IEG
INDEPENDENT EVALUATION GROUP

WORLD BANK

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

Background Paper
Bulgaria Country Study

Edward Palmer

Director-General, Independent Evaluation Group: Vinod Thomas
Director, Independent Evaluation Group, World Bank: Ajay Chhibber
Senior Manager: Ali Khadr
Task Manager: Emily Andrews

This paper is available upon request from IEG.

2007
The World Bank
Washington, D.C.

ENHANCING DEVELOPMENT EFFECTIVENESS THROUGH EXCELLENCE AND INDEPENDENCE IN EVALUATION

The Independent Evaluation Group is an independent unit within the World Bank Group; it reports directly to the Bank's Board of Executive Directors. IEG assesses what works, and what does not; how a borrower plans to run and maintain a project; and the lasting contribution of the Bank to a country's overall development. The goals of evaluation are to learn from experience, to provide an objective basis for assessing the results of the Bank's work, and to provide accountability in the achievement of its objectives. It also improves Bank work by identifying and disseminating the lessons learned from experience and by framing recommendations drawn from evaluation findings.

IEG Working Papers are an informal series to disseminate the findings of work in progress to encourage the exchange of ideas about development effectiveness through evaluation.

Contact:
Knowledge Programs and Evaluation
  Capacity Development Group (IEGKE)
e-mail: eline@worldbank.org
Telephone: 202-458-4497
Facsimile: 202-522-3125
http:/www.worldbank.org/ieg

Acronyms and Abbreviations

CAS	Country Assistance Evaluation
CEE	Central and East Europe
CPI	Consumer Price Index
DB	Defined Benefit
EU	European Union
FSC	Financial Supervision Commission
GDP	Gross Domestic Product
IEG	Independent Evaluation Group (formerly OED)
ILO	International Labor Organization
IMF	International Monetary Fund
IT	Information Technology
MOLSA	Ministry of Labor and Social Affairs
NDC	Notional Defined Contribution
NGO	Non-governmental Organization
NSSI	National Social Security Institutes
OED	Operations Evaluations Department (changed its name to IEG in December 2005)
PAYG	Pay-as-you-go
SISA	State Insurance Supervision Agency
SPAL	Social Protection Adjustment Loan
SOROS	Open Society Institute
UDF	United Democrat Front
UNDP	United Nations Development Program
USAID	United States Agency for International Development
VAT	Value Added Tax

Contents

Tables

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 2003. 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 Bulgaria since the beginning of the 1990s. The focus of the evaluation is on the reform work performed in conjunction with the legislation passed in 1999, creating the mandatory individual financial account scheme that was implemented beginning in 2000.

1.2 The evaluation begins with a general country background and overview of pension data, followed by a summary of the Bulgarian 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 official 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 Bulgaria, as well as persons outside the policy circle, such as representatives of NGO's, academics and journalists. There is a Data Annex 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 a separate annex.

2. Background

Country Overview

2.1 Bulgaria has a population of about 8 million people. In 2002 per capita GDP was US$1,790, close to the average US$2,160 for transition countries in Europe and Central Asia, or about 31 percent of the EU average, based on purchasing power parity estimates.[1]

2.2 Life expectancy at birth was close to 72 years in 2002, three years higher than the average among developing countries in Europe and Central Asia, and on a par with neighboring countries in the region. Unisex life expectancy is 18 years at age 60, about 16 years for men and 20 years for women.

2.3 Presently, Bulgaria's population is considerably older than the population's of its neighbors, as is indicated by Table 2.1. This fact alone would explain a high contribution rate for pensions relative to its neighbors.

2.4 Although the percentage of the elderly in the total population is high, it projected to remain stable for the next two decades. However, after 2020 the ratio of persons 20-64 to persons 65 and older will begin to decline (Table 2.2), creating even greater pressure on the pension system. In sum, introduction of structural pension reform early would be to the advantage of Bulgaria. While new demographic pressure on the pension system will not arise for around another quarter of a decade, when it does, the ageing of the population will again prove to be a challenge.

Table 2.1: Population 65 + as a percent of the whole population

Bulgaria	16.9
Croatia	15.5
Czech Republic	13.8
Estonia	15.1
Hungary	14.6
Latvia	15.2
Lithuania	13.9
Poland	12.4
Rumania	12.9
Slovakia	11.4
Slovenia	14.4

Source: World Bank Development Report, 2004.

2.5 As throughout the region, the early transition was characterized by a substantial fall in GDP. The fall was relatively steep at almost 30 percent from 1989 through 1993. Output contracted by almost as much and the level of employment also fell by 30 percent, while unemployment increased from two percent in 1990 to 16 percent by the end of 1993.

[1] World Development Indicators, the World Bank.

Table 2.2: Demographic Dependency Ratio, 2000-2050
(*Ratio of persons 20-64 to persons 65+*)

Year	2000	2010	2020	2030	2040	2050
Dependency ratio	3.7	3.7	3.7	3.1	2.8	2.5

Source: National Social Security Institute. Sofia, Bulgaria.

2.6 By 1993 the process of liberalization of the economy had progressed. By 1993, virtually all prices were freed, trade was liberalized, large barriers to private activity were abolished, and private-sector activity was vigorous.[2] Nevertheless, the period until 1997 was characterized by "a failure to establish market discipline, widespread rent-seeking, and the prevalence of soft budget constraints among enterprises, banks and the government budget."[3]

2.7 A severe economic crisis developed in 1996-97. GDP fell by an additional 15 percent, and there was general economic chaos, with hyperinflation and a collapse of the banking sector. At this juncture the Bank concluded that: "Bulgaria was one of the poorest performing countries of Central and Eastern Europe (CEE)."[4]

2.8 In July 1997 the country adopted a Currency Board Arrangement, underpinned by conservative fiscal policy and supported by considerable structural reform, with restructuring and financial discipline in the enterprise and banking sectors and, most importantly in the present context, reform of the social sectors. Since 1998 inflation has remained under control at 10 percent or less.

2.9 Overall, since 1997, Bulgaria has made substantial progress towards long–term macro-economic stability,[5] and during 1997-2002 real GDP grew at a rate of slightly over four percent per year, bolstered by an increase in exports to the EURO area. Real growth is likely to be around five and a half percent in the medium-term future, and inflation is likely to remain over EU levels at around five percent due to the Balassa-Samuelson effect.[6]

2.10 With the economic crisis in 1996-97, the poverty rate jumped from 5.5 percent in 1995 to 36 percent in 1997, and the period of growth was reduced to 12.8 percent in 2001. (Poverty in this context is measured as two-thirds of 1997 average per capita consumption, adjusted to prices for 1995 and 2001).[7] Poverty was considerably higher than in the high income countries of the region, for example, Hungary and Poland.[8] Nevertheless, the extended period of economic growth from 1998 clearly helped to reduce relative poverty.

---

[2] Bulgaria – Public Finance Reforms in the Transition, Report No. 12273-Bul, February 23, 1994, p 9.
[3] Bulgaria Public Expenditure Issues and Directions for Reform – A Public Expenditure and Institutional Review, Report No. 23979-Bul, The World Bank, August 2002, Executive Summary.
[4] *Ibid*.
[5] *Ibid*.
[6] Bulgaria. Fourth Review under the Stand-by Arrangement. IMF, Country Report No. 04/35, February, 2004, p. 13.
[7] Bulgaria: Changing Poverty Profile, Report No. 24516, Human Development Sector Unit, Europe and Central Asia Region, The World Bank, 2002, p 3.
[8] *Ibid*. p 5.

2.11 The poverty rate is highest among non-ethnic Bulgarians. In particular over 60 percent of the Roma live in poverty, about 366 thousand persons and constituting five percent of the Bulgarian population[9]. The poverty rate among pensioners in 2001 was just about the same as for persons with earned income – slightly higher in the urban areas (six percent compared to four percent), but exactly the same in the rural areas 16.6 percent.[10]

2.12 The process of privatization picked up from 1997. This is illustrated by the fact that the private sector accounted for 42 percent of employment in 1996 and 71 percent in 2002[11]. Restructuring has taken its toll in the short-term, however. From 1997 through 2000 employment decreased by almost seven percent.[12] Productivity growth has been high in larger companies, but this has lead to downsizing. A decomposition of the forces behind the fall in employment shows that a strong positive effect of an increase in demand has been more than offset by an almost equally strong increase in productivity.[13]

2.13 The unemployment rate was 18-20 percent in 2002, and around two thirds of the unemployed in early 2002 had been out of work for at least a year.[14] In 2003 unemployment measured both by the Labor Force Survey and as registered unemployed had fallen to around 13-14 percent of the labor force by the fourth quarter.[15]

2.14 In a recent analysis of poverty in Bulgaria[16] the Bank concludes that the way forward for Bulgaria is to keep the reform process moving along on the path set out in 1997, and pursued since then. This includes sustaining structural reforms, including privatization of the transport and communications infrastructure, further strengthening market institutions, deepening the financial sector, improving governance and investing in human capital.

2.15 Generally, the macroeconomic policy of the country is to support the Currency Board through the development of the overall budget, while restructuring the economy, and to meet the requirements for EU accession. Approximate balance in the overall budget is an overriding goal.

2.16 The aim of the pension reform implemented in 2000 in Bulgaria is to contribute to achieving overall balance maintaining an adequate pension based on more market-oriented principles. This evaluation focuses on how these issues have been addressed in the context of implementation and design issues.

---

[9] *Ibid*. pp 16-17.
[10] *Ibid*. p 19.
[11] *Ibid*. p 73.
[12] *Ibid*. p 75.
[13] *Ibid*.
[14] *Ibid*. xiv.
[15] Bulgaria. Fourth Review under the Stand-by Arrangement, IMF *op.cit* p 23.
[16] *Ibid*. p 91.

