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DEFINING AMBITION

Forging a new, solid social security system for Greece: The NTS proposal

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The need for a new proposal

- **Status Quo** – Current situation – (DB / NDC / BNDC) – System unsustainable
 - Pensions almost inadequate, constant reforms, Troika asks for fiscal changes
 - current legislation passed only a year ago foresees further pension reductions in 2018, thus stating the obvious, that the reform was once again obsolete
 - people are hesitantly realizing that if the system is not reformed wisely once and for all, the vicious circle of unemployment and pension reductions will continue until a definite burnout of the Greek economy
- **NTS (Nektarios, Tinios, Symeonidis) proposal:**
 - First Pillar – NDC and DC (main and auxiliary pensions) – contributions 10% (reduced by 50%)
 - Second Pillar – IORPs (Occupational pension funds) – contributions 6% by minimum
 - Third Pillar – Private Insurance

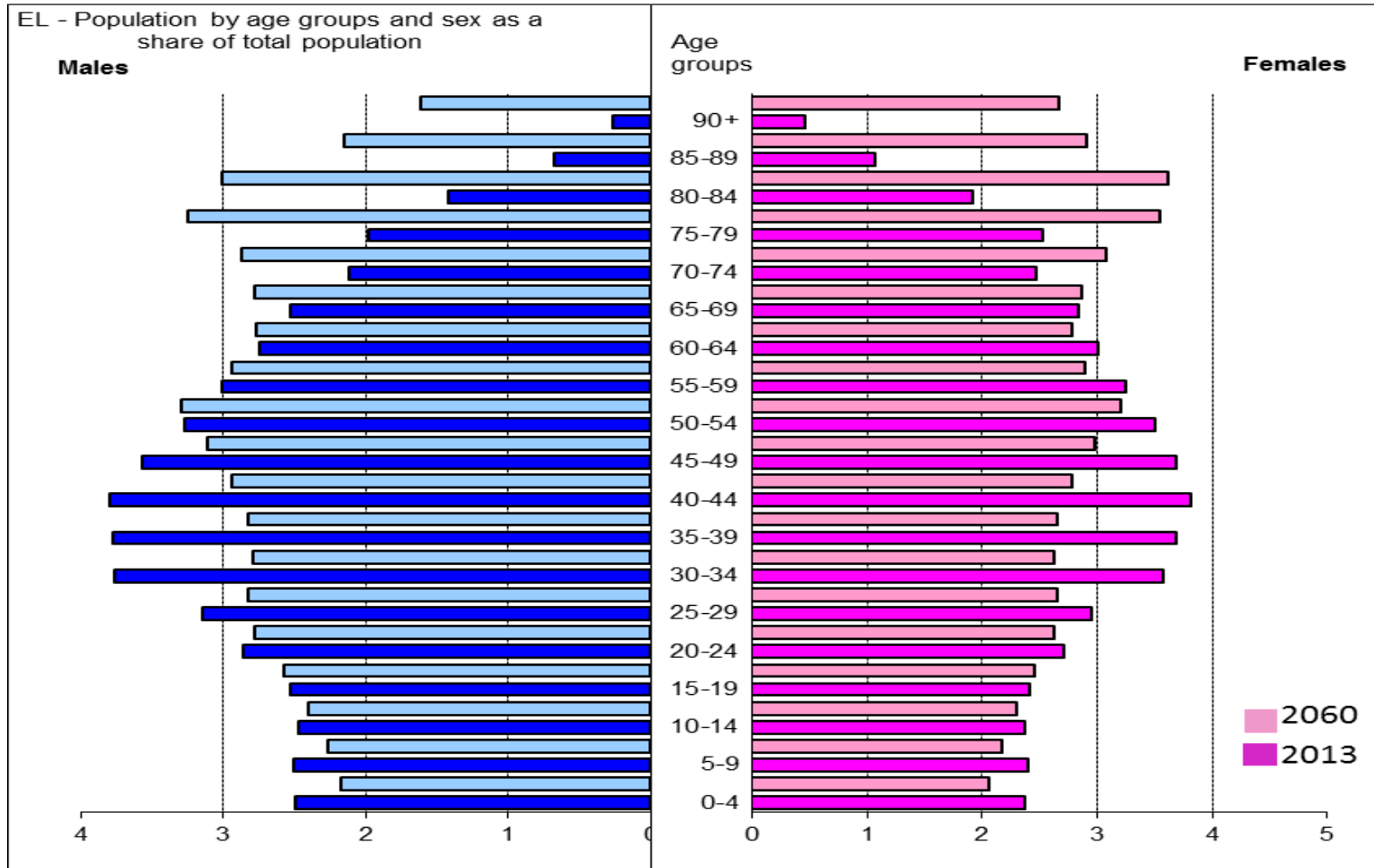
 - Two large groups (first insured before / after 1/1/1993), grandfathering of the old pensioners (until the Troika calls for pension reduction within two years' time)
 - New, DC auxiliary pension without any burdens from the past

