

**Pension Reform in Eastern Europe and Eurasia:
Experiences and Lessons Learned**

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Executive Summary

A pension system should serve several objectives. It should allow participants to smooth consumption over their lifetimes, setting aside income during work years in order to receive back income during retirement years. It should provide insurance against uncertainties of longevity, and possibilities of disability or leaving survivors, and it should help manage systemic risks. A system should provide at least a minimum income to elderly and facilitate some level of redistribution to poor elderly. A pension system should achieve these outcomes in ways that are compatible with economic growth, including labor market efficiency, capital market development, and provision of other social programs.

A number of countries in Eastern Europe and Eurasia have embarked on ambitious pension reforms aimed at greatly improving how well their pension systems achieve these objectives. Countries have reformed their existing Pay-As-You-Go (PAYG) pension systems in different directions. Some have increased links between contributions and benefits, while others have moved toward a universal benefit untied to contributions. Some have greatly curtailed or even eliminated the old systems, while others have only slightly scaled them back. Some countries have introduced fully-funded components based on individual accounts, with varying strategies of how best to guide and restrict investments, ensure fiduciary management, and efficiently collect contributions.

The glass is both half full and half empty. Countries have taken meaningful steps toward increasing fiscal sustainability of systems and reducing labor-market distortions caused by high contribution rates, often waging tough political fights to convince certain population groups to accept benefit curtailments. Nevertheless, the level of expenditures on pensions in many economies remains quite high, and the fiscal balance precarious, necessitating high taxes that still create incentives for shadow economy participation and increase unemployment. Funded pension components have been introduced in many countries, with modern market regulatory regimes created where just a few years ago only socialist principles governed, and with administrative systems more complex than any previously operating. But these funded systems have had a hard time meeting all their administrative challenges, and have necessitated high administrative fees that at times have reduced the net returns to participants to unacceptably low levels. Pension reforms have generally increased coverage and fairness, while at times inadvertently reducing support to certain vulnerable groups, including the poorest elderly and those who tend to follow less than full career paths (including women).

The story of pension reform in Eastern Europe and Eurasia therefore only partially can be told. Important achievements have been attained over a short time period, but more work remains to be done.

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-- David Snelbecker

Contents

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1. Introduction

A good pension system serves several objectives:

- *Lifetime consumption smoothing.* A pension system should allow working-age population to set aside income for their future retirement years to facilitate consumption smoothing. That is, the system should help ensure that people can consume roughly as much in old-age as they did when of working age even though they no longer continue to receive wage income. Consumption smoothing can be achieved either through true savings in financial markets or also by giving contributions to the state in exchange for a promise to pay a future pension benefit.
- *Insurance function.* A pension system should allow participants to insure against certain risks: uncertainty of longevity (that is, we do not know how long we will live), and also the possibilities of becoming disabled during work career, or of dying and leaving survivors in need of support. Risks of the pension system itself also should be well managed—market and institutional risks in funded systems, and demographic, fiscal and political risks in unfunded systems.
- *Redistribution and provision of a social safety net.* A pension system is one of society's primary means of redistributing wealth across and within generations, for instance, from richer to poorer, and of ensuring that poor elderly receive at least a minimum income.
- *Compatibility with economic growth.* While not its primary function, a pension system must be compatible with economic growth, labor market efficiency, and development of capital markets.

A pension system contributes to achieving these objectives within a broader context. In addition to mandatory pension programs, individuals also can save voluntarily for their retirement, and may benefit from family support and other income sources. Assessing how best to reform a national pension system requires evaluating how well various options will achieve the above objectives, while keeping in mind the broader context of other state and private means through which these objectives are achieved. A key question is which functions should be left to individuals, recognizing that individuals have an incentive to provide for themselves on a voluntary basis, and which functions must be mandated and supervised by government, where some market failures warrant government intervention to correct them. Reformers also must bear in mind government capacity—the extent to which imperfect government-run or government-mandated programs are better able to serve the population than imperfect markets.

The purpose of this paper is to consider the experiences of pension reform in Eastern Europe and Eurasia based on how well reforms have achieved these objectives, given

each country's national context. These questions are particularly of interest in light of the extensive support USAID has provided to many of these efforts over a sustained period.

The paper considers a number of pension reform issues, in these countries, divided into sections on social, fiscal, financial, and implementation subjects. When available, cross-country data for the region is presented. Additionally, closer attention is given to the reform experiences in five places: Hungary, Poland, Kazakhstan, Kosovo, and Ukraine. Hungary and Poland were the first in the region to implement pension reforms, in which they scaled back and changed their existing PAYG pension systems and introduced modest fully-funded individual accounts to complement the PAYG tier. ("PAYG", "fully-funded", and other pension terms are defined in the Box.) Kazakhstan and Kosovo implemented comprehensive reforms later (in 1998 and 2002, respectively), which introduced larger funded components and led to much smaller PAYG components than in Hungary and Poland. Ukraine has adopted reform legislation (though has not yet implemented it) that is similar to the reforms in Hungary and Poland.

In many cases, cross-country data is lacking for important issues, and in some instances data was unobtainable even for just the five countries identified for closer attention. My approach is to try to comprehensively consider all important issues regardless of data availability, presenting data when available, but at least discussing issues even in cases when data was not available. This approach gives a sense of the big picture, listing all the important issues, and also identifying needs for future research.

Pension reform terminology

Pension systems can be differentiated according to method of calculating benefits and whether or not they are funded. Benefits can either be defined by a formula (in *defined-benefit* systems), or based on contributions that are invested in financial markets and yield an investment return (in *defined-contribution* systems). Pension systems are either *pre-funded* (often called *fully-funded* or just *funded*), with individuals' contributions invested to pay their own future benefits, or *pay-as-you-go* (*PAYG*), where current retirees are paid from current contributions and each generation depends on the younger generation to pay for their pensions. The FSU and FRY state pension systems were mandatory defined-benefit pay-as-you-go schemes. These systems set pensions based on formulas that related pensions to a person's past wage history. Another example of a PAYG system would be a *citizen's pension* (or *demogrant* or *basic pension*), in which all citizens over retirement age get a pension that is funded from general revenues and not linked to previous wage experience. (Some Scandinavian countries and Kosovo have demogrant.) PAYG pensions can be based on *notional defined contributions* (*NDC*), in which the benefit formula depends not only on a person's past wage experience but also on a *notional interest rate* related to growth of wages (and employment) in the economy. (Poland and Mongolia have NDCs, as well as some countries in Scandinavia and the Baltics.) A third type of PAYG system is a *point system*, in which pensions are based on the accrual of points over a work career. Such a system has less redistribution than other DB systems. Germany and now also Croatia and Montenegro after reforms have point systems.

Parametric reforms are reforms introduced to a PAYG system to change contribution rates, benefit formulae, and other parameters without any larger systemic reforms like introducing funding. Going beyond such measures, a number of countries have reformed their systems to include a defined-contribution funded savings on an individual basis. Such countries include many in the EU accession countries of Eastern Europe and a few in southern Europe and the FSU. On top of various mandatory schemes, voluntary pensions have also developed and been regulated in a number of countries but so far do not provide any significant benefit except to higher-income earners. (Since poorer population groups generally do not use voluntary schemes, we do not consider them in our analysis.) Within these general categories an infinite number of combinations are possible. All systems have various advantages and disadvantages, with varying degrees and types of risk.

Mandatory PAYG, unfunded pensions (both those funded from wage-based contributions and also universal demogrant) are often referred to as the *first pillar*. Mandatory, funded pensions are often referred to as the *second pillar*. And voluntary pension schemes that go beyond the mandatory systems are often called the *third pillar*. Sometimes, minimum income support, minimum pension guarantees or needs-based social assistance for the elderly is called the *zero pillar*.

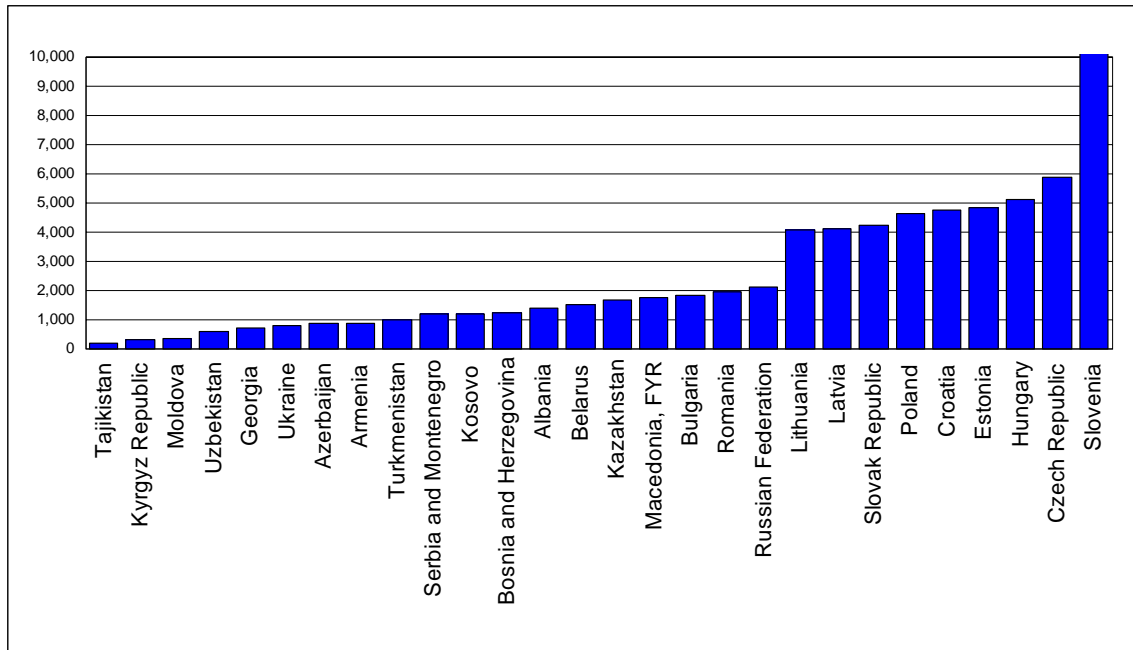
An overview is provided in the next section on pension reforms throughout the region with emphasis on the five countries, and also on USAID assistance. Following this, the policy issues are discussed in detail.

Part I: Country Experiences

2. Background

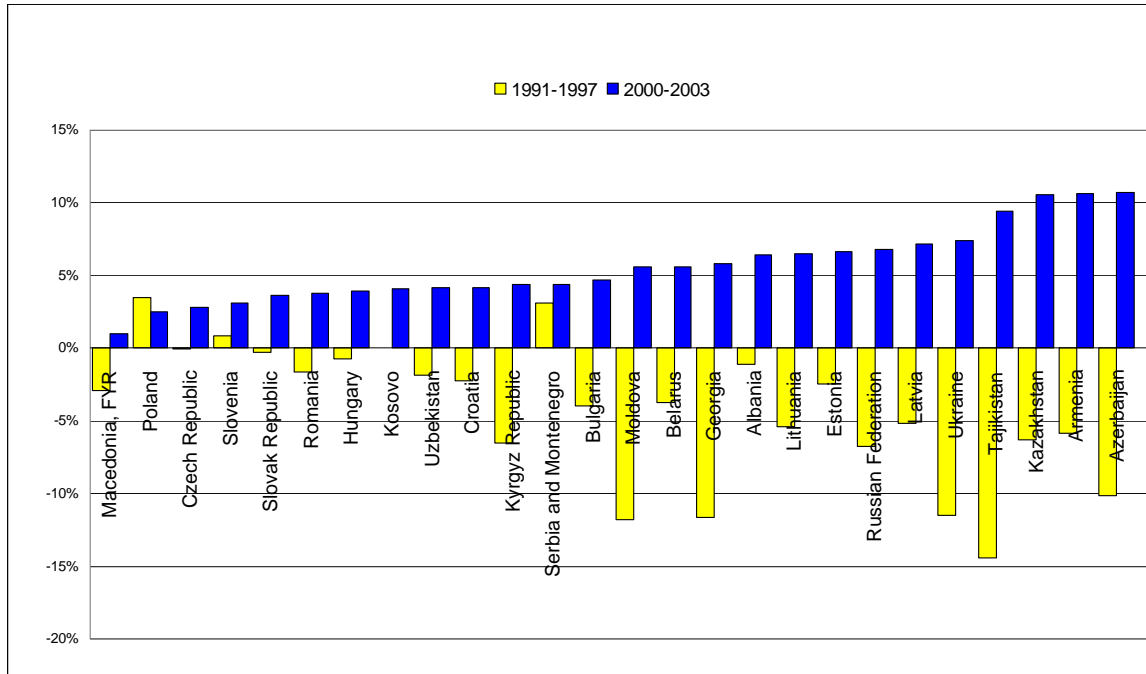
Countries in the region differ substantially in terms of level of development, institutional capacity, and demographics, as illustrated in the following charts. The northern countries in Eastern Europe tend to be older and wealthier than the southern countries, and similarly the European parts of the former Soviet Union tend to be wealthier and older than the Central Asian parts.

