Supplementary Pension Funds in Hungary

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Hungary has about ten years history of pension privatization process and the Hungarian experience could be really instructive. This paper is focused on the supplementary pensions trying to prove that no reform of state pension system is able to solve all the problems of inefficient pensions. The paper highlights the main factors what could make sufficient level of supplementary pension be likely. Some basic characteristics of the Hungarian private pension market are presented by means of empirical data and a complex measure of efficiency of pension fund operations is calculated.

JEL : G23 Pension Funds, Other Private Financial Institutions

1. Need for a common language

Many problems derived from some kind of mis-interpretation of the special pension concepts. Some important definitions should be commonly accepted because sometimes the same things are called with different names or inversely the same words are used for different things.

The clear understanding of the following words and expressions is very important in order to explain also the main features of the Hungarian pension system.

Pension plans (pension schemes)

According to a OECD paper (see References [1]) the definition is given as follow: "*A legally binding contract*, an implicit agreement as part of a broader contract (e.g. employment contract), or a tax qualified savings or retirement programme designed

to provide the plan's beneficiaries (including members) with an *income after retirement*. The plan must therefore have an explicit retirement objective, or - in order to satisfy tax related conditions or contract provisions - the benefits cannot be paid at all or without a significant penalty unless the beneficiary is older than a legally defined retirement age. Pension plans may offer additional benefits, such as disability, sickness, and survivors' benefits."

On the basis of the definition above we could call as pension plan (or scheme) any legally regulated arrangements that are projected to provide income after retirement. According to this understanding there are three different *types of pension schemes* in Hungary:

1. Publicly managed, Mandatory Pension Scheme, generally called as Social Security Pension Scheme (SSPS). Participation and contribution is legally regulated, and it is mandatory for all employees. Contributions are paid both by employees and employers. It is financed in a pay-as-you-go system

2. Privately managed, funded Pension schemes with mandatory contributions. Participation is mandatory for young people of starting their carrier and this scheme is partially substitution to the SSPS, as the contribution to this scheme reduces the mandatory contribution paid into SSPS. The membership in this type of scheme automatically resulted in reduced pension promise of SSPS. Only employees pay mandatory contributions[1] to this scheme, but employers and employees are allowed to pay also some additional voluntary contributions[2]. This scheme is a defined contribution system with very limited guarantees.

3. Privately managed, funded Pension schemes with voluntary contributions, where participation is also voluntary. Pension provisions provided by these schemes are supplementary to the SSPS. Minimum contribution is regulated by the special rules of institutions providing pension provisions. Contributions could be paid both employers and employees. All these schemes are defined contributions without guarantees. Tax allowances are available both on contributions (up to a limited amount of contributions) and services provided by the schemes.

[1] According to the present regulation (in 2004) the mandatory contribution payable to this scheme is 8% of the pensionable income.
[2] The voluntary contribution to the mandatory private funds could be of a maximum of 2% of the pensionable income.

Occupational Pension Schemes

The possible definition of the occupational pension schemes [1] is as follows: " Access to occupational plans is linked to an employment relationship. The plans are organised and possibly administered by employers, industry associations, and the employment or professional association representing a group of individuals for the employees or members of that relevant entity that sponsors the plan. In these plans, *the plan sponsor has other responsibilities in addition to paying contributions* to the pension plan. Its involvement may include negotiating the design of the plan with the plan provider/administrator (e.g. an insurance company). "

Occupational pension schemes, which are included in employment contracts, are not typical in Hungary. Only a small part of employers undertakes any commitment to pay voluntary contributions into a scheme, and there is really exceptional when the employer takes any other responsibilities than paying contributions.

The main reason of the absence of the occupational schemes derives from the economic environment. First, in the transition period the employers of the Eastern European countries were not forced to set up any comprehensive benefit system. The high level of unemployment, and the short-run thinking on profitability of investors naturally resulted in the lack of social empathy. Second reason of the less importance of the occupational schemes in Hungary, or generally in Eastern Europe is the fact, that the low level of salaries comparing to the high price level results in a clear preference of employees towards immediate incomes rather the deferred incomes. The next possible explanation of the absence of occupational schemes could be that the concept of occupational schemes itself is missing from the concept of the pension reform itself. The role of employers was not clearly expressed and employers had no special advantages in case of establishment of their own pension schemes.

On the other side, the possibility to set up occupational pension schemes is not really precluded from the Hungarian regulation. Some employers, mainly those owned by big international companies having global benefit strategy started to set up their own occupational schemes but only a few use own funds. The most preferred way to operate occupational schemes to pay contributions into an open fund. We have some private funds that were established (and partially managed) by employers, but the founder employers generally did not have any long-term responsibilities to manage any risk of pension fund operations. (See [2])

Three pillars of pensions

According to the well-known terminology we could say that the ongoing pension reform process resulted in a so-called three-pillar pension system in Hungary. *The first pillar* is the pension granted by social security. *The second pillar* consists of pensions paid by mandatory private pension funds that are built up from mandatory contributions determined in the ratio of wages. *The third pillar* includes pensions that are provided against the pension fund contributions or insurance fees paid voluntarily by the insured person or his/her employer.

But the meaning of the three pillars of pensions could have different interpretations: According to the common wording of the EU pension directives, the first pillar is the pension provided by the state, the second is the occupational schemes deriving directly from employment contracts and the third one is the so-called personal pension when people realising that the other pillars would not be able to provide satisfactory pensions to insure their old-age income. Confusing this distinction could result in some mis-understanding of the explanations in the comparative pension studies. [4]

Pension fund

The definition of pension fund [1] says that it is "*a pool of asse*ts consisting exclusively of the contributions to a pension plan and the income earned on them" but sometimes the financial vehicles itself are mentioning as pension funds. Perhaps the most mis-interpretations of the Hungarian private pension system came from this double meaning of pension funds. If we take into consideration that the meaning of "investment funds" is clear and commonly used also in Hungary, it is quite acceptable if we think that the "pension fund" should be something similar with the difference that the assets are accumulated for a special purpose, namely for retirement provisions. But in fact, in Hungary the new private pension institutions that are called as "pension funds"[3] are operating in a very different way than the investment funds. We could say that it is a problem of the etymology but it is quite important if we would like to make direct comparisons between different pension systems.

[3] The official translation of the new Hungarian private pension institution is „voluntary private pension fund" (VMBF) and „mandatory private pension fund"(MPF) But in Hungarian it is mentioned in a German-type name as „Pensionen Kasse"

The Hungarian private pension institutions are autonomous legal entities that were established as financial vehicle of private pension schemes. They are legally own by the members who elect the boards of these institutions. The main governing body is the general assembly of the members or their delegated persons. There are no capital requirements to set up these institutions and the risks of operations are totally bear by the members. The financial returns on the reserves are directly credited on the individual accounts according to special accounting rules. In the accumulation period the individual accounts represent simply personal savings and the situation is very similar to that when members belong to an investment association, or to a mutual fund. Only at the time of retirement might members (or their capital on the individual accounts) become part of a veritable insurance pool, sharing the mortality risk.

