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Simonovits, Andras

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THE NEW HUNGARIAN PENSION SYSTEM AND ITS PROBLEMS

ANDRÁS SIMONOVITS

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The New Hungarian Pension System and its Problems

Author: András SIMONOVITS, research professor Institute of Economics, Hungarian Academy of Sciences. Postal address: Budaörsi út 45.
Budapest, H–1112 Hungary. Phone: (36-1) 319-3158 Fax: (36-1) 319-3136 E-mail: simonov@econ.core.hu

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ANDRÁS SIMONOVITS

THE NEW HUNGARIAN PENSION SYSTEM AND ITS PROBLEMS

Abstract

In January 1, 1998 a new, three-pillar pension system was introduced in Hungary. It will replace about a 1/4 of the existing unfunded public system by a funded private system from 2013. This transition is obligatory for people entering the labor market after June 30, 1998 and optional for others. Meanwhile the public pillar is also reformed. Pensionable age is increasing significantly but smoothly, wage index-ation is replaced by a combined wage-price indexation and the link between earnings and benefits will be rectified between 2009–2013.

The official view is that it is this reform package which will make the Hungarian pension system sustainable in the long run and will contribute to the development of capital markets. The critics of the reforms, including the author, underline several remaining and new problems: the public pillar retains its weak points until 2013, the consolidated balance may deteriorate rather than improve under the partial privatization and the welfare of the old population will be relatively lower due to the decreased security.

Összefoglaló

1998. január 1-jén a felosztó-kirovó társadalombiztosítási nyugdíj-rendszer vegyes rendszerré alakult, amely kötelező az 1998. június 30-a után munkába állók számára, és választható másoknak. A jelenleg érvényes tbnyugdíj kb. 1/4 részét egy magánnyuddíjpillér váltja föl, amely a tőkevárományosi elven működik. A megmaradó tb-nyugdíj-pillér maga is egy reformsorozaton megy keresztül. A viszonylag alacsony nyugdíjkorhatár fokozatosan, de jelentősen emelkedik, a régebbi nyugdíjak keresetindexálását kiszorítja a kombinált bér–ár indexálás; a járulékok és a járadékok közti kapcsolat 2009–2013 között arányossá válik.

A hivatalos vélemény szerint ez az a reformcsomag, amely egyrészt megteremti a magyar nyugdíjrendszer hosszú távú fenntarthatóságát, másrészt hozzájárul a tõkepiacok felvirágzásához. Ezzel szemben a kritikusok, beleértve a szerzőt is, hangsúlyozzák a megmaradó és az újonnan keletkező problémákat: a tb-nyugdíjrendszerben 2012-ig megmarad a jelenlegi problémák jelentős része; a részleges magánosítás nem csökkenti, hanem növeli a nyugdíjrendszerek egyesített egyenlegének hiányát; az idősebb korosztályok jóléte viszonylag csökken a megnövekedő bizonytalanság miatt.

1. INTRODUCTION

The Pension Law of 1997 has aroused the interest of the public as well as the experts in the Hungarian pension system. But the Hungarian pension reform is an ongoing process. From our point of view it is enough to go back to 1992, when the present institutional framework of the Hungarian pension system was set up and, however imperfectly, valorization of assessed earnings and indexation of pensions were introduced. A second important stage was 1996 when the long delayed but unavoidable rise of pensionable age was enacted. Currently we arrived at the third stage: the partial and step-by-step funding and privatization of the pay-as-you-go (for short, PAYG) public pension system and the concomitant modernization of the public pillar.

After a long discussion, in January 1, 1998 a new, three-pillar pension system was introduced in Hungary. The first (far the largest) pillar is the public system, the second pillar is the mandatory private pillar and the third (far the smallest) pillar is the voluntary private pillar. These measures can be summarized as follows.

(i) The *public pillar* goes under a series of reforms. *a*) The comparatively low pensionable age (55 years for women and 60 years for men till 1996) is increasing significantly (to 62 years) but smoothly by 2009, *b*) wage indexation of continuing pensions is replaced by a combined wage-price indexation by 2001, *c*) minimum and partial pensions are replaced by means-tested pensions, while degression at assessed earnings of entry pensions is eliminated by 2009 and *d*) each year of service worths the same and the accrual rates refer to gross rather than net earnings from 2013.

(ii) The *mandatory private funded pillar* is being set up from January 1, 1998. People entering the labor market after June 30, 1998 must join and people not yet retired are allowed to choose this second pillar. After two years of transition, people entering the second pillar have to pay about 1/4 (exactly 8/31) of their mandatory pension contribution to one of the many private funds and at retirement will receive life-annuities. They will only receive the proportionally reduced part (23/31) of the public pension effective after 2012.

(iii) The *voluntary private pension pillar* with huge tax exemptions was set up in 1994 for those who want to save more for their old days than it is mandatory.

According to the official view, it is this reform package that will make the Hungarian pension system sustainable in the long run and will contribute to the development of capital markets. It is of interest that other Central European countries, notably Poland, Slovenia but not the Czech Republic, follow suit. In contrast, the critics of the reforms, including the author, underline several remaining and new problems:

a) the still dominant public pillar retains a lot of its problems until 2013, b) the consolidated pension balance may deteriorate rather than improve under the partial privatization, leading to further erosion of the public tier, and c) the welfare of the old population will be relatively lower due to the decreased security.

The present paper contains neither detailed historical and nor much statistical analysis. The interested reader should consult Augusztinovics [1993], Bod [1995] on the past, Antal et al. [1995], Augusztinovics [1995], Martos [1995], and Réti [1996] on the reform ideas of the experts around the Pension Fund. Augusztinovics et al. [1997] contains five European country studies and several general topics, utilized in this paper.