GDP per capita (for 2003 in 2000 constant USD)



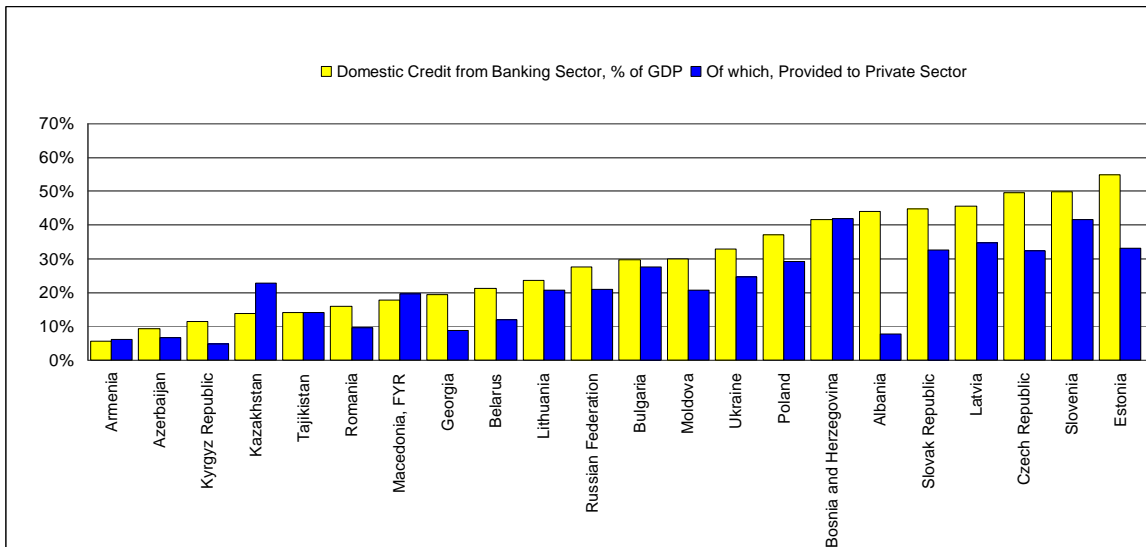
Source: World Bank Database, World Development Indicators. Kosovo data is from IMF.

Average growth rates



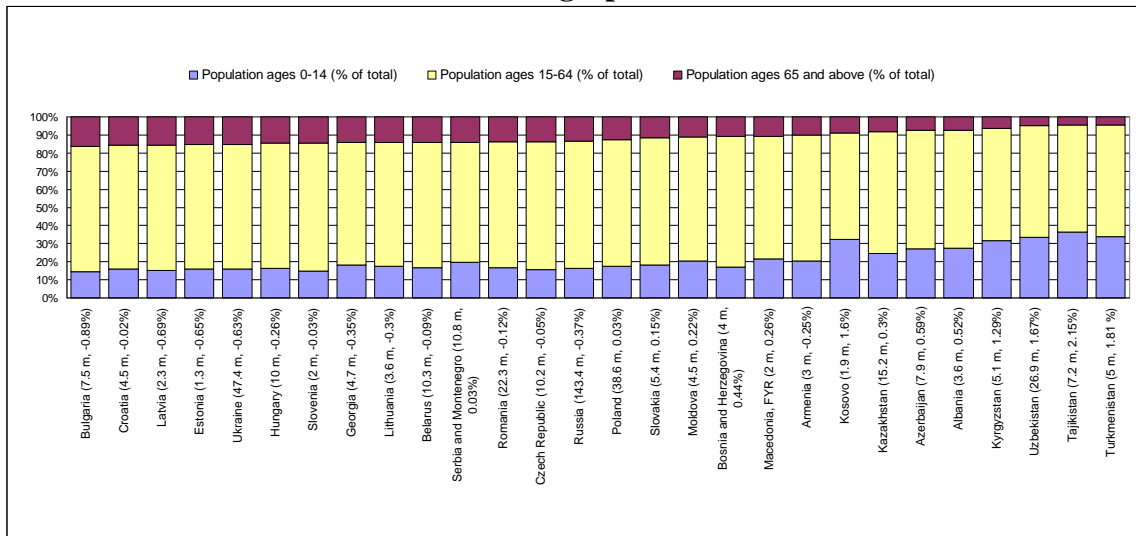
Source: World Bank Database, World Development Indicators. Kosovo data is from IMF.

Financial Sector Depth



Source: World Bank Database, World Development Indicators.

Demographics



Source: CIA World Factbook. Kosovo data is from Statistics Office of Kosovo. Population, in millions, and population growth rates, in percent, are given in parentheses.

Despite differences, the countries in the region all had relatively similar pension systems at the beginning of the reform era. The former Soviet republics carried forward the system inherited from the Soviet Union; the former Yugoslav countries carried forward that model; and these plus others in eastern Europe were all based on a similar design. From this common history, diverging reform paths were pursued.

2.1. Former Soviet Union

When the Soviet Union was dissolved in 1991, the constituent republics had already established separate republican pension systems.¹ This was primarily an initiative from Moscow, as the Russian Federation calculated quite conclusively that it was a net donor to the other republics. The Pension Fund of the Russian Federation (PFRF) was established in 1990 in the waning days of the Soviet Union. Prior to that time Soviet republican budgets paid pensions without the use of a separate legal entity. Other republics were therefore forced to establish their own funds and did so largely without any assessment of sustainability.

Despite formal separation, the republican pension systems largely replicated the benefit system of the FSU, which they could no longer afford. The system provided pension benefits to contributing individuals in the event of old age, disability, or survivorship, based on a defined-benefit formula and eligibility requirements. Separate laws and legal acts established pensions for civil servants, including members of Parliament, tax police, customs employees, judges, prosecutors and even cosmonauts. Pensions were paid on the basis of wages and years of service, with significant adjustments to compensate for inflation. Attribution of years of service was very generous, with military service,

¹ Sections 2.1 and 2.2, and also parts of some other sections, are based on an earlier work prepared for USAID E&E Social Transition Team, Snelbecker and Zezulín, 2005.

university education, childcare and other activities being credited with service. Retirement ages were low, especially for women. In many cases, normal retirement ages were set at 60 for men and 55 for women, with many instances of early retirement rights even below these normally mandated levels. This is in contrast to internationally accepted retirement ages of 65 or higher for both men and women.

A great number of professions were included under a privileged early retirement system; by some estimates, 1700 of 4300 professions in the Russian Federation qualified for such programs. There were two such systems in the FSU: one for privileges, hazardous and Far North employees, and one for employees in medicine and education who qualify on the basis of length of service. Perhaps the most egregious example of the length of service pensions is the pension for rural doctors and teachers, who have been granted five years of early retirement as a form of salary increase. It was widely recognized that these employees of local and regional governments would not actually leave the workplace but would continue in the same employment receiving both pensions and salaries. This was a convenient way for to shift the costs of the salary increase for such local employees from local budgets to the state pension budget. The so-called “hazardous” professions were also subject to abuse resulting from political pressure and included everyone from ballerinas to coal miners.

After immediately replicating the Soviet system, each country successor to the FSU had to find its own path to address the manifest insolvency of the system once transfers were no longer forthcoming from Moscow.

The first to reform were the Baltic republics, not covered in this paper. After them came Kazakhstan, which made a creative and brave political decision to adopt wholesale a transformation, eliminating the PAYG system and introducing a Chilean-style system with only a funded, defined-contribution tier. It remains a solitary example of a complete transformation to a funded system in the FSU. Other FSU countries have changed PAYG systems and added savings components to a lesser extent. In some cases these changes were premature and not suitable to the environment. Turkmenistan, for example, introduced an inadequate second pillar on a “voluntary” basis without having any investment capacity whatsoever. Savings are invested in state banks and earn a rate of interest set by the state below inflation. Uzbekistan has also recently announced its decision to introduce funded savings pensions, but lacks the basic prerequisites for a funded pension system, such as a convertible currency or a capital market.

2.2. Former Yugoslav Republics

Social insurance in some parts of the Federal Republic of Yugoslavia (FRY) has a long history, dating back to the middle of the 19th century when Slovenia was under the Austro-Hungarian Empire and established its initial pension system. As part of Yugoslavia after World War I, Slovenia maintained a number of social insurance programs that were funded and had noteworthy investments. After World War II, the entire economy underwent radical change and the social insurance systems of all the republics were also subject to nationalization. However, after initial centralization, there

was devolution of responsibility to the republics for many social and economic aspects, and the republics each maintained separate pension systems. There was a federal pension law, but it was implemented at the republican level with separate republican provisions. The basic parameters remained the same. The republics differed markedly in the extent of coverage. At one extreme, Kosovo, as a constituent part of the republic of Serbia, initially had its own fund, but even that fund covered less than half of workers. In 1980 when the Kosovo fund was merged with the fund of Serbia, Kosovo Albanian employment was also reduced due to ethnic repression by the Milosevic regime, and the coverage fell still further. Slovenia, on the other extreme, had better coverage. In all of the FRY republics, rural populations generally had no coverage, a significant distinction from the systems of the FSU.

Efforts to reform the existing pay-as-you-go (PAYG) system began in all successor countries to the FRY and have followed very different paths, notwithstanding advice from the same donor agencies. Slovenia was advised to adopt a two-pillar system by the World Bank, and rejected this advice after considerable political debate. Croatia and Macedonia, on the other hand, have adopted two-pillar systems. (Croatia's has been operating for several years; Macedonia's reform is just getting underway.) Serbia and Montenegro have just taken first steps with limited parametric reforms. Serbia and Montenegro, while joined as one country, have separate pension systems and laws. They have adopted parametric reforms designed to reduce pressures on the PAYG system but have not adopted any funding measures. In particular, retirement ages have been raised slightly, indexation formulas were changed, and some restrictions to overly generous disability pensions for partial disability were made. Kosovo, still part of Serbia though with an independent economic policy and under UN auspices, has adopted and implemented a comprehensive reform that is closest to the Kazakh and Chilean models, through centralized in one institution.

Bosnia and Herzegovina had by far the steepest decline in funding for its pension system, due to the war. In spite of improved conditions after the end of the war the system remains in fiscal imbalance due to unaffordable levels of benefits. A multi-pillar reform and the introduction of funding remain remote.

2.3. Rest of Eastern Europe

Hungary and Poland were pioneers in introducing pension reforms, first scaling back and changing their PAYG systems and then introducing funded individual accounts. Poland has gone further than Hungary with reforms. Bulgaria implemented a reform that scaled back the PAYG system slightly and introduced a relatively small funded component (compared to other countries in the region). Romania did not adopt a fully funded pension pillar, and has only implemented parametric reforms. In Albania, the trauma of loss caused by pyramid schemes and general financial collapse has been a disincentive to consideration of fully funded pensions.

2.4. Hungary

Hungary introduced a pension reform in 1998, which it gradually implemented in the

subsequent years with a few hesitations and periods of backtracking. The existing PAYG system was scaled back in terms of its promises. The “accrual rate” was reduced from 1.65% to 1.22% of earnings for each year of service (which corresponded to a reduction in contribution rates to the PAYG system from 30% to 22% of wages); retirement ages were increased, from 55 for women and 60 for men, to a uniform age of 62 for all; and the indexing formula for pensions was based 50% on price growth and 50% on wage growth. (OECD, 2005, pp127-129.) Younger workers all entered the new system. Older workers could choose to remain in the old system or switch to the new system. Workers who did agree to switch to the new system agreed to forego part of their entitlements already accrued. The fiscal savings in the reform essentially came from this reduction in benefits from the old system for some workers, from a gradual increase in the retirement age, and from switching toward CPI indexing of pensions rather than pure wage earnings. Almost no tax increases or expenditure cuts were achieved immediately, meaning that the transition costs were financed through additional explicit debt in the early years. It is likely that the fiscal reductions in the reform are not sufficient to establish long-term fiscal balance, meaning that future reforms still might be necessary to establish long-term sustainability. (Political compromises reduced the level of expenditure decreases from original proposals.)

Additionally, a defined-contribution funded component was introduced gradually, initially with a contribution rate of 6% of wages and then growing to 8% as of 2004. Participants in the new system could choose the pension fund in which they wanted to hold their assets. Pension funds are “mutual benefit funds” managed by members. As a civil-law country, Hungary did not follow the trust model with professional “trustees” that invest assets on behalf of participants, which is customary in Anglo-Saxon common-law countries. Two types of guarantees were established—one that would ensure that participants get at least a minimum level of pension income if they participate for sufficient years, and another that would guarantee at least a minimum rate of return. (Palacios and Rocha, 1998) Pension funds generally hire outside asset managers, are regulated by the Hungarian Financial Supervisory Authority, and invest assets according to limits and rules established by the supervisory agency. There are currently 18 private pension funds licensed in the mandatory system and 81 voluntary pension funds.

Overall, redistributive elements were removed from the system, with the intent of tightening the link between contributions and benefits, in both the unfunded and funded components. It was envisioned that a social assistance program would evolve to address the needs of poorer elderly. (Palacios and Rocha, 1998)

2.5. Poland

Poland adopted its pension reform laws in 1997 and 1998, and began implementation in 1999. The first tier of the new pension system is based on “notional defined contributions,” in which contributions are made to the state Social Security Institute (ZUS), and notionally accrued in people’s accounts, earning a notional interest rate related to growth in the wage base, and paying a pension from the state upon retirement that is based on a person’s accrued “notional capital” divided by life expectancy at the

point of retirement. The “capital” and “interest rates” are “notional” in that they are accounting notations set by formulas specified in law and regulation. No real capital or market interest rates are involved. The system still works on a PAYG basis just like the old system, in which today’s contributions pay today’s benefits—no capital is actually accrued. (Pelc, 2005)

The notional interest rate initially was set equal to the CPI plus 75% of real wage growth. Subsequently, the formula was changed, increased to CPI plus 100% of real wage growth. This will lead to a higher value of pensions from the first pillar but might cause problems for fiscal sustainability in the long-run. Because of administrative and IT issues, the NDC component has been slow to report to participants. Contributions made to the system in 2001 were reported in 2003; contributions made in 2002 and 2003 were reported in 2004. Participants still haven’t received accounts detailing their total “notional capital”, including notional income from indexing plus initial capital granted based on rights accrued in the old system. (Chlon, 2004)

The second tier consists of fifteen private pension funds that manage contributors’ assets (down from a level of 21 funds in 1999). Each “open pension fund”, consisting of participants’ capital, is managed by a “universal pension society”. The system at first was regulated by a separate Superintendency of Pension Funds, and since 2002 has been regulated by the Insurance and Pension Funds’ Supervisory Commission (KNUiFE). The three largest funds control over ¾ of the market. (High concentration of assets in just a few pension funds is common in many central European and Latin American systems.) Administrative charges in the system have been relatively high, particularly compared with gross returns, making net real returns to participants negative in the first two years, turning positive only more recently.

The legislation placed a number of restrictions on investments, including: no more than 60% of assets could be invested in stocks (40% directly and 20% through mutual funds); no more than 5% in a single security; and no more than 5% abroad. Partially due to high administrative charges in the system, net real returns during the first several years have been sharply negative (minus 16% according to one study). (Stanko, 2003, pp7-10)

ZUS collects contributions for the PAYG component and the funded component, as well as for sickness and worker injury funds, and disability, health care, and labor programs. ZUS administers funds for several of these programs, plus reserve funds.

