	8.9	9.0	8.6	8.3	8.0
Social transfers in kind	D63	8.1	8.1	7.8	7.5	7.2
Social transfers other than in kind	D62	17.8	17.4	15.3	15.0	14.3
Interest payments	D41	3.1	2.9	3.1	3.0	2.8
Subsidies	D3	0.1	0.1	0.4	0.4	0.4
Gross fixed capital formation	P51	3.5	3.7	3.8	3.7	3.6
Other		13.5	15.1	15.6	15.5	14.5
Total expenditure	ESA	55.0	56.3	54.6	53.3	50.6

4. The forecast was based on the assumption that compulsory open pension funds are treated as a part of the general government. Basing on the results of the working group appointed by

the Eurostat to classify capital pension schemes in government accounts according to ESA 95, Eurostat issued a decision on the classification of pension funds in ESA 95 system. The OFE classification has been the subject of bilateral consultations with Eurostat experts at the time of preparation of the Convergence Programme. Polish authorities maintain their statement that OFE should be classified as an element of the general government.

## **V.2. GENERAL GOVERNMENT EXPENDITURE**

5. The level of expenditure in relation to GDP was on an increasing path in 2000-2003. The general government expenditure amounted to ca. 50% of GDP in 2000 and the ratio rose to 55.0% of GDP in 2003. The share of social transfers in social expenditure (retirement pensions, disability pensions, family pensions, sickness allowances) is considerably higher than for example in other OECD countries despite the fact that Polish society is one of the youngest in Europe.

6. Granting an exceptionally large number of new pensions and early retirement pensions softened social tensions at the beginning of 1990s, becoming simultaneously the major cause of increase in the structural deficit in public finances and the debt explosion in 2001-2003. The direct consequence of the significant growth in expenditure on pensions and retirement pensions at the beginning of 1990s were high rates of quasi-tax burdens on wages and salaries. They are considered one of the main reasons of a very difficult situation on the labour market.

7. A fall in nominal expenditure shall not be expected in the next years as a consequence of the accession-related expenditure. Polish contribution to the EU budget is estimated to amount to 1.1% of GDP on average in 2005-2007. Poland has also to co-finance the EU-financed investments. Debt servicing costs and gross fixed capital formation are assumed constant in relation to GDP in the analysed period. Debt servicing costs are determined mostly by past liabilities incurred to finance the high borrowing requirements. The effects, i.e. lower debt servicing costs, will only be visible in the further years despite decreasing general government deficit. Gross fixed capital formation is stable in relation to GDP - its nominal growth dynamics is close to the nominal GDP growth. The highest share of expenditure belongs to social transfers which represented 25.9% of GDP in 2003. This ratio is expected to fall (by as much as 4.5 percentage points in 2007 compared with 2003), mainly as the result of ongoing and planned reforms of the social security system. Advantageous changes in the expenditure structure are expected, i.e. growing share of investment expenditure and decreasing share of transfer expenditure, including social spending. Total expenditure in relation to GDP will be declining. This should be considered positive not only because of reduced general government deficit, but also with regard to the decreasing involvement of the state in the redistribution of national income.

8. Implementation of the *Programme for Rationalisation and Reduction of Public Expenditure* would favour the reduction in public expenditure in relation to GDP and modification of its structure. As far as the expenditure is concerned, their reduction and rationalisation is foreseen, it would concern actions within the public administration, economy as well as social expenditure.

## **V.3. GENERAL GOVERNMENT REVENUES**

9. The main categories of the general government revenues are tax revenues and social security contributions, which represent ca. 34-35% of GDP in individual years. However,

their total share in relation to GDP is projected to decline from 35.6% in 2003 to 33.8 % in 2007 due to the fact that their elasticity in relation to GDP is less than 1. The total revenues to GDP ratio shows a similar tendency, decreasing from 50.9% in 2003 to forecast 49.1% in 2007.

10. Essential changes introduced to the tax system in the recent years are connected with:

- the accession to the EU,
- decreasing fiscal burden of entrepreneurs,
- other factors related to the reform of local government finance, rationalisation and simplification of the tax system.

#### ***Changes in the tax system related to the EU accession***

11. Changes in the tax system concerned mainly indirect taxes, e.g. VAT and excise taxes. Beginning from 2004, VAT and excise tax regulations have been finally separated, according to the EU standards.

