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Pension Reform and the Development of Pension Systems: An Evaluation of World Bank Assistance

Background Paper
Hungary Country Study

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2007
The World Bank
Washington, D.C.

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Acronyms and Abbreviations

CEE	Central and Eastern European
CPI	Consumer Price Index
EMU	Economic and Monitory Union
EU	European Union
FDC	Financial Defined Contribution
GDP	Gross Domestic Product
HFSA	Hungarian Financial Supervisory Authority
IEG	Independent Evaluation Group (formerly Operations Evaluation Department)
ILO	International Labor Organization
IT	Information Technology
MOF	Ministry of Finance
MPPF	Mandatory Private Pension Funds
NGO	Non-governmental Organization
OECD	Organization for Economic Cooperation and Development
OED	Operations Evaluation Department (changed its name to IEG in December 2005)
PAHIP	Pensions Administration and Health Insurance Project
PAYG	Pay-as-you-go
PHRD	Policy and Human Resources Development Fund
PROST	Pension Reform Simulation Toolkit
PSAL	Public Sector Adjustment Loan
SSPF	State Social Insurance Pension Fund
USAID	United States Agency for International Development

Contents

Preface i

1. Introduction 1

2. Background 2
- Overview of the Country 2
- The Evolution of the Pension System Up to the 1998 Reform 4

3. The 1997 Pension Reform 7
- Background 7
- Overview of the 1997 Reform Legislation 8
- A New Government in 1998 Changed the Legislation 11
- Overview of the Development of Institutions 16
  - Institutional Development Prior to 1997 16
  - The Institutions and Construction of the New Financial Account Scheme 16

4. The Bank's Country Assistance Strategy 21

5. Performance Evaluation 26
- Outcomes 26
  - Overall Objectives 26
  - Relevance of objectives 27
  - Efficacy of objectives 30
  - Outcome 32
- Institutional Development 33
- Sustainability 34

6. Attribution of Results 36
- Bank Performance 36
- Borrower Performance 37

7. Coordination with Other Agencies 40

8. Counterfactual 41

9. Lessons and Recommendations 42
- The Mandatory Financial Account Scheme 42
- The Pay-As-You-Go (PAYG) System 44
- Political Consensus 45

Annex A: Data Annex 47

Annex B: Consultations on the Hungarian Pension Reform 49

Figures

Figure 1: Growth of Members and Member Assets..19

Tables

Table 1: Demographic Dependency Ratio, 2000-2050. Ratio of persons 20-64 to persons 65+....2
Table 2: Hungary-Key Pension Ratios 5
Table 3: Contributions to the Mandatory Old Age Pensions – Actual Outcome and Original Legislation in Parentheses (in percentages) 10

Preface

This paper belongs to series of 19 country and regional case studies commissioned as background research for the World Bank's Independent Evaluation Group (IEG) report "Pension Reform and the Development of Pension Systems." The findings are based on consultant missions to the country or region, interviews with government, Bank, donor, and private sector representatives involved in the pension reform, and analysis of relevant Bank and external documents.

This case study was authored by Edward Palmer in 2004. Edward Palmer is a professor of social insurance economics at Uppsala University and head of the Division for Research at the Swedish Social Insurance Agency.

1. Introduction

1.1 This document is an evaluation of the World Bank's support in pension reform to Hungary since the beginning of the 1990s. The focus of the evaluation is on the reform work performed in conjunction with the legislation passed in 1997, creating the mandatory individual financial account scheme that was implemented in 1998.

1.2 The evaluation begins with a general country background and overview of pension data, followed by a summary of the Hungarian pension reform and a discussion of the World Bank's technical assistance in this process. The final sections contain the evaluation of the Bank's and country performance and lessons and recommendations.

1.3 The evaluation is based on World Bank documents and interviews with World Bank staff, other available reports of relevance and interviews with Government officials involved in formulating and implementing reform policy in Hungary, as well as persons outside the policy circle, such as representatives of NGO's, academics and journalists. There is a Data Annex (Annex A) at the end of the report that provides a statistical overview of the country's economy and demography and key pension data. A list of persons interviewed in performing the evaluation is also provided in Annex B.

2. Background

Overview of the Country

2.1 Hungary has a population of a little over 10 million persons. Together with Slovenia and the Czech Republic, Hungary has the highest level of GDP per capita among CEE countries. GDP per capita was about 6500 USD per person in 2002, a little over half the level in Portugal and Greece,[1] the two countries that had the lowest per capita income in the European Union prior to May 1, 2004 (when eight CEE countries and Malta became members).

2.2 Life expectancy at birth increased from 37 to 69 years from 1900 to 1970, and then remained close to 70 until around the year 2000.[2] Improvements began to come again at the very end of the 1990s, with an increase to 71.8 in 2002.[3] Presently, women live about 8.5 years longer than men, a considerable gender difference compared to the typical (pre-2004-accession) EU country – where the difference is generally around five years.[4] The demographic dependency ratio, measured as persons 65 + in relation to persons 20-64 has been relatively stable since 1980, at a level of slightly less than 4.0 in 1980 and slightly more than 4.0 in 2000. The ratio is expected to drop dramatically in the coming decades (Table 1), from around 2015.

Table 1: Demographic Dependency Ratio, 2000-2050. Ratio of persons 20-64 to persons 65+

	Year					
	2000	2010	2020	2030	2040	2050
Dependency ratio	4.2	4.1	3.3	3.0	2.6	2.1

Source: Augusztinovics, M, R Gál, A Matits, L Máté, A Simonovits and J Stahl, The Hungarian Pension System Before and After the 1998 Reform, in Elaine Fultz (ed.) *Pension Reform in Hungary and Poland: A Comparative Overview, Pension Reform in Central and Eastern Europe*, Volume 1: Restructuring with Privitization, Case Studies of Hungary and Poland. Budapest: ILO CEET, 2002.

2.3 By the late 1980s partial liberalization of foreign trade and prices had taken place, a new two-tier banking system had been put into place, there was decentralization of enterprise management, private entrepreneurs were allowed to start small businesses and the tax system had been changed. In essence, the transition from a command economy was underway already in the late 1980s.

2.4 A new government came to power through free parliamentary elections in the spring of 1990, with a mandate to establish a full-fledged market economy. A

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[1] World Development Indicators database, World Bank, July 2003.
[2] Augusztinovics, M. R Gál, A Matits, L Máté, A Simonovits and J Stahl, "The Hungarian Pension System Before and After the 1998 Reform," in Elaine Fultz (ed.) *Pension Reform in Hungary and Poland*: *A Comparative Overview, Pension Reform in Central and Eastern Europe*, Volume 1: Restructuring with Privatization, Case Studies of Hungary and Poland. Budapest: ILO Central and Eastern European Team (CEET), Budapest. 2002.
[3] World Development Indicators Database, World Bank, August 2003.
[4] World Bank Social Indicators of Development.

vigorous program was immediately launched, although the pace of reform, especially reduction of the large public sector, was slow into the mid-1990s.

2.5 GDP fell by a little over 15 percent from 1990 to 1993. Hungary was plagued by mounting government deficits, at worst 8.5 percent of GDP 1992, and with emergency measures, the deficit was brought down to 3.1 percent of GDP in 1996. Although growth returned in 1994, it was slow for several years thereafter. Since 1997 real GDP has grown at a rate of around 4-5 percent annually, with a slight drop with the emergence of the 2002 recession. In spite of this relatively high rate of growth, it took until 1999 for GDP to surpass its 1990 level.

2.6 In the aftermath of the transition, the employment rate fell from about 76 percent in 1990 to 58 percent in 1996-1997, and in the transition process about 30 percent of pre-transition jobs were lost.[5] Hungary's employment rate is among the lowest in the OECD, and it is particularly low for older workers and the Roma (less than 50 percent).[6]

2.7 The annual rate of inflation fell from 35 percent in 1991 from around 18 percent in 1997, and to 7 percent in the beginning of 2004. The National Bank of Hungary (NBH) adopted inflation targeting in June 2001, with the aim of bringing the rate of inflation down to EMU levels by 2005, but has yet to achieve this goal. Inflation was still running at an annual rate of close to six percent in the beginning of 2004, much above the rate in the EU.

2.8 In the initial years of the transition, between 1989 and 1997, the dispersion of earnings increased, as is indicated by the increase in the Gini coefficient of earnings from 0.21 to 0.32. Although this change is considerable, the higher value is nevertheless in line with that in, for example, the UK and the US in the 1990s, although higher than continental Western Europe.[7] The increase in inequality after taxes and transfers was considerably milder, however, with a rise in the Gini coefficient for household equivalent income from 22.5 to 25.4 percent.[8]

2.9 Absolute poverty in Hungary is relatively low. It was below six percent in 1996. Bank measurements established that 7.5 percent of the population were long-term poor in 1997, with a concentration to persons living in rural areas, and more specifically to the Roma ethnic minority. The Roma, who are about five percent of the total population account for about a third of the long-term poor.[9] The situation of

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[5] Augusztinovics *et al*., p 29.
[6] Hungary: Selected Issues and Statistical Appendix, IMF Country Report No. 02/109, June 2002, p 27.
[7] Peter Gottschalk, Björn Gustafsson and Edward Palmer, "Changing Patterns in the Distribution of Economic Welfare," Cambridge University Press, Cambridge, UK, 1997, p 3.
[8] *Ibid*. p 29.
[9] Memorandum of the International Bank for Reconstruction and Development to the Executive Directors on a Country Assistance Strategy of the World Bank Group for Hungary, Report No. 23609-HU, April 2, 2002, p 4.

the Roma ethnics is among Hungary's more serious social and labour market problems.

2.10 In sum, Hungary enjoys one of the highest standards of living among CEE countries, and the economy has displayed strong growth in recent years. The decline in mortality rates from 2000, for the first time in around 30 years, is another indicator of increased well-being. The number of registered employed has been increasing, the rate of inflation has been slowly declining, and the public deficit is in line with EU standards. In other words all the key indicators have pointed in the right direction for several years.

2.11 Hungary ceased to borrow from the Bank after January 1998. Hungary's obligations to the Bank, which stood at 2.4 billion USD by the end of FY95 were reduced to about 0.5 billion USD in the beginning of 2002.[10]

The Evolution of the Pension System Up to the 1998 Reform[11]

2.12 With the fall in economic activity and employment, the system dependency ratio (including all pensioners) declined from about two to 1.5 contributors per (old age and disability) pensioner from 1989 to 1996, and aggregate pension expenditures increased from around 5 percent of GDP in the 1970s[12] to about 10 percent of GDP by 1994.[13] In order to reduce benefit expenditures, a number of measures were introduced in the early 1990s.

2.13 From 1991, benefits were indexed to nominal wages, rather than inflation, which meant indexation didn't keep up with inflation. This measure affected the entire stock of pensioners. Secondly, in 1992 the government introduced changes in the calculation of benefits to achieve a reduction in costs. The calculation base for an old-age benefit was changed from the best three of the most recent five years since 1988 to an average of all years until retirement since 1988. Thirdly, for several years beginning in 1992 there was a ceiling on indexation of benefits above a certain level, which resulted in a compression benefits.

2.14 In addition, earnings were entered into the benefit formula in nominal values and pensions were indexed to wages. The rate of inflation was higher than the rate of increase in nominal wages (with a difference of about 15 percent in 1995 and 1996[14] alone), which deflated the real value of newly granted pensions. In addition, in 1996

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[10] *Ibid*. p 8.
[11] Most of this section is based on Augusztinovics *et al.* and interviews with the authors during the IEG mission to Hungary.
[12] Rocha, R. and D. Vittas, "Hungarian Pension Reform: A Preliminary Assessment of the First Years of Implementation," in M Feldstein and H Siebert, *Social Security Reform in Europe*, National Bureau of Economic Research. University of Chicago Press: Chicago, 2002, p. 367.
[13] Augusztinovics *et al.*, p 30.
[14] Rocha, R. and D. Vittas, *op .cit*. p 369.

the timing of indexation was changed, which in practice meant an even further devaluation of benefits.

2.15 Augusztinovics *et al.*[15] show that these factors resulted in a skewed distribution of actual benefit payments that favored persons who retired in 1986-1990. In 1997, the benefits of persons who retired 1986-1990 were on average 20-25 percent higher than those for persons retiring in 1992-1995.