Surprisingly, the official views have hardly been published in scientific papers. The documents of the *Ministry of Finance* [1996] were not even quotable during the pension debate. The remarkable up-dated survey of *Palacios* and *Rocha* [1997] is still not published.

Considering the issue of welfare state, *Kornai* [1992] and [1997] urged that governmental paternalism should drastically be diminished and individual responsibility extended, while *Ferge* [1996] emphasized the value of security in addition to freedom. *Csontos* et al. [1996] tried to map the tax awareness of the Hungarian population, including the views on the public pension system. *Gál* [1998] outlined the old pension system, Ferge [1998] analyzed the "question marks" of the reform, while *Csaba* and *Semjén* [1997] discussed the whole welfare system and its reform in Hungary. *Müller* [1998] compared the Hungarian and the Polish reforms, while *Vittas* [1997] surveyed the recent pension reforms in a lot of countries. Of course, many contributions to the present volume also contain related material.

The present paper gives a concise description of the reform process (*Simonovits* [1997]) and tries to elaborate its unsolved problems (*Simonovits* [1998]). The international experiences are often referred to footnotes. The structure of the paper is as follows. Section 2 outlines the pre-reform pension system as it existed between 1992 and 1997. Section 3 discusses the main features of the reformed system. Section 4 is devoted to the remaining and new problems of the pension system. Section 5 concludes.

2. THE OLD PENSION SYSTEM: 1992–1997

The pension reform in 1992

As a socialist heritage, by 1990 almost every old-aged citizen has received a relatively decent public pension: its average amounted to 66% of the average net wage. Before jumping to the conclusion that this value, the socalled *replacement ratio* was too high, remember that since 1970, the share of wages in the GDP has been significantly declining: in 1991 it was only 40.8% (*Palacios* and *Rocha* [1997], p. 10., *Table 3a*). The *defined-benefit* PAYG pension system in principle paid earnings-related pensions, but massive redistribution and capricious *ad-hoc* measures resulted in a dysfunctional system where incentives and solidarity were totally mixed up.

As a result of contracting formal employment and the exploding retirement, the ratio of pensioners to the employed jumped from 46.1% to 74.8% between 1990 and 1995 (*Palacios* and *Rocha* [1997] p. 4., *Table 1*).

Systemic changes and the transformational depression led to several important changes in the pension system between 1989 and 1992. Formally independent Pension Insurance Fund (for short, PI Fund) and Health Insurance Fund (for short, HI Fund) were separated from the state budget with their own Administrations and elected Self Governments.

In the emerging market economy the rules of pension contributions and benefits had to be reformed, too. The Hungarian system, as most other public pension systems, has remained a defined benefit system where the benefits are paid from the inflowing contributions (Pay-As-You-Go). We shall discuss first the benefits, then the contributions. Describing the benefits, we shall mainly deal with the own right old-age pensions, making distinction between entry and continuing pensions.

Own-right pensions

To understand the logic of the determination of individual pensions, the following aspects should be taken into account. In all public pension systems, the determination of the entry and the continuing pensions are separated from each other. An *entry pension* (i.e. newly awarded pension) is an increasing function of both *years of service* and the *average of assessed earnings* of the assessment period. The connection is described by the so-called *pension formula*.

The Pension Law 1991 retained the degressive accrual rates of the socialist era: 10 years of service meant 33%, every additional year up to 25 years meant 2% reaching 63%. Then every additional year to 32 years yielded 1%, ending with 70%. After that the accrual rate dropped to a meagre .5%.

The same law replaced the three year assessment period with that of all years from 1988. It also introduced the (delayed) valorization of the assessed earnings used at the determination of the entry pensions. The assessment of earnings is strongly degressive.

For a large part of the newly retired people, even after contributing at least 20 years, the assessed earning is so low that the pension given by the formula is replaced by the relatively decent minimum pension (about 70% of the minimum wage). For even less fortunate people with service years between 10 and 20, the pension formula determines their *partial pension*.

The *continuing pension* is generally a simple increasing (generally linear) function of the *previous pension*. Similarly to the valorization of entry pensions, since 1992, in Hungary (like in Austria and Germany) the continuing pensions have also been indexed according to national average wages.

The principle of indexation of continuing pensions, however, was limited by the imposition of tight lower and upper bounds. Till 1997 the relative increase in any (newly awarded or continuing) pension could not be lower than a certain minimum (floor) and till 1996 it could not be higher than a certain maximum (ceiling). Such a practice is efficient in securing a relatively acceptable minimum pension but it is clearly inconsistent with the insurance principle. This problem is especially serious as these often impressive nominal increases generally hid heavy real term decreases.

If the valorization and indexation had not been distorted so significantly by the mentioned and unmentioned factors, then the system would have ensured that the various cohorts and strata have relatively similar burdens and benefits, the principle of *crying together, smiling together* be in force. But distortions were very strong (*Martos* [1995] pp. 230–231).

Because of the imperfect indexation and the sharp divergence between entry pensions and continuing ones, different retiring cohorts have been and will be treated entirely differently in Hungary.

Disability and survivors' pensions

Until now we have concentrated on the own-right old-age pensions. But statistical data, displaying the structure of pensioners according to gender and rights, show that about 70% of pensioners belonged to this category. The remaining 15–15 % drew disability and survivors' pensions.

Let us make some brief remarks on these categories. The official data for disability pensioners is much higher than our figure, reflecting the Hungarian practice of keeping disability pensioners in this category even after passing the pensionable age.

