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The functioning of the pensions insurance system in the countries of former Yugoslavia

Abstract

This article analyses the functioning of the pensions insurance system in the countries of the former Socialist Federal Republic of Yugoslavia. The first part of the article shows that the implemented reforms comprised stricter conditions for the realisation of pensions rights through an increase in the retirement age and a decrease in the statutory replacement rate. The second part of the article presents the main indicators of the functioning of the pensions systems. The analysis of the results achieved reveals an exceptionally unfavourable picture. This primarily refers to the unfavourable ratio of the number of insured and pensions beneficiaries due to high unemployment, resulting in a high deficit in the pensions system. The third part points to the need for, and direction of, further reforms of the pensions systems aiming at the creation of adequate and financially sustainable pensions systems. The conclusion summarises the results of the conducted analysis.

***Keywords**: functioning pensions insurance system, pensions reform, countries of the former Yugoslavia, net replacement rate, retirement age*

Introduction

With the downfall of the Socialist Federal Republic of Yugoslavia, the six republics became independent states – Slovenia, Croatia and Macedonia (1991); Bosnia and Herzegovina (1992); and Serbia and Montenegro (2005), the last two remaining united until their independence. The downfall of Yugoslavia was motivated by a desire for the creation of nation states, which led to intra-national conflicts in Croatia (1991-1995) and Bosnia and Herzegovina (1992-1995).[1] The war conflicts brought a number of victims and mass deportations, as well as large-scale destruction and material damage. At the same time, according to the UN Security Council Decision, economic sanctions were imposed on Serbia and Montenegro, which resulted in the cessation of economic relations, the collapse of economic activity and the reduction of employment across the whole territory of the former Yugoslavia.

Finally, the consequence of the conflict between the regular forces of the Republic of Serbia and armed Albanians in the Autonomous Province of Kosovo and Metohija was that NATO launched air strikes on Serbia (1999). These also resulted in numerous human casualties, deportations of citizens and the large-scale devastation

1 Bosnia and Herzegovina is organised as a confederation based on the Dayton Agreement comprising two entities – the Federation of Bosnia and Herzegovina and the Republika Srpska – with wide competencies.

of business facilities, eventually leading to the province being put under international control.[2]

Economic recovery has begun following the end of the war conflicts, with the simultaneous transition to an open market economy supported by the privatisation (organised or elemental) of state or parastate property, which was the dominant form of ownership. These processes were necessarily followed by huge redundancies, which imposed more rational business operations under the conditions of significant competition on the international market. All this greatly affected the pensions system, which is extremely dependent on economic success and the level of employment.

This article seeks to analyse the functioning of the pensions systems in the newly-founded states and their more or less successful adjustment to the new circumstances.

Main characteristics of the pensions system of the former Yugoslavia

The legal system in the former Yugoslavia determined basic rights in a unitary manner; these were then independently developed by the republics, which also regulated secondary rights. The pensions systems of the republics of former Yugoslavia have been based ever since establishment on the pay-as-you-go model, where the volume of investment, measured by the level of earnings and the duration of insurance, has a decisive influence on the amount of pensions. The complete revaluation of earnings realised in preceding years (based on the growth of earnings in the last year of employment) was introduced as of 1990, equalising the effective replacement rate with the statutory rate (0.85). Pensions were adjusted according to the growth in earnings.

When observed from the aspect of comparative law, we can see that no OECD country provides such a high replacement rate (85 % of average earnings realised in the best ten consecutive years) (OECD, 1988). Furthermore, the low retirement age should be taken into consideration – 60 (men) and 55 years (women) – as well as the possibility of exercising the right to a full pension even before the age limit was reached if the insured had completed a full contribution period (40 years for men; 35 for women). The right to an early pension was regulated in a similar manner in all the republics – five years prior to reaching the statutory age limit, where 30 (for women) or 35 (for men) years of contributions had been completed. Considering that the reduction in the statutory minimum pension due to this being taken early (0.5 % per missing year) was many times lower than is currently the case in Croatia (4.08 %), this possibility was used extensively, being one of the most significant reasons for the increase in the number of pensions beneficiaries in all the republics.

All the republics have defined a minimum amount of pension, depending on the length of work or the survival minimum, as well as secondary rights such as benefits for disability and for the assistance and attendance of another person due to any inability to live independently. These rights were mainly based on the solidarity principle. Solidarity also implied women's pensions (approximately 15 %) in cases of the

2 According to UN Security Council Resolution 1244, the Autonomous Province of Kosovo is an integral part of the Republic of Serbia, but it is under international control and its parliament has declared independence from Serbia which has been recognised by a certain number of countries.

award of disability pensions (especially in the case of disabilities caused by an accident at work).

If, on top of all these privileges for the realisation of the right to an old-age pension, we add the mild criteria for establishing a disability (to such an extent that the number of disability pensions in most of the republics was close to the number of old-age pensioners), then it is clear, in conditions of extended life expectancy, why there has been an enormous increase in the number of pensioners. The system functioned successfully in conditions of high-level employment, a favourable ratio of insured people as against the number of pensions beneficiaries and a significantly lower effective replacement rate compared to the statutory rate. However, the fast growth in the number of pensions beneficiaries and the increase in the effective replacement rate,[3] in the years preceding the downfall of Yugoslavia, resulted in a problematic functioning of the system due to frequent increases in the contribution rate.

In the nineties, alongside the creation of new states, the economic situation deteriorated and therefore, for a number of years, current incomes were not sufficient to cover the expenses. Hence, for a number of years, the payment of pensions has been provided out of budget subventions which the state, as the guarantor of the payment of acquired pension rights, had to procure.

The limited possibilities for budget subventions to cover the deficits in the pensions system led, first of all, to the incomplete disbursements of pensions in Bosnia and Herzegovina, Croatia, Serbia and Montenegro; and then to a strengthening of the idea of limiting the volume of rights pertaining to pensions benefits, both in relation to acquired rights as well as in relation to future rights. Under conditions of high foreign indebtedness and dependence on financial support from the international financial institutions, primarily from the International Monetary Fund and the World Bank, the demands coming from these institutions with reference to the reform of pensions systems had a decisive influence (Fultz, 2004: 5). Channels of support for the privatisation of pensions are comprised of loans and the transfer of knowledge, and thus make an attractive package for government structures. Thereby, the mandatory individual savings model, presented in the well-known work by the World Bank *Averting the old age crisis* (1994), emerged as a life-saving solution. Dependent on financial ability and the strength of trade unions, i.e. their readiness to protect their interests, as well as their ability to provide support for the ruling political parties, the states started on the reduction of the volume of rights stemming from the system of pensions insurance.[4]

Scope of the implemented reforms

All the newly-founded states on the territory of former SFRY inherited a unique system of pensions insurance, only to make serious changes, initiated by Croatia and

3 Thus, for example, the net replacement rate in Slovenia in 1990 amounted to 89.2 % (Stanovnik and Stropnik, 1999: 10).

4 Guardiancich says that, in the Croatian case, a lack of information probably played a greater role since neither the social partners nor academics have managed to voice consistent opposition to the government's plan (Guardiancich, 2007: 142).