2.16 Experts and the government were all agreed that one of the problems with the Hungarian pension system was the low pension age, 55 for women and 60 for men. Legislation in July 1996 changed this. Accordingly, from 1997 the pension age for men was increased by a half year per year to 62 from year 2000. The pension age for women was also increased to 62, where it is scheduled to be in 2009. In addition, the July 1996 legislation tightened the rules for early retirement.

2.17 The basic data for pensions remained relatively stable from 1995 through 2002, as Table 2 illustrates. The system dependency ratio, calculated as the number of persons in employment to the number of persons sixty and over remained relatively constant, while the system dependency ratio calculated as the number of persons in employment to the number of old age pensioners actually improved considerably.

2.18 The number of disability pensioners increased by about 30 percent from 1995 to 2002, and this meant that there was less of an improvement in the system dependency ratio measured as persons in employment to old age and disability pensioners. In fact the increase in disability pensioners accounted for the increase in pensioners seen over the entire period 1995-2002 (Annex Table 1 in the Data Annex).

2.19 The improvement in the system dependency ratio reflects an approximate seven percent increase in employment between 1995 and 2002, with a constant number of pensioners. The gradual increase in the pension age was instrumental in holding back the increase in the system dependency ratio, and overall pension costs, compared to the alternative of no reform.

Table 2: Hungary-Key Pension Ratios

	1995	***2002***
(1) Ratio of Working age Population (20-59) to Population 60 +	2.76	2.76
(2) Ratio of Persons in Employment to Population 60 +	1.79	1.85
(3) Ratio of Persons in Employment to Old Age Pensioners	1.76	1.93
(4) Ratio of Persons in Employment to Old Age and Disability Pensioners	1.51	1.57
(5) Average Old Age Benefit/ Average Wage	0.50	0.47
(6) Old age, disability and survivor benefits/GDP	9.4 percent	9.1 percent

Note. The system dependency ratio based on persons in employment and including survivor benefits is about 1.25 in 1995 and 1.35 in 2002. Data on the number of contributors was not made available for this evaluation. The system dependency ratios *including survivors*, based on the data in Annex Table 1 in the Data Annex, agree with the system dependency ratio(s) in other sources.

[15] *Ibid*. p 34.

2.20 The pre-reform pension formula had a number of problems. Pensions were based on years of service, but these gave progressively less per additional year. Ten years of service gave 33 percent of estimated earnings, whereas four times as many service years gave only about 2.5 as high a replacement rate. In addition, however, higher earnings did not give the same rights as lower earnings, and there was a cap on the earnings included in the formula, which fell from 3.4 to 1.6 times average earnings in the short period of 1992-1996.

2.21 Although employee contributions were also capped, employer contributions were not, which meant that a large portion of employer contributions were an outright tax, rather than an insurance premium paid on behalf of the employee.

2.22 As it had evolved by 1996, the pension formula did not give a strong incentive to pay contributions, especially for persons with earnings over the ceiling, which was just a little above the average wage. As a result of this, agreements between employers and employees emerged, consisting typically of a formal wage payment to satisfy the conditions of social security and an informal wage payment to avoid contributions that did not have a counterpart in a benefit, *i.e.* underreporting of income.

2.23 In sum, the old pension system suffered from design inadequacy, not the least because of the *ad hoc* changes in the first half of the 1990s. The changes in the pension system from 1992 favored poorer pensioners, which was easy to justify during the period in which they were undertaken. By 1996, however, all of the *ad hoc* cost-cutting measures had left in their aftermath a pension formula that had become complex and difficult for individuals to understand. More fundamentally, in the words of Augusztinovics *et al*: "It embodied an impenetrable mix of social assistance (solidarity through redistribution) and social insurance (partial but fair replacement of previous income based on contributions)."[16] It was clear to experts and the government that something had to be done.

[16] Augusztinovics *et al*., p 33

3. The 1997 Pension Reform

Background

3.1 By 1996, two very different agendas for reform had emerged. The first reform alternative was presented by the Board of Directors of the State Social Insurance Pension Fund (SSPF), with the support of the trade unions and a large number of independent pension experts. This proposal focused on reforming the pay-as-you-go scheme. The second reform alternative was presented by the Ministry of Finance, with the support of the World Bank, and focused on creating a mandatory financial defined contribution (FDC) scheme with individual financial accounts.

3.2 The alternative presented by the SSPF was to consist of a flat-rate benefit financed with general revenues, and provided to everyone on the basis of residence, supplemented by a mandatory earnings-related PAYG point system for both employees and the self-employed. The pension benefit per point would be set annually by the Parliament, based on the wage trend (excluding contributions) combined with a flexible retirement age, with actuarial adjustments in benefits depending on the age chosen for retirement. The system would be calibrated to achieve a 60 percent replacement rate. In addition, a reserve fund was to be built up to meet the demographic burden that would begin to make itself felt financially shortly before 2020 (see Table 1 above).

3.3 The MOF proposed the introduction of an FDC individual account scheme, which would be mandatory for new entrants into the labor force and voluntary for workers already covered. Persons opting in would pay 8 percentage points of their overall contribution rate to a private FDC fund, beginning with a 6 percent rate at implementation. Their contributions to and rights earned would be reduced accordingly in the PAYG scheme.

3.4 There was heated debate between the two groups, and, as is often the case, disagreement between the experts on the scale of the problem – *i.e*. the cost of not reforming. According to the account in Augusztinovics *et al.*,[17] the MOF had estimated a deficit of four percent of GDP by 2050 without the increase in the pension age, and 2.6 percent with the proposed change in the pension age to 62 for both men and women. Rocha and Palacios[18] estimated a much heavier burden at six percent of GDP, with a reduction to four percent with the proposed increase in the pension age. In either case, the need to increase the contribution rate (or taxes) to finance the coming deficit was substantial, especially given that the system already required a 30 percent contribution rate. This fact alone was enough to convince most of the need for reform.

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[17] *Ibid*. p 36.

[18] Rocha, R and R Palacios, The Hungarian Pension System in Transition in Bokros and Dethier (eds.) *Public Finance Reform during the Transition: The Experience of Hungary*. The World Bank: Washington DC, 1998.

Overview of the 1997 Reform Legislation

3.5 *The goals of the reform*. Párniczky[19] summarizes the goals of the Hungarian reform as follows:

1) The guiding principle of the Hungarian reform was to avoid the risk of poverty in old age.
2) The new system was to provide a good replacement rate for persons with lifetime coverage within the framework of a multi-pillar system.
3) The labor market objectives were to lengthen working careers and increase compliance.
4) It was also hoped that, through the introduction of a mandatory financial scheme, higher pensions could be attained with lower contributions compared to the PAYG alternative.
5) The reform should reduce the implicit debt passed on to future generations, and increase fairness within and between generations.
6) The introduction of the mandatory financial account scheme was also viewed as a means of developing the financial market, which would contribute indirectly to overall economic growth and contribute to increasing the general level of prosperity.

3.6 *The reform legislation*. The main reform legislation was written and enacted in 1997 and implemented in 1998. The major components of the reform can be summarized in the following paragraphs.

3.7 *The PAYG formula.* The PAYG benefit is based on an average lifetime wage indexed up until the time of retirement using the average wage. Every year is valued with an accrual rate. Persons remaining in the PAYG system have an accrual rate of 1.65 percent for each year of service. From 2009, 40 years of service are required to obtain the full accrual rate. This would give a coefficient of 66, *i.e*. 1.65 x 40, which would be multiplied by the individual's average wage, indexed with the overall average wage. This gives a 66 percent replacement rate of the individual's own (indexed) career average.

3.8 Early retirement is permitted without a penalty at age 57 until the year 2009 as long as workers have the required number of years in the system. From year 2009, the service year requirement becomes 40 years and workers will no longer be able to claim early retirement before age 59. Thereafter, from ages 59 to age 62, it is possible to retire without a penalty with 40 years of service, otherwise there is a deduction. The deduction is more lenient than a straight-forward actuarial reduction.

[19] Tibor A Párniczky, "The Experience of the Mandatory Private Pension Funds and Lessons of the Operations of Funds – Facts and Tendencies," East-West Management Institute, Budapest, mimeograph, 2004.

3.9 Beginning in 2003, accrual rates are to be applied to a worker's *gross* wage history. A new set of coefficients will be calculated, and the goal is that the change should have a more-or-less neutral effect at the time of implementation.

3.10 *Indexation*. Following a brief, gradual transition, beginning in 2001 PAYG benefits would be indexed with a combined 50 percent wage and 50 percent CPI index, the so-called Swiss index, instead of straight-forward wage indexation.[20] Compared with full wage indexation, this measure alone was expected to generate a PAYG surplus of 1.5 percent of GDP in a ten year period.

3.11 *Survivor benefits in the PAYG system*. Beginning in 1998, survivor pensions are awarded regardless of other pension income. This change was also to be applied retroactively, and was expected to add 20 percent to the average survivor pension.

3.12 *The new financial account scheme*. Participation in the financial account scheme was to be mandatory for new entrants (under the age of 42) from 1998, and voluntary for persons already covered by the PAYG scheme prior to 1998.

3.13 Employers' contributions for old-age pensions were scheduled to decrease from 30 percent in 1997 to 18 percent in 2002,[21] and employee contributions would increase from zero to 8 percent by 2002. Employees opting out of the PAYG scheme would pay 8 percent (in 2002) to his/her private fund of choice. Persons choosing to remain in the PAYG system would pay their full employee contribution to the PAYG scheme (Table 3).

3.14 New entrants into the labor force would receive an accrual rate of 1.22 percent in the PAYG scheme for years with paid contributions. Persons already covered in the PAYG scheme who opted into the mandatory financial scheme would also earn 1.22 percent for all service years, i.e. years accrued both prior to and after entrance.

3.15 There would be a guarantee in the mandatory financial account scheme to be administered by the Guarantee Fund (GF). For persons with at least 15 years of contributions, the GF would guarantee a minimum pension from the financial pillar equivalent to 25 percent of the fund member's PAYG pension. A short-term worry expressed about the guarantee was that the guarantee could prove expensive for older workers who had opted into the financial scheme, since the remaining accumulation period to retirement would be short, and the likelihood greater that it be needed greater.

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[20] Párniczky, *op.cit*. page 4.

[21] This was approved in Parliament after the main reform package was passed.

Table 3: Contributions to the Mandatory Old Age Pensions – Actual Outcome and Original Legislation in Parentheses (in percentages)

	PAYG Scheme			Private Pension Fund
Year	*Employer*	*Employee*	*Total*	*Employee*
1997	30	0	30	n.a.
1998	24	1	25	6
1999	22	2 (1)	24	6 (7)
2000	22	2 (0)	24	6 (8)
2001	20	2 (0)	22	6 (8)
2002	18	2 (0)	20	6 (8)
2003	18	1.5 (0)	19.5	7 (8)
2004	18	1 (0)	19	8

Source: Ministry of Finance and Párniczky, *op.cit*.
Note. For persons for whom participation in the financial account scheme is voluntary and who have not opted out of the PAYG scheme, the employee contribution goes to the PAYG scheme. Employers pay an additional 4 percentage points for disability and survivors coverage.

3.16 The logic of "25 percent" is that the reduction in the accrual rate in the PAYG scheme would be approximately 25 percent lower for persons in the financial account scheme. The Guarantee Fund would be financed with 0.3-0.5 percent of the fund participant's contributions. The initial rate was 0.4 percent. The government would also be the guarantee fund of last resort in the event that the guarantee fund could not cover its commitments.

3.17 The government had originally considered making participation in the financial account scheme mandatory for persons under the age of forty, but since there was a risk that this would be declared unconstitutional, participation was made voluntary for persons already covered in the old system. Information was provided to help people choose whether it was to their advantage to opt into the new financial scheme. Assuming a contribution rate of eight percent and an FDC rate of return two percent over real wage growth, it was estimated that switching was to the advantage of persons around 36 years old and younger.[22]

3.18 The original deadline for opting into the FDC scheme was September 1999, and at that point 80 percent of those who opted in were under 40 years old. In other words, 20 percent were above the recommended age for opting in. By December 2000, 90 percent of workers in their 20s and 30s had switched to the new system.

3.19 *Taxation*. Pensions are to become taxable beginning with financial account pensions from the outset, although with a tax credit of 50 percent, giving an actual tax of 21 percent *vis á vis* the highest rate (42 percent) upon its introduction. PAYG benefits are to be taxed from 2013, retaining the 50 percent tax credit for benefits from both pillars.