7.3% of wages is contributed to the funded component and 12.22% to the unfunded component, meaning that the unfunded component is still the predominant source for funding old-age pensions. The government guarantees a minimum total pension from both mandatory components, indexed to the CPI, making up any shortcoming from government funds.

Private farmers fall outside this new system, belonging to an unreformed system for which reform proposals are still under discussion. Most expenses of the farmers’ system are covered by the general state revenues, not by contributions.

Legislation still needs to be adopted to govern the annuity stage.

2.6. Kazakhstan

Kazakhstan adopted a comprehensive pension reform law in 1997 and started implementation in 1998. Workers stopped accruing rights under the old Soviet PAYG system and began making contributions to funded individual accounts. A 15% wage tax was introduced to be paid by employers to cover costs of outstanding liabilities in the old system. Subsequently, an aggregate social tax was introduced at 21% of wages, combining this charge with contributions for unemployment and health, with an understanding that this total charge could be reduced in future years as PAYG expenditures declined. In particular, it was envisioned that the pension component could be gradually reduced from 15% to 5%. Instead, a progressive scale was introduced that slightly decreased the social contribution rates. The PAYG system continued paying disability, survivor, and social pensions, in addition to remaining pre-reform old-age obligations. Individuals who would contribute for a certain number of years (25 for men and 20 for women) were guaranteed at least a minimum total pension (PAYG and funded), to be topped up by the government if necessary, set around 70% of the minimum living standard.

A number of private pension funds were created from which participants can choose (now 15 such funds), while the existing PAYG pension fund also created a default fully funded institution. At first more than half of participants chose the state fund, but over time people have shifted toward other private institutions. Now over half of contributors participate in private funds, and plans are underway to privatize the state fund. Some limitations on investments were established. Up to 30% of assets were allowed in “Class A” corporate securities (which are listed on the stock exchange and have at least one year of audited financial statements according to international accounting standards). The pension funds (called “non-state accumulation funds”) appoint asset management companies and custodian banks, creating some institutional checks and balances. The whole system is regulated and supervised by three entities: The National Securities Commission supervises asset management companies. The Committee for the Regulation of Pension Funds supervises pension funds (reporting to the Ministry of Labor and Social Protection). And the National Bank supervises custodian banks. The State Pension Payment Center performs several administrative functions: It pays PAYG pensions, issues Social Individual Codes (unique ID numbers), and oversees transfer of individual account contributions to appropriate asset management companies. (Andrews, 2001)

Assets in the system as of December 2004 stood at around \$3.5 billion—so great that funds are having trouble finding good domestic assets in which to invest, creating over-liquidity. Attempts are being made to develop more capacity and flexibility for investing abroad. As long as best international practices are followed, investing a greater share of assets abroad will increase diversification and also security of the system. Kazakhstan also needs to devote attention to providing adequacy and coverage to poorer citizens

unable to save enough in individual accounts. Recently discussion has turned to creating some kind of “zero pillar” that would provide at least a minimum benefit to all elderly.

The shortfall in revenues due to the reform (i.e., the transition deficit) was estimated at around 1.7% of GDP. In the initial year of the reform, the non-reform-related state budget deficit was reduced by 0.7% of GDP to partially cover these transition costs, while the remaining 1% annually essentially was debt financed. On balance, it was estimated that the overall impact on fiscal stance of the reform would be relatively neutral. That is, reduction in net present value of expected future PAYG pension benefits was roughly equal to the reduction in net present value of expected payroll taxes. (Andrews, 2001, p4) So, in sum from a fiscal perspective, the reform meaningfully reduced the fiscal burden, particularly wage taxes, on the economy, while not having a negative impact on overall fiscal stance.

Responsibility for collections were transferred to the tax administration, unifying the pension collection process with tax collections. This led to initial declines in collections until the tax administration became more proficient in collecting pension contributions.

2.7. Kosovo²

Kosovo broke from a history under Yugoslav control of unsustainable PAYG pensions with low coverage (only half of elderly under the FRY system in Kosovo received pensions), and introduced a new modern pension system in 2002, with three tiers. Under the Yugoslav system, until 1989, Kosovo had an autonomous pension fund that collected contributions and paid benefits. In 1989, these functions were centralized to Belgrade, and the regional Kosovo fund was disbanded. Many Kosovar workers were excluded from the system as of 1989. Since the beginning of the conflict, Belgrade ceased paying pensions to most past contributors, and Kosovo ceased collecting contributions. (A small number of Kosovars, mostly ethnic Serbs, continued to receive pensions from Belgrade.) Immediately after the conflict ended, UNMIK began a general social assistance program to households in need that included payments to certain categories of elderly on a needs-tested basis, but did not initially re-instate a pensions program. By 2001, considerable political pressure had built up to create some kind of a pensions program. Policy discussions resulted in agreement to establish a three-pillar pension system, the cornerstone of which would be a mandatory defined contribution pension fund for working Kosovars. Due to political factors and pressure from stakeholder groups, the pace of reform was swift. The pension legislation was passed late in December 2001, and all three components of the system became operational during 2002.

The first pillar is comprised of a basic citizens’ pension (referred to as the “basic pension”) and a disability pension. The basic pension pays a flat benefit to all Kosovar citizens who are 65 years of age and older. The decision to opt for a citizen-wide, flat benefit, rather than a pension that pays out to contributors to the Belgrade pension, was based several policy objectives: to avoid high payroll taxes meaning this pillar would be

² This section is partially based on John Gubbels, David Snelbecker, Lena Zezulin, “The Kosovo Pension Reform: Achievements and Lessons”, World Bank, forthcoming.

non-contributory; to achieve universal coverage in a place where only a small share of the labor force earns formal wage income; and to adhere to a principle of division of roles, where the first pillar ensures poverty avoidance and the second pillar serves as the main savings means. The new basic pension is designed so that it does not discriminate based on work history, gender, or ethnicity. The benefit is tied to the cost of a basic monthly food basket, linked to official government statistical surveys. The retirement age is set at 65 for men and women. The disability pension is similar in all respects except for eligibility, which is determined based on medically-confirmed, full and permanent disability. Pensions are paid through the banking system, which required an orchestrated campaign to help elderly open bank accounts, breaking from the old tradition of paying through the postal service (which entailed far greater administrative costs).

The second pillar of the system is a mandatory, defined-contribution, savings pension program. The program requires all working, habitual residents of Kosovo to contribute 5% of gross salary to the pension trust. This worker contribution is matched by an additional 5% payment from the employer.³ Both workers and employers are eligible to voluntarily contribute an additional 10% of gross salary (for a maximum monthly contribution of 30%). Contributions and records are managed by the Kosovo Pension Savings Trust, an independent body established solely for the purpose of administering the savings pension system. The intent of the program is that, at the time of retirement (or permanent disability), an individual's pension savings are used to purchase a pension annuity. The KPST invests pensioners' assets abroad in Euro instruments, through major European asset managers. (There are no legal requirements or restrictions on overseas or domestic investment, though high standards are set for the security of instruments, which few if any domestic assets at present would meet.) After a little more than two years of operation, KPST participants' assets surpassed \$100 million in 2005 (for a population of around two million). Collections are centralized to minimize administrative fees (at 100 basis points or less of assets).

The third pillar of the system provides for supplemental, voluntary individual or employer-sponsored pension schemes. The pension regulation mandates the Bank and Payments Authority of Kosovo (BPK) to license and regulate all third pillar pension schemes. (The BPK also regulates the KPST.)

2.8. Ukraine

Ukraine has adopted a comprehensive reform and is just beginning to implement it over the next few years. The reform is somewhat similar to the Russian reform. The PAYG system will be scaled back somewhat, and funded individual accounts will be introduced. Collection will be centralized in the existing pension fund, but competing asset managers will be chosen to offer choice. The reform will be introduced gradually, slowly increasing the percentage of wages contributed to individual accounts. The challenges for Ukraine will be: to implement an extremely complex collection and allocation system given limited institutional capacity; to further scale back the remaining PAYG system

³ Self-employed individuals are considered both employer and employee, thus requiring a 10% contribution.

and also high payroll taxes; to address the problem of weak capital markets that provide few if any safe investment opportunities; and to address the issue of relatively high administrative costs given the small size of the funded component in early years, meaning a reduced net return to participants.

2.9. USAID Assistance

USAID has been instrumental in supporting pension reforms across the region. The following table illustrates some of this assistance.

USAID Pension Reform Assistance

Bosnia. Provided assistance in improving existing PAYG institutions.
Bulgaria. Supported design of reform strategy, drafting laws and regulations, public education, and development of a contribution registration and tracking system.
Croatia. Provided public education campaign to support the reform effort, as well as assistance with pension fund auditing and supervisory training for the supervisory agency (HAGENA), and information technology (IT) systems design for the collection and record-keeping agency for the second pillar (REGOS).
Hungary. Assisted the development of the Hungarian pensions regulator for the mandatory funded component.
Kazakhstan. Advised on conceptualization of the reform, modeling, drafting legislation and regulations, and establishment of a regulator.
Kosovo. Advised on conceptualization of the reform, modeling, drafting legislation and regulations, establishment of a regulator, development of new institutions to run the PAYG and funded components, and all aspects of implementation.
Lithuania. Provided assistance in a supporting role.
Macedonia. Advised on conceptualization of the reform, and on creation and training of an independent supervisory agency.
Montenegro. Assisted in analyzing the current system, evaluating comprehensive reform options, and improving efficiency and transparency of the current system.
Poland. Provided assistance to aspects of implementing the funded pillar, and also public information and regulatory assistance.
Romania. Provided assistance to discussions on reform design over the course of several governments.
Russia. Capital markets assistance helped design the third-pillar law.
Serbia. Assisted in analyzing the current system, evaluating comprehensive reform options, and improving efficiency and transparency of the current system.
Slovakia. Supported an internship for senior government officials to attend an internship with the Public Employees Retirement System in Idaho.
Ukraine. Assisted with conceptualization of the reform, related modeling, drafting legislation and regulations, public education, and improving administrative efficiency of the existing system.
OECD. Helped establish the International Network of Pension Regulators and Supervisors by supporting institutional development, a number of key forums, and also the E&E Regional Network of the INPRS.

Source: Based on information provided by Denise Lamaute, Senior Pension Reform Advisor, EGAT/EG/EDFM USAID.

Part II: Policy Issues

3. Social Issues

From the perspective of individuals, a pension system should achieve the following:

- Offer a reasonable net return on contributions (compared to risk-adjusted alternatives participants could receive in voluntary capital markets).
- Reduce labor-market distortions in order to decrease shadow economy and unemployment.
- Facilitate consumption smoothing.
- Provide at least a minimum income to all elderly and other relevant groups.
- Adjust retirement ages to levels that seem to fairly target resources to elderly populations most in need.
- Equitably allocate pension resources across generations, smoothing the burden of paying for the pension system, without abruptly changing benefits and costs to current or soon-to-be retirees.
- Equitably allocate resources between rich and poor, men and women, full-career and part-career workers, and others.
- Provide adequate disability and survivor benefits.

3.1. Expected returns and risk management

In fulfilling its function as a means for smoothing consumption across time, a pension system should offer participants a good deal. It should provide a good return on contributions, taking into consideration the risks involved, particularly compared with what they could have received through voluntary savings opportunities. The returns in a funded system will depend on the market returns of investments in the system, reduced by various administrative charges. The following charts (from a few different sources) shows the net nominal returns and net real returns of the funded pension systems of several countries. Net nominal returns give investment returns of pension assets minus various administrative charges, therefore showing what participants are actually receiving on their contributions. Net real returns adjust for inflation.

Net nominal and real returns to participants – ILO study

Country	Net nominal returns	Net real returns
Hungary	3.75% nominal average <i>annual</i> returns over first six years	6.6% average <i>annual</i> inflation
Poland	20.3% <i>cumulative</i> nominal increase, Dec 1999 – Jun 2004	24% <i>cumulative</i> inflation, Dec 1999 – Jun 2004
Slovenia	2.5-3.7% nominal yields, end 2001 through 2003	8.4%, 7.5%, 5.6% <i>annual</i> inflation, 2001-2003

Source: Fultz (2004).

Net nominal and real returns in Kosovo

	Oct-03	Dec-03	Dec-04	Mar-05
Cum. Nom. Returns	0	0.21%	1.60%	3.16%
Annual Nom. Returns	0	0.21%	1.39%	1.53%
Annual Real Returns	0	-1.56%	4.77%	0.33%
Inflation	-	1.77%	-3.38%	1.20%
Unit price	1.000	1.002069	1.016012	1.031559

Source: Author's calculations based on data from Kosovo Pension Savings Trust and Statistical Office of Kosovo (2005). December 2003 numbers are for last quarter; March 2005 numbers are for first quarter.

Net nominal and real returns in Poland

Year	Cum. Nom. IRR	Inflation	Weighted inflation	Real IRR (avg. infl.)	Real IRR (wghtd. infl.)
1999	-4.0%	1.8%	1.8%	-5.9%	-5.9%
2000	-0.6%	10.1%	8.6%	-6.5%	-9.2%
2001	1.1%	5.5%	6.7%	-4.7%	-5.6%
2002	4.1%	1.9%	4.4%	-0.7%	-0.2%
2003	5.6%	0.8%	2.9%	1.6%	2.7%
2004	5.4%	1.8%	2.5%	1.7%	2.8%

Source: Author's calculations based on pension system data from Ministry of Social Policy (2004) and CPI data from Central Statistical Office of Poland. 1999 numbers are for last quarter. 2004 numbers are for first half.