The Evolution of the Pension System Up to the 2000 Reform

2.17 Bulgaria inherited a mandatory pay-as-you-go system characteristic of the pre-transition systems of the region. Women had the right to a full pension at the age of 55 and men at the age of 60, in addition, persons working within special, listed occupations had the right to receive a full benefit earlier, and as early as age 40 for persons working in hazardous conditions. This was a form of compensation in lieu of better remuneration or as a substitute for healthier and safer working conditions. About 16 percent of pensioners had special rights of some kind prior to the reform in 2000.[17]

2.18 In the early transition years, a new policy emerged offering early retirement to persons laid off during the transition. Hence, the number of pensioners increased in the early years. The number of contributors declined dramatically, more-or-less matching the 30 percent decline in employment. The system dependency ratio expressed as the number of contributors to the number of persons receiving all kinds of pensions decreased from around 1.8 percent to 1.25 percent from 1989 to 1993,[18] where it still was in 1995.[19]

2.19 With some fluctuation, the total system dependency ratio remained around 1.3 until 1999, when it began to deteriorate even more.[20] In 2002, the ratio of contributors to old age and disability pensioners was about one to one (Table 2.3) and the ratio of contributors to recipients of all kinds of pensions (old age, disability and survivor benefits) was 0.92.[21] The fall in contributors was in part a response to the process of restructuring and the increase in unemployment up to around 18 percent.

Table 2.3: Bulgaria-Key Pension Ratios

	1995	*1999*	*2002*
Ratio of Working age Population (20-59) to Population 60 +	2.52	2.54	2.49
Ratio of Persons in Employment to Population 60 +	1.85	1.73	1.69
Ratio of Contributors to Population 60 +	1.73	1.60	1.23
Ratio of Contributors to Old Age Pensioners	1.63	1.45	1.23
Ratio of Contributors to Old Age and Disability Pensioners	1.46	1.32	0.98
Average Old Age Benefit/ Average Wage	0.39	0.35	0.37

2.20 The cost of pension expenditures expressed as a percent of GDP rose from 8.4 percent in 1991 to 10.3 percent in 1993. The government met the challenge by both reducing the value of benefits and increasing contribution rates.

2.21 A principal means of coping with mounting costs was to let the value of pension benefits erode, usually with ad hoc indexing with a fixed sum for all beneficiaries, which contributed to a compression of benefits. This had the drawback

[17] Interview with Nikolay Nikolov.
[18] Bulgaria – Public Expenditure Issues and Discussions for Reform, *op. cit*. Interpreted from the graph on page 129.
[19] Based on data in the Data Annex in this paper.
[20] *Ibid*. and the Statistical Overview in the Data Annex in this paper.
[21] Based on data in the Data Annex in this paper.

that it embodied a disincentive to pay more contributions than "necessary", especially for workers with higher earnings. More generally, it encouraged the practice of paying contributions on the basis of the minimum wage. The benefits of this coping strategy could be shared under the right employment circumstances between the worker and the employee.

2.22 The real value of pensions decreased by 55 percent between 1990 and 1995, at a faster pace than real wages.[22] In 1995 the ratio of an average old age benefit to an average wage was 39 percent. This ratio continued to fall throughout the 1990s, with a slight improvement from 1999 to 2002 (Table 2.3).

2.23 The deterioration in the government's capacity to finance benefits was also met by an increase in the payroll tax for all of social insurance benefits in the first half of the 1990s. In 1990 the contribution rate was 28 percent, but by 1996 it had been increased to 37 percent. It was even higher, 47 percent, for employees who could retire three years before the normal retirement ages and 52 percent for employees for those entitled to retire 5-8 years before the normal ages.[23] This was no small matter, as in 1996 approximately 30 percent of Bulgarian workers were eligible for early retirement.[24] Early retirement was not just a privilege for persons working in hazardous and especially arduous working conditions, but also a privilege for other occupational groups such as teachers and drivers.[25]

2.24 Looking at the period 1995-2002 (Table 2.3) the ratio of the working age population (20-59 years) to the population of 60 years and older was practically constant. Between 1995 and 1999 the number of contributors declined at about the same rate as employment, however, the ratio of contributors to old age and disability pensioners fell even faster. From 1999 through 2002 the number of contributors appears to have declined by considerably more than the number of persons reported as being in employment, and at the end of 2002 the ratio of contributors to old age and disability pensioners was about one to one, as has already been noted.

2.25 In spite of the rather dramatic decline in employment and contributors, the ratio of an average old age benefit to an average wage has been maintained at a relative steady level from 1995 through 2002. From 2001, the ratio of pension expenditures to GDP has been around 9 percent (see Data Annex).

[22] Staff Appraisal Report - Republic of Bulgaria – Social Insurance Administration Project, July 30, 1996; Report No. 15531-Bul, The World Bank, page 6.
[23] *Ibid*.
[24] *Ibid*.
[25] *Ibid*.

3. The 2000 Pension Reform

Background

3.1 There were several problems with the old legislation that required reform. These are summarized here.

3.2 First, in an attempt to increase compliance, the government allowed employers to base their payments on the minimum wage, using civil contracts, as opposed to regular labor contracts. In practice this meant that workers could establish contracts with employers that enabled them to share the benefits of contribution evasion.

3.3 Second, old age benefits were based on the best three years of earnings of fifteen. This was particularly advantageous for someone who had the opportunity to pay contributions on the basis of a minimum wage up until three years prior to retirement, at which time a full wage could be reported. This reinforced the above problem, since workers only really needed three years with high reported earnings and contributions.

3.4 Third, the defined benefit formula contained no link between career contributions and benefits, and overall, no incentive to pay contributions. A contribution period of 25 years for men and 20 years for women was required for a full benefit, this redistributed resources from persons with long to persons with short earnings careers. It was also unfair, generally speaking, to base the benefit on three years which was clearly to the advantage of participants with steep earnings careers towards the end of their working life, at the expense of persons with flat earnings careers.

3.5 Finally, the ad hoc indexation practiced during so many years in combination with the above system deficiencies led to the perception that there was no real relationship between contributions paid and benefits. In addition, according to the analyses of the Bank,[26] there was a general feeling that benefits were at the whim of government decisions steered by alternative budget needs. What's more, a popular impression was that evasion and fraud were rarely detected or punished, which tended to fuel the problem. Finally, there was not only a lack of support for the old system from the public, but also no confidence among other important actors, that is, labor unions, employers and mass media.[27]

3.6 These problems of design and confidence were worsened by outdated technology within the social insurance administration, which was more suited to the old system where people tended to remain with the same employer during all or most of their working career. In 1996, the overall responsibility for the system was with the Ministry of Labor and Social Affairs (MOLSA), from where the Director General

---

[26] *Ibid*. page 7.
[27] *Ibid*.

of Social Insurance managed 28 regional offices. Most importantly neither technology nor client services were adapted to the demands of running a social insurance administration in a market economy.

3.7 In response to this overall situation, in 1996 the government initiated a two component project. The first was to create a modern and efficient social insurance administration, which would be separate from the MOLSA. The second was to initiate policy analysis and formulation, and to promote public information and education. This was the basis for the Social Insurance Administration Project initiated during the latter half of 1996 and discussed in greater detail under the subsequent heading of the Bank's country assistance strategy below. One of the outputs of the Social Insurance Administration Project was the training of the NSSI staff, which played a key expert role in various aspects of the reform process.

3.8 As a part of this project, a working group was constituted to formulate the reform. The group was comprised of representatives from the government, the NSSI, unions and other stakeholders, which created broad ownership of the reform. Technical assistance was provided by the Bank, USAID, the British Know-How Fund, the UNDP and the ILO, with the Bank coordinating all the donors.

3.9 By 1998, the government had a detailed pension reform strategy. The strategy was first, to move away from the complete reliance on a mandatory PAYG system to a three-tier system involving both the public and private sectors; second, to reduce payroll taxes used to finance these systems; and third, to increase the fairness of the system, taking into account occupations and gender.

3.10 The reform strategy as it was being formulated in 1998 encompassed:

- a reduction in early retirement special privileges;
- a higher minimum universal retirement age with a gradual equalization between men and women ;
- a closer link between benefits and contributions;
- a shift of some of the contribution payments from employers to employees, with a long-tem reduction of the payroll tax to at most 30 percent;
- improving poverty reduction for surviving spouses by allowing inheritance of some pension rights;
- the provision of special top-up benefits for workers with long service records with lifetime earnings of at least 50 percent of the average wage;
- introducing a financial account scheme with private sector investments for younger workers, with a gradual diversion of at least 5 percentage points of the overall contribution rate to this end;
- the establishment of viable private, voluntary pension schemes.

3.11 Prior to this date some systematic steps had already been taken. These were:

- the establishment of the National Social Security Institute (NSSI);

- the introduction of a law requiring employers to pay social insurance debts before any other obligation and to limit wage increases and loans for employers with arrears;
- measures taken to strengthen compliance by requiring information on an individual basis from employers;
- a gradual lengthening of the contribution period used in calculating benefits;
- the elimination of food supplements administered by social insurance;
- amending the labor code to allow people to work at least three years past the pension age.

3.12 At the time the Social Protection Adjustment Loan (SPAL) was being formulated in October 1998, the government had also made good progress in the preparation of legislation to establish the legal foundations to regulate a voluntary pension market.

3.13 In 1998, a high level working group, under the Prime Minister, was established to complete the design of Bulgaria's coming three-pillar reform, with technical assistance provided through the Bank, the Soros Foundation and USAID.

Overview of the Reform Legislation

3.14 The new multi-pillar legislation enacted in 1999 included legislation for three pillars: (i) a mandatory PAYG pillar, (ii) a second pillar with mandatory, privately managed individual financial accounts, also providing privately managed occupational plans for persons covered by special privileges under the old system, and (iii) a third pillar which involved regulating and strengthening the voluntary pension system.

3.15 In addition to the objectives already stated, the new legislation was intended to create a financially sustainable and fairer system, with diversification of the public pension portfolio between a PAYG and a financial component.

3.16 Separate insurance funds were created. Under the new legislation, three separate social insurance funds were created: one for pensions, one for short-term benefits and one for sickness and work injury, and, in 2002, a new unemployment fund. The financing of social rights, including social pensions for persons whose opportunities to work are limited from birth up until early adulthood, was moved over to the state budget, and the social pension became a means-tested benefit.

3.17 *The contribution rate was decreased.* The overall contribution rate was decreased by three percent to 29 percent. The goal is to successively decrease the share of the employer contribution until there is an equal 50-50 split by January 1, 2007 between employer and employee contributions, within the given rate of 29 percent, or less.[28]

3.18 *The retirement age was raised*. The retirement age for women was increased from 55 to 60 with a phase in of 10 years, and for men from 60 to 63 with a phase in of 6 years. In addition, by 2001, categories entitled to early retirement provisions were reduced from 20 to 6 percent of all contributors.