Slovenia at the end of the last decade, with the other states following on during the next. The common characteristics of the reforms which have been conducted consist of establishing stricter conditions for the realisation of the right to old-age pensions (via an increase in the age of retirement) and of lowering the income replacement rate. Furthermore, the reforms, in the manner of adjusting or conditionally adjusting the inflow of original income (in the Bosnia and Herzegovina entities) have led to pensions growth falling behind in comparison to the increase in earnings. These adjustment-based reforms have represented a clear solution given that a common feature for the majority of newly-founded states as regards the income distribution policy inherited from the former SFRY was that the growth in earnings was faster than the growth in domestic product. The basis for such a policy was the huge influence of employees in the public sector and in the part of the economy with parastate (or social) ownership.

Slovenia has conducted relatively the mildest reforms, basically preserving the old pensions insurance system under which pensions are dependent on achieved earnings and the contributions paid. The period from which earnings are considered for the calculation of pensions is gradually increasing, reaching (in 2007) the best seventeen years, while the volume of contributions per year has been reduced. The retirement age has been increased, mostly for women, while the rights of specially-insured categories of workers to early pensions are financed through supplementary programmes. Deferred pensions are especially encouraged while early pensions have been cancelled. 'Social pensions' (of an amount close to the minimum pension of €158) are envisaged for citizens older than 65, providing that they have realised their right to a pension and that their incomes do not exceed a means tested level.

Table 1 – Basic features of pensions systems

Country	Model type	Amount of lowest pension	Amount of average pension*	Parameters for adjustment of pensions	Utilisation of pension during work
Federation of Bosnia and Herzegovina	Public insurance	60 % AP	€160	Earnings	Not allowed
Republika Srpska	Public insurance	50 % AP	€140	Earnings	Not allowed
Croatia	Mixed three-pillar system	0.825 % AE per year of work	€250	Earnings/ cost of living	Not allowed
Macedonia	Mixed three-pillar system	35 % AE	€145	Cost of living/ earnings	Allowed with limitations
Montenegro	Public insurance	€47.5	€180	Earnings/ Cost of living	Not allowed

Country	Model type	Amount of lowest pension	Amount of average pension*	Parameters for adjustment of pensions	Utilisation of pension during work
Serbia	Public and voluntary	20 % AE	€200	Earnings/ Cost of living	Allowed
Slovenia	Public and voluntary	33 % of the lowest pension base (€162)	€510	Earnings	Partially allowed, with part-time work

AE – average earnings; AP – average pension
**Data refer to December 2007*

Source: For columns 1, 2 and 4, current regulations in 2007; for column 3, the amounts were taken on 19 March 2008 from the websites of the pensions and disability insurance institutes: www.fz.mio/pio.ba, www.pioz.org.rs, www.fondpiors.org, www.mirovinsko.hr, www.piom.com.mk, www.zpiz.si, www.rfondpio.cg.yu.

Likewise, the two entities of Bosnia and Herzegovina (the Federation of Bosnia and Herzegovina and Republika Srpska) have proceeded in the same manner, with the difference that the disbursement of pensions is limited by the volume of contributions income, increased in relation to the amount of budget transfers based upon the legally-binding obligations of Republika Srpska regarding the specific rights of particular categories of insured people. The reference wage (the basis for pensions) is defined by the best 21 consecutive years of employment in the Federation (with a gradual increase up to 2015, by which time the whole period of insurance shall be taken into account) and/or out of all insured years in Republika Srpska. The valuation of earnings from preceding years is carried out according to the growth in the net earnings of all employees.

Serbia and Montenegro performed a rationalisation of the pensions system by a one-off, or gradual (in Montenegro), three-year increase in the age of retirement (to 63 for men and 58 for women) and the reform of the pension calculation such that, instead of the best ten years, the entire period of work must be taken into calculation (in Montenegro, this transition is also conducted gradually). This, in turn, has strengthened the principle of proportionality and the psychological acceptability of the system. In addition, the method of calculating pensions has been changed, shifting to the German model of a points-based system in which the value of the points are adjusted on the same basis as pensions (half with reference to the growth of total earnings and half in relation to the cost of living), leading to a lowering of the pensions level in comparison to earnings over the mid- and, particularly, the long-term.

A common feature of the reforms which have been conducted in the given countries is basically that the inherited pay-as-you-go model, largely dependent on paid contributions, has been preserved. Such reforms have been called parameter reforms since they leave the existing structure intact, adjusting only the parameters of the system with the intention of achieving particular social and economic effects (Holzmann and Hinz, 2005: 63).

Table 2 – Overview of the terms and conditions for realising the right to old-age pensions

Country	Age of retirement for 20-year work record (M/F)	Statutory income replacement rate (%)	Basis of earnings for pensions calculation	Facilities for women	Age for early pension (M/F)
Federation of Bosnia and Herzegovina	65/65	75	21 years	No	60/55
Republika Srpska	65/60	75	All years	No	–
Croatia	65/60	52	34 years	No	60/55
Macedonia	64/62	80	All years	13 %	–
Montenegro	62/57	55	21 years	15 %	–
Serbia	63/58	68	All years	15 %	–
Slovenia	63/60.6	75	17 years	13 %	–

Source: Current regulations as of 2007. Data on the statutory replacement rate in Croatia, Serbia and Montenegro is calculated on the basis of general points value (current value of pensions in Croatia) and the amount of average earnings in these countries in 2007.

A fundamental reform of the system was carried out by Croatia (1999) and Macedonia (2000), applying the well-known model of the World Bank – the three-pillar, or three-tier, system of pensions insurance. The second pillar – compulsory private insurance – was introduced in Croatia in 2002 for younger insured people (up to 40 years old) in order to have sufficient time for the accumulation of funds in a personal account up to retirement. The introduction of compulsory private insurance called for the division of contributions within the public system of insurance for younger insured people in such a way that the contributions would partly accumulate in the private accounts of those insured, consequently generating the other part of the pension depending on the funds held on deposit. In Croatia, the first part of the pension (from the public system) for those insured in this way is significantly reduced and determined to a further extent according to redistributive principles which aim at a securing of social welfare (25 % of the pension value that would be realised according to the old system is increased by 0.25 % of average earnings in the Republic for each year of insurance). Of course, those insured will obtain a capitalised amount of contributions. At the same time, in the old system (to which rights continue to be exerted and which still covers a considerable part of the insured base) the principle of proportion has been strengthened.

