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ASSESSING THE FINANCIAL PERFORMANCE OF PENSION PRIVATIZATION IN EMERGING EUROPE

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Demographic aging due to lower fertility and prolonged life-expectancy is adversely affecting national Pay-As-You-Go (PAYG) pension systems worldwide: including countries that have experienced a baby-boom such as the United States, countries that have a one-child policy such as China and countries that have neither, such as India. The implicit rate of return in PAYG pension systems equals the growth rate of covered wages, which can be approximated by the GDP growth rate for all practical purposes. On the other hand, the rate of return on fully-funded pension systems is the yield realized on an invested portfolio of assets. Inspired by high observed returns on capital in most developed western economies in the latter half of the 20th century (the so called equity-premium puzzle), some economists have been advocating for partial privatization of public PAYG pension systems in the form of privately fully-funded, mandatory individual accounts.

Political and economic considerations make the introduction of a PAYG pension system appealing in times of high fertility, since both young and old generations benefit from this action. This was the case in the early 20th century when most countries introduced public PAYG pension systems. However, trying to terminate PAYG pension systems seems almost impossible from a political and economic point of view—since old generations are bound to be the losing side in this turn of events. Nonetheless, this iconoclastic move of partially terminating public PAYG systems and partially replacing them with fully-funded private mandatory individual retirement accounts (IRA) has been undertaken in some Latin American countries during the ’80s and ’90s. With strong technical support from the World Bank, many emerging European countries have also partially

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privatized their PAYG pension systems near the beginning of the millennium. In this article, we will use the term "emerging Europe" to refer to former communist countries which are transitioning to market economies and striving to become, or have already become, EU Member States. These countries include: Albania, Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia and Slovenia.

When comparing the performance of PAYG and fully-funded pension systems, one has to take into account the risk-premium and transition-cost factors. Namely, one has to compensate for the risk factor when comparing defined-benefit PAYG pension systems with defined-contribution IRA systems.

Furthermore, since PAYG systems have been in place for many decades, partial pension system privatization involves transition costs, due to accrued PAYG liabilities to older generations.

Based on early empirical data on the performance on newly established mandatory IRA systems, we will try to assess whether:

* partial pension system privatization is proving to be a feasible venture from the financial risk-return perspective;
* the new mixed PAYG-IRA pension systems are more efficient than existing PAYG systems; and
* any efficiency gains can be expected to benefit future generations after accounting for transition costs of partial pension system privatization.

RISK FACTORS

Partial pension system privatization and moving from a PAYG to a mixed PAYG-IRA system increases the risks associated with the national pension system. First of all, this action exposes contributors to investment risks and inherent volatility associated with returns to capital (equity).

Secondly, there are also numerous operational risks. In emerging Europe, (inflation-indexed) annuity markets are basically non-existent, which prevents contributors from hedging the longevity risk when withdrawing IRA savings at retirement—which defeats the main purpose of retirement saving. Operating costs associated with IRA systems are very high. Data from the 2007 – 2008 period reveals that the (non-weighted) average contribution fee in emerging Europe equalled 4.3 percent, while the (non-weighted) annual asset management fee totalled 1 percent. This produces an equivalent single fee on accumulated savings of 23 percent. On top of this, one should also add an annuity-purchase fee (if, or when, efficient annuity markets develop in emerging Europe), which typically ranges from 5 percent to 10 percent in developed European economies. Hence, the equivalent single fee may amount to 30 percent of accumulated savings, that leaves only about 70 percent of total retirement saving resources for contributors. This costly fee structure should be sharply contrasted with PAYG operating fees, which are less than 1 percent of contributions in all emerging European countries.

Thirdly, there are political risks of running any national pension system, but one might expect mixed PAYG-IRA to be less susceptible to political interference. However, evidence from emerging Europe points to the contrary. Namely, private pension management companies in some countries (most notably Croatia and Slovakia) have been exhibiting political influences to protect their immediate profit interests, possibly at the expense of national pension system efficiency. Moreover, the ability of the politicians to influence private mandatory IRA pension funds was most obvious during the recent global economic crises, as governments in Latvia, Lithuania, Estonia and Romania unilaterally decided to temporarily reduce contribution rates to private pension funds (and divert those funds into the state budget) in order to reduce budget deficits.

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A further risk relates to the state of development of well functioning capital markets. The case for partial pension privatization is based on equity performance in developed western economies, where capital markets have been functioning for several centuries. But, emerging European countries have only recently started transitioning toward free-market economies. Thus, capital markets in these countries are underdeveloped—equity markets feature only a few truly liquid stocks, bond markets are underdeveloped and corporate governance is not up to western standards. It is anyone's guess when, if ever, capital markets in emerging Europe will develop to performance levels comparable to benchmark capital markets of developed economies.

With respect to capital markets' performance in developed economies, one very important risk has to be stressed—the risk of a changing economic environment and the reversal of financial conditions that existed in the latter half of the 20th century when equity returns recorded extraordinarily high growth. It is very risky to assume that economic and financial conditions from the end of the 20th century will prevail throughout the 21st century. After all, this phenomenon has been named the equity premium puzzle—suggesting that the current science of economics is not able to unambiguously explain why high equity returns have been observed. Economic science is also not able to explain whether the equity premium trend is sustainable in the foreseeable future, or whether it can be expected to shrink in the coming decades. Furthermore, there is abundant statistical evidence that demographic trends influence asset returns. Thus, forthcoming demographic aging could be expected to adversely affect not only PAYG systems, but also fully-funded pension systems as well—by reducing high rates of return on capital observed in the past.