3.20 *Financing the transition*. The transition would be financed through a direct subsidy to the agency that administers the PAYG scheme, the SSPF, to cover the

[22] Augusztinovics *et al*., p 37.

shortfall in revenues created by persons who opted into the financial scheme, and in the long run by the reduction in expenditures accompanying the increase in the pension age and other changes in the PAYG formula.

3.21 A goal set was that the extra cost of financing the introduction of the financial account scheme should not surpass one percent of GDP. According to the discussion with the Ministry of Finance (MOF) during the course of this evaluation current projections show a cost of 1-2 percent of GDP. Implicitly, the one-percent goal has already been abandoned.[23]

3.22 The changes in the PAYG system, mainly due to the increase in the retirement age and switch to mixed benefit indexation, were estimated to improve the annual deficit position compared to the no-change alternative by around three percent of GDP. However, after the mid-2030s deficits would arise again, necessitating further reform (for example a further increase in the retirement age).

3.23 *The Social Safety Net*. People above the retirement age are eligible for an old age allowance if their monthly per capita net income (including the income of their spouse) is less than 80 percent of the minimum pension or less than 95 percent for single-member households. The local governments pay the old-age allowance, but are reimbursed with 70 percent of costs by the central government.[24]

A New Government in 1998 Changed the Legislation

3.24 As the reform was being implemented in 1998, a new government entered office, and with this government came changes in the legislation. The new government introduced the following changes immediately after taking office in 1998:

a) People who had switched out of the PAYG scheme were given the option to switch back until December 2002. Those that had not opted to enter the financial account scheme according to the previous deadline, however, were not given a new opportunity to opt out of the PAYG scheme.
b) The contribution rate to the financial account scheme was fixed at sox percent through 2002, rather than increasing it according to the original schedule. However, later (new) legislation reinstated the increase in the contribution rate, to seven percent in 2003 and eight percent in 2004.

[23] The MOF still uses the PROST model to perform calculations, but there appears to be no official publication or discussion of projections. The latter was confirmed in discussion at the Central Bank of Hungary, which expressed the need for more open communication and the opportunity for external quality control of these calculations.
[24] Hungary – Long-term Poverty, Social Protection and the Labor Market, Report No. 20645-HU, The World Bank, Volume 1, p 23.

3.25 In November 2001, a new reform package made the following additional changes:

c) From 2002 the mandatory financial account scheme became voluntary scheme even for new entrants, with the option to choose within a given time period.
   The minimum benefit guarantee to be provided by the Guarantee Fund was abolished. The Pension Guarantee Fund remained in operation, but only to provide a guarantee that covers fraud and mismanagement.
d) Since January 1, 2002 asset valuation must be reported on a quarterly basis, and assets are valued at market values. Daily asset valuation is required for large funds. New legislation stated more clearly the responsibilities of the custodian banks and the asset managers, setting out who does what and when.
e) The ceiling on the contribution base was changed from 200 to 250 percent of the average wage.

3.26 According to more new legislation in 2002, from 2003 the financial account scheme once again became mandatory for new entrants, but remained optional for workers whose status had not already been determined by previous choices, *i.e.* new entrants during the short time when the financial account scheme became optional for them.

3.27 The first changes under the new government of 1998 led some observers to believe that the new government did not support the reform. The new government's position was that the delay in the increase in the contribution rate was necessary to hold back short-term budget outlays, and that it was not intended to undermine the implementation of the new financial scheme, which they supported. They demonstrated this by reinstating the rate increase to its originally scheduled level, and by returning to the original legislation making it mandatory for new entrants.

3.28 The opportunity provided by the new government to opt back into the PAYG scheme provided an opportunity for older participants who had opted out to change their minds, and was justifiable on these grounds. Other changes introduced by the new government, such as daily asset valuations for larger funds, must be regarded as an improvement on the original legislation.

3.29 As to guarantees in financial account schemes, there are at least two schools of thought. According to the first, guaranteed minimum benefits are important to promote pubic trust and confidence in the scheme. This was clearly the logic supporting the guarantee in the original reform legislation. According to the second, a guarantee is only necessary to cover fraud and clear mismanagement. The new government's change in this respect was in line with the second school of thought.

3.30 The logic behind the second school of thought is the following. Although fund returns will differ, given portfolio diversification among different asset categories, including domestic and foreign equities, it is difficult to see why any fund would give

a significant, consistently worse outcome than all other funds, viewed over the medium term, in the absence of blatant mismanagement. Instead, there is a risk that funds will hold similar portfolios to minimize the risk of being the black sheep in the group, reducing the basis for participant choice between funds. In addition, the alternative that the new government opted for is justifiable in a setting where the financial scheme is built on a significant PAYG foundation, as in Hungary, and which itself is a minimum guarantee.

3.31 The initial "threat" of establishing the contribution rate at six rather than eight percent changed the rules of the game *ex post*, and was criticized for this reason by a number of observers. The age boundary for profitable participation in the financial account decreases with a lower contributions rate, all other things equal. This was tantamount to changing the conditions under which people "contracted out." Rocha and Vittas[25] estimated that the reduction to a contribution rate of 6 percent lowered the cut-off point for profitable participation in the FDC scheme to persons 28-30 years old and younger.

3.32 The new government's original decision to stall the increase in the contribution rate led to a flurry of analyses, which are of interest in their own right. Within a short time, calculations were performed by the OECD, The World Bank and the IMF, as well as independent Hungarian academics and the Hungarian MOF.

3.33 Generally, the findings of these analyses were that although it is cheaper in the short-run, a smaller scale for the FDC scheme leads to an increase in unfunded liabilities in the long-run. The OECD estimated that with a six percent contribution rate to the FDC scheme the Hungarian PAYG deficit will be a percentage point greater in 2050 than the estimated 1.5 percent with a contribution rate of eight percent and lower participation in the FDC scheme.[26] Rocha and Vittas estimated that a six percent contribution rate would bring the PAYG system into deficit earlier than with the eight percent rate, from 2014, but in their simulations the size of the overall PAYG deficit is never much more than one percent of GDP through 2050.[27]

3.34 In other words, the direction of the long-term effect of a lower contribution rate to the financial account scheme is the same in both studies, but the magnitude is smaller in the Rocha-Vittas study. Their conclusion is that it is the more fundamental changes in the PAYG scheme – the increase in the pension age and change in indexation formula - that have reduced the long-term deficit, and that the difference in scale between six and eight percent is not a major determinant of the financial outcome for the PAYG scheme itself.

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[25] *Op. cit*. 377.

[26] Hungary: Selected Issues and Statistical Appendix. IMF Country Report No. 02/109, June 2002, page 28.

[27] *Op.cit*. p 385.

3.35 Among the independent researchers who have studied the reform are Gál, Simonovits and Tarcali[28], who examined the effects of the reform on intergenerational accounts. The basic assumption of this exercise is that each generation faces a lifetime of taxes and benefits according to present legislation, in this case the Hungarian legislation of 2001. Gál *et al*. demonstrate that the pre-1997 rules were unsustainable. As regards the reform, the shift from full wage to Swiss indexation and the increase in the pension age eliminated three quarters of net losses for future generations.

3.36 Gál *et al*. also demonstrate the sensitivity of the calculations to the assumptions. A higher rate of productivity – and wage – growth in the initial years than the standard real rate of growth of two percent, and under the reform scenario, gives a faster rate of increase in contributions, which favors future generations. Furthermore, a permanently higher level of productivity turns the balance in favor of future generations. Alternative discount rates and returns on the FDC scheme have much more docile effects on the intergenerational distribution. A conclusion coming from the analyses of Gál *et al*. is that the primary outcome of introducing the financial account scheme is the impact on long-term public indebtedness, rather than intergenerational redistribution.

3.37 The Ministry of Finance performs calculations on a regular basis to determine the size of the long-term deficit. Present calculations show that the size of the deficit will probably be higher than the one percent envisaged in the preparation of the reform. As has already been noted, according to recent MOF calculations, from around 2030 the deficit will increase to between one and two percent of GDP, depending on the assumptions used, and given the present legislation. This is similar to the result reported in the Rocha and Vittas study.

3.38 In 2002 the IMF studied alternative PAYG formulations, with the technical help of the MOF .[29] The main conclusion is, once again, that promoting a longer working life is the most effective measure that can be taken to hold down the size of the PAYG deficit. They conclude that this involves increases in the minimum pension age and better integration of the relatively large Roma minority into the labor force.

3.39 *Institutional changes from 1998*. There were also institutional changes introduced by the new government. These were:

a) The Governing Board of the SSPF was abolished and the SSPF was placed under the MOF, which was also given the responsibility for the SSPF's budget.
b) In 1999 the collection of social insurance and health contributions was transferred from the SSPF to the State Tax Collection Agency (STCA).

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[28] Gál R, A Simonovits and G Tarcali, Generational Accounts in Hungary, TARKI Social Research Centre, Research Paper, Budapest, Hungary.
[29] See Hungary: Selected Issues and Statistical Appendix. IMF Country Report No. 02/109, June 2002, pp 39-56.

3.40 In moving collection of all taxes and contributions to one agency Hungary followed the conventional wisdom in this area. The advice is based on the argument of administrative efficiency for both the collection agency and employers. Augusztinovics *et al.*[30] make the claim that in Hungary this change reinforced the view in the eyes of the public that contributions are simply a tax, which may reduce compliance, at least in the short to medium term. If this occurs, the negative behavioural response of individuals detracts from the efficiency gain from consolidation.

c) Legislation requiring employers to record contributions on an individual basis for every payment to the SSPF was deleted because the SSPF did not have the IT capacity to register this data.[31] Contributions to the mandatory financial scheme are administered directly by the funds. Since the PAYG benefit is not related to this level of detail, there is no practical need for this information in the computation of benefits. However, the opportunity to perform crosschecks of information with the financial scheme was lost.
d) The new indexation rules for the PAYG scheme would have led to an additional cost of 18.4 percent in 1999, which the government declared unaffordable. Instead, the indexation rule legislated in 1997 was abolished and the practice of defining upper and lower amounts for indexation was reinstated. For example, in 1999, low benefits were not to be increased by more than 25.5 percent, and all benefits hade to be increased by 11 percent, *i.e*. which was just about the rate of inflation (Augusztinovics *et al*).[32]

3.41 Following a series of years of *ad hoc* indexation of PAYG benefits, the original indexation formula was reinstated from 2004.

3.42 Summing up, some of the changes introduced by the incoming government following the 1998 reform were designed to create better short-term budget balance. Others clearly changed the content of the contract, and the changes from mandatory to voluntary and then back again to mandatory participation for new entrants can not have appeared logical to anyone. Finally, some of the changes were improvements on the original legislation. By 2004, the legislation was once again close to the original legislation, and at the time of this evaluation the major concerns were focused on tying up remaining loose ends particularly the creation of annuities, the efficiency of administration as it is presently set up and a question of governance. These issues will be discussed below.

[30] *Op.cit*. p 49.
[31] *Ibid*.
[32] *Ibid*.

Overview of the Development of Institutions

Institutional Development Prior to 1997

3.43 Two important institutional developments for the pension system occurred as a part of the structural reforms of the early 1990s.

3.44 In 1993, separate "Self-governments" for Health and Pensions were established. The State Social Insurance Pension Fund (SSPF) became an independent agency, with its own budget and a Board of Directors, and was made responsible to the Parliament.

3.45 Originally, the SSPF was responsible for the collection of contributions and payment of benefits for old-age, survivor and disability pensions, and the old-age pensions of the disabled once they reach the minimum retirement age. At the same time the SSPF was established payment of all non-contributory rights, *e.g*. time spent in motherhood and military service, were moved over to the state budget.[33]

3.46 The SSPF became a strong independent body, and was an opponent to the government's reform proposal, which was to emerge during 1996. As has already been noted, the new government taking office in 1998 abolished the SSPF's independent Board of Directors and put the SSPF under the Ministry of Finance, and moved contribution collection to the tax authorities.

3.47 In 1993 legislation was passed enabling private pension funds to be established. These were supported by significant tax exemptions, and became popular among the small portion of the population that could afford to set aside saving and take the tax advantage. Nevertheless, the existing private funds provided an institutional setting into which the financial account scheme to be introduced in 1998 could be integrated.

The Institutions and Construction of the New Financial Account Scheme

3.48 *Mandatory Private Pension Funds*. Mandatory Private Pension Funds (MPPFs), modelled after the voluntary mutual pension funds, which had been possible to establish from 1994, emerged with the implementation of the reform in 1998. The funds are a form of mutual saving association, with the participants as owners, following the design of the voluntary private funds. A fund must have at least 2000 members to operate in the mandatory scheme.