3.19 *Special categories with early retirement to be phased out by 2010*. Most categories with the right to a special early retirement pension will be phased out by 2010 with the help of "occupational pension plans", introduced to finance early retirement pensions for special rights under categories I and II until they reach the minimum retirement age. They are financed with a separate contribution rate of 12 and seven percent, respectively, paid by the employer.

3.20 Until December 31, 2009, individuals who have worked 15 years under labor Category I or 20 years under labor Category II retain the right to retire early. The minimum retirement age for these categories is 47 and 52 for women and 52 and 57 for men, respectively. If they choose to retire early, however, the amount accrued in their financial accounts will be transferred to the PAYG scheme.[29]

3.21 These occupational plans are included under umbrella of "Pillar II" – the mandatory financial component of the reform – in the nomenclature of the reform. This component of the reform was started on January 1, 2000. By the end of 2001, all workers under categories I and II were required to choose an occupational fund (a separate fund provided by the 9 registered Pillar II funds). Of the total of approximately 130,000 persons eligible for the occupational scheme, the NSSI received 113,000 voluntary applications. The remaining persons were allocated equally to all the funds in the system.[30]

3.22 *The PAYG first pillar*. Category III persons are persons for whom the normal minimum retirement age applies. To be eligible for the PAYG pension, an individual must have 15 years of coverage by the age of 65, of which 12 years are derived from actual work. Persons who do not meet these requirements would be covered by the means-tested social pension. In the new system, each year of age and each year of service brings a point. Table 3.1 shows points needed to become eligible to receive a benefit at the minimum retirement age, given the increase in the minimum pension age. Persons not meeting this requirement but who have 15 years of coverage (of which 12 from actual work) become eligible at age 65.

[28] Jordan Hristoskov, "The Bulgarian Pension System One Year after the New Beginning – Assessments and Vision for the Future," USAID Bulgarian Pension Reform Project, April 2001, p. 5.
[29] Jordan Hristoskov, Mandatory Social Insurance – Changes, Nature and Content of the Mandatory Social Insurance Code in The Bulgarian Pension Model published by the USAID Bulgarian Pension Reform Project, 2000.
[30] Nikolay Nikolov, "Pension Companies and Funds – Current Stage and Possible Trends," USAID publication on the Bulgarian Pension Model, April, 2001, p. 18.

Table 3:1: Retirement Age Schedule

Year	*Men*		*Women*	
	Minimum Age	*Points*	*Minimum Age*	*Points*
2000	60.5	98	55.5	88
2001	61	99	56	89
2002	61.5	100	56.5	90
2003	62	100	57	90
2004	62.5	100	57.5	91
2005	63	100	58	92
2006	63	100	58.5	93
2007	63	100	59	94
2008	63	100	59.5	94
2009	63	100	60	94

3.23 Given eligibility, the benefit is calculated according to the following formula.[31]

> Benefit = number of covered years x 1% x individual coefficient x average insured income for the country for 12 calendar months preceding the month in which the pension is granted.

3.24 The individual coefficient is calculated on the basis of the income upon which contributions have been made during any three consecutive years out of the previous 15 years prior to January 1, 1997 and income for the period after this date. The individual coefficient is then calculated according to the following:

> (1) Individual coefficient = The ratio of the average monthly insured income for the period after December 31, 1996 for three consecutive years and the average monthly income established for the country for the same period.
>
> (2) Individual coefficient = The ratio of the average monthly insured income for the period after December 31, 1996 for all years until retirement and the average monthly income established for the country for the same period.

3.25 The individual coefficient is determined according to (1) for persons who have not worked since January 1, 1997, and by (2) for persons whose entire period of coverage is after this date. Otherwise, the individual coefficient is determined by multiplying each of the ratios (1) and (2) with the number of months for which they have been calculated and then dividing the sum of these products by the total number of months included in the two periods.

3.26 If the individual has the average wage then his/her individual coefficient is unity according to either of (1) or (2). A person with 40 (39) years of coverage would then be entitled to a benefit of 40 (39) percent of the average wage etc., according to the benefit formula. To be eligible to retire at the age of 63 a man would have to have 37 years of coverage from year 2005, according to the points in the table. A woman

---

[31] From Jordan Hristoskov, *op. cit.*

will need 34 years of coverage for a full benefit when the pension age increase has reached its maximum in 2009, but according to the formula, if she had the average wage she would receive a benefit equal to 34 percent of the average wage. Of course the individual coefficients will not normally equal the average wage, and the actual individual outcome expressed as a percent of the average wage will be a dispersion around the average.

3.27 Benefits are not taxed. Presently wage earners pay a little over 20 percent in income taxes, which increases the after-tax replacement rate. For example, a pre-tax replacement rate of 35 percent would be about 44 percent after tax.

3.28 The objective of the new benefit formula is to link insurance contributions and benefits more closely, which it clearly does. Compared to the old formula this formula provides a much improved incentive to pay contributions, as after January 1, 1997 all years for which contributions are paid are included in the calculation of an individual coefficient. As a result, the new formula will approach a lifetime earnings formula, although since it retains the idea of a fixed age for eligibility for a full pension, it does not go all the way. In addition, it contains no incentive to work and/or contribute beyond the full benefit point amount.

3.29 *Ceiling on contributions*. There is presently a ceiling on contributions of 1,200 leva per month, which is about four times the average wage of a contributor. This leaves room at the top for persons with higher earnings to participate in voluntary pension schemes.

3.30 *Indexation of benefits*. In June every year all pensions granted through December 31 the previous year are indexed. The index cannot be smaller than the increase in the CPI the previous year, and may not exceed the increase in the average monthly insurable income the previous year. The usual procedure thus far has been to use 75 percent based on the projected rate of inflation and 25 percent based on average income.[32]

3.31 *Financing the early years of the reform – the period 2000-2003.* In the initial years, the government ran into short-term financial difficulties in introducing the reform. The reasons for this are summarized in the following paragraphs.

3.32 First, success of the overall macroeconomic policy in restructuring the economy led to an increase in unemployment and a decrease in contributors. Unemployment peaked at about 18 percent of the labor force in 2002. (See the table in the Data Annex). Second, a large expense was incurred when the ceiling on pensions was raised, which affected about 150,000 persons. (About 10,000 persons still have benefits granted for amounts above the new ceiling of 420 leva per month).[33]

[32] According to Hristina Mitreva.
[33] According to an interview with Hristina Mitreva, Chief Actuary and General Director at the NSSI.

3.33 Third, the strengthening of the eligibility conditions for an old age pension according to the above schedule led to a steep increase in disability grants. There were almost 120,000 (ca 65 percent) more persons on disability at the end of 2003 than prior to the reform in 1999,[34] as doctors began to issue disability certifications on the basis of non- medical considerations. This led the government to focus on disability certification and the disability process altogether, and the need for a reform in this area. In 2004, the government formulated and submitted new legislation to Parliament specifying restrictions on doctors and transferring the overall responsibility from medical bodies to the National Social Security Institute (NSSI).

3.34 Fourth, implementation of the second pillar in 2002 diverted two percentage points of the overall contribution rate to the financial account scheme, which put additional pressure on the overall budget in 2002 and 2003.

3.35 In spite of these increases in costs, the contribution rate was reduced from 32 to 29 percent, which transferred costs to the general budget, the impact of which was born in part at the expense of the health sector,[35] and in part by an increase in the VAT from 18 to 20 percent. In addition, the government saved some money by not fully indexing pensions to wages, which is not required but is possible according to the law.

3.36 At the same time measures were also taken to bolster the NSSI's revenues. These focused on increasing compliance, and together are estimated to have increased total contribution revenues to the NSSI by ca 250 million leva in 2003 – on top of an estimated ca 2,500 leva in the absence of the measures. Additional revenues of over 14 million leva are estimated to have come into the second pillar scheme, resulting from the same measures.[36] The most important measures taken are described in paragraphs 3.27-3.34.[37]

3.37 First, a minimum insurable threshold was introduced for all employees. This is estimated to have increased contributions in 2003 by ca 130 million leva. The advantage of this measure is that at least a minimum contribution is paid for employees, whereas previously this may not have been the case.

3.38 The disadvantage is that many employers pay only the minimum contribution. In an examination of the contribution database, the NSSI found around 500,000 persons for whom only the minimum contribution is paid. For example, the average wage of persons working in hotels and catering is about twice as high as the minimum, whereas it is common to only declare the minimum. Persons employed in the information technology industry are also frequently insured for the minimum, although they earn much more, according to the NSSI.

---

[34] *Ibid*. Also, see the table in the Data Annex.
[35] According to the interview with Vladislav Goranov, Head of the Social Expenditures Department, Ministry of Finance.
[36] The analysis of these measures was performed by the National Social Security Institute.
[37] The analysis of these measures was performed by the National Social Security Institute.

3.39 Because "misuse" of the minimum payment rule is widespread, the Director of the NSSI has proposed that the minimum be set for professions and sector groups.[38] This proposal has been supported by the Bulgarian Industrial Association, the trade unions, and independent experts. The proposal has been criticized on the basis that it is difficult to construct fair classifications and that there can be employers whose actual salary payments fall below the average wage for the profession/branch/sector as a whole. At the time of this evaluation, it was difficult to determine where this discussion will end.

3.40 Second, labor contracts were made mandatory, removing the possibility of civil agreements between individual employees and employers – which had enabled contribution evasion. Employers who had not drawn up labor contracts risked a fine. As a result the number of contracts increased by almost 20 percent between 2002 and 2003, according to the NSSI. This is estimated to have increased revenues by 94 million leva.

3.41 Third, to be insured, the self-employed must pay a minimum contribution based on a wage of 200 leva per month (in 2004), which can be compared to an average wage of a contributor of 322 leva (in 2003). Of around 250,000 self-employed, mostly in agriculture, only 15-17,000 persons pay contributions.[39] The introduction of a minimum contribution for the self-employed is estimated to have increased revenues by 27 million leva, but the scale of coverage is still very low, and probably many farmers working on small subsistence plots are too poor to pay.

3.42 We can note here that many of today's small subsistence farmers will eventually be among tomorrow's recipients of a social pension. This is a transition problem that Bulgaria shares with many other countries in the Eastern Europe and Central Asia.

3.43 Finally, there is a medium-term expenditure-reducing feature built into the reform. The new point system with the increased minimum age requirement introduced in the PAYG reform forces people to postpone retirement - and work and pay contributions longer. As the pension age, and hence required points, increases during the first decade after the reform, the overall budget situation will also improve.