Several countries in the region experienced negative real net returns to participants in the start-up years, including in Poland and in Hungary. (Chlon, 2002; Stanko, 2003, p10; Kritzer, 2003; and Fultz and Ruck, 2000) In the cases of Hungary, Poland, and Slovenia, the returns are low in the initial years because of administrative fees and high start-up costs relative to initial assets, and also the relatively small size of the funded component. In the case of Kosovo, the returns are low (just barely positive) because the assets have been invested in particularly low-risk assets by regional standards—in AAA-rated fixed-income instruments and equity index funds in pre-enlargement EU countries, all of which yielded relatively low returns in recent years. These calculations are revisited and discussed more in detail later in this paper, in the section on administrative costs. To the extent that low returns have been related to system start-up, real rates of return likely will improve over time, so even those systems with poor performance initially may in fact still yield a good deal for participants in the long run compared to pre-reform systems.

Note that the returns earned across countries cannot be directly compared since investments are made in instruments of different risk level. Investments in Hungary and Poland are made mostly in domestic assets. In Kazakhstan too they are made mostly in domestic assets, but with an emphasis on dollar-denominated Eurobonds. While the Kazakh economy is more risky than those of Hungary and Poland, Eurobond issues carry more contractual certainty than domestic instruments, somewhat mitigating risk differences. Kosovo investments are made in the pre-enlargement EU countries and therefore are the safest, though returns in the long run might be lower.

The returns in an unfunded system will depend on the benefit formula, although in the long run if a PAYG system is in fiscal balance, the returns would be limited by what the

system can afford to pay, regardless of how generous a benefit formula might be. That is, in long-run equilibrium, growth of pensions at the maximum cannot exceed growth in the wage base, all other things being equal.

A PAYG system based on notional defined contributions transparently tells participants the return they are earning since the notional interest rate is an explicit part of the benefit determination process. The following table gives the notional interest rates earned in the Polish NDC system to date:

Notional Defined Contribution interest (indexation) rates in Poland

	2000	2001	2002	2003	2004
NDC nominal indexation rate	11.1	8.0	7.0	0.5	4.0
Inflation	10.1	5.5	1.9	0.8	1.8
NDC real indexation rate	1.0	2.5	5.1	-0.3	2.2

Source: Ministry of Social Policy (2004) and Central Statistical Office of Poland..

In other PAYG systems, it is possible to use demographic and financial models of the pension system to estimate implicit rates of return. For a given generation, contributions to the old-age system over a cohort’s lifetimes can be estimated (subtracting out contributions that are allocated for survivor and disability pensions, and for redistribution), as well as expected benefits to be accrued to the cohort given life expectancies and other assumptions. From such projected streams, implicit rates of return can be calculated.

It is possible to make a crude estimate of the equilibrium long-term maximum rate of sustainable return to a PAYG system simply by estimating the rate of growth of the wage base. While over medium time periods this can be influenced by changes in the shadow economy, life expectancy, and other factors, in the long run this is influenced almost exclusively by long-term population growth and wage growth. The wage base after all is the average wage multiplied by the number of workers. Assuming a long-term real wage growth of three percent, and using current population growth rates, the following chart shows expected *hypothetical* maximum returns from PAYG systems in these countries.

Potential long-run rates of return from PAYG systems

Country	Hypothetical real long-run wage growth	Population growth rate	Hypothetical maximum long-run real PAYG returns
Hungary	3.00%	-0.26%	2.73%
Kazakhstan	3.00%	0.30%	3.31%
Poland	3.00%	0.03%	3.03%
Ukraine	3.00%	-0.63%	2.35%

Source: Population growth rates from CIA World Factbook.

What a PAYG system actually offers in any given year might differ substantially from this long-run possibility, either because of fluctuations around this average or because of long-run unsustainability.

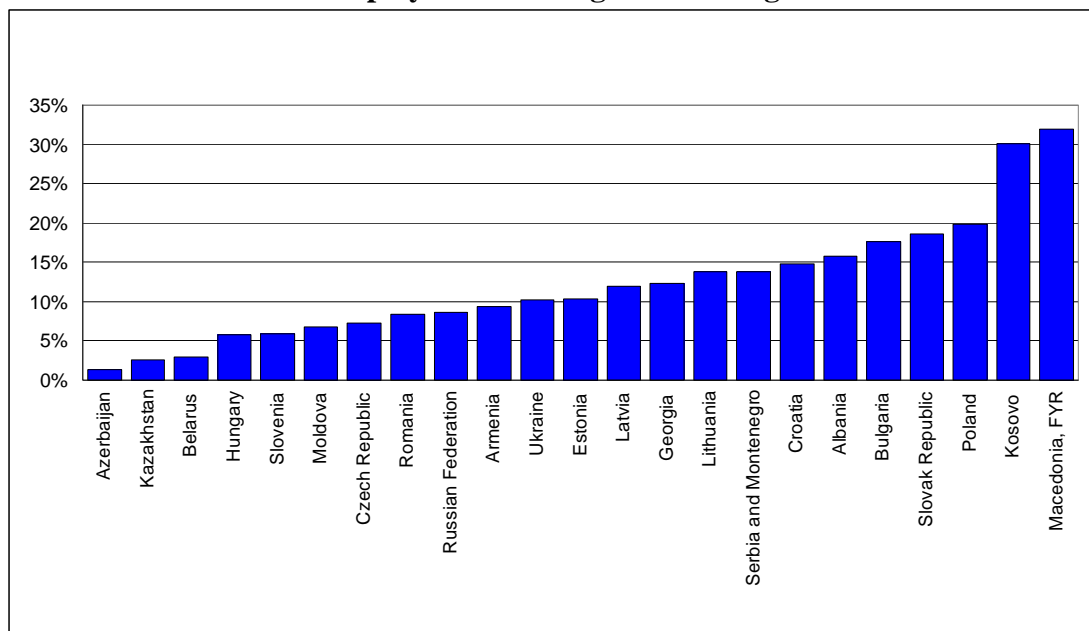
3.2. Labor-market distortions

A key objective of pension reforms has been to reduce labor-market distortions. High taxes and contributions on labor, particularly contributions to PAYG pension systems, have been important causes of persistently high unemployment and “shadow economy” (i.e., evasion). Meaningful reductions in tax and contribution rates could substantially reduce these distortions, improve economic efficiency, and create jobs.

The issue of labor market distortions is different from many pension reform issues in the following respect. With other issues, reforms usually are not what economists call “Pareto improving”, which means making improvements in social welfare overall. Rather, most pension reforms are about transfers between groups (within or across generations), presumably reducing burdens on some groups that seem unfair, increasing benefits for some groups, and spreading pension system burdens more evenly. For instance, increasing savings and investment spreads resources across generations in order to more evenly cover pension expenses, rather than unfairly concentrating resources to a few present generations. In most pension reforms, some are made better off at the expense of others. In contrast, with labor-market distortions, if efficiency of the overall system can be improved, then society as a whole is better off, not necessarily at the expense of anyone. Therefore, labor market issues are particularly important since this is one of the few areas in pension reform where Pareto improvements can be made.

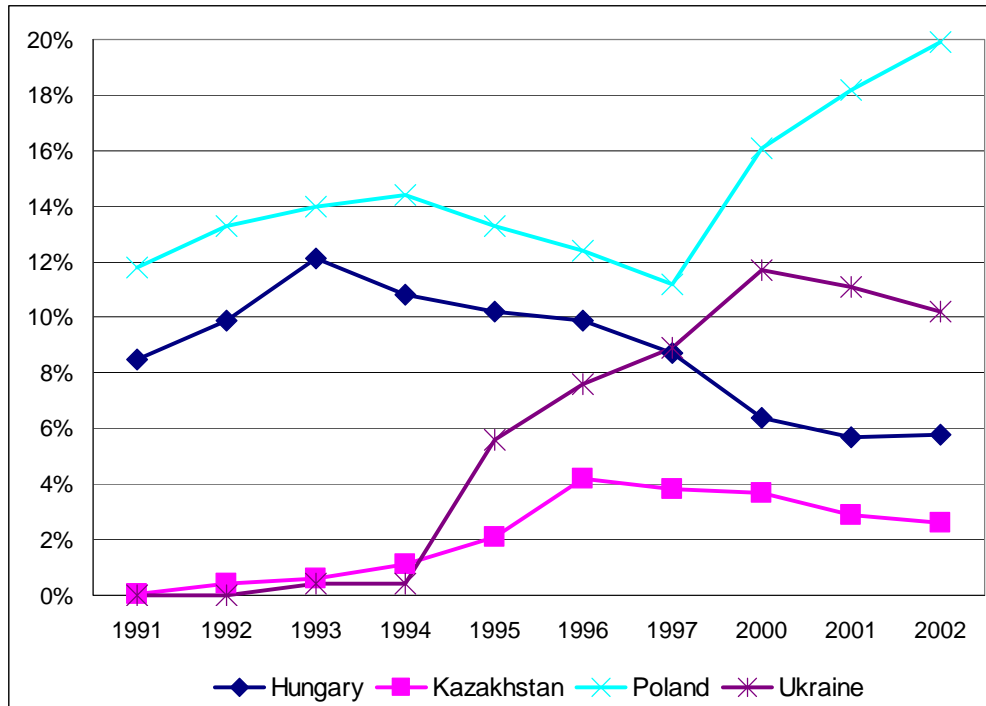
Unemployment and also shadow economy participation have been consistently high. The following charts show: recent unemployment rates in all countries in the region; time series of unemployment rates over time for select countries; and the shadow economy over time for select countries.

Unemployment Throughout the Region



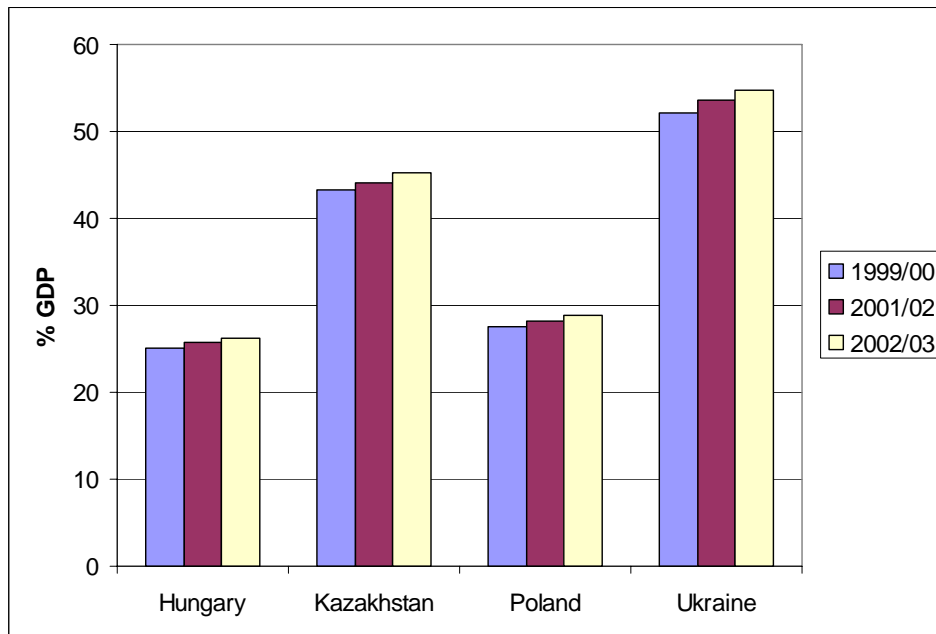
Source: World Bank Database on World Development Indicators, 2002. Kosovo data from IMF for 2003.

Unemployment Trends in Select Countries



Source: World Bank Database on World Development Indicators, 2002.

Shadow Economy in Select Countries



Source: Schneider (2004).

While causality is hard to prove, most experts believe that high social contributions and taxes on labor are important contributors to these high unemployment rates and shadow economy participation. Note however that these rates do not appear to have changed much even in countries after they have undertaken pension reforms. There is mostly just

theoretical and anecdotal reason to believe that high payroll and personal income tax rates increase unemployment and shadow economy participation. Little empirical evidence exists.

The following chart shows wage-based social contributions in countries in the region. (This data is pre-reform, mostly from 1995. Kosovo data is from 2004.)

Country	<i>As % of Gross Wage:</i>			<i>As % of Total Labor Costs:</i>		
	Pension Tax: Employer	Employee	Total	All Social Ins. Taxes	Pension Tax	All Social Ins. Taxes
Kosovo	5.0	5.0	10.0	10.0	9.5	9.5
Lithuania	-	-	-	24.0	-	19.5
Belarus	22.8	1.0	23.8	24.8	19.2	20.0
Estonia	20.0	0.0	20.0	33.0	15.0	24.8
Uzbekistan	-	-	-	37.0	-	27.2
Armenia	35.0	1.0	36.0	38.0	26.3	27.7
Latvia	-	-	20.0	38.0	-	27.7
Moldova	-	-	-	39.0	-	28.3
Russian Fed.	28.0	1.0	29.0	40.0	20.9	28.8
Turkmenistan	-	-	-	40.0	-	28.8
Georgia	37.0	1.0	38.0	41.0	27.1	29.3
Ukraine	-	-	33.0	41.0	-	29.3
Kyrgyzstan	33.0	2.5	35.5	43.5	25.3	31.0
Albania	26.0	10.0	36.0	42.5	27.2	32.1
Poland	45.0	0.0	45.0	48.0	30.4	32.4
Slovakia	20.6	5.9	26.5	46.0	19.6	34.1
Czech Republic	20.4	6.8	27.2	48.5	20.1	35.9
Croatia	13.0	13.0	26.0	43.0	21.0	36.0
Slovenia	15.5	15.5	31.0	45.8	25.2	37.2
Hungary	24.5	6.0	30.5	60.5	20.5	40.6
Bulgaria	-	-	42.0	47.0	-	-
Kazakhstan	-	-	25.5	32.0	-	-
Romania	-	-	26.5	33.5	-	-

Source: World Bank. Kosovo data is from Ministry of Finance and Economy. Countries with total social labor costs above 25% of total labor costs (shown in bold) are presumed to be too high, likely to increase unemployment and shadow economy participation. (This threshold is just speculative, based on anecdotal evidence.)

Most countries in the region, when they introduced funded systems, simply “carved out” part of these taxes for the funded system. That is, they reduced social taxes in order to make room for contributions to funded systems. But total contribution rates did not decline. Contribution rates to funded systems in reforms are shown in the following table.

