25 years of Averting the old age Crisis in Eastern Europe

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Abstract:

The influential World Bank (1994*) Averting the old-age crisis* study profoundly influenced pension policies around the globe, but nowhere more so than in Eastern Europe. While Western Europe dismissed pension privatization initiatives, most of the Eastern European countries with similar PAYG legacies have rushed into the World Bank reforms, including the highly controversial carve-out approach to introducing mandatory private pension funds, the so-called second pension pillar. Reformers hoped to capture multiple benefits put forward by the World Bank (1994), most notably i) higher economic growth, ii) higher benefits to future pensioners and iii) elimination of political risk inherent in public systems. However, empirical evidence from the last 25 years suggests pension privatization reforms failed to achieve any of the aforementioned outcomes. Econometric evidence shows that pension privatization failed to increase economic growth in either Eastern Europe or Latin America, compared to non-reforming peer countries. Performance of second pillar funds in all 10 reforming countries in Eastern Europe has been inferior to pre-existing PAYG financing, implying that future retirement benefits will not be increased. Finally, Eastern European practice has shown that national pension systems are inherently subject to political risks, even if pension provision is delegated to private pension providers. With second pension pillars featuring inherent political instability and economically suboptimal features, averting the old-age crisis in Eastern Europe seems more challenging today than it was 25 years ago.

1. Introduction

The influential World Bank (1994*) Averting the old-age crisis* study profoundly influenced pension policies around the globe, but nowhere more so than in Eastern Europe. While Western European countries with matured public Pay-As-You-Go systems have readily dismissed pension privatization initiatives, most of the Eastern European countries with similar PAYG legacies have rushed into the World Bank (1994) multi-pillar reforms, notwithstanding strong professional criticism of this approach (Beatie and McGillivray, 1995, Stiglitz and Orszag, 2001, Barr, 2000). The most controversial feature was carving-out mandatory private pension funds from existing PAYG systems, the so-called second pension pillar, which created multi-decade transition costs in the public pension system.

Eastern Europe opted for radical carve-out pension privatization hoping to seize on multiple benefits put forward by the World Bank (1994), most notably i) higher economic growth, ii) higher benefits to future pensioners and iii) elimination of political risk inherent in public schemes. Over the last two decades 11 transitioning economies in Eastern Europe opted to create second pension pillar by partially diverting existing PAYG contributions to the newly established private fully funded defined-contribution pension funds. However, as we can see in Table 1, ten of those countries implemented reform reversals in recent years, with Estonia being the only country sticking to the original pension privatization plans.[1]

Table 1 – Pension privatization and Reform reversals in Eastern Europe

Country	Pension Privatization	Reform reversal
Hungary	1998	Dismantling, 2010
Poland	1999	Dismantling 2014, 2019
Latvia	2001	Scale-down, 2009
Bulgaria	2002	Scale-down & Back-to-PAYG Option, 2011
Croatia	2002	Back-to-PAYG Option, 2009, 2019
Estonia	2002	Temporary reduction in 2009
Lithuania	2004	Scale-down 2009, 2019
Slovakia	2005	Scale-down & Back-to-PAYG Option, 2009
Macedonia	2006	Scale-down 2014, Back-to-PAYG Option 2019
Romania	2008	Scale-down, 2018
Czech Republic	2013	Dismantling, 2014

Although many commentators (Price and Rudolph, 2013; Schwartz and Arias, 2014; Bielawska et al, 2016) highlight the global financial crisis as the driving force behind reform reversals, this line of reasoning can hardly explain the most recent cases of reform reversals in Romania (2018) and Croatia (2019), occurring an entire decade after the global crisis. This paper argues that the true driving force behind reversals is the failure to deliver the initially anticipated reform results - failure to accelerate economic growth, inability to provide higher pensions and unsuccessful elimination of political risks inherent in national pension systems.

[1] We use 'reform reversals' in this article, since this term has become widespread after being introduced by the World Bank. We make use of this term without imputing any implicit negative value judgements.

In Section 2 we use static and dynamic econometric specifications to show that pension privatization failed to produce any statistically significant acceleration of economic growth in reforming countries compared to their non-reforming peers. The data on second pillar contribution revenues used in this paper provides more detailed identification than indicator variables and second pillar legal contribution rate which were used as identifying variables in previous studies which also showed the lack of positive growth effects in reforming countries.