3.44 By phasing out special pensions, increasing the minimum pension age and restricting indexation to the increase in the CPI plus a quarter of wage growth, expenditures will fall relative to revenues during the coming decade. In addition, the measures implemented to increase compliance appear to have had substantial success, and the high level of development of the NSSI's business procedures will certainly contribute too. For these reasons, the NSSI pension budget will improve considerably in the coming decade.

[38] Jordan Hristoskov, "The Minimum Insurance Income by Profession and Sector Groups – An Ongoing Discussion", NSSI Newsletter.
[39] According to an interview with Hristina Mitreva, Chief Actuary and General Director, National Social Security Institute.

3.45 As a result of all the reform measures, the ratio of pensions to GDP, which was 8.9 percent in the year 2000, is projected to decline to about 6.7 in 2010, according to calculations performed by the NSSI.[40] This leads to the conclusion that, although in the short-run the national budget has born the cost of transition to the new system, in the medium-term the introduction of the mandatory financial scheme is financed by this decline in current benefit payments.

3.46 *The mandatory financial account system – second pillar*. Persons born in 1960 and after are covered by the financial account scheme, beginning January 1, 2002. The initial contribution rate was two percent. The contribution rate to the second pillar is regulated through the budget legislation, but not in the law regulating the pension system. This means that, in practice, the overall budget situation will determine the schedule for the increase in the contribution rate. The goal of the reform is to increase the contribution rate in stages to five percent by 2007. The first step was taken in 2004 with an increase to three percent, and the next steps are planned to be to four percent in 2006 and five percent in 2007.

3.47 The institutions and construction of the new financial account scheme are discussed under a separate heading below.

Overview of the Development of Institutions

The National Social Security Institute (NSSI)

3.48 The National Social Security Institute was created through legislation, the Fund Social Insurance Law, passed in 1995. The chief administrators of the NSSI are the Governor and Deputy Governor, who are appointed by the Parliament. There is a Board of Directors with representatives of workers and employers organizations, and with equal representation in numbers of other persons appointed by the Council of Ministers. The Board determines the main direction of the business, approves the draft budget, oversees the running of the business and approves drafts of laws before they are submitted to the government. The NSSI is required to provide an annual report of its business.

3.49 The administrative capacity of the NSSI was built up in the years preceding the reform beginning with the Social Insurance Administration Project and continued under the umbrella of the SPAL (described below in detail under the Bank's country assistance strategy). The development of IT systems and procedures has been an ongoing process since the NSSI came into existence and has moved forward with the aid of external technical assistance and the development of in-house competence in running the business and developing IT support systems.

3.50 The Social Insurance Administration project supported both the process of creating a modern social insurance administration and the process of building a

---

[40] Jordan Hristoskov, "The Bulgarian Pension System One Year after the New Beginning – Assessments and Vision for the Future," USAID Bulgarian Pension Reform Project, April 2001, p. 10.

knowledge base for formulating policy around 1997. Trained experts at the NSSI were among the key players in the reform group, and the NSSI provided a stable administrative platform for the implementation of reform.

3.51 The NSSI is responsible for administering payments of old age, disability and survivor pensions and other social insurance benefits, including sickness, maternity, work injury and unemployment benefits. In addition, the budget of the NSSI covers payments for health services of pensioners.

3.52 The NSSI's revenues fall under the heading of four funds: the Pension Fund, the General Sickness and Maternity Fund, the Work Injury and Occupational Sickness Fund and a Pension Fund for administering pension benefits financed with general state budget revenues.

3.53 The NSSI collects all contributions in Bulgaria, including contributions for benefits and services it does not administer, such as health care.[41]

3.54 An early step taken in the development of the administration of benefits and contributions was the creation of unique individual identification in a central database, based on unique individual social security numbers, which enables a high level of client services, while eliminating the possibility of double payments. This was followed by a number of additional steps in developing the administration.

3.55 First, individual numbers were cross-checked with the population register to reconcile deaths, emigration, etc. Second, beginning October 2001, all employers were required to pay contributions through banks. This eliminates the possibility of negotiating payments, etc. at the local administrative level, and generally improves the possibilities of managing compliance. The banks are required to report to the NSSI at the end of each working day, and the NSSI coordinated the software infrastructure used for this purpose. Employers are required to submit contribution payment records to the NSSI, and the NSSI then performs a cross check between bank and employer records on an individual basis. In general, accounts are reconciled between all systems. As a result of these procedures, there is public confidence in the overall administration of contributions.

3.56 The NSSI both collects and distributes the contributions to the individual's mandatory private, and, when applicable, occupational pension fund. It is noteworthy that, when the second pillar was implemented in January 2002, the system ran efficiently from the start, which considering the problems in contribution management that arose after similar reforms in other countries in the region (the most notably example is Poland), was a laudable accomplishment.

3.57 In conjunction with the introduction of the financial account scheme in 2002, the NSSI developed an application, also made available over the internet, which enabled individuals to check with which fund they were registered. This turned out to

[41] The NSSI was able to finance the development of a special health care contribution IT-module using money saved in the development of the IT for their other business.

be important because the competition among funds for participants led to persons being registered with more than one fund. This procedure revealed 45 percent duplication!

3.58 The NSSI works with compliance by identifying risks for non-compliance and performs monthly audits of payments. These routines were introduced when it became apparent that checks based on previous non-compliance records were not sufficient. In addition, all employers paying over 100,000 leva per month are checked regularly. The NSSI also coordinates its audit with the tax authority. Finally, development of new IT modules for benefit payments is presently in progress.

3.59 Overall, the NSSI achieved a high level of technical sophistication during the period 1999-2004 – under the umbrella of the Bank and with technical assistance provided under the Bulgarian Social Administration Project. Summing up, the NSSI's new software capabilities encompass:[42]

- A Central Registry System that records, validates and maintains detailed records for eight million residents, including individual records for all contributors and over 600,000 registered enterprises.
- A Contribution System that links on line information from employers and cash payments made for all participants.
- A Compliance System that identifies potentially non-compliant contributors and provides auditing staff with computer assisted techniques and measures the effectiveness of all review and audit activity.
- A Pension System which minimizes the length of time required to grant a pension, assists in recalculating benefits due to indexation and other changes and provides accurate information to the client.

3.60 As a result of these IT projects, which involved considerable training of in-house staff, the NSSI has developed the capacity to perform its own in-house IT development projects. In April 2002, the government recognized the NSSI as being the most technologically advanced and technically competent authority in Bulgaria.

3.61 The interviews conducted for this evaluation also indicated that the NSSI has built up a high level of trust among other actors and the general public, as represented by labor union representatives and members of the press.

3.62 In 2003 the NSSI began to send out individual information to participants, which independent sources say have good quality, and it has developed a website where individuals can get on-line information.

3.63 Finally, it is important to note that the NSSI and tax authority have developed routines to cross check earnings information underlying contributions and taxes. In the near future, the contribution collection division of the NSSI is to move to the tax authority to unify collection of all revenues in Bulgaria. This is not viewed as a

[42] IDP Education Australia. http://www.idp.edu.au/bulgaria.

problem by the management of the NSSI, but other actors, especially representatives of labor, are worried that this could jeopardize the high quality of performance developed under the NSSI. The merging of all revenue collection in one government agency – usually the tax authority - is otherwise in line with the state of the art recommendations of all experts in this area.

The Institutions and Construction of the New Financial Account Scheme

3.64 *Background*. Both the mandatory privately managed individual financial account scheme and the occupational scheme were integrated into the institutional framework of the private pension market that had existed since 1994 and which already insured around
400,000 persons. Seven of the nine companies that registered originally to operate in the new system were already in the voluntary insurance market. In early 2004 there were eight registered companies, including one merger and a new entrant since the start.

3.65 *Registered companies*. A licensed pension insurance company can establish only one "universal" and one occupational fund, and these have to be separate entities. All the participating companies have these three forms of business - universal, occupational and voluntary private schemes. Separate accounting is required for each operation. After two years from registration the size of a fund in the universal public system must exceed 30,000 participants.[43]

3.66 Each fund has (only) one custodian bank. The custodian bank holds the assets of the fund, provides daily account values and evaluates portfolio risks.

3.67 The pension funds manage the investments. There is a limitation on ownership specifying that asset managers cannot be related to the fund. A fee of up to one percent can be charged for asset management.

3.68 The rules of operation of the fund are determined by the shareholders of the company. Among these are, first, the fees to be charged and deductions to be made, and, second, the procedures, terms and conditions of the pension payment, and of lump sum and "limited period payments" and, third, the methodology and periodicity of valuing assets.[44]

3.69 *The Financial Supervision Commission (FSC)*. The State Insurance Supervision Agency (SISA) which previously supervised the insurance market, including supervision of the second pillar business, and the securities commission were merged in 2003 to form the Financial Supervision Commission (FSC). Banking supervision remained, however, under the Bulgarian National Bank. The insurance division in the FSC is the previous SISA.

---

[43] The Mandatory Social Insurance Code, Article 138/1-2/.
[44] The Mandatory Social Insurance Code, Article 143.

3.70 *Participants*. All persons born January 1, 1960 or later are required to participate in the mandatory individual financial scheme, which started on January 1, 2002. Individuals can choose among licensed pension insurance companies. According to the law,[45] non-choosers are assigned a fund according as determined by the NSSI and the SISA. Participants could change funds beginning on January 1, 2004.[46] The company the participant exits from can charge a maximum fee presently set at 20 leva, which can be compared to typical account values at the end of 2003 of 100-120 leva.

3.71 About 90 percent of the participants are registered with the three largest funds, and there was a pronounced tendency for participants to register in funds according to employer choice, which simplified accounting for employers. This might suggest that once switching has become a possibility for a while (see below), participants would choose to move even to the smaller funds, given that they provide a good reason to do this. In the short time that switching has been possible, there has been no general movement away from the big funds, however.[47] With the present distribution of participants among funds, there is a risk that the smaller funds will close down with time, leaving perhaps only three funds.

3.72 For participants in the financial scheme, the individual coefficients in the PAYG formula are decreased on the basis of the ratio of the contribution rates for the PAYG and financial schemes in an order determined by a decree of the Council of Ministers.[48]

3.73 *Portfolio investments*. Investments during the accumulation period are to follow the prudent person principle. In addition, the mandatory second pillar funds must hold 50 percent of their investments in Bulgarian government securities. The remaining 50 percent can be invested in municipal, mortgage-backed and corporate bonds. They can invest up to five percent in real estate; 10 percent in equities; 25 percent in bank deposits (but not more than 10 percent in one bank); and up to 15 percent abroad.