Obviously, the much greater number of women than men among oldage pensioners reflects both the lower retirement age and the longer life expectancy of women. Concerning widows pensions, it must be mentioned that until 1998 many more widows received 50% of their husbands' pension or the unified allotment. Similar laws applied for a couple where only one of the spouses had an own-right pension.

We complete this subsection with a summary statistic: between 1991 and 1996, the replacement rate dropped from 64.4% to 57.9% (*Palacios* and *Rocha* [1997] p. 11., *Table 3b*).

Contributions to pension

Almost as before, in 1997 an employee paid 10% of his gross wage to the Social Security system, while his employer paid another 39%. Out of this, "6%+24%=30%" of the gross wage went to the PI Administration and

"4%+15%=19%" to the HI Administration.¹ More precisely, the employee's contribution was limited to a certain amount, corresponding to the maximum wage (twice the average wage since 1998), above which there was neither contribution, nor reward. To diminish the contribution base, the ceiling was nominally fixed for several years, making the resulting ratio sharply diminishing from 3 to 1.6. The employer's contribution was, however, unlimited, amounting to a disguised wage-tax (like in other countries).

The transition to the market economy dramatically enlarged the possibilities for fully or partly hiding earnings from various authorities. A favorite trick of the employers has been to report the minimum earnings for their employees and hand over the remaining parts under the counter or in forms excluded from social security contributions.

The most surprising phenomenon of non-compliance was that large government-owned firms, most notably the Hungarian Railways, failed to pay their due contributions to the Social Security Administration.

Evaluation

During two-digit inflation, the pre-1992 unindexed system could not be maintained. The indexed pension system introduced in 1992 have remained comprehensive, more or less tolerable and inexpensive to operate. It has relatively favored the poorest pensioners but paid too little attention to the principle of social insurance. Like in other (but not all) public pension systems, Hungarian citizens have seen less and less

¹ According to the public parlance, the contribution rate amounted to the intolerable 49%. First of all, this number is misleading, since the employee's 10% is included in the gross wage, while the employer's 39% is not. In fact, only the net wage and the total payroll have economic meaning. The net wage and the total payroll are about 70% and 139% of the gross wage, respectively (cf. *Augusztinovics*, [1993]). While in other ex-socialist countries the employee's contribution is also much lower than the employer's contribution (in Poland it is still simply zero), in Western countries they are much closer to each other, and frequently (e.g. in the U.S. or Germany) they are equal. In international comparisons, these obvious differences are frequently glossed over, inflating the total contribution rates of ex-socialist economies. Just translating the Hungarian parameters into German, the employee's, the employer's and the total contribution rates or fall to 21.4, 21.4 and 42.8% (from 10, 39 and 49%), respectively. Similarly, the Hungarian average personal income tax rate 20% would drop to 17% in a German translation. The difference between progressive marginal tax rates is even higher.

incentives to properly contribute to its financing, meanwhile they have had expanding possibilities to avoid paying due contributions. Thus, it was impossible to maintain the 1992-system in the long-run without thorough reforms.

During the last thirty years the remaining mortality indices have prevented a dramatic rise in the old-age dependency ratio. Without raising the pensionable age (see below) the pension system would have faced tremendous deficits even on a demographic basis. (At this point I cannot resist to mention the wide range of long-run demographic projections.)

In addition, the expected slowdown of the inflation would weaken the 'benign' effects of partial valorization, raising the entry replacement rate. The big unknown in the equation is the future development of the participation at the labor market.

In summary: for given contribution rates and system dependency rates, the present replacement rate would be too high. According to *Palacios* and *Rocha* ([1997] p. 15, *Figure 3a*), the deficit of the public pension scheme in the absence of reforms would reach the alarming 6% by 2050. A new pension reform was inevitable.

3. THE NEW PENSION SYSTEM

Almost since the incomplete reform of 1992, there had been a general agreement among experts and politicians that the new system should create strong individual incentives in paying full contributions: personal accounts and proper administrative or market valorization/indexation. There had been a similar agreement that the pensionable age should be significantly raised and at the same time, flexible retirement should be introduced. (Note that flexible retirement requires strong incentives and disincentives.) Experts had been divided, however, whether partial privatization of the pension system was necessary or not. We turn now to the details.

Pensionable age vs. retirement age

According to the Pension Law of 1996, the pensionable age for women will increase by one year in every second year till 2009. The pensionable age for men is increased faster: 61 years from 1998 and 62 years from 2000. The transition rules are quite elaborate but they will be skipped in this paper.

An obvious effect of the raised pensionable age is that each year the new *old-age demographic* dependency ratio will significantly be lower than the old one. Indeed, the numerator decreases, while the denominator increases. But, as (*Augusztinovics* [1995]) emphasized, higher pensionable age will not automatically increase total employment. In the extreme it is even conceivable that every person working beyond the previous pensionable age will prevent a young person to enter the labor market. The decisive question is the level of labor demand. The issue of underground economy is also important (*Lackó* [1998]). People working in the informal sector do not pay social security contributions at all or only at a minimum level. Among them the share of retired persons (frequently under the pensionable age), is quite high.

But regardless of the labor market effects, with flexible pensionable age, the total pension expenditure may be significantly reduced: some people work and contribute to the pension system longer and retire later and receive pensions for a shorter period; others retire as they would have done before but they will receive lower pensions than before.