In Section 3 we show that second pillars are failing to deliver higher benefits compared to pre-existing public systems due to the emergence of suboptimal disguised-PAYG financing and poor investment performance of private second pillar pension funds. These findings are robust across not only Eastern Europe but also across earlier reformers in Latin America and Australia.

Section 4 discusses that reformed multi-pillar systems have not only failed to eliminate political risks but have actually made them much more pronounced by introducing a new major political actor – second pillar funds. Having an agenda of their own, often in contrast with the interests of pensioners and workers, private pension funds made the political arena in reforming countries more complex, often leading to obviously suboptimal outcomes and economic inefficiencies.

Section 5 draws relevant policy lessons and explains that pension privatization failures need to be transparently conveyed to the public in order to establish firm social and political support for adequate re-reform measures. Otherwise, reforming countries are likely to end-up implementing cosmetic changes that only hide the existing inefficiencies making them harder to resolve in the future. Section 6 concludes.

2. Econometric analysis of pension privatization effects on economic growth

In order to enable as precise identification as possible, besides Eastern Europe our data set also includes Latin America where many countries implemented similar carve-out pension privatizations.[2] Thus, we investigate pension privatization effects on economic growth using an unbalanced panel of 36 emerging economies – 17 from Latin America and 19 from Eastern Europe and Euro-Asia region. Panel is unbalanced covering the annual data from 1990-2013 for Latin American countries and 1995-2013 for Eastern Europe in order to avoid structural breaks in the early transition period in Eastern Europe.

The dataset includes 21 countries which implemented pension privatization and 15 countries that did not privatize are used as the peer control group. Pension privatizers include Hungary, Poland, Latvia, Estonia, Croatia, Bulgaria, Lithuania, Slovakia, North Macedonia and Romania from Eastern Europe, Argentina, Bolivia, Columbia, Chile, Costa Rica, Dominican Republic, El Salvador, Mexico, Peru and Uruguay from Latin America and Kazakhstan from Euro-Asia. The control group of 15 non-privatizing countries consists of Albania, Armenia, Brazil,

[2] While Eastern European countries implemented partial pension privatizations which closely follow the World Bank (1994) multi-pillar blueprint, Latin American reformers predominantly followed the more radical Chilean approach of complete pension privatization and closure of pre-existing public pension schemes.

Czech Republic, Ecuador, Georgia, Guatemala, Honduras, Moldova, Nicaragua, Panama, Paraguay, Slovenia, Turkey, and Ukraine.

The empirical work in this section builds upon and extends Altiparmakov and Nedeljkovic (2018) which used indicators and second pillar legal contribution rate as identifying variables in analyzing the potential pension privatization effects on economic growth. Here, we use the actual second pillar contributions (as % of GDP) as the identifying variable which enables us to capture pension privatization heterogeneity more precisely. Namely, the data on second pillar contribution revenues reflects not only the legally prescribed contribution rate that was diverted from the PAYG system but also the dynamics of workers entering the second pillar (which differed tangibly across the countries), pension coverage among workers, the extent of informal workers across countries and other relevant labor market heterogeneity.

We test pension privatization effects on economics growth in two settings – static settings in Table 2 which includes all standard growth covariates from the literature and dynamic setting in Table 3 which includes the lagged dependent variable. In order to correct for the inconsistency of the standard fixed effect estimator in the presence of the lagged dependent variable we follow Zandberg and Spierdijk (2013) and use the bias-corrected least square dummy variable (LSDV) estimator.