3.74 *Benefits*. Benefits are to be based on the capital account at the moment of retirement and life expectancy based on tables provided by the FSC. The old age benefit, which is claimed at the same time as the PAYG benefit, is computed as a life annuity.[49] The capital on account is transferred to a new account upon becoming a pensioner. Persons who have disability status prior to becoming an old age pensioner have the right to claim a lump sum, as do the survivors of participants under the

---

[45] The Mandatory Social Insurance Code, Article 137/4/.
[46] The Mandatory Social Insurance Code, Article 137/5/.
[47] According to the interview with Daniela Petkova, Chief Executive Director of the Doverie Pension Fund.
[48] The Mandatory Social Insurance Code, Article 127/3/.
[49] Under "Rules of Operation" there is a point that suggests that companies can even offer phased withdrawals, although this is not stated explicitly under the paragraph describing pension rights. Generally the law is not very specific on what forms of benefits are permitted.

pension age.[50] There is no regulation specifying how annuities should be calculated, but the FSC is presently considering this issue.

3.75 In September 2003, a regulation detailing how switching is to be managed was issued. Generally speaking, the participant files an application at the company to which he/she desires to switch. The application is required to be registered a day later. Switches are executed on a quarterly basis during the first month after the quarter. The fund is required to notify the NSSI of the switch. The individual is required to pay a severance fee to the fund he/she has left.

3.76 In November 2003, the law became more specific on the valuation of assets, with new rules being implemented on March 31, 2004. According to this new legislation, the custodian bank is required to report all new transactions during the previous working day. The value of the portfolio is then determined by the market prices of assets at 6:00 PM the previous day. In the case that market prices do not exist, the law provides guidance in how to calculate relevant prices in specific situations where trading may not be sufficient to create relevant market prices. In addition, the funds are required to calculate the value of a fund unit every working day. Finally, the same law specifies the information that a fund is required to have in an individual account.

3.77 Funds are required to compute, compile and report information to the FSC on unit values on a daily basis. The pension companies have websites that provide information to participants and potential clients. The information that can be provided on the website is regulated by the FSC. The FSC publishes a monthly bulletin on the development of funds. The FSC performs various kinds of inspections, including on site inspections.

3.78 *Guarantee*. From 2004 the pension fund must guarantee a minimum yield equivalent to 60 percent of the average yield of all funds. Companies cover this obligation with fund reserves that are to be at least one percent, but not more than three percent of assets (with a gradual transition in practice), and with their own capital.

3.79 This sort of rule is usually introduced to bolster public confidence, but it has its drawbacks. Namely, it will encourage companies to invest mainly in government securities, which will "guarantee" that they all have approximately the same conservative return.

3.80 *Present investment portfolios*. The funds have only been in operation a short time, so it is not especially meaningful to analyze their portfolios at this juncture. However, it can be noted that, presently, about 70 percent of the overall portfolio is invested in government securities. Mortgage bonds have also become "popular" investment instruments and investments in equities have been moving towards 10

[50] The Mandatory Social Insurance Code, Article 139/1-3/.

percent. In 2003- 2004, the nominal rate of return on these securities, the dominant asset category, was 7-8 percent, and the rate of inflation was around 5-6 percent.[51]

The Bank's Country Assistance Strategy

3.81 Bulgaria joined the Bank in September 1990. One of the most immediate problems facing Bulgaria in its transition to the market economy was the absence of institutional, managerial and technological capabilities needed for an effective transformation of the economy. Privatization was a major focus at the outset. In 1991 the Bank concluded that the transformation of Bulgaria into a market economy necessitated a complete restructuring of the social welfare system, while ensuring that adequate mechanisms were in place to support needy groups during the process of restructuring.[52]

3.82 The economic circumstances of Bulgarians were certainly worsened by the decline in economic activity and wages experienced in the first half of the 1990s. A combination of generous rules for obtaining old age pensions, the increase in unemployed and decline in revenues accompanying the transformation put a considerable strain on the welfare system. The combination of growing numbers of recipients and the need for fiscal stringency to make ends meet meant very limited support was being provided to a large segment of the population.

3.83 In the mid-1990's, the government was in the process of developing a broad outline of a two-phase reform to address the problems of social protection. The first phase would focus on: (1) separating fund finances from the government with tripartite involvement in fund management; (2) revenue improvements through measures to improve tax compliance and partial capitalization; (3) reducing expenditures by allowing workers to continue to work three years beyond the retirement age; and (4) modernizing and automating the social insurance system. In the second phase the country would work on policy to increase the "fairness" of the pension system through raising the minimum pension age and revising the benefit formula to account for lifetime contributions.

3.84 The Bank's objective in Bulgaria was largely unchanged: to facilitate the country's transition to a market economy to achieve long-term growth in a sustainable and non-inflationary environment. This included establishing financially viable and effective social security policies and institutions, including a social safety net. As a result, the Bulgaria lending included a loan of US$20 million for Social Insurance Restructuring.

3.85 Following a period with economic upheaval and widespread corruption, in 1997 the Bulgarian people elected a reformist government of the Union of

---

[51] According to information provided by Biser Petkov, Vice President of the FSC.

[52] Memorandum and Recommendation of the President of the International Bank for Reconstruction and Development to the Executive Directors on a Proposed Loan in an Amount Equivalent to 17 USD to the Republic of Bulgaria for a Technical Assistance Project for Economic Reform, June 4, 1991 p 4.

Democratic Forces (UDF) with a mandate to carry out wide-reaching economic reforms aimed at creating stability and moving the transition forward. The late-1990's country strategy has little to say about pension reform other than to note that a high level working group had been formed to design a comprehensive multi-pillar pension reform.

3.86 In October 1998, the government and the Bank agreed on a Social Protection Adjustment Loan (SPAL) focused on reforms in social insurance (pensions, health, unemployment, sickness and maternity), unemployment programs and social assistance. The amount of the loan would be DEM 145.7 million to be released in two equal tranches.

3.87 The objectives of pension reform according to the SPAL were to:

(a) Improve the long-term financial viability of the public pension scheme.

(b) Substantially reduce the long-term contribution rate.

(c) Diversify old-age risk beyond the public system by encouraging the development of voluntary pension funds.

(d) Increase equity across occupation and gender by stricter adherence to insurance principles.

3.88 The UDF government took many steps in the direction of creating financial and political stability, but corruption remained a big problem. The UDF government lost the June 2001 election to the National Movement Simeon II, which campaigned on a predominantly anti-corruption platform.[53]

3.89 The country assistance strategy developed soon after the year 2000 contains no discussion of the pension reform but includes satisfactory progress towards completion of the establishment of a multi-pillar pension system as a trigger in the base case for Programmatic Adjustment Lending (PAL) to support the government's medium-term program.

[53] "Corruption in Transition: The Bulgarian Experience. A Report by the Bulgarian Working Group for the Partners in Transition II Conference, 2001."

4. Performance Evaluation

Outcomes

Overall Objectives

4.1 The overall goal of World Bank involvement in Bulgaria since 1990 was to provide assistance in developing the market economy. This included aiding in the process of structural change from the institutions of the command economy to the institutions of the market economy.

4.2 The process of transforming the country to a market economy started promptly in Bulgaria in the early 1990s. Whereas other countries in the region, such as the Baltic States, the Czech Republic, Hungary and Poland had put the worst years behind them by 1996 in spite of bank crises around this time in most of these countries, Bulgaria was hit by a new round of hyperinflation and macroeconomic instability. In order to gain control of the economy, the government introduced a Currency Board to target macroeconomic stability, and began the painful process of completing the restructuring of the economy. The process of restructuring the economy "freed" redundant workers, which in turn led to an upward surge in unemployment, which didn't turn down until 2003. The entire period has, thus, presented a major challenge to welfare policy.

4.3 The objective of welfare policy from the early 1990s, of which pension policy is a large and important component, has been to maintain a necessary level of support while restructuring the entire system into one that works hand-in-hand with a market economy. Pension policy was geared, first, to addressing immediate problems, and, second, steered towards the long-term goal of implementing a new system that will serve Bulgaria well over coming decades.

4.4 The first objective of government in the initial years of the 1990s was to control public finances. A low pension age and widespread use of early retirement for special groups at even lower ages meant there were too many beneficiaries, and, as the transition and restructuring of the economy started, the payment base fell dramatically. In the short-run, the government had no other alternative than to adjust benefits with ad hoc measures in order to contain expenditures in the face of falling revenues.

4.5 By 1996 the government had developed a two-phase program for long-term reform of the pension system. The first objectives of this program were to create an independent social insurance agency, the NSSI; to modernize and automate the social insurance system; to focus on measures aimed at improving compliance to improve revenue collection, increase the pension age and remove special privileges in order to contain the number of contributors. The second phase would focus on revising the system in the direction lifetime accounts in a combined PAYG and financial account setting, creating a tight link between contributions and benefits.

4.6 The objectives of the 2000 reform were: a) to create long-term financial viability, but with a lower contribution rate; b) to diversify old-age coverage with both PAYG and privately managed financial account components within the public system, supplemented by a better developed private insurance market; and c) and to increase equity across occupations and genders by creating a system with stricter adherence to insurance principles.

4.7 The purpose of the SPAL was to support the list of policy actions established in conditions agreed upon by the Bank and the government. The component of the SPAL designated for pensions was intended to support the development of the institutions needed to successfully implement the reform.

Relevance of Objectives

4.8 Policy developed in a logical sequence. In the initial stages of transition, the economy dropped and with it the contribution base. From 1991 to 1993 pension expenditures had increased from 8.4 to 10.3 percent of GDP. Initially, the only action the government could take was reactive. Ad hoc measures including increasing contribution rates and letting the value of pensions erode were the main instruments employed to achieve financial balance. Widespread corruption, poorly functioning institutions and undisciplined markets led to a new economic crisis in 1996-1997, and once again the government was forced to focus on the macroeconomic fundamentals.

4.9 The new government entered office in 1997 with a mandate to stabilize the macro economic environment, push the necessary restructuring of the economy forward and create more viable institutions. On the macroeconomic level this meant supporting the newly created Currency Board with approximate budget balance. On the institutional level this meant creating institutions that could gain the trust of the people, following a period of widespread corruption.

