

DEMOGRAPHIC AGEING, PENSION SYSTEM AND MACROECONOMIC PERFORMANCE OF THE CZECH REPUBLIC*

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I. INTRODUCTION

Rapid changes in the age structure in all industrialized countries have been a subject of a great concern of economists and sociologists, and more generally, of policy makers for more than a decade.¹ It has been shown, and widely accepted, that demographic developments will have widespread economic effects. Substantial changes in the labour market, which result from demographic factors, are expected to have a major impact on the functioning of an economy. The ageing of societies will undoubtedly have a significant impact on consumption and saving rates. The distribution of wealth will change profoundly as well, as people live longer and adjust their savings appropriately. All these changes will influence interest rates and ultimately will have a strong impact on rates of the economic growth.

An apparent question arises as to whether the process of ageing will have favourable or unfavourable consequences on peoples' welfare. The main focus of this paper is the impact of ageing on pension systems. It deals predominantly with the long-term consequences of ageing. This paper has two main purposes. First, the paper examines the effects of demographic changes on financing the current public pension schemes. The Czech situation is compared to the conditions of the OECD countries and some simulations are presented for the Czech Republic. Second, different pension schemes are discussed, again with special attention given to their robustness against the demographic changes. It is suggested that funded systems would serve much better during periods of rapid demographic changes.

The remainder of the paper is organised as follows. The following section briefly discusses the demographic outlook in the Czech Republic and compares it to the situation of the

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¹ The problem was actually discussed long ago. For example, Keynes (1937) and Myrdal (1932) were explicitly concerned about lower population growth. The boom in fertility rates after World War II sidelined the problem for only a few decades.

OECD countries. Section III deals with the general implications of ageing for public finance. The fourth section then focuses on the pay-as-you-go pension systems. The fifth section explores the Czech pension system in more details. The last section draws some conclusions and offers tentative policy recommendations.

II. DEMOGRAPHIC DEVELOPMENTS

Demographic factors have exacerbated an already dismal state of public finance in many developed countries. Running a budget deficit has become a standard governmental policy, disregarding the business cycle position of an economy. Many countries have thus accumulated large public debts, in Europe most notably Italy, Belgium and Greece. Public finances are, however, only now about to face the most difficult task. Due to the increases in the birthrate in the late 1940's ("baby boomers' generation") countries can now expect a wave of retirements after the year 2005 and another around the year 2020. However, to aggravate the problem, the generation which is expected to pay for pensions at that time is relatively less numerous.

While we are aware of the complexity involved in predicting future population growth,² we probably cannot expect any significant relief in the form of future increases in the fertility rates of developed countries. The fertility rates are expected to converge to replacement level, but mortality is assumed to improve, with life expectancy rising by 2 years for both men and women.³ OECD estimates that the average population growth rates for the G7 group will decrease from the current level of 0.39% to 0.11% in 2000-2010 and then it will become even negative (-0.02% in the decade 2010-2020, -0.12% in the following decade, and -0.20% around the year 2040).⁴ Moreover, these aggregate numbers hide significant differences among countries: the populations of the United States and Canada are expected to rise (by 36% and 46% respectively) until 2050, but the populations of Germany and Italy are estimated to decrease by 33% and 21% respectively.⁵

The development in the Czech Republic will be equally rapid, as the share of people in the working age (defined as the age below the official retirement age, which is set to rise from 60 to 62 for men and from 55 to 59 for women during the next 12 years) will decrease from 58% to 57% and the share of potential pensioners will increase from an already high level of 20% to a

² R. Malthus would have certainly agreed, as he has become a symbol of an unwise extrapolation of the current population trend (Malthus, 1798).

³ Even if we allow for an increase in the fertility rate from the assumed level 2.1 to 2.5, the difference in the share of elderly in 2030 would be negligible - see Hagemann et al., (1989).

⁴ Ageing Populations, The Social Policy Implications, OECD (1988), Paris.