The operation of the fund is generally carried out by several appointed persons (e.g. a managing director, an auditor, an actuary, an investment manager, a legal expert, an internal inspector) and outside institutions (bank and custodian service provider are mandatory, while outsourcing asset management, administration, record keeping is optional). The funds have to meet the statutory investment, disclosure, reporting and accounting obligations. The funds must publish a simplified version of their audited annual report. State Financial Supervisory Authority supervises the funds as other financial firms.

Contributions are divided into three parts. A certain part (in practice it is about 5-8 percent of each contribution) covers the operational costs of the fund. About 1-2 percent goes into various risk and liquidity reserves and the remaining part (about 90-94 percent of the contributions) is credited to the member's personal account, which is inalienable by any third party.

But these features mentioned above are not really against that we could call these Hungarian pension institutions as pension funds as they own and manage "assets consisting exclusively of the contributions to a pension plan and the income earned on them ".

2. The development of the private pension funds

In Hungary the possibility to establish and operate pension funds has been available since 1993. First the so-called voluntary mutual benefit funds (VMBF) could be formed. To these voluntary pension funds – as there name shows – members enter on the basis of a voluntary decision and they also determine the amount of contributions – called membership fees – themselves.[4]

The voluntary private pension institutions are one of the possible institutions of self-care for old-age security. But the self-care and the concept of pension planning were totally new in Hungary at the beginning of 90s because people were used to handle the pension as task of the state. As a consequence the very first reactions were often against this new institutions as people were afraid to loose the stable state provision that were almost independent from the past performances of the pensioners. The new institutions for managing pension fund had to first gain people's confidence for which the tax advantages introduced concerning voluntary pension contributions were very useful. [5]

The new mandatory pension regulation coming into force in 1998 created the new type of private pension funds within the mandatory pension system, which was called mandatory private pension fund (MPPF)[6] .The operation of mandatory private pension funds is similar to the operation of voluntary funds in many aspects but the amount of contribution – the so-called membership fee – is prescribed by the law.

In the period of 1993-1997 the development of private pension funds was rather slow. Either because of the lack of information or because of distrust, but the essence is that the majority did not really know what to do with this new institution. [3] Even the interest of individuals who had any disposable income turned towards pension funds slowly. The issues of supplementary pensions were practically missing from the strategic decisions of employers as any other long-term

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[4] The legal background of their operation was regulated by Act no.: XCVI. of 1993 . During the period that have passed since 1993 the law and the related regulations have been modified several times, which could only partly derived from the novelty of this regulation. The frequent alterations were really harmful for the trustworthiness of the new intsitutions.

[5] 50 %) of contributions paid into voluntary funds was tax deductable between 1995 and 1999. It could sometimes resulted in a net tax saving for people paying membership fees, since even tha highest tax paying obligation was lower than the measure of the tax relief. In 2000 tax laws were modify but it remain very generous. (tax relief decreased to 30 % of payments but employer's contributions became tax-free up to the amount of the minimal wage.)

[6] The Act no.: LXXXII. of 1997 on Private Pension and Private Pension Funds has been accepted by the Parliament on July 15, 1997.

strategic considerations. Practically only the tax saving opportunity motivated the interest that arose towards voluntary pension funds from the side both of employers and employees.

The establishment of mandatory private pension funds as of January 1998 meant a real turning point. The introduction of the new mandatory pension system brought out merely new issues like self-care, non-state ensured pension and old-age existential risk. The appearance of the second pillar theoretically enforced the majority of employees to deal with the issue of their own pension: namely employees of an active age had to decide whether they want to enter into the new, mixed pension system or stay only in the traditional social security system. And all people who decided or were forced to enter the new private system also had to decide to which mandatory private pension fund they wish to enter. But in practice neither the partial contracting out of the state system nor the fund selection was not a real conscious action in many cases. The main problem was the non-satisfactory public communication and the lack of the financial culture of the people. As a consequence the interested persons entered the private funds practically according to the strength of the agents of the funds.

Many people were afraid that the appearance of mandatory private pension funds could devalue or even disable voluntary funds. But it didn't happen, indeed, the development of voluntary funds got new drive from the improvement of mandatory private pension funds, probably because it became more evident that the voluntary fund is not only a tax saving institution. Though fear was not even justified theoretically since the target groups of the two different pension funds were different: mandatory private pension funds could primarily mean an alternative decision for the younger generations, while entering voluntary funds was a form of saving worth considering for the generations closer to pension.

Nowadays, practically from the beginnings of the 2000s the third period of development could be detected when the membership both in the voluntary and mandatory funds stagnates despite that there might be some more developing potential in the third pillar.

But finally figures certify really convincingly (see Chart 1. and Chart 2.) that the Hungarian pension fund "industry" has grown up. By the end of 2002 from the

about 4 million economically active members of the population more than 2 million entered into a mandatory private pension funds. The number of members of voluntary private funds also exceeded 1.1 million. By the end of 2002, the assets handled by the whole sphere were near to HUF 365 billion (about 2 billions of US dollar) By the end of 2002 the reserves accumulated in the private pension funds represented about 5 % of the total savings of households, while this ratio did not even reach 1 % in 1996.

Chart 1 **Membership in The Private Pension Funds ín Hungary**

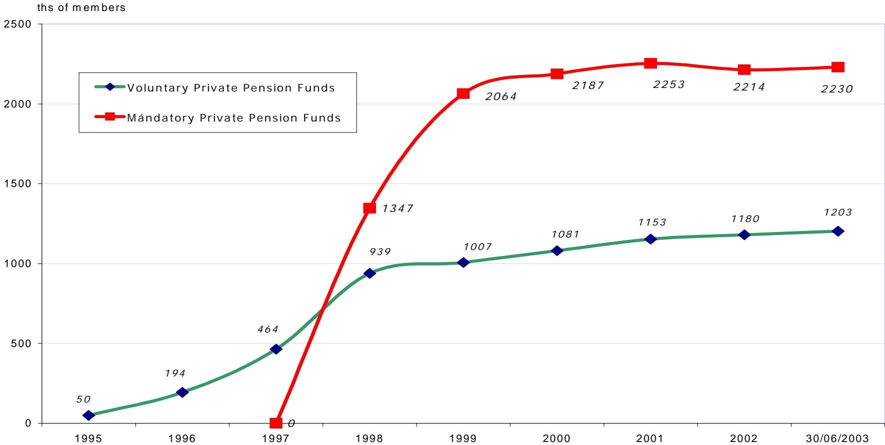
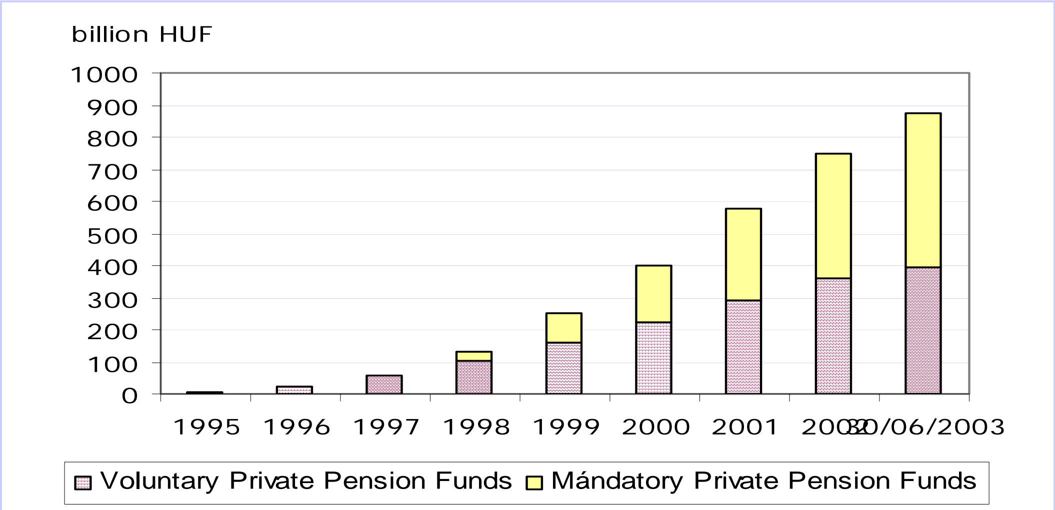


