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Population ageing and sustainability of the welfare state in the Czech Republic

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Presentation overview sums up basic features of:

- Reflection of population ageing in redesigned Lisbon Strategy for growth and jobs
- Demographic trends
- Impact of population ageing on public spending
- Job creation and the effects of ageing population
- Welfare system confrontation with population ageing.

1. Reflection of population ageing in redesigned Lisbon Strategy for growth and jobs

The new start of the Lisbon strategy, as reflected in Integrated guidelines for growth and jobs for 2005 – 2008 (/1/) aims in the medium term to growth and employment as key factors for preserving and enhance living standards in the Union, while respecting the objective of sustainable development. In a longer time-frame this focus is all the more important for trends that could significantly affect outlook for growth and employment: internally, the ageing of Europe's population and externally, globalization.

The ageing of Europe's population will put an enormous strain on public finances and the labour supply. Expected demographic changes have important economic consequences. Few people will be of working age in the next decades. Currently for every elderly citizen four people are at work, but by 2050 the ratio will be two to one. Europe's workforce will start to shrink from roughly 300 million people today, to approximately 250 million by 2050. A smaller workforce will act as a brake on potential growth, reducing it from 2-2.5 per cent today to just 1.25 per cent in 40 years time (/2/).

The costs of an ageing population (pensions, healthcare) will swell. The sustainability of current social welfare systems will come under severe strain.

Europe's ageing population poses serious risks to the long-term sustainability of the European Union (EU) economy. According to the latest projections, by 2050 the EU's population of working age (15-64) will be 18 % lower than in 2000 and the number of people

aged over 65 years will have increased by 60 %. This not only implies higher dependency ratios, it also means that there will be an increased debt burden, higher real interest rates and lower potential output unless action is taken now to safeguard the long-term sustainability of the EU economy.

According to Integrated guideline (No. 2) for safeguard long-term economic sustainability in the light of Europe's ageing population, member States can address the economic implications of ageing by pursuing a faster pace of debt reduction and by taking measures to raise employment rates and increase labour supply so as to offset the impact of future declines in the number of persons of working age. It is also essential to modernize social protection systems so as to ensure that they are financially viable, while at the same time ensuring that they fulfill their goals in terms of access and adequacy, in the face of higher dependency ratios and the rising needs linked to an increase in the number of elderly persons. In particular improved interaction between social protection systems and labour markets can remove distortions affecting retirement decisions and encourage extended working lives against a background of increased life expectancy.

The economic implementations of ageing in medium and long-term development are reflected in the National Reform Programme (2005 – 2008) (/3/) and also in updated version of the Convergence Programme of the Czech Republic (/4/). The Commission's assessment of the both documents shares the view that demographic development is the important challenge for sustainability of the future economic growth and welfare policy in the Czech Republic (/5;/ /6/).

Ageing as important challenge is also reflected in the medium-term strategy of the Czech Republic economic growth (/7;/ /8/).

2. Demographic trends

The demographic position of the Czech Republic is expected to change dramatically over the next few decades. A demographic projection of the Czech Statistical Office (/11/) highlights negative trends of ageing population, i.e. reduction of share of the young generation due to the past and present low birth rates and a growing number of seniors thanks to the extending average life expectancy.

From the static point of view, the current demographic situation is obviously the most favourable over the entire history backed up with demographic data. A record level of the share of population in the age group 20-59 has reached 58.9 per cent in 2005. This category includes numerically strong age groups born immediately after the World War II as well as strong generations of the seventies and eighties. On the other hand, numbers of young people (0-19) are falling from 22.9 per cent to 21.0 per cent and numbers of 60 plus seniors are increasing from 18.4 per cent to 20.0 per cent of total population during 2000-2005 (/9/).

From the dynamic point of view, we witness a beginning of population-ageing process, which will escalate at the end of this decade (see figures in Table 1). Share of young-age categories will go on reducing. It results from the past and present extremely low birth rates related not only with a change in lifestyle but also with a very poor availability of housing for young families. On the other hand, number and share of seniors in population will grow thanks to the extending average life expectancy.