Combined wage-price indexation

As was mentioned in Section 2, since 1992 the continuing pensions have been indexed according to wages. Since real wages diminished steadily (apart from the temporary jump in 1994), this solution helped depress real pensions, too. Since 1997 real wages have started to increase in Hungary and there is a hope that this process will be sustainable. If the wage indexation of continuing pensions had been preserved, then the pensions would have increased in parallel with the wages in the future.²

There was, however, a wide-spread conviction in the Hungarian administration and World Bank that this solution would be too advantageous to the old and it would place an unbearable burden on the shoulders of the young. According to their opinions, there are only few

² In addition, in 1995, within the austerity program the principally correct method of indexing pensions without delay was replaced by the indexation with delay just when the nominal index fall very much behind the price index. With falling inflation this solution only recuperates pensioners with a delay. To 'simplify' matters, after 2001, the system returns to the simultaneous indexation again.

countries which still have the luxury to index pensions with wages (like Austria and Germany) and even these countries cannot maintain the system for a longer time. The experts of the World Bank proposed the introduction of price indexation which is effective in most developed countries (e.g. the U.S., France and Great Britain).

The Hungarian experts and politicians, however, were not 'brave' enough. The Swiss solution of half-wage and half price indexation was accepted by the Hungarian pension law. During the bargaining process, its full introduction was further delayed to 2001. During the transition, the share of wage indexation remains much higher than 50% as a partial compensation for the huge losses the pensioners suffered in the past.

As *Palacios* and *Rocha* [1997] p. 31, *Figure 5*) report, the combined indexation of continuing pensions (with tax base expansion) and the increased pensionable age could delay pension deficits about 2014 and contain the deficit-GDP ratio at cc. 4% in 2050. (In somehow contradicting this statement, the working material of the *Ministry of Finance* [1996] which justified the new pension law, warned that the reformed unfunded system should be healthy enough to bear the burden of the transition to a multi-pillar system.)

Three-pillar system

The most visible part of the reform was worked out by the *Ministry of Finance* in 1996, legislated in 1997 and introduced in 1998. Following the ideas of the *World Bank* [1994] and [1996], it has created a three-pillar system: (i) The first pillar is *an earnings-related pension* system – a down-sized and reformed version of the earlier unfunded system. (ii) The second pillar is a *mandatory, privately managed funded system* where every insuree has to choose a privately managed pension fund, which invests his contributions and returns the yields to the contributor as life-annuities at retirement. (iii) The third pillar accumulates *voluntary mutual retirement savings*.

We shall only touch the most important features. Moreover, we neglect the rather complex transition rules for people who are just retiring around 1998.

(i) For people who has already retired, the earlier pension system remains in effect, but its dynamics is moderated by the combined indexation. People retiring from 1997 already have incentives for longer service. (The accrual rates, at which the years of service affect entry pensions, remain low in the medium interval of 25 to 32 years but increase in the upper interval from .5 to 1 or 1.5%.)³ A large part of the present disincentives, however, survives until 2009, when uniform accrual rates will be introduced or even till the end of 2012 when the weakening degression at the assessment of the earnings will be finally eliminated. The delay at valorization remains, it is only to be hoped that its effect will be diminished with the elimination of high inflation.

In summary, for people who retire after 2012, the first pillar will be streamlined. Degression will disappear from the pension formula, the accrual rates will be uniform and net earnings will be replaced by gross earnings, with the corresponding adjustment of the accrual rates: 1.65% per year for those people, who remain in the old system. Not knowing the future of the personal income tax system, it is very difficult to make meaningful and reliable comparisons with the previous system.

(ii) The second pillar was opened on January 1, 1998 with a pension contribution rate 6% to the individual funds. By 2000, the compulsory contribution rate will reach 8% and the compulsory contribution rate to the first pillar will diminish to 23% for the participants of the new system. Because in 1998 the employee's contribution rate is only 7% and the employer's contribution rate is 24%, some complex manipulation is necessary to assign the employer's rate to the first pillar and the employee's rate to the second pillar.⁴

A peculiar institution called *private pension fund* will be set up which will be the property of the insurees. There will be open and closed funds. According to the law, the members can change funds with minimal losses in their accumulated capital, but it is highly uncertain if this idea is realized or not.

The funds will be encouraged to invest in the capital markets. There are great expectations that this long-term investments will contribute to the development of capital markets. According to calculations, by 2050, the

³ It is characteristic for the negligence of the administrators that this raise was not counterbalanced by a general diminishing of the accrual rates.

⁴ The issue is further complicated by the fact that even in the mixed system, 1% point of the employee's contribution rate of 7% goes to public pillar, to create a legal framework to pay only limited sums for the otherwise unlimited employer's contributions.

capital to be accumulated in the hands of the private funds will be about 50% of the GDP.

As we know too well, there are winners and losers in this game. The government cannot tolerate that poor people lose too much. Therefore, in addition to the complex web of control, a yield minimum is introduced. If a fund cannot achieve a certain minimal yield, it is closed down and its members are transferred into luckier funds. We shall return to personal guarantees later.

As people who entered the labor force before July 1, 1998 can stay in the first pillar, the pure modernized public system will survive for many decades. But the incentives will channel the bulk of the younger cohorts into the mixed system.

The accrual rate of the mixed system (which is paid in the public pillar) will be proportional to the weights of the public (23%) and the total contributions (31%): 1.22%=1.65%x23/31 where 1.65% is the new accrual rate of the pure public pension system.

For those people, who had contributed to the public pension system before 1998 but joined the mixed system before 2000, this reduced rate will be assigned for the pre-1998 years. This reduction has a double 'justification': *a*) by participating in the new system, these persons get rid of the remaining disincentives of the reformed public system and *b*) the government cannot finance a too fast transition from the pure system to the mixed system. Roughly speaking, this reduction determines that cutting age: people born before 1957 are discouraged to join the mixed system.⁵

If the sum of the first and the second components of a pension is lower than the legal minimum, e.g. half of the average pension, and the household of the person is poor, then he will receive a government supplement to ensure the minimum. Another form of insurance takes care of pensioners contributing at least for 15 years: the guarantee fund (accumulated form the contributions of the members) supplements any compulsory private pension up to the *normal benefit*, defined as 25% of the corresponding public pillar of the mixed system. Denoting by 100 the

⁵ The Hungarian campaign tried to avoid the sin of a similar British drive when millions of would-be pensioners were lured into the private pillar although even *ex ante* the public pillar would have been more advantageous for them. Even the conservative government had to intervene into the 'free play of the market' and redress the balance.

hypothetical pure public pension, the minimum mixed pension is (100+25)x(23/31)=93. Thus nobody could lose more than 7% of his eventual public pension by joining the private pillar.