Funded Pension System Contribution Rates

Country	Contribution rate	Percent to total benefits from accounts	Add-on (A) or Carve-out (C)
Bulgaria	2 => 5.0%	Low	C
Croatia	5.0%	Low	C
Estonia	4.0+2%	Medium	C+A
Hungary	6 => 8%	Medium	C
Kazakhstan	10.0%	High	C
Kosovo	10.0%	High	A
Latvia	2 => 9.0%	Low	C
Macedonia	7.0%	Medium	C
Poland	7.3%	Medium	C

Source: James (2005), p8. For "Percent to total benefits" category, High means 70% or more, Low means 30% or less, and Medium means 40 to 60%.

In addition to various contributions to funded and unfunded pension systems and to other social programs, personal income taxes also must be paid, as shown in the following table.

Personal Income Tax Rates

	Taxable Income	Tax Rate
Hungary	up to 1,500,000 HUF over 1,500,001 HUF	18% 270,000 HUF + 38% of the amount over 1,500,000 HUF
Kazakhstan	up to 165,420 KZT 165,420 - 441,120 KZT 441,120 - 2,205,600 KZT 2,205,600 - 6,616,800 KZT over 6,616,800 KZT	5% 8,271 KZT + 8% of the amount over 165,420 KZT 30,327 KZT + 13% of the amount over 441,120 KZT 259,709 KZT + 15% of the amount over 2,205,600 KZT 921,389 KZT + 20% of the amount over 6,616,800 KZT
Kosovo	up to 960 euro 960 - 3,000 euro 3,000 - 5,400 euro over 5,400 euro	0% (zero) 5% of the amount over 960 euro 102 euro + 10% of the amount over 3,000 euro 342 euro + 20% of the amount over 5,400 euro
Poland	up to 37,024 PLN 37,024 - 74,048 PLN over 74,048 PLN	19% less 530.08 PLN 6,504.48 PLN + 30% of the amount over 37,024 PLN 17,611.68 PLN + 40% of the amount over 74,048 PLN
Ukraine		13% flat rate

Source: KPMG "Investment in..." guides, 2005; and for Kosovo, UNMIK Regulation 2004/52 "On Personal Income Tax," December 4, 2004.

Comparing the above three tables, it is clear that in most cases the new funded systems are only a small share of total labor costs. Consequently, in most cases, it seems likely that these reforms would have only a small impact, at most, on unemployment and shadow economy participation.

So, in those countries that maintained significant PAYG components (Hungary, Poland, and, according to reform legislation, also in Ukraine), the total contribution rates do not decline, but rather a portion of the contributions are diverted from the PAYG component to the new funded component. To the extent that participants previously saw their PAYG contributions as a pure tax and now see their contributions to new funded individual

accounts as beneficial savings that are similar to general income, the *effective* tax rate has in fact gone down.

The *effective* tax rate of any pension system can be calculated by estimating expected streams of contributions and benefits and comparing with market-based alternatives. All contributions beyond those that would yield the expected benefits of a system at market interest rates can be considered to be the effective tax associated with the pension system. That is, for instance, if an eight-percent contribution rate would yield the same level of benefits from capital markets that a mandatory pension system returns (adjusted for risk), and if the contribution rate to that system is fifteen percent of wages, then the difference between the two (seven percent) is the effective tax rate of that system.

It is important to note how large the overall taxes still are on wages in these countries. Even after fundamental reforms, many East European and post-Soviet countries still have onerous tax and social contribution burdens that no doubt continue to contribute to chronic unemployment and incentives for participation in the shadow economy. A good rule of thumb, based simply on anecdotal evidence of what businesspeople across the region report, is that taxes and social contributions need to be brought down to around less than one-third of total labor costs in order to sharply reduce labor-market distortions. Given this, most countries in the region still have considerable work to do with further reforms.

The two exceptions are Kosovo and Kazakhstan. In Kosovo, the total burden on labor consists of a personal income tax, with most people falling into a zero or five percent bracket, plus contributions to the Kosovo Pension Savings Trust (5% from employees and 5% from employers). In Kazakhstan, pension contributions to funded accounts also amount to 10% of wages, plus an aggregate social contribution tax of 15-20% for most workers, plus a personal income tax in which most people fall into a 5% or 8% bracket. In both these countries compared to the rest of the region, the tax and social contribution rates seem reasonable and compatible with high employment and formal-sector participation.

These issues are particularly relevant to the “flat tax” movement. In considering what kind of personal income tax rates are appropriate, it is very important to take into consideration also various social contributions. A flat tax of 13% may be low and business-friendly in a system that has very low social contributions. However, even such a low flat tax rate might be excessive if it must be paid in addition to very high social contributions. Those countries in the region that have high social contribution rates (which is most of them) might want to go either further with their flat tax reforms. In particular, they might consider a dual-rate system, at zero percent for much of the population (who nonetheless would pay relatively high social contributions), and then a flat rate of 10-13% for higher income workers. (In parallel, caps could be set on income that is subject to social contributions, in order to manage the overall labor tax burden.)

3.3. Consumption smoothing, and annuities

A main purpose of pension systems is to create a mechanism for consumption smoothing, so participants can set aside money during work years to help pay for consumption needs in old-age after they stop working. Most of the pension systems in the region do this to a reasonable degree, even better after reforms since now presumably future expected incomes are more certain given that fiscal sustainability has been increased.

The last piece in the puzzle in providing for consumption smoothing in many countries that have undergone pension reform is to create annuities markets, so that the capital accumulated in individual accounts is efficiently used to purchase a lifelong pension. As efficient annuities markets have proven somewhat elusive even in the developed world, this is a remaining challenge also for many countries in Eastern Europe and the former Soviet Union. Many countries in the region have either no annuities markets so far or only very rudimentary ones. The annuities component generally has not yet been put together in these countries, although foreseen by reform legislation. In Kosovo, plans are being developed to tender for an international insurance provider that would work with a local partner to handle individual payments, essentially outsourcing the annuities role.

3.4. Risk management

Pensions systems should help participants manage risk, including uncertainty of longevity (that is, we do not know how long we will live), and also the possibilities of becoming disabled during work career, or of dying and leaving survivors in need of support. Risks of the pension system itself also should be well managed—market and institutional risks in funded systems, and demographic, fiscal and political risks in unfunded systems.

Considerable attention has been given to risk management within funded components, but little rigorous quantitative analysis has been done on issues of risk management across all forms of mandatory and voluntary pension provision. What is important is not risk diversification *per se*, but, rather, how to maximize welfare overall, recognizing that people value risk-adjusted returns.

While everyone agrees on the merit of not putting all one’s eggs in one basket, there is little consensus on how many eggs should be put in which baskets. Countries have approached this fundamental issue in varying ways, as illustrated in the following table that compares approaches in Poland and Kosovo.

Approach	Pluses	Minuses
<p><u>Poland</u> (similar to Hungary and Ukraine)</p> <ul style="list-style-type: none"> Diversification concept stresses income sources from two components with low risk correlation—NDC first pillar (where risks are demographic, fiscal and 	<ul style="list-style-type: none"> Risks are diversified across income types, one depending on demographics and economic performance and one depending on financial market performance. Risks are diversified across two sets of institutions—one 	<ul style="list-style-type: none"> Economies of scale may not be achieved since funded component is small, reducing returns. A PAYG component likely offers much lower returns than a funded component in the long run, meaning the

<p>political), and funded component where risks are related to markets and institutions).</p> <ul style="list-style-type: none"> • Implicitly due to the large total contribution size, little voluntary private savings for old-age is expected. 	<p>for the first pillar and one for the second pillar.</p>	<p>risk diversification might not justify the lower returns.</p> <ul style="list-style-type: none"> • The large mandatory system implicitly means less private voluntary savings, which could also be a means of risk diversification.
<p><u>Kosovo</u> (similar to Kazakhstan)</p> <ul style="list-style-type: none"> • Diversification concept stresses diversification across financial assets, including firms, types of financial assets, emphasis on pooled investments, and geographical diversification across large developed economies. • Relatively small contribution rates implicitly allow for significant private savings 	<ul style="list-style-type: none"> • Investments are spread across asset types, firms, and geographically to maximize financial diversification. • A relatively large funded component allows for economies of scale to keep returns high. • Relatively low total contribution rates allow for more private savings, providing additional diversification. 	<ul style="list-style-type: none"> • Assets are concentrated through one institution, creating an undiversified risk should anything happen to that institution.

More research could be done to analyze which pension systems best help manage risk overall. Specifically, stochastic risk models using *Monte Carlo simulations* and *individual utility functions that value returns and risk mitigation* could help in analyzing the optimal size of various types of mandatory and voluntary pension components. (Theoretical work has been done by economists, applied to developed-country systems, but not to developing countries.)

3.5. Redistribution across generations

All of the pension reforms in the region have improved the distribution of resources across generations to make allocation more equitable. Before reforms in all cases the inter-generational distribution of resources has been unfair in several respects—younger generations were having to pay an increasingly high burden to support the system, with projections showing even greater increases needed in the future in order to support promised benefit payments. And, related to this, future generations were being promised high benefit payments that could not be met given current contribution rates. While some reforms may not have completely achieved fiscal sustainability, all have made substantial progress in this direction, mostly by increasing retirement ages, changing indexation formulas, and making less generous accrual rates for contributions. As a consequence, the reforms have reduced inter-generational unfairness that comes with fiscal unsustainability.

The introduction of funded accounts will have important implications for inter-generational transfers. Those who receive the accounts will be winners in the reform. Those whose PAYG benefits are curtailed in order to make room for the accounts will be losers in the reform. Those who have to pay the transition costs of account introduction beyond through benefit curtailment, either through higher taxes or lower expenditures

now, or if debt financed then through higher taxes or lower expenditures in the future, also will be losers in the reform to some extent. These groups may overlap—some people may benefit from receiving accounts but lose from curtailed PAYG benefit payments or higher taxes to pay transition costs.

Generational accounting can be used to help model the inter-generational effects of reforms. In such modeling, the net present values of expected contributions to and benefits from a pension system, plus related transition costs, are modeled, separately for each generation, both for the existing pension system and for a proposed or implemented reform. Using such methodology it becomes clear what the initial position is of each generation (who is paying or receiving how much) and what changes are made through a pension reform. Policymakers and the public then can use this information to judge the extent to which a reform is improving inter-generational equity.

3.6. Redistribution within generations—support for the poor

Reforms have taken very different approaches to how they treat the poor. To the extent that PAYG components have been modified to increase the links between contributions and benefits, either through introduction of an NDC system (as in Poland), or through introduction of a funded component as the only means of pension provision (as in Kazakhstan), poor elderly in the future may be left worse off, compared to earlier systems that included greater redistribution to the poor. In Kosovo, a universal pension was introduced that grants a pension to all over 65 regardless of past contributions. In comparison to the old system in which only half the people above 65 received any pension, leaving mostly the poor with nothing, the new system in Kosovo greatly increased pension support to poor elderly.

Increasingly, pension experts are recommending a universal benefit in transition and developing countries as a cost-effective, administratively easy way to provide at least a minimum income to the poor. So far in the region, only Kosovo has followed this approach. (Georgia also introduced a flat-rate pension as the maximum and minimum pensions converged during their economic crisis, but coverage does not appear to be universal.) Minimum pension guarantees, and programs outside the pension system also are important means for serving the poor. Alternatively, needs-based assistance could be introduced—a so-called “zero pillar.”

Several questions are important in considering how well a pension system serves the poor: Does the system provide a minimum pension guarantee? How high is the coverage of the pension system? (Usually, if the system only covers a small share of the elderly, it is the poorest elderly who are left out of the system.) To what extent is there a problem of excessive pension expenditures crowding out other social expenditures?

Minimum pension guarantees. Most of the countries in the region did have a minimum pension in their system, for which persons were eligible with a certain level of service, ten to fifteen years. But, to varying degrees, minimum pensions (and also often average

pensions) did not keep up with inflation. As a result, even in countries with a minimum pension guarantee, for those receiving the minimum, pensions cannot be judged to be particularly adequate. Minimum pensions did not have the effect of being a comprehensive social safety net, however, as they often were inadequate to meet minimum living standards and furthermore were not available to all elderly. The fact that in many republics of the FRY one-third to one-half of the workforce did not have coverage left the rural, elderly who were generally poorer completely outside the pension system. (Adequacy therefore should be considered along with coverage, for a pension system that offers a high minimum pension but only covering a small portion of the elderly is not a good system, not really providing an adequate pension to all who need one.) Of these countries, Kosovo has introduced a demogrant universal pension to provide at least a minimum pension to all elderly, and Georgia (at least temporarily) has converted its contributory PAYG system to a flat pension in which all pensioners receive the same amount.

The following table presents information on minimum pension guarantees. While not easily comparable, they give a sense of relative extent of such guarantees.

Minimum Pension Guarantees

Country Name	Min pension benefit	
	Y/N	amount
Albania	Yes	37%-41% of official min wage
Armenia	Yes	23.08% of official min wage
Azerbaijan	Don't know	
Belarus	Yes	25% of subsistence minimum
Bosnia and Herzegovina	Yes	
Bulgaria	Yes	19.70% of official min wage
Croatia	Yes	For each year of insurance is 43.15 kuna.
Czech Republic	No	
Estonia	Yes	20% of average net wage
Georgia	No	
Hungary	Yes	28% of official min wage
Kazakhstan	Don't know	
Kosovo	Yes	26.67% of official min wage
Kyrgyz Republic	Don't know	
Latvia	Yes	48-67% of official min wage
Lithuania	Yes	110% of min standard of living
Macedonia, FYR	Yes	1700-3000 denars
Moldova	Yes	135 MDL in 2003
Poland	Yes	24% of average wage
Romania	No	No
Russian Federation	Yes	522 Rubles/month
Serbia	Yes	20% of average gross wage
Slovak Republic	Yes	120% of subsistence minimum
Slovenia	Yes	64% of national net wage
Tajikistan	Yes	140% of official min wage
Turkmenistan		
Ukraine	Yes	92.45 GRV
Uzbekistan	Yes	198% of offic min wage

Source: Aguirre International.