Chart 2 **The Assets Managed by the Private Pension Funds in Hungary**



3. The Market Structure of Private Pension Funds

There are three typical segments of pension funds in Hungary. The biggest group of funds consists of funds that were established by employers or their groups. The strongest group consists of funds that have financial institutions in the background and there are only few funds out of these two groups. At the beginning of the process many funds were established but only one third of the registered funds survived the first five years after the establishment. But the termination rate was significantly different in the three groups of founders. The most chance for surviving could be seen in group of funds which have financial institutions in the background meanwhile two thirds (or more) of the funds established by employers has been stopped. (See Table 1.)

Table 1 **Market Segments of the Private Pension Funds in Hungary**

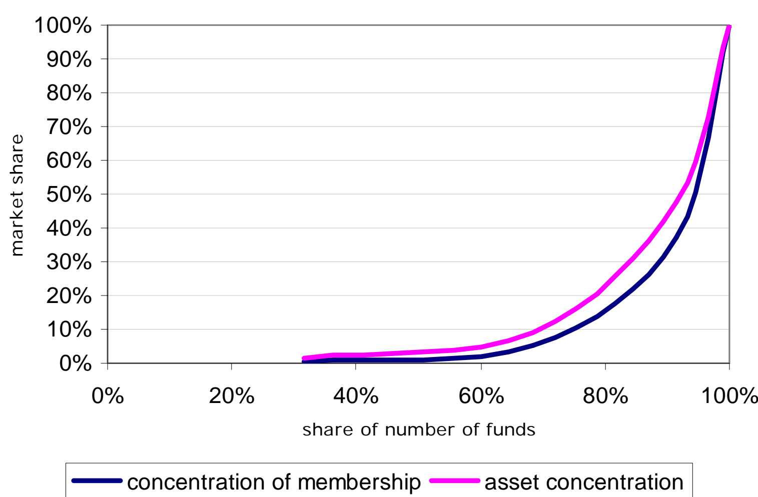
Type of founders	Number of funds established		Number of funds operating in 2003		Surviving chance		Average size (members/fund) at the beginning of 2003	
	mandatory	voluntary	mandatory	voluntary	mandatory	voluntary	mandatory	voluntary
Financial institution	17	21	11	11	64,7%	52,4%	164 045	76 204
Employer	24	161	5	51	20,8%	31,7%	9 117	5 289
Others	19	96	2	20	10,5%	20,8%	6 806	1 941
Total	60	278	18	82	30%	29%	96 981	13 985

There is strong concentration could be detected in the market private pension funds, especially in the mandatory market. At the end of 2002 more than 60 % from the nearly 2,21 million fund members belong to the biggest 3 funds, and these 3 funds posses an asset that represents also about 60 % of all mandatory private pension fund assets and one third of the funds dominates more than 85% of the market.

Concentration is slightly different in the voluntary fund market (see Chart 3.) but the concentration process itself is increasingly strong. The three biggest have only the 37% of the membership, but one third of the total number of funds concentrates more than 93% of members. The 11 funds those of financial institutions in the background from the 82 voluntary funds operated at the end of 2002 united 73 % of the membership, and the assets of these 11 funds have reached near to 65 % of the total asset.

Chart 3

Concentration Curve of the Market of the Voluntary Pension Funds in Hungary in 2002



We have to note that the concentration of the private pension fund market is similar or stronger in most of the EU member states.

At the beginning a relatively large number of small pension funds were founded, which caused a lot of arguments among professionals. There is a viewpoint, according to which it was ab ovo wrong to allow the establishment of small size pension funds[7]. The most serious argument against small pension funds was the uncertainty of long-term operation. These funds – practically without exception - are heavily person-dependant organizations that can get into deep management crises after the key person's position is terminated. At the same time, the financial characteristic of pension funds' activity, the necessary professional skills and the strict customer protection requirements all pointed to the direction, that the institutions established for the management of pension purpose funds cannot be operated with quasi-amateur management. And the micro-organizations cannot really ensure the necessary professional level.

[7] The act allows the foundation of a voluntary pension fund with 15 persons already, while in case of mandatory private pension funds the lower headcount limit is 2000 persons.

In spite of this kind of rationality there were and there are funds established with a few tens of members who considered the foundation of an independent pension fund the best tool to affect a kind of specific community interest. In most cases these funds were established upon the initiation and with the support of the employer but there are examples when natural communities – by taking the text of the Act seriously – founded small pension funds that fulfilled the technical tasks of operation by contracting with professional organizations and that were imagined on the basis of real municipalities. These funds that were intent on independence and their founders were primarily motivated by their interpretation, according to which the fund an interest enforcing organization that ensures the ability to operate by organizing operation. But in order to achieve this, it is essential to have an appropriate economic environment. These small funds are able to operate only if these were professional service companies offering expert services at competitive prices. But the current market climate in Hungary did not favor these funds that eventually – as it has been indicated by the figures previously – represented a smaller and smaller weight in the pension fund market.

But even now the size of voluntary[8] funds is typically small and the size distribution is skew. (See Table 2) Only 15 funds managed to collect more than 20.000 members and all of these funds operate both voluntary and mandatory funds.

Table 2
Size distribution of the Supplementary Private Pension Funds in Hungary, 2002

Size	*Membership*	*Funds*		*Members*		*Assets (millions HUF)*	
micro	less than 500	26	32%	6 027	1%	5 584	2%
small	501-5.000	30	37%	52 770	5%	26 653	8%
medium	5.001-50.000	19	23%	365 695	32%	134 338	38%
large	more than 50.000	7	9%	722 305	63%	184 619	53%
		82		1 146 797		351 193	

4. The Necessity of Supplementary Pensions

The history of private pension did not start with the reform of 1990s in Hungary.[9] There were several private pension funds in Hungary also in the past but all

[8] We use wording of supplementary fund and voluntary fund as synonyns.

Hungarian funded pension schemes collapsed during or after the Second World War, due to the damage sustained by real estate that the funds owned and to hyperinflation. As the only immediate solution, a unified, un-funded PAYG system was introduced around 1950 for wage and salary earners. Initially, this covered about half the population, but the coverage and range of benefits were gradually extended. By the mid-1970s, the system was approaching maturation, with almost 100 per cent coverage and a comprehensive range of old age, survivors' and disability benefits.