3.49 The MPPFs collect contributions, maintain personal accounts and invest the funds of its participants. The fund can be an annuity provider, or can buy annuities from an annuity provider. The personal accounts are in effect personal saving

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[33] Also, revenues from privatization were moved over to the SSPF with the intention of creating a demographic reserve fund, which would be needed around 2020. Augusztinovics *et al*. p 32.

schemes. Individuals are provided with yearly individual statements, and have the right to access personal account information from their fund at any time.

3.50 All funds must have a bank and an external custodian. Outsourcing of administration, asset management and record keeping are possible options. Funds have to meet statutory requirements for disclosure, including information on contributions and revenues, operational costs, main indicators of investment performance and all other indicators that ensure the comparability of the fund's performance with other funds, the name of the fund's asset manager and disclosure of penalties imposed by the Supervisory Authority. The balance sheet and a profit and loss statement must be published in a daily paper once a year, following its approval and an audit. The fund's investment policy must also be made public (published) annually, and sent to the Supervisory Authority.

3.51 MPPFs can be founded by employers (separately or jointly), by commercial affiliations, by professional associations (jointly or separately or with commercial affiliations), employees´ interest organisations (*i.e.* trade unions, jointly or separately, or with the above mentioned entities), regional self-governments and, also, voluntary pension funds. The participants are the owners of the pension funds.

3.52 The main decision body is the assembly of all the members, and, by law, a meeting shall be held twice a year. The funds are operated by a Board of Directors, chosen at the assembly. They are audited by an elected auditing committee. The Board of Directors has the responsibility for the operation of the entire plan, and employ staff and experts needed to fulfil the necessary functions. The legislation is very open in the sense that it is relatively easy for any group to form a fund, and, if necessary, outsource all the functions.

3.53 As it turns out, the main problem with this institutional arrangement is that very few participants bother to attend the assembly meetings. Discussions during the course of the evaluation indicated that the Board of Directors sometimes constitute the majority of meeting participants, and hence, de facto, approve decisions regarding their own activities.

3.54 *Contributions* are withdrawn from the salaries of employees, and transferred by the employer to the pension funds. The amount of the contribution was six percent through 2002, seven percent in 2003, and eight percent from 2004. Either the employer or employee may pay additional (supplementary) contributions which are limited in both cases (altogether) to four percent of gross salary.

3.55 Participants are allowed to switch funds, but must be in a fund at least six months before they can switch. The fund that the participant exits may charge a fee of up to 0.1 percent of the transferred sum.

3.56 *Overview of funds in the mandatory scheme*.[34] In January 2004 there were 18 funds. Five are owned by financial companies, five by banks or insurance companies, five are associated with large employers and three with sector interests. Twelve funds manage assets in-house, the rest outsource asset management. Altogether there are 22 asset managers and 15 custodian banks. The five biggest funds have over 80 percent of the market, both in terms of assets and participants.

3.57 Initially, there were more mandatory than voluntary members (Figure 1), although the assets of voluntary members were greater in 2002, indicating that voluntary participants were generally economically better off. From 2002 the assets of mandatory members will increasingly dominate those of voluntary members as new entrants enter into the system.

3.58 In 2003 around 70 percent of assets were held in government bonds, with a gradual drift downwards from around 80 percent with the system's inception in 1998.[35] Around 10 percent of assets are held in equities, and the remainder are in bank deposits, cash and investment units.

3.59 Total fund assets were 30 million HUF the first year of operation in 1998 and 406 million HUF in 2002 (Annex Table 2 in Annex A). The number of participants increased from 1.3 to 2.2 million persons. Returns after deduction for expenses were 9.8 percent in 1999, but have been much lower since – 1.1 percent in 2000, 2.6 percent in 2001 and 2.8 percent in 2002 (Annex Table 2 in Annex A).

3.60 To date, smaller funds have higher returns. The average account value is almost 50 percent higher in the small funds,[36] which may contribute to cost efficiency. To the extent lower returns of larger funds reflect a more conservative investment policy, there is reason for concern for "small" savers, that is, low-income earners. More time will be needed to determine whether this reflects a problem, or is simply a temporary outcome.

3.61 *Fees*. Fees are six percent of contributions or more in the mandatory funds, compared to around five percent of premiums in the voluntary sector.[37] The reason for this discrepancy is not clear.

3.62 *Benefits*. The retirement age is the same as that for the PAYG pension. No minimum contribution period is required. Benefits from mandatory pension plans are in the form of life annuities. Four annuity options can be offered: an individual life annuity, a joint life annuity for a fix period, with a set beginning, a joint life annuity for a fix period, with a set end and a joint survivorship annuity. Lump-sums are permitted for people who have contributed for fewer than 15 years.

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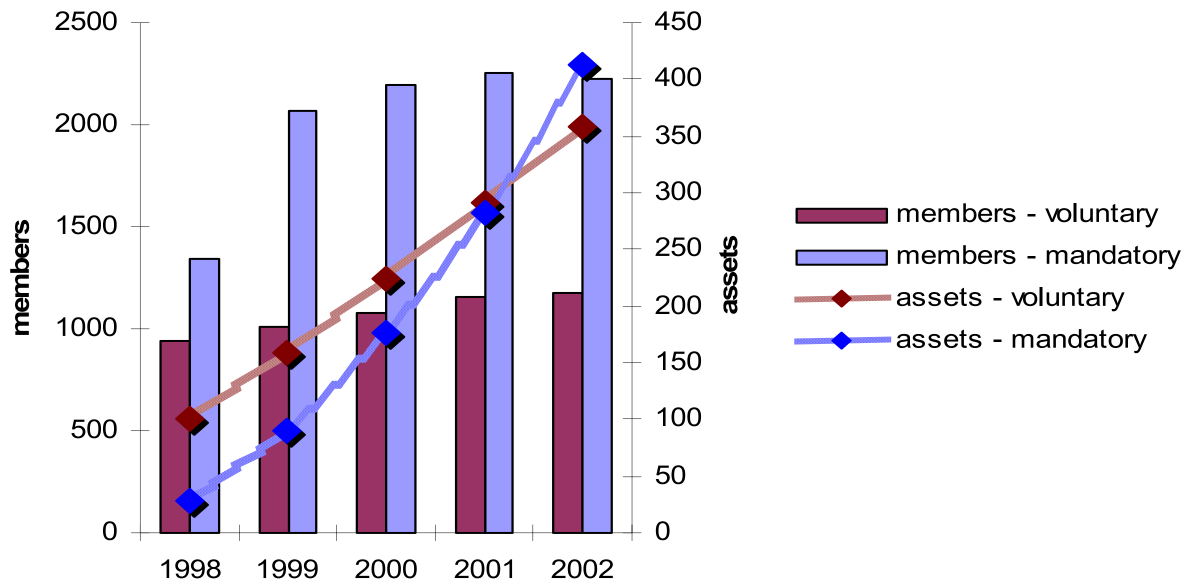
[34] Based on information in Párniczky, *op cit*.
[35] Párniczky, 2004, p 8.
[36] *Ibid*.
[37] *Ibid*.

Figure 1: Growth of Members and Member Assets



Källa. Tibor Párniczky, The experience of the mandatory private pension funds and lessons of the operations of funds – facts and tendencies, East-West Management Institute, mimeograph, 2004.

3.63 Annuities are to be based on unisex life tables and provide at least annual "Swiss indexation," i.e. the same indexation as the PAYG benefit. Benefits are taxable. Yields of funds are tax exempt. One of the recurring topics of discussion evolves around whether the market will be willing to produce these annuities, and that the larger funds will opt to out-source this function, given that a market arises. In the initial years, the number of annuities will be small, and the requirements of unisex life expectancy and a rate of return comparable to the PAYG "Swiss-index" are considered to be a problem for prospective providers.

3.64 *Financial requirements*. Since the scheme is a defined contribution scheme, funds do not have funding or solvency requirements. Since January 1, 2002 asset valuation must be reported on a quarterly basis, and assets are valued at market values. From the same date custodian banks must compute values on a daily basis.

3.65 *Minimum rate of return*. There is required minimum rate of return that has to be above the minimum level in a band determined by the HFSA. When returns exceed the upper limit of the band, they are put into a reserve, and when they fall short, the Fund must credit the lower band amount to the participant's account, using the reserve. According to practice so far, the official return has been related to an index of long-term government bonds.

3.66 *Investment regulations*. Prudent management is the standard applied for portfolio management, but there are also some quantitative rules that have to be followed. These are a limit of 50 percent of the portfolio in equities; 30 percent in publicly traded domestic or foreign business and municipal bonds; 25 percent in

mortgage bonds; 10 percent in an investment fund, 30 percent in separate investment funds with the same manager and 50 percent in investment funds in total; 10 percent in real estate and 30 percent in foreign securities (but not more than 20 percent in equities issued outside the OECD countries).

3.67 All funds are required to contribute to the guarantee fund, which can take a maximum fee of 0.4 percent of the contribution paid by participants (see above).

3.68 The system is supervised by the Hungarian Financial Supervisory Authority (HFSA), the integrated financial authority established in 2000. The HFSA supervises the entire financial sector in Hungary. Reporting is carried out on a regular basis with daily, quarterly, annual and ad hoc reports. The daily asset valuation of the custodians must be delivered to the HFSA no later than 3 PM the day following the valuation date.

3.69 In sum, in the six-year period since implementation in 1998, the institutions of the mandatory financial scheme have become established are operating smoothly. Problems that have arisen along the way have been identified and resolved. The large number of voluntary participants in the initial years attests to its popularity. Doubts about the political resilience of the scheme arising with the entrance of a new government in 1998 were subsequently appeased by the same government. The scheme has been allowed to develop more or less according to the original design, and now has general political backing, and indeed, has become an integral part of worker saving for retirement.

4. The Bank's Country Assistance Strategy

4.1 The Bank has been lending to Hungary since 1983. From that time, the Bank's overall country assistance strategy focused on the Government's efforts to create a market-oriented economy. The Pensions Administration and Health Insurance Project (PAHIP) in March 1993 was the first project focused on the pension system. The overall amount of the loan was US$132 million. The Bank's assistance objectives in this project involved two components: (i) a managing development and planning component and (ii) an operational infrastructure project.

4.2 As in other countries in the region, the administrative infrastructure of the Hungarian social insurance system was poor in the early 1990s. Records were kept manually, office equipment and telecommunications systems were grossly outdated, and the accounting system was based on single entry cash accounting. Information technology initiatives were taken at the County Directorate level which created compatibility problems. There was no central master file of all participants, and no reliable information on contributions. For all of these reasons, it made sense to initiate a project to bring the administration closer to modern standards.

4.3 *The Management Development and Planning Component of the PAHIP*. This component was designed to improve institutional capacity of the social insurance administration to manage its resources more effectively by: (a) providing management support in implementing major projects needed to upgrade its administrative structure; (b) developing a detailed strategic systems plan and introducing needed organizational changes; (c) strengthening the policy-making, planning and evaluation capabilities of the Hungarian policy makers and managers; and (d) assisting in the assessment of future investment strategies.

4.4 *The Operational Infrastructure Component of the PAHIP*. This component would modernize the administration infrastructure of the social insurance system by: (a) developing application software and (b) introducing computerized data processing, modern financial management, and efficient communications systems, as well as upgrade the office environment.

4.5 The implementation of the PAHIP was substantially delayed by the establishment of the two Self-governments for Health and Pensions in 1993. This had two repercussions. First, the loan now had to be drawn between the Government and the two self governments, and all loan transactions became subject to approval, not only by the management, but also required the approval of the Presidium of the Self-government, and from August 1997 the General Assembly. Second, the original loan was based on the existing single institution, not the two new institutions, and the new Self-governments decided to have the information strategy redone. An additional complication was that the Constitutional Court declared that social insurance, tax and citizen identification numbers could not be linked, which was one of the goals of the implementation of a single collection agency.

4.6 For these reasons, available funds were hardly used in the initial years. There were two accomplishments with the use of the PAHIP funds. Paper documents were scanned and put into digital form, and funds from the PAHIP were used to finance external the development of the policy component. Finally as the reform plans progressed and the new PSAL (see below) was emerging, the Bank and Government reduced implementation of the PAHIP while the details of the reform and the PSAL were shaped.

4.7 In 1995 the Government decided to initiate pension, health and local government reforms, moving the focus from administration of systems to the creation of new systems. From this point, development of a pension reform concept and reform discussions were supported by technical assistance from the Bank, USAID and the British Know-How Fund.