12. The new VAT law has introduced general rules, regulating VAT tax settlement, including settlement of tax imposed on the intra-Community trade. At the same time the VAT tax rates have been adjusted to a large extent to the EU standards.

13. The new law on excise tax regulates taxes levied on specific groups of goods and adjusts Polish regulations to the Community law. It introduces e.g. the excise tax warehouse system which would enable the excise commodities turnover in the system of suspended tax (the tax is paid when the product leaves the tax warehouse, not the production plant).

#### ***Changes in the tax system aiming at decreasing fiscal burden***

14. Tax rates reduction in direct taxes should be considered as the most important. These changes were oriented towards improving the situation of enterprises and attracting direct investments. The following changes should boost the economic growth:

- reduction in the corporate income tax rate (CIT) from 27% to 19% connected with abolition of tax relief and tax exemptions; in the previous years a tax rate reduction of such an extent, i.e. by 8 percentage points, was spread over a 3 year period (between 1999-2001),
- introduction of 19% PIT option for taxpayers running economic activity; it concerns persons who previously used progressive tax rates (19%, 30%, 40%),
- introduction of accelerated amortisation method; in the first year, the amount of amortisation of fixed assets, classified as tax deductible cost, can amount to 30% of its initial value,
- introduction of possibility of restructuring legal-public receivables within the framework of law on restructuring some legal-public receivables from entrepreneurs, as a result of accumulating tax arrears referring to deterioration of economic situation. This solution aimed at restoring financial liquidity and credit ability, creating a stable and growth-friendly business environment as well as restoring long-term competitiveness, and employment growth,
- introduction of the tax premium with the purpose of clearing accumulated payments congestions, so as to improve financial liquidity of economic entities. It allowed to classify to tax deductible costs uncollectible receivables and reserves for amounts which are not paid off in a 6 month period,
- introduction of new regulations on the creation of bank reserves.

15. High level of entrepreneurs' fiscal burden hampers economic growth process and job creation. Decrease in CIT rates raises disposable income of entrepreneurs, which – if spent on development - constitutes favourable conditions for investment growth and unemployment reduction.

### *Other changes*

16. A number of other changes in the tax system have also been introduced in recent years. These changes have aimed at liquidating the barriers to development and entrepreneurial activity, and improving effectiveness of public spending. The most important changes are the following:

- decrease in procedural barriers, shortening and simplifying procedures, including judicial economic proceedings (it is important for improvement in enterprise operations), introduction of possibility for VAT quarterly settlement for small entities etc.,
- standardised taxation of capital gains through the introduction of a flat 19% tax rate beginning from 2004 and, additionally, widening of the tax base owing to expiring tax exemptions related to the gains from bonds, publicly traded securities, execution of securities rights with the end of the year 2003,
- changes in the system of financing the local government, beginning from 2004. New solutions strengthen decentralisation of public finance and increase economic independence of the local government units in terms of their own revenues, for example through a rise in the share of the local government units in direct taxes revenues. The solutions link more closely the financial situation of the local government units with the condition of the economy. Moreover, the local government capacity to absorb the EU funds is strengthened by intensified flow of funds and more flexible rules of financial management.

## VI. SUSTAINABILITY OF PUBLIC FINANCE

1. One of the most important challenges to the public finance sustainability is the process of ageing populations caused by decreasing fertility rate and lengthening of life expectancy. The average Pole's age will rise from 36.7 years in 2002 to 45.5 years in 2030 with a tendency of further growth. The year 2003 was the fifth in a row of the real decrease in the population size and the second in a row of the negative natural increase. Due to the low natural increase and the negative international migration balance the population in Poland decreased approximately by 89 thousand persons in the years 1999-2003. The population growth rate was negative and decreased from -0.03% in 1999 to -0.08% in 2003 that implies the acceleration of the fall in the population rate in Poland.

2. It is estimated that the population in Poland amounted to 38 191 thousand persons at the end of 2003. This estimate was based on final results of the *National Population and Housing Census* of May 2002 (NPHC). According to the census, the population was by ca. 400 thousand persons (1.1%) lower in comparison with the population balance at the end of 2001 based on the previous census. Significant changes were also noticed in the population structure by age – they especially involved the decline in the number of persons at mobile working age.