The second tier of the Macedonian system was introduced in 2006 and covers just those that began work in 2003. Here, the replacement rate, in the first tier, is reduced to 30 %, as it is in Croatia. The contribution rate for the second tier (7.42 %) is higher than in Croatia (5 %) and is intended to provide an additional 30 % of the net replacement rate.

With these implemented reforms of the pensions and disability benefit system, the conditions for the realisation of rights to an old-age pension have been made considerably stricter. The overview of these terms and conditions (see Table 2) indicates that the age of retirement has considerably increased in the countries of former Yugoslavia with the extension of the insurance period taken as the basis of the calculation of the amount of pension. The retirement age for men varies between 62 in Montenegro and 65 in Bosnia and Herzegovina and in Croatia, taking into account that, in Serbia and in Montenegro, the age of retirement is also being gradually increased to 65. The retirement age for women has also increased, from a minimum 57 in Montenegro to a maximum 65 in the Federation of Bosnia and Herzegovina, while in Montenegro and in Serbia it is also being gradually increased to 60. The retirement age in respect of those with a full work record (i.e. 40 years for men and 35 or 38 for women) is considerably lower, except in Croatia and in Macedonia. The insurance period used to calculate the amount of pension has been extended in all countries (either immediately or gradually) to cover the entire duration of insurance (starting from 1970, the year in which records on the earnings of insured people commenced).

The statutory replacement rate (in respect of a full work record – 40 years for men) has decreased from the original 85 % to 75 % in both Slovenia and the entities of Bosnia and Herzegovina, while it has been decreased in Macedonia to 80 %. In Croatia, Serbia and Montenegro, the replacement rate has been lowered to a greater extent by the reduction in the value of pension points adjusted on the same basis as pensions – with an equal influence of the growth of earnings and the cost of living. In comparison to an average of thirty OECD countries, where the net replacement rate of average earnings is 68.7 % (Queisser and Whitehouse, 2006: 68), it may be concluded that the ratio in the countries of the former SFRY is slightly less favourable.

It is also noticeable that the statutory replacement rate is significantly lower in Croatia, Montenegro and Serbia in comparison to the other countries. The replacement rate is low especially in Croatia, which reduces the overall average in these countries. The interesting thing is the similarity of the statutory replacement rate with the actual replacement rate in the cases of Croatia and Montenegro. These are the countries that have applied the points system of calculation under which the value of the general point, i.e. the actual value of the pension, is adjusted in the same manner as the pension itself; thus, new beneficiaries obtain a reduced value of their pensions to the extent that the growth rate of their pensions is lower than the earnings growth rate. The actual value of pensions in Croatia, or the value of the general pension point in Serbia and in Montenegro, is deduced on the basis of the pension achievement level, which has brought about the low net replacement rate in Croatia because adjustments to pensions did not take place in all the years between 1993 and 1998. Furthermore, Montenegro has discontinued the adjustment of pensions due to the financial difficulties affecting the pensions system. In Serbia, during the period of implementation of the new method of the calculation of pensions, there was a substantial growth in earnings but also a relatively substantial growth in the cost of living. Hence, pensions are not so much behind earnings. For that reason, the pensions of new pensioners are also more favourable.

The right to an early pension is preserved only in Croatia and in the Federation of Bosnia and Herzegovina, although there is an enormous difference in the level of the reduction of the amount of pension due to early retirement. There are disincentives to take an early pension in Croatia by the high penalties – a reduction of 0.34 % for each month of early retirement – but in the Federation of Bosnia and Herzegovina the reduction of pension is a minimal 0.5 % (for women) and 1 % (for men) for each year of early retirement.

All the newly-founded states have preserved from the old system the minimum pension which (except in the cases of Croatia and Macedonia) mainly depends on the duration of the work record. In Macedonia, it is necessary to have a minimum length of service (25 and 35 years) in order to have accrued more than the minimum pension. In contrast, Montenegro chose a specific solution in which the amount of the minimum pension is determined nominally. All the systems share in common that minimum pensions do not depend on financial standing (except for the system of pension support in Slovenia).

Significantly favourable conditions for the realisation of the right to a pension for women (approximately 15 %), inherited from the system of the former Yugoslavia, have been retained by most of the newly-founded countries. The exceptions are the two Bosnia and Herzegovina entities and Croatia, while Slovenia is gradually decreasing this difference, aiming to reach a minimum level (around 4 %). In Croatia, Slovenia and Republika Srpska, women have retained a part of these privileges since they have a lower age of retirement.

All the countries, except Serbia, have retained the right to disability benefits in the case of partial disability for work. Serbia and Slovenia alone have also retained cash benefits for people incapable of independent living (the right to assistance and the attendance of another person), regardless of the financial standing of the pension beneficiary.[5] On the other hand, only Serbia and Macedonia provide pensioners with the right to re-employment or the performance of independent activity, with the sole difference that Macedonia limits the payment of pension in a manner that 30 % or 65 % of the pension is paid, depending on whether the pension beneficiary works full-time or part-time.[6] This measure provides a benefit to pensioners but, at the same time, it does make the employment of young people more difficult.

The most significant effects

An overview of the demographic indicators of the countries of the former Yugoslavia mostly shows a grim picture. The rate of aging is usually high and, in the case of

5 Expenditure on assistance and the attendance of another person represent almost 2.5 % of total expenditure on pensions and disability insurance in Serbia.

6 Slovenia provides for a system of partial take-up of pension in proportion to the working hours of a part-time job.

Serbia, extremely high at 29 %, which makes its population, with an average age of 40, one of the oldest in the world. That is the result of the low fertility rate (approximately 1.4) which is at the level of developed countries that seek to resolve this problem through immigration. Especially worrying is the trend of population aging since the fertility rate is decreasing while life expectancy (around 75 years) is increasing.

The economic parameters also show a grim picture overall. The only exceptions are Slovenia[7] which, as an EU member, is close to the average of these countries and, to some extent, Croatia where the unemployment rate is 11 %. Macedonia, Bosnia and Herzegovina and Montenegro have an extremely high rate of unemployment (over 30 %) which is largely a consequence of the widespread grey economy in these countries.

Table 3 – Basic demographic and economic indicators in 2006

Country	Population (000)	Life expectancy at birth	Old-age dependency ratio*	Fertility rate	Activity rate of people over 15 years	Unemployment rate (%)	GDP per capita PPP** ($)
Bosnia and Herzegovina	3 780	75	21.80	1.2	43.1	31.0	7 030
Croatia	4 440	76	23.35	1.4	53.1	11.1	13 850
Macedonia	2 040	74	15.68	1.5	47.2	36.0	7 880
Montenegro	600	74	-	1.6	49.9	30.3	9 390
Serbia	7 410	73	29.00	1.4	51.0	20.9	9 350
Slovenia	2 010	78	21.02	1.3	57.0	5.9	24 750

** Ratio of the number of citizens older than 65 to the number of citizens aged between 15 and 64.*
*** PPP – purchasing power parity*

Source: For columns 3 and 4: www.laborsta.ilo.org/ogp-bin/brokeri8.exe and for the other columns: www.worldbank.org/datastatistics/resources/gdp.pdf

The functioning of the pensions system after the conducted reforms will be analysed in this section via a review of a number of main parameters – the dependency ratio, i.e. the ratio of insured people against the number of pensioners; the replacement rate; and the level of expenditure on pensions as a proportion of domestic product and the deficit level.