4.8 The country assistance strategy states that the Bank's lending program would depend on an acceptable IMF program and accompanying policies that lead to a fundamental restructuring of welfare and transfer spending and a lasting reduction in the size of the pension system.

4.9 In addition, the Bank stated its intention to devote considerable resources to assisting the government in overcoming structural deficiencies in public finances and in assisting with enterprise privatization and financial sector reform. Pension reform was identified as a component of the reform of public finances. The triggers for the PSAL would be (i) agreement on a convincing medium-term action program to reform public finances, (ii) measures to improve the financial viability of the public pension system (increase in the retirement age, control of disability pensions, less generous indexation rules and tightened eligibility) and (iii) agreement on the timing and role of a second pension pillar.

4.10 In 1996, Parliament passed the first important legislation for the pension reform, increasing the pension age, and in July 1997 Parliament adopted the new pension system (see above).

4.11 An adjustment loan was prepared and presented to the Bank's Board of Directors, together with a country assistance strategy to support the implementation of the reform. A one tranche loan of US$150 million was granted to the government.

4.12 The discussion in the loan document focuses on system design. The document includes the results of financial analyses, a detailed matrix of policy actions and a discussion of how information and payment flows could be (re)designed within the framework of the reform. There is no information provided on the planned dispersion of the loan on activities. This would have been a valuable, additional Annex to have provided in this document.

4.13 The PSAL document includes a matrix of key policy actions, reproduced in the box below. These were the conditions for presentation to the Board. In principle, they should have been met prior to the loan grant, since the loan was a one-tranche

loan, affording no possibility for later conditionality. On the other hand, the purpose of the loan was to develop the institutional setting to make it possible to achieve the policy outlined in the matrix.

4.14 The Bank's country assistance strategy connected Hungary's pension reform to the country's future economic prospects. The assistance strategy described the pension reform as one that would facilitate medium-term growth through three main channels. First, the pension reform would require increased central budget support as well as a PAYG surplus before the introduction of the second pillar. These policies should likely generate an increase in national saving of 1.5-2 percent of GDP. Second, the development of long-term contractual savings institutions should provide greater corporate financing options and contribute better governance. Third, a stronger linkage between contributions and benefits (and a lower tax component of contributions) should reduce labor market distortions and improve tax compliance."

Summary of Policy Actions under PSAL

I. Macroeconomic Framework	
	Agreement on medium term macroeconomic framework fully consistent with the objectives of the reforms.
	Agreement on an indicative medium-term target for the general government budget deficit.
II. Pension Policy	
Retirement age	Gradual increase in the retirement age from 55 (women) and 60 (men) to 62, combined with an increase in the minimum years of service for early retirement.
Indexation	Change method of indexation of pension benefits from net wages to mixed wage/price formula.
Other first pillar reforms	Modify conditions of eligibility for pensions (including new accrural rate schedule with lower coefficients, reduction of non contributory years of services for some groups) to tighten link between contributions and benefits.
Introduce new multi-pillar system	New multi-pillar system adopted. System is mandatory for new labor force entrants and optional for workers (of all ages) who already contributed to the existing PAYG system.
Management and supervision of the second pillar	Regulatory and supervisory framework for the private pension funds, acceptable to the Bank, regarding investment guidelines, accounting rules; information requirements; pension records and current account arrangement; guarantees.
Tax regime for pension contributions, investment income, benefits	Coherent tax regime for various forms of pension income, acceptable to the Bank
Safety Net for Old Age	Maintain minimum pension and/or introduce adequate safety net for old age.
III. Disability	
Introduce new disability pension system	Commitment to implement reform, acceptable to the Bank, by January 1999
Recertification program	Agreement on a recertification program for category III temporary disabled over a three year period.
IV. Social Insurance Contributions	
Contribution base, rate and ceiling	Agreement on base, rate and ceiling in the 1998 budget.
Budgeting	Separate cash and in kind benefits in HIF budget.
	Elimination of cross-financing between both social security funds.
	Actuarial projections for the pension budget.
Cash and debt management	Full integration of social insurance funds into the Treasury.
V. Records, database and systems for the administration of the two pillars	
Administrative agents	Agreement on the administrative agencies responsible for the collection of contributions to the first and second pillars, audits and enforcement.
Taxpayer identification	Agreement on information sharing between databases of tax office, HIF, and the supervision authority for identification of contributors and beneficiaries.
Reporting requirements	Agreement on reporting requirements for enterprises, self-employed, workers and pension funds.
Pension records and current account management	Cooperation in record keeping and current account management between first and second pillars.
Overall implementation of MIS and database system for the pension reform	Agreement with the Bank on a schedule of implementation for the KATOR project and related database and information systems for the pension reform.

4.15 The mid-term review of the PAHIP in 1997 revised the Operational Infrastructure Component of the PAHIP and extended the loan closing date to December 31, 1999. The revision of the PAHIP reflected a number of factors: (a) slow progress in the health project, (b) the unresolved situation about the future management of the State Social Insurance Fund (SSIF), which was the umbrella for both the Pension Fund and the Health Fund, (c) the major reform of the country's pension system, emergence of the PSAL, which introduced new stakeholders into the system and (d) dramatic changes in information technology and the fall in prices for IT. The equivalent of about 108 million USD was appraised for application software and IT infrastructure alone. As a result of the restructuring of the PAHIP during the mid-term review in 1997, the equivalent of 10 million USD was reallocated to the establishment of databases needed to support the new financial account scheme, with a focus on supervision.

4.16 Under the umbrella of the PAHIP, less than US$19 million of the appraised US$108 million for the IT software and infrastructure were spent. According to the PAHIP loan appraisal performed in 2000 the IT infrastructure was never developed and a confirmed database of all the insured was not produced, and eventually, as has already been discussed, the idea was abandoned. In addition most of the remaining PAHIP budget, mainly earmarked for planning, was never spent, and, as a result, only about US$34 million of the total loan were actually used, even after the redirection of the loan in 1997 to support the new reform.

4.17 The PSAL was not followed up by a new loan. In fact, as has already been noted, Hungary ceased to borrow from the Bank beginning with the CAS period from January 1998, and the Bank's presence was gradually reduced.

5. Performance Evaluation

Outcomes

Overall Objectives

5.1 The overall goal of World Bank involvement in Hungary from 1983 was to provide assistance in developing the market economy. Pension policy did not become an explicit part of this goal until the mid-1990s, when it became interlinked with market development.

5.2 Chronologically, the first objective of the Government in the initial years of the 1990s was to bring public finances into better balance. Pensions comprise a large component of government expenditures and the deficit in the pension budget was one of the main factors behind the overall deficit. The Government was forced to adjust pension benefits with a series of *ad hoc* measures in order to bring expenditures into line with revenues, to help cope with the increasingly higher government deficits.

5.3 The second objective, as embodied in the PAHIP, was to renovate the administrative infrastructure of the pension (and health) systems and develop capacity to move forward with new strategies and policies within both the administration and the government.

5.4 One of the goals of the emerging pension policy was to create a tighter link between contributions and benefits, and replace a PAYG system whose logic had been eroded by necessary, but *ad hoc* policy actions in the early 1990s. This objective was the common denominator of both the reform concepts that emerged in the mid-1990s and were in the political arena in 1996. A prerequisite for the development of a pension system with this characteristic is a supportive technological infrastructure with accurate individual account information, information retrieval systems and an interface that is client friendly. This was recognized in the formulation of the PAHIP project, the specific goals of which are summarized in the preceding section.

5.5 The objectives of the 1997 reform legislation, as summarized in the overview of the reform legislation above, were (a) to create an overall system that would help prevent poverty in old age, provide a good replacement rate for persons with normal lifetime careers, within a setting combining PAYG and financial components; (b) increase fairness between generations; (c) provide incentives supporting labor force participation and compliance; and (d) provide a vehicle or developing savings and capital market institutions, both of which could lead to economic growth and a higher overall level of economic prosperity. Implicitly, these objectives all bring the overall pension system closer to a financially sustainable path.

5.6 The purpose of the PSAL was to support the policy actions designed to achieve these objectives. The PSAL and the technical assistance financed through the PSAL were designed to support the implementation of the institutional infrastructure that could help to achieve these objectives.

Relevance of objectives

5.7 Policy evolved in a logical sequence given the point of departure and the setting of the times. The initial focus on economic stabilization during the beginning of the transition to a market economy was a necessity as the government deficit mounted to 8.5 percent of GDP in 1992. The Government was successful in stabilizing the economy by 1996, when the deficit was "only" a little over three percent of GDP. However, economic stability remained a challenge even after the mid-1990s and was seen as one of the vital components of policy actions supporting the PSAL.

5.8 The shift in focus, from emergency measures to developing the administration, and then to developing the pension system, were also logical steps. At the time, as in all countries in the region, the administrative infrastructure of the pension system was far out of step with modern technology and client friendly systems. The pension system needed to be redesigned, which was a topic among Hungarian pension experts well before the PSAL was formulated and the reform enacted.

5.9 The relevance of the design of the Hungarian reform can be weighed in terms of the reform objectives: adequacy, intergenerational fairness, neutral to positive effects on labor participation and compliance, development of the financial market and financial stability.

5.10 *Adequacy*. The reformed Hungarian pension system provides very generous benefits. A worker with the average wage and 40 (30) years of contributions remaining in the old system will receive in earnings replacement rate of 66 (50) percent, and a worker covered by the new financial scheme is apparently guaranteed at least this much, but will earn even more if the real rate of return in the financial market exceeds the real rate of growth.

5.11 The size of the annuity provided by the financial scheme will depend, of course, on the long-term investment policy of the funds. It is presently too early to judge what this might be. Presently funds are investing largely in government securities and have low real rates of return after costs. It is reasonable to believe that as time passes portfolios will consist of a larger share of equities, especially as Hungary becomes integrated into the European Union and adopts the common currency – eliminating a potential foreign exchange risk.

5.12 A replacement rate of 66 percent or more is high, however, not the least by international standards, and this is reflected in the still relatively high contribution rates, even after the reform. In addition, there are non-contributory credits financed by general tax revenues, and a general revenue financed deficit, estimated to be one to two percent of GDP in the coming half century. Implicitly, the latter means that a large number of birth cohorts will be paying a higher tax in order to receive this higher benefit, so lifetime resources are enhanced by less than they appear to be by just examining the benefit side of the reform.

5.13 In sum, the Hungarian pension reform diverts considerable resources to newly granted benefits. The method of indexation chosen – "Swiss indexation" – will nevertheless deflate the value of an average benefit relative to an average wage, since full wage indexation is required to maintain a constant ratio. So even though newly granted replacement rates are relatively high, half wage indexation will cause the ratio of an average benefit to an average wage to be lower. What's more, given that not all workers will have a forty-year career, this macro ratio may remain closer to its present level of around 50 percent (pre-tax).

5.14 Nevertheless, the form of indexation chosen gives pensioners some real growth in benefits, as well as inflation adjustment. There is also an adequate arrangement for protecting the least well off through a largely central government subsidized social assistance benefit.

5.15 *Intergenerational Fairness*. The most important policy measure affecting intergenerational fairness is the increase in the pension age, which according to Rocha and Vittas,[38] saves 1.5-2.0 percent of GDP compared with no change, and given the accrual rates in the reformed PAYG system. On the other hand, there is no mechanism or legislative decision further increasing the minimum age at which a benefit can be claimed, which means that the reform entails a built in long-term drift towards pushing continued increases in longevity onto future workers. In addition, the design of the PAYG system does not encourage work past the minimum pension age. Clearly, raising the minimum pension age beyond 62 in the medium term would help to further reduce the remaining deficit (one to two percent of GDP) that present calculations show future workers will have to pay.

5.16 *Effects on labor market participation and compliance.* Increasing the minimum pension age and eliminating the option for early retirement increase labor market participation by definition, although disability claims will also increase so the effect is not one to one. The forty-year service requirement for a full benefit with the scheduled accrual rate in the PAYG scheme creates pressure to work forty years, but does not reward longer working careers. In addition, the PAYG scheme does not relate benefits directly to contributions, which was a possible option. On the other hand, in the financial account scheme there is a direct link between contributions and benefits which rewards labor market participation and compliance. In a sense, then, the financial account scheme will be the major force pulling the weight in the direction of more years of labor force participation.