4.10 Against this backdrop, the mid-1990's country strategy focusing on social insurance restructuring, provided a relevant and very timely entrance into the area of pensions. This policy supported the development of the administration of the nascent NSSI and the establishment of a policy group, setting the stage for both further development of the administration and the coming pension reform concept and legislation. The 1998 SPAL then provided the umbrella to develop and implement the legislation and continue with building institutions, now to support the implementation of the reform.

4.11 The relevance of the objectives should be judged in terms of the relevance of the design of the Bulgarian pension reform, the main long-term goal of policy. However, it is important to take into consideration the development of institutions, too, especially in the case of Bulgaria, where actual – but also perceived – corruption was high when the reform process was initiated in 1997.

4.12 *Relevance of institutional development*. From 1997 considerable technical assistance was devoted to the development of the business of the NSSI. To date, the

NSSI has been responsible for the collection of all contributions and the enforcement of compliance. Routines were developed to work with the collection process, including the reconciliation of information and money flows, and compliance. All of these are important in any country, but they can be said to be especially important in a country where corruption, both perceived and actual, is high and where it must be a goal of policy to create trust in the institutions administering the policy. In this sense, it was highly relevant to develop the administrative capacity of the NSSI, to administer money flows into the PAYG and the new financial account system.

4.13 *Relevance of policy*. The relevance of policy can be judged in terms of adequacy, financial stability and intergenerational fairness, intra-generational fairness, effects on labor participation and compliance and effects on the development of the financial market.

4.14 *Adequacy*. The size of a benefit depends on years of coverage, but the construction the eligibility requirement suggests that a woman must have 34 years of coverage to retire at the minimum age of 60 and a man must have 37 years to retire at the minimum age of 63. For a woman whose wage is equal to the average for the whole collective of participants this gives a replacement rate of 34 percent, and for a man with an average wage 37 percent. In addition, there will be a dispersion of individual results around these levels, depending on individual earnings in relation to the average. The means-tested social pension, together with other benefits for the elderly provided at the local level, also provides a floor in the system.

4.15 Since women are usually younger than their spouses and outlive them by about four years (see the table in the Data Annex), the lower benefits – associated with the lower pension ages – of women may prove to become a long-term problem as single women in the lower end of the earnings scale will have very small pensions, which will become increasingly smaller in terms of an average wage as they get older.

4.16 The average replacement rate for a newly granted benefit is, thus, likely to be around 35 percent. Since benefits are only partially wage indexed, the ratio of the average benefit computed for the entire stock of pensioners to the average wage will be less as wages will grow faster than benefits. So, the macro ratio of the average benefit for the entire stock of pensioners to an average wage is likely to be somewhere around 30 percent in a decade or so. It's possible that this result will be improved somewhat for persons fully covered in the financial system, if the rate of return in the financial account scheme is greater than the rate of wage growth, however, it will take many decades until the average participant has full coverage in the financial account scheme.

4.17 A replacement rate of 35 percent at retirement is low, but since benefits are not taxed, and with an assumed average tax rate of 20 percent on earnings of workers, this would give an average after-tax replacement rate of 44 percent, which can be considered adequate.

4.18 *Financial stability*. Financial stability is also closely related to another criterion, intergenerational fairness. A financially stable or financially viable system as was stated in the objectives of the Bulgarian reform is a system that does not push excessive costs onto future cohorts of workers. According to estimates performed at the NSSI, in the medium-term, the expenditures of the PAYG scheme in relation to GDP will decline from 8.9 percent at the time of the reform in 2000 to around 6.7 percent in 2010. At the same time, the introduction of the universal financial account scheme will impose an extra cost on the state budget – although the counterpart of this tax will be financial saving in the funds – to the extent that the government does not borrow this money (through issuance of new debt instruments) to finance current consumption.

4.19 In sum, the system is financially viable in the medium-term perspective of the coming 20 years or so, that is, up until the population begins a more pronounced ageing process. There is no built in mechanism to adapt to increasing life expectancy, which suggests that with the scheduled eligibility criteria, the system will become increasingly more expensive as the average period of retirement increases – while benefit replacement rates will remain more or less at the levels indicated above. In other words, expenditures as a percent of GDP will begin to increase again, but this will not be reflected in the size of benefits. In this respect, one can question whether the PAYG system with its present design is viable in the long-run.

4.20 The financial account system, on the other hand, is financially viable by definition and the introduction of the financial account system decreases the size of the debt passed on to future generations.

4.21 *Intra-generational fairness*. One of the explicit objectives of the reform was to increase fairness across contemporary groups. The design of the reform certainly improves on the old system in this respect, by phasing out special rights afforded certain occupational groups under the public system – and by creating designated occupational schemes paid by employers where these are still judged to be relevant.

4.22 Overall, the shift to a PAYG formula that approaches lifetime earnings as the basis of a benefit and the introduction of defined contribution individual financial accounts created a much stronger link between contributions and benefits. By doing this, the reform practically eliminated the opportunity for persons with short and steep earnings periods –as in the old system – to gain relative to others owing to the construction of the formula. In sum, the reform created a very significant improvement in the intra-generational fairness of the pension system.

4.23 *Effects on labor participation and compliance*. By definition, a defined contribution system that provides a complete link between individual earnings and contributions and individual benefits can be considered neutral in terms of the effect on labor force participation. The financial account component of the Bulgarian reform fulfils this criterion. The PAYG component approaches this. The eligibility criterion for a full defined benefit in the PAYG scheme requires a large number of covered years to qualify for a benefit and in this sense will influence labor force participation tremendously compared with the benefit formula it replaced. Since a full benefit now depends on a large number of covered years this should also be expected to have at least a neutral and more likely a positive effect on compliance.

4.24 What is lacking in the design of the formula is a mechanism to reward continued participation after the eligibility criterion – or minimum pension age – is met. In the medium-term people are undoubtedly going to experience the present eligibility criteria as tough, as was witnessed by the extreme increase in disability benefits from the year 2000. On the other hand, there is no built in reward for postponing retirement longer than that needed for a full benefit, and this will prove to be a problem with time. In addition, the low pension age of 60 for women is a disincentive in itself for over half the working-age population.

4.25 *Effects on the development of the financial market*. The financial component of the Bulgarian reform will contribute to the development of the financial market according to the experience of other countries introducing similar reforms. It will contribute to the strengthening of financial institutions and the development of financial instruments. In the long run it will also contribute to integrating Bulgaria financially with the rest of the EU.

4.26 *Other considerations*. The NSSI has been working diligently and creatively during the period since the reform to increase compliance through efficient administration, developing methods to detect evasion and developing rules and regulations regarding minimum payments. All of these efforts are especially important in a country where corruption is high. They are also necessary to create trust in a system with money flows that correspond to a large percent of GDP. This micro-management of the system is important to guaranteeing its overall performance.

4.27 The government has introduced relevant legislation needed to improve on the original legislation governing the operations of the funds in the financial account scheme, and the FSC has developed necessary regulations and supervisory procedures. Within a short period of time, institutional micro-management appears to be moving forward very satisfactorily.

4.28 In addition, the government was forced by circumstances to deal with the inadequacy of the disability system due to the avalanche in disability claims that followed the increase in the minimum pension age and the tightening of eligibility requirements for a full pension. This is noteworthy since reform of the disability system has normally not been a government priority during the first almost decade and a half of transition in most of the countries in the region – in spite of recommendations from external observers including the Bank.

4.29 Finally, pension policy has developed in a manner that supports the macro-economic objectives of the country. The pension system will be more-or-less in balance in the coming two decades, while delivering adequate pensions. The latter is helped significantly by the increase in the pension age and phasing out of early retirement of some special groups. Hopefully, the process of restructuring the economy will lead to high growth and more jobs, which given the new pension formula is necessary for a good benefit. The new system may also contribute to encouraging labor force participation and increasing overall tax compliance.

4.30 The objectives of the reform are all relevant and consistent with the country assistance strategy. The major objectives were highly relevant. The Bulgarian reform itself fulfils the criteria for a good reform, and the development objectives for institutions that support the pension system were also highly relevant. For these reasons, the rating for relevance of objectives is high.

Efficacy of Objectives

4.31 Bulgaria's performance in developing and implementing the pension reform and the institutions needed to make it work is impressive, and Bulgaria is one of the leaders in the transition countries of Europe and Central Asia in this area. The accomplishments include the development of legislation, the development of public and private institutions needed to manage and oversee the new system, and, by succeeding in doing this well, the acquisition of public trust in these institutions.

4.32 The objectives, as already discussed, were all highly relevant, and were introduced efficiently. The – public and privately managed – institutional infrastructure has developed rapidly in a short period of time. The introduction of the financial account scheme went smoothly, owing to the well-developed capacity of the NSSI which was a pivotal organization in the overall development of the infrastructure. Using the already existing financial institutions also appears to have contributed to an efficient start, although a similar result might have been achieved even if it had been necessary to introduce entirely new "pension funds" or companies from the outset, given that the information and cash flows were well managed by the NSSI and that the supervisory functions had developed sufficiently fast.

4.33 In spite of the successes, there are some remaining policy issues. These are summarized here and discussed in greater detail under the separate heading of Recommendations and Lessons.

4.34 *Remaining policy questions for the financial account scheme*. The major remaining issue is that of how to construct and provide annuities. Among the issues here will be the question of whether unisex life tables will be used, which is an EU requirement for mandatory schemes, and the repercussions in terms of provision involved in doing so.

4.35 The Bulgarian government and the supervisory authority have already improved legislation and regulations governing the operation of funds, however according to interviews with fund managers more work needs to be done to streamline the legislation.

4.36 *Remaining policy questions for the PAYG scheme*. The new formula still embodies some of the disadvantages of typical defined benefit schemes that may prove to be a problem for long-term financial stability. First, the minimum pension age for women is still low even at the higher age of 60, and, in fact, will have to be equalized to that of men to meet EU standards. Second, the present formula does not take changing life expectancy into account, which will prove to be a problem as time passes. Thirdly, the present formula is rather inflexible in the sense that it does not easily accommodate gradual retirement of older workers from the labor force. This may not appear to be an important issue at present, but will become an issue as Bulgaria develops into a modern economy in the coming decades.