Comparatively examining the share of expenditure on pensions insurance in gross domestic product shows the similarity of the position in most of the newly-founded states: between 11 % and 13 % (Table 4). The exceptions are the Bosnia and Her-

7 Only Slovenia, which was excluded from the war conflicts and which had an export-oriented and relatively competitive economy, succeeded, in the meantime, in surpassing the level of GDP which it used to have in the former Yugoslavia.

zegovina entities, where the share of expenditure on pensions in GDP is significantly lower (approximately 9 %), since pensions are disbursed exclusively out of income contributions, including in Republika Srpska, and budget incomes based on special rights for particular categories of insured people. Consequently, pensions are disbursed in compliance with the amount available and they are significantly lower than in other countries (Table 1).

The contribution rate for pensions insurance is between 20 % of earnings in Croatia and 24.35 % in Slovenia. In Republika Srpska, the 24 % contribution is calculated on the basis of net earnings; hence, due to the lower basis, this contribution rate is effectively the lowest. The Bosnia and Herzegovina entities and Serbia have preserved the principle of the equal participation of employer and employee in the financing of pensions insurance, while in Croatia the contribution (for public insurance) is completely charged to the employer. In Macedonia, the participation of the employer (13.78 %) is double the rate in Slovenia, where this ratio is reversed (a charge of 15.5 % on insured people).

Even though contribution rates have been increased in comparison to the former period, the incomes arising from them are actually lower. This is for two reasons: firstly, it is a result of the decrease in the number of employees due to the effects of the transition to a market economy; and secondly, it is a consequence of the spreading of the grey economy (Fultz and Stanovnik, 2004). The development of the market economy boosted the development of independent entrepreneurship, which mostly gravitated toward the unofficial economy in its initial period. In addition, those who have legal businesses tend to report lower amounts of earnings than those which are actually paid.

On the other hand, the utilisation of budgetary subventions to cover the deficit reaches one-third of the total expenditures of the pensions system; thus, the deficit amounts to between 4 % and 5 % of GDP. The main reasons for the deficit of the pensions insurance systems on the territory of the former Yugoslavia have a demographic, a normative and an economic character. Firstly, the increase in life expectancy – the period in which a pension is paid – increased by more than ten years in the second half of the last century and this, in turn, has resulted in an increase in the number of pensioners. At the same time, the age of retirement has remained unaltered for a long time. Leaving aside the demographic aspects, extended life expectancy has not dramatically jeopardised the functioning of the pensions insurance system. However, the high rate of unemployment – at an average of 22.5 % – has brought a reduction in the number of insured people, while there has been a reduction in economic activity due to the downfall of the unified market, followed by the war conflicts, the economic sanctions of the Security Council imposed on Serbia and Montenegro and because of wrong economic policies followed in the conditions of the transition to the market economy.

Table 4 – Main indicators of the functioning of the pensions insurance system in the countries of the former Yugoslavia

Country	Share of pensions insurance in GDP (%)	Ratio of insured to pensioners	Average pension as % of net earnings	Contribution rate (%)	Budgetary subventions (%)
Federation of Bosnia and Herzegovina	8.40	1.59	48.0	24.00	0.0
Republika Srpska	9.30	1.40	53.0	24.00	22.6
Croatia	12.70	1.42	40.2	20.00	40.0
Macedonia	11.20	1.53	53.0	21.20	32.0
Montenegro	11.60	1.34	52.0	21.60	32.7
Serbia	13.80	1.60	61.7	22.00	36.6
Slovenia	12.95	1.70	62.5	24.35	27.2

Source: For the Federation of Bosnia and Herzegovina and Republic of Srpska, the data is according to: World Bank Addressing Fiscal Challenges and Enhancing Growth Prospects: A Public Expenditures and Institutional Review and the websites: www.fz.pio/mio.ba and www.fondpiors.org; while, for the other countries, data was taken or calculated based on data from the following websites: www.mirovinsko.hr, www.piom.com.mk, www.zpiz.si, www.pioz.org.rs, www.rfondpio.cg.yu and is as of 10 July 2008.

Note: The data in column 1 refer to 2004 and in the other columns to 2007.

In compliance with International Accounting Standards, budget subventions also include the state obligations for pensions realised under specific conditions for particular government employees, which essentially represents the basic (source) income of the pensions system. In Republika Srpska, the entire amount of subventions is allocated to privileged conditions for the retirement of particular categories of government employees (as well as for the re-payment of public debt), while in Slovenia and Croatia one-third of the subventions is allocated to pensions realised under specific conditions.[8] In other countries, the share of budgetary subventions on the basis of special rights is significantly lower.

An exceptionally high deficit in the pensions system is the case in Croatia, Serbia, Montenegro and Macedonia, while Slovenia and Serbia have the highest replacement rate. In the cases of Croatia and Macedonia, it should be emphasised that the deficit in the public insurance system has been caused largely by the appropriation of one part (one-quarter or one-third) of the contributions of those insured people who are covered by mandatory private insurance in the system of private pension funds.

8 The largest part of expenditures on special rights in Slovenia cover state pensions while in Croatia the largest part of these expenditures goes to the rights of veterans of the war.

The advantage here lies in that they insure an additional amount of pension for future pensioners while, at the same time, providing long-term funds for the capital market. Slovenia and Serbia realise such effects to a lesser extent, exclusively within voluntary insurance, while Montenegro and the Bosnia and Herzegovina entities are only in the preparatory phase.

Due to the high costs of transition to the new system, Croatia has defined a low contribution rate (5 %) for individual funding accounts: thus, average monthly contributions amounted to €31 in 2007, which is not capable of granting reasonable compensation for the falling net replacement rate within the first tier (Guardiancich, 2007: 139).

The first pensions (about 150) manifested from the mandatory pension funds are lower by one-quarter than the amount to which people would be entitled in full in the old system (Marušić, 2008: 355).

Table 5 – Structure of expenditure on pensions insurance in 2007 (%)

Country	Pensions and other benefits	Contribution for health protection	Insurance implementation	Other
Federation of Bosnia and Herzegovina	96.33	1.12	2.55	0.00
Republika Srpska	93.03	4.15	2.82	0.00
Croatia	97.46	0.00	2.54	0.00
Macedonia	86.20	11.50	2.30	0.00
Montenegro	77.35	16.30	2.89	3.46
Serbia	84.44	9.93	2.19	3.44
Slovenia	85.90	8.30	1.10	4.70

Source: As for Table 4.