⁵ At this stage we omit the migration issue, which is expected to increase in its significance but it will not be able to influence the overall development. Germany might represent an exception, if it preserves its attractiveness for immigration. The theoretical issue of migration has been a subject of a previous paper - see Schneider, (1996).

startling level of 28% in 2020. The proportion of children is expected to decrease in the Czech Republic even more rapidly than in other OECD countries: from the current level of 22% to 15% in 2020.⁶

Table 1: Percentage of Population over 60 Years Old

Country	1990	2000	2010	2020	2030	2040
USA	16.6	16.5	19.2	24.5	28.2	28.9
Japan	17.3	22.7	29.0	31.4	33.0	34.4
Germany	20.3	23.7	26.5	30.3	35.3	32.5
France	18.9	20.2	23.1	26.8	30.1	31.2
UK	20.8	20.7	23.0	25.5	29.6	29.5
Italy	20.6	24.2	27.4	30.6	35.9	36.5
Canada	15.6	16.8	20.4	25.9	30.2	30.6
OECD average	18.2	19.9	23.1	27.0	30.7	31.2
Czech Republic	16.9	16.9	19.2	22.6	24.0	27.5

Source: World Bank: *Averting The Old Age Crisis*, 1994, Washington D.C.

Note: Data for OECD include only 24 countries, i.e. the members in 1990.

III. PUBLIC PENSIONS AND DEMOGRAPHY

The effect of the demographic changes discussed above are far reaching. Social security expenditures in all developed states had been increasing significantly during the 60's and 70's and then remained quite stable during the 80's. Nevertheless, the share of pensions have continued to rise (see Table 2). Real pension expenditure increased by almost 100% in Japan, by more than 50% in France, and by 30% in the UK and in the USA.⁷ The share of pension expenditures in the Czech Republic is already comparable to the average in OECD, though the level of the economic development of the Czech Republic is fairly below the OECD average.

The increasing share of pensions (and health care expenditures as well) is caused by two factors. First, it reflects the direct effects of the population's ageing process. Second, it stems partially from the side effects of the social security programmes for the aged. Pensions have a direct impact on retirement decisions and therefore exacerbate the effects of ageing. High government spending on pensions, which at present consummate almost 15% of GDP in Austria

⁶ See Burcin, Kuèera (1995).

⁷ Paul Van den Noord, Richard Herd: *Pension Liabilities in the Seven Major Economies*, OECD (1993), Paris.

and Italy, more than 10% of GDP in eight other western European countries, 13% in Ukraine and Poland and more than 9% in the Czech Republic, crowds out other public and private services. Moreover, the share of pension expenditures is set to increase in the near future (see Table 1). Simple modifications of the current pension schemes are, therefore, ill-suited to tackle the rising cost of social security.

Table 2: Social Expenditure Components in OECD Countries and in the Czech Republic (in percent of GDP)

	1960	1970	1980	1990	Czech Republic 1996
Health	2.6	4.0	5.6	6.0	8.2
Pensions	n.a.	n.a.	8.0	9.0	9.3
Other	7.5	10.0	7.2	7.5	2.7
TOTAL	10.1	14.0	20.8	22.5	20.2

Note: Until 1980 pension expenditures were included in "other expenditures".

Source: OECD, *New Orientations for Social Policy*, (1994), and the author's calculations for the Czech Republic.

In the next section, we will examine the effects of demographic changes on the different pension schemes and illustrate quantitatively the impact of ageing on social security contributions. We will discuss modifications and alternative policy options to the current system.

IV. PAY-AS-YOU-GO SYSTEMS

So far, almost all countries have opted for a Pay-As-You-Go (PAYG) system which finances current pensions out of the taxes collected from current workers. PAYG system functions perfectly well while the working population increases faster than the retired group or while the economy expands so fast that the increasing pension bill can be paid from increasing tax revenues. As we have seen, none of these conditions is being satisfied in developed countries. However, there are several reasons why PAYG systems might look attractive to many governments.