3. Demographic research and analysis prove that the drop in fertility rate observed for several years has not stopped and it applies to increasing extent to another youth generations. There are several reasons for this phenomenon: an increase in the interest in education, difficulties on the labour market, reduction in welfare benefits for families, the fact that social policy is not based on the principle of family strengthening, and difficult socioeconomic conditions for the persons at reproductive age. In the oncoming years the experts forecast a further fall in the fertility rate from current average 1.25 children per woman to ca. 1.10 in 2010. In the years 2010-2020 a small increase in fertility rate is expected (to the level of 1.20).

**Table 10. Fertility rate and life expectancy until 2030**

	2002	2010	2020	2030
Fertility rate	1.25	1.10	1.20	1.20
Life expectancy				
total	74.5	76.9	78.7	80.0
males	70.4	73.3	75.8	77.6
females	78.8	80.6	81.8	83.3

Source: Central Statistical Office.

4. The drop in deaths and the increase in life expectancy is forecast to continue, but the catching up process with the most developed countries will be slower than during the last decade. According to the Central Statistical Office (CSO) forecast, the population size will decline by 1 million persons until 2020 in comparison with the end of 2002 and by further 1.5 million in the next decade (2020-2030). As a result of the lower fertility rate in the urban areas than in the rural areas and the new phenomenon of migration from towns to countries situated near to towns, the fall in population size will be higher in the urban areas than in the rural areas.

5. The substantial shift in ratio of the number of persons at working age to the number of persons at non-working age is projected. In the years 2003-2010 the population at working age will increase by almost 1 million persons from 23.8 million in 2002 and the population at post-working age will rise by 600 thousand to 6.4 million. During another 20 years the number of persons at working age will steadily decrease to the level of 20.8 million in 2030 and at post-working age will increase to 9.6 million. Moreover, the total number of persons at non-working age per 100 persons at working age will grow from 60 to 72 (thus so-called economic burden will increase by one fifth). After 2020 the process of sudden ageing populations will be observed. A substantial increase in the eldest age groups will occur. The number of persons at the age of 85 and more will go up by 50% until 2010, reaching 500 thousand, and it will amount to 800 thousand in 2030.

6. The ageing populations process affects the public finance sustainability, especially the pension system situation, by growing demand for social transfers. The pension system reform introduced in 1999 aims at adjustment of the pension system to changing demographic conditions and at avoiding substantial growth in spending related with retirement pensions. In the new pension system, which applies to persons born after 1948, every insured person has two accounts where his contributions are collected<sup>14</sup>. Contributions equal to 12.22% of gross remuneration are registered on the first account managed by the Social Insurance Institution (ZUS). This account is indexed in accordance with the contribution accruing growth rate<sup>15</sup>. The second account is managed by the open pension fund (OFE) chosen by the insured person (in 2003 there were 16 open pension funds). The contributions transferred to OFE (7.3% of gross remuneration) are invested on the financial market. In the future a pension will depend on the sum of assets collected on both accounts and forecast life expectancy beyond the retirement age. It means that the value of future pensions will decrease along with life lengthening. In effect this system automatically adjusts to demographic trends. At the same time, within the framework of the pension system reform, the possibility of earlier retirement has been limited. As a result, real average age of retirement should increase since 2006.

7. Under the law on social insurance system ZUS is obliged to prepare an annual forecast of revenues and expenditure of the pension system – within its non-financial part. The 2004 forecast assumes that the number of persons at post-working age will double until 2050.<sup>16</sup> At the same time the number of persons at pre-working age will decrease by one third. Consequently, the demographic burden rate will grow by half.

---

<sup>14</sup> Persons born in the years 1949-1968 could choose the system with a single account in ZUS.

<sup>15</sup> According to the amendment to the law on pensions and retirement pensions from the Social Insurance Fund adopted in 2004; previously, the indexation of the accounts was equal to the inflation rate raised by 75% of the real growth of the sum of the contribution calculation basis. The presented forecast of the pension system expenditure includes the indexation rate from before this amendment.

<sup>16</sup> The demographic forecast (commissioned by ZUS) used in the projection of pension retirement expenditure was prepared on the basis of the data from before the census. Nevertheless, both discussed forecasts indicate similar trends in the demographic situation in the coming decades.