Set of assumptions

- The population projections used in the present valuation come from Eurostat.
- These projections are produced for each member state and make use of certain assumptions provided by each member state.
- Results are provided every three years and the potential volume and structure of the population for the few decades to come is projected.
- Macro assumptions also come from the same macroeconomic model.

	2013-2015	2016	2017	2018	2019	2020	2021-2060
main pension indexation	0,00%	0,30%	0,50%	1,40%	2,00%	1,80%	2,00%
auxiliary pension indexation	$\gamma_t = \min\left(\left[1 + g_{t-2} - r\right]SF_t - 1, \text{inflation}_{t-1}\right)$						
salary indexation	inflation X productivity						
	2013	2014	2015	2016	2017	2018-2060	
inflation	-2,1	-0,7	0,4	1	1,5	2	

Greek demographics – Aging!



Comparison

- The Status Quo valuation of the system is the HAA 2015 Round of the Aging Working Group

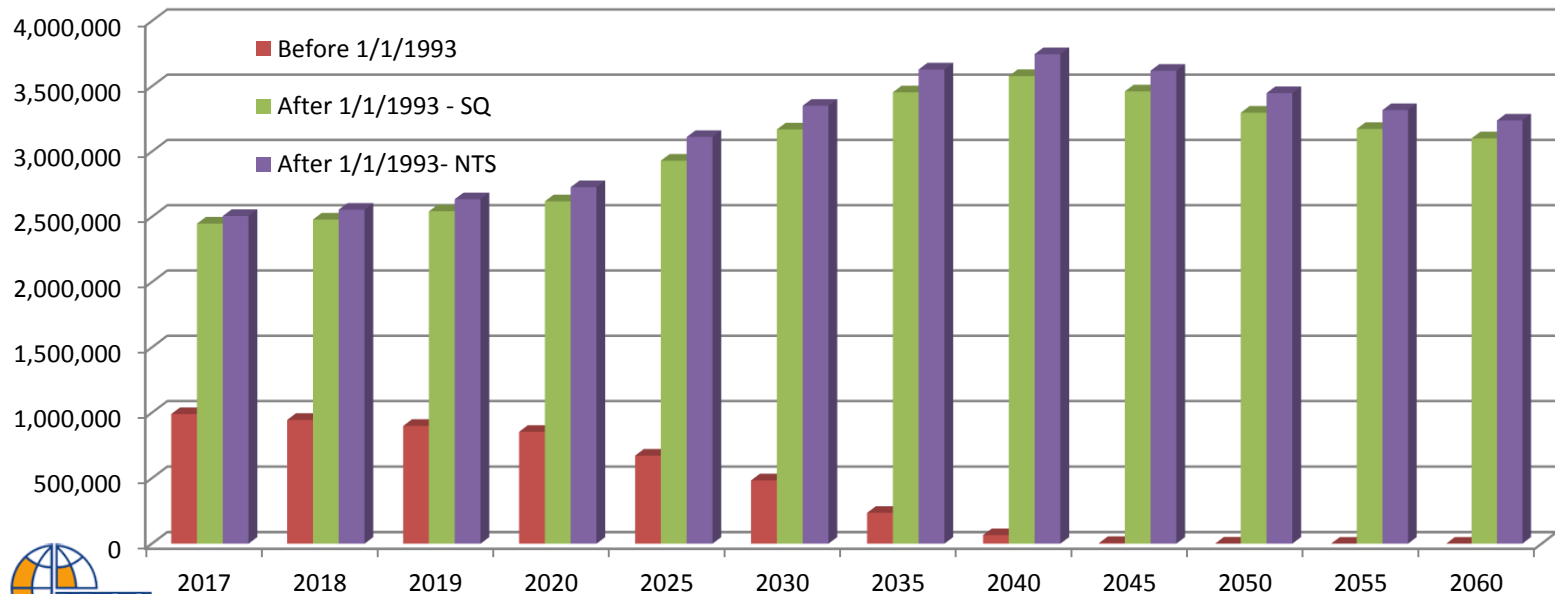


NTS proposal – coverage

Base year (2013) coverage percentages	Insured	Pensioners	Benefit Expenditure in billions of euros	Expenditure as % of GDP
SQ total	4.188.000	2.632.001	29,5	16,2
Present valuation (NTS) total	3.297.001	1.926.328	17,4	9,5
	79%	73%	59%	59%

Using the Higher Employment Scenario

- In the NTS proposal, the second group is projected using a different macroeconomic scenario than the baseline.
- The reason is that the reduced contributions are expected to increase employment.



Main pension results (NDC) (1)