A PAYG system offers instant initiation of transfers from the working generations to the retirees. The PAYG financing might eliminate inflation risks for the retired generation by linking their pensions to future nominal wages. The PAYG system also provides at least partial insurance against long-term productivity disturbances, as it transfers money from generations with exceptionally high productivity to generations with low productivity.

PAYG also provides inter-generational transfers which could accommodate moderate demographic disturbances. Nevertheless, the direction of the inter-generational transfers depends substantially on the nature of the PAYG system. If it is a benefit level that is maintained,

and premiums financing benefits are allowed to vary, then it is a more numerous generation who gains by paying lower benefits while working and receiving fixed benefits. The following generations however lose, since they have to pay higher premiums to finance pensions of the preceding generation. The situation changes when the system fixes the level of premiums and alters benefits paid to pensioners. In such a case, the generation preceding the "baby-boomers" gains, due to higher pension benefits and the more populous generation suffers, because it is entitled to lower benefits during retirement. Moreover, the inter-generational transfer includes transfers from relatively poor young working families to the relatively well-off old.

PAYG systems have, nevertheless, distinct disadvantages which make their application problematic. First of all, PAYG systems are ill defined to cope with the ageing of the population. As the share of pensioners increases, the cost of pensions soars. If the current system of pensions is maintained, all countries will face a dramatic rise of the expenditures on state pensions - see Table 3.

Taking the average, pension spending are projected to double from 10% to 20% of GDP. In Germany and Japan, contributions per worker are projected to rise by more than 50%; while in the USA and in the Czech Republic, real contributions per worker are projected to increase by about 30%. The Czech Republic will face an extremely sharp increase in the number of pensioners between the years 2000 and 2020, when contributions per capita will have to increase by more than 35% to cover pension expenditures. Such a rapid increase is exceptional among the OECD countries and leaves very little room for an adjustment of the Czech pension system. An economy would have to expand at substantially higher rates than are now being witnessed in order to keep contribution rates closer to today's level.

Table 3: Share of Pension Expenditure in GDP and Demographic Changes Between 1984-2040 (as a percentage of GDP)

	Pensions	Contributions per capita*		Pensions	Contributions per capita*
Japan			Czech Republic		
1984	6.0	100	1995	9.8	100
2000	9.4	115	2000	10.0	95
2020	14.0	142	2020	16.4	131
2040	15.7	154	2040	19.8	128
Germany			United States		
1984	13.7	100	1984	8.1	100
2000	16.4	106	2000	8.2	96
2020	21.6	124	2020	11.3	117
2040	31.1	154	2040	14.2	131

*15-64 group, 1980=100

Source: OECD: The Ageing Populations, The Social Policy Implications (1988)
The author's calculations for the Czech Republic.

Second, PAYG systems try to combine all three functions of a pension system (smoothing of the lifetime consumption, redistribution and insurance). While this combination might save some administrative cost and be politically easier to introduce, it fails to satisfactorily meet any of its proposed goals. Moreover, the very principle of the PAYG systems providing adequate wage replacement to high-income workers, causes its towering financial burden at some point.

Third, mature PAYG systems unavoidably require high level of contribution rates, which are seen by many workers as another tax and therefore lead to a decrease in the labour supply, tax evasion and all other manipulations, including the reallocation of labour to the informal sector.

Fourth, the design of the current PAYG systems encourage early retirement and thus decrease already low participation rates among people over 50 years old.⁸ Last, but not least, the dominance of PAYG systems hinders the development of the private financial sector and decreases national savings which undermines the economic growth of an economy in the long term.

