

# Enabling conditions and administrative requirements for FDC & NDC Pension Schemes

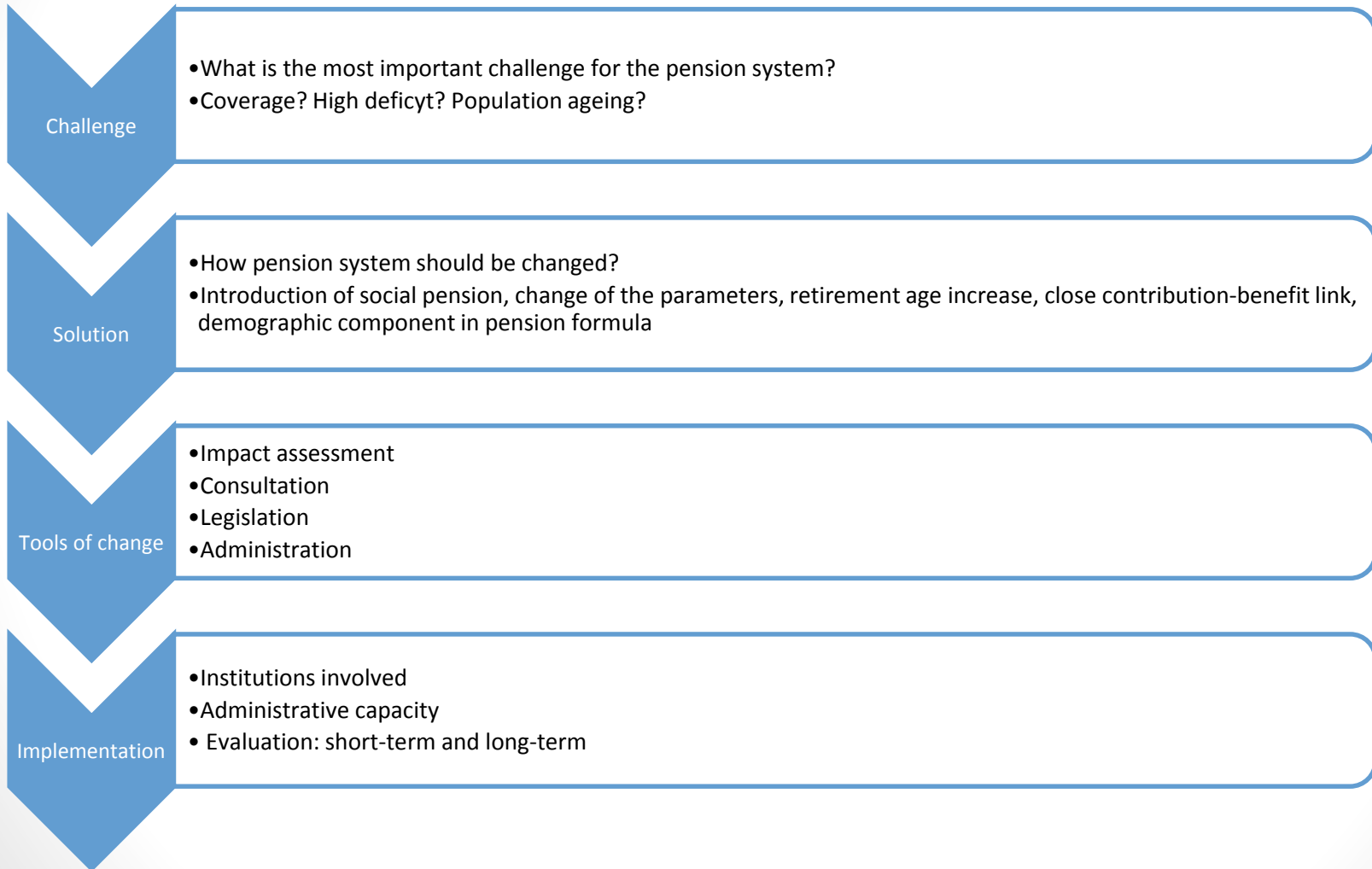
*Washington, April 28, 2015*

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Warsaw School of Economics

# Outline

- Implementation of DC schemes:
  - administrative requirements for FDC & NDC pension schemes
  - other enabling conditions conducive to funded schemes

# Pension reform: from the problem to the implementation



# Clicker exercise

- What is the most important challenge for the pension system in your country?

A. People at the old-age don't have pensions

B. Pension level is very low and pensioners are poor

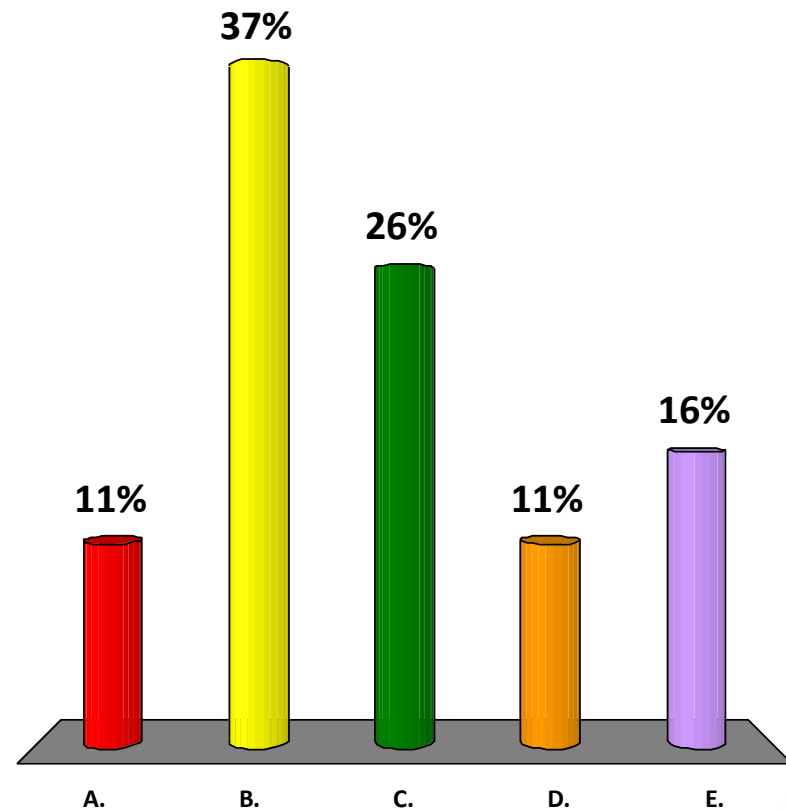
C. Current workers don't have pension coverage