Projection of total contributions as a % of GDP based on the three projected funds

	2013	2020	2030	2040	2050	2060
Contributions of the three projected funds from the SQ valuation	4,03	4,05	4,07	4,19	4,35	4,45
Contributions of the three projected funds from the valuation of the present (NTS) proposal	4,03	2,60	2,28	2,04	2,07	2,10
Total main pension contributions – present proposal (NTS)	4,95	3,40	3,00	2,62	2,65	2,69

Projection of deficits for the total of the main pension system

	2013	2020	2030	2040	2050	2060
HAA Round 2015 (SQ) – three funds	-5,51	-5,17	-3,72	-3,37	-3,47	-3,11
Valuation for the present proposal (NTS) – three funds	-5,51	-6,51	-5,27	-4,70	-3,21	-1,57
Total main pension deficit (NTS) – present proposal	-8,77	-9,77	-8,53	-7,61	-5,32	-3,03
Total main pension benefit – HAA Round 2015 (SQ)	-8,75	-8,11	-7,04	-6,71	-6,81	-6,60

Main pension results (NDC) (2)

Year	Average pension amount (euros)		Replacement Rate		Average effective retirement age
	SQ	NTS	SQ	NTS	
2017	9.708	7.600	86%	87%	60,3
2020	9.741	7.314	88%	88%	61,6
2030	10.740	6.892	87%	83%	66,8
2040	17.488	9.485	81%	59%	67,9
2050	24.600	9.622	77%	33%	69,0
2060	33.966	11.528	74%	27%	69,8

Auxiliary Pension (DC) Results

Calculation of the replacement rates for the fully capitalized auxiliary pension fund

Assumptions on calculating the replacement rates for the defined contribution fund ETEA	
Annual income in 2017	21500
Income maturity	0,5%
Total contribution rate	6,0%
Expenses on contributions	0,5%
Total working life in years	40
Annuity	15,64