The current shortfalls in the financing of the pensions system are mostly met out of the incomes arising from the privatisation of social or state capital, rationalising that it is this capital which has been created by the current generation of pensioners. However, the problem is that these funds are limited and that they are mostly needed for investment and the opening of new job opportunities.

This analysis of the main indicators of the functioning of the pensions insurance system has revealed an exceptionally unfavourable picture. This primarily refers to the ratio of the number of insured people to pension beneficiaries, as well as to the share of expenditure on pensions in GDP. As regards the relationship between average earnings and the average pension, we can notice huge differences between particular countries, especially between Croatia, where this relationship is the lowest (40 %), and Slovenia – the country with, relatively, the best pension to earnings

(62.6 %) relationship. Due to the considerable similarity between pensions systems, as well as the period of insurance in particular countries, it is clear that such differences derive from the manner of the pensions calculation. The modified manner of the adjustment of pensions (see Table 1) in Croatia led to the establishment of an unfavourable relationship between average earnings and the average pension. Namely, the adoption of the Swiss model of adjustment, with an equal impact of the growth of earnings and of the cost of living, resulted, under conditions of a high growth rate of earnings and a considerably lower inflation rate, in pensions rapidly falling behind earnings. In Slovenia, however, the growth of earnings was in line with the growth of domestic product, which led to the harmonised increase of pensions and a preservation of its share in domestic product.

The example of Croatia in reference to the manner of the adjustment of pensions was followed by Serbia and Montenegro, while Macedonia established an even less favourable parameter of adjustment, based predominantly on the influence of the cost of living (80 %) rather than earnings (20 %), leading to a considerable falling behind of pensions in comparison to earnings. In the last years, Serbia has gradually decreased the influence of earnings, aiming towards an adjustment mechanism which is entirely based on the increase in the cost of living starting from 2009.

Inclusion in this analysis of the structure of expenditure of the pensions insurance systems in the countries under observation helps in clarifying the parameters of their functioning. The structure presented (Table 5) indicates significant differences between particular countries, especially with reference to expenditure on contributions regarding the health care of pensioners. Thus, the pensions insurance system of the Federation of Bosnia and Herzegovina pays contributions for health care to a minimum amount – 1.12 % of total expenditure (pensioners also pay, but at a symbolic rate of 1.2 %). In Republika Srpska, expenditure on health insurance is several times higher – 4.15 % of the total expenditure on pensions insurance. In other countries, the pensions systems pay contributions for the health care of pensioners at relatively high rates (12.6 % in Serbia, 14.69 % in Macedonia and 19 % in Montenegro); hence total expenditure on health care is relatively high – from 8.3 % in Slovenia up to 16.3 % in Montenegro. The only exception is Croatia where the pensions insurance system does not pay contributions towards the health care of pensioners (see Table 3), significantly reducing the deficit in the pensions system.

Table 6 – Structure of pensions beneficiaries per types of right, 2007 (%)

Country	Old-age pensions	Disability pensions	Survivor's pensions
Federation of Bosnia and Herzegovina	41	22	37
Republika Srpska	45	18	37
Croatia	55	23	22
Macedonia	53	20	27
Montenegro	45	26	29

Country	Old-age pensions	Disability pensions	Survivor's pensions
Serbia	54	24	22
Slovenia	63	19	18

Source: As for Table 4.

Note: Special categories of pensioner – military, government, etc. – were not considered.

On the other hand, expenditure on net pensions has a reverse image and, in that respect, the most generous systems are those of Croatia and the Federation of Bosnia and Herzegovina, while Montenegro is in last place. The costs of the implementation of insurance are, also, uneven – Slovenia shows exceptional rationality, but the other countries have exceeded the level of the average costs of public funds, which is approximately 2 % of total expenditure (Scherer, 1997: 27). Other costs, which are separately declared, mostly represent expenditure from the repayment of annuities on loans taken out for the purpose of the disbursement of pensions in the previous period and basically represent expenditure on the disbursement of pensions.

The structure of pensioners per types of right (Table 6) helps in clarifying the actual state of particular systems of pensions insurance. Namely, the ratio of old-age pensioners and pensioners with a disability characterises the implementation of the system and the application of legislation in practice. A high percentage of pensioners with a disability in the total number of pensioners points to low criteria for determining disability for work, but also the possible misuse and existence of corruption which is, by the way, widespread on the territory of the former SFRY. A low percentage of old-age pensioners reduces the average pension level, since disability and, especially, survivor's pensions, due to a shorter period of insurance, are smaller than old-age pensions. A comparison reveals enormous differences between Slovenia, which has the highest percentage of old-age pensioners (63 %), and the Federation of Bosnia and Herzegovina, which has the lowest – only 41 %. A low percentage of old-age pensioners is also present in other countries – especially in Republika Srpska and Montenegro – which is exceptionally unfavourable in comparison to EU countries, where old-age pensions on average make up approximately 73 % of the total number of pensions (World Bank, 2006: 90).

An exceptionally high number of survivor's pension beneficiaries represents a particular characteristic of the former SFRY, caught up as it has been with war conflicts. The most prominent case is Bosnia and Herzegovina (the share of survivor's pension beneficiaries represents approximately 37 % in both entities), where the war was the most intensive and lasted the longest.

Requirements and opportunities for further reforms of the pensions system

The success of the functioning of the pensions system in particular countries must be observed from the financial point of view as well as from the aspect of meeting the needs of the beneficiaries. The financial situation of a pensions system largely depends on the functioning of the economy, especially the level of employment. This is also shown by this analysis, where the successful Slovenian economy provides high employment and steady incomes to the pensions system. Quite the opposite are the cases of the economies of Macedonia, Bosnia and Herzegovina, Serbia and Montenegro.

On the other hand, the pensions system also transfers its unmet obligations to the state. The need for higher budget allocations requires increases in taxation, leading to increases in production prices, decreases in consumption and a slowing down of the economy. It is clear that rationalisation of pensions systems and the reduction of their deficits leaves more funds for investment as well as indirectly stimulating the development of the economy.

The changing of the conditions for the realisation of the right to a pension – increasing the age of retirement and reducing the statutory replacement rate – which has been carried out in the last years decreases the rate of return with a view to establishing financial sustainability, i.e. addresses the balance between the income and the expenditure of the pensions insurance system. Therefore, the generations realising the right according to the new conditions are in a less favourable situation in comparison to previous generations, but that is a general rule of public pensions insurance systems based on the pay-as-you-go method.