Expansion of the system, rising wages and retirement by successive cohorts with entitlements from increasing numbers of years of employment raised the proportion of aggregate pension expenditure (including all disability benefits) to GDP from 3.5 per cent in 1970 to 6.9 per cent in 1980 and 8.8 per cent in 1990. By the late 1970s, the system was under increasing strain from problems of rising wages and prices. Pension increases were inadequate and sporadic, so that only the lowest pensions kept pace with wages and inflation, while medium-sized and higher pensions were steadily eroded, at first only relative to wages, but later in real terms, relative to prices.

The transition period created even more difficult situation. The fall in employment was decreasing the number of contributors while the number of pensioners was increasing sharply, as many employees close to the statutory retirement age were sent into early retirement or volunteered for it. Thus the system dependency ratio—the ratio of the number of pensioners to the number of contributors—jumped from 51.4 per cent in 1989 to 83.9 percent in 1996.

Several measures were introduced in order to handle the problems within the existing system that restored the immediate financial viability of the pension system, but they did not improve the microeconomic transparency or the fairness of the system. If anything, they went against equity among retiring cohorts, by making individual pensions strongly dependent on inflation-rate fluctuations in the years preceding retirement, and weakened confidence in the ability of old-age pensions to provide income security. Furthermore, anxieties persisted about the projected increase in the old-age demographic dependency ratio from 2020 onwards.

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[9] More details see [6]

The prime inadequacy of the existing system was its design. It embodied an almost impenetrable mix of social assistance (solidarity through redistribution) and social insurance (partial but fair replacement of previous income, based on contributions). Pensioners had little idea why their pensions were exactly what they were or how they related to their previous contributions.

To summarize, the pension system as a whole did not collapse during the transitional economic crisis. It continued to give albeit meagre support to pensioners and on average to sustain equity between the working and retired generation: at least until 1996, the real values of the average pension and the average wage sank in parallel. The system favoured the poorest pensioners at the expense of those with higher previous incomes and longer service. The system had become gradually too complex, illogical and unattractive. Citizens had decreasing incentives to contribute properly to its financing, at a time of increasing opportunities to evade contributions through the so-called black and grey economies.

By 1995, it was generally agreed among experts and politicians that a comprehensive reform was necessary. There should be a new pension system that created strong personal incentives for earners to pay contributions.

Two essential requirements for this were fair calculation and individual record keeping. The ideas about how to achieve these goals, however, differed fundamentally. After long debates the main concept of the blueprint advanced by the Ministry of Finance was introduced. This blueprint concentrated on introducing a mandatory, private, funded scheme, while largely neglecting the internal systemic problems of the public scheme. The contribution-related, public PAYG system was sustained, so that the privatization was only partial. The expectations of the plan's proponents were along the lines of the World Bank's argument. It was to foster economic growth, deepen capital markets, and for pensioners, produce returns on capital higher than the internal rate of return in the PAYG system. Additionally, there was emphasis on the advantage of putting one's eggs in two baskets (splitting risks between two pension schemes).

The reform offered a choice to those already employed. They could either remain full members of the SSPS or join an MPPF (Mandatory Private Pension Fund) of their choice, while retaining membership of the SSPS with diminished contributions and

pension rights. (Exclusive membership of an MPPF was not an option.) Those who opted for membership of the latter solution, known as the MS (Mixed System), surrendered 25 per cent of the pension rights that had accrued to them hitherto in the SSPS. No alternative was offered to new entrants to the labour market, for whom the MS became compulsory, implying that in the very long run, the Mixed System would become universal.
One of the most important changes in social security pension is that a new pension formula was introduced. The after-reform pension [10] could be calculated according to a plain formula: Years in service multiplied by average annual pensionable earnings multiplied by pension multiplier. Pension multiplier is 1.22% for participants of MS and 1.65% for others. It means that pension promises of the SSPS for persons in MS is about 25% less than those who did not join to an MPPF. But in theory they will get a part of their pension from these MPPFs.

The Hungarian pension reformers argued for the new system by estimating about 2 percent real rate of return and they asserted that only for people under age 40 might be advised to join the new (mixed) system. After more than 25 years of accumulation in the private pillar and at a projected real rate of return above 2 percent, the pension expectation is higher for people who get pensions from both the public and the private mandatory pillar. However, there are no built-in protections in the system for the case when the effective performance would be worse. The final decision on the two-pillar system was not really aimed at targeting significantly higher pensions but at achieving other goals. Interestingly, at higher levels of income the projections of relative replacement rates from the two types of pension systems are not significantly different (see Chart4)[11]

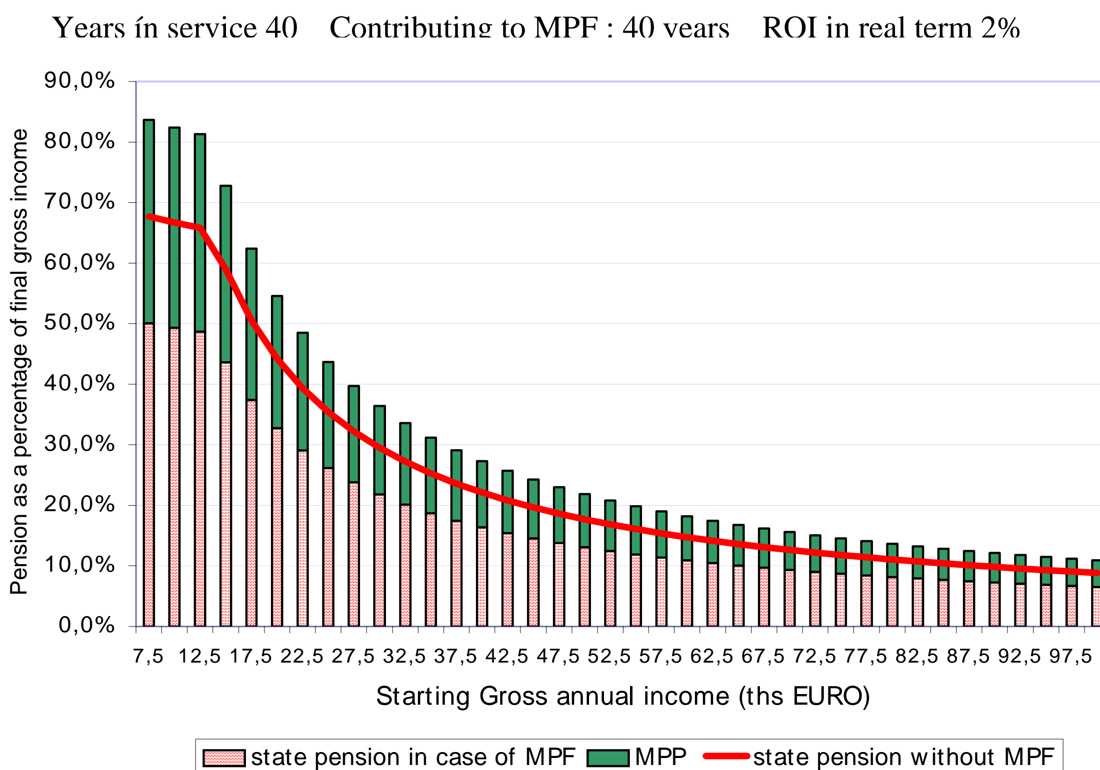
Looking at the Chart 4 on pension promises of the Hungarian Mandatory Pension System we have to realize that above the cap of pensionable income the pension substitution rate (initial pension as a percentage of the final income) is decreasing