Unfavourable development can be partly mediated but not solved by international migration with the Czech Republic becoming a target country.

The population profile over time depends on assumptions about fertility, mortality and net immigration flows. In 2005, the Czech Republic reported a fertility rate of 1.28, the lowest

among the OECD countries. Fertility is assumed to increase to 1.62 by 2050. Fertility rates lower than 2.0 imply a long-run decline in the total population.

Life expectancy at birth, reflecting mortality over the whole lifespan of a particular cohort, is expected to increase for both males and females, but the increases are smaller for women than for men. Life expectancy for males is assumed to rise from 72.1 to 78.9 years and for females from 78.5 to 84.5 years during 2002 - 2050.

Table 1
Basic features of the demographic development in the Czech Republic to 2050

	2002	Medium variant of projection		
		2010	2030	2050
Assumptions				
Fertility rate	1.17	1.30	1.60	1.62
Life expectancy of men (years)	72.1	73.1	76.0	78.9
Life expectancy of women (years)	78.5	79.4	81.9	84.5
Results				
Population (th.)	10203	10283	10102	9438
Age distribution of the population in per cent of total				
0-19	22.1	19.2	17.3	16.7
20-59	59.0	58.1	53.2	44.6
60+	18.9	22.7	29.5	38.7
Average age of population (years)	39.3	41.2	45.9	48.8
Share of working-age population, in per cent ^a	70.5	70.9	64.5	56.3
Old age index ^b	89	114	181	252
Old-age share in total population, in per cent ^c	13.9	15.5	22.9	31.3
Old-age dependency ratio ^d	19.7	21.9	35.4	55.7
Index of economic dependency ^e				
A	42	41	55	78
B	56	53	67	92
Share of pensions claim people in total population, in per cent ^f				
A	20.1	22.1	28.8	38.0
B	20.1	21.0	26.7	35.7

^a Population of 15-65 years in total population

^b Number of people in 65+ years in relation to children in 0-14 years old

^c People in 65+ years old

^d Share of people 65+ years in working-age population (15-64 years old)

^e A: Number of people in 65+ years and 0-14 years to 100 people in 15-64 years

B: Number of people in 65+ years and 0-14 years to 100 people in 20-64 years

^f According to the Act No 155/1995 (A) and No 425/2003 (B)

Source:

Demographic projections of the Czech Republic, published on June 11, 2004, Czech Statistical Office, Prague

Net immigration is difficult to predict, since it depends on the economic situation of the country, the situation on the labour market and immigration policy. The projection medium variant is based on the assumption of an active migration balance. Net immigration will add roughly 25,000 persons to the Czech population yearly during all period of medium variant of projection (/11/).

The assumptions and results of the demographic projection (summarised in Table 1) indicate a gradual decline in the population from 10.2 million in 2004 to 9.4 million in 2050. In the medium and long term, the Czech Republic will face the effects of an ageing population. The age profile of the population is deteriorating and generating serious concerns from the point of view of the labour market and fiscal perspectives. By the end of the projection period, the share of the elderly (defined as those over 65) in the total population will more than double from 13.9 % in 2002 to 31.3 %. The share of the working-age population (15-64) will drop from 70.5 % to 56.3 % (or from 57.7 % to 44.6 % of age group 20-59) and the share of the young population (0-19) will shrink from 21.7 % to 16.7 % in the period 2003-2050. The average age of the population will be almost 10 years higher (39 vis-à-vis 49).

The old-age dependency ratio – defined as the elderly population 65+ in working age population (15-64) – will rise steeply from 19.7 to 55.7 during 2002-2050. Both indices of economic dependency will also rise very steeply: in case of A from 42 to 78 and in case of B from 56 to 92 – see figures in Table 1.

The most important budgetary impact of ageing population will be the rising share of pensions claim people in total population (from 20.1 % to 38.0 % (A) or 35.7 % (B)).