Table 2 - Growth regressions, fixed effect static estimation:

Variable	1	2	3	4	5	6	7	8
Pension reform	0.0706	-0.198	-0.616	-0.270	-0.598	-0.517	-0.388	-0.670*
	(0.318)	(0.465)	(0.546)	(0.477)	(0.561)	(0.360)	(0.353)	(0.386)
Pension ref.*E. Europe				-0.991			-0.420	
				(1.272)			(0.930)	
Pension ref.*Low Gov. bond					-0.101			0.923
					(1.264)			(1.085)
Per capita GDP						-11.87***	-11.77***	-12.06***
						(1.762)	(1.711)	(1.771)
Investment						0.139***	0.139***	0.136***
						(0.0443)	(0.0448)	(0.0437)
Government consumption.						-0.273***	-0.280***	-0.279***
						(0.0887)	(0.0890)	(0.0874)
Inflation						-2.268**	-2.302**	-2.263**
						(0.944)	(0.956)	(0.934)
Male upp. lev. schooling						-0.786	-0.652	-0.965
						(0.941)	(0.937)	(1.057)
Life expectancy at birth						-0.549*	-0.552*	-0.557**

						(0.280)	(0.278)	(0.271)
Polity index						0.0260***	0.0266***	0.0263***
						(0.00811)	(0.00847)	(0.00842)
Terms of trade						0.0338*	0.0335*	0.0327*
						(0.0173)	(0.0174)	(0.0177)
Trade openness						0.0134	0.0144	0.0129
						(0.0130)	(0.0135)	(0.0124)
Observations	764	764	764	764	764	636	636	636
Cross sections	36	36	36	33	33	33	33	33
R2	0.000	0.001	0.305	0.308	0.305	0.467	0.467	0.468
Adjusted R2	-0.001	-0.001	0.283	0.284	0.282	0.439	0.439	0.440
Time/Country FE	No/No	No/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes

Notes: The dependent variable is the annual growth rate of real GDP per capita multiplied by 100. The numbers in parentheses are robust clustered standard errors. *, ** and *** denote significance at 10%, 5% and 1%. Pension reform variable is the amount of second pillar contribution revenues, as % of GDP, or 0 in cases of where pension privatization was not implemented. European is zero-one dummy for Eastern European countries. Low government bond is zero-one dummy for countries and periods in which less than 50% of total pension fund assets is invested in local government bonds. Per capita GDP is logged and twice lagged. Investment and Government consumption are defined in share of GDP. Inflation is based on GDP deflator. Terms of trade are defined in percentage change. Trade openness is corrected for the country size. All macro variables are lagged once.

Table 3 - Growth regressions, dynamic estimation:

Variable	1	2	3
Pension reform	-0.322	-0.234	-0.406
	(0.301)	(0.356)	(0.323)
Pens. ref.*E. Europe		-0.307	
		(0.624)	
Pens. ref.*Low Gov. bond			0.527
			(0.678)
Lagged pc GDP growth	0.207***	0.208***	0.204***
	(0.0380)	(0.0381)	(0.0382)
Per capita GDP (2y)	-6.595***	-6.549***	-6.741***
	(1.359)	(1.360)	(1.368)
Investment	0.187***	0.187***	0.187***
	(0.0455)	(0.0456)	(0.0455)

Government consumption	-0.213**	-0.218**	-0.215**
	(0.0838)	(0.0853)	(0.0838)
Inflation	-2.252***	-2.279***	-2.247***
	(0.798)	(0.806)	(0.799)
Terms of trade	0.0688**	0.0681**	0.0678**
	(0.0278)	(0.0278)	(0.0278)
Polity index	-0.0106	-0.00906	-0.0105
	(0.0266)	(0.0266)	(0.0266)
Life expectancy at birth	0.182	0.163	0.190
	(0.155)	(0.161)	(0.155)
Male upp. lev. schooling	0.346	0.423	0.267
	(0.564)	(0.585)	(0.575)
Trade openness	0.00527	0.00616	0.00488
	(0.0109)	(0.0110)	(0.0109)
Observations	634	634	634
Cross sections	33	33	33
R2			
Adjusted R2			
Time/Country FE	Yes/Yes	Yes/Yes	Yes/Yes