5.17 *Development of the financial market*. The financial account scheme will contribute to development of the financial market per definition. The flow of savings into the market will contribute both directly and indirectly to developing institutions, such as the mortgage-backed bond market and supporting institutions, risk and venture capital institutions, the equity market, and banks' lending services. This

[38] *Op. cit*. page 382.

development will support economic growth and development in the country. What is unclear at the present time is the future of annuity provision.

5.18 *Financial stability.* The financial account scheme introduces a greater degree of financial stability into the system in the long run. More needs to be done with the PAYG system.

5.19 The calculations performed by various groups of experts indicate that the long-term deficit in the PAYG system is around one to two percent of GDP. When the reform was being legislated the estimate was around one percent of GDP. The estimate of one to two percent of GDP would be an underestimate if life expectancy were to improve even more rapidly than presently projected, which, historically, has been the usual experience of most OECD countries.[39] This is a real risk in a country like Hungary where mortality did not improve much over many years, but where the potential to improve it is significant with improvement in health care facilities, diet, exercise and smoking.

5.20 *Administration.* The objectives of improving the administration of the social insurance system (not withstanding health insurance, which is outside the limits of this evaluation) involved, first, converting paper to digital records, and, second, moving the collection of contributions to the tax authority, which is the "state of the art " recommendation for achieving efficiency, third, generally improving the administration of PAYG benefits (IT systems, accounting, client services, etc.) and lastly, creating from scratch an administration for the financial account schemes.

5.21 All of the accomplishments of the administrative component of the financial pillar of the reform fulfil relevant objectives, and have resulted in a well functioning administration. After a bumpy first year or so the administrative infrastructure for the financial account scheme was in place, and without serious problems.

5.22 Nevertheless, neither the work performed under the PAHIP nor that implicit in the policy matrix of the PSAL accomplished the most important IT objective of creating an individualized database that would unite the first and second pillar schemes, creating a consistent and efficient record system for both the PAYG and financial pillars of the mandatory scheme. In principle, a successfully designed and implemented system would not only have made it possible to provide very modern and cost efficient client services, but would also have been useful in monitoring payments with the aim of reducing evasion. The project that was intended to do this at the SSPF was eventually scrapped.

5.23 As a result it is still not possible to cross-check contributions (and earnings) between systems. In addition, it would have been more efficient to create a

[39] The methods employed by official statistical generally reflect the development of historical data, which has tended to yield an underestimate of the real trends. See for example the essays in Tommy Bengtsson and Nico Keilman (eds.) *Perspectives in Mortality Forecasting – Current Practice*, Social Insurance Studies, No. 1. Swedish National Insurance Board, Stockholm, 2003.

clearinghouse for accounts for the financial account scheme, which is also an opinion expressed by some of the actors interviewed in the course of this evaluation.

5.24 It should also be pointed out that the work planned for the disability system was not realized, primarily because the Hungarian government was not interested in pursuing this goal. Reform of disability has been on the agenda of many transition countries, but without action being taken. This has to do with the difficult character of disability certification and the process around granting disability, the high risk of moral hazard and the fact that this benefit also involves working with the health and rehabilitation services – which in many of the transition settings are in need of reform *per se*.

5.25 The policy adopted and the measures applied to achieve the immediate objective of implementing the new old age pension system and creating an efficient institutional infrastructure for this purpose was timely and relevant. The objectives of the reform were consistent with the country assistance strategy and other Bank documents, supported the macroeconomic goals of the country, and, generally, encompassed the full range of objectives that should accompany a full-fledged pension reform. **The rating on relevance is thus high**.

Efficacy of objectives

5.26 Hungary's pension reform was a major accomplishment. Hungary was among the leaders in reform in transition countries in Europe and Central Asia. The pension reform has been successfully implemented. The accomplishments include the development legislation, the development public and private institutions needed to operate and oversee the new pension system, strong progress in developing the capital market and creating public awareness and acceptance of the reform and its underlying principles.

5.27 The new pension system introduces a system of forced saving that can be translated into productive investments in Hungary. To the extent that the reform leads to investments in human and physical capital that otherwise would not have arisen, it will foster economic growth and increase the income of the population. If this occurs, then an expected result is that per capita incomes and overall welfare will be higher than in the absence of the reform.

5.28 Higher per capita income and welfare are general objectives. Was policy successful in meeting its more specific objectives? The efficacy of objectives can be examined with reference to the objectives of adequacy, intergenerational fairness, neutral to positive effects on labor participation and compliance, development of the financial market and financial stability.

5.29 The objectives have already been introduced and discussed in the previous section under the heading of relevance. Generally speaking they are all highly relevant and were implemented efficiently. Both the public and the private infrastructure have developed considerably. The administration of taxes has been

successfully moved to the tax authorities, improvements have been made in the administration of PAYG benefits, and most impressively, the private and public financial institutions providing the framework for the financial account system are functioning efficiently. In addition, some initial legislative deficiencies have been identified and remedied.

5.30 Some policy work remains, however. These are summarized here under three headings, and then discussed in more length under the heading of Recommendations and Lessons at the end of this report.

5.31 *Remaining policy questions for the financial account scheme.* Remaining policy questions include the question of how to promote client participation in the mutual funds, or perhaps the more far reaching question of whether the present form of mutual-participant governance is appropriate in all cases. A second issue is the issue of capping fees as the system expands. A third issue is to consider institutional options for annuity provision. A fourth is to consider implementation of a clearinghouse.

5.32 *Remaining policy questions for the PAYG scheme*. The PAYG reform went only part way in achieving a full link between contributions and benefits, and long-term financial stability. Remaining policy questions include, first, further increases in the minimum pension age. Second, it would be appropriate, now that the PAYG system has moved close to a lifetime account system to go all the way (instead of the present 40 years for a full benefit) and to introduce a life expectancy factor into the calculation of the benefit.

5.33 *Gender issues*. Within the PAYG scheme, women can count up to three child years as working years in the computation of a benefit. No money goes into their financial accounts when they are absent from the labor force during child care. This could be considered desirable, especially from the point of view of providing incentives that can remove disincentives for child birth. It is possible to transfer a sum of money from the government budget to individual accounts in conjunction with child birth, according to some rule(s) that can be devised.

5.34 All of these deficiencies can be remedied in the near or medium-term future and do not per se constitute major blemishes on the reform, although it would have been an advantage especially to have gone further with the reform of the PAYG system along the lines just indicated.

5.35 The successes emanate from work beginning in the mid-1990s, which was focused on the formulation and implementation of the reform legislation. The performance of the Bank and Government together prior to this, in conjunction with the PAHIP was a failure, however. The PAHIP did not achieve its objective of modernizing the social insurance administration.

5.36 According to the IEG evaluation of this PAHIP the outcomes achieved (some technical assistance regarding auditing procedures, study tours and scanning of 90

million paper based records) under the part of the loan disbursed fell far short of outweighing the shortcomings of the project (failure to implement IT and development of management as was targeted under the loan). The project outcomes and the Bank performance were rated unsatisfactory. According to this evaluation, the Bank failed to assess correctly the risks and clearly establish borrower ownership of the project.

5.37 From the mid-1990s, the Government and the Bank focused instead on the implementation of the financial account scheme, while the social insurance administration remained more or less on the sideline. The major institutional development flaw in meeting the objectives of the PSAL policy actions was the failure to push the development of the SSPF database project to a successful ending. At least in principle, this part of the project could have been pushed as strongly as the financial institution component, thereby creating a stronger likelihood of success.

5.38 In addition, the clearinghouse idea had already emerged by 1997 in the institutional design of the Swedish mandatory financial pillar, at the time when the institutional framework of the Hungarian system was being considered. However, it is not evident that this alternative was considered at the time, although this is where the current discussion in Hungary is now focused.

5.39 In the view of Hungarian politicians and experts on pension issues, according to interviews conducted during this evaluation, there is still a need to develop an efficient data and individual account management clearinghouse for contributions and benefits for the combined systems.

5.40 Cooperation between the Bank and the Government was restricted after 1998 with the entrance of the new government of Viktor Orban, which was not interested in working with the Bank, and Hungary ceased to borrow from the Bank beginning in 1998. This put a stop to prospects for formulating new projects.

5.41 In sum, in 2004, the financial institutional framework established with the technical assistance provided by bank lending is in place and running efficiently. The financial pillar has been embraced by the public and is highly likely to remain in place and continue to develop. Based on high efficacy for overall policy and the implementation of the institutional framework for the financial pillar, but only a substantial result for the SSPF, and in particular given the problems in development of the database infrastructure, and the failure of the PAHIP, the overall rating for efficacy is satisfactory.

Outcome

5.42 On the basis of the ratings for relevance and efficacy of objectives, the rating for the **outcome is satisfactory**.

Institutional Development

5.43 The pension reform has supported the development of the market economy in Hungary in the short time since its implementation. It has helped to shift the focus from state to individual responsibility for providing for the future. The introduction of the financial account system, linking benefits directly to contributions, is itself an appropriate instrument for promoting this process. The focus has been moved more in the direction of work, with the increase in the pension age, the introduction of financial accounts and the increase in the eligibility criteria for a full PAYG benefit.

5.44 The pension reform was a Hungarian initiative. The initial disagreement on the design of the reform was resolved with internal discussion and debate and in 2004 there is no longer debate on the path chosen. Government's ownership followed a bumpy road, but in the end the reform remained essentially as legislated.

5.45 In spite of the bumpy path taken, the succession of governments has also improved on the original legislation, remedying problems as they arise. Several examples were provided in the overview of the process from 1998.

5.46 Pension funds and asset management companies are unquestionably strong supporters and promoters of the reform, by definition. Information is disseminated and discussed in mass media.

5.47 The pension reform affects all segments of the financial sector and has contributed to and will continue to contribute to the development of institutions and instruments in the financial market. The agencies administering the reform are now operating using efficient and professional routines.

5.48 Discussions during the course of this evaluation at the different institutions indicate that outstanding policy issues are a topic everywhere, even if not all are agreed on all the outstanding issues. The funds and the HFSA are presently discussing the issues raised above with regard to the financial account scheme. The topic creating a central register covering all contributors and contributions is current, and PAYG experts and the SSPF presently focused on the legislation governing disability and survivor benefits and the interaction between the PAYG and financial schemes.

5.49 There are also remaining issues for the financial account scheme. These are discussed within the government and among the fund managers, but at the time of this evaluation, there was no new committee working on these issues. There is also considerable input from independent experts and academics in the public discussion, both regarding remaining deficiencies in the PAYG system and the financial account system. In addition, there are some independent experts who monitor and make available analyses of the financial account system, with the help of data provided by the supervisory agency.

5.50 In other words, there is a broad well-developed institutional setting within which issues are being discussed and debated, with the major focus being on how to remedy remaining problems.

5.51 One institution that has not developed sufficiently is macro monitoring of the future financial course of the overall reform. Calculations are made within the MOF using the PROST model, but there is no publication, or published analysis and little outside access. This will change rapidly, however, as all accession countries are required to present calculations for the EU in 2005.

5.52 Finally, the lack of success in creating a database covering both the first and second pillars meant that the overall institutional development did not meet all the objectives of the PSAL, following the failure of the PAHIP IT-project. Given that such a database would have provided many advantages including integrated client services, monitoring of contribution payments, etc. this was an important institution to develop and the lack of success in doing this detracts from the overall institutional development of the project.

5.53 In sum, the overall institutional impact rating is substantial. The new financial account scheme has become an established institution both in terms of operations and in terms of public acceptance, as have the rest of the reform measures. In addition to providing adequate pension benefits, the institutions developed through the vehicle of the pension reform will make a critical contribution to the country's ability to use its human and financial capital more efficiently. Nevertheless, higher performance rating would have included a higher level of development of financial modeling routines, including a publication, and success in building the client database connecting the two pillars.

Sustainability

5.54 The reform in general and the new financial pension scheme in particular have become well anchored in the eyes of the public. The governmental and financial institutions supporting the pension system are functioning well. The measures undertaken to date have created a much more financially sustainable system, and the remaining risks within the PAYG system can be remedied, and without having a serious impact on adequacy.

5.55 In general, outstanding issues around the financial account scheme are all manageable.

5.56 One can argue that the confusion created around the scale of the financial scheme and the vacillating policy regarding whether participation should be voluntary or mandatory for new entrants had a negative effect on the credibility of government in general, indirectly confirming the political risk associated with pension schemes, including the financial scheme.

5.57 What is important for judging sustainability, however, is that the reform nevertheless survived during this turbulent period with a change in government. The discussions undertaken in conjunction with this evaluation indicate that there is no significant political opposition to the reform, and that the likelihood that the reform is politically sustainable is very high.