At the retirement of a person, the life annuity payable from his accumulated fund is compared to his normal benefit defined above. If the ratio is higher than two, he can withdraw the surplus immediately. The remaining part of the capital ensures one of the four forms of *life-annuity*: (1) life-annuity for a single person, (2) life-annuity with inheritance within a given period, (3) life-annuity followed by an inherited annuity for a fixed period and (4) multiple life-annuity. The law prescribes that any member can choose among the four variants but it does not say anything on the indexation of annuities or the dampening of their fluctuations!

(iii) The *voluntary pension* pillar was already legislated in 1993. Up to now it has still offered a huge tax holiday: up to employee's contribution 200,000 HUF (about the annual minimum wage or the average pension contribution) there is a 50% tax deduction. The exemption to employer's contribution is similarly high, creating a curious situation for the employer: it is much cheaper to pay the worker indirectly via the voluntary pillar than directly, via wages.

Before turning to the unsolved problems of the new system, we shall discuss the motives of the reform.

Most experts accept that the transition from an unfunded to a funded system is rather difficult, because during the transition the contributors have to finance both a) the pensions of the people who have not accumulated funds in the unfunded system plus b) the accumulation of their own pension funds (see e.g. Kotlikoff, 1997). The transition is almost impossible for mature systems, thus even the World Bank accepts that the bulk of the Western European nations retain the dominant public pension systems.

Officially, the Hungarian reform tries to solve this problem as follows: a) to retain the unfunded system as the dominant pillar, b) to finance the corresponding part of the pensions of those people who have not accumulated pensions in the unfunded system from government deficit during the transition, c) a large chunk of the contributions to the funded system would be temporarily used to finance government deficit by bonds, d) to slow down the transition by making it optional and not particularly encouraged for people born before 1957.

The crucial assumptions underlying this reform are as follows: (i) the interest rate on the government debt will be lower than that on long-term investment of the pension funds and (ii) the remaining unfunded pensions will grow much slower than otherwise, because of the raised pensionable age and the introduction of the combined wage and price indexation.

As *Palacios* and *Rocha* [1997] (p. 37, *Figure 9*) report, the 'final' reform package will delay deficits until about 2038 and contain deficit/GDP at cc. 1.5% in 2050.

What are the reasons for the partial privatization? Nowadays there is a wide-spread dissatisfaction with the dominant PAYG systems all over the world (*Kornai* [1992] and [1997]). Some critics simply deplore the politicians that they corrupted the first generations receiving public pensions at the cost of the further generations by giving them a free lunch. Other critics realize that after the stormy years of the Great Depression in the U.S.A. and World War Two in Europe, there was simply no other option than to start a PAYG system but they find the time ripe for transition. *Müller* [1998] argues quite persuasively that the partial privatization of the pension system may have political rather than economic reasons. It appeared to be much simpler to sell a mixed package than a thorough reform of the PAYG to the public. Of course, the interests of the financial sector should not be overlooked, either.

There is a popular theoretical explanation for the superiority of a funded system: the internal rate of return of an unfunded system is equal to the growth rate of the economy which is typically lower than the real interest rate. (It is the irony of the history that *Aaron* [1966] used this theory just to prove the opposite: the unfunded system was superior to the funded one just because the growth rate of the economy was greater than the real interest rate in the decades following World War Two.)

Having presented the new pension system, we turn to the analysis of its problems.

4. UNSOLVED PROBLEMS

Section 4 addresses several problems of the new pension system: the flexible pensionable age, the link between contributions and benefits, the combined indexation of benefits (all concerning the public pillar), the comparison of the macro-performance of the two systems, annuatization

and the operating costs of the funded pension pillar, and finally the meanstesting and the lack of strategy.

Flexible retirement age

In Section 3 we have already outlined the obvious but nevertheless significant advantages of the increased pensionable age combined with flexible retirement. There is, however, a strange absentmindedness among certain experts, evaluating this measure. When they speak about the necessity of higher pensionable age, they generally fail to mention that in practice the actual retirement age has been strongly declining all over the industrialized world. Nobody knows what will happen to the labor markets after the baby boom generation retires in Hungary, but it is highly probable that a large part of the cohorts between the old and the new pensionable ages will not find work.

Here enters the flexible pensionable age as is known for example, from the U.S. practice. Within limits, anybody can retire before and after the pensionable age, but his monthly pension will be downward and upward adjusted, respectively.

It seems to be excessive, however, that these adjustments are to follow actuarial fairness. There are at least two difficulties with actuarial fairness in this context: (i) As *Diamond* and *Mirrlees* [1986] have demonstrated, there are people who can simply not work longer and it would be the denial of insurance to punish them dollar-for-dollar for early retirement. It would be most unwanted to push even more people toward seeking disability pension or becoming unemployed. (ii) It seems to me highly probable that those people who decide to work longer (shorter), on average have higher (lower) life expectancy and because of adverse selection, they will gain (lose) more than what is actuarially fair.