Besides the reduction in expenditure, the aim of the drastic decrease in the replacement rate was also intended to create more favourable conditions for the development of a commercial pensions system based on individual savings (fully-funded). Through the depreciation of the level of the average pension below the poverty line, it becomes clear that public pensions systems are not able to ensure a carefree old age, leading to the imposition of compulsory pensions savings in Croatia and Macedonia as a system-saving solution. However, it is reasonable to pose the question whether this means can provide greater incomes for a safer old age. On the one side, we have the high expenditures incurred during the period of transition from the one system to the other (transition expenses), which are covered by tax income.[9] On the other side, the wide basis for the dispersion of risk, which can only be provided by insurance, is lost and each individual must assume the risk of the rate of return on funds deposited in individual accounts managed in a commercial manner.

The experiences of the central European countries – Poland and Hungary – which had established the three-tier system a few years earlier (1999) are ambivalent, at least in the first years of implementation. Namely, the upside of mandatory individual savings, in terms of an increase in capital and a strengthening of the financial market, has been largely annulled by the negative yield on those savings. A high inflation rate and the high administrative expenses of managing individual accounts and acquiring new members have exceeded the capital yield in both countries in the first few years. The assets of pension funds in conditions of under-developed and unstable financial markets are predominantly invested in government bonds (80 % in Hungary and 86 % in Poland), which can not provide high yields (Fultz, 2004: 14-15). One of the reasons for the failure of compulsory pensions savings in Argentina lies precisely

9 Poland will allocate 2 % of GDP during the next fifty years to cover the costs of the transition in the pensions system (see Fultz, 2004: 12).

in huge investments in government bonds, the price of which was drastically reduced when the state, in conditions of over-indebtedness (in 2001), was unable to settle its obligations (Matijascic and Kay, 2006: 13-14).

The problem caused by demographic shock does not, as pointed out by Barr, lie in the financing model which is being implemented because funded pensions face similar problems to the pay-as-you-go model and for the same reason – output shortages. The only difference is that the funded model is less transparent and, for that reason, it is less attractive to politicians who always prefer bad news to be the result of the market and not of political decision. When observed from a macroeconomic perspective, the choice between pay-as-you-go and the funded model is of secondary importance, while the essence lies in the overall state of the economy of a country, which has to secure full employment and increase output. Demographic shocks may be buffered by political measures which directly influence performance, establishing a balance between supply and demand both in the goods market and in the capital market, because society can spend only what is produced by the current generation of workers. From an economic point of view, demographic change does not provide a particularly strong argument for a shift towards the funded model (Barr, 2000: 9-11). Such an argumentation has also been partially accepted by the economists of the World Bank (Holzmann and Heinz, 2005: 41), who have admitted that both funded and unfunded financing models require the involvement of the next generation, either for the payment of contributions or for purchasing accumulated funds. Nevertheless, funded financing models retain significant advantages.

Practice has shown that there is no universal pattern for a pensions system which could be applied to every country. That also applies to the three-tier concept imposed by the World Bank. Each country is striving to design a pensions system which is appropriate to its capabilities i.e. its available resources and system of values, and/or its political priorities, and which establishes a balance between the competitive goals – the financial sustainability of the system – and a socially adequate level of pension (Brown, 2008: 65-67). The issue of the adequacy of the pensions system means providing a certain level of social security and standard of living, taking also into account the investment volume of each individual.

The range of potential choice over pensions design is wide, but that does not mean that countries can pick and mix at will. Countries with large, unsustainable pay-as-you-go systems have very little choice: the only solution is to make the system sustainable – by reducing benefits or increasing contributions, or by a mix of these two (Barr, 2000: 49).

The adequacy of the pensions system requires that the system stimulate its participants, which means a high ratio between deposits and realised benefits. The expected period in which the pension is drawn also has to be taken in consideration. The example of Slovenia, which encourages deferred pensions, represents a role model for other countries in how the number of pensioners can be simultaneously reduced. What is most important, the relatively high statutory replacement rate – 75 % – provides a full stimulus to the Slovenian pension model. The approach to financing the special categories of insured people who may realise an early pension, through supplementary programmes, is also in line with the establishment of an adequate and stimulatory system.

The issue of the adequacy of the pensions system also implies a certain level of solidarity with those who realised low earnings during their employment. All these countries have inherited from the pensions system of the former Yugoslavia the institution of a minimum pension, while Slovenia is the only country which has also established the payment of a state pension – the 'social pension' – to residents older than 65 years of age who have not realised the right to a pension and who meet a means test. The introduction of the 'social pension' as the basic pension, or zero pillar, represents an adequate response to criticism that the public pensions system leaves a number of employees who have short periods of employment without benefits. When observed together, the minimum pension and the social pension provide a certain level of social security and protection against poverty which are characteristic of a humane society. In relation to their financing, it is completely justifiable that the majority of the assets are acquired from taxes. That is fairer than the redistribution basis of the first tier of the multi-tier pension model and makes it non-stimulatory.

Generally speaking, Slovenia has improved the pensions system of the former Yugoslavia in the direction of higher stimulation and lower generosity, reducing the latter to a reasonable level.

The absence of important effects in the area of pensions insurance income and expenditure adjustment, aiming towards the creation of a financially-sustainable system, requires further steps. There are two types of measure at the disposal of countries – one on the side of increasing income; the other on the side of decreasing expenditure. In respect of increasing income, it is proposed that the contribution rate is raised and the rate of income tax reduced in order to maintain the existing level of encumbrance of taxes and contributions on earnings as well as the amount of the cost of labour itself.

Significant possibilities for increasing the income of pensions systems lie in the legalisation of the grey economy and improvements in the collection of contributions. One of the measures directed towards improving the rate of collection of contributions is to unify the collection of all social insurance contributions and income tax within the tax authority (Slovenia, Croatia, Serbia and Montenegro). However, Croatia has organised a separate agency which handles the recording of paid social insurance contributions and their distribution to social insurance organisations and pensions funds (Bejaković, 2004: 71).

Faster economic development requires greater foreign investment due to insufficient domestic accumulation. In order to attract foreign investment, considerable advantages have to exist on the domestic market, primarily with regard to the price of labour (considering its productivity). The price of labour, in return, depends on the level of social insurance contributions and income tax, thus making a vicious circle. At the moment, the only solution is in budget donations and the legalisation of the grey economy.

The biggest possibility for the reduction of expenditure on pensions insurance in Slovenia, Macedonia, Serbia and Montenegro is certainly in the denial of privileges to women – in these countries, the amount of pension is increased by a figure between 13 % and 15 %, with a retirement age some two to five years lower. It is estimated that these privileges in Serbia increase expenditure by 7.7 %. Actuarial calculations show that the contribution rate for women sufficient to ensure coverage for the prescribed range of rights should be 44 % higher (USAID, BearingPoint, 2004). Such a level of privilege is an anomaly and it needs to be seriously reviewed on the basis that there are no objective reasons for its survival. Namely, the workload of women both in the workplace and within the family (measured by the number of children) does not justify such a privileged position in the realisation of the right to a pension. Slovenia is in the process of gradually decreasing this privilege, reducing it to a minimal 4 %.

