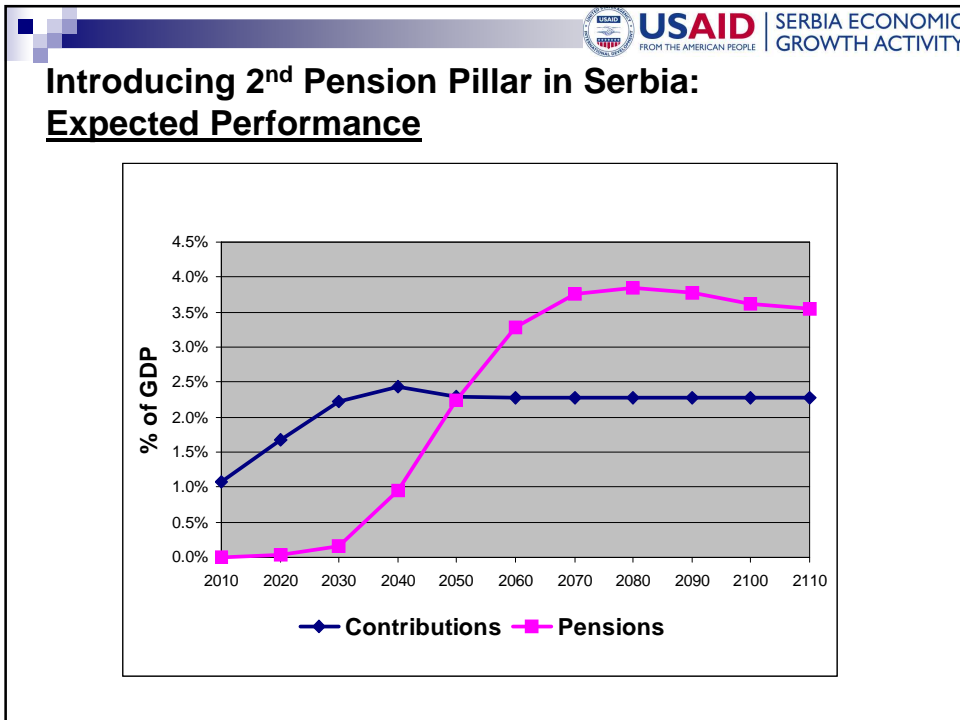

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## Macro-Financial Analysis of 2<sup>nd</sup> Pension Pillar in Emerging Europe: Lessons for Serbia

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Based on the Working Paper published by  
Waterloo Research Institute in Insurance, Canada



## Key Observations

- It takes 70 years for *Pillar 2* to fully mature and pay full expected benefits
- The nation bears *transition costs* for 40 years!
  - If 1/3 of PAYG contributions is devoted to *Pillar 2*, transition costs average 1.2% of GDP per year
  - These funds could finance 20 *Corridor X* highways
- Expected performance vitally relies on *Pillar 2* returns being significantly higher than GDP growth

## Key Risks

- Financial markets are inherently risky, volatile and unpredictable
- “Equity Premium Puzzle”
  - Why high equity returns were experienced in the past?
  - Can this trend persist in the foreseeable future?
- Implementation and Operational Risks
  - Are developed economies appropriate benchmarks for emerging economies’ policies?



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## Empirical Performance of *Pillar 2* in Emerging Europe

Country	Pillar 2 Inception	From inception to 2007			2008 data		
		P2	GDP	diff.	P2	GDP	diff.
Hungary	Jan 1998	2.6%	4.4%	-1.8%	-22.7%	0.6%	-23.3%
Poland	Jan 1999	8.3%	4.1%	4.2%	-16.9%	4.8%	-21.7%
Latvia	July 2001	-2.3%	9.1%	-11.4%	-19.8%	-4.6%	-15.2%
Bulgaria	Apr 2002	4.3%	5.9%	-1.5%	-25.5%	6.0%	-31.5%
Croatia	May 2002	4.5%	4.8%	-0.3%	-17.3%	2.4%	-19.7%
Estonia	July 2002	3.5%	8.1%	-4.6%	-29.2%	-3.6%	-25.6%
Lithuania	Jan 2004	5.7%	8.0%	-2.3%	-28.0%	3.0%	-31.0%
Slovakia	Apr 2005	0.9%	8.7%	-7.7%	-9.9%	6.4%	-16.3%
Macedonia	Feb 2006	2.7%	4.9%	-2.3%	-13.4%	5.0%	-18.4%

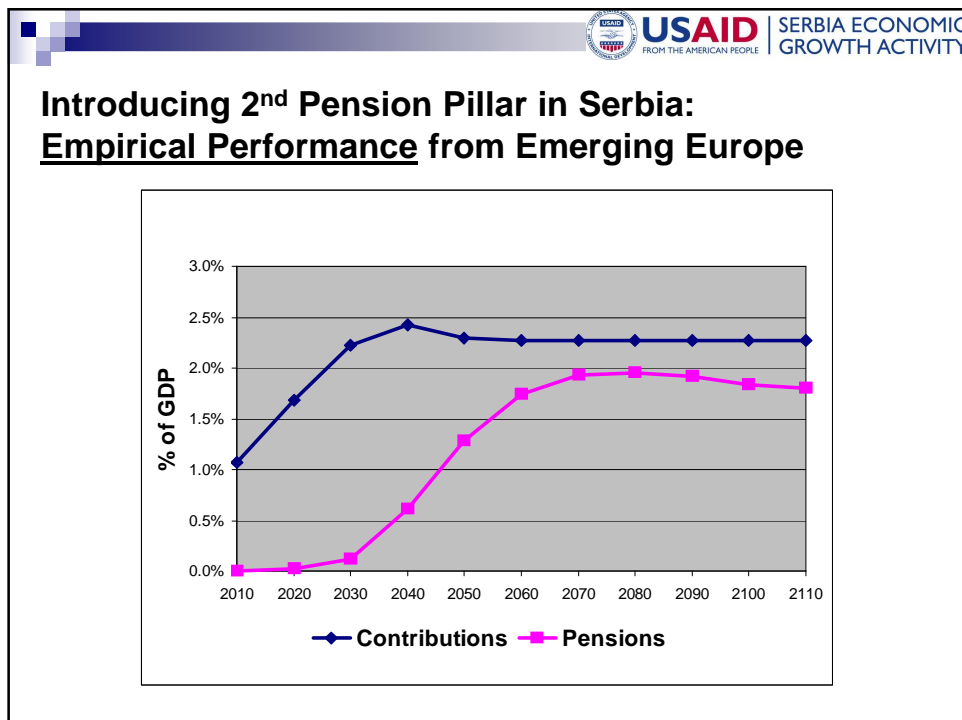



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## Key Empirical Observations

- Performance of Funded *Pillar 2* is below PAYG performance in Emerging Europe!!
  - Samuelson-Aaron “Social Insurance Paradox”
- Global Financial Crisis caused significant losses of retirement savings world-wide
  - Emerging European countries especially adversely affected due to mandatory nature of *Pillar 2*




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### Other Observations from Emerging Europe

- Undeveloped capital markets
  - ~ 60% of Pillar 2 assets invested in Gov't bonds
- Non-existent annuity markets
  - Impossible to efficiently convert retirement savings into pension payments
- High-operating costs
  - ~ 1/3 of retirement savings
- Political risks

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## Lessons for Serbia

- Introducing *Pillar 2* is extremely risky venture
- Empirical evidence suggests that *Pillar 2* is proving to be an unfeasible venture
- Serbia is advised to follow Developed European countries and focus on PAYG reforms