All the arguments summed above illustrate difficulties which governments preserving a PAYG system will face in the near future. Needless to say, many of governments are well aware

⁸ See Lazear (1988).

of this and are trying to avoid the worst or most pressing effects of their ageing populations. So far, they have concentrated on easing the strains in pension systems by altering benefits or changing the retirement age. The next section briefly summarizes these attempts and illustrates the difficulties of such attempts in solving the pension crisis.

IV.1 Modifications of PAYG

A number of modifications have been proposed to abate the PAYG problems. The most comprehensive account of these proposals provides Diamond (1996). First, he discusses the approach currently adopted by the Swedish government, which proposed an indexation of the normal retirement age to longer life expectations. The appeal of such an approach consists mainly in avoiding the necessity to cut benefits explicitly by linking the retirement age to some exogenous number, in this case the period spent in retirement. The draft has not been voted into power yet, so we have to wait for an assessment of this attempt.

Second, Diamond and other economists, namely Gramlich (1996), have suggested investing part of the trust funds in equities. These suggestions are driven mainly by the high performance of the equity market in the U.S. This approach, however, implicitly leads to an increasing ownership role of the government, as the trust fund acquires stakes in private firms. It remains unresolved whether such an investment strategy would be prudent in emerging markets, where governments are generally too influential already. Moreover, a majority of pension schemes over the world have severe problems paying the promised benefits without coming into debt, thus there is no amount left which could be invested.

Diamond's three remaining proposals contain at least a partial privatization of social security. Firms could be mandated with the responsibility to invest a part of wages into investment funds on behalf of their workers. This is the Australian approach to pension reform. This approach, however, might foster the creation of a highly corporatist economic structure. Given the already close connections among banks, investment funds and firms in some of the transition countries, it remains doubtful that further strengthening of these ties would be beneficial. Alternatively, workers themselves can be given the choice among competing pension funds. This could be done through a partially defined contribution scheme which, nevertheless, would fail to make any significant impact on the pension arithmetics, unless the partiality would converge to a full defined contribution scheme. This is indeed the very reform adopted by Chile in 1981 and then followed in other countries. We will devote more space to the merits of this approach later.

PAYG pension systems can be altered to accommodate the changing demographic environment as well. The most discussed modification of the basic PAYG system would be to set contributions on a long-term equilibrium level, which would take into account future demographic changes. As this "long-term" level appears to be above the current contribution level in all countries, it is a politically ungrateful task, requiring formidable foresight from a government.

Hagemann and Nicoletti (1989) calculated the long term level of contributions for the USA, Japan, Germany and Sweden. They set the level of "smoothed" contributions to the level which would eliminate any surpluses of the Trust Fund in the year 2060. The level of contribution will have to increase significantly in all countries, most notably in Japan. The increase could be partially mitigated by adopting a policy of building up a trust fund which would accumulate a capital reserve. Nevertheless, even in this case, contribution rates would, until the years 2030-2040, more than triple in Japan, double in Germany, and increase by 4-5 percentage points in the US and Sweden. The accumulated fund would reach substantial sums (about half of the taxable payroll in the USA, Germany and Sweden and 90 % in Japan). It is unclear whether governments would avoid any misuse of such huge amounts in time of fiscal problems.

Moreover, there is a potential risk of the under-performing investment of these governmental trusts. In most countries, the only allowed investment is in public debt instruments. Therefore, the surpluses of the PAYG system might actually induce higher public consumption. The aggregate savings rate in this case does not change and the country's capital stock does not benefit from the surpluses.

An attractive option for governments facing a public pension crisis is to increase the level of aggregate private savings. Many governments have thus allowed people to opt-out of the public pension schemes (Great Britain), or have given a generous tax regime to long-term pension savings, with the American IRA as an example. The effects of such changes are, however, still unclear. It is noted⁹ that these schemes often "siphon-out" savings which would have gone elsewhere anyway, and that they thus have only limited impact on the aggregate saving rates.