**Table 11. Demographic assumptions – basic scenario of ZUS forecast**

	2002	2010	2020	2030	2040	2050
	NPHC	Forecast				
Population [millions of persons]	38.2	39.0	39.4	38.5	36.8	35.0
males [millions of persons]	18.5	18.9	19.1	18.7	17.9	17.0
females[millions of persons]	19.7	20.1	20.2	19.8	19.0	18.0
Life expectancy at age 0						
males	70.3	72.0	74.2	75.6	77.0	78.5
females	78.4	79.4	80.7	81.9	83.2	84.7
Life expectancy at retirement age						
65 years old man	14.3	14.7	15.4	16.1	17.0	17.9
60 years old woman	22.1	22.7	23.6	24.5	25.6	26.8
Persons at pre-working age [millions of persons]	8.9	7.4	7.7	6.9	5.8	5.6
males (0-17) [millions of persons]	4.5	3.8	3.9	3.6	3.0	2.9
females (0-17) [millions of persons]	4.3	3.5	3.7	3.4	2.8	2.7
Persons at working age [millions of persons]	23.6	25.2	23.3	22.1	20.8	17.8
males (18-64) [millions of persons]	12.1	13.2	12.4	11.7	11.2	9.7
females (18-59) [millions of persons]	11.5	12.0	10.9	10.4	9.5	8.1
Persons at post-working age [millions of persons]	5.7	6.4	8.4	9.5	10.3	11.6
males (65+) [millions of persons]	1.8	2.0	2.8	3.4	3.7	4.4
females (60+) [millions of persons]	3.9	4.4	5.6	6.0	6.6	7.2
Demographic burden rate	0.62	0.55	0.69	0.74	0.78	0.97

Source: ZUS.

8. The revenues and expenditure forecast was prepared in the form of three macroeconomic scenarios: basic, optimistic and pessimistic (higher burden on the social insurance system).

**Table 12. Macroeconomic assumptions <sup>a)</sup>**

Percentage points	2002	2010	2020	2030	2040	2050
Inflation	1.9	2.0	2.0	2.0	2.0	2.0
GDP growth (real)	1.4	5.0	5.0	4.0	3.0	2.1
Unemployment rate						
Basic scenario	20.1	14.8	10.0	7.1	6.4	6.0
Pessimistic scenario	20.1	19.2	12.2	10.0	10.0	10.0
Optimistic scenario	20.1	12.2	7.8	6.0	5.1	4.5
Real wages and salaries growth						
Basic scenario	1.53	2.0	1.5	1.0	1.0	1.0
Pessimistic scenario	1.53	1.0	1.0	0.5	0.5	0.5
Optimistic scenario	1.53	2.5	2.5	2.5	2.0	2.0

a) This forecast was prepared by ZUS in 2003 so the macroeconomic assumptions do not reflect actual inflation, real GDP growth, unemployment rate and real wages and salaries growth in 2002. Thus, there are some discrepancies between assumptions in this forecast and those in other parts of this document.

Source: ZUS.



9. The presented forecast for these three scenarios shows contribution revenues (for retirement insurance), expenditure and annual balance of the pension system as GDP ratio (including both old pension system and the new one – within the scope of its non-financial part). The projection of the number of insured persons, the number of pensioners and the system's dependency rate (ratio between both above-mentioned populations) are also included.