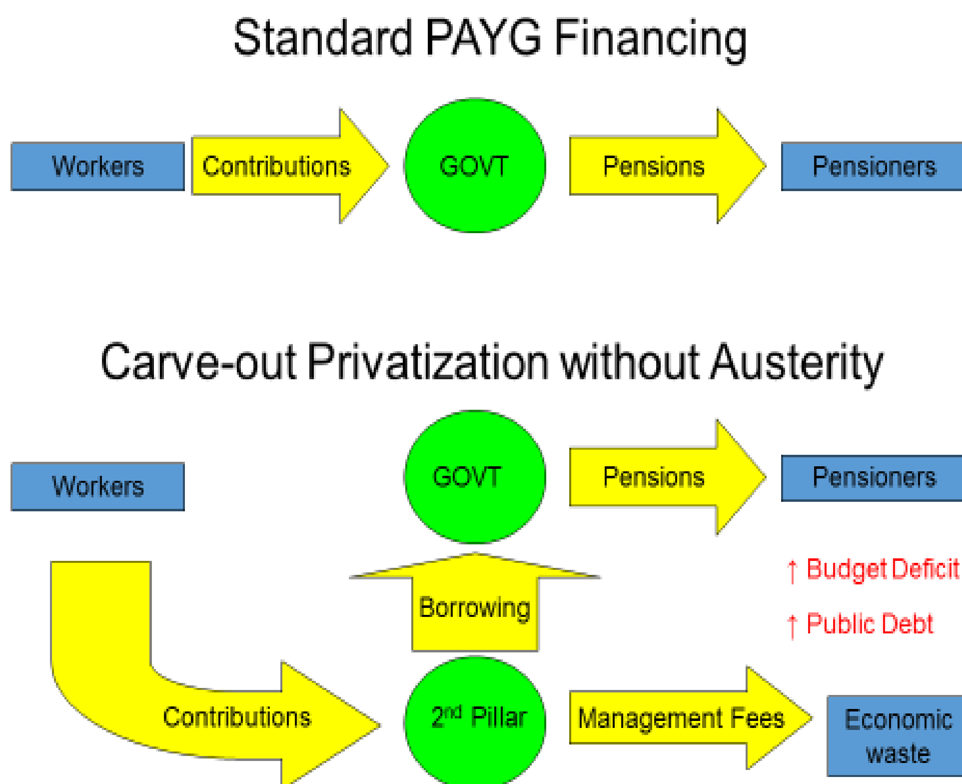
Notes: The dependent variable in columns (1-3) is the annual growth rate of real GDP per capita multiplied by 100. The numbers in parentheses are bootstrap standard errors.*, ** and *** denote significance at 10%, 5% and 1%. Pension reform variable is the amount of second pillar contribution revenues, as % of GDP, or 0 in cases of where pension privatization was not implemented. Eastern European is zero-one dummy for Eastern European countries. Low government bond is zero-one dummy for countries and periods in which less than 50% of total pension fund assets is invested in local government bonds. The macro explanatory variables in columns (1-3) are lagged once (per capita GDP twice). Coefficients for the changes in the covariates in columns (1-3) are not reported to save space.

Results in Tables 2 and 3 indicate that pension privatization failed to produce any statistically significant increase in the rate of economic growth compared to non-privatizing peers. This is in line with previous work which also failed to identify any growth effects of pension privatization in Eastern Europe. Although detailed elaboration on the lack of growth effects is beyond the scope of this paper, it is worth noting that pension privatization did not result in genuine capital accumulation in many countries but was reduced to PAYG financing in disguise (as we explain in the next section), an arrangement which is obviously incapable of accelerating economic growth.

3. Performance of mandatory private pension funds

Carve-out pension privatization, by diverting existing PAYG contributions to the newly created private pension funds, creates a huge fiscal deficit in the public system that lasts four to five decades. Implementing appropriate and long-lasting austerity measures needed to cover this transitional deficit is a challenging political-economy task that many reforming countries failed to successfully complete. Thus, many reformers have been predominantly covering the transitional deficits by borrowing from second pillar pension funds, whose inception created the transitional deficit in the first place. These circular transactions, depicted in Graph 1, do not present genuine pension funding and capital accumulation but basically constitute an inefficient PAYG mechanism in disguise. *Disguised-PAYG* financing is inferior to traditional public PAYG systems due to hefty fees charged by private pension funds, while this arrangement also increases public debt (Altiparmakov, 2018a).