Table 1 – IRA performance in emerging Europe from inception to 2007

Country	Inception Date	IRA Returns	GDP Growth	Difference
Hungary	Jan 1998	2.6%	4.0%	-1.4%
Poland	Jan 1999	8.2%	4.1%	4.1%
Latvia	July 2001	-2.4%	9.1%	-11.5%
Bulgaria	Apr 2002	4.3%	5.9%	-1.6%
Croatia	May 2002	4.5%	4.8%	-0.3%
Estonia	July 2002	3.4%	8.2%	-4.8%
Lithuania	June 2004	2.3%	8.3%	-6.0%
Slovakia	Apr 2005	1.1%	8.7%	-7.7%
Macedonia	Feb 2006	2.7%	4.9%	-2.2%

Source: Author's calculations

EMPIRICAL PERFORMANCE

Near the beginning of the millennium, many emerging European countries partially privatized their pension systems, by deciding to reduce PAYG contributions by one-quarter to one-third and divert those resources to newly established private defined-contribution pension funds in the form of IRA. Table 1 presents the data on initial empirical performance, until the end of 2007. IRA returns are measured by tracking unit values of individual accounts over time, adjusted for inflation. Realized returns thus represent real gross returns net of annual asset management fees, but gross of any contribution and exit fees. Performance is measured until the end of 2007, so that we do not introduce a (potentially unfair) downward bias with respect to IRA performance, due to the 2008 global financial crisis.

The data in Table 1 reveal a very troubling discovery—with the exception of Poland, private pension funds in basically all emerging European countries realized returns below GDP growth, which means that IRA returns were below the PAYG implicit rate of return! Although the relevant time period is not very long in the long-term pension reform context, the fact that the PAYG implicit rate of return outperformed IRA returns in basically all emerging European countries is striking. Needless to say, the 2008 global financial crisis even further deteriorated the disappointing IRA performance, as IRA returns plummeted significantly more severely than GDP decline during the 2008 – 2009 period.

We can observe from Table 1 that Poland is the only emerging European country in which IRA returns outperformed the implicit PAYG rate of return, and by a significant margin. In order to explore further this apparent success we need to look at the composition of IRA portfolio assets. We can observe from Table 2 that government bonds dominate portfolios of mandatory private pension funds, amounting to about 60 percent of total investment assets in many emerging European countries. Baltic countries, characterized by most liberal provisions with respect to investments abroad, represent a notable exception and government securities average about 30 percent of portfolios in these countries.

Domestic government securities have been dominating pension funds' portfolios in Poland since the inception of the mandatory IRA system in 1999. They accounted for 59.9 percent of assets at the end of 2007, with fixed-interest government bonds representing the major asset category—51 percent of the total pension funds' assets. Thus, it becomes obvious that high observed returns in the Polish IRA system are due to very attractive interest rates offered by government securities. But, in the context of partial pension system privatization and replacing a part of the existing PAYG system with a private IRA system, holding government bonds in investment portfolios effectively amounts to PAYG financing—whereby contributors are replaced with taxpayers. Furthermore, if partial pension system privatization is undertaken in order to diversify sources of retirement income and replace the sole PAYG system with a mixed PAYG-IRA system, one might argue whether IRA pension funds should be completely forbidden to invest in domestic government bonds. As explained, the investment in domestic government bonds effectively reduces funded IRA to PAYG financing. But, this kind of "investment asset" will always yield lower returns to society than traditional PAYG due to management fees charged by pension funds. Thus, this "investment asset" is first-order-dominated by the traditional PAYG component and should not be included in the optimal retirement portfolio for the society. Thus, we can conclude that contributors in the Polish IRA system have little to be excited about, since higher returns in their individual retirement accounts are being financed with their tax money.

CONCLUDING REMARKS

Early empirical evidence from emerging Europe indicates disappointing financial performance of mandatory private IRA systems. From the risk perspective, newly established mixed PAYG-IRA national pension systems are more risky compared to traditional PAYG systems due to inherent investment risk and significant operational risks. From the returns perspective, realized IRA returns were below the implicit PAYG rate of return.

Although one decade is a short period in the context of pension reforms, disappointing experiences from emerging Europe provide

Table 2 – IRA asset portfolios, end-2007 data

Country	% GDP	Govt Bonds	Equity	Bank Deposits	Other
Hungary	7.8%	58.5%	32.8%	0.9%	7.9%
Poland	11.9%	59.9%	34.9%	2.9%	2.3%
Latvia	1.6%	33.4%	24.3%	42.1%	0.2%
Bulgaria	2.1%	18.5%	28.3%	16.2%	37.0%
Croatia	6.7%	63.6%	26.7%	2.2%	7.4%
Estonia	4.5%	31.0%	40.0%	8.0%	21.0%
Lithuania	1.7%	29.6%	39.3%	17.5%	13.6%
Slovakia	2.8%	49.6%	15.1%	30.5%	4.8%
Macedonia	0.9%	59.9%	21.6%	18.5%	0.0%

Source: Author's calculations

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strong empirical support to many conceptual concerns raised throughout the years regarding the partial pension system privatization in the form of mandatory IRA. No doubt, much future research will be focused on identifying the reasons why mandatory IRA systems failed to meet their expectations. This article surveyed a few major problem areas, including high operational costs and unrealistic expectations regarding capital markets' performance in emerging countries.

Lastly, there is the issue of the outstanding transition cost associated with partially replacing a PAYG system with IRA. The transition cost is very substantial in emerging Europe and is forecast to continue nearly half a century in most countries, due to basically universal coverage of pre-existing PAYG pension systems. Although it was hoped that superior financial performance of mixed PAYG-IRA systems would eventually make it worthwhile for societies to underwrite this transition cost, the early empirical evidence casts serious doubts and raises the question—might the reforming countries be investing their national resources in a financially unfeasible venture?

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