The link between contribution and benefits

One of the most difficult problems of any public pension system is that it should be attractive to the participants (individual rationality) and at the same time help the needy (the poor, the disabled, the long-lived, etc.). Most public pension systems achieve strong income redistribution, wrongly assuming that this does not affect the degree of participation. The critics of the PAYG system (e.g. *World Bank* [1994] and *Vittas* [1997] p. 9) claim that these systems generally achieve perverse redistribution from

the poor to the rich, because of longer life expectancy and steeper earnings carriers of the rich, the latter of which get excessive weight in the rather short assessment period. I think that this view neglects the countervailing tendencies, at least in the First and the Second Worlds: the poor are overrepresented among the disability pensioners and, as we have seen above, the actual pension is often a strongly degressive function of the estimated earnings and years of service of the individuals.

Anyway, both types of redistribution weaken incentives. Experts, favoring the privatization and funding of public pension systems, argue that there will not be any redistribution in privatized systems. This is expressed by *Kornai* [1997] as the emancipation of the citizen from the tutelage of the state.

At this point I only want to make the following point: *Palacios* and *Rocha* [1997] p. 40) emphasize that to make room for a redistribution-free second (private) pillar, the Hungarian government should have weakened the earning-benefit link of the first (scaled-down public) pillar. *World Bank* [1994] went even further when it recommended that the transitional countries drastically scale down their public pillars and transform them into flat-rate pensions. (We will discuss the cost-benefit aspects of such a system below. It is of interest that the pessimistic critics of the present reforms are afraid that the emerging crisis of the public pillar will eventually lead to such a solution.) The idea of a private pillar with strong incentives and a public pillar without incentives is very curious since for decades a huge part of the population will remain in the old system and in the foreseeable future everybody will receive the dominant part of his pension from this public pillar.⁶

For a moment, I would like to return to the problem of compliance. According to the critics of the public pension systems (i.e. *Feldstein* [1996]), people restrain their labor supply and look for fringe benefits or leaving the system to avoid the burden of contribution to the highly

⁶ I hope it is not superfluous to cite a champion of the privatization of Social Security (*Kotlikoff* [1997]) on the virtues of a public system with strong incentives: "The smaller the pension fund system's marginal benefit-contribution linkage, the larger are the chances that privatizing pension fund can support an efficiency gain. ... Note that ... the fact that pension fund is financed at the macro level on a pay-as-you-go basis does not preclude establishing a tight and transparent linkage between ... benefits and contribution... ". It appears that the German point system solved this problem quite well and could have been used in Hungary, too (*Réti* [1993]).

redistributive system. Due to the high share of hidden economy (*Lackó* [1998] estimates its share in the GDP cc. 30%), in Hungary the noncompliance is a very serious problem. But I find it naive that by the mere privatizing a quarter of the pension system, the compliance would be much higher.⁷

Combined indexation of public pensions

In Section 3 I have already discussed the pros and cons of various indexation rules. Here I return to this issue and also consider the connection between indexation of benefits and replacement rates. In the old system, where -- at least in principle, in the absence of the unnecessary distortions --, not only the valorization of the assessed earnings, but also the indexation of benefits followed the wage-dynamics, the replacement ratios for different cohorts were or could have been comparable. With the combined (Swiss) indexation to be introduced in 2001, however, any discrepancy between the dynamics of wages and prices inevitably differentiates among retired cohorts. For example, calculating with an annual 3% real wage increase, each retired cohort loses 1.5% each year *with respect to* the workers. I would like to know whether the calculations on replacement rates in the new system take into account this problem or they simply consider the newly retired. The calculations give the impression of the latter.

It is of certain interest that the experts of the World Bank remain dissatisfied with this solution: *Palacios* and *Rocha* ([1997] p. 40) prefer deficit reduction to income maintenance: "Further steps such as a straight move from wage to price indexation (instead of the 'Swiss' indexation formula) would generate larger savings (or lower contribution rates) but this has been rejected for the moment".⁸

It is curious that the following option is not considered except in Germany. If one has to reduce the average benefits with respect to the

⁷ The Chilean experince is not encouraging in this respect, either.

⁸ We mention here the pearl of the conservative solution. On the initiative of Margaret Thatcher in the U.K., the flat rate pension (both entry and continuing) has been priceindexed since 1980. This way the real value of the per-capita state pension was fixed for once and all, and any difference between new and old pensioners had been eliminated. It is another question that this solution has been leading to a slow but steady erosion of the relative value of the British public pension: the originally 20 % of the average wage will diminish to 7% by 2050 (e.g. *Johnson* and *Rake* [1997]).

wages, why not reduce smoothly the accrual rates but maintain wage indexation. Of course, such an indexation is almost impossible with a private pension system (although there is an intention to index private pensions with public pensions), thus maintaining wage-indexation would increase the share of the public pensions with age. But do we want more relative deprivation in old age than will occur automatically?

Macro-performance in the two systems

In the theoretical debates the comparison of the funded and unfunded systems have been playing a large role. If the presumed advantage of the former over the latter is not realized, then the expected gain from transition also evaporates or even turns into a loss. Therefore we shall return to this issue now.

Remaining in the traditional stationary framework, *Simonovits* [1995] discussed the weak spots of Aaron's argumentation. *Augusztinovics* [1995] paid much attention to the non-stationarity of the real world. Different cohorts have different cost/benefit ratios with respect to any reform, making the simplistic steady state comparisons ill-founded. There is a danger that during the transition from the pure system to the mixed system, some cohorts will gain a lot, while others will lose similarly.