[10] The reform has left the public old-age pension scheme practically unchanged or postponed corrections in it until around 2010. Rules of eligibility and measures concerning old-age entry (first) pensions, received in the beneficiary's own right, have been sustained with a few minor exceptions. The new pension promises will be in force only after 2010.
[11] In this calculation the tax and contribution rules are considered according to the legislation valid in 2003. We assume that the cap of the pensionable income increases with inflation (In 2003 the maximum of the pensionable income was cc 15000 EURO/year).We calculate with 2% of real income growth during the contributing period.

sharply and above the level of annual income of 25 thousands of EURO[12] the expectable substitution is less than 40% percent. It means that the pension substitution could be called satisfactory only at the very low level of income. But at a low level of income even a higher level of pension would not be satisfactory to maintain the former living standard. People of higher income are generally know very well even now, that they could not expect satisfactory pension from the mandatory system. But it is not sure that they also have realized the need to protect themselves from the drastic fall of their income in time of retirement.

Chart 4

Pension Promises of the Hungarian Mandatory Pension System



As a consequence it could have been highly advisable for people to learn that there is a clear need for supplementary pension savings practically at any income level.

[12] 25000 EURO is less than the average income in the present member state of European Union.

But the facts show that only very few interested persons realized this and the present level of contributions does not give good chance for satisfactory supplementary pensions provided by the voluntary funds in Hungary.

To explain the statement above we are going to consider some elements of the effectiveness of the voluntary pension funds in Hungary

5. The results of the supplementary pension system in Hungary

If we would like to estimate the expectable pensions provided by the supplementary funds we should take into consideration the factors that might affect the final outcome of the system. In this case the factors could be summarise as it follows: How many interested people are participating, how many contributions they pay and how effective is the system management.

Participation

As it was previously mentioned the voluntary private pension funds started their operation only in 1993 and voluntary pension savings could have been accumulated in institutionally regulated way only since then. The operation of voluntary funds was supported by significant tax measures. Paying contribution was tax favoured both for employers and the individuals. As a result by the end of 2002 the number of members of voluntary funds has reached about one quarter of the number of the population in active age.

To judge whether the participation could be called satisfactory or not is a bit ambiguous. The membership itself is impressive. We have to take into consideration also that decades of state paternalism diminished the general acceptance of necessity of self-care. It could means that the high level of membership is a good signal of changing mind. But we should realize the role of employers: in 2002 on an average about 70% of total contributions were paid by employers. In more than 55% of funds the share of employers contribution is higher than 80%. It means that a lot of member joint to the voluntary funds only because they wanted to get the

employers' contributions. Some or more of them is probably going to withdraw their accumulated capital form the fund as soon as it is possible.[13]

At the same time multiple membership is allowed in the supplementary pension schemes. It means that the effective number of fund member might be really lower with about 10-15%.

Contributions

Satisfactory pensions could be likely only in case of appropriate level of contributions. But the level of contribution paid into the supplementary funds in Hungary could hardly be called appropriate for satisfactory level of pensions.

In 2002 the average contribution (the total sum of contributions paid into voluntary pension funds divided by the total number of members) was less than 200 EURO/year.[14] The average contributions are especially low at the big funds. It could be a consequence of that these funds often paid high commissions for new entrance members and these commissions should have not been linked with the future contributions.

Table 3

Distribution of the average annual contributions paid into voluntary funds

average annual contribution to the fund (Ths EURO)	>1000	501-1000	251-500	101-250	100>
number of funds	3	16	22	37	4
members of funds in the group (in ths)	1	53	230	730	167
	0%	4%	19%	62%	14%

This low level of contribution might be explained that the most participant use the pension funds as tax saving institutions and they practically do not mind the pension expectations. Probably only few interested persons know that their projected supplementary pension would be lower than 1.000 EURO/year[15] (in real term) if they contributed in the current level. And according to the figures showed by the

[13] After 10 years of waiting period the benefit reserves could be withdrawn but the payments would be taxed.

[14] Of course the level of contribution can not be seen independently from the length of the accumulation period. The age distribution of voluntary funds is varying from fund to fund, but as an average we could say that the future accumulation period of the present members is less then 20 years.

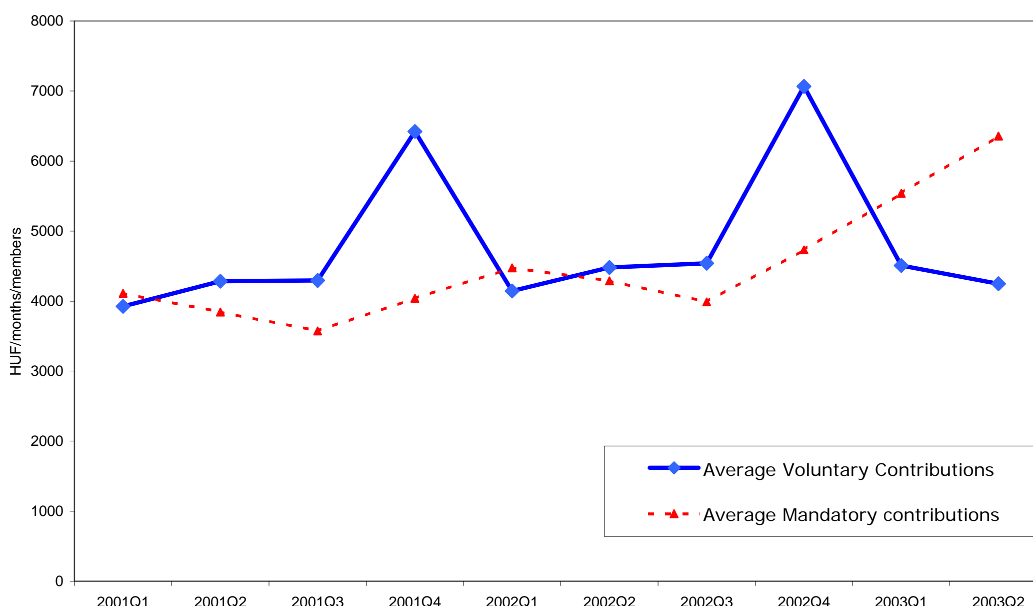
[15] 1000 EURO is less than 50% of the monthly minimum income in Europe.

Table 3 more than 75% of members belong to those funds where such kind of pension level might be estimated on the basis of the current level of average contributions over a period of 30 years.

The level of contribution is derived also from the low level of income and the lack of disposable income. As a comparison we could see the level of contributions in the mandatory funds where the contribution level is compulsory[16] and we realise that there is no real difference in the contribution level between the two segments of the private pensions in spite of the fact that the level of contribution is not limited by law in the voluntary funds. (See Chart 5)

CHART 5

Average monthly contributions to the Private Pension Funds in Hungary



Our finding is that the voluntary contribution has no upward trends mainly because the limits of tax incentives remained unchanged during the period investigated. The tax saving intention might be reflected also by the periodicity of payments.