4.37 *Gender issues*. Women have a worse position in the financial account setting than men as there are no payments being made into their accounts when they are away from work during periods with birth and care of younger children. This should be considered not only as a matter of gender fairness within the mandatory pension system, but even as a measure to remove disincentives for childbirth.

4.38 *Taxation*. Eventually, it will be important to consider taxation of benefits. This is especially important if one views the exit of older workers into retirement as a gradual process during which people can both receive benefits and earnings from work – rather than a final process with complete exit.

4.39 All of these deficiencies can be remedied in the near or medium-term future and do not constitute major problems with the reform.

4.40 Finally, both the NSSI, and the financial regulator - first the SISA and then the FSC (which merged the SISA with the Securities Commission) have developed into efficient institutions. As has already been discussed, the NSSI played a key role in the entire reform process. It developed an extremely efficient administration, gained public trust and devised methods to enforce collection and compliance within a very short development period. Finally, it provided an efficient administrative foundation for a successful implementation of the financial account scheme.

4.41 These developments were supported first by the loan for Social Insurance Restructuring arising from the mid-1990s country strategy and then through the SPAL which was tailored to support the introduction of the new reform.

4.42 **The overall rating for efficacy is high** on the basis of the efficient introduction of the reform and development of supporting institutions, following a comprehensive, logical and successfully implemented sequence of steps.

Outcome

4.43 On the basis of the ratings for relevance and efficacy of objectives, the rating for the outcome is highly satisfactory. There were no major shortcomings, and the project was extremely successful in the development of institutions.

Institutional Development

4.44 The pension reform has supported the overall long-term goal of developing appropriate institutions for the support of the market economy. It has also supported the goal of creating macro-economic stability, as pursued through the Currency Board, by moving the pension system in a direction that will create less strain on the overall budget, while maintaining adequate benefits. Implicitly, bringing the pension system into financial balance frees resources for other important infrastructural development in Bulgaria.

4.45 The development of an efficient administration – the NSSI - for collecting contribution revenues and paying benefits has had the direct effect of improving revenue collection and client services. Payment routines between enterprises, banks and the NSSI have been developed and become routine "institutions".

4.46 On the basis of its performance record, the NSSI has instilled trust in the public institution that manages cash and information flows amounting in total to over 10 percent of GDP. By doing this it has created trust more generally in public administration, which was particularly important in Bulgaria after a chaotic decade from the start of the transition. Now the NSSI is among the most professional and efficient social insurance agencies in the region.

4.47 The technical modeling and analytical capacity built up during the pension reform project has been maintained in the actuarial division of the NSSI and become an integral part of the business. This provides a sound basis for the further development of policy and for monitoring the reform. Various reports have been published showing future scenarios. Generally, the NSSI participates actively in the general discussion about the Bulgarian pension system.

4.48 The pension reform created a new segment in the financial sector, based upon existing voluntary insurance institutions. The "universal" funds have established themselves in the minds of the public as an integral part of the pension system. The new funds began operation with relatively small teething problems, as the transfer of money and information functioned from the outset. Account values in the nascent system are still small, but will become important components of individuals' future pensions. Investments have been primarily in government securities, and to date the real rate of return has been positive albeit low, so there has been no immediate reason to be concerned about investment policies.

4.49 With time the investment strategies of the funds will develop, which in itself will lead to further development of the domestic financial market. Already there is a mortgage-backed bond market developing, and funds are investing some of their assets in these instruments. With time more of the pension fund money may be channeled into the domestic equity market both directly, but also indirectly through investment companies. The pace will depend on the overall development of the equity market and the degree of liquidity of equity shares. A thin market with few traders entails a greater risk and for this reason may be less attractive to pension funds. The funds will also develop capacity to invest internationally.

4.50 The supervisory procedures of the FSC appear to be functioning satisfactorily given the short time of operation of the financial account scheme. Although more work needs to be done to streamline the legislation, there is regular communication between the funds and the supervisory authority that should lead to future improvements.

4.51 In sum, institutional development has been extensive and successful, and Bulgaria now has the capacity to continue to develop its institutions and to work with the remaining policy issues.

4.52 In sum, *the rating for institutional impact is highly satisfactory*. The project objectives have and will continue to make a significant contribution to effective use of human and financial resources.

Sustainability

4.53 The public and private institutions supporting the new pension system are functioning well and will continue to develop. In the short period since 1997 the business routines of the NSSI have developed substantially, as has already been discussed. The pension funds in the financial account scheme are all operating normal businesses within the short period since their introduction in 2002, and a financial supervisory authority has been established and is functioning routinely.

4.54 The NSSI is constantly working on improvements in the administration of the PAYG schemes and the FSC and the insurance funds meet regularly to discuss and improve their working environment.

4.55 There is interaction between the administrative institutions and the government, witnessed recently by the new legislation in 2003 regarding some of the details in the financial account scheme. In addition, the government has been quick to act when disability grants began to accelerate, and presumably the NSSI will respond to new legislation in this area with the same efficiency that has characterized their development to date.

4.56 According to the interviews conducted in conjunction with the evaluation, public trust in the institutions involved in administering the pension system is very high, and in this sense, the administration around the pension system has set a good example for other organizations in Bulgaria to attempt to follow.

4.57 The new PAYG rules are a considerable improvement on the old system and can serve the country well for up to a couple of decades. It is likely that more adjustments will have to be made, however, as the minimum pension age of women is still too low in a long-term perspective, and the formula will need to be adjusted to take into account increasing life expectancy, either through ad hoc adjustments in the eligibility schedule or through reworking it to include an automatic adjustment factor. Bulgaria might also find it useful to move to a lifetime earnings formula, which is only a small step from the present formula.

4.58 Presently, there are no threatening winds coming from any political direction, and the impression is that the reform has established itself in all quarters and that there is broad ownership not only among the logical proponents – the actors involved in the daily business of running the pension system – but also among other groups, most importantly, perhaps, labor unions.

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

5. Attribution of Results

Bank Performance

5.1 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 (focus on development impact and adequacy of supervision of inputs and processes). These are discussed separately:

5.2 *Quality at entry*. Cooperation between the Bank and the government on pension reform is probably best dated to the mid-1990s country strategy. Pension reform was identified as an important component of moving the country forward from the chaotic period of 1996 (and 1997). The initial project concept was to invest in developing the business of the nascent NSSI and to form a policy group that could begin to formulate a pension reform. These were logical first steps for technical assistance, which began in 1997.

5.3 The next step was to support the further development of the social insurance administration and the new pension reform proposal through the SPAL. The Bank assisted the Bulgarian working group with discussions and advice around principles and the SPAL supported the government in implementation. The sequence of steps taken in the implementation phase was highly successful. First, the capacity of the NSSI was developed, and, thereafter, the financial account scheme was introduced. The technical assistance that was procured for the various projects was successful, judging from the positive results.

5.4 Given the economic chaos and perceived high level of corruption even in the latter 1990s, it was very critical that this project succeed, which it did. The efforts of the Bank in procuring qualified technical assistance and organizing various technical inputs was instrumental in making this project a success, in the opinion of the Bulgarian counterparts interviewed. This success has certainly, in turn, been a factor in turning Bulgaria into a more stable market economy with reliable institutions.

5.5 Overall quality at entry was highly satisfactory. As far as can be determined at this early juncture the project properly addressed poverty aspects, identified and worked with the appropriate institutions, worked on enabling legislation, and managed the use of project resources efficiently to fulfill the objectives.

5.6 *Supervision*. The development of the administrative capacity of the NSSI was highly successful. In turn, the IT and business infrastructure implemented at the NSSI in the "first step" enabled the next step to run smoothly, which was the introduction of the universal financial account scheme.

5.7 There were a large number of inputs into the Bulgarian pension reform, including especially significant inputs from USAID. The Bank provided macro management of all inputs, including those emanating from USAID, whereas USAID provided micro management of their own inputs. The combination appears to have worked out very successfully.

5.8 The development impact of supervision was high. Sequencing and timing functioned well, advice given was appropriate. The project contributed to the development of human resources and the capacity to continue the development process beyond the framework of the project. In sum, supervision inputs and processes were highly adequate.

5.9 In sum, **overall supervision was highly satisfactory**.

Borrower Performance

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

5.11 *Preparation*. The government was instrumental in promoting the development of the NSSI and the establishment of a pension group, and the development of analytical capacity. Stakeholders were brought into the reform process. Government solicited and received technical assistance from experts from the Bank, USAID, the British Know-How Fund, the UNDP and the ILO.

5.12 The government took full account of economic and financial policy, as the reform can be viewed as a component in the overall process to create a more stable market economy environment. The reform supports the macro-economic policy adopted, which is focused on maintaining stable, high growth and restructuring of the economy.

5.13 **The rating for preparation is highly satisfactory**.

5.14 *Implementation*. Government commitment to the implementation of the project was strong. Key staff were identified and trained. The managerial resources of the NSSI were focused on the reform and developing the administration and technically assistance appears to have been used efficiently judging by the successful results. Projects were generally completed on time and within the allocated budgets.

5.15 In addition to building modern IT and business systems within the NSSI other major institutional changes were (will be) undertaken. The SISA was developed and then converged with the Securities commission to form the FSC. The contribution division of the NSSI is highly developed, and presently coordinates with the Tax Authority, and soon it is to be merged with it. This gradual process appears to be a satisfactory approach to creating efficient institutions.

5.16 **The rating for implementation is highly satisfactory**.

5.17 *Compliance*. The borrower generally met or exceeded all major covenants or commitments, with only minor shortcomings. Borrower **compliance was satisfactory**.

5.18 In sum, **overall borrower performance was highly satisfactory**.

6. Coordination with Other Agencies

6.1 In addition to the Bank, USAID, the British Know-How Fund, the UNDP, the EU, the ILO and US Department of Labor (under the SIAP project) all provided advice or technical assistance at some juncture. The most important agencies during the process have been the Bank and USAID. As has already been mentioned, in addition to the technical assistance provided through the SPAL, the Bank also coordinated the activities of the external donors and agencies involved.

7. Counterfactual

7.1 It is likely that Bulgaria would have reformed its pension system without the help of the Bank (or other agencies) because it had become unaffordable. The framework and quality of the reform clearly benefited from the participation of the Bank and the other principal agent, USAID, according to interviews performed during the evaluation.