Among certain experts there are great expectations that the introduction of the mandatory private and voluntary pillars will raise the Hungarian saving rate. *Vittas* ([1997] p. 19.) emphasizes that this is generally not true, because *everything goes*.⁹

The following argumentation is more cautious. In the present 'favorable' demographic situation there is a window of opportunity to accumulate a buffer stock (the so-called trust fund) and this accumulation is more safe in the funded system than in the public one (*Urban* [1998] p. 393).¹⁰

⁹ There are countries with significant funded pillars and low saving rates (e.g. the U.S and the Scandinavian countries), there are other countries with dominant public pillars and high saving rates (Southern Europe) and there are still other countries with significant funded pillars and high saving rates (e.g. Switzerland). The development of the credit system and the changes going parallel with the pension reforms make these relations rather complex.

¹⁰ It is noteworthy that in America there are heated discussions on the separation of the trust fund of the U.S. Social Security from the budget deficit. It is also debated whether the voluntary pension funds increase the aggregate savings or not.

Annuatization of funded pensions

One of the frequently overlooked advantages of indexed public pension systems is that they defend against longevity risk by providing indexed annuities. As *Friedman* and *Warshawski* [1990] showed on the example of US private annuity markets, which are very underdeveloped, the implicit interest rate for annuity is much lower than the corresponding market rate. One reason for that is adverse selection: insurance companies are afraid that only people with better than average life expectancy buy annuities, thus these companies charge higher fees than they would under a comprehensive plan.

Although the Hungarian government will have about a fifteen years to finalize the details of how mandatory private pension savings can be withdrawn by their owners, it would be important to outline the plans as soon as possible. Knowing the less than perfect information of the Hungarian public, it would be important to dispel any misconception.

As was mentioned in Section 3, in the normal case, the corresponding law is quite cautious and ensures that the initial value of the annuity is acceptable. It is telling, however, that the law elaborates the types of life annuity but leaves the issue of indexation open. Is it wise to allow providing unindexed life annuities? What will happen to those unfortunate pensioners who will live 20–30 years after retirement and experience an annual loss of real value 2% in their private pensions?¹¹

It is also of interest that the most ardent critics of the public pension systems object to the growing annuitization of the income of the elderly. Among other things, this otherwise beneficial tendency is blamed for the dramatically falling US saving ratio. It is characteristic that quite recently

¹¹ Up to now we have only the Chilean experience for a nationwide privately-run compulsory annuity-market. The Chilean system offers two solutions to the retiree: (i) either he buys an inflation-indexed annuity or (ii) he annually withdraws an amount which is consistent with his remaining capital and the remaining life expectancy. On the one hand, this dual system may please the partisans of 'free choice'; on the other hand, it creates a double danger: (a) via the adverse selection, it may incite only people with high life expectancy to buy annuities, making the purchase more expensive than would be without free choice; (b) people, not understanding the quite involved notion of conditional remaining life expectancy, may end up with a rapidly decreasing pension: according to *Diamond* and *Valdes*-Prieto [1993], it may diminish to half of its initial amount. Furthermore, strangely enough, the same perverse income redistribution appears with privatized annuities as with public pensions, because statistically, richer people live longer.

in the US plans were considered to get rid of annuitization, this last step of "redistribution." $^{\rm 12}$

If the problem of the annuatization of the various pillars will not be solved properly, it would seriously distract from the expected benefits of the private pension pillar.

At this point we return to the problem of survivors' benefits. The propaganda, accompanying the introduction of the private pillar, put great emphasis on the fact the contributions of the deceased persons are not lost, because they are inheritable, at least during the accumulation period. This is clearly an advantage over the public system if one considers a twoearner couple without children or with adult children. What happens, however, if somebody dies at the start of his carrier leaving behind a widow with small children? Is the 'private property of the pension' still advantageous? Continuing the discussion, what is the advantage of this solution when the retiring person has to decide by selecting the form of the life-annuity whether he considers his own well-being or of his family's.

Regardless of the annuatization, the volatility of the capital markets can cause similar problems.¹³ Is there any stipulation on this in the Hungarian system?

The tax-rewards on voluntary pension

In Section 3 we have already mentioned the significant tax awards on the contribution to voluntary pensions. Here we only return to this issue because it has several implications. The first is connected with the lack of

¹² *Feldstein* and *Samwick* [1996] projected such a spectacular superiority for the private pension system over the public one (real rates of returns of 9% vs. 2%, respectively) which made insurance almost superfluous. After some fierce debates, however, they have given up this idea (*Feldstein* and *Samwick* [1997]).

¹³ Following long years of success, the East-Asian countries capital markets have just collapsed. But there is no need to consider semi-developed nations. *Vittas* ([1997] p. 6) mentions the most developed countries, the USA and Japan. "A college professor retiring in the United States in 1995 would have received from his or her individual capitalization account with CREF a pension that would be 25 to 35% higher than (that of) a professor retiring in 1994. In Japan, if college professor were relying on similar arrangements, a person retiring in 1990 would have received a pension that would have been 60% lower than (that of) one retiring in 1989. These fluctuations can be mitigated by investing an increasing portion of funds in bonds as people near retirement and by buying deferred and/or variable annuities (rather than ordinary life annuities). However, the volatility of stock markets, which is also present in bond markets, underscores the investment risk assumed by retiring worker."

coherence between the different pillars. While the better paid employees suffer from an unbelievably high degression (90%) of the highest interval of assessed earnings, at the same time, those people enjoy an outstanding reward in the third pillar. The absurdity of the solution is highlighted by the fact that the exemption on the employers' contributions applies not only to the pension component amounting to 24% of the gross wage, but also to the health component amounting to 19%. I wonder if the experts of the World Bank, otherwise favoring the private pillars, call such a solution market-conform. Another problem is mentioned by *Csaba* and *Semjén* [1997]: this solution opens a legal channel to grant pensions to those who not contribute to the first (and second) pillar.¹⁴ The American solution is paid not immediately but only at using up the contribution, like the Hungarian capital account. Of course, to apply such a solution, the pensions should be taxable, at least in the private pillars.