Cost efficiency

Administrative charges in Voluntary Private Pension Funds could be proportional to contributions and proportional to the value of assets.

[16] In 2001 and 2002 the contribution were 6% , in 2003 is 7% of the pensionable income.

The front load fee, that is the charges proportional to contributions is levelled by the market as the biggest funds sometimes argued for members saying that they charge less front load fee than others. But it was not a healthy competition as the real cost of operation – especially at the starting period - was often far more than it could be covered by the front load fees. The funds could start and develop their operations only with strong financial support of their background institutions. In case of open fund the supporting institutions took this kind of financial supports as investment in order to keep the future asset management service. By now these supporters realise good profits from the asset management fees charged by them for the funds.

The typical measure of charges proportional to contributions is 5%. Only some closed funds charge significantly fewer (sometimes no when employer pays the operational costs) and some open fund charge up to 10% trying to cover all the costs of operations.

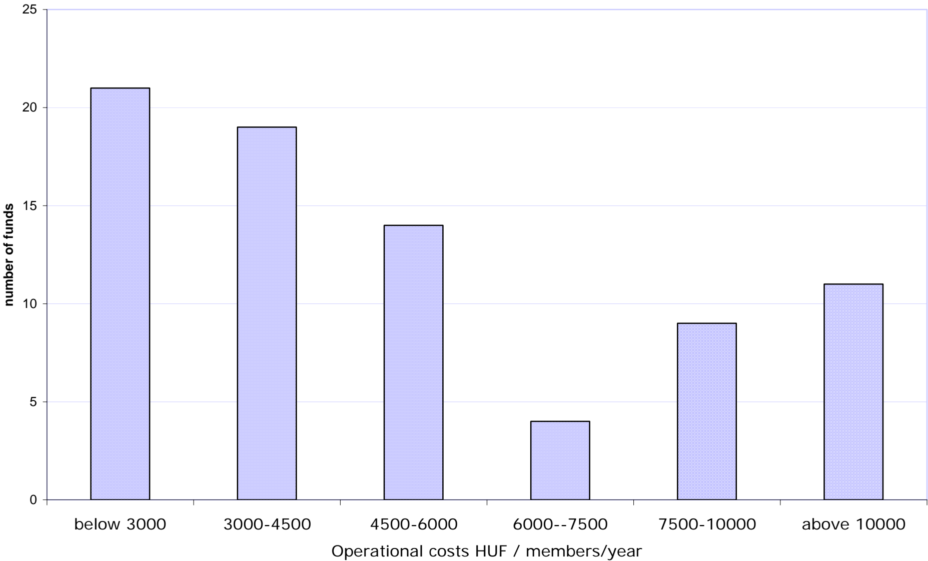
But it is not really known by the members that the charges proportional to contributions has significantly less influence to the pension expectations than charges proportional to the assets. Because of this the lower front load fees have more attractive role than it would have been reasonable.

In spite of the fact that the charges proportional to contributions are levelled there are significant differences among funds how much costs they use for their operations. (See Chart 6) The funds sometimes cover these costs above their charges on contributions with direct or indirect financial support of their founders. At the starting period these financial supports had important role in coverage of operational costs but nowadays the big funds have become self-supporting organisations.

Both the groups of the funds of the most expensive and cheapest one consist of funds sponsored by employers. In the funds with cheap operations the employer pays all or the big part of the operational cost which could not seen within the fund. On the other end, in the funds with expensive operations we could realize that the employer often pays high financial support in order to cover the operation which is expensive as a consequence of the small size of the fund or because employer wanted to pay the same management fee for the fund managers than it pays within

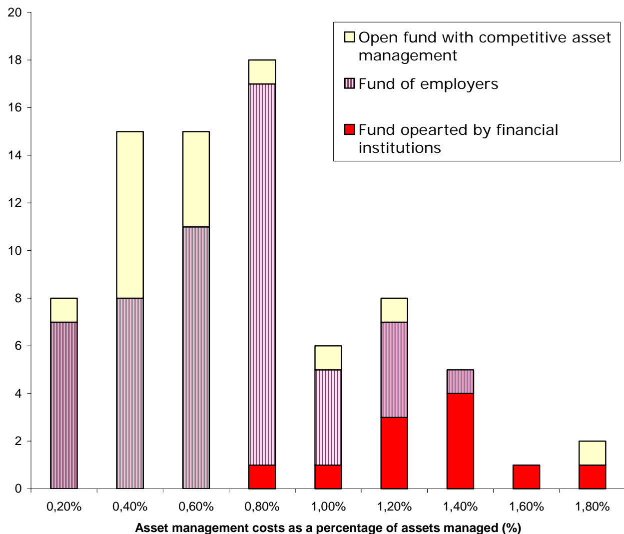
the company. The biggest 15 funds all operate with a cost of less than 4500 HUF/member/year which prove that the size is important factor of the level of costs of operations.

Chart 6
Costs of operations in the VMBFs in Hungary 2002



The charges proportional to the asset value could be significantly different in the funds. (See Chart 7) The funds of financial institutions in the background – namely the biggest funds- pay the most expensive fees for the asset management that is somehow against the economic of scale. But at the same time these funds are managed with relatively low operational cost so it is reasonable to investigate the total management cost as a whole.

Chart 7
Costs of Asset Management in the VMBFs in Hungary 2002



If we add the cost of operations to the costs connected to the asset management we could call it as total management cost. In 2002 the total management costs of voluntary funds in Hungary was 1,98%. It is a reasonable cost level. If we take the funds individually we could find that less than 10% of the funds is managed with a cost of more than 3%. But the economic of scale does not work again: the total management costs of the bigger funds are not really less than that of the smaller ones. (See Table 4) Only the very tiny funds of less than 1000 members seem to be more expensive than others.