**Table 13. Forecast results**

		2002	2010	2020	2030	2040	2050
		Basic scenario					
Revenues		9.2	8.2	6.0	4.1	3.1	2.3
Of which contributions	% of GDP	8.7	8.0	5.9	4.1	3.1	2.3
Expenditure		12.7	9.9	7.3	5.0	3.6	2.7
Annual balance		-3.5	-1.7	-1.3	-0.9	-0.5	-0.4
Number of insured persons	millions	12.9	14.9	15.5	15.2	14.3	12.6
Number of pensioners	of persons	7.5	7.1	7.9	8.5	8.9	9.5
System's dependency rate		0.58	0.48	0.51	0.56	0.62	0.75
		Pessimistic scenario					
Revenues		9.2	7.3	5.1	3.2	2.3	1.7
Of which contributions	% of GDP	8.7	7.1	5.0	3.2	2.3	1.7
Expenditure		12.7	9.7	6.9	4.6	3.3	2.4
Annual balance		-3.5	-2.4	-1.8	-1.4	-1.0	-0.9
Number of insured persons	millions	12.9	14.2	15.2	14.8	13.9	12.2
Number of pensioners	of persons	7.5	7.1	8.0	8.7	9.6	10.4
System's dependency rate		0.58	0.50	0.53	0.59	0.69	0.85
		Optimistic scenario					
Revenues		9.2	8.7	6.8	5.3	4.4	3.6
Of which contributions	% of GDP	8.7	8.4	6.8	5.2	4.3	3.6
Expenditure		12.7	9.9	7.5	5.5	4.3	3.4
Annual balance		-3.5	-1.3	-0.7	-0.2	0.1	0.2
Number of insured persons	millions	12.9	15.2	15.9	15.4	14.5	12.7
Number of pensioners	of persons	7.5	7.1	7.8	8.4	8.8	9.3
System's dependency rate		0.58	0.47	0.49	0.54	0.61	0.73

Source: ZUS.

10. The forecast indicates that the retirement pensions expenditure should decrease substantially after 2006 as a result of expected fall in the number of pensioners. After 2014 the expenditure will increase insignificantly in the consequence of demographic processes (the generation of the post-war population boom will reach retirement age). After 2020 the expenditure will decrease again because a part of the pensions for the majority of pensioners will be paid from financial pillar of the pension system. Based on the above-described macroeconomic assumptions, the system should achieve a positive balance by the end of forecast horizon (in 2049). Simultaneously, the pension system deficit should decrease gradually throughout the forecast period.

## VII. HORIZONTAL ISSUES AFFECTING PUBLIC FINANCE

1. Bringing the economy on the path of sustained, long-term and fast economic growth requires addressing several challenges. Considering the current structure of the general government spending, the actions presented in the *Programme for Rationalisation and Reduction of Public Expenditure* have been planned. These actions are mainly based on the necessity to rationalise the rules of expenditure calculation, reduce spending, make better use of accumulated resources and introduce regulations supporting the rationalisation and reduction of public expenditure.

2. The following changes are necessary: fundamental and structural rationalisation of public expenditure, reduction in the current spending share, reduction in determined spending and in benefits indexation, continued process of abolishing automatic index-linking mechanisms for some public spending, abolition of the indexation of unemployment benefits and other benefits paid from public resources.

3. The Government's programme is to involve both the revenues and the expenditure side. The total effect of the implementation of the proposed reforms is presented below.

**Table 14. Additional revenues and savings (PLN billions)**

	2005	2006	2007	Total
Influence on:				
revenues	7.0	7.6	8.0	22.6
expenditure	7.7	12.1	11.1	31.0
Total	14.8	19.8	19.1	53.6

Source: *Programme for Rationalisation and Reduction of Public Expenditure*

### ***Actions planned on the revenues side***

4. *The Programme for the Rationalisation and Reduction of Public Expenditure* foresees an increase in budgetary revenues due to changes in the tax system but without raising tax rates. These changes will mainly consist of the tax base extension. The following activities are anticipated in this field:

- broadening of the tax base for farmers income tax,
- gradual unification of VAT rates,
- improvement in the effectiveness of tax administration.

5. The increase in revenues will stem from the unification of competition rules among economic entities as the consequence of eliminating special rights of some groups (e.g. wealthier farmers and entrepreneurs) to receive sickness benefits. The actions in the programme contain:

- modification of the rules of contributions payments by pensioners in employment,
- increase in the basis for calculating social insurance contributions for persons running economic activity,
- changes in the field of employment, and vocational and social activation of disabled persons,

- reform of the pension system for farmers including, among other things, modification of the rules of social contributions payments by farmers and simplification of the financial structure of the Agricultural Social Insurance Fund.

6. The estimated quantitative effect of the implementation of the above-mentioned activities on the revenues growth is presented in the table below.