D. Pension system has deficit, as there are too few workers per one pensioner

E. Long-term sustainability of pension system due to population ageing

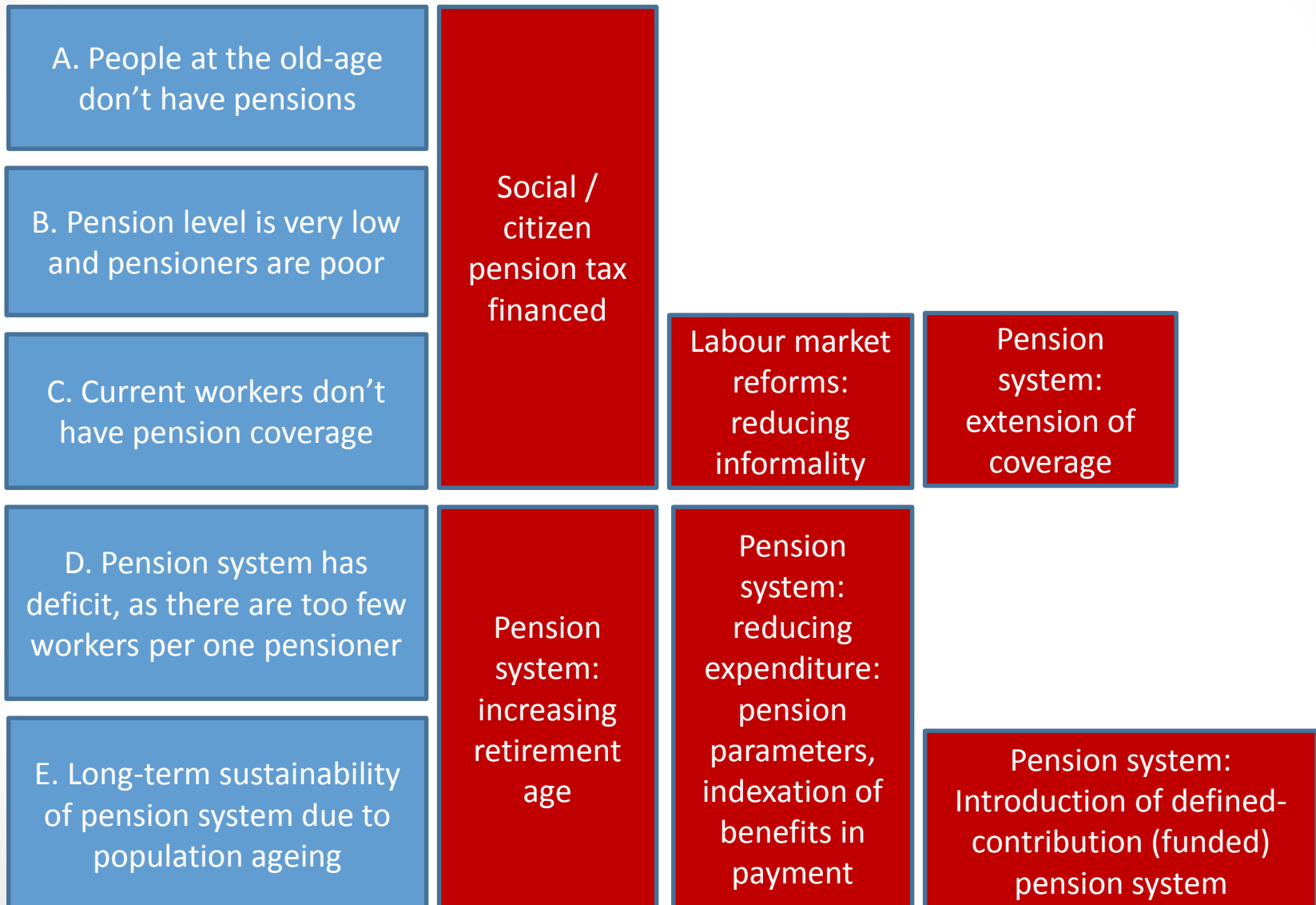
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# How to address the challenge?

## Examples of potential solutions



# Crucial questions – moving towards DC and funding

- Is move towards DC and funding desirable?
  - Is strong contribution-benefit a solution for the pension system challenge in the country?
- Is move towards DC feasible?
  - Administrative capacity to collect contributions on individual level
  - Capacity to run individual accounts
  - Data necessary to index accounts and calculate pensions (NDC)
- Is move towards funding feasible?
  - Public sector pre-requisites:
    - Macroeconomic stability including fiscal situation
    - Effective regulatory capacity
    - Political sustainability

# Administrative capacity for individual accounts

- INFORMATION IS AS IMPORTANT AS MONEY
- The philosophy of the new systems is to assign contributions to individual accounts and invest them on capital markets
- Contributions that are not assigned and not registered and do not increase individual's pension rights.



# Clicker exercise

- Are there individual account in social insurance your country?

A. Yes, information is collected and processed monthly

B. Yes, information is collected and processed quarterly/annually

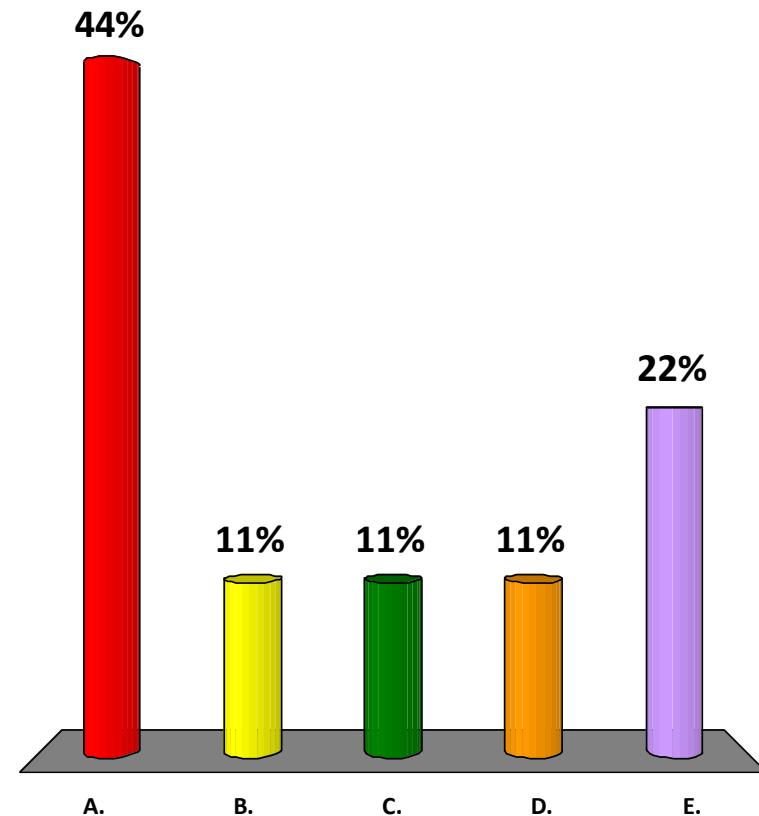
C. Yes, but information is collected irregularly