Table 4
The management costs of the Hungarian VMBFs in 2002

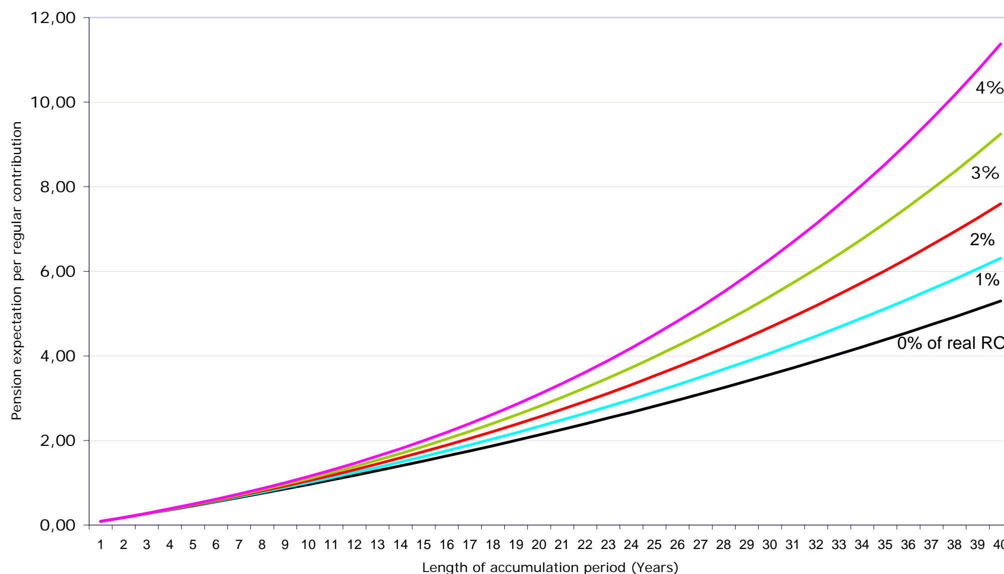
Group of membership	fund operated in 2003.	Group means							
		members*	Market value of aassets*	operational costs	cost of asset mngm	total mngm. cost	operational costs	cost of asset mngm	total mngm. cost
			m HUF	as a percentage of assets manged			per members (HUF/year)		
above 100.000	2	148 612	32 105	1,3%	1,0%	2,3%	2 995	2 198	5 194
50.000-100.000	4	83 447	17 398	1,4%	1,3%	2,8%	3 001	2 522	5 523
10.000-50.000	14	26 813	8 105	1,2%	0,8%	2,0%	3 643	2 070	5 713
1.000-10.000	24	3 444	1 534	1,1%	0,6%	1,7%	4 479	2 447	6 926
below 1.000	34	393	221	1,4%	0,6%	2,0%	12 480	4 485	16 965
TOTAL	78	262 708	59 363	1,3%	0,9%	2,2%	3 324	2494	5 818

* at the beginning of the year

Investment returns

The Hungarian supplementary pension funds are funded schemes of defined contributions and the key issue of the success of any funded private schemes is the long- term profitability of the investments of the reserves. The level of pensions depends very much of the real rate of return of investments. (See Chart 8). The same level of contributions could result in very different pensions according to the effective returns on investments. According to a rough estimation in case of 4% of real rate of return the pension expectation is about doubled in a period of 30 years of accumulation comparing to that case when the real rate of return is only 0%. As a consequence we have to pay high attention to the investment performances.

Chart 8
Pension expectations as a function of real rate of returns of investments

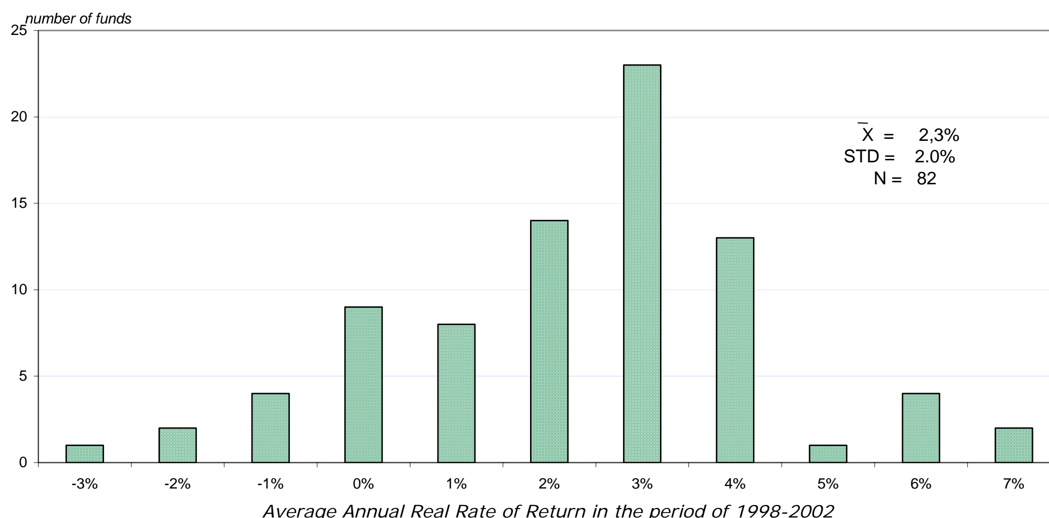


The history of Hungarian supplementary is not long enough to measure the long-term profitability. At the same time the developing period of the capital market in Hungary made the investment measures also a bit dubious if we take into consideration all the data from the very beginning period of the funds' operation. But the latest five years might give some valuable information.

The first finding is hat the 5-year average performances are very much diverse. (See Chart 9) The mean of average real returns is 2,3% which is not too high but acceptable. But the standard deviation is close to the level of mean. It means that the fund selection had quite an important role in what size of benefit reserves could be accumulated in the period investigated.

The first natural explanation could be the different investment policy of the funds but it is not the real case. Of course there are some differences in the portfolios but these are not explanatory enough. The portfolio of almost all the funds consists of more than 75-80% of state bonds or other domestic bond with some guarantee and the risky assets are generally below 10%. As a consequence the investment policy could hardly give satisfactory explanation on the very different investment performances.

Chart 9
Average of Real Rate of Returns on Investments of Assets of VMBFs in Hungary 1998-2002



If we are looking for some other explanatory factors we should note that there are significant differences in the performance of funds of different way of asset management. Some funds manage the assets in –house way. The regulation is rather week concerning the in-house asset management: It requires qualified experts employed by the funds but there is no capital requirement. In case of in-house asset management the funds' managers should take the responsibility of investment activity which is generally far out of their competencies. Because of this most fund decided to outsource the asset management. The financial institution establishing funds generally have their own investment institutions and one of the main reasons of the establishment was to acquire this asset management service. As a result – in spite of the fact that according to the legislation funds have to call for tender in order to select the asset manager(s) - there is no any fund with financial institutions in the background which use other asset managers than their only asset manager company in the same financial group. In theory it could be natural and even have more rationality. But the lack of the market competition in the selection process could be harmful. We suspect that it could be one of the possible explanations of the differences of investment performances. (See table 5)

Table 5
Investment performances of the groups of Hungarian VMBFs
In the period of 1998-2002

Mode of Asset management in 2002	number of funds	assets managed billion HUF	%	number of members (ths)	%	average of annual real rate of returns 1998-2002		
						mean	MIN	MAX
In-house asset management	15	76	22%	209	18%	3,4%	-1,7%	7,4%
Competing outsourced asset management	56	97	28%	262	23%	2,2%	-1,2%	5,6%
Non-competing outsoursed asset managem	11	178	51%	676	59%	1,2%	-2,8%	3,6%
Total	82	351	100%	1 147	100%	2,3%	-2,8%	7,4%

We should not forget that even the largest funds belong to the group of funds of non-competing asset management. It means that the many members belong to the group of funds of the lowest investment performances.

6. Internal Efficiency of pension fund operations

The voluntary pension funds are basically one of the possible financial vehicles for pension savings. In this context the efficiency of the system could be measured in a way of financial effectiveness. To measure of the internal efficiency we should consider all the money put into the system and the final claim of the members.

The internal efficiency could be measured on individual level, on fund level and also on the level of the whole system. The method is very similar, but the Cash in-flow and out-flow and the final outcome should be differently defined.

On individual level the cash in-flow is the contribution what was paid, as a benefit of a member and in practice[17] there is no out-flow in the accumulation period. The final outcome is the value of personal account of the member at the end of the period.