Coverage. A related issue is the level of coverage of a pension system. A system that covers most of the elderly is more likely to provide adequate income to even the poorer elements of the elderly population than a system with low coverage. Countries within the target region vary greatly in this respect, with some providing near-universal coverage and others covering less than half of elderly. In general, coverage has been particularly high in Russia and the European parts of the former Soviet Union. Coverage has been higher in northern Eastern Europe and lower in southern Eastern Europe. Coverage has not been as high in much of Central Asia but relatively comparable with southern Eastern Europe. Coverage of anything less than ninety percent of the elderly over 65 should be considered a concern for social policymakers.

Generally speaking across the world, countries that are at later stages of development with smaller informal and agricultural sectors and better government enforcement

capacity tend to have greater coverage in pension systems, and countries at earlier stages of development with larger informal and agricultural sectors and worse enforcement capacity tend to have lower coverage in pension systems. This explains why coverage is higher in European former Soviet countries and northern Central Europe, and also why it is lower in Central Asia. As Central Asia develops, increasing coverage of the pension system should be a top concern.

In many of the countries of former Yugoslavia, the low coverage of the pension system is striking—often only reaching two-thirds of the elderly population or less. Given the relatively high development level of these countries, one would expect a much higher rate of coverage. The gap in coverage in these countries between what they should have and what they do have is particularly large and should be considered an important issue for policymakers. Addressing these problems in the former Yugoslav countries will be particularly challenging, since these same countries also already have some of the highest pension expenditure burdens of any countries in the region—over 11% of GDP spent on pensions annually, and well over 200% of GDP of implicit pension liability in most cases. (Fiscal sustainability is discussed more below, in Section 3.) That is, even with their low coverage, these countries already are spending too much on pensions, so it is not clear where additional resources would come from for expanded coverage even if legislative and administrative solutions were found for such expansion.

Another way of thinking about coverage is to consider the portion of labor force making contributions. This is a good indication of future coverage of pension payment among the elderly. Here two concepts are important—“affiliation” and “density of contributions.” Affiliation is the number of workers who at least occasionally make contributions to the system and will be eligible for at least a minimum pension from the system. Density of contributions is the average number of years that participants are actively contributing to the system. Slightly different social problems are associated with low affiliation and low contribution density. Low affiliation means that there will be significant segments of society who are not even receiving a minimum pension. Low contribution density means that there will be significant groups in the population who are receiving a pension but one that is not particularly large in size, i.e., that perhaps is not adequate for covering basic costs.

This table below presents coverage of workers (what share make contributions to the pension system), but not coverage of elderly (pension recipients as a share of the elderly), since cross-country data was not available on elderly coverage. Rough guidelines are that countries should be considered hotspots if coverage of pensioners divided by elderly is less than 90%, or if less than two-thirds of the labor force contributes to the pension system. According to this guideline, the following countries can be considered to be hotspots: Armenia, Croatia, Bulgaria, Latvia, Romania, Azerbaijan, Kazakhstan, Macedonia, Kyrgyz Republic, and Albania. (If data were available, Serbia and Montenegro also would fall into this category of low coverage levels.)

Since the end of the Soviet era, coverage in some countries has gone up and in others down. Noteworthy in this respect are the contrasting examples of Kosovo and

Turkmenistan. Kosovo had less than one-half coverage of elderly prior to the 1999 war, but under UN administration has adopted a universal flat benefit system for elderly age 65 and older, raising coverage to near 100%. Turkmenistan, on the other hand, did not ever enjoy a universal pension benefit, and recently, due to a decrease in formal employment and a pension reform that severely curtailed accrued rights, has seen a significant decline in the covered pension population to approximately one-third of the elderly. It is likely that coverage rates will continue to fall and that old-age poverty will increase.

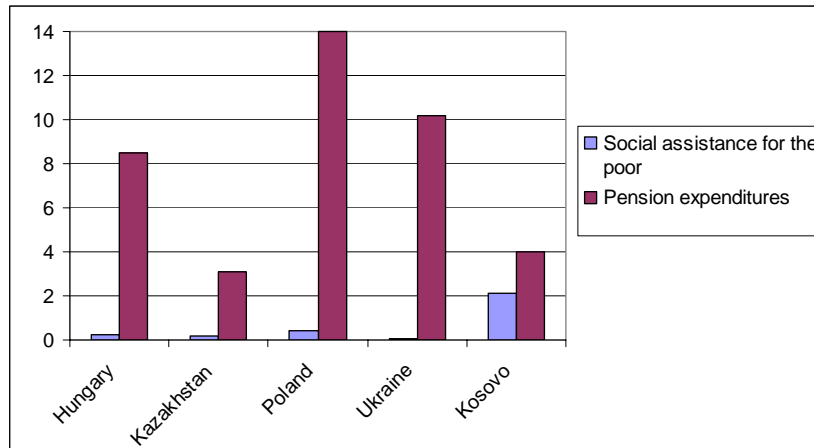
Coverage

Country	Year	Covered Wage Bill/GDP	Contributors/ Labor Force <i>(Percentage)</i>	Contributors/ Working Age Population
Belarus	1992	40.7	97.0	94.0
Slovenia	1995	42.1	86.0	68.7
Czech Republic	1995	35.0	85.0	67.2
Georgia	1996	-	77.0	72.0
Hungary	1996	23.5	77.0	65.0
Estonia	1995	42.7	76.0	67.0
Slovakia	1996	34.0	73.0	72.0
Ukraine	1995	21.4	69.8	66.1
Poland	1996	26.7	68.0	64.0
Armenia	1995	25.1	66.6	49.4
Croatia	1997	36.1	66.0	57.0
Bulgaria	1994	16.3	64.0	63.0
Latvia	1995	30.7	60.5	52.3
Romania	1994	20.9	55.0	48.0
Azerbaijan	1996	24.5	52.0	46.0
Kazakhstan	1997	20.0	51.0	44.0
Macedonia	1995	54.8	49.0	47.0
Kyrgyz Republic	1997	13.6	44.0	42.0
Albania	1995	8.5	32.0	31.0

Source: World Bank

Crowding out and links to other social spending. A particular concern with large PAYG pension components is that such systems might crowd out spending on other social issues. That is, these expensive programs aimed at the elderly (poor and non-poor) might reduce available funds to spend on poor non-elderly. The following chart shows spending on pensions and spending on non-pension programs for the poor as a share of GDP in select countries.

Expenditures on Pensions and Non-Pension Programs for the Poor (% of GDP)

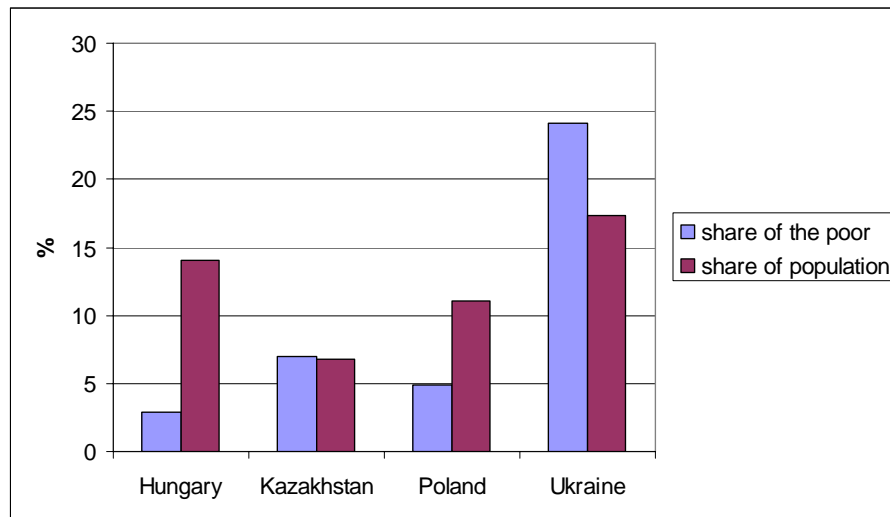


Source: Pension expenditure data for countries other than Kosovo is from Aguirre International. Social assistance data for Hungary and Poland is from OECD Social Expenditure Database for 2001; for Kazakhstan from Kazakh Ministry of Finance for 2003; for Ukraine from Ukraine Ministry of Finance for 2001. Data for Kosovo is from Kosovo consolidated budget for 2003.

Kosovo has a social assistance program that is needs-tested and quite sizable relative to other countries. Ukraine also has introduced a social assistance program that is needs-tested. The other countries only partially have reformed their social assistance programs, still carrying forward programs from the socialist past that were more based on category than on need. The programs shown here for those countries are those most closely related to the poor, particularly family allowances. What is striking is that most of the countries spend considerable resources on their pensions system, and very little on other social programs for the poor. Kosovo is the exception, spending far less from state revenues on pensions and far greater on needs-based social assistance. This was a central tenet of the pension reform in Kosovo—to carefully limit expenditures on pensions in order to preserve the fiscal room for a sizable social assistance program, aiming for a balanced overall social policy that not only provides for the elderly but also for the non-elderly poor.

The following chart shows the share of elderly among the poor, and among the general population.

Share of the elderly among the poor (poorest 33% of the population), compared to their share in the general population, 1996-1998



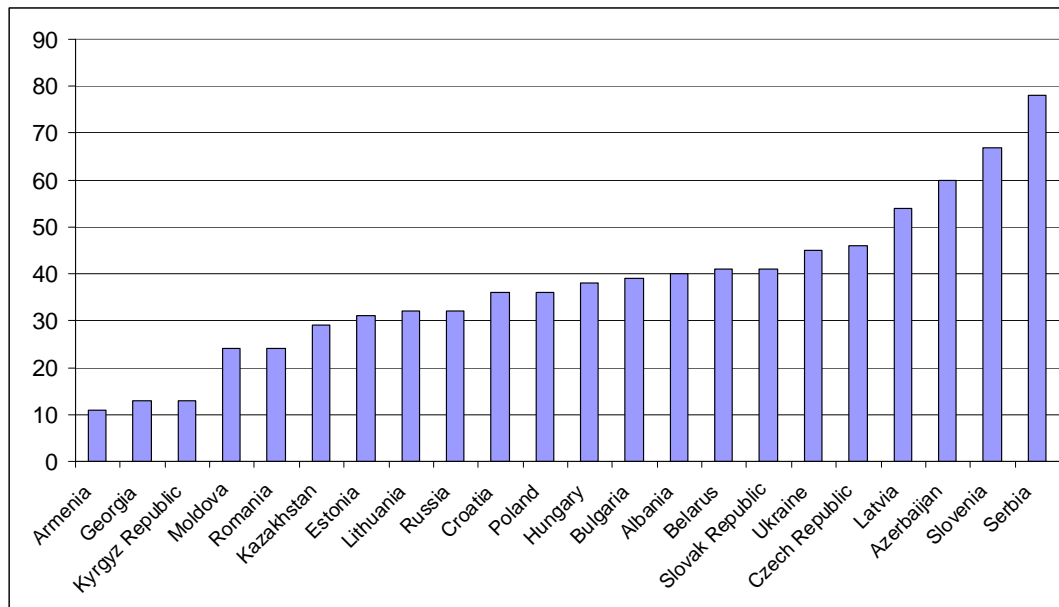
Source: Jimeno, et al. (2000), Appendix D.

In Hungary and Poland, the elderly are disproportionately under-represented among the poor. Given this, the expenditures in the previous chart seem unjustified—if the elderly are a comparatively lower share of the poor, then why spend so many social-sector resources on the elderly and comparatively lower levels of resources on the non-elderly poor? A more rational allocation of expenditure in these countries might provide less money for pensions and more for targeted assistance to non-elderly poor.

3.7. Redistribution within generations—adequacy and replacement rates

A pension system should provide a good replacement rate to participants. (The replacement rate is the ratio of pension to wage, either for an individual or for the population as a whole. A somewhat arbitrary rule of thumb is that a country should strive for a 45% replacement rate from its mandatory system. Countries that are far below this level can be viewed as having inadequate pensions, while countries far above this level are likely to be unsustainable. Kazakhstan, Romania, Moldova, Kyrgyzstan, Georgia, and Armenia can be considered to have replacement rates that are inadequately low. Azerbaijan, Slovenia, and Serbia and Montenegro can be considered to have rates that are unsustainably high.

Replacement rates (average pension divided by average wage)



3.8. Redistribution within generations—gender issues. Retirement age has been rising in the reformed systems, and it is lower for women than for men, even after the reforms. Some countries have undertaken a slow transition to equal retirement ages, but most have not. Why is this the case and what are the consequences?

Official retirement ages must be treated with caution, since actual retirement ages are often much lower than “legal” retirement age. Nevertheless, a few conclusions are clear. Evidence from household surveys indicates that men don’t like to retire before their wives, and their wives tend to be younger. Partly as a result of this, and also possibly to compensate women for their “double jobs” as market workers and home workers, retirement age for women tends to be lower than that for men—in this region and in many other countries. While this may have had few economic effects during the Communist period, it has important consequences in a market economy. It reduces the supply of female labor and therefore GDP. It redistributes lifetime income from men to women, in PAYG DB systems and in DC systems that use unisex tables for determining size of annuities. Particularly in the Russian Federation, where there is a very significant life expectancy gender gap (13 according to some data), the subsidy to women is significant. Some political participants claim that this lower retirement age is needed to stimulate childbirth, which is at all-time low in the region. This is a false premise, it seems, as the more immediate benefits to families and children, such as subsidies to young mothers, child-care and living quarters, all affect family size more. Yet, women also pay a price because they may not reach the higher wage and pension levels that men reach in their later years, therefore the reduction in GDP due to early retirement may, ironically, be detrimental to women. In DC systems raising women’s retirement age from 60 to 65 typically increases their pensions by 50% because it increase the accumulation period and decreases the payout period.