8. Lessons and Recommendations

8.1 Some design issues and recommendations are presented in this section, and lessons are drawn where appropriate.

The Mandatory Financial Account Scheme

8.2 *Implementation in a setting characterized by a high degree of market chaos and corruption.* It is important to ask the question, was it reasonable to introduce a mandatory financial account scheme in a country at a time when the country was experiencing such a high degree of chaos and characterized by considerable corruption?

8.3 The Bulgarian project has succeeded and the answer to the question is that it is possible, and as it turned out reasonable. Probably the most important key to success was the development of an efficient and reliable administration of cash and information flows outside the funds themselves. This provides for separate accounting of contributions at the front end, which together with the allocation of money to custodian banks, and the stringent requirements on daily accounts of transactions, also with daily submission to the supervisory authority, creates a strong network of checks and balances.

8.4 The lesson of Bulgaria is that given that the institutional administrative apparatus is set up well, the introduction of a financial account system in the sort of setting in which this system was implemented can be successful.

8.5 *Annuities*. The principles of future annuity provision in Bulgaria have not yet been thought through. This was not necessary to have finished in 2000, but the time is approaching when the framework for providing annuities must be established.

8.6 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 or they could in principle purchase them from outside annuity providers.

8.7 Fund managers may be reluctant to take on this function since 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 – or small fund, and the law of large numbers together with knowledge about the participants, is what makes insurance work cost efficiently.

8.8 Initially, to cover the risk involved in providing a small number of annuities, insurers, i.e. annuity providers, will have to be cautious, and this caution will be reflected in the scale of the annuities they will be willing to provide. Generally, one would expect a thin market to lead to lower annuity payments than a large scale operation could provide. The question is, given that the legislation specifies (generally) 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?

8.9 Another argument in favor of creating a monopoly annuity provider is the criterion that the annuity be based on unisex life expectancy, if Bulgaria finds that it has to move in this direction to satisfy EU requirements. This reason in itself would be sufficient to argue in favor of a monopoly annuity provider, since this requirement complicates further the provision of annuities on a small scale.

8.10 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.

8.11 In sum, there are potentially major difficulties ahead in establishing an annuity market that provides minimum cost annuities, especially as long as there are only a few pensioners. This suggests starting off with a single annuity provider, with the possibility of enabling private competition once the scale of the business is large enough. Even stronger grounds for this course of action are apparent since products are defined by law -- not an undesirable feature, and annuities may have to be computed using unisex life tables

8.12 *Women*. It would be reasonable to consider transferring money from the state budget – according to some acceptable rule – to cover periods when parents (women) are away from the workplace in conjunction with childbirth and early-year child care.

8.13 In addition, the low pension age for women together with the present eligibility schedule will enable women to retire with 34 years of contributions, which gives a low pension. This in conjunction with the fact that women will probably not be able to participate fully – due to childbirth – in the financial account system suggests that women's pensions will be low. All other things equal, it will be important to raise the pension age of women to help keep them out of poverty in old age when they have become widows.

8.14 *The financial account scheme is a form of forced saving*. To the extent that pension funds invest in government bonds, i.e. newly created government debt generated by budgetary deficits largely or wholly for consumption purposes, there is little or no economic effect of this saving. Initially, a large percentage of investments have gone into government bonds. Generally speaking, if government borrowing goes to consumption purposes, money has simply been redistributed from private to public consumption through the pension system.

8.15 If the forced saving created by the financial account scheme is channeled into government capital investments - with an otherwise balanced budget for consumption purposes – there are potential growth effects of these investments, depending on their nature. A recommendation is that the government attempt to capture the economic potential of the financial system by not running a deficit that is greater than government capital investments. This sort of policy is supportive of macroeconomic stability and makes the best economic use of the financial pillar of the reform in the medium term.

8.16 In the longer run, a larger share of assets are likely to be invested in the mortgage-backed bond market and the equity market, which will channel money into private investment projects and help to fuel economic growth. Since the Bulgarian market is too small – and itself a large risk - for the increase in financial saving the reform will bring, funds will have to invest abroad. In this respect, Bulgaria will benefit once it has a common currency with the EU, eliminating currency risk associated with money flows within the common currency area.

The Pay-As-You-Go System

8.17 *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 fulfill the requirement for a full benefit. Second, there is no automatic adjustment of the benefit paid to life expectancy. Third, at 60 years for women and even 63 years for men, the minimum pension age is low in the long run. It could (should) 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.

8.18 Fourth, the Bulgarian system has introduced a much stronger link between contributions and benefits. It would be possible to go all the way and simply create a lifetime earnings scheme, such as NDC, which would also bring the life expectancy factor directly into the formula.

8.19 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 pay-as-you-go reform went part of the way in the direction of an NDC reform. A recommendation is to consider NDC as the next step in the reform process.

Annex A: Data Annex

Overview of Bulgarian Economic, Demographic and Pension Data

	GDP, Wages, Employment, Prices	1995	1996	1997	1998	1999	2000	2001	2002
1	Wage bill, mln leva	368 557	646 006	5 885 499	8 688 275	8 800	9 245	10 914	
2	GDP current prices, mln leva	880 322	1 761 172	17 432 554	22 421 142	23 790,0	26 753,0	29 709,0	32 325,1
3	GDP current prices, billion USD	13,1	9,9	10,2	12,7	12,9	12,6	13,6	
4	GDP, real growth, %	102,9	90,6	94,4	104	102,3	105,4	104,1	104,8
5	GDP per capita, thousand leva	103,22	198,54	2 051,86	2 613,25	2,90	3,27	3,75	4,11
6	Nominal monthly wage, leva	7 460	13 269	132 317	187 438	201	224,5	240	272
7	Real monthly wage, growth %	-7,22%	-19,73%	-13,92%	19,34%	4,52%	1,26%	-0,46%	7,12%
8	Number of employed, thousands	3 282,2	3 285,9	3 157,4	3 152,6	3087,83	2 980,1	2 968,1	2 992,4
9	Labor force, thousands	3 716,8	3 708,4	3 694,1	3 619,0	3 614,9	3 673,6	3 637,7	3 648,4
10	Inflation, %	62,1%	121,6%	1058,4%	18,7%	2,6%	10,3%	7,4%	5,8%
11	Total population, thousands, beginning of year	8,427.4	8384,7	8340,9	8283,2	8230,4	8190,9	8149,5	7891,1
12	Population 20-59, thousands	4 488,9	4 494,0	4 505,9	4 517,8	4 531,7	4 548,3	4 555,0	4 407,1
13	Population 60 + , thousands	1 779,7	1 790,4	1 793,9	1 788,7	1 782,0	1 777,7	1 774,3	1 768,0
14	Life expectancy age 60, unisex						17,79	17,84	17,94
15	Life expectancy age 60, men						15,79	16,02	16,03
16	Life expectancy age 60, women						19,50	19,52	19,70
17	Population 20-59/ Population 60+	2,52	2,51	2,51	2,53	2,54	2,56	2,57	2,49
18	Period fertility rate	1,23	1,24	1,09	1,11	1,23	1,27	1,24	1,21
	Pension Statistics								
19	Contributors, thousands	3 092,1	3 473,5	3 450,2	3 326,4	2 863,3	2 306,3	2 311,1	2 170,1
20	Pensioners, incl. benefit recipients, thousands	2416,5	2395,2	2386,5	2389,6	2384,0	2377,9	2370,9	2350,9
21	Old-age pensioners, thousands	1 892,7	1 893,9	1 911,5	1 941,6	1 961,5	1 972,9	1 968,0	1 937,7
22	Disability pensioners, thousands	226,6	221,2	213,6	206,7	200,9	204,2	231,7	269,4
22	Survivor pensioners, thousands	137,2	138,6	147,7	154,9	146,1	139,9	148,9	149,1
23	System dependency ratio, contributors/ old age pensioners	1,63	1,83	1,80	1,71	1,46	1,17	1,17	1,12
24	Contributions, million leva	69 673,4	124 064,8	1 283 077,3	1 867 481,1	1 972,6	2 197,9	2 183,5	2 442,8
25	Old age benefits+ disability+survivor+social benefits, - **TOTAL** mln leva	66 079,5	114 666,8	1 077 025,8	1 803 302,6	1 952,7	2 534,5	2 700,4	2 942,7
26	Old age benefits, million leva	57 150,2	101 348,4	894 644,1	1 527 805,7	1 661,9	2 071,0	2 204,5	2 355,3
27	Disability benefits, million leva	5 456,9	8 452,8	70 261,9	114 365,0	120,6	150,7	184,9	234,9
28	Survivor benefits, million leva								
29	Average pension/average wage	32,4%	31,8%	28,2%	33,1%	33,3%	38,5%	38,5%	37,6%
30	Benefits, Funded system, mln leva							2,0	3,3
31	Old age benefits, % of contribution	85	85,1	85,3	84,8	83,9	83,5	81,4	81,1
32	Old age and disability, % GDP	8	6,9	6,1	7,9	8,0	9,4	9,0	9,0

Note: The data for the 1999-2002 are in the BGN.

Annex B: List of Interviews during the IEG Mission to Bulgaria

Ministry of Labour and Social Policy
Mr. Valery Apostolov, Deputy Minister

Ministry of Finance
Mr. Govanov, Head of Social Expenditures Department

President's Office
Mr. Nikolai Nikolov, Secretary on Social Policy and former Governor of the NSSI

World Bank Office in Sofia
Mr. Oscar de Bruyn Kops, Country Manager
Ms. Boryana Gotcheva, Country Specialist
Ms. Stella Ilieva, Economist

National Social Security Institute
Mr. Yordan Hristokov, Governor of the NSSI
Ms. Hristina Mitreva, Chief Actuary and General Director
Dr. Theodora Noncheva, Director
Mr. Marin Kaltchev, General Director

Union Representatives
Mr. Plamen Dimitrov, Vice President of the Confederation of Independent Trade Unions and Chairperson of the NSSI.
Ms. Assya Goneva, Executive Secretary, Social Insurance Department, Confederation of Independent Trade Unions

Financial Supervision Commission
Mr. Biser Petkov, Vice President in charge of Social Insurance Supervision

Insurance Companies
Dr. Rumiana Sotirova, Executive Director of ING Pension Insurance Company
Ms. Daniela Petkova, Chief Executive Officer, Doverie Pension Assurance Company

Other Experts, Institutions
Mr. Ivan Neykov, President of Management Board, Balkan Institute for Labor and Social Policy
Dr. George Shopov, Vice President, Club Economica 2000

Group of Journalists
Representing three leading journals