Graph 1 – Comparing traditional PAYG and privatization with disguised-PAYG financing



Domestic government bonds used to be a dominant asset class in both Hungary and Poland, reaching 60% of investment portfolios, before these countries dismantled the second pillar. Government bonds also account for about 60% of second pillar assets in North Macedonia, while their share is even more pronounced in Croatia and Romania reaching 65% of investment portfolios in both countries in 2018. In order to eliminate this suboptimal arrangement, Poland replaced the disguised-PAYG financing with traditional NDC PAYG system in 2014, while Hungary decided to completely revert back to the defined-benefit public PAYG system in 2010.

Table 4 – Second pension pillar performance until end-2018

	Pension privatizaton	Since inception until **end-2007**			Since inception until **end-2018**			Standard Deviation	
		Real Return	GDP Growth	Diff.	Real Return	GDP Growth	Diff.	2nd pillar	GDP
Hungary	Jan 1998	2.8	3.7	-0.9	1.6	2.4	-0.8	9.3	3.1
Poland	Jan 1999	8.2	4.1	4.1	4.5	3.7	0.8	9.2	1.6
Latvia	July 2001	-2.4	9.2	-11.6	-0.9	3.6	-4.5	7.4	6.3
Bulgaria	Apr 2002	4.3	6.5	-2.2	1.2	3.5	-2.3	8.1	3.0
Croatia	May 2002	4.5	4.8	-0.3	3.5	1.6	**1.9**	6.4	3.5
Estonia	July 2002	3.4	8.0	-4.6	0.1	3.2	-3.1	9.5	6.0
Lithuania	June 2004	2.4	8.4	-6.0	0.8	3.1	-2.3	9.6	5.7
Slovakia	Apr 2005	1.0	8.8	-7.9	-0.4	3.8	-4.1	3.5	3.7
Macedonia	Feb 2006	2.9	5.8	-2.9	3.2	2.8	0.4	6.6	2.2
Romania	May 2008	-	-	-	4.8	2.3	**2.5**	4.3	4.2
AVERAGE		3.0	6.6	-3.6	1.9	3.0	-1.1	7.4	3.9

Source: Authors calculations based on national statistics, IMF WEO data for GDP growth. Real returns actually represent semi-net returns, since they exclude asset-based fees but include contribution-based fees, which are quite substantial in some countries (5% of contributions in Bulgaria for example).

Even in countries where pension privatization was implemented in a more fiscally prudent manner, such as Estonia, Lithuania or Bulgaria, the anticipated higher benefits to future pensioners are not being materialized due to poor investment performance. As we can see in Table 4, in all countries that managed to avoid the disguised-PAYG financing trap, namely Latvia, Bulgaria, Estonia, Lithuania and Slovakia – second pillar rate of return is significantly lower than GDP growth, implying an inferior performance and lower benefits compared to the pre-existing public PAYG systems (the so-called Aaron (1966) condition). It is thus no surprise that Latvia decided to scale-back the second pillar contribution rate from 10% to 6% and move workers' savings from the loss making second pillar to the first NDC PAYG pillar. Similar actions were seen in Bulgaria (second pillar rate reduced from planned 7% to 5%), Slovakia (from 9% to 6%) and Lithuania (reduced the second pillar rate from 5.5% to 2% in 2009, then switched from carve-out to supplementary add-on second pillar in 2019). Estonia remained the sole pension privatizer that maintained its original pension privatization plans, despite the disappointing performance of its second pillar funds which are barely producing non-negative real rate of returns.

4. Political aspects of privatized pension systems

Proponents of pension privatization had argued that private second pillars would be insulated from fiscally irresponsible political risks which were seen as a contributing factor to the insolvency of PAYG schemes in many countries (World Bank, 1994). Opponents on the other hand stressed that retirement income provision has become such a crucial segment of modern societies that making it immune to political risks was highly unrealistic (Orszag and Stiglitz, 2001; Barr, 2000). In fact, even in the case of the iconoclastic complete pension privatization in Chile, social discontent with inadequate private pensions gave rise to political reaction in 2008 and introduction of tax financed social pensions, almost three decades after the initial pension privatization in 1981. Partial privatizations in Eastern Europe have proven to be even more exposed to political risk.

