Retreat from mandatory pension funds in countries of the Central and Eastern Europe in result of financial and fiscal crisis: causes and effects

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Outline

- Pension reforms in CEE countries; transition costs and their financing in two decades : from late 1990s until 2016

- CEE pension systems after the crisis: short term effects of reduction of funded part for fiscal stance

- Long-term impact of changes in mandatory funded systems in selected CEE countries on the stability of public finances and pension systems

- Conclusions

Selected features of pension systems in 8 CEE countries

	Public pension scheme (PAYG)	Retirement age	Mandatory Funded Scheme (FDC)		
			Initial contributions	Enactment date	Who participates
Bulgaria	DB	From: 60/55 To: 63/60	2% to 5%	2002	Mandatory for all workers <42, no cohorts with choice option
Estonia	DB	From: 60/55 To: 63/63	6% (4% +2%)	2002	Mandatory for new entrants, voluntary for 19-60 in year of reform
Latvia	NDC	From:60/55 to 62/62	2% to 8%	2001	Mandatory for entrants and workers < 30, voluntary for 30-50
Lithuania	DB	From:60/55 to 62.5/60	2.5% to 5.5%	2004	Voluntary for current and new workers but no opt-out
Hungary	DB	From:60/55 to 62/62	6% to 8%	1998	Mandatory for new entrants, voluntary for all employed
Poland	NDC	65/60 (60/55)	7.3%	1999	Mandatory for new and workers < 30, voluntary for 30-50
Romania	DB	From:62/57 to 65/60	2% to 3%	2008	Mandatory for new and workers < 35, voluntary for 36-45
Slovakia	Points	From:60/53-57 to 62/62	9%	2005	Mandatory for born after 1983, voluntary for all being in the social insurance before 2005

Source: Schwartz, Arias (2014) with authors' update

Changes in funded DC schemes after 2008

	Reversals
Bulgaria	**No change.**
Estonia	**Temporary reduction with off-set**. 6% contribution rate cut to 0% between June 2009 and January 2011 and shifted to PAYG. Gradual increase from 2011. Rate set at 3% in January 2011 and 6% in January 2012. In 2014-2017 at 8% to offset missed contributions
Latvia	**Partial reduction.** 8% contribution rate reduced to 2% in May 2009. Rates increased to 4% from 2013
Lithuania	**Partial reduction.** 5.5% contribution rate reduced to 2% in July 2009. Rates further lowered to 1.5% in January 2012 and 2.5% in 2013. Change to 3% (2%+ 1%) January 2014, voluntary participation. Additional contribution at 2% in 2016-2019.
Hungary	**Permanent reversal.** Contribution rate reduced to 0% in January 2011 assets transferred to the mandatory PAYG system.
Poland	**Permanent reduction and partial reversal.** Contribution rate reduced to 2.3% in May 2011. From February 2014 contribution at 2.92%, in February 2014 assets invested in government bonds transferred to PAYG scheme and redeemed. In 2014 system made opt-out and opt-in in specified time slots. Assets from FF transferred gradually to PAYG 10 years prior to retirement.
Romania	**Temporary reduction.** Reduction in planned growth path of contribution rate from 2% to 6%. Rate froze at 2%, started to increase from 2011 at annual rate of 0,5pp. In 2016 contribution rate 5.1% instead of 6%
Slovakia	**Permanent reduction.** 9% contribution reduced to 4% in 2013. Funded scheme opt-out and opt-in system since 2008 with reopening every 2 years (from 2009). New entrants are by default enrolled only to PAYG part but may apply for membership in the funded component up to age 35

Source: Schwartz, Arias (2014) updated by authors

Transition costs

- occur when prefunding is done from part of the existing PAYG scheme contribution by transferring it to mandatory pension funds

- transition costs depend on:
  - the level of contribution diverted from a PAYG public scheme to mandatory pension funds,
  - changes in wages (the base of contribution deduction),
  - switching rules and switching behaviour (when the participation is voluntary for some employees)

- the outflow of the part of old-age contribution to mandatory pension funds may result in the creation or deepening of a deficit in PAYG public schemes and therefore the general governmet sector balance and debt

- CEE countries decided to use a part of their current PAYG schemes contribution to prefund pensions (with exception of Estonia) not to increase the labor costs

The concept of financing the transition costs

- Three sources of covering the transition costs:
  - financing from taxes and other budgetary revenues (burden for working generation),
  - financing from savings in the existing PAYG system (burden for retired generation),
 - through an increase of the general government debt (burden for future generations).