D. No, but there is an existing good-quality ID system (i.e. tax, health-care)

E. No, and there is no ID system or some with poor quality

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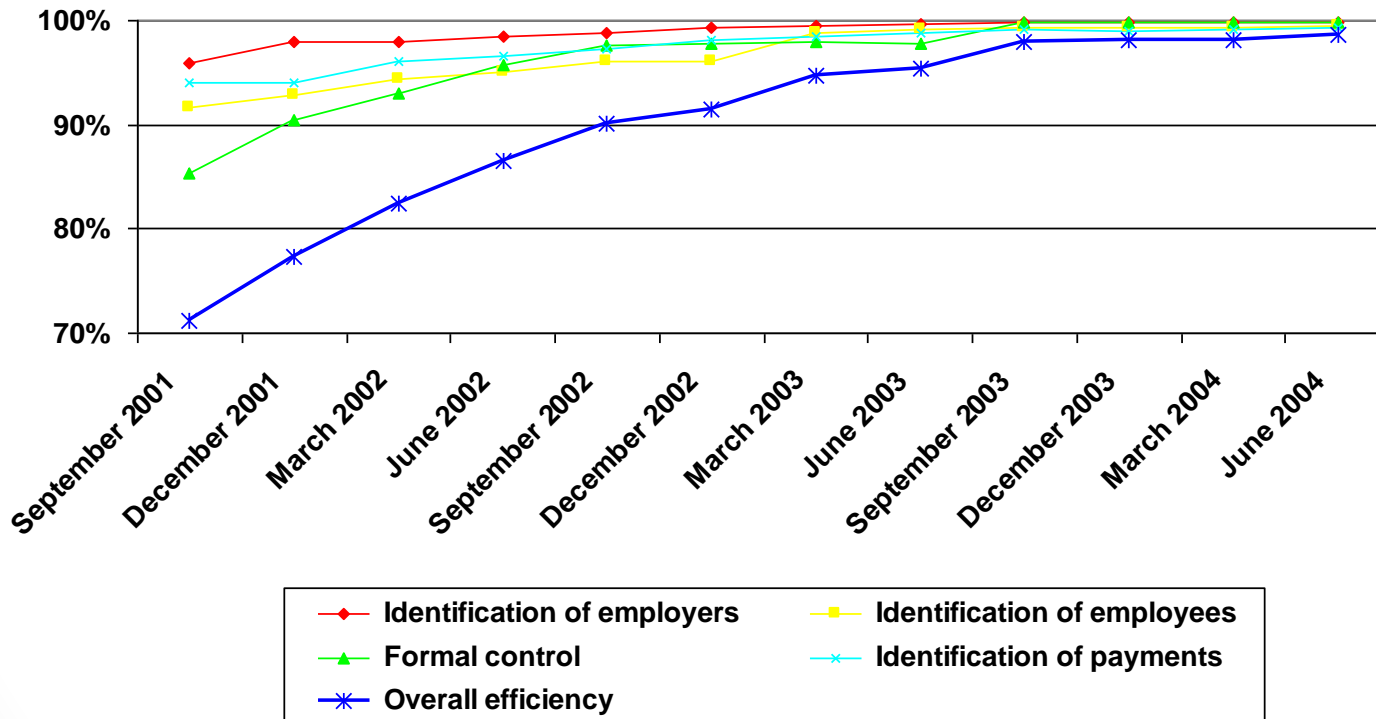
# Administrative capacity for individual accounts

- Necessary components:
  - ID system for individual participants (existing one if possible)
  - ID system for employers (existing one if possible)
- Well-designed processes of:
  - Registering individuals
  - Transferring contributions
  - Transferring information
- Identify and prepare all participants in the process: employers, banks, other institutions

# Administrative capacity: tips

- Allow time for administrative preparation
- As simple as possible
- Provision of free software supporting reporting by employers
- Mandating electronic transfer for as many employers as possible (Poland: mandatory for those who employ 5 or more people)
- Design enforcement mechanisms also for information obligations
- Remember: errors multiply !

# Poland: gradual improvements in information quality



Source: ZUS

# Main issues

- Quality of information must be assured
- All participants are equally responsible for adequate performance of the system
- Computer system is important....
- .... as well as system managers
- Proper identification should be ensured
- Procedures should be designed to avoid errors

# Implementation of funding

- Public sector pre-requisites:
  - Maintain macroeconomic stability including fiscal situation
  - Maintain political sustainability
  - Maintain effective regulatory capacity

# Types of financial consequences of pension reform

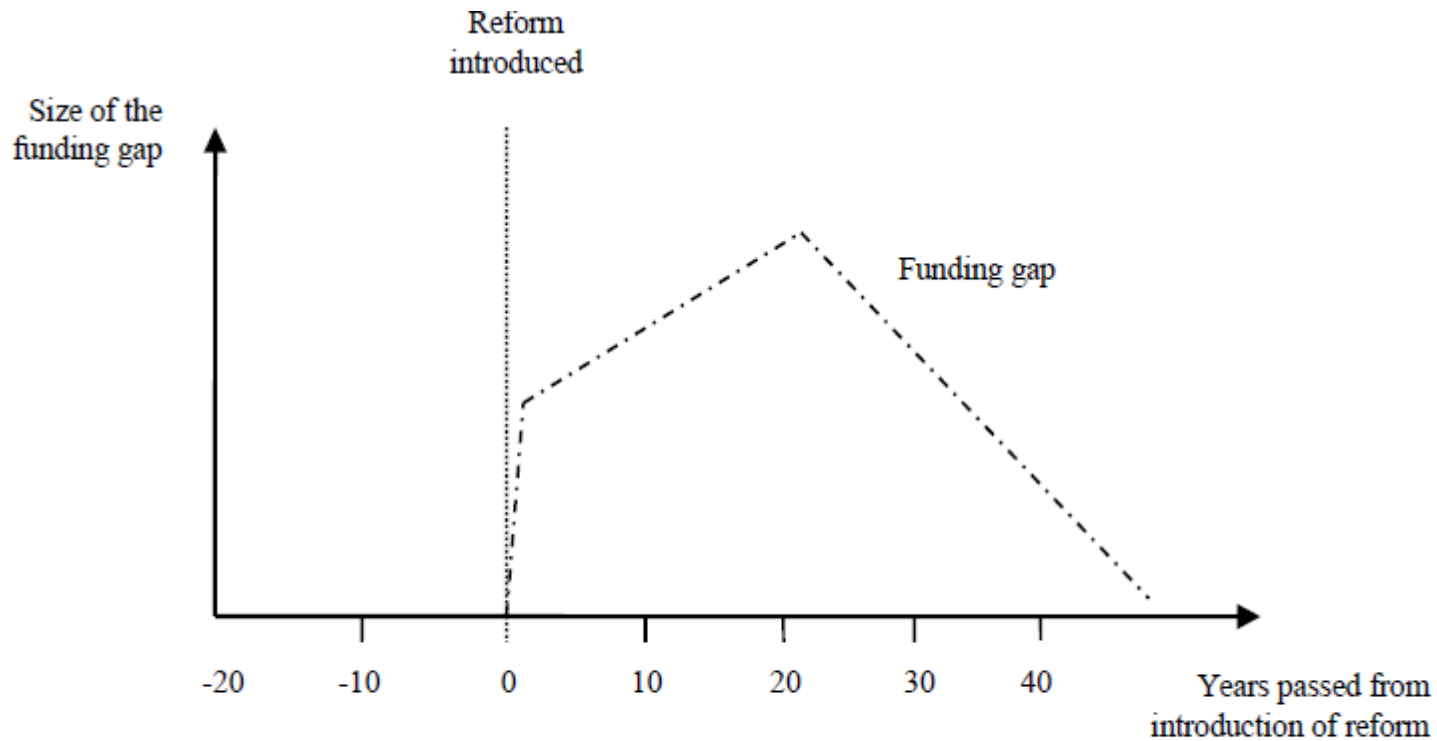
- Long-term:
  - reduction of long-term pension system liabilities (implicit debt)
- Short and medium-term:
  - increase or decrease in the public finance deficit due to pension related expenditures (explicit debt)



# Macroeconomic and fiscal stability

- Should be sufficient to allow financing transition costs
- Size of transition costs depends on:
  - policy choices
    - contributions
    - members of funded system
  - individual choices
- Financing of transition costs:
  - current tax revenues
  - savings on pensions
  - future revenues (debt)