In contrast with voluntary supplementary third pension pillar which enjoyed broad consensus and was never under dispute, carving-out mandatory private funds from existing PAYG systems was marked with fierce political debates in entire Eastern Europe (Mueller, 2002). Second pillar thus never gained cross-party consensus or broad-based support from social partners. It is thus no surprise that when disappointing results started to emerge, parties opposing pension privatization were first to react. Interestingly enough, initiatives for reform reversals in several instances, most notably Poland, came from political parties that championed pension privatization a couple of decades earlier. Political debates surrounding reform reversals were more complex that the initial privatization ones since they included not only political parties and social partners, but also private pension funds with their own profit motives and separate agendas. The outcomes were thus more diverse than in the case of initial reforms when all countries, albeit cosmetic differences, implemented the same pension privatization blueprint put forward by the World Bank (1994).

Hungary and Poland were the first European countries to embark on pension privatization, and also the first ones to implement reversals. Hungarian socialist party, which championed the first pension privatization in Eastern Europe back in 1998, was forced to react to its disappointing performance and implement re-reforms in 2009 to allow oldest cohorts of second pillar members to return to the PAYG system in order to receive higher benefits at retirement. Right-wing FIDESZ party, a long-time opponent of pension privatization in Hungary, decided to go further and to completely dismantle the second pension pillar in 2010, after winning a land-slide election victory (Simonovits, 2011). Private pension funds tried to challenge the second pillar nationalization in Hungarian Constitutional Court, but their efforts were unsuccessful.

In Poland it was a right-wing PO party, a former crucial proponent of pension privatization, that implemented re-reforms in 2013. Polish re-reforms did not include complete "nationalization" but were focused on resolving the disguised-PAYG financing problem. Thus, half of second pillar assets that were invested in government bonds were nationalized and consolidated into the public NDC PAYG system, while private second pillar has been down-sized, from 7.3% to 2.9% contribution rate, and has been made voluntary instead of mandatory. Further changes in 2019 have effectively changed the carve-out nature of the Polish second pillar and have transformed it into a voluntary tax-preferred pension component resembling traditional supplementary pension schemes in most developed countries. While Polish government didn't face major resistance from opposition parties which were themselves contemplating possible reversals, it had to endure fierce opposition from private pension funds which included media confrontations and appeals to Constitutional court, which were eventually dismissed.

On the other hand, the Croatian government was forced to abandon it initial plans to dismantle the second pillar in 2009. Croatian government, led by the right-wing HDZ party which implemented pension privatization a decade earlier, declared "second pillar a failure" in early 2009. Government initiative was however short-lived after facing strong and well organized resistance from the local financial community. Instead of going for more radical re-reforms, a political compromise was reached in 2011 to allow oldest cohorts of workers (which had voluntarily joined second pillar) to freely return to the PAYG system at the time of retirement, if that would entitle them to higher pensions. This option of returning to the PAYG system at retirement to receive higher pension benefits was subsequently expanded to all second pillar members in 2019.

Similar to FIDESZ in Hungary, the left-wing SMER party has been a long-time opponent of the Slovakian second pillar and wanted to down-size it after coming to power in 2009. SMER government however faced fierce opposition both from the right-wing SDKU party that introduced second pillar in 2006 and private pension funds themselves. This political confrontation gave rise to major policy uncertainty, as evidenced by 21 instances of legal amendments to second pillar legislation over the short 2006-2011 period. These amendments often included Ping-Pong effects and suboptimal pension policies – such as overly restrictive non-negative nominal returns guarantee which resulted in overly conservative investment portfolios with negative real rates of return. It was only after a land-slide election victory in 2012 that SMER party finally managed to implement its original re-reform plan and reduce the second pillar contribution rate from 9 to 4% of wages (eventually to be increased to 6% by 2023).

Downsizing of Lithuanian second pillar, from 5.5% to 2% contribution rate in 2009, also met resistance from local financial community, albeit to a lesser extent than in Croatia or Poland. Nonetheless, Lithuanian Constitutional Court was asked to invalidate the legislated second pillar rate decrease. Although the Court appeal was eventually rejected, huge policy turmoil is evidenced by frequent legislative changes whereby pension legislation was changed and amended 25 times over the 2004-2014 decade. This pronounced policy uncertainty seems to have been largely resolved in 2019 by transforming the carve-out second pillar into an add-on supplementary pillar in line with pension practices in most developed countries in Western Europe or North America. Thus, Lithuanian second pillar no longer includes diversion of contributions from the PAYG system but is solely financed by additional voluntary employee contributions (4%) matched with a government subsidy (2% of average wage).