The choice of the source for financing the transition costs is a crucial decision in terms of the reform success or failure.

Overall level of transition costs between 2001 (or reform start) and 2015, % of GDP

Country	Period	Total transition costs
Poland	2001-2015	16.4
Bulgaria	2002-2015	13.0
Estonia	2002-2015	11.2
Slovakia	2005-2015	10.7
Hungary	2001-2010	9.9
Latvia	2001-2015	6.7
Lithuania	2004-2015	6.4
Romania	2008-2015	4.6

Source: data from country experts' questionnaires, author's review of CPs or SPs of CEE countries, national statistical offices, national financial supervision authorities.

Share of old-age pension savings, taxes and debt in transition cost financing in the CEE countries from 2001 or inception of the reform until 2008 and until 2015
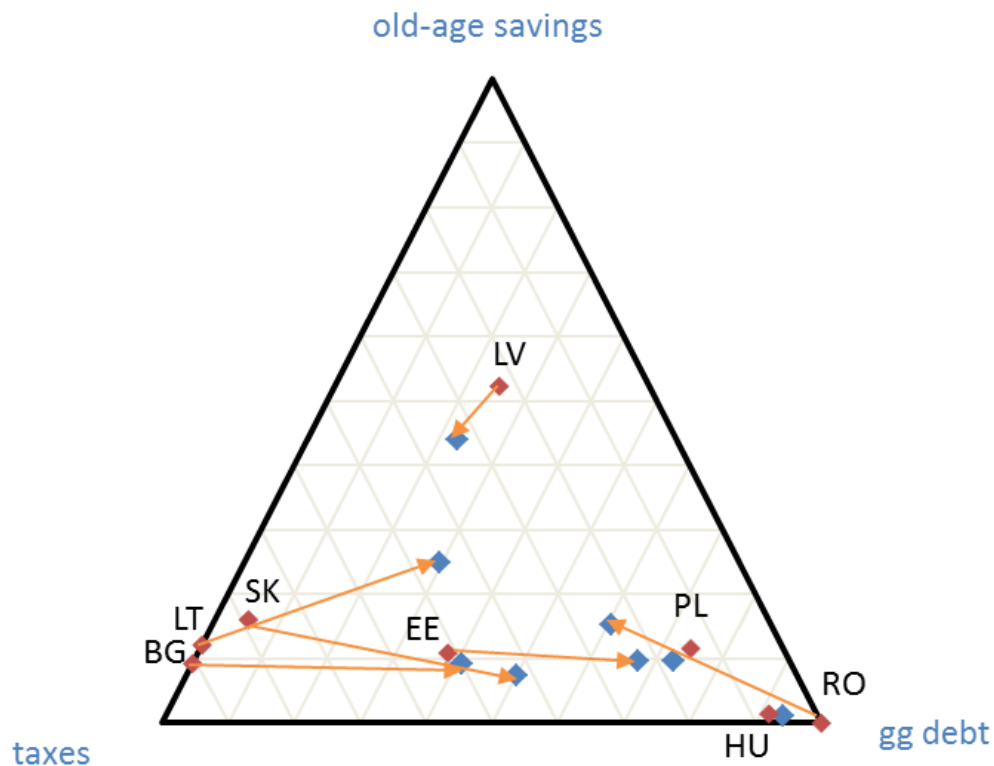
Note: Red points illustrate the decomposition of transition costs in the period 2001-2009 and blue points the decomposition of transition costs in the period 2001-2015.
Source: Authors' analysis.