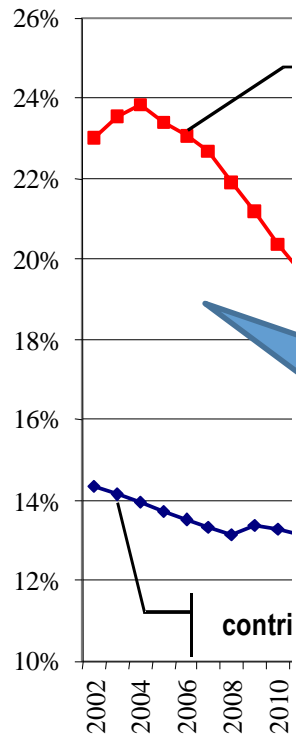
# The funding gap is long-run



Based on Simonovits (2003: 156)

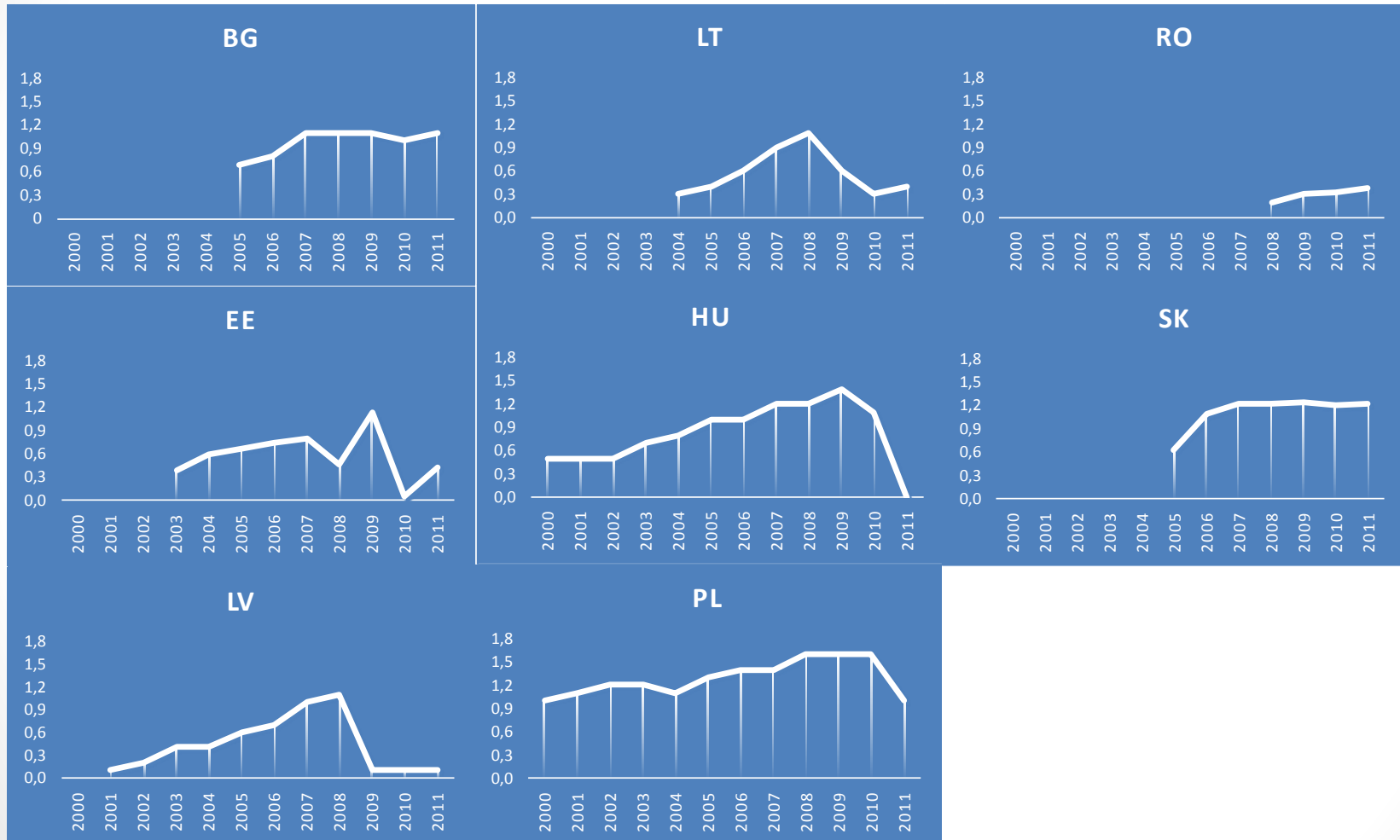
Source: Drahekoupil and Domonkos, 2013

# Expenditure and revenue of the pension system: simulation for Poland



Perspective of  
politicians

# Transition costs (% GDP) 2000-2011



Source: Bielawska, Chłoń-Domińczak, Stańko (forthcoming)

# Problems with governance

- Pension (quasi) markets have high barriers to entry with large sunk costs and economies of scale
- The mandatory element generates a highly inelastic demand
- Excessive market power
  - High fees
  - Reduced competition
  - Welfare loss to participants
  - Particularly visible in the time of financial crisis and falling returns

# Regulatory capacity

- Legal provisions:
  - Asset management
    - Portfolios (life cycle perspective)
    - Investment overseas (especially in the case of small economies)
    - Design of guarantees
  - Fees
    - Should cover costs of management
    - Avoid risk of excessive profits (assets will be growing for long time)
- Supervision
  - Staff
  - Procedures
  - Networks

# Public information campaign

- Aims:
  - to provide the public with full information
  - enable people to make informed decisions concerning their future pension
  - to create positive attitude to the reform
  - to eliminate fears of people not covered by the reform
- Warning:
  - should not lead to unrealistic expectations

# Private sector prerequisites

- Having well-informed population
- Trust in the competence and integrity of the private sector
- Financial assets
- Financial markets
- Private sector capacity to administer accounts and manage funds



# Causes and effects of the reversals of funded DC schemes in CEE countries

# Outline

- Selected features of pension systems in CEE countries
- Economic and fiscal crisis
- Reversals
- Lessons learnt

# Selected features of pension systems in 8 CEE countries

	Public pension scheme	Retirement age	Mandatory funded contributions	Enactment date	Who participates
Bulgaria	DB	60/55 to 63/60	2% to 5%	2002	Mandatory for all workers <42, no cohorts with choice option
Estonia	DB	60/55 to 63/63	6% (4% +2%)	2002	Mandatory for new entrants, voluntary for 19-60 in year of reform
Latvia	NDC	60/55 to 62/62	2% to 8%	2001	Mandatory for new and workers < 30, voluntary for 30-50
Lithuania	DB	60/55 to 62.5/60	2.5% to 5.5%	2004	Voluntary for current and new workers
Hungary	DB	60/55 to 62/62	6% to 8%	1998	Mandatory for new entrants, voluntary for all employed
Poland	NDC	65/60 (60/55) to 67/67	7.3%	1999	Mandatory for new and workers < 30, voluntary for 30-50
Romania	DB	62/57 to 65/60	2% to 6%	2008	Mandatory for new and workers < 35, voluntary for 36-45
Slovakia	Points	60/53-57 to 62/62	9%	2005	Mandatory for born after 1983, voluntary for all being in the social insurance before 2005