The possibility of realising savings in other areas of pensions systems also exists. Primarily, this is through a decrease in the contribution rate for the health care of pensioners (excluding in the Federation of Bosnia and Herzegovina), which is usually determined on the same level (and in Montenegro even higher) as the health insurance of employees and the self-employed. It is true that the older population has an increased need for health services, but it should also be considered that pensioners do not realise remuneration based on health insurance and it is rare that other people are insured for health care on the basis of a pension. Furthermore, one should also consider a certain level of solidarity. It should be possible to transfer pensioners' contributions for health insurance, in full or on a partial basis, as is the case in some EU countries,[10] although this is quite difficult in conditions of relatively low pensions.

Conclusions

The countries of the former Yugoslavia have inherited an extremely generous pensions insurance system which, prior to the downfall of Yugoslavia, had become financially unsustainable. The process of the creation of nation states, instigating the intranational conflicts, is the main cause of economic collapse on the territory of the former Yugoslavia. The transition to an open market economy and privatisation of state and parastate property have also resulted in a significant decrease in the number of employees.

The singular concept of the pensions insurance system in the former Yugoslavia has also influenced the considerable similarities in its functioning nowadays. This analysis of the main indicators of the functioning of the pensions insurance system has revealed an exceptionally unfavourable picture. This primarily refers to the ratio between the number of insured people and pensioners, as well as to the high deficits in the pensions systems. A large number of pensioners realise pensions which are below the subsistence minimum in all the countries except for Slovenia, where the pensions system, as well as the entire economy, is in a much better position.

What needs to be emphasised here is that the further reduction in the level of pensions does not represent a realistic option. The current, insufficient levels of financing of pensions systems is mostly provided out of incomes arising from the privati-

10 Contributions for health care are paid by pensions beneficiaries in Germany, France, Belgium, Netherlands, Norway, Finland, Luxemburg and Poland (Queisser and Whitehouse, 2006: 64).

sation of social or state capital on the basis that this has been created by the current generation of pensioners. However, the problem is that such funds are limited and are mostly needed for investment and the creation of new job opportunities.

Considering that this described state of the pensions systems has been largely caused by the collapse of economic activity and employment, i.e. by external factors, the systems themselves, based on insurance principles, have matured artificially. Their financial situation would be changed to a great extent by the removal of these factors. However, the pensions systems have to be adjusted to the economic situation, which has been carried out by the countries of former Yugoslavia with huge delay and varying degrees of success.

The creation of financially-sustainable pensions systems in the countries under observation requires stronger economic development that would considerably increase the number of insured people through the creation of more job opportunities. A reduction in unemployment to the level of Slovenia (5.9 %), with a legalisation of the grey economy and an increase in the contribution rate at the expense of income tax (so as to preserve the level of the cost of labour), would eliminate the deficits in the pensions systems. EU accession is, in all the countries, seen as a path that should bring a great inflow of investment and the employment of a good number of workers. Croatia and Macedonia have already acquired candidate status for EU accession while the other countries have signed Stabilisation and Association Agreements with the EU.

The adaptation of pensions systems to the new conditions has called for a major reduction in pensions insurance rights. This is primarily due to the lack of observance of the demographic laws of aging of citizens and, thus, to extended life expectancy which has significantly increased the length of the period during which pensions can be expected to be drawn. Extended life expectancy also enables the extended duration of employment (the active phase of life) and this has had to be considered in a timely manner by normative activity. Ignoring this phenomenon represented a crucial mistake of pensions systems in the countries of former Yugoslavia, but it cannot be a reason for a questioning of the existing regime of pensions insurance established on the pay-as-you-go principle and defined benefits.

Even after the changes have been implemented, the pensions systems have preserved a close connection between pensions and earnings, respecting the principles of proportionality and justice. The exception is the new system in Croatia, where the first pillar is based on the principle of redistribution, with a minimum dependency of the pension on paid contributions. The incentive has thereby been given to the development of pensions savings, but the system is losing its attractiveness among insured people while it also encourages the evasion of insurance and of the obligation to pay contributions.[11] Therefore, the new system in Croatia must be rated as inadequate. Compared with the countries of former SFRY, Croatia is in a leading position according to the level of budget subventions for the coverage of its pensions system deficit (even though contributions for the health care of pensioners are not paid); in regard to the replacement rate, however, it is in last place. The costs of the transition to the new system are very high and will last for several decades, as a result of which

11 Only one-quarter of the total amount of contributions is accumulated in the individual account.

the amount of the first pensions entitlements in the mandatory pension funds are lower by one-quarter than the amount which would be the entitlement in the old system.

In contrast to the Croatian three-tier model, the Slovenian model has proven itself to be the most successful according to all the parameters. Even though it has the largest effective replacement rate, the system has the lowest level of deficit. The structure of costs and pensioners are, in the Slovenian system, the most favourable. The minimum pension, along with the 'social pension' (which is determined based on a means test), provide social security to a great extent which makes the Slovenian model a pattern to follow.

Solidarity is mostly emphasised towards women – except in Bosnia and Herzegovina – since women may realise a pension of a premium amount and with a lower age of retirement. Elimination of these privileges for women would enable the significant reduction of the deficits in Serbia, Montenegro, Macedonia and Slovenia. Slovenia is already gradually decreasing this privilege, reducing it to a minimal level.

This analysis has unambiguously shown that pensions from the public system, due to the unfavourable ratio between the numbers of insured people and pensioners, cannot guarantee an adequate level of pension for a peaceful old age. Thus, it is necessary to secure additional pensions savings. Croatia and Macedonia have introduced both compulsory and voluntary pensions savings; Slovenia and Serbia just voluntary pensions savings; while Montenegro and the two Bosnia and Herzegovina entities are in the process of the introduction of this type of pensions savings. Life savings are developed to a degree only in those countries with the highest standards – Slovenia and Croatia.

References

Barr, N (2000) *Reforming pensions: Myths, truths and policy choices* IMF Working Paper 139, August, International Monetary Fund: Washington D.C.

Bejaković, P (2004) 'The collection of pension contribution in Croatia' in E. Fultz and T. Stanovnik (eds.) *Collection of pension contributions: Trends, issues and problems in central and eastern Europe* Budapest: International Labour Office – Central and Eastern European Team.

Brown, R. L (2008) 'Designing a social security pension system' *International Social Security Review* 61(1).