Replacement rates for return rates of 3, 3,5 and 4% for the DC fund

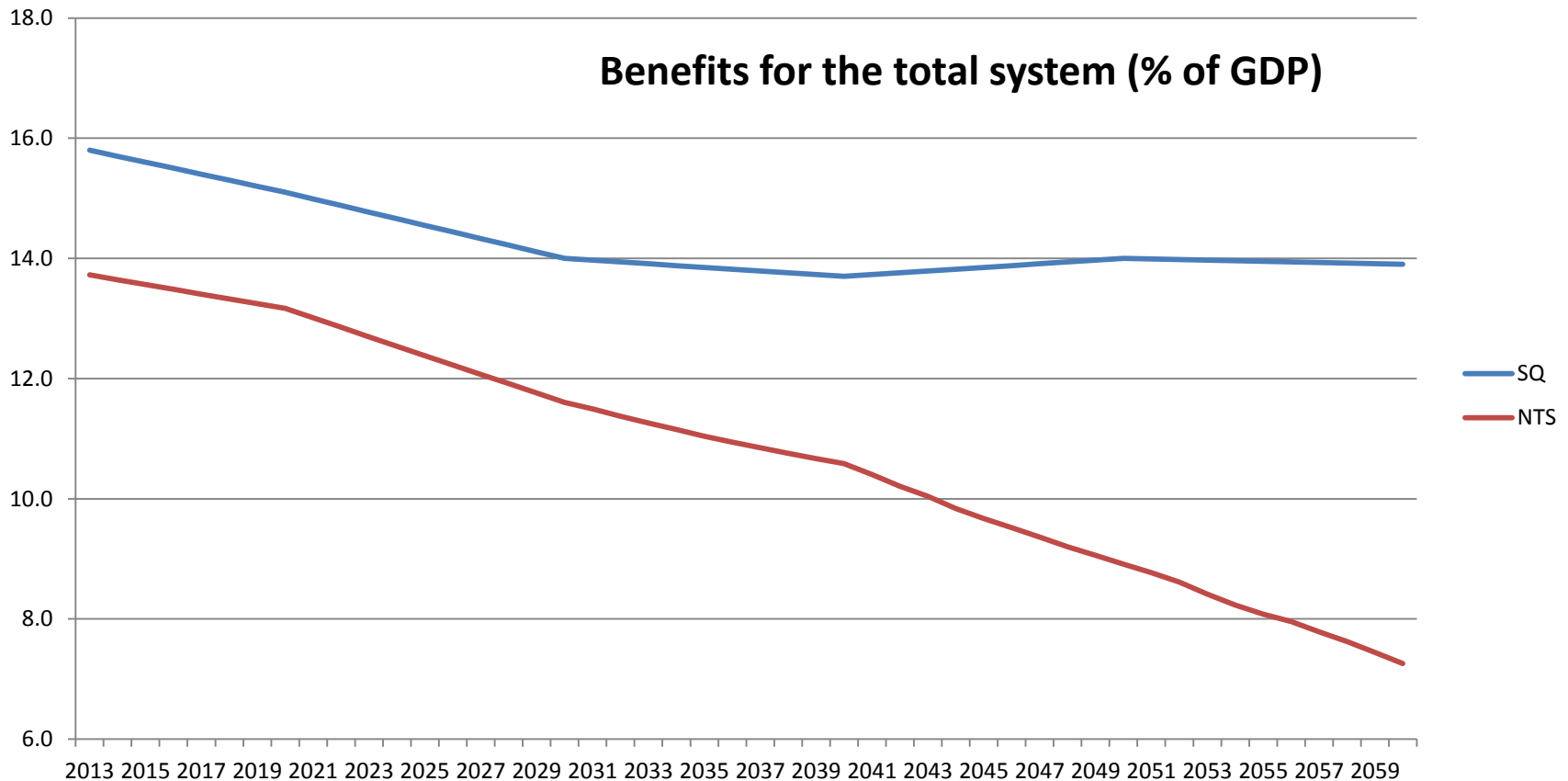
Real return rate	Final Salary (2057)	Accumulated capital in the end of the projection period (2057)	Monthly pension (2057)	Annual pension (2057)	Replacement rate	Annual replacement rate
3%	31.724	115.541	616	7.388	23,29%	0,58%
3,5%	31.724	129.088	688	8.254	26,02%	0,65%
4%	31.724	144.573	770	9.244	29,14%	0,73%