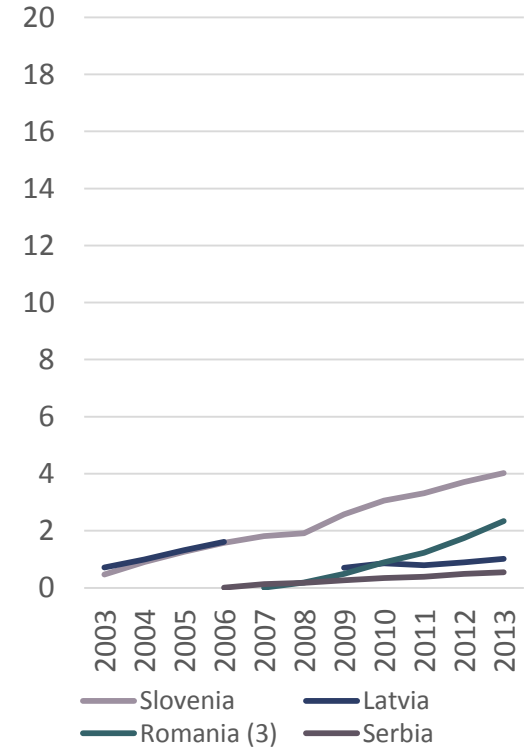
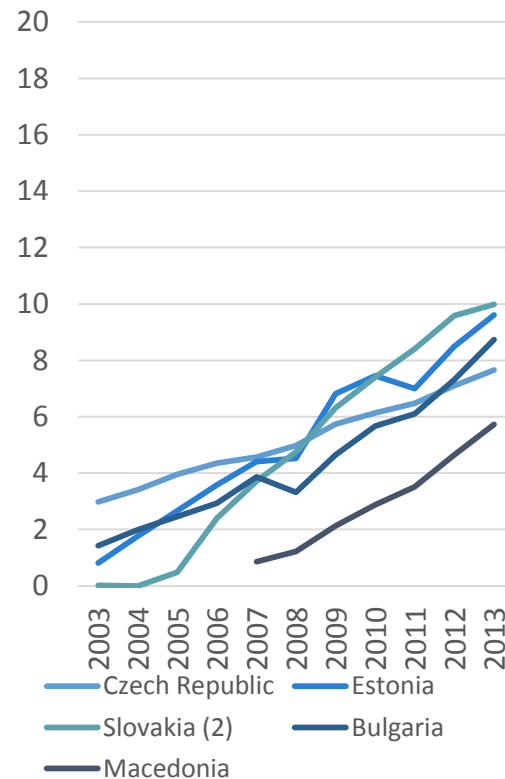
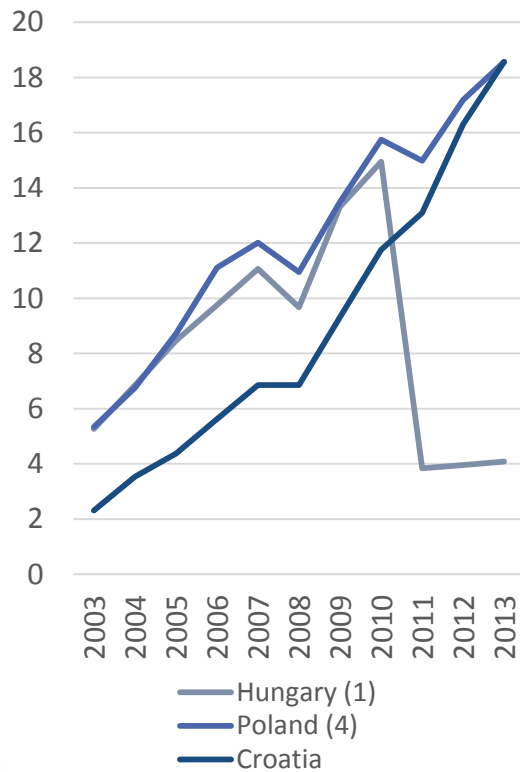
Source: A.Schwartz and O.Arias, *The Inverting Pyramid* (2014)

# Planned sources for covering the transition cost

Country	Increase of GGS revenues (taxes, social security contributions)	Savings in existing I pillar of pension system	Privatization revenues
Hungary		x	
Poland		x	x
Latvia	x	x	
Bulgaria	x	x	
Estonia	x	x	
Lithuania		x	x
Slovakia	x	x	
Romania	x	x	

Source: Bielawska, Chłoń-Domińczak, Stańko (forthcoming)

# Trends in pension fund assets (% GDP)



1. As a result of a pension reform, the assets of mandatory pension funds decreased in 2011, while voluntary pension fund assets did not change significantly.
2. The break in series in 2006 is due to the inclusion of voluntary pension plans, not included in the previous years
3. The increase of pension funds' assets between 2011 and 2012 is due to the increase of pension funds' members, contributions and positive returns.
4. Due to the shift of assets in 2015, there is a drop in total assets of pension funds in Poland due to the transfer and redeeming of government bonds in pension funds' portfolio

# Expectations and facts about financing transition costs

- In all countries transition costs were higher than expected (highest difference in Hungary) ...
- ... 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

# Investment returns in CEE funded pension pillars

Country	Type of fund	Starting date of calculations	Average annual rate of return (%)
Bulgaria	mandatory	1.07.2004	-2.06
Estonia	all	2.07.2002	-0.10
	conservative		-0.91
	balanced		-0.96
	progressive		0.33
	aggressive	1.01.2010	1.61
Latvia	balanced	7.01.2003	-1.22
	aggressive		-1.65
	conservative		-1.75
Lithuania	conservative	15.06.2004	-0.84
	stable		0.00
	balanced		-0.21
	aggressive		-0.85
Hungary	classic	1.01.1998 until end of 2007	3.39
	conservative	22.03.2005	2.05
	balanced		1.70
	growth		0.75
Poland	mandatory	1.09.1999	5.74
Romania	mandatory	21.05.2008	5.97
Slovakia	conservative	22.03.2005	-0.42
	balanced		-1.40
	aggressive		-1.63