Development in the Czech Republic after 1997 has been characterized by growing pension account deficit and a sharp rise in the number of old-age pensioners especially in the early retirement category. At the same time, unfavourable consequences of a rise in number of seniors are covered adequately by the act on extending the age of retirement.

Forecasted demographic trends represent a risk for the Czech economy especially form long-term sustainability of public finances and labour market development. An ageing population will not only have an effect on the structure and volume of public expenditure, but it will also effect the labour market and the future development of the standard of living.

3. The fiscal consequences of population ageing

As was mentioned, in updated version of the Convergence Programme (/4/), the economic implications of ageing of the Czech population in medium and long-term was reflected. Long-term projection of the fiscal consequences of an ageing population (based on common EU methodology and assumptions) was prepared by Ministry of Finance CR (/14/, pp. 45-47).

The projections (see figures in Table 2) were formed using the following assumptions:

- The population will develop in line with the Eurostat projection (EUROPOP 2004).
- The development of macroeconomic variables up to 2008 is based on national projections. After 2008, the assumptions on labour productivity growth and real GDP growth have been taken from the baseline scenario prepared by the Ageing Working of the Economic Policy Committee of EC - AWG. This assumes gradual convergence to the long-term equilibrium labour productivity growth rate (1.7% per year), a slight

increase in the participation rate for men and women and a reduction in the structural unemployment rate to 6.5%.

- The expenditure projection for healthcare and long-term care is based on the assumption of health improvements in the population that fully reflect the increase in life expectancy and the assumption of neutral price development.
- The expenditure projection for education precisely follows the methodology proposed by the AWG. It calculates the expenses per student from the ratio of students to teachers, development of the average wage in the education sphere and the share of other expenditures per student.
- In addition to the above expenditure entries, the development of benefits to families with children and unemployment benefits was also explicitly modeled in order to be consistent with the demographic and macroeconomic scenario.

Table 2
Long-term sustainability of public finance in the Czech Republic

	2005 _{a)}	Projection		
		2010	2030	2050
Projection assumptions_{b)}				
Labour productivity growth _{c)}	3.8	3.4	2.7	1.7
Real GDP growth c)	4.8	3.6	1.9	0.8
Participation rate (aged 20-64)				
Males	84.3	84.6	87.1	85.6
Females	68.5	70.5	76.1	74.0
Total	76.4	77.6	81.6	79.8
Unemployment rate	7.9	7.3	6.5	6.5
Population aged 65+ over in total population	14.0	15.5	23.6	31.0
Results_{d)}				
Total expenditure	45.9	43.0	45.8	57.6
Of which: age-related	20.0	19.0	21.0	27.3
Pension expenditure	8.3	7.9	9.2	13.5
Social security pension	8.3	7.9	9.2	13.5
Old-age and early pensions	7.5	7.2	8.4	12.8
Other pensions	0.8	0.7	0.8	0.7
Health care	6.6	6.5	7.5	9.1
Long-term care	0.3	0.3	0.4	0.6
Educational expenditure	3.7	3.2	2.9	3.1
Other age-related expenditure	1.1	1.0	0.9	1.1
Interest expenditure	1.3	1.1	2.0	7.5
Total revenue	41.1	40.9	40.9	40.9
Of which: Property income	0.5	0.4	0.4	0.4
Pension contributions	8.9	8.9	8.9	8.9
Pension reserve fund assets	0.8	4.9	17.4	0.0
Of which: Consolidated public fund assets	0.0	0.0	0.0	0.0

a) Preliminary figures

- b) In per cent
- c) In per cent per year
- d) In per cent of GDP

Source:

Ministry of Finance, CR, published in Convergence Programme of the Czech Republic (update version), Prague, November 2005.

Age-related expenditures from 2005 to 2050 will increase by about 8% of GDP. The most significant growth factor is expenditures for old-age pensions and healthcare and long-term care. The adverse developments in the pension system and healthcare system will only be reduced to a limited extent by the development of expenditures for education and benefits to families with children.