Many governments have tried to increase the retirement age. It is important to distinguish between the nominal retirement age (which has been increased in almost all industrialized countries) and the effective retirement age (which continues to decline). This divergency is caused by generous early-retirement "windows" in both the public and occupational pension schemes. When the pension formula is not actuarially fair (i.e., the discounted value of retirement benefits is higher before the official nominal retirement age), it encourages early retirement.¹⁰ There are, as well, the market-based factors such as the wage structure of job opportunities which make a substantial rise in the nominal retirement age unlikely.

Probably the least popular policy for a government is to try to reduce benefits. It can be done through a switch of indexation according to the rise of the nominal wages to the price index, or by lengthening the qualifying period for pension benefits. It has been shown that by combining all of these policies governments can decrease contribution rates by about 5% in Germany and

⁹ Marchand and Pestieau (1991).

¹⁰ This is the case in most public pension schemes, see Borsch-Supan (1993).

Japan, but only by 1% in USA.¹¹ This improvement, no matter how important, will not, in all probability, secure a safe pension from the public schemes in developed countries.

V. PAYG MODIFICATIONS IN THE CZECH REPUBLIC

The situation in the Czech Republic does not look any better. As the official demographic forecasts covers period only until 2020, we assumed that no significant demographic changes would take place after then. In this demographic framework, the estimation of the PAYG rates needed to keep the system in balance annually, as well as two "smoothed" PAYG rates, were calculated.

Table 4 gives an overview of the simulations. First, if we keep the current level of contributions (26% of the wage bill), the PAYG shows a surplus for next few years and then it exhibits a deficit. The table shows, that assuming 3% real return on investment (and 3% real interest rate to be paid later on loan), the trust fund would accumulate a deficit of more than 40% of GDP in 2020. The deficit would be equal to the GDP around the year 2035 and more than 180% of GDP in 2060. The sheer size of these numbers suggests that the current situation is not sustainable.

If the government decided to adjust contribution rates of the PAYG every year, the Czech Republic would experience a sharp increase in rates around the year 2010 and in 2020 the rate would reach more than 36%; i.e. one third higher than the current level. As we assume no change in the demographic trends afterwards, the contribution rate is then constant.

¹¹ See Hagemann and Nicoletti (1987).

Table 4: Estimates of "smoothed" contribution rates and associated trust funds for the Czech Republic

	Current Contribution Rate (26%)		"Smoothed" Contribution Rate (35.4%)		"Dynamic Smoothed" Contribution Rate			Contribution Rate for Annually Balanced Trust Fund
	Trust Fund (bil CZK)	Trust Fund (% GDP)	Trust Fund (bil CZK)	Trust Fund (% GDP)	Smoothed Rate	Trust Fund (bil CZK)	Trust Fund (% GDP)	
1997	6.5	0.5	36.9	3.1	29%	19.5	1.6	26.9%
2000	-6.6	-0.5	168.2	12.1	30%	57.9	4.2	26.9%
2005	-54.0	-3.1	455.6	25.8	31%	158.4	9.0	27.7%
2010	-224.0	-9.9	777.5	34.5	33%	259.2	11.5	30.7%
2015	-677.0	-23.5	1033.6	35.9	33%	292.4	10.2	34.6%
2020	-1545.3	-42.0	1173.3	31.9	34%	142.8	5.1	36.4%
2030	-4790.5	-80.0	1321.5	23.0	36.6%	-352.5	-5.9	36.4%
2040	-11297.8	-115.8	1303.3	12.7	36.6%	-368.9	-3.8	36.4%
2050	-23886.5	-150.3	953.4	6.0	36.6%	-308.1	-1.9	36.4%
2060	-47687.4	-184.3	-100.2	-0.6	36.6%	-78.4	-0.3	36.4%

Source: Author's calculations

We have estimated that the "smoothed" contribution rate; i.e., the rate under which revenues are sufficient to pay for the level of pension outlays until 2060 would be 35.4%. Under this "smoothed" regime, the Trust Fund would accumulate reserves equalling 35% of GDP in 2015, then deficits would begin to gradually deplete the Trust and as of 2060 the Trust would vanish. It remains to be seen whether such vast sums of assets would be prudently invested and what would be their impact on the capital market and returns to capital.