Source: Bielawska, Chłoń-D

# Accumulated real returns (investment) in CEE funded pension pillars

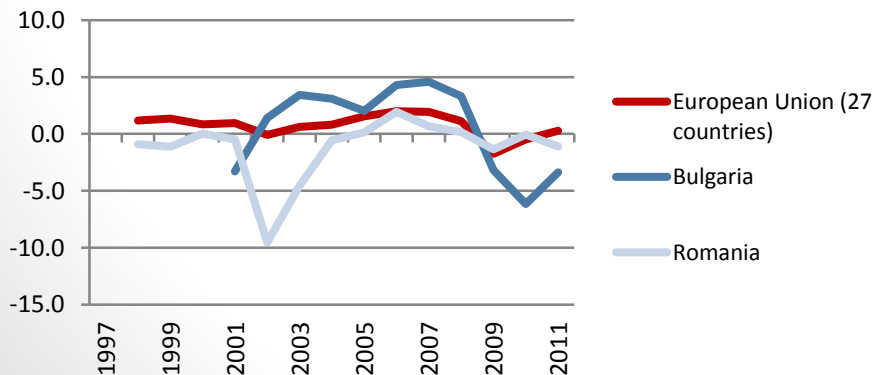
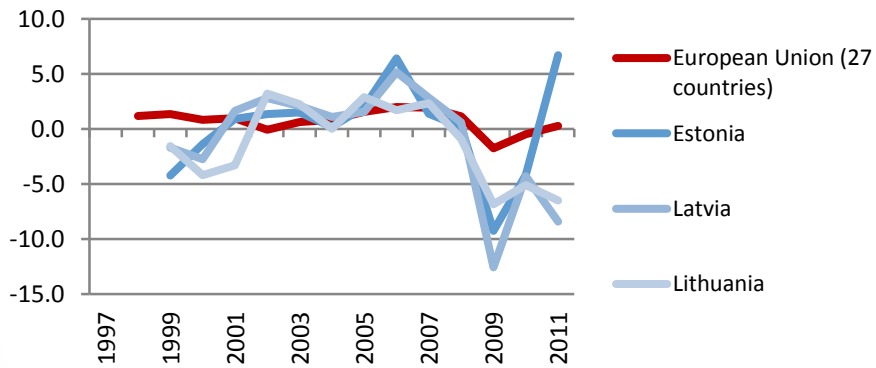
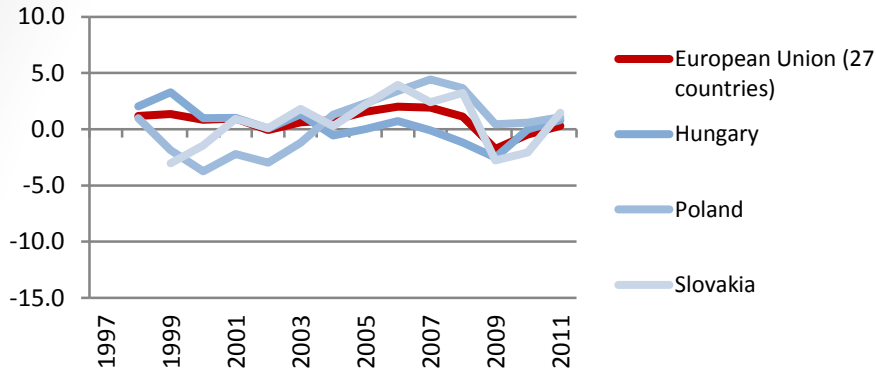
- Generally not satisfactory – either minus or low positive values
  - Problem with asset allocation (investment limits, return guarantees, local market capacities)
- Only three funded pension systems with satisfactory results – Hungary, Poland and Romania
  - Actual investment performance cannot serve as a justification for pension reversals done in first two countries



# Financial and fiscal crisis

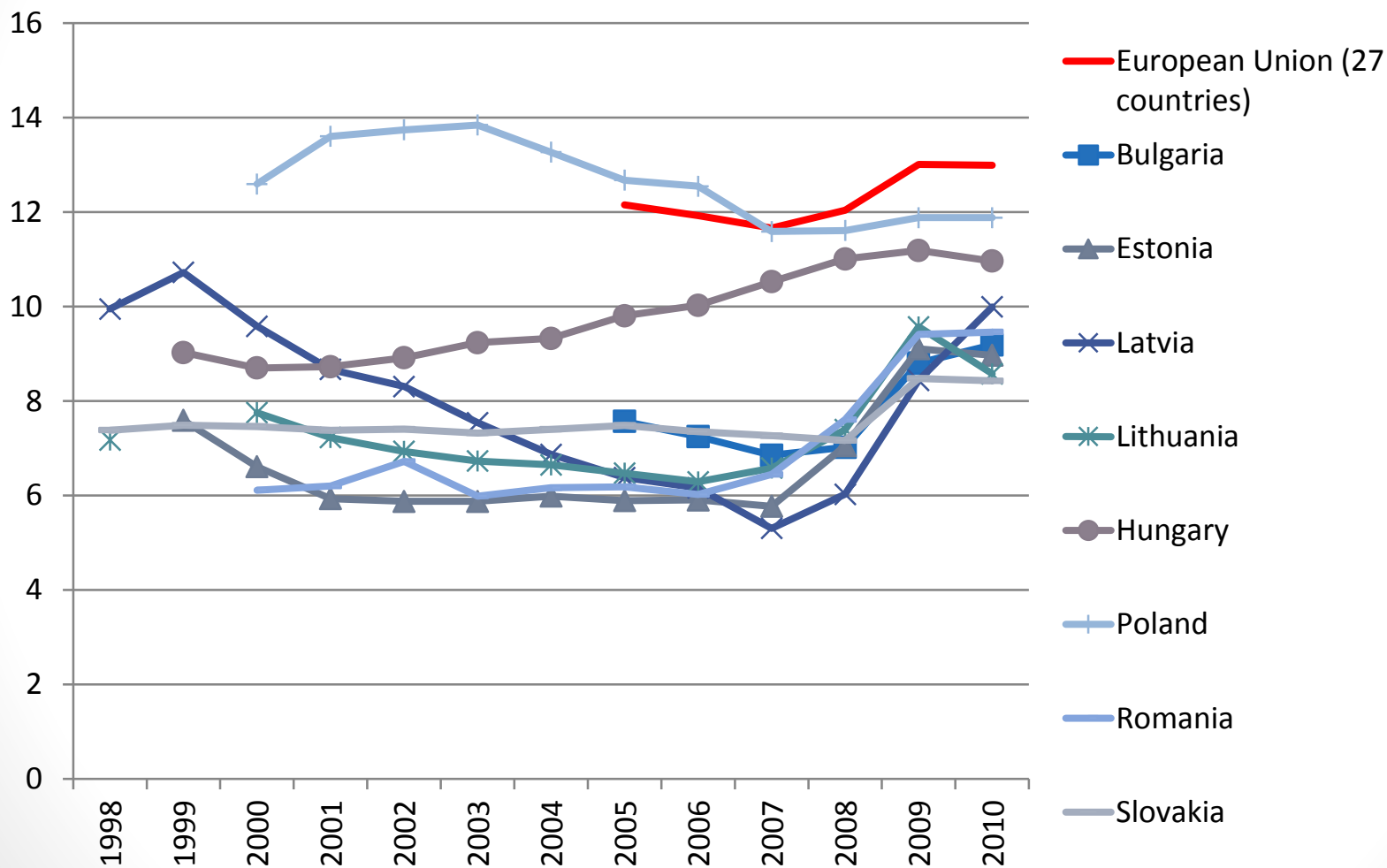
- Rising public deficit and debt levels
  - Falling capacity to finance transition costs
  - For the EU countries: excessive deficit procedures
- Negative or low returns and high administrative costs
  - Low trust towards pension fund
  - Short-term assessment perspective

# Employment changes



- Divergent labour market developments:
  - Initial decline and later increase in PL and SK
  - Increase and decline in HU
  - Cyclical changes in Baltic countries
- Loss in contribution revenues after the crisis caused by declining employment