The new systems, particularly DC plans, have also created other potential problems for women. Since they earn lower wages than men, on average, in an earnings-related pension scheme this also means lower benefits. If they take time out for childbearing and childrearing, they accumulate fewer years of contributions. (In the past, the state provided child care facilities and also required fewer years of work from women to qualify for the full pension). Some analysts have argued that unemployment of women has increased faster than that of men. If this is proven true, women will have still fewer years in which to save for their retirement. Women live longer than men so if they annuitize upon retirement they will get lower monthly pensions, if gender-specific mortality tables are used. To counteract this, unisex tables are used in some countries, but this issue is still undecided in others. Women are often said to be relatively risk-averse, in which case they may invest their funded accounts in a relatively conservative way, which earns a lower rate of return, further aggravating the situation.

One of the most important issues concerns survivors' benefits for widows. Since wives tend to be younger than husbands, and women live longer than men, women are much more likely to become widows than men are to be widowers. In the past, survivors' benefits were provided, but in the shift to a market system these benefits have tended to be downsized or eliminated from the PAYG systems in this region. Some countries that have individual accounts require that husbands purchase joint annuities or other joint pensions, which cover their wives as well as themselves, upon retirement. This seems to be an important way to protect older women, without imposing an additional fiscal burden on the public treasury.

In sum, women are likely to see themselves as increasingly disadvantaged under the new systems unless measures are put in place to counteract this—such as a strong safety net for low earners, joint annuities, equalized retirement ages, and possibly unisex tables. In particular, very old women who have become widows are at risk of becoming pockets of poverty, as they are in many other countries.

3.9. Disability and survivor benefits

In Latin America, many of the comprehensive pension reforms included a shift to private provision of disability and survivor insurance. In Eastern Europe and the former Soviet Union, this has not been the case. Most of these programs have only slightly been reformed, and still are provided by the PAYG system. In cases where pension levels are sizable, particularly Poland and Hungary, extensive abuse of the disability system has led to an enormous number of disability pension awards. Most of these countries make disability awards according to criteria that are far more relaxed than international best practices. (Only Kosovo in the region has tight disability requirements, awarding pensions only in cases of total and permanent disability—at least according to the legislation.)

4. Fiscal Issues

Given the high levels of expenditures on pensions in these countries and a general lack of fiscal sustainability, pension reforms need to reduce the fiscal burden of the pension system and improve the fiscal balance.

4.1. Macroeconomic issues

A pension system has important links to the macroeconomy, including savings and investment, efficiency, growth, and balance-of-payments issues.

Changes in the pension system can increase savings and investment in the economy. Reforms in a PAYG system that reduce current consumption or that change the incentives for the population to save for the future by reducing promises of future transfers can increase savings. A funded component that increases mandatory savings also can have a positive effect on overall savings if not countered by a reduction in private voluntary savings. Introduction of funded accounts in these countries should increase savings rates to the extent not mitigated by other factors.

In rank order, the effect on increasing savings might be greatest in Kosovo where a funded pillar was introduced with only a minimal PAYG component; next highest in Kazakhstan where introduction of a funded pillar was accompanied by considerable downsizing in the PAYG system; next highest in Poland where meaningful but more moderate reductions were introduced in the PAYG component, with the help of considerable debt financing (i.e., government dissaving that partially counters the positive savings effect of accounts); and lowest in Hungary and Ukraine where reductions in the PAYG component are most limited, requiring considerable debt financing, which will significantly reduce the impact of introducing a funded component. This ordering is just speculative. The experience of these reforms is still quite recent, and little research has attempted to analyze overall savings impact of pension reforms in the region.

Pension systems also can have an important effect on economic growth, in two respects. First, future economic growth can be increased through savings and investment, meaning that consumption in the future is enabled by foregoing consumption in the present. In this case, growth is not Pareto improving—future generations benefit at the expense of current generations. Second, efficiency improvements can be made, for instance by eliminating labor-market distortions. In this case, on balance everyone is better off because the economy produces more.

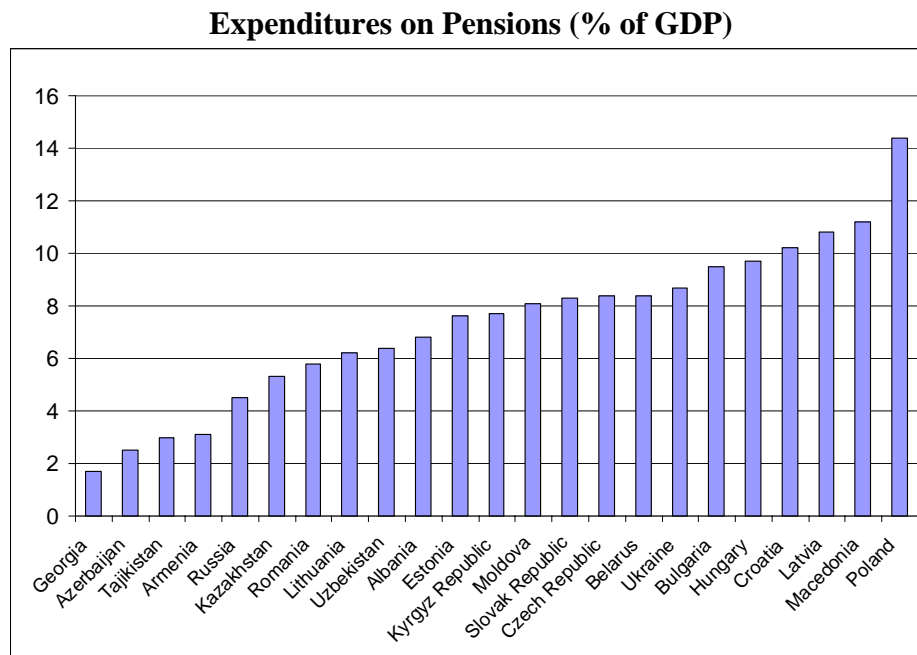
Pension systems also can have an impact on balance-of-payments issues, particularly the important question of overseas investment. Such overseas investment generally has a positive impact on the balance-of-payments in the long run—since investments on capital sent out of the country will come back with interest, in the long run more money will flow in than out. However, it would take a funded system a generation to reach the long run. During this lengthy start-up phase, funds would mostly be flowing out of the country. Such outflows can have a positive impact on certain countries, including

Kosovo, which suffers from too much donor money coming into the economy in a phenomenon akin to Dutch disease. Many small countries without developed capital markets have similar balance-of-payments conditions as Kosovo and therefore would benefit from start-up period outflows of capital. However, for many countries, large outflows of capital for a generation would have a negative impact, limiting the extent to which overseas investment can be made even if politically palatable.

The links between pension reform and the macroeconomy can be studied with the help of *dynamic general-equilibrium overlapping-generations (OLG) models*. Such models are theoretically more complex than the many accounting models often used in transition countries to simulate pension reforms (such as PROST), but such models often cannot model pension reforms in great detail, focusing instead on big-picture macroeconomic questions.

4.2. Pension expenditure levels

The following chart shows pension expenditure levels as a share of GDP before reforms.

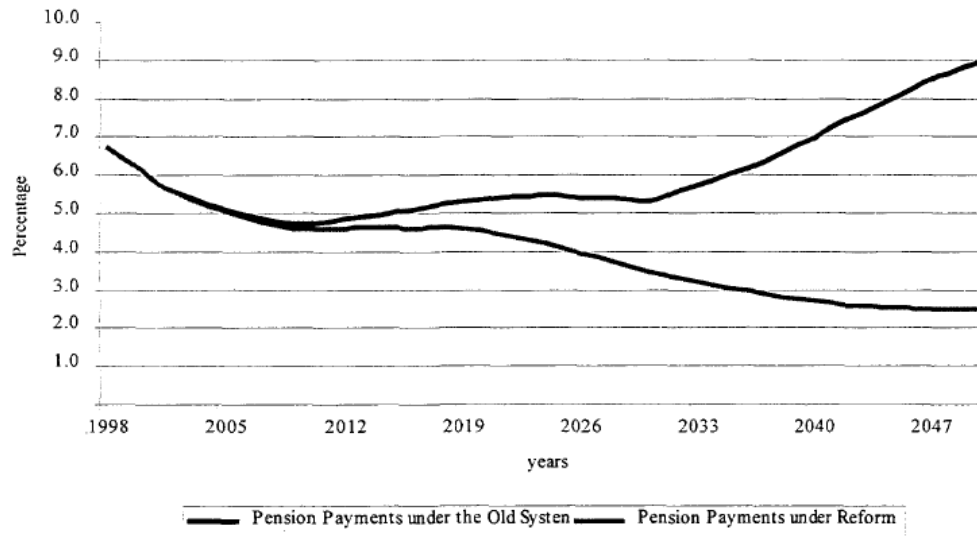


Source: IMF World Economic Outlook, 1998, p115. Data for 1996.

If one takes the United States as a benchmark, where around 5% of GDP is spent on pensions, in a country far wealthier than those in Eastern Europe and the former Soviet Union, it is clear that expenditures in most countries in the region are over-spending on pensions. Countries that have undergone pension reforms have begun to reverse gradual increases in pension spending as a share of GDP. Those countries that have introduced larger funded components and more significantly reined in PAYG components will have achieved greater success in reducing state expenditures on pensions. The following chart

shows an estimate of projected expenditures in the Kazakh pension reform, compared to the pre-reform scenario.

Projected Pension Expenditures in Kazakhstan—Reform vs. Pre-reform Scenarios (% of GDP)

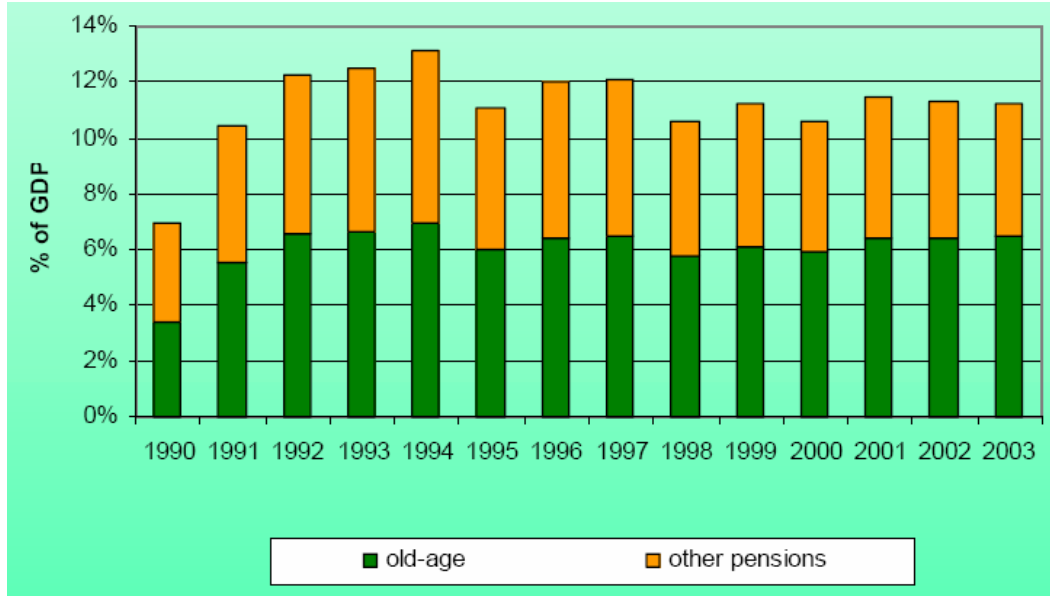


Source: Andrews (2001), p11.

Kosovo also should experience low levels of state expenditures on pensions. Current state expenditure levels are less than three percent of GDP. Assuming that GDP grows and the pension level continues to be tied to the cost of a food basket, pension expenditure levels as a share of GDP should decline, or at least not increase much even if some real increases are granted in basic pension levels.

Those countries that have maintained significant PAYG components will have a much harder time in reducing pension expenditure levels, though reforms have had at least some impact. The following chart shows near-term pension expenditure trends in Poland.

Pension Expenditure Trends in Poland



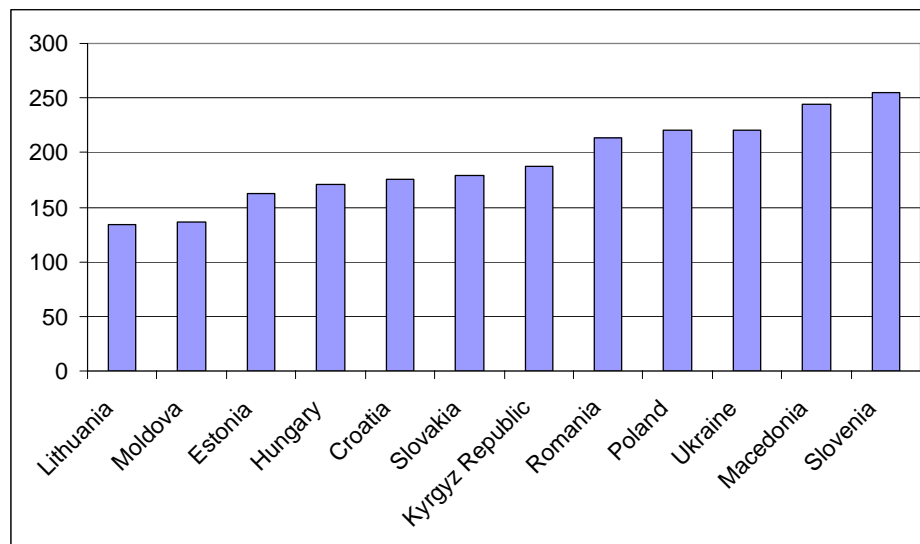
Source: Chlon-Dominczak (2004).

Through reforms, Kazakhstan and Kosovo have established pension systems where long-term pension expenditure levels seem reasonable. Poland, Hungary, and Ukraine through reforms have reduced future expenditure levels from what they otherwise would have been. Nevertheless, predicted future expenditure levels still seem far higher than desired.

Another related issue is that of implicit “outstanding implicit pension liability.” When individuals contribute to defined-contribution PAYG systems, they are given a government promise to receive a pension in the future based on their contributions. This is, in economic terms, the same as when someone buys a government bond and is repaid in the future the principal with interest, but in legal terms it is different since no contract for repayment is issued and the terms are fuzzier. Just as a government’s explicit formal debt can be calculated, so to can the outstanding implicit pension liability (or debt) be calculated—as the net present value of expected future payments to pensioners that have are due based on past contributions as of the moment the calculation is made. The higher is this implicit pension debt, the more likely is it that a country will have trouble paying its future obligations.