**Table 15. Influence on the general government revenues (PLN billions)**

	2005	2006	2007	Total
Administration and economy	4.4	4.6	4.8	13.7
Social sphere	2.6	3.0	3.2	8.9
Total	7.0	7.6	8.0	22.6

Source: *Programme for Rationalisation and Reduction of Public Expenditure*

### ***Actions planned on the expenditure side***

7. The first group of planned actions covers the rationalisation of administrative structures, the improvement in organisation and management of public institutions, and increase in public finance transparency through changes in earmarked funds. These actions aim principally at the reduction in administrative costs owing to the limitation of unjustified spending and oversized tasks. The most important actions in this field concern:

- lower employment in the voivodship administration and effective use of current employment in public administration to perform new EU-related tasks,
- reduction in operational costs of public administration,
- introduction of obligatory auditing the current spending incurred by public institutions other than the government administration,
- liquidation of: some funds and agencies, some tasks performed by public funds and agencies, some special resources in the ministries and central offices; liquidation and consolidation of some entities of the government administration,
- modification of the teachers' promotion system and abandonment of some special regulations for teachers, academic teachers and teachers in retirement.

8. The second group of the proposed actions, which concerns Polish economy, encompasses public aid, financing of the restructuring processes of the economy sectors and social services in danger, especially hard coal mining, the Polish State Railways and healthcare. Expected budgetary results include a gradual reduction in restructuring costs and liquidation of sectoral public aid. On the other hand, budgetary revenues will increase due to restoring effectiveness of economic entities from the above-mentioned sectors. The second group of the solutions contains:

- changes in the rules of financing national defence requirements,
- increase in revenues as a result of hard coal mining and the Polish State Railways restructuring,
- financial restructuring of public health care institutions and their transformation into commercial companies.

9. The third group of actions presented in the *Programme for Rationalisation and Reduction of Public Expenditure* refers to the rationalisation of social expenditure. These actions should lead not only to the reduction in high public social spending, but first and foremost to increase in employment rate (still very low) and limit poverty by gradual changes in the spending structure (from passive to active). It is one of conditions for sustainable development in Poland. The reduction of social expenditure will largely result from:

- progressive equalisation of the retirement age for women and men in the years 2014-2023 and the promotion of flexible forms of employment,
- gradual termination of the pre-retirement benefits granting and their final liquidation after 2006,
- replacement of the price-wage indexation of retirement pensions and disability pensions with price indexation and abolishment of automatic index-linking mechanisms for other benefits,
- strengthening of the labour market policies aiming at the activation of persons aged over 50 (*50+ Programme*),
- introduction of incentives to activate persons drawing pre-retirement benefits or disability pensions,
- introduction of the rule of granting disability pensions for a limited period and verification of the entitlement of persons deemed permanently unfit for work to receive disability pensions,
- limitation of the access to family pensions (for widows and widowers),
- elimination of special rights of some groups to receive sickness benefits,
- preparation of the system of bridging pensions and compensations as a consequence of eliminating the system of earlier retirement pensions after 2006,
- harmonisation of the rules determining disability pensions with the rules determining retirement pensions under the new pension system.

10. The estimated quantitative effect of the implementation of the above-mentioned activities on the spending reduction is presented in the table below.

**Table 16. Influence on the general government expenditure (PLN billions)**

	2005	2006	2007	Total
Administration and economy	1.9	2.3	2.5	6.7
Social expenditure	5.9	9.9	8.6	24.4
Total	7.7	12.1	11.1	31.0

Source: *Programme for the Rationalisation and Reduction of Public Expenditure*

### ***Actions on the labour market***

11. The labour market situation is determined by the structure of Polish economy, the effects of the implemented changes and the fast increase in population of working age. The actions aiming at improvement in the situation on the labour market, job creation and protection of existing workplaces were initiated with the implementation of the Government programmes: *First job* and *Entrepreneurship first*. Further activities are envisaged, e.g. adjustment of the education system to the needs of the labour market, job consulting and employment agencies.

12. The increase in the number of workplaces will result mainly from higher economic growth, rise in investment expenditure, further exports development, reduction in the CIT rate

from 27% to 19%, and from the pro-employment laws (the law on the promotion of employment and labour market institutions, and the law on economic freedom) that will become legally binding. Year 2004 is the next one when another group of persons born during the population boom enters the labour market. The number of persons at working age (18-59/64 years old) may be higher by about 200 thousand. This surplus will be partly reduced owing to the projected increase in the labour demand. It is forecast that the number of unemployed may decline to ca. 3.1 million persons and unemployment rate to 19.5% at the end of 2004, and to 16.1% at the end of 2007.