Let us suppose that a member paid the same sum (in this example 100.000 HUF/year) into a voluntary fund between 1995 and 2002. The balance available on his personal account at the end of the period depends on the charges proportional to contributions and the rate of returns on investments. In the previous chapter we

[17] Members are allowed to ask member's loan but it was not typical in the period investigated.

could see that both of the two factors was very much different among the funds. Table 7 illustrates the calculation [18] in case of 5% of charges proportional to contributions and 1% real ROI.

Table 7
Calculation of internal efficiency of pension fund operations

Charges proportional to contributions 5%
Real rate of interests credited on personal accounts 1%

Year	inflation *	Tax allowance on contributions	Contribution	Current Value of the contribution indexed by the future inflation rates	Rate of return on investments	Value of the personal account at the end of the year	**Personal Cash Flow**	Cash Flow with tax allowances
1995	28%	50%	100 000	245 341	**29%**	108 870	**-100 000**	-50 000
1996	24%	50%	100 000	198 496	**25%**	242 337	**-100 000**	-50 000
1997	18%	50%	100 000	167 790	**19%**	393 276	**-100 000**	-50 000
1998	14%	50%	100 000	146 798	**15%**	555 714	**-100 000**	-50 000
1999	10%	30%	100 000	133 453	**11%**	717 068	**-100 000**	-50 000
2000	10%	30%	100 000	121 542	**11%**	894 641	**-100 000**	-70 000
2001	9%	30%	100 000	111 302	**10%**	1 085 740	**-100 000**	-70 000
2002	5%	30%	100 000	105 700	**6%**	1 252 134	**-100 000**	-70 000
2003	6%	30%	100 000	100 000	**7%**	1 434 209	**-100 000**	-70 000
Total			900 000	1 330 423			**1 434 209**	1 434 209
average weighted by assets	9,2%				10,2%			
Internal Rate of Return on Contributions							**9,2%**	**20,8%**

*Hungarian National Bank, Annaul average

Results summarised in Table 8 show the influence of the front load fees and the investment performances on the individual internal efficiency.

First we should realize that taken into consideration the tax allowances on the contributions the payments into voluntary pension funds were very good investments on individual level. On the other side we could see that charges of 5% proportional to contribution could be balanced with 1% positive real rate of return in order to retain the value of money paid in. If front load fee increases with 1% of contributions the value of the personal accounts (namely the benefit reserves) has changed also about 1% in the period investigated. But changes of 1% in real rate of return resulted in changes of about 5% of final outcome of the system. As a consequence, in this period of 9 years (which is not a long one for pension savings) in a fund of good performance the balances of individual accounts could be higher with about 50% than in the worse fund of having the same contribution structure.

[18] In the rough calculations we suppose that all the contributions were paid in the end of the year. If data are available more sophisticated calculations could be done.

Table 8

Individual Internal Efficiency as a function of front load fee and the ROI Within the Hungarian voluntary fund system in the period of 1995-2002

Credited part of contributions	Real rate of interests credited on personal accounts	IRR		Value of the personal account at the end of the period (ths HUF)	Account value as a percentage of the basis case
		with tax allowances	without tax allowances		
89%	3%	21,5%	9,8%	**1 482**	94%
95%	**3%**	**22,8%**	**11,1%**	**1 581**	**100%**
94%	**3%**	**22,6%**	**10,9%**	**1 565**	99%
99%	3%	23,7%	11,9%	**1 649**	104%
95%	-3%	17%	5%	**1 180**	75%
95%	-2%	18%	6%	**1 239**	78%
95%	-1%	19%	7%	**1 301**	82%
95%	0%	20%	8%	**1 366**	86%
95%	1%	21%	9%	**1 434**	91%
95%	2%	22%	10%	**1 506**	95%
95%	**3%**	**22,8%**	**11,1%**	**1 581**	**100%**
95%	4%	24%	12%	**1 661**	105%
95%	5%	25%	13%	**1 745**	110%
95%	6%	26%	14%	**1 833**	116%

Supposed Annaul contribution : 100 Ths of HUF

Measuring the internal efficiency on fund level would have required time series of data of total sum of payments for members paid into the fund in a year and all the payments delivered by the fund to the members. The outcome could be measured as a value of benefit reserve of the fund at the end of the period. If the internal efficiency would have been measured in a special period the initial value of the relevant Cash flow should be the market value of the benefit reserves of the fund at the beginning of the period. [19]

The internal efficiency rate of funds could be a complex measure to compare the performances of funds. This measure would be suitable to make classes of efficiency and could have been calculated according to the data of the annual reports by the supervisory agency or any other independent parties and it could be published in order to help the transparency. But in this moment the data required for this kind of comparative studies are not available for public.

[19] The signs of the element of the relevant Cash Flow should be determined as appropriate.

As an illustration Table 9 show the calculation for two funds. In this example the figures shows that Fund I. Had better performance in the period of 1998-2000 than the Fund II.

Table 9
Two examples for calculation of Internal Efficiency of Funds

	Net CF	Market value of benefit reserves at the end of the year	Relevant CF for the period of 1998-2002		
FUND I:		0			
1995	18 716 700	19 959 000			
1996	21 328 721	47 524 000			
1997	27 404 924	89 326 000	89 326 000		
1998	26 700 000	145 862 000	26 700 000		
1999	33 428 755	197 110 000	33 428 755		
2000	47 506 383	265 604 000	47 506 383		
2001	88 525 646	365 064 000	88 525 646		
2002	59 036 822	480 609 000	-421 572 178	**13,4%**	**IRR**
FUND II:					
1997		703 750 574	703 750 574		
1998	478 963 397	1 278 566 142	478 963 397		
1999	532 751 232	2 078 622 861	532 751 232		
2000	726 340 716	2 981 709 551	726 340 716		
2001	875 924 389	4 124 085 589	875 924 389		
2002	889 723 927	5 405 346 198	-4 515 622 271	**11,1%**	**IRR**

Finally the internal efficiency could be calculated also at the sector level. In this case the initial value of the relevant CF would be the total amount of market values of the benefit reserves of each fund t the beginning of the period investigated. All annual CF would be calculated as the sum of annual net CF of each fund. And the outcome would be the total amount of market values of the benefit reserves of each fund t the end of the period investigated. By means of this measure we could compare for example the efficiency of the mandatory and the voluntary systems or we could follow the dynamics of internal efficiency of the system. Unfortunately the necessary time series are not available in this moment.

7. Conclusions

In the first decade of introduction the pension reform Hungary did rather well in this big examination. If we take into consideration that the period of the economic transformation was not really favourable for a long term project like pension reform and the under-developed capital market gave adverse conditions for developing a funded pension system the results could be appreciated.

But the real situation should be improved in several fields. First of all the interested parties should be educated to learn the self-care conception. Secondly the market competition should have been reconsidered. It should be clear that to force building up a funded pension system could be dangerous in unfavourable environment. In case when the market prices are not able to fulfil their natural role and the market does not control the performances, the pension expectations of the private system could be eroded. After a couple years of inadequate performances members could hardly be convinced that they could rely on this young pension institutions. Especially when they could not find any guaranty for the protection of their own interest. Finally the public information on performances of the funds would be necessary, as members should know about the differences in their final outcome as a result of the differences in complex performance of the funds. It seems to be the internal efficiency could be an informative complex measure of performance of the funds.

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