Securing a funding source independent of pre-existing PAYG contributions seems to be a partial answer to the question how Estonia managed to be an outlier that successfully maintained its original second pillar plan (albeit a temporary funding freeze during the global financial crisis). Estonia's success story is based on the second pillar partially carved-out from the PAYG system (4%) and partially funded with additional 2% contribution rate paid directly by second pillar members. It was furthermore supported with an unprecedented level of fiscal restraint whereby government debt remained in the "single-digits" territory throughout the transition period. Estonia's example has shown that securing sustainable funding sources was enough to maintain political support for the second pillar throughout the rough times during the global financial crisis and despite barely positive real rates of return which will not be able to produce adequate second pillar pensions that were initially envisioned at the time of its creation.

With reform reversals of different magnitudes happening in 10 out of 11 reforming countries in Eastern Europe, we can conclude that pension privatization not only failed to insulate the second pension pillar from political risk but might have, in fact, degraded political processes and contributed to suboptimal, welfare reducing, pension policies in several instances. The most striking example of inefficient pension outcomes is the option granted to second pillar members in Croatia, Slovakia, Bulgaria and North Macedonia to freely return to the public PAYG system (at the time of retirement) if this would entitle them with higher pension benefits.

This short-term compromise were made to accommodate the dissatisfaction of early second pillar retirees which were to receive tangibly lower benefits than their counterparts which opted not to contribute to the second pillar. Official narratives behind these political compromises were that the oldest second pillar cohorts did not have enough time to accumulate appropriate amount of savings. However, results in Section 3 clearly show second pillar performance to be inferior to traditional PAYG systems. If this poor performance is not addressed, second pillar members will continue returning to PAYG systems at retirement, regardless of the duration of time they spent contributing to the second pillar. This will effectively lead to social security schemes becoming "social gambling" schemes in the long run. Namely, all workers will have an unambiguous incentive to join the second pillar, choose the most risky investment portfolio possible and then at retirement, either keep the second pillar investment profits for themselves or socialize their investment losses by returning to the PAYG system.

5. Learning by doing

Over the last two decades, 11 Eastern European countries embarked on radical pension reforms which included the controversial carving-out the second private pension pillar from pre-existing PAYG systems. Empirical evidence shows that these reforms failed to deliver the improvements that were initially suggested by the World Bank (1994). While Holzmann (2000) explains that the goal of multi-pillar reforms was to achieve "a pension structure that diversifies risks, both economic and political" – the actual outcomes were quite the opposite. Political risks have actually been amplified by the introduction of new political actors – second pillar funds, while the economic efficiency has deteriorated compared to pre-existing PAYG systems due to the emergence of suboptimal disguised-PAYG financing and second pillar returns being tangibly lower than GDP growth.

Eastern European countries still face fiscal and economic challenges related to demographic aging and "averting the old-age crisis" seems more challenging today than a couple of decades ago. Not only has precious time been lost on pursuing an unproductive reform approach, but the political appetite for dealing with pension issues seems diminished after the recognition that multi-pillar reforms are not a panacea they were initially perceived to be. Nonetheless, political elites will need to explicitly recognize second pillar failures and deal with them decisively. Going for short-term compromises, such as allowing second pillar members to return to the PAYG system in case their second pillar investment turn sour, doesn't solve underlying problems but is only postponing and amplifying them for the future.

There is little doubt that successfully "averting the old-age crisis" in Eastern Europe will need to involve private pension funds. However, their funding, operations and interactions with public PAYG systems will need to resemble successful practices in developed countries instead of relying on the radical World Bank (1994) reform blueprint. In particular, developing a sustainable private pension component will require Eastern European countries to, at least, focus on i) ensuring sustainable funding source and ii) enabling adequate rate of return on retirement savings.