A substantial rise in age-related expenditures will cause the primary deficit to worsen, interest rates to increase from the current 1.3% of GDP to 7.4% of GDP and rapid accumulation of government debt. Under these assumptions, Czech public finances would not be compatible with the fiscal criteria defined in the Stability and Growth Pact.

When interpreting the results of the projections (see figures in Table 2), it should be remembered that the projections are created on the assumption of existing policies and do not account for any future reform measures. The aim of this approach is to calculate the level of fiscal correction needed to ensure the long-term sustainability of public finances. In order for the Czech Republic to meet the requirements of the fiscal discipline set in the Stability and Growth Pact between 2008 and 2050, it would be necessary to implement measures that would reduce the share of expenditures or increase the share of taxes in GDP by more than three percentage points in 2008. This means that the overall public finance balance should register a surplus in 2008 of 0.6% of GDP. In order to ensure the long-term solvency of the general government, a fiscal correction of, in fact, 7.0% of GDP would be needed in 2008.

According to Commission's assessment of the November 2005 update of the Convergence programme of the Czech Republic (/6/) with regard to the sustainability of public finances, the Czech Republic appears to be at high risk on grounds of the projected budgetary costs of ageing populations. While the debt ratio is currently relatively low in an EU perspective, the high deficit contributes to a rising debt ratio in the long-term projections until 2050, which increases the risk to debt sustainability. At the same time, the projected high increases of pension expenditure over the projection period are expected to put a significant burden on the public finances. A rigorous implementation of the planned consolidation of public finances over the medium term and a further strengthening of the budgetary position together with additional structural reforms to contain the increase in age-related expenditures, in particular on pensions and health care, appear to be of key importance in order to mitigate the risks to public finance sustainability.

According to this assessment (/6/) also the National Reform Programme of the Czech Republic (submitted on 14 October 2005 in the context of the renewed Lisbon strategy for growth and jobs) identifies long-term sustainability as the main challenge with implications for public finances as a consequence of population ageing. The budgetary implications of the limited number of concrete reform measures specified in the National Reform Programme are reflected in the budgetary projections of the convergence programme. The measures in the area of public finances envisaged in the convergence programme are in line with the actions foreseen in the National Reform Programme. In particular, the convergence programme outlines measures to support jobs and growth by changes in the revenue and expenditure structure (especially a shift of the tax burden from direct to indirect taxation and a cut in government consumption and transfers) and by making public investment a spending priority,

but it does not present any concrete reform steps to address the problem of long-term sustainability. The programme further envisages a strengthening of the role of the medium-term expenditure ceilings by implementing the binding principles on the headings of the state budget and of the state funds and by inclusion of local governments in the budgetary planning process.

4. Job creation and the ageing populations effects

According to the Commission analysis (/13/) the 70 per cent Lisbon employment rate target being reached in 2020 (not in 2010). Albeit with a delay, will cushion the economic effects of ageing. However after 2017, total employment in EU will start to contract as a result of the declining of the working age population. This means that, all things being equal, the contribution of employment to growth will from significantly negative and that Europe's economic growth will increasingly depend on productivity increases in the longer run.

Compared to the EU-25, the employment rate in the Czech Republic are slightly above average (see figures in Table 3). The CR however falls behind a member states with high employment rate (Denmark, Finland, Sweden) because of low employment rate of older workers (55-64).

The process of population ageing will result in absolute decrease in the number of employed and thus will have negative impact on economic growth in the Czech Republic. According to analyses prepared by governmental authorities (/3/; /4/; /7/; /8/), which reflected integrated guidelines for growth and jobs of the European Commission (/1/), it is necessary to draw on the reserves in older workers employment rate and decrease inactivity and unemployment of low income groups (/3/). Further increase of retirement age, unification of the retirement age of males and females, moderation in the redistribution of pension system and strengthening of actuarial neutrality would all contribute to higher rate of economic activity. The proposed changes in personal income tax strengthen motivation of low-income groups to more active labour market participation. In order to increase the employment rate significantly, further modifications in the tax and benefit system will be necessary. The system must neither discourage from taking up a low-paid job nor encourage dependence on the state.