Operating costs

Until now we have not mentioned the operating costs. The present pension system operates at a too low cost, about 2% of the total revenue or expenditure is spent as operating cost. (Too low cost means low quality service and incomplete record keeping.) If the public pillar will be modernized and every contribution and benefit will be recorded by a computer on an individual account, then its cost may easily be doubled.

This modernized system could also be used for the private pillar. It is, however, obvious from the Chilean and British data that the operation of the emerging private pillar will cost much more than the would-be public pillar. The formulation of the Hungarian official plan is rather tricky: the cost consists of two parts, namely, 3% of the contributions and 0.5% of the accumulated stock. To give an underestimation of the latter, calculate the accumulated stock as the sum of 20 years of contributions (i.e. with zero real interest rate and growth), then we end up with 13% of annual private contributions. Using the planned ratio 1:3 between private and public pillar, this would amount to another 3–4%. In summary, the modernized

¹⁴ The Czech system (*Schneider* [1998]) is an interesting polar case, which gives so little reward (about 1% of the average earnings, divided into several brackets), that the participants are almost brainwashed to contribute minuscule amounts. For such a negligible amount there is no reason to set up a separate system.

pensionsystemwilluseup7-8 % rather than 4% of the revenues.

International experiences foreshadow a much higher figure.¹⁵ Unfortunately, the partial privatization of the Hungarian pension system will not reduce the operating costs of the private pillar proportionally, since a significant part is a fixed cost. And the start of such a system requires a huge initial investment and recruiting and teaching of the clerks. I only hope that its functioning will not be as messy as that of the personal income taxation and the value added tax about a decade ago.

Means testing

Until now we have not discussed the problems arising with social assistance. As a reminder, let us mention that in the old pension system (to be valid through 2012) a relatively generous minimum pension is given to those people whose deficient contributions produced too low entry pensions. This solution will be probably replaced by pension without lower limits from 2013, which will be completed by an old-age assistance.

This system will be in harmony with the rules of the European Union. The poverty trap will remain, however. People with expected old-age pension near the old-age minimum will have no interest to work in the formal sector, because their contributions will yield zero or very small benefits.

Strategy for the future

Turning from the details to the whole, I venture the following judgement. The whole reform appears as the embodiment of the final truth and justice. Accrual rates are given for 15 years ahead, personal income tax rates are taken as final. If somebody did not know the history of the Hungarian (as well as other) public finance system(s), he would believe that the perfect system has been discovered and nothing would change it. The only remaining problem is to forecast one's own future earning past and decide

¹⁵ In Chile, about 3% of the wages, or about 1/4 of the total contributions, are spent on operating the system. (Within this, the share of the marketing cost is on the rise. *Vittas* ([1997] p. 20) report an alarming nearly 60 % for 1997.)

whether to enter or not to the mixed system. In my opinion, nothing is farther from the truth.¹⁶

I do not find any strategy which would define the parameters of a sustainable system. And having a long transitional period, it will be very difficult to change the announced values of parameters.

Let me finish with a quote from *Augusztinovics* and *Jones* ([1997] p. 270): "In conclusion, it seems unlikely that current pension reforms will prove to be one-and-for-all, single, distinct acts, which unambiguously mark out the path towards a predetermined pension system in the distant future. More probably, transition will turn out to be a process of adjustment to continuously changing circumstances and requirements, very much in the way that pension system has evolved in the past. How to maintain stability, confidence and how to avoid haphazard injuries to the interest of various groups and cohorts along the route – remains a problem to be solved."

5. CONCLUSIONS

Whether one likes or not the partially privatized Hungarian pension system, now he has to accept it as a reality. On the one hand, the supporters of the public pension system have to accept the partial privatization and try to make it more rational. On the other hand, the partisans of the privatized pension system have to realize that a full privatization would induce extra taxes and debts, leading to stronger rather than weaker government control over the citizen at least for decades. It is our common interest to pay more attention to the expected difficulties and try to solve them before it is too late or too costly.

It would be desirable if the new pension system were not worse than the existing pension system for the bulk of the Hungarian society.

¹⁶ The credibility of post socialist Hungarian governments has already been weakened by several important acts, including the attampted elimination of favorable mortgage rates (granted in 1991) in 1995 and the hysteric changes in the marginal income tax rates and real values of brackets during the relatively short life-time.

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THE NEW HUNGARIAN PENSION SYSTEM AND ITS PROBLEMS

by András Simonovits

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Institute of Economics, Hungarian Academy of Sciences Budapest, Budaörsi út 43, 1112 HUNGARY

Phone: home: 36-1 3255-582, office: 36-1 3193-160 FAX 36-1 3193-136 E-MAIL: simonov@econ.core.hu

Abstract

In January 1, 1998 a new, three-pillar pension system was introduced in Hungary. It will replace about a 1/4 of the existing unfunded public system by a funded private system from 2013. This transition is obligatory for people entering the labor market after June 30, 1998 and optional for others. Meanwhile the public pillar is also reformed. Pensionable age is increasing significantly but smoothly, wage indexation is replaced by a combined wage-price indexation and the link between earnings and benefits will be rectified between 2009-2013.

The official view is that it is this reform package which will make the Hungarian pension system sustainable in the long run and will contribute to the development of capital markets. The critics of the reforms, including the author, underline several remaining and new problems: the public pillar retains its weak points until 2013, the consolidated balance may deteriorate rather than improve under the partial privatization and the welfare of the old population will be relatively lower due to the decreased security.