For vast majority of countries, ensuring a sustainable funding source will mean abandoning the carve-out approach and moving to the add-on approach typical for supplementary private pension systems in developed countries. A meaningful diversification of retirement financing requires the second pillar contribution rate to be at least 10% or more (Altiparmakov, 2018a;

Holzmann, 2000), which is actually the case in all reforming countries, such as Australia or Hong-Kong, where second pillar funds were introduced in an add-on manner (James, 2005). However, experience from Eastern Europe in the last couple of decades teaches us that planning for a carve-out second pillar with contribution rates larger than 3% or 4% of wages is highly unrealistic from political-economy point of view (Drahokoupil and Domonkos, 2012).

After the recent trend of partial reform reversals, most Eastern European countries are left with second pillars contribution rates of around 5% of wages. These relatively small and inefficient second pillars introduce significant policy uncertainty due to their carve-out nature, without having an economic potential to tangibly improve future retirement incomes.

Countries with prudent fiscal stance where disguised-PAYG financing issue is not pronounced, such as Bulgaria, can consider more modest re-reforms like the Lithuanian approach to transitioning from carve-out to supplementary add-on second pillar. However, countries plagued with disguised-PAYG financing, such as Croatia, Romania or North Macedonia, will need to rely on more radical reform reversals similar to that in Poland. In order to ensure fiscal sustainability when transitioning towards a supplementary add-on second pillar they will likely need to nationalize government bonds held by second pillar funds in order to replace disguised-PAYG financing and with traditional (NDC) PAYG financing.[3]

After securing economically and politically sustainable second pillar funding, reform efforts will need to focus on enabling workers to earn adequate rates of return on their savings. Poor returns in Estonia, Slovakia, Bulgaria, Latvia or Lithuania cannot be solely ascribed to idiosyncratic issues but are manifestations of market failures inherent in the defined-contribution private pension markets. These drawbacks have been observed in other reforming countries, including Australia, where workers lack proper knowledge and information to make informed and optimal decisions regarding the allocation of their retirement savings (Altiparmakov, 2018b).

To attenuate these market failures, additional fiduciary services will be needed. In countries like United Kingdom or Italy, empirical evidence suggests that employers are effectively serving as fiduciaries for their employees by negotiating more favorable contracts with private pension funds. Sweden relies on a default government-run fund (ATP7) to attenuate suboptimal worker's choices. However, occupational pension plans have not been widespread in Eastern Europe, thus making it challenging to rely on employers to provide additional fiduciary services. Likewise, public governance standards are lagging compared to Western Europe, so relying on a government-run pension fund would entail excessive political and governance risks. Regardless of the challenges, Eastern European countries will have to focus on improving performance of private pension funds in order to enable adequate incomes for future pensioners.

[3] If left unaddressed, disguised-PAYG mechanism would likely eat-up two thirds of deficit and debt limits prescribed by the EU Maastricht Criteria, without improving future pension benefits (Altiparmakov, 2018a).

6. Concluding remarks

Radical pension reforms in Eastern Europe failed to produce radical improvements that were initially suggested by the World Bank (1994). This failure creates legitimate interests for policymakers to reassess the feasibility of existing second pillars and to address their major deficiencies – politically unstable funding via carve-out contributions, inadequately low rates of return and the emergence of suboptimal disguised-PAYG financing.

For most Eastern European countries, securing a sustainable funding source from political-economy point of view will require moving from carve-out to supplementary second pillar. In some instances, this transition could be achieved wild relatively modest reform adjustments similar to those in Lithuania in 2019. Countries where disguised-PAYG financing is prevalent will likely have to rely on more severe adjustments resembling Polish reversal in 2014 in order to nationalize government bonds held in second pillar portfolios and improve fiscal sustainability while transitioning from carve-out to supplementary second pillar.

Furthermore, Eastern European countries will have to more effectively deal with weaknesses inherent in private defined-contribution pension markets. In doing so, reformers will need to rely on their own country-specific institutional features, limitations and legacies in order to establish additional fiduciary services which will improve realized rates of return and enable workers to receive adequate private pension incomes in the future.

Implementing necessary reform adjustments and reversals will require strong political commitment, in some instances even stronger than in the case of initial pension privatizations. Without such a commitment, reforming countries are likely to continue resorting to short-term political compromises, such as allowing second pillar members to return to the PAYG system to receive higher benefits at retirement. These counterproductive compromises only hide and postpone underlying problems instead of addressing existing second pillar deficiencies.

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