Expectations and facts about financing transition costs

- In all countries transition costs were higher then expected but were not the main drivers of GGS excessive deficits

- Expected privatization revenues were used also for other purposes

- Only few countries successfully implemented changes in existing PAYG part of pension system in line with reform projections (Estonia, Bulgaria, Latvia)

- Reasonable fiscal policy was run by countries with tight national fiscal rules

Fiscal position of CEE countries in 2007 - 2015

Country	General Government net lending (+) / net borrowing (-) (% GDP)								
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bulgaria	1.2	1.7	-4.3	-3.1	-2.0	-0.5	-1.2	-5.5*	-1.6
Estonia	2.4	-2.9	-2.0	0.2	1.0	-0.3	-0.2	0.7	0.1
Latvia	-0.4	-4.2	-9.7	-8.1	-3.4	-0.8	-0.7	-1.4	-1.2
Lithuania	-1.0	-3.3	-9.4	-7.2	-9.0	-3.2	-2.6	-0.7	-0.2
Hungary	-5.1	-3.7	-4.6	-4.4	-5.5	-2.3	-2.5	-2.6	-2.0
Poland	-1.9	-3.7	-7.5	-7.9	-5.0	-3.7	-4.0	-3.2	-2.6
Romania	-2.9	-5.7	-9.0	-6.8	-5.6	-3.0	-2.1	-1.5	-0.8
Slovakia	-1.8	-2.1	-8.0	-7.7	-5.1	-4.5	-2.6	-2.9	-2.7
	Government consolidated gross debt (%GDP)								
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bulgaria	17.2	13.7	14.6	16.2	16.3	18.5	18.3	27.6	26.0
Estonia	3.7	4.5	7.1	6.7	6.1	9.8	10.1	10.6	10.0
Latvia	9.0	19.8	36.9	44.4	41.9	40.6	38.2	40.0	36.9
Lithuania	16.8	15.5	29.3	37.8	38.3	40.5	38.8	40.8	42.6
Hungary	67.0	73.0	79.8	82.2	82.1	79.8	77.3	76.9	74.7
Poland	45.0	47.1	50.9	54.9	56.2	55.6	55.7	50.1	51.1
Romania	12.8	13.4	23.6	30.5	34.7	37.9	39.0	39.8	37.9
Slovakia	29.6	27.9	35.6	41.0	43.4	52.4	54.6	53.6	52.3

* the deficit considered as exceptional by the EU Commission
Source: Eurostat

Results of panel regression analysis with random effects. Dependent variables: general government deficit and general government debt

	2000-2015				2000-2008				2009-2015			
	GG debt		GG deficit		GG debt		GG deficit		GG debt		GG deficit	
transition cost	-4.81		-0.65		0.33		-2.08	***	-0.61		0.01	
social spending	4.87	***	0.81	***	3.71	***	1.04	***	1.06		0.77	***
employment rate	0.54		-0.001		-0.02		0.21	***	0.39		-0.19	*
R sq within	0.28		0.41		0.21		0.41		0.01		0.49	
R sq between	0.86		0.53		0.93		0.76		0.37		0.14	
R sq overall	0.67		0.42		0.85		0.62		0.26		0.22	
Prob > chi2	0.00		0.00		0.0001		0.00		0.48		0.01	

Note: *** p<0.01; ** p<0.05, * p<0.1
Source: Authors' analysis.

Long-term sustainability of public finance

Indicator	Meaning	Interpretation of values
S1 – Medium-term sustainability indicator (up to 2030)	Shows the upfront adjustment effort required, in terms of steady improvement in the structural primary balance to be introduced until 2020, and then sustained for a decade, to bring debt ratios back to 60% of GDP in 2030, including financing for any additional expenditure until the target date, arising from an ageing population	S1 < 0 – low risk 0 < S1 < 2.5 – medium risk S1 > 2.5 – high risk
S2 – Long-term sustainability indicator (indefinite horizon)	Shows the adjustment to the current structural primary balance required to fulfil the infinite horizon inter-temporal budget constraint, including paying for any additional expenditure arising from an ageing population.	S2 < 2 – low risk 2 < S2 < 6 – medium risk S2 > 6 – high risk