# Pension expenditure



Source: EUROSTAT Espress database

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>General government deficit/surplus (% of GDP)</b>									
Hungary	-6,5	-7,9	-9,4	-5,1	-3,7	<b>-4,6</b>	<b>-4,3</b>	4,3	-1,9
Poland	-5,4	-4,1	-3,6	-1,9	-3,7	<b>-7,4</b>	<b>-7,9</b>	-5,0	-3,9
Latvia	-1,0	-0,4	-0,5	-0,4	-4,2	<b>-9,8</b>	<b>-8,1</b>	-3,6	-1,2
Bulgaria	1,9	1,0	1,9	1,2	1,7	<b>-4,3</b>	<b>-3,1</b>	-2,0	-0,8
Estonia	1,6	1,6	2,5	2,4	-2,9	<b>-2,0</b>	<b>0,2</b>	1,2	-0,3
Lithuania	-1,5	-0,5	-0,4	-1,0	-3,3	<b>-9,4</b>	<b>-7,2</b>	-5,5	-3,2
Slovakia	-2,4	-2,8	-3,2	-1,8	-2,1	<b>-8,0</b>	<b>-7,7</b>	-5,1	-4,3
<b>General government debt (% of GDP)</b>									
Hungary	59,5	61,7	65,9	67,0	73,0	79,8	81,8	81,4	79,2
Poland	45,7	47,1	47,7	45,0	47,1	50,9	54,8	56,2	55,6
Latvia	15,0	12,5	10,7	9,0	19,8	36,9	44,4	41,9	40,7
Bulgaria	37,0	27,5	21,6	17,2	13,7	14,6	16,2	16,3	18,5
Estonia	5,0	4,6	4,4	3,7	4,5	7,2	6,7	6,2	10,1
Lithuania	19,3	18,3	17,9	16,8	15,5	29,3	37,9	38,5	40,7
Slovakia	41,5	34,2	30,5	29,6	27,9	35,6	41,0	43,3	52,1

Source: Bielawska, Chłoń-Domińczak, Stańko (forthcoming)

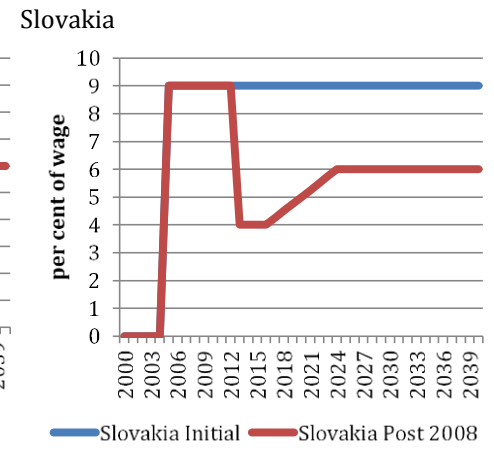
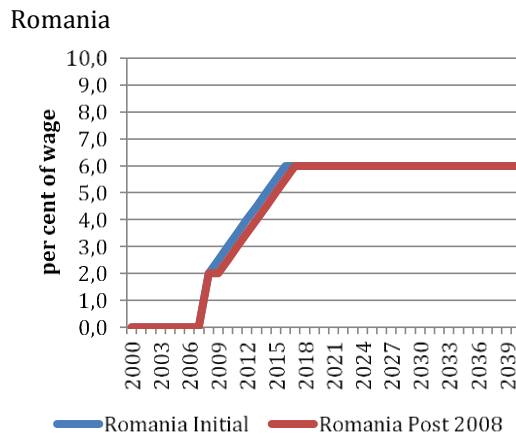
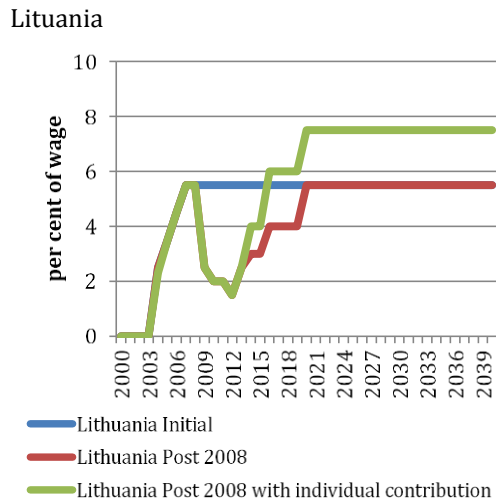
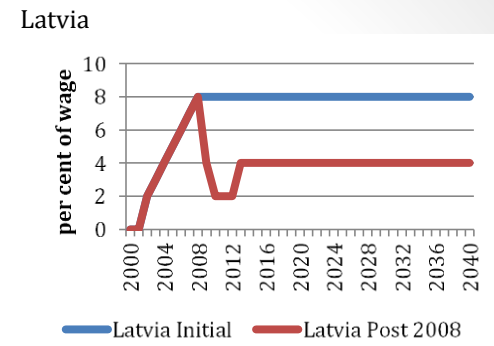
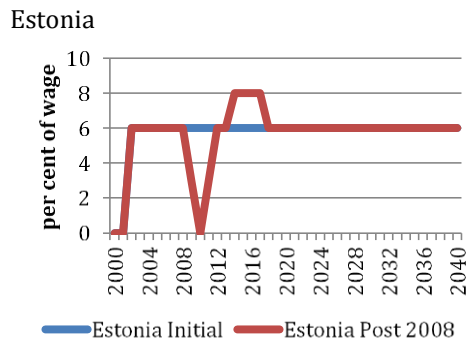
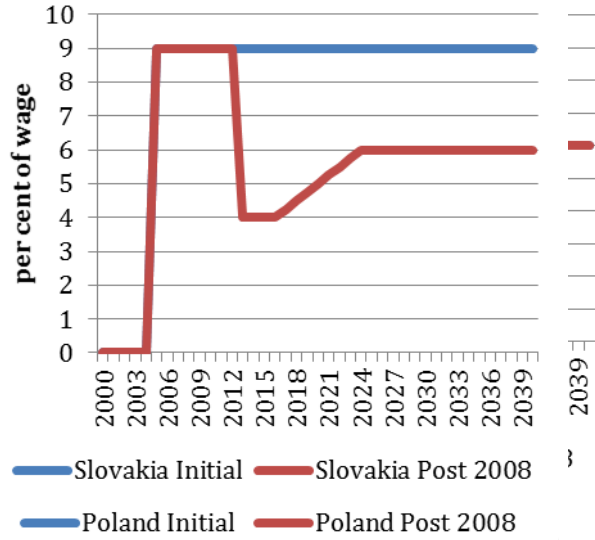
# Economic and fiscal situation of CEE countries after reform implementation

Specification	Country
Economic slowdown or recession in years following reform implementation	Poland (2000 – 2001) Romania (2009 – 2010)
GGS deficit above 3% GDP	Poland, Hungary
GGS deficit close to 3% GDP	Slovakia
GGS deficit below 3% GDP or GGS surplus	Latvia, Bulgaria, Estonia, Lithuania, Romania

# Changes in funded DC schemes after 2008

Type of decision	Duration of change	Country	Short description of the change to second pillar
Reversal	Permanent	Hungary	8% contribution in 2nd pillar reduced to 0% in January 2011; assets transferred to public sector.
Partial reversal / partial reduction	Permanent	Poland	Contribution rate reduced to 2.3% in May 2011. From February 2014 contribution at 2.92%, in February 2014 assets invested in government bonds (51.5%) transferred to PAYG scheme and redeemed. In 2014 system made opt-out and opt-in in specified time slots. Assets from funded system transferred gradually to PAYG 10 years prior to retirement.
Reduction of contributions	Permanent	Slovakia	9% contribution reduced to 4% in 2013 with planned further increase to 6% in 2024. Funded scheme opt-out and opt-in system.
	Temporary	Estonia	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	8% contribution rate reduced to 2% in May 2009. Rates increased to 4% from 2013.
		Lithuania	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.
		Romania	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.
No change	Permanent	Bulgaria	Second pillar contribution remains at 5%.