Using the "dynamic smoothed" contribution rate, we tried to estimate the compromise path between a fixed contribution for the whole period and the yearly adjusted contribution rate. We have shown that by using this mechanism, the government could postpone the rise of the contribution rates by about two decades and abate the size of the trust fund. In this alternative, the fund would switch from the positive balance of about CZK 300 billion to a debt of about CZK 400 billion in only 25 years. Nevertheless, the growth of the contribution rate is unavoidable and the greatest risk of the smoothed alternatives remains the political will as the smoothing requires an extremely long foresight and discipline on the side of politicians.

As experienced currently in Great Britain where the government changed the pension benefits indexation method in the 80's substituting the price index for the wage growth rate used

previously, the method of the pension benefits indexation can influence the balance of a PAYG system profoundly.¹² The impact of the indexation method on the Czech pension system is enormous as well. In our calculations we generally assume that the government keeps the ratio of pensions to average wage at about 45%. This is the position taken currently by the Czech government. However, if the government chooses to switch to price indexation, the contribution rate would decrease by almost 8% in the year 2020 and by more than 10% in 2060. At the same time, the average pension-wage ratio would decrease from the current level of 40% to 25% after 10 years and to a mere 15% after 20 years. In the year 2060, the share would only be 10%. It is highly unlikely that such a low level would be acceptable for the Czech Republic. The price indexation method cannot, therefore, be used as a standard indexation method for extended periods of time. We show later, however, that the Czech government will have to abandon its indexation pledge in order to avoid a major fiscal crisis sooner or later.

The PAYG system in the Czech Republic would have to be transformed thoroughly, if it is to avoid the harmful effects of high pension contributions on the labour supply and public finances. The reform within the limitations of the PAYG system can generally take two directions: either the government decreases the pension replacement ratio (Pension/Wage), or it postpones the retirement age further. Figure 1 presents the results of different simulated reform scenarios. We estimated the aggregate contribution rate under four reforms of the PAYG system and under the radical reform comprising of PAYG abolishment and switching to a funded system.¹³

The worst "no reform" scenario - retirement age as of 2007; i.e., 62 for men and 57-61 for women and the replacement ratio of 45%, entails a relentless rise in the pension contributions to the long-term level of 36.4% of wages. If the retirement age is increased to 67 years for both men and women, then the long-term contribution rate reaches more than 30% in 2015 and then gradually decreases to 24.8%, which is roughly equivalent to the current level.

A more radical approach consists of gradual reductions in the aggregate replacement ratio to 25%. If this scenario is adopted and if the retirement age does not change, then the contribution rate decreases to 19.3%. The most radical reform would embroil both approaches: it would increase the retirement age to 67 and at the same time it would cut the replacement ratio to 25% of wages. In such a case, the contribution rate falls to roughly half of the current level, namely to 13,2%.

The discussion above, and Figure 1 as well, seems to suggest that the PAYG system in the Czech Republic is reformable and can be sustained, provided there is the political will to change the rules. However, given the quite equal distribution of wages and relatively generous welfare system of the Czech Republic, the cut in the replacement rate would create immense social tensions. Currently, the average wage is only about three times the living minimum. The

¹² See also Chand and Jaeger (1996).

¹³ Details see Jelinek, Schneider (1997).

25% replacement ratio would not secure even the living minimum for pensioners and it would, therefore, bring an enormous expenditure pressure to the other welfare system's segments. Such a replacement ratio would be probably acceptable as a basic income protection, but not as a pension system worth its name. In fact, the cut of the replacement rate, especially when accompanied by the increase in the retirement age, in all but in the name, connotes a PAYG abolishment.