Table 3
Employment rate in the Czech Republic and selected member states of EU-25 in 2005

	Czech Republic	EU-25	Denmark	Finland	Sweden	Austria
Employment rate_{a)}						
Males	73.3	71.3	79.8	70.3	74.4	75.4
Females	56.3	56.3	71.9	66.5	70.4	62.0
Total	64.8	63.8	75.9	68.4	72.5	68.6
Employment rate of older workers_{b)}						
Males	59.3	51.8	65.6	52.8	72.0	41.3
Females	30.9	33.7	53.5	52.7	66.7	22.9
Total	44.5	42.5	59.5	52.7	69.4	31.8

- a) The employment rate is calculated by dividing the number of persons aged 15 to 64 in employment by the total population of the same age group
- b) The employment rate of older workers is calculated by dividing the number of persons aged 55 to 64 in employment by the total population of the same age group

Source:

5. Welfare system contribution with population ageing

Sound macroeconomic policies are essential requirement for realizing growth potential of the Czech economy and for sustainability of its welfare system in the situation of ageing population.

For the future development of the standard of living (or welfare position) and for the continuation of its level convergence with EU-25 (measured by GDP per capita – see figures in Table 4) integrated actions in three main policy areas are needed. According to the summary analyses of EU (/2/; /5/; /13/) and the Czech (/3/; /4/; /7/; /8/; /9/) authorities the main policy areas for action have the macroeconomic, the microeconomic and the employment dimensions.

Table 4

GDP per capita in the Czech Republic and selected member states of EU-25

(In Purchasing Power Standards – PPS)^{a)}

EU-25 = 100

	2000	2003	2005
Czech Republic	63.7	67.8	73.0
Slovakia	47.5	51.9	55.1
Hungary	52.9	59.2	60.9
Poland	46.8	46.9	49.9
Austria	125.7	120.3	122.7
Germany	111.9	108.3	109.8
Denmark	126.2	120.9	124.2
Finland	113.0	111.1	112.1
Sweden	119.0	115.7	114.7

- a) Basic figure are expressed in PPS, i.e. a common currency that eliminates the differences in price levels between countries allowing meaningful volume comparisons of GDP between countries.

Source:

Structural indicators, Eurostat, 12.7.2006.

Budgetary discipline stands out of the most important **macroeconomic challenge**. Pension, health and labour market reforms as well as short-term budgetary consolidation are tools to ensure the long-term sustainability of public finances in an ageing society. The related challenge of improving the quality of public finances tends to be addressed by measures aimed at increasing the efficiency of the public administration.

The main issues of the **microeconomic dimension** of ageing populations pressure in the Czech economy challenges is the formation of the conditions for building a knowledge economy and sustainability of its attractiveness as a location to do business and to invest. Research and innovation policies are key priorities for supporting the Czech economy competitiveness. A comprehensive and coordinated implementation of the different microeconomic policies supporting creation of the competitive business environment with support of modern and innovative SME development will generate important benefits for sustainability of the welfare level growth.

For sustainability of economic and social dimension of the Czech welfare system and for softening the impact of ageing on the **labour supply** the Czech labour market policies are

oriented to support labour market flexibility, greater inclusion in the labour market and improving education of labour force (/3;/7;/8/). According EU Commission evaluation (/5/) more effort will be needed to increase investment in human capital.

As in other EU member states (/2/), an ageing population means that Czech society must be ready to help more people to work, to work longer and work in a way that means employment policies that help people to find jobs at every stage of their working lives and remove barriers for those who wish to work. People need the right skills at the right time, they need help in facing change and finding new opening, and they need to be able to fit the demand of work into the rest of their lives.

Results of the analysis of the labour productivity level as a key factor of the Czech economy competitiveness (/14/), support the conclusion that sustainability of employment rate level together with labour productivity level are important factors of welfare level and its growth. These results of analytical research attach high importance to policies attracting and retaining more people in employment. This is vital to address the impact of ageing on the labour supply.

Sources:

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