13. This process requires such a reform of employment services that will increase their role in job search. The changes will base on the implementation of the law on the promotion of employment and labour market institutions that should come into effect on June 1, 2004. This law envisages relieving the job offices of a part of their duties connected with benefits payments (especially pre-retirement benefits), and simultaneously promoting the offices that are effective in supporting the reactivation of unemployed.

## VIII. STATISTICAL ANNEX

**Table 17. Growth and associated factors**

Percentage points (unless otherwise indicated)	ESA Code	2003	2004	2005	2006	2007
<b>GDP growth at constant market prices (7+8+9)</b>	B1g	3.7	5.0	5.0	5.6	5.6
<b>GDP level at current market prices</b>	B1g	815.0	870.7	932.9	1005.8	1082.5
<b>GDP deflator</b>		0.7	1.7	2.0	2.1	1.9
<b>Employment growth <sup>a)</sup></b>		-2.3	-0.2	1.0	1.8	2.5
<b>Sources of growth: percentage changes at constant prices</b>						
<b>1. Private consumption expenditure</b>	P3	3.1	3.8	4.0	4.7	5.0
<b>2. Government consumption expenditure</b>	P3	0.4	1.6	1.2	0.8	0.8
<b>3. Gross fixed capital formation</b>	P51	-0.9	7.1	11.0	12.0	12.0
<b>4. Changes in inventories and net acquisition of valuables as a % of GDP</b>	P52 + P53	0.5	0.0	0.0	0.0	0.0
<b>5. Exports of goods and services</b>	P6	13.0	12.6	12.0	12.0	10.5
<b>6. Imports of goods and services</b>	P7	7.9	8.9	11.4	11.6	10.9
<b>Contribution to GDP growth</b>						
<b>7. Final domestic demand (1+2+3)</b>		2.0	4.0	4.9	5.5	5.8
<b>8. Change in inventories and net acquisition of valuables (=4)</b>	P52 + P53	0.5	0.0	0.0	0.0	0.0
<b>9. External balance of goods and services (5-6)</b>	B11	1.3	1.0	0.1	0.1	-0.2

a) Employment means employees hired on the basis of an employment contract (labour contract, posting, appointment or election); fall in the number of employed persons amounted in 2003 (MF estimate) to 1.8%.

**Table 18. Assumptions on the external economic environment**

	ESA Code	2003	2004	2005	2006	2007
<b>Short-term interest rate (in %, annual average)</b>		5.7	5.3	5.7	6.2	5.9
<b>Long-term interest rate (in %, annual average)</b>		n.a.	n.a.	n.a.	n.a.	n.a.
USA: short-term (3-month money market)		1.2	1.2	1.7	n.a.	n.a.
USA: long term (10-year government bonds)		4.0	4.2	4.6	n.a.	n.a.
<b>USD/€exchange rate (annual average)</b>		1.13	1.26	1.22	1.17	1.12
Nominal effective exchange rate of the euro area (% change)		11.8	4.2	0.2	n.a.	n.a.
Nominal effective exchange rate of the EU (% change)		12.8	6.9	-1.1	n.a.	n.a.
<b>PLN/€exchange rate (annual average)</b>		4.40	4.79	4.66	4,62	4,55
<b>Real GDP growth: World excluding EU</b>		4.4	5.1	4.7	n.a.	n.a.
US		3.1	4.2	3.2	n.a.	n.a.
Japan		2.7	3.4	2.3	n.a.	n.a.
<b>EU-15 GDP growth</b>		0.8	2.0	2.4	n.a.	n.a.
<b>Growth of relevant foreign markets</b>		n.a.	n.a.	n.a.	n.a.	n.a.
<b>World import volumes, excluding EU</b>		7.3	9.7	8.5	n.a.	n.a.
World import prices, (goods, in USD)		8.8	6.4	0.7	n.a.	n.a.
<b>Oil prices (Brent, USD/barrel)</b>		28.5	31.1	28.9	n.a.	n.a.
Non-oil commodity prices (in USD)		6.6	15.6	2.6	n.a.	n.a.