The following chart shows outstanding implicit pension liability. A country with an implicit pension liability of over 125% of GDP could be considered to have an excessive pension burden. That is, all countries for which data was available can be considered to have very high pension burdens: Macedonia, Slovenia, Romania, Poland, Ukraine, Slovakia, Hungary, Kyrgyz Republic, Croatia, Estonia, Moldova and Lithuania.

Outstanding Implicit Pension Liability



Source: World Bank. In these calculations, a 5% discount rate was used.

4.3. Fiscal sustainability

Another important fiscal question is whether a pension system will be in balance over the long run. Most of the reforms implemented in the region were expected to be in balance given projections at the time of reform. In some cases however the reforms have eroded slightly over in the first several years of implementation. Hungary for instance did not implement all the planned measures to scale back the PAYG pillar. Such divergences can lead to a loss of fiscal sustainability over time. The Ukrainian reform too may have problems since very few measures were undertaken to reduce long-term expenditures in the PAYG component.

4.4. Transition costs

Introducing a funded component, in which current workers begin to make contributions to their own retirement accounts instead of paying for the pensions of older generations, creates a fiscal hole in the PAYG system. The transition to a funded system entails costs that somehow need to be paid. There are several ways in which these costs can be covered:

- Taxes can be raised on the current generations, either directly on payroll by “adding on” the individual account contributions without reducing contributions to the PAYG component, or by increasing other unrelated taxes.
- Current expenditures on pensions or on other programs can be reduced.
- Debt can be issued, to be paid back in the future either by tax increases or expenditure cuts.
- Efficiency gains of some kind can be sought, for instance through reductions in payroll tax rates that remove labor-market distortions.

Each method has its pluses and minuses. Tax increases or expenditure cuts can most directly lead to positive future gains from pension reform but are likely to be politically unpopular. Issuing debt can postpone the costs of pension reform but also will postpone many of the benefits of pension reform. Issuing debt also can create unintended problems—explicit debt generally carries a much higher interest rate than the implicit rate of debt carried by PAYG promises (market interest rates vs. the rate of growth of the wage fund). Merely swapping implicit debt for explicit debt therefore often will worsen the fiscal stance of government by increasing interest rates it must pay on its debt. (Mackenzie, 2001) Efficiency gains always are desirable since they give benefit without being at the expense of anyone; however they can be hard to achieve.

5. Financial Issues

The chicken-and-egg dilemma is whether a pension reform should generate assets to capitalize and stabilize a country’s financial sector, or whether funded pension assets only should be invested into domestic capital markets once certain levels of size and stability are achieved. Policymakers must balance the desire to support capital development with concerns about whether participants’ assets are well invested in a fiduciary manner. It also is important to avoid “forced savings,” where participants are forced to invest their contributions in assets that are not appropriate for them, for instance due to a poor risk-return tradeoff, an inability to actively manage property, or politicization of an investment decisionmaking process.

Pension assets have pluses and minuses from the perspective of what a transition economy (or developing economy) needs to fuel growth. Pension assets are long-term assets, and market-oriented firms in these economies often have trouble finding anything other than short-term high-return capital. So, in this sense, pension assets fit economic development needs well. However, transition economies often require that capital be firmly managed in order to be effective. Here, pension systems fall short—with so many dispersed members who are not market-savvy, systems are unable to actively and aggressively manage investments. Instead, index funds and other passive instruments that often are at best in rudimentary form in transition countries are what new pension systems most need.

5.1. Outcomes

Funded pension systems are increasingly becoming important parts of the non-bank financial sector in many countries. The following table shows funded systems in the region and their projected level of assets over the next fifteen years.

Projected Pension Fund Assets in 2020 (as % of GDP)

Hungary	31	Estonia	20
Kazakhstan	30	Lithuania	-
Poland	33	Romania	30

Latvia	20	Macedonia	26
Croatia	25-30	Russia	-
Bulgaria	-	Ukraine	-
Slovakia	-	Kosovo	-

Source: Holzmann and Hinz (2005), p234.

Given the size of Kosovo's funded component, it too should yield similarly high ratios of capital to GDP.

5.2. Risk management

A country's credit rating (for instance by Moody's or Standard & Poor's) is one indicator of whether a country can issue debt that is sufficiently reliable as a pension investment. In most countries, the state pension system invests heavily in state debt. Regardless of whether private investment managers make investment decisions (as in Latin America) or whether state pension funds do so, state debt is likely to be viewed as the most secure, stable asset in the country. Furthermore, all other assets in a country are usually (though not always) judged to be of higher risk than the central government's sovereign debt. So, the credit rating of various countries' sovereign debt is a good broad indicator of overall risk for a funded pension system. See the following table on credit rating country risks.

Country Credit Ratings		
	Local currency sovereign credit rating – long-term	Foreign currency sovereign credit rating – long-term
Hungary	A	A-
Kazakhstan	BBB	BBB-
Poland	A-	BBB+
Ukraine	BB	BB-

Source: Standard & Poor's, as of May 31, 2005.

Even these countries obviously lag behind the developed countries in terms of the safety of investments offered. Transition countries with still lower credit ratings would be all the more riskier places to establish funded pillars. The inherent riskiness of a market needs to be evaluated when considering the merits of introducing a funded pillar (unless all assets are invested abroad, as in Kosovo, in which case local riskiness may not be a concern). In some countries, the very nature of sovereignty presents a country risk that impairs investment. For example, will Serbia and Montenegro remain as one country, or two? The Montenegrin state presently issues debt – but who will be responsible for it in the future? The situation in Kosovo is even more complex, since the sovereign is Serbia and Montenegro, and the UN and the government in charge of the province are not authorized to issue any form of securities.

Diversification of investments across many types of investments, industries, and geographically is a central element of risk reduction. An unwillingness to require (or even allow) broad diversification will greatly increase the riskiness of a pension system. The most politically charged question in this issue is the extent to which overseas investment is allowed or required. On the one hand, governments are often reluctant to allow much (or any) overseas investments for political reasons. On the other hand, most countries have small capital markets, heavily concentrated in a small number of industries and firms, where risks are highly inter-dependent, so

a reasonable extent of international diversification can be the only way of reducing pension system risk to appropriate levels.

Pension systems can be evaluated using *stochastic risk modeling* and *Monte Carlo simulations* to analytically assess the relative merits of various pension reform alternatives, taking into consideration risks, correlations with other components, and returns.

5.3. Laws, regulations, investment rules, and institutions

The overall quality of the legal system is a risk factor affecting whether a funded system can enforce rights and obligations generally, and whether participants have a reasonable reliance on the security of assets. Contract law, privatization and bankruptcy law are initial steps to be taken to provide mechanisms for a funded system. In addition, to protect the rights of participants, the adequacy and integrity of the court system are important. Perception of the efficiency and fairness of privatization is another factor. Laws must not only be adopted; they have to be enforced reliably and equitably. For a funded system to function and provide adequate returns, there must be a capital markets infrastructure that addresses the security of investments and provides predictable remedies. There should be laws governing securities (both stocks and bonds), securities markets, legal entities, corporate governance, shareholder rights, and transactions. Only instruments that are publicly traded are suitable for investments. In the absence of a trading system there can be no discussion of a funded system invested in domestic markets. In one case in the target region – Kosovo – a decision was made to provide for international investment in order to have a fully funded system in a situation where domestic investment would clearly be impossible for some time. Funded pension system investments also require professional independent asset custody. The adequacy of the banking system and banking regulation will affect the viability of a funded system. Another important aspect for funded systems is the existence of insurance institutions; in the absence of an insurance sector, fully funded pensions cannot be paid in the form of annuities.

5.4. Administrative fees and impact on net returns

As noted in Section 3.1 above, high administrative fees of many of the systems, relative to the size of the funded component, can have a significant impact on the net returns that participants earn. There are several types of fees various systems charge—on contributions, on assets, on returns, and on switching, for custodial and brokerage services, for exit, and fixed fees per account. The following chart provides information on administrative fees.

Administrative fees

Charges in effect from:	Up-front fee (% contributions)	Management fee (% assets)	Returns fee (% returns)	Exit fee (% assets)	Brokerage fee	Custodian fee
Hungary (second pillar since January 1998)						
Jan 1998	5-6 (on average)	0.6-0.7 (on average)	×	0.2	✓	✓
Kazakhstan (second pillar since January 1998)						
Jan 1998	1	×	10	×	×	×
Jan 2003	×	0.6	15	×	×	×
Poland (second pillar since January 1999)						
Jan 1999	8.5	0.6	×	✓	✓	✓
Jan 2004	7.0*	0.54	✓ (capped)**	✓	✓	✓
Croatia (second pillar since January 2002)						
Jan 2002	0.8	0.8	25	✓	×	✓
July 2003	0.8	1.2	×	✓	×	✓

Notes: The table denotes maximum fees permissible under the law. Actual fee levels may vary depending on annual ceilings set by regulators and business decisions of pension companies.

* : The up-front fee in Poland is scheduled to fall to a maximum of 3.5 % by 2014

** : The rate of return fee in Poland (called premium account fee) depends on relative fund performance and is subject to a maximum of 0.06 percent of assets per annum

Source: Anusic (2004)

In Kosovo, only an asset fee is charged, proposed annually by the Kosovo Pension Savings Trust (KPST) and approved by the senior executive (the UN Special Representative), similar to how a government might regulate a natural monopoly. So far this has been equal to one percent of assets, to cover the administrative expenses of the KPST (around 80 basis points) and also asset manager fees (around 20 basis points). (Over time, as assets increase, presumably the asset fee can be reduced, perhaps to around 60 basis points.)

Different types of fees have different relative advantages and disadvantages. Fees on contributions have a disproportionate impact on newer entrants to the system. Fees on assets have a disproportionate impact on those who have been in the system longer since the fee recurs each year. Estimates can be made on the extent to which administrative fees reduce the net return to participants, or, from another perspective, the assets in people's accounts, compared to a hypothetical ideal of a system with zero fees. The following chart gives such estimates.

Reductions in assets and returns due to administrative fees

	Poland 2001	Poland 2004	Kazakh 2001	Kazakh 2003	Croatia 2002	Croatia 2003
1. Size of second pillar (share of gross wages)	7.3	7.3	10.0	10.0	5.0	5.0
2. Up-front fee (% contribution)	8.5	7.0*	1	0	0.8	0.8
3. Management fee (% assets)	0.6	0.54	None	0.6	0.8	1.2
4. Rate of return fee/ (% return)	None	**	10	15	25	None
5. Reduction in assets	17.4	14.4	9.2	22.1	29.3	26.4
6. Reduction in yield	0.82	0.65	0.36	1.12	1.61	1.42***
7. Average account size (in US\$)	456		236		291	
8. Charge per account (in US\$)	19.3		8.8		9.2	
9. Charge/unit of assets (%)	4.3		3.7		3.1	

Notes: real wage growth 2%, gross rate of return 4%, contribution history 40 years.

* The cap on up-front fee is set to fall from 7 percent to 3.5 percent over a ten-year period.

** Starting 2004, law introduces a performance premium fee, capped at 0.06 percent of assets, related to fund performance.

*** Estimate by Zoran Anusic

Source: Anusic (2004)

In Kosovo, an asset fee of one percent of assets, declining by 2010 to 0.6% of assets, would have a long-term impact of reduction in assets of 12.4%--less than any of the other administrative fee regimes in place in the region.⁴

The following analysis by the Polish Ministry of Social Policy shows how administrative fees and other factors have had an impact on the returns earned in the two mandatory components of the Polish pension system.

An Average Polish Worker in the New Pension System (in nominal PLN)

	Sep 1999	Dec 1999	Dec 2000	Dec 2001	Dec 2002	Dec 2003	Jun 2004
Cumulative contributions paid to funded component	124	496	2154	3946	5784	7712	8711
Account balance (net of contribution fee)	113	476	2139	4022	6311	8919	10387
Notional capital in PAYG component (NDC)	124	496	2225	4206	6349	8310	9648
Voluntary benchmark-- savings in 12-month bank deposits	124	503	2350	4544	6667	8828	9956

Source: Ministry of Social Policy (2004)

This analysis shows how an average worker would fare by making the same level of contributions to the PAYG component, the funded component, and voluntary savings.

⁴ Author's calculations, assuming real wage growth at 2%, real interest rates at 4%, and contributions to an account for 40 years.

“Cumulative contributions to the funded component” shows contributions made to the funded component. “Account balance” shows the average balance on an average worker’s account, taking into consideration administrative fees and average investment growth. “Notional capital” shows the level of notional capital that would have accumulated in the notional account for the same level of contributions, given the “notional interest rates” in effect. The last line shows a benchmark—what a participant could have earned through voluntary savings in a bank deposit. The conclusion of the analysis is that the return in the funded component for early years was lower than in the PAYG component, and far below what voluntary savings would offer. In later years, the funded component earned a higher return than the PAYG component, and also higher than what could be earned from bank deposits (though presumably in riskier assets than bank deposits). This analysis was used to calculate nominal and net returns for Poland that are shown in Section 3.1.

6. Summary / Lessons Learned

The pension reforms of the region have made significant strides forward in addressing complicated social, fiscal, and financial problems, often through successfully adopting and implementing complex, politically difficult reforms. In many respects, although meaningful progress has been made, considerable work remains to be done to build pension systems that fully achieve basic objectives: consumption smoothing, insurance and risk management, redistribution, and compatibility with economic growth. PAYG systems have turned out to be politically harder to reform than expected, lessening the impact of several reforms. Building a robust funded component that really offers participants a better return than they can get from a PAYG system—a return that comes close to offering what they can get through private voluntary savings—has turned out to be more challenging than expected. The one overarching lesson of the pension reform experiences in the region is that there is no one magic bullet, no one-size-fits-all solution.

Despite considerable analysis and experimentation across the region, fundamental questions still remain, regarding how large a mandatory pension system should be, and how best to put together a system of several components to best achieve commonly accepted pension system objectives.

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