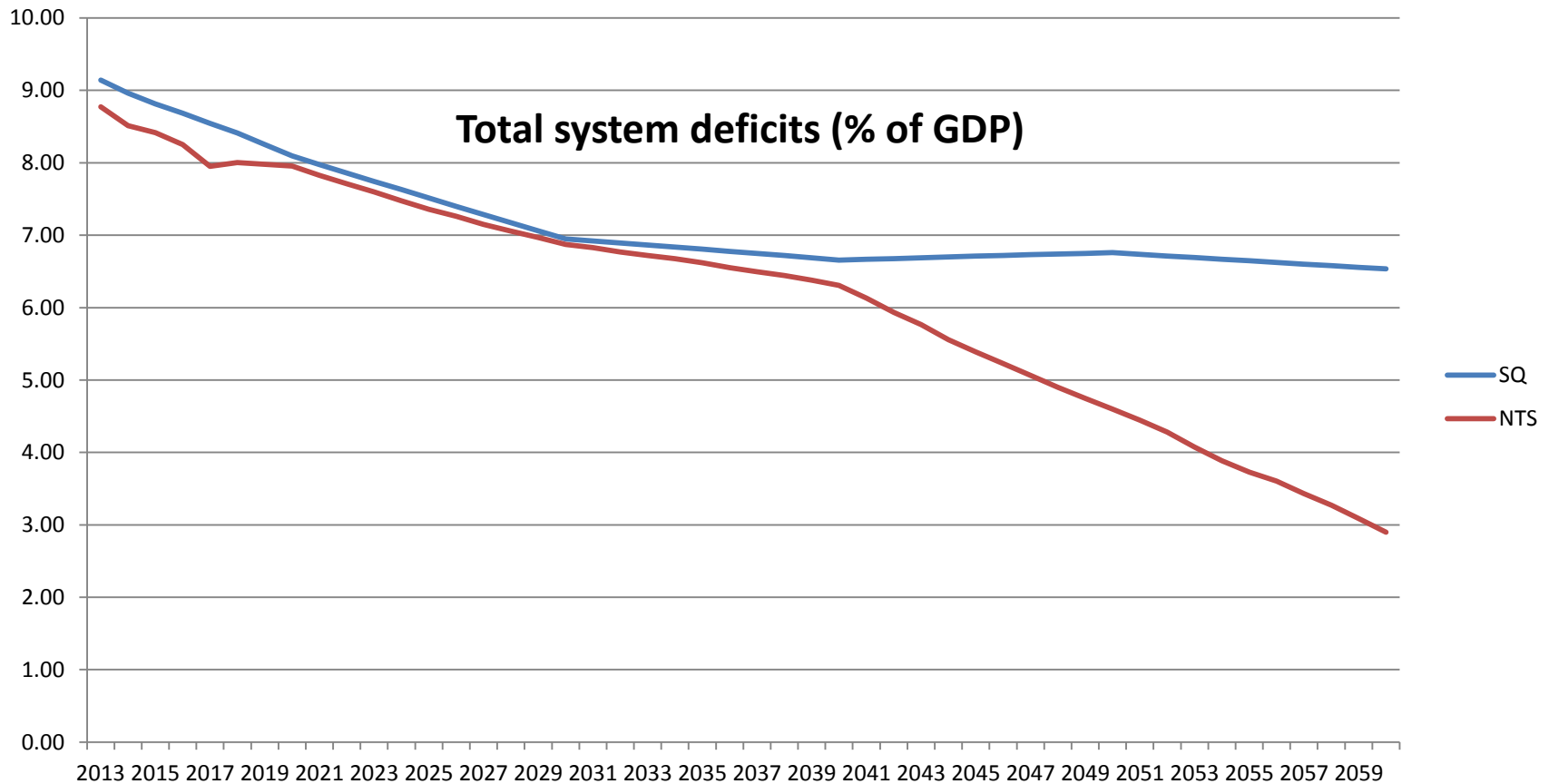
Calculation of the actuarial capital in the new auxiliary pension fund

New Defined Contribution Fund ETEA			
	Contributions	Benefits	Reserve
2017	3.751	1	3.750
2020	3.752	14	15.543
2030	4.766	200	68.670
2040	6.585	1.410	149.214
2050	8.911	5.025	255.722
2060	12.120	11.131	371.500

Total system comparison (1)



Total system comparison (2)



Total system comparison (3)

	SQ		NTS proposal			SQ	NTS
Year	Replacement Rate - main pension	Replacement Rate - auxiliary pension	Replacement Rate - main pension	Replacement Rate - auxiliary pension		Total replacement	
2020	88%	12%	88%	2%		99%	90%
2030	87%	11%	83%	6%		98%	89%
2040	81%	9%	59%	12%		91%	71%
2050	77%	8%	33%	19%		85%	51%
2060	74%	8%	27%	23%		82%	50%

Epilogue

- Raising consensus
 - main political parties of the opposition in Greece and
 - main stakeholders. Its first presentation
 - the Hellenic Actuarial Association
 - the Hellenic Association of Insurance Companies
 - press and media publications
 - London School of Economics, Hellenic Observatory website

Even though difficult to agree to and accept it, people start to realize that an imminent, carefully applied intervention in the direction of the NTS proposal is the most safe path to sustainability and adequacy for the years and generations to come.





THANK YOU FOR YOUR ATTENTION!

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