Bujak, P and M. Góra (2001) 'Aktuelna situacija penzijskog sistema u Jugoslaviji i potreba za reformom: Međunarodno iskustvo sa posebnim akcentom na moguće pouke iz iskustva Poljske' u *Analiza mogućeg uticaja penzijskih reformi na tržište rada i finansijska tržišta Jugoslavije* Beograd ('Current situation in the pensions system in Yugoslavia and need for reform: International experience with special emphasis on possible lessons-learned from the experience of Poland' in: *Analysis of possible impact of pension reforms on the labour market and financial markets of Yugoslavia* Belgrade).

Chiappe, R (2004) 'Reforming pension systems' in: *Osiguranje na prekretnici, Drugi međunarodni simpozijum* (*Insurance at the Turning Point, Second International Symposium*), Vrnjačka Banja.

Davis, E. Ph (1995) *Pension Funds – Retirement-income Security and Capital Markets* Clarendon Press: Oxford.

Euzeby, A (1997) 'La sécurité sociale, plus nécessaire que jamais' (in*: Préserver les retraittes: Options pour une réforme* Association internationale de la sécurité sociale: Genève).

Fultz, E (ed.) (2002) *Pension Reform in Central and Eastern Europe, Volume 2 Restructuring with Public Pension Schemes: Case Studies of the Czech Republic and Slovenia* International Labour Office: Budapest.

Fulz, E (2004) 'Pension reform in the EU accession countries: Challenges, achievements and pitfalls' *International Social Security Review* 57(2).

Fultz, E and T. Stanovnik (2004) *Collection of pension contributions: Trends, issues and problems in central and eastern Europe* Budapest: International Labour Office – Central and Eastern European Team.

Gill, I and T. Packard (eds.) (2005) 'Rethinking social security in Latin America' *International Social Security Review* 58(2-3).

Golubović, V (2002) *Finansiranje penzijskog i invalidskog osiguranja* (*Financing Pension and Disability Insurance*) Budućnost, Novi Sad.

Guardiancich, I (2007) 'The political economy of pension reforms in Croatia 1991-2006' *Financial theory and practice* 31(2), Available at:

http://www.hrcak.srce.hr/index.php?show=toc&id_broj=1526.

Holzmann, R and R. Hinz (eds.) (2005) *Old age income support in the 21st century: International perspective on pension system and reform* Washington DC: World Bank, available at:

http://siteresources.worldbank.org/INTPENSIONS/Resources/Old_Age_Income_Support_Complete.pdf [accessed 19 April 2008].

Holzman, R, R. P. Hinz and M. Dorfman (2008) *Pension systems and reform conceptual framework* SP Discussion paper No. 0824, World Bank: Washington D.C.

International Actuarial Association (2006) *Comments on old-age income support in the 21st century report released by the World Bank in February 2005* available at:

http://www.actuariesorg/LIBRARY/Submissions/SOCSEC_World_Bank_final.pdf [accessed 21 April 2008].

Marušić, L. J and A. Kemble (2008) 'Social I gospodarski aspekti uvođenja obaveznog mirovinskog osiguranja na temelju individualne kapitalizirane štednje' ('Social and economic aspects of the introduction of mandatory pensions insurance based on individual capitalised savings') *Revija za socijalnu politiku* 3, available at: http://www.rsp.hr/ojs2/index.php/rsp/article/viewfile/779/721 [accessed 17 November 2008).

Matijascic, M and S. J. Kay (2006) 'Social security at the crossroads: Toward effective pension reform in Latin America' *International Social Security Review* 59(1).

McGillivray, W. R (1997) 'Une strategie risquée: Commentaires sur le rapport de le Banque mondiale' (in *Préserves les retraites: Options pour une réforme* Association internationale de la sécurité sociale: Genève).

Mesa-Lago, C (2005) 'Assessing the World Bank report *Keeping the promise*' *Revue internationale de sécurité sociale* 58(2-3).

Palmer, E. E (1997) 'Methods of financing social security in a context of declining contribution revenues' (in *Actuaries and Statisticians* 12th International Conference on Social Security, International Social Security Association, Prague).

Puljiz, V (2007) 'Hrvatski mirovinski sustav: korijeni, evolucija i perspektive' ('The Croatian pension system: origins, evolution and perspectives') in *Revija za socijalnu politiku* 2, available at:

http://www.rsp.hr/ojs2/index.php/rsp/article/viewfile/698/657 [accessed 13 October 2008).

OECD (1988) *Reforming Public Pensions* Paris.

Queisser, M and E. Whitehouse 'Comparing the pension promises of 30 OECD countries' *International Social Security Review* 59(3).

Scherer, P (1997) 'La garanti d'un revenu convenable pour la retraite' (in: *Préserver les retraites: Options pour une réforme* Association internationale de la sécurité sociale: Genève).

Stanovnik, T (2004) 'Contribution compliance in central and eastern European countries: Some relevant issues' *International Social Security Review* 57(4).

Stanovnik, T and N. Stropnik (1999) *Economic wellbeing of the elderly and pension reform in Slovenia* working paper No 2, Inštitut za ekonomska raziskovanja: Ljubljana, available at:

www.ier.si/page.search.php?search_ssearch=elderly&.y=1 [accessed 4 October 2008).

USAID, BearingPoint (2004) *Penzijska reforma u Srbiji* (*Pension Reform in Serbia*) Belgrade.

World Bank (1994) *Averting the old age crisis: Policies to protect the old and promote growth* New York: Oxford Universiy Press.

World Bank (2006) *Addressing Fiscal Challenges and Enhancing Growth Prospects: A Public Expenditures and Institutional Review* available at: http://www.Worldbank.ba [accessed 15 April 2008).

Zakon o penzijskom i invalidskom osiguranju Federacije Bosne i Hercegovine (1998...2006) *Law on pensions and disability insurance of the Federation of Bosnia and Hercegovina* (1998...2006)

Zakon o penzijskom i invalidskom osiguranju Republike Srpske (2005) *Law on pensions and disability insurance of the Republic of Srpska* (2005)

Zakon o mirovinskom osiguranju republike Hrvatske (1998…2007) *Law on pensions insurance of the Republic of Croatia* (1998...2007)

Zakon za penzijskoto i invalidskoto osiguruvanje Republike Makedonije (1993...2007) *Law on pensions and disability insurance of the Republic of Macedonia* (1993...2007)

Zakon o penzijskom i invalidskom osiguranju Republike Crne Gore (2003...2005) *Law on pensions and disability insurance of the Republic of Montenegro* (2003..2005)

Zakon o penzijskom i invalidskom osiguranju Republike Srbije (2003…2005) *Law on pensions and disability insurance of the Republic of Serbia* (2003…2005)

Zakon o pokojninskem in invalidskem zavarovanju Republike Slovenije (2006) *Law on pensions and disability insurance of the Republic of Slovenia* (2006)