Components of S1 and S2 indicators

Indicator / components	Required adjustment given the initial budgetary position (IBP)		Required adjustment to reach debt to GDP ratio of 60% in 2030 (DR)		Required adjustment due to cost of ageing (CoA)
S1 =	Gap to debt-stabilizing primary balance in 2020 through a steady gradual adjustment	+	Additional adjustment required to reach a debt target of 60% of GDP in 2030	+	Additional adjustment required to finance the increase in public expenditure due to ageing population up to 2030
S2 =	Gap to debt-stabilizing primary balance	+	0	+	Additional adjustment required to finance the increase in public expenditure due to ageing population over an infinite horizon

Source: Fiscal Sustainability Report (2012)

S1 values and its components for the CEE countries

Country	Risk		S1		IBP		DR		CoA	
	2012	**2015**	**2012**	**2015**	**2012**	**2015**	**2012**	**2015**	**2012**	**2015**
Bulgaria	low	low	-1.5	-1.2	-0.1	1.3	-2.3	-1.9	0.8	-0.6
Estonia	low	low	-3.4	-4.0	-0.4	-0.4	-3.0	-3.8	0.2	0.2
Latvia	low	low	-2.0	-2.1	-0.3	-0.1	-0.9	-1.8	-0.8	-0.3
Lithuania	medium	medium	0.3	0.5	0.8	0.2	-1.1	-1.1	0.7	1.5
Hungary	low	low*	-0.4	-0.6	-0.2	-0.6	0.9	0.9	-1.3	-1.0
Poland	medium	medium	0.1	1.0	-0.3	1.3	-0.2	-0.5	0.6	0.2
Romania	low	medium**	-1.4	1.4	-0.4	2.4	-1.4	-1.3	0.4	0.3
Slovakia	medium	low	2.2	-0.7	1.1	-0.1	-0.2	-0.6	1.3	0.0
EU 27	x		1.8	2.0	-0.4	-0.2	1.7	1.9	0.4	0.3

* DSA for Hungary is medium so is overall assessment of fiscal sustainability in medium term

** DSA for Romania is high and so is overall assessment of fiscal sustainability in medium term

Where:
IBP – initial budgetary position
DR - required adjustment to reach debt to GDP ratio of 60% in 2030
CoA - required adjustment due to cost of ageing
Source: Authors' analysis based on Fiscal Sustainability Report (2012, 2015).

The risk of loss of fiscal stability in the infinite horizon in the countries of Central and Eastern Europe

Country	Risk		S2		IBP (initial budgetary position)		LTC (long-term cost of ageing):		of which change in pension expenditures	
	2012	2015	2012	2015	2012	2015	2012	2015	2012	2015
Bulgaria	medium	medium	2.8	2.4	0.5	1.9	2.3	0.5	1.6	0.0
Estonia	low	low	1.2	0.7	0.5	0.5	0.7	0.2	-0.1	-1.1
Latvia	low	low	-0.7	0.9	0.7	1.3	-1.5	-0.4	-1.4	-1.6
Lithuania	medium	medium	4.7	2.9	0.9	0.1	3.8	2.8	3.0	0.1
Hungary	low	low	0.5	1.5	0.1	0.5	0.3	1.0	-0.2	0.3
Poland	low	medium	1.5	3.5	0.4	2.4	1.1	1.1	-0.6	-0.2
Romania	medium	medium	3.7	4.4	0.1	2.9	3.6	1.5	2.4	0.1
Slovakia	high	medium	6.9	3.5	1.8	1.4	5.1	2.1	3.5	0.9
EU27	x	x	2.6	1.7	0.5	0.6	2.2	1.1	1.1	0.1

Note: The S2 indicator for Poland does not count for the restoration of the retirement age of 65 for men and 60 for women (from October 2017).

Source: Authors' analysis based on Fiscal Sustainability Report (2012, 2015)

Conclusions

- Rise of the public debt and fiscal deficit in the CEE countries was not primarily caused by the transition costs to funded pension systems

- Short-term effects of reduction of contributions to pension funds were positive for public finance and did not have a negative impact on pension systems

- Future stability of pension systems and public finance may worsen due to reduction of contributions to mandatory pension funds unless is not offset by other changes to PAYG schemes

Thank you