It thus seems that the PAYG systems currently predominant are doomed to be abandoned, at least in principle, sooner or later. The Czech Republic, nevertheless, needs a system which would enable the retired to keep a decent living standard and which would at the same time reduce the risk of myopic behaviour of the non-saving population. The funded systems best satisfy these conditions.

In Schneider (1996) and Jelinek, Schneider (1997) a detailed description of such a system switch is carried out. The estimates of a potential macroeconomic benefits range from 4 to 6%, depending on the details of a transformation mechanism. The results are driven by the fact that funded systems facilitate higher rates of savings which in turn support higher capital investment, higher returns to labour and, consequently, higher rates of economic growth. Last, but not least, funded systems have distinctive advantages in that they limit government clout over the economy, facilitate individuals' responsiveness and economically rational behaviour, punish myopic and reckless behaviour and by all these means reduce the moral hazard problems which are hampering the state-run PAYG systems.

Some countries have attempted to switch to a funded system and to compensate the old generation, most notably Chile which used so called recognition bonds. These recognition bonds served as a claim on a proportional part of one's past contributions to the state PAYG system. A definite assessment of these attempts is yet to come, but the first signs are promising: Chile has accomplished a substantial change of its pension system successfully and its citizens have been enriched by extremely well performing pension funds.¹⁴

A frequently examined issue has been the impact of a switch on long-term rates of growth and thus on economic welfare. Some authors (Raffelhuschen, 1991; Kotlikoff, 1995, Hatta and Oguschi 1992) have shown that the size of the welfare gain depends on the mechanism of the switch. Raffelhuschen argues that the welfare gain in Austria would be around 1.5 %, Hatta and Oguschi estimate the welfare gain for Japan to be at about 1-2% and Kotlikoff estimates the welfare gain for the U.S. to be between 3-4.5%. Successful implementation of the switch should furthermore render the internal rates of return on capital between generations more equal and, therefore, reduce the danger of the collapse of the inter-generational contract whose repercussions could reduce the future economic growth of countries relying on the PAYG

¹⁴ See, for example Santamaria (1992), Bustamante (1996) or Schmidt-Hebbel (1996).

system. Nevertheless, no specific attempt to estimate potential losses induced by a collapse of PAYG has been incorporated into the discussion of the system switch.

VI. CONCLUSIONS

The pension system in the Czech Republic (and in other transition countries) has been marked by extremely high centralization and by the virtual non-existence of a private alternative to the state monopoly in providing pensions. At the same time, the state of public finance in many of these countries is critical. Many of the governments in this area are struggling just to keep their borrowing under control, with little hope of maintaining a balanced budget. The temptation for such a government is often to squeeze expenditures on pensions, particularly by allowing them to be "inflated away" by high inflation rates. The need for reform is therefore mounting. Nevertheless, only limited discussion of any reform has arisen and even less real action has occurred so far. One exception is the Czech Republic, where the government has recently changed the pension law and increased the retirement age. This change, no matter how criticized, has nevertheless stopped short of solving the fundamental problem of all PAYG systems: the ageing of the population and the increasing dependency ratio which brings immense strains on the pension system.

Little has been so far achieved in mitigating the impact of the demographic changes on public finance. All countries in question can, therefore, expect a sharp and substantial worsening of their public budgets in the first decades of the next century. The impact will be different in timing and magnitude, but everywhere it will represent a substantial challenge.

The Czech Republic will not be exempt from this process. Indeed, it will face more severe problems than other more developed countries as it starts from a relatively low level of life expectancy and without the developed market institutions instrumental in dealing with private savings. On the other hand, it has important advantages on its side including conservative and prudent fiscal policy represented by strictly balanced government budgets and a low public debt. Though the welfare state has been establishing quite rapidly, it has not yet created the level of public expectations which we can observe in Western Europe. A reform of social security would thus probably face a weaker resistance from vested interest groups.

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