Source: Price, Rudolph (2013) and update by Bielawska, Chłoń-Domińczak and Stańko (forthcoming)



- But also differences in the impact of the change
- Permanent change in Latvia, Poland and Slovakia

# Summary – context of reform reversals

	Fertility	Dependency rate	Employment	Pension expenditure	Pensioners	Performance of funded pillar	Government deficit	Government debt	Pension system changes after crisis
Bulgaria	-	-	+	-	+	-	-	+	no change
Estonia	-	-	+	-	+	-	+	+	Temporary reduction with off-set
Latvia	--	--	-	-	-	-	--	-	Partial reduction
Lithuania	-	-	--	-	+	-	--	-	Partial reduction
Hungary	--	-	-	--	-	+	-	--	Permanent reversal
Poland	--	--	++	--	-	+	--	--	Permanent reduction and partial reversal
Slovakia	--	--	++	-	-	-	--	--	Permanent reduction

Source: Bielawska, Chłoń-Domińczak, Stańko (forthcoming)

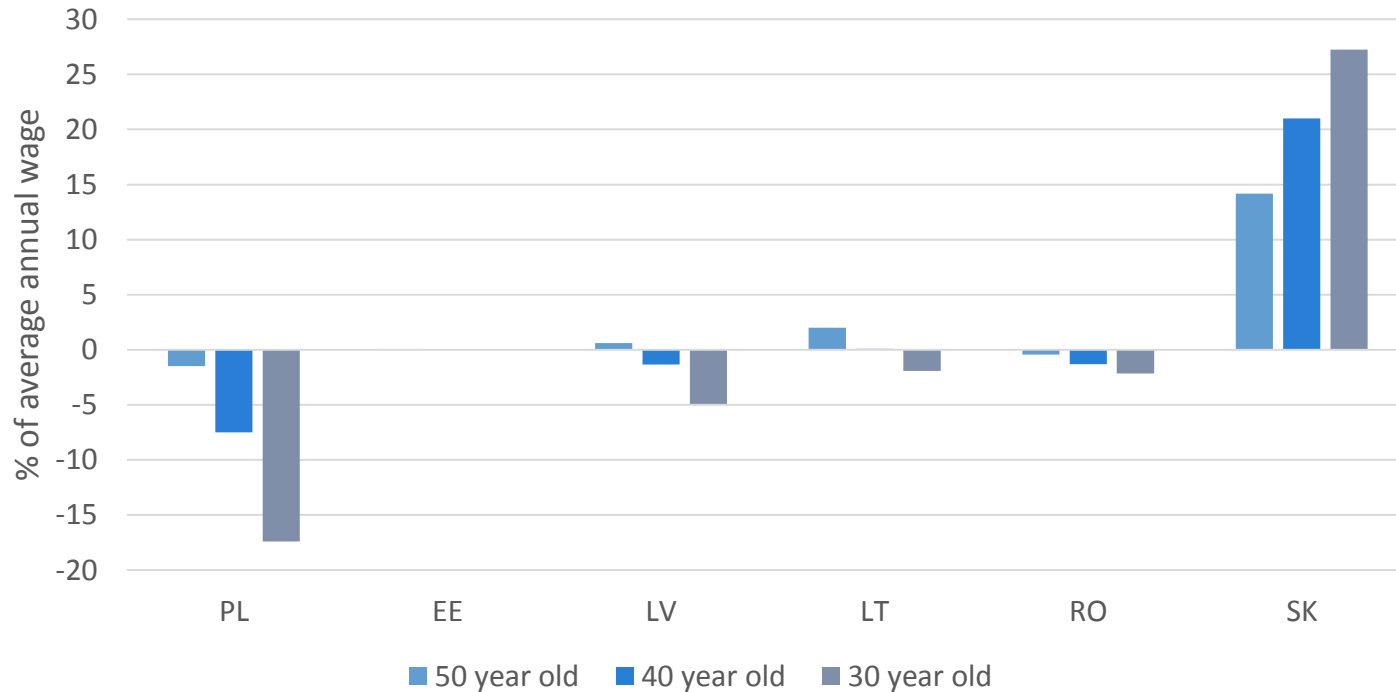


# What explains the GG deficit?

Explanatory variables:	EE		LV		LT		HU		PL		RO		SK	
	coeff.	p value	coeff.	p value	coeff.	p value	coeff.	p value	coeff.	p value	coeff.	p value	coeff.	p value
<b>Model 1</b>														
transition cost	-1,85	0,10	-1,77	0,79	-1,02	0,35	<b>-7,71</b>	<b>0,00</b>	-1,99	0,49	-0,17	0,98	-0,17	0,11
year	-0,55	0,39	-0,02	0,94	-0,14	0,05	-0,27	0,42	-0,59	0,14	0,18	0,22	0,18	0,51
GG spending	<b>0,35</b>	<b>0,03</b>	<b>-0,89</b>	<b>0,02</b>	0,33	0,23	<b>-1,49</b>	<b>0,00</b>	0,41	0,67	<b>-0,62</b>	<b>0,01</b>	<b>-0,62</b>	<b>0,00</b>
social spending	-5,37	0,68	-0,13	0,91	<b>-3,25</b>	<b>0,01</b>	<b>4,42</b>	<b>0,01</b>	-5,36	0,08	-0,81	0,46	-0,81	0,63
employment rate	-0,81	0,22	0,32	0,72	<b>0,40</b>	<b>0,04</b>	0,52	0,42	-0,76	0,07	-0,31	0,82	-0,31	0,54
Adj.R 2	0,79		0,79		0,98		0,92		0,66		0,90		0,95	
No. of obs.	12		12		12		12		12		12		12	

- Results of the regression model indicate that the significant variable explaining general government deficit is the general government spending;
- Transition cost have the expected regression coefficient, but they are not statistically significant (except Hungary)

# How the reversal affects individual pension rights?



- Impact of reversal is highest in countries with permanent change
- The change in individual pension rights depends on the accrual of pension rights in the PAYG component

# Lessons learnt

- Clarification of what transition costs actually pay for
  - Theoretical shock when no new generation
  - In practice: 'only' for transition to a mixed system
- Explicit and implicit debt not treated equally in financial/political world
  - transition costs generate new debt, explicit/implicit debt priced very differently by financial markets
  - Implicit debt theoretical: depends on future policy, not to be actually paid (implicit financing)
  - Explicit debt real: current and real liability, often against foreign investors
- More realistic assessment of privatization benefits
  - Higher returns expectation were optimistic (and defeated by bond financing), transaction costs of individual accounts high
  - No evidence of pulling workers from shadow economy

# Lessons learnt

- Diversification: reducing *risks* by investing in a variety of uncorrelated assets (*micro-level*)
  - but pension system exposed to *macro-level shocks* (not about uncorrelated risks)
- Private pillars not immune to regulatory risks/shocks
  - inflation tax, tax on interest, other regulatory tools, default on bonds, a possibility of nationalization, ...
- Actual arguments assume an inability of the state to pay pensions in the future
  - „demographically old but not yet economically rich”
- Impact of the change on individual pensions larger for younger people, but the direction of the impact depends on the PAYG part parameters