5.58 In sum, even though the reform only has a few years of operation behind it, it is safe to say that overall sustainability is highly likely.

6. Attribution of Results

Bank Performance

6.1 Bank performance is evaluated in terms of quality at entry (project concept, technical aspects, poverty reduction and social aspects, institutional aspects, financial management aspects, readiness for implementation, and assessment of risk and supervision) and supervision (focus on development impact and adequacy of supervision of inputs and processes). These are discussed separately.

6.2 *Quality at entry.* Cooperation between the Bank and the MOF on pension reform began in 1994. As has already been discussed most of the funds provided under the PAHIP, which was intended for developing application software and introducing computerized data processing, modern financial management, and efficient communications systems was not drawn on, due to a reorganization of the social insurance administration, and then obstacles for moving forward emerging with the move to independence of the newly created SSPF. Risks were not correctly identified in formulating the PAHIP, as has already been discussed, and the outcome of the PAHIP was unsatisfactory. The failure to move forward with the project suggests a weak Government commitment, but also that the Bank did not make the effort needed to move the project forward in spite of initial impediments. Finally, a small part of the loan was restructured to provide technical assistance during the planning period for the reform.

6.3 According to discussions at the MOF during the course of the evaluation, from 1994, the Bank staff provided continuous and valuable inputs into the policy discussion, with information about reforms developing in other countries in the region, as well as in other regions in the world.

6.4 Reform was being discussed both within the government and the SSPF, and in 1996, there were two reform agendas, as has already been noted. Hence, after considerable public debate the Government chose its course. The course chosen was that proposed by the MOF. Technical assistance was focused on formulating the details of the financial account scheme. Other important steps taken were the increase in the pension age and the redesigning of the PAYG formula. The path chosen was consistent with the country assistance strategy, as has already been noted. The PSAL was designed to provide the technical assistance needed to build the institutions needed for the implementation of the reform.

6.5 The government formed a Pension Group with about 30 members, including experts from within and outside government, and the Bank team. Efforts were made by the committee chairman to bring all stakeholders into the process.

6.6 As the reform strategy developed the Bank provided technical advice on the construction of the financial account scheme, drawing on recent experiences from other countries. In the words of the Bank's counterparts at the MOF, technical

assistance provided during the period 1996-1998 was an excellent and reliable input into the reform process.

6.7 When it was time to begin the implementation process, the process around the PSAL was not rapid enough to accommodate the immediate investment needs of the financial institutions when they were being set up in early 1998. Consequently, they bought equipment using other borrowing sources. The lack of coordination can be attributed to the urgency of starting up the system in the beginning of 1998 together with time taken to process the loan at the Bank.

6.8 In sum, the initial administration project, supported by the PAHIP, did not achieve satisfactory outcomes, owing to internal circumstances, but also too little activity from the Bank. On the other hand, hardly any money was spent, and the money that was spent did have positive results. Disregarding the PAHIP, the technical assistance provided was instrumental in formulating and getting the reform started in 1996-1998. The borrower was highly satisfied with the quality of services provided, which was expressed by a number of persons participating in the reform and interviewed during the evaluation mission. The overall rating for quality at entry was thus highly satisfactory, disregarding the PAHIP, but including the PAHIP, only satisfactory.

6.9 *Supervision.* The overall rating for the quality of supervision is satisfactory, disregarding the experience with the PAHIP. It is an open question as to whether the PAHIP could have been successful if the Bank's supervision had been firmer. The Bank could have taken a stronger position and assumed a stronger leadership role, which may have been what was needed in view of the internal complications that arose when the PAHIP was to be executed.

6.10 The Bank worked with the client from 1994 in developing policy, produced the PSAL, and identified problems in a timely fashion and accurately estimated their seriousness. The quality of supervision was high. The quality of the advice given was highly satisfactory and instrumental in the formulation of legislation and design of institutions. The PAHIP was restructured and a small amount of funds were used to support the new reform. The PSAL provided valuable technical assistance in the implementation phase. Overall, the Bank's involvement had the desired development effect. However, the change of Government in 1998 brought a stop to possible follow-up projects.

6.11 Overall, Bank Performance was **satisfactory**.

Borrower Performance

6.12 Borrower performance is rated in terms of preparation, implementation and compliance.

6.13 *Preparation*. The preparatory phase for the policy decision was long in the sense that reform was discussed from 1994 within the MOF, and with the assistance

of experts from the Bank, USAID and the British Know-How Fund. Major stakeholders were a part of the discussion in the earlier years and then more directly involved in the work of the reform committee in preparation of the design of the reform, the legislation and its implementation. Preparation was highly satisfactory. **The rating on preparation for policy is satisfactory**. The failure to fulfil the objectives of the PAHIP both during the project and after left the problem of creating a consistent database for contributors and contributions an open question, which still has to be tackled.

6.14 *Implementation*. The Government decision to create Self-Governing Boards for Health and Pensions contributed to complicating the implementation of the PAHIP, although this was, of course, not the intention. Nevertheless, the Government did not succeed in pushing the project forward, which signals a weak commitment.

6.15 The Government's commitment to the formulation of the emerging reform policy and its implementation was full-fledged. The reform was formulated and enacted under a socialist government, and although the new non-socialist government entering office in 1998 appeared not to have the same commitment as the previous government in the beginning, the project nevertheless moved forward more or less as planned.

6.16 During the most critical period in 1996-1997 key staff were appointed to design and implement the project, technical assistance was used effectively, managerial resources were sufficient. From 1998 technical assistance was focused on institution building and implementation. Implementation was satisfactory, but somewhat clouded by some – but not all - of the new legislation introduced from 1998. In fact, the new government improved the legislation governing the operation of the funds.

6.17 The objectives of the PAHIP were not achieved, partly owing to the fact that the government created the independent bodies, but perhaps also due to a weak commitment to the project. The pension reform was successfully implemented, which was a major accomplishment, and indeed, it was implemented by a new government.

6.18 By 2004 the reform was clearly on track, new legislation had been developed to improve the performance of funds, and the issues of mandatory or voluntary participation in the financial account scheme and indexation of PAYG benefits were settled, with a return to the original blueprint. **The rating for implementation is satisfactory**, although the confusion created by the new government preclude a rating of highly satisfactory.

6.19 *Compliance.* The government complied with all the conditions but one, the introduction of new disability legislation. In light of the fact that not many countries including most OECD countries have been successful in designing systems that provide adequate benefits for disability while at the same time creating a tight gate into the system, disability reform would have taken considerable resources at a time when the Government was focused on implementing the old age reform – and other

reforms. Focus was on the implementation of the reform of the old age system and the development of the institutions needed to support this.

6.20 **Compliance was highly satisfactory**, disregarding the failure to work with disability, which is excusable considering that the main focus of policy formulation and legislation was on the old-age system. The timing of this condition was inappropriate.

6.21 The borrower assumed ownership and responsibility to ensure the quality of the preparation and the implementation of the pension reform, but not the administration project under the PAHIP. Compliance to conditions was complete with the exception of the disability condition, which in retrospect may have put too many eggs in the basket for such a relatively short implementation period. The quality of the output is high. **The overall rating for borrower performance is satisfactory.** The lack of success with the administration project precludes a higher ranking.

7. Coordination with Other Agencies

7.1 Until Hungary ceased to be a borrower, there was coordination between the IMF and the Bank throughout the 1990s. The policy actions for the PSAL included a macroeconomic condition supported jointly.

7.2 Hungary was the first case of systemic reform in the region and there was considerable donor interest in being a part of this project. The Bank was the major international agency involved in the reform, but there was involvement in various phases from USAID, through a project administered by an NGO called The Center for Private Enterprise Development and from the British Know-How Fund. These agencies left the management of the technical assistance provided to the discretion of the Bank team. A Japanese PHRD grant also helped to provide resources for the project.

8. Counterfactual

8.1 By 1995 reform was being discussed in both government and academic quarters and a reform was likely to have emerged with or without the involvement of the Bank. The Bank's contribution was to provide expert technical assistance, which according to the Hungarian participants in the process contributed significantly to the quality of the reform. This is also the opinion persons participating in the reform process interviewed during the course of this evaluation. One can guess that the cooperation between the Bank and the Government also affected the timing of the reform, securing implementation as early as 1998.

9. Lessons and Recommendations

9.1 Recommendations are provided for some design issues, and lessons are summarized in this section.

The Mandatory Financial Account Scheme

9.2 *Governance.* Governance of funds is more or less in the hands of the supervisory authority, as it would be in the absence of a mutual ownership arrangement. The role of participants in governance is similar to that of stockholders in incorporated companies. Apparently the interest of participants in participating in the process of governance has been weak. The ownership form chosen has its advantages, especially in the case where the fund is small and might represent a professional or labor affiliation or one or more employers. In this case there is also usually a group that is interested in participating in the process of governance. This is lacking for big funds. In a system with this design, the supervisory authority must be particularly aware of the interests of the participants in performing its supervisory work. The Hungarian system seems to be working well in this respect.

9.3 The lesson to be learned from the Hungarian experience with this set-up is that the advantage is that it enables smaller interest groups to form pension collectives and manage them in their own interests. For system where fewer and larger funds are the aim from the outset, the Hungarian experience suggests that it is difficult to fulfill well the criterion of self-governance.

9.4 *Fees*. The evidence to date is that the big funds charge higher fees than what the voluntary pension funds charge for similar services. One might attribute high fees to the cost of starting up, but this doesn't explain why they should be higher than fees for providing similar services in the voluntary private market.

9.5 In the long run the flow of funds into the mandatory funds is almost automatic, and the costs of managing a given portfolio of assets and costs incurred for recruiting new entrants and attracting other participants to switch should become relatively smaller as a percent of total assets managed. The main advertising of big funds, whose participants are from the country at large, should be through the comparative data on returns and costs, that is, performance data, which has to be produced anyway to fulfill the requirements of operating as managers in the system.

9.6 A strong case can be made for limiting the percentage fee going to asset management as the capital in the funds increases through the "automatic" yearly transfers of contributions. Funds with a large volume of money from the mandatory scheme should be able to make a good profit with lower fees owing to efficiencies of scale. Since the system is mandatory, some sort of fee limit would be in the interests of the large number of small participants.

9.7 *Annuities.* The principles of future annuity provision in Hungary have not been thought through. This was not necessary to have finished in 1997, but the time is rapidly approaching when the framework for providing annuities must be completed.

9.8 In the start-up years small payments can be made as lump sums, and it will take time until any substantial number of annuities must be provided. The market will be extremely thin for a long time to come, however, and it's not clear when the demand will be great enough to create supply. The pension funds can provide annuities themselves, but they are not required to do so, and according to discussions during the evaluation there is a feeling that it is not in their interests to do so.

9.9 The reluctance of fund managers to take on this function is can be explained by the fact that participants are spread out over a larger number of funds. It is impossible to rely on the law of large numbers for a small group, and the law of large numbers together with knowledge about the participants, is what makes insurance work cost efficiently, to even out the possible adverse selection of risks that potentially can characterize a given fund's group of participants.

9.10 Initially, to cover the risk involved in providing a small number of annuities, insurers, i.e. annuity providers, once they do emerge will have to be cautious, and this caution will be reflected in the size of the annuities they will be willing to provide. In other words, a small market will lead to lower annuity payments than a large scale operation could provide. The question is, given that the legislation specifies the products that are to be made available, wouldn't it be in the interests of all the participants in the mandatory scheme to be pooled into a single annuity provision monopoly, but perhaps with the option for the monopoly provider to contract out the management of assets?

9.11 Another argument in favor of creating a monopoly annuity provider is the criterion that the annuity be based on unisex life expectancy. One might claim that this is a reason in itself to create the annuity monopoly, since this requirement complicates further the provision of annuities on a small scale. The choice is between providing a national unisex annuity factor to be applied by all, or to let providers figure out their own annuity factor. A national criterion has the advantage that it is the same for all, but it can prove difficult to apply this factor to many small insurance collectives, once again without being very conservative. If private providers are allowed to choose their own annuity factors in accordance with their knowledge of their own participants, the goal of uniformity will be lost.

9.12 Yet another complication in the Hungarian setting is the goal of meeting a rate of return equivalent to the PAYG "Swiss index", also implicit in the idea of the guarantee. In principle, this could also work better for a large insurance collective such as the whole country. With a real rate of growth of the economy greater than or equal to the real rate of return on government debt instruments, which is a possible scenario for the first decades of the reform, and given the cost of administering annuities – especially in a splintered annuity market as discussed above – this may turn out to be a difficult requirement to meet.

9.13 Although the books are not closed yet, the lesson from considering Hungary's potential difficulties in establishing an annuity market that provides minimum cost annuities for the outset suggests starting off with an annuity provider, with the possibility of enabling private competition once the scale of the business is large enough. The fact that the possible products are defined in law, which is not an undesirable feature, provides even stronger grounds for this course of action.

9.14 *Clearinghouse for accounts*. Discussions with the actors in Hungary tend to point in the direction of creating a clearinghouse. The role of the clearinghouse would be to administer accounts and the flow of funds. Presently an employer may have a large number of funds to remit contributions to, and it is in the interest of the employer to lobby among employees to limit the number of few funds he has to deal with. From the point of view of an employer, one fund, regardless of which, would be optimal for his administration. The clearinghouse provides a "one-fund" station in an individual financial account scheme, while enabling participants to choose among funds. The clearinghouse could also be identified as the monopoly annuity provider discussed above, but not necessarily the annuity asset fund manager. Assets could remain with the individual's pre-retirement fund, or move to another fund and asset manager at or after retirement.

9.15 The clearinghouse is also efficient from the point of view of the participant. All switching orders would be executed through the clearinghouse and the employee would be free to choose any fund without the implicit or explicit coercion of his or her employee, since the employer would no longer have any interest in this. It could also be to the advantage of all to have a single "window" for provision of annuities, while the investment function remains outside the functions of the clearinghouse, through outsourcing.

9.16 The lesson from Hungary is that it may be optimal to make the step to a clearinghouse right from the start.

The Pay-As-You-Go (PAYG) System

9.17 *Accounts*. Although it is not a disadvantage for the financial account scheme, since it is based on money paid, contributions to the financial and PAYG schemes are based the same employer information on contribution wages. Even though it is not necessary for the calculation of PAYG pension benefits, it would nevertheless be an advantage for the country to have an overall system with individual account information that is based on the same sources.

9.18 *Financial stability.* The present design of the PAYG system still has some drawbacks that work in the direction of creating long-term financial instability. First, it provides no incentive to work past the minimum pension age for those who fulfil the requirement for a benefit. Second, there is no automatic adjustment of the benefit paid to life expectancy. Third, even at 62, the minimum pension age is low, and it too could be adjusted with increasing life expectancy – or an increase could be scheduled

that reflects improving life expectancy. This even has bearing on when, and hence, how many people qualify for a guarantee benefit.

9.19 A potential lesson is that yet another reform effort will be needed in the future. It is always preferable to cover all major design issues in a single reform. Whether or not this is done depends also on political parameters. The PAYG reform went part of the way in the direction of an NDC reform in 1997. A recommendation is to consider NDC in the next reform of the PAYG scheme.

9.20 *Use of tax receipts from PAYG from 2013*. Financial account benefits are subject to tax from the outset (21 percent according to the reference cited earlier) and PAYG benefits are scheduled to be taxed from 2013. In principle, when this occurs the government would be in a position to reduce other taxes, including the employer contributions paid for other benefits than old age pensions. A case can easily be made for tax financed disability, for example.

9.21 *Disability*. The disability system was not reformed – as had been the original goal –in the region as a whole, and how the disability system is to be structured to meet future challenges remains an issue. The experience of Western Europe is that it will be important to structure the disability system so as not to provide an open door for early retirement for persons for persons other than those whose work capacity is seriously reduced. Failure to do this will lead to unacceptable increases in costs in the disability system, which once they occur cannot easily be contained.

Political Consensus

9.22 The working group that formulated the pension reform consisted of representatives from various quarters, and an effort was made to bring all parties concerned into the reform. Nevertheless, with the shift in government in 1998, many changes were introduced that ran against the grain of the original reform, which created considerable uncertainty. For a period of up to four years, and even still as late as in 2004, some actors and probably many participants wondered about the firmness of the contract from 1998.

9.23 The clear lesson is that broad ownership across parties prior to implementation is a desirable feature of a reform. If the pace of reform is too rapid to accommodate this, the need to achieve broad ownership the risk is high that problems will arise shortly after implementation.

Annex A: Data Annex

Annex Table 1: Statistical Overview of the Economy, Demographics and the Pension System

GDP, Wages, Employment, Prices		*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
	Wage bill, mln HUF								
1	GDP current prices, billion HUF	5614,0	6893,9	8540,7	10087,4	11393,5	13172,3	14849,8	16740,4
2	GDP current prices, billion USD	44,7	45,2	45,7	47,0	48,0	46,7	51,8	64,9
3	GDP, rate of real growth, %	1,5	1,3	4,6	4,9	4,2	5,2	3,8	3,5
4	GDP per capita, thousand HUF	543,5	668,6	830,0	982,6	1112,9	1290,0	1457,6	1647,9
5	Nominal monthly wage, HUF a)	38900	46837	57270	67764	77187	87645	103553	122482
6	Real monthly wage, % a)	91,1	97,4	103,4	103,5	105,5	103,4	108,1	112,3
7	Number of employed, thousands	3622,8	3605,1	3610,3	3674,7	3791,5	3829,1	3868,3[b]	3870,6b[b]
8	Labour force, thousands	4039,3	4005,2	3959,1	3987,7	4076,2	4091,6	4102,4[b]	4109,4[b]
9	Inflation, %	28,2	23,6	18,3	14,3	10,0	9,8	9,2	5,3
Demographic Statistics									
10	Total population, thousands,	10 337	10 321	10 301	10 280	10 253	10 222	10 200	10 175
	at the beginning of the year								
11	Population 20-59, thousands	5 576	5 625	5 670	5 707	5 733	5 753	5 761	5 768
12	Population 60 + , thousands	2 018	2 026	2 030	2 038	2 049	2 057	2 079	2 091
13	Life expectancy age 60, unisex	17,31	17,37	17,55	17,59	17,49	17,90	18,56	18,61
14	Life expectancy age 60, men	14,77	14,88	14,98	14,95	14,92	15,29	15,97	15,98
15	Life expectancy age 60, women	19,47	19,44	19,69	19,79	19,62	20,04	20,65	20,74
16	Population 20-59/ Population 60+	2,76	2,78	2,79	2,80	2,80	2,80	2,77	2,76
17	Period fertility rate	1,57	1,45	1,37	1,33	1,29	1,33	1,31	1,31
Pension Statistics									
18	Contributors, thousands*	4232	4080	3889	3886	3818	3843	3836	3845
19	Number of pensioners	2 772	2 813	2 843	2 848	2 816	2 786	2 772	2 764
20	and benefit recipients, thousands*								
21	Old-age pensioners, thousands*	2 049	2 078	2 095	2 097	2 065	2 036	2 009	2 001
22	Disability pensioners, thousands *	358	376	395	413	421	429	451	461
23	Survivor pensioners, thousands*	364	358	353	338	330	321	312	303
24	System dependency ratio, contributors/ old age pensioners	2,06	1.95	1.86	1.85	1.85	1.86	1.85	1.92
25	PAYG Contributions, million HUF	446 755	515 558	622 345	741 532	782 524	908 178	1 005 732	1 091 271
26	Old age benefits, million HUF	399 643	456 706	555 011	677 617	761 081	839 769	965 781	1 118 790
27	Disability benefits, million HUF	64 299	74 986	93 050	116 757	137 180	155 104	189 317	222 030
28	Survivor benefits, million HUF	64 869	72 359	84 621	115 942	132 172	144 179	163 720	185 842
29	Old age and disability benefits, % GDP	8,3	7,7	7,6	7,9	7,9	7,7	7,8	8,0
30	Average pension/ average wage	61,4	58,6	56,2	59,0	60,9	61,0	60,6	59,3
30	Newly granted benefit, average	nd	15 740	18 929	20 708	25 085	30 074	33 230	39 316
31	Old age benefit, average	nd	17 710	22 142	26 405	32 058	38 474	41 414	48 879
32	Disability benefit, average	nd	14 247	15 919	18 400	22 221	26 814	30 235	34 179
33	Survivor benefit, average	nd	10 041	10 528	11 269	13 874	14 245	16 596	17 247

* monthly average number

a) Gross wages

b) Based on new weights from the 2001 census

Annex Table 2: Major Indicators of the Operations of the Mandatory Private Funds

	1998	1999	2000	2001	2002
paid-in contribution	31,069,599	59,265,275	81,364,886	95,067,855	115,894,686
contribution - operations	5.10%	5.05%	5.20%	6.21%	6.20%
contribution - IA	93.95%	94.39%	94.24%	93.20%	93.22%
contribution - reserves	0.95%	0.56%	0.56%	0.59%	0.58%
total assets	29,697,835	93,919,827	178,019,326	287,657,095	405,720,981
credited returns	3,520,518	14,354,143	30,598,807	30,267,915	45,547,548
expenses	3,437,266	5,179,978	28,649,562	22,730,674	34,208,755
number of members	1,346,700	2,064,100	2,193,400	2,250,631	2,213,137
Members returned to single PAYG from the mixed system					
number of returned members	1,594	9,185	17,778	18,550	52,233
assets returned to PAYG	35,157	417,922	1,442,923	2,373,494	11,927,773
Averages - per members					
contributions	23.07	28.71	37.10	42.24	52.37
assets	22.05	45.50	81.16	127.81	183.32
investment returns	2.61	6.95	13.95	13.45	20.58
expenses	2.55	2.51	13.06	10.10	15.46
Ratios - per total assets					
investment returns	11.85%	15.28%	17.19%	10.52%	11.23%
expenses	11.57%	5.52%	16.09%	7.90%	8.43%
net returns	0.28%	9.77%	1.09%	2.62%	2.79%
(asset values: in HUF1000s)					

Källa. Tibor Párniczky, "The Experience of the Mandatory Private Pension Funds and Lessons of the Operations of Funds – Facts and Tendencies," East-West Management Institute, mimeograph, 2004.

Annex B: Consultations on the Hungarian Pension Reform

(19-22 January, 2004)

Hungarian Financial Supervisory Authority (HFSA)

Dr. Károly Szász	President of the HFSA
Mr Mihály Erdős	Chief Supervisor and Senior Advisor to the President
Mr. Peter Galambor	Economist
Mrs. Éva Varga	Head of Department of Administration of Pension Funds
Mr. János Stahl	Actuarial Department

Other Experts Involved in the Reform

Mr. Tibor Párniczky	Expert of the EWMI and former Vice President of the Hungarian Pension Fund Supervisory Authority
Dr. György Radnai	Government Commissioner Health Care Reform Programme Office and former President of the Hungarian Financial Supervisory Authority
Dr. István Győrfi	Assigned by the Government (Pension Reform Commission in the MOF)
Mr. Zoltán Vajda	Economist

Members of Parliament

Mrs. Klára Ungár	Former Member of Parliament from the Free Democrat Party
Mrs. Judit Csehák	Former Member of Parliament from the Socialist Party
Dr. Tamás Szabó	Managing Director, Credit Suisse Pension Service Provider and former Member of Parliament from the Hungarian Democrats Forum

Ministry of Health, Social and Family Affairs together with the Ministry of Finance

Dr. Mária Major	Deputy Secretary of State for Social Issues (HSF Ministry)
Mrs. Gabriella Papp	Head of Department (HSF Ministry)
Mrs. Szikszainé Bérczes Anna	Head of Department, (MOF)
Mr. Ádám Rézmovits	Deputy Head of Department (MOF)
Mr. Ildikó Krémerné Gerencsér	Deputy Head of Department of Pension Insurance and Elderly (HSF Ministry)

The Central Administration of the National Social Insurance Pension Fund

Dr. László Gerencsér	Deputy Director General
Dr. János Réti	Head of Pension Analysis and Planning Department

Private Sector Interviews

Mr. Péter Holtzer	Managing Director, OTP Fund Management Rt
Mr. Gábor Soproni	Managing Director, VIT Private Pension Fund
Mr. Csaba Nagy	Managing Director, OTP Private Pension Fund and President of the "Stabilitás" Association of Pension Funds
Mr. Gábor Borza	Managing Director, ING Voluntary and Private Pension Fund

Hungarian National Bank

Mr. István Hamecz	Managing Director, Hungarian National Bank

Independent Academics and Financial Annalists

Mr. Péter Bod	Advisor of the Presidential Council
Mrs. Ágnes Matits	President of the Council, "Ráció" Voluntary Pension Fund and University Lecturer
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