29 NOVEMBRO | CENTRO CULTURAL DE BELÉM



ASSOCIAÇÃO PORTUGUESA DE FUNDOS DE INVESTIMENTO, PENSÕES E PATRIMÓNIOS COM O APOIO DE: Allianz



Global Investors



SIIVIP/BUILDING DN TRUST

FEITO O DIAGNÓSTICO, QUE SOLUÇÕES PONDERAR?

LOURDES AFONSO







SOCIAL SECURITY PENSION SCHEMES

- Social security schemes, notably pension schemes (where actuarial work is most relevant) are long-term societal commitments, many of which must be honored by future generations.
- Such schemes should assess to the best of our knowledge what these future burdens might be.
- Models should combine social, economic, demographic and actuarial knowledge to develop a long-term vision of economic and social transfer systems, which are called socio-economic actuarial (SEA) models.



Plamondon, P., Drouin, A. Binet, G., Cichon, M., McGillivray, W.R., Bédard, M. and Perez-Montas, H. (2002) Actuarial Practice in Social Security QUANTITATIVE METHODS IN SOCIAL PROTECTION SERIES, ILO and ISSA.

QUAL O FUTURO DAS PENSÕES DE REFORN ONDE ESTAMOS? PARA ONDE QUEREMOS | Figure 1.1 Structural long-term relationships in SEA models

Demographic variables Economic variables Inflation Fertility Interest rates Wages Migration Productivity Mortality Invalidity Economic growth Unemployment Financial and actuarial status of a social security scheme (described in an actuarial model) Fiscal variables Social variables Expenditure Retirement constraints behaviour Borrowing Entry into requirements < Limits to labour taxation force Divorce Marriage 4 Public servants' behaviour schemes

 Plamondon, P., Drouin, A. Binet, G., Cichon, M., McGillivray, W.R., Bédard, M. and Perez-Montas, H.
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PAY-AS-YOU-GO

- are subject to decisions made by politicians, who may be limited by their traditionally short planning horizons, often of four years or less—a time horizon that's far shorter than a pay-as-you-go pension system may require.
- tend to need periodic adjustments because of demographic and economic uncertainty.
- those adjustments must be made through discretionary legislation, which may not take into account the best long-term interests of payas-you-go contributors and beneficiaries.







QUAL O FUTURO DAS PENSÕES DE REFORMA EM PORTUGAL? ONDE ESTAMOS? PARA ONDE QUEREMOS IR?

PAY-AS-YOU-GO



Not accepted from the social point of view

BY DEFINITION ARE ALWAYS FUNDED.

INCREASE THE CONTRIBUTIONS OR DECREASE THE PAYMENTS.







QUAL O FUTURO DAS PENSÕES DE REFORMA EM PORTUGAL? ONDE ESTAMOS? PARA ONDE QUEREMOS IR?

PAY-AS-YOU-GO

Artigo 9.º

Princípio da equidade social

O princípio da equidade social traduz-se no tratamento igual de situações iguais e no tratamento diferenciado de situações desiguais.

• Social Security benefits are generally based on a balancing of two principles: equity and adequacy.

• The intergenerational support is not assured anymore in Portugal.

Artigo 13.º

Princípio da coesão intergeracional

O princípio da coesão intergeracional implica um ajustado equilíbrio e equidade geracionais na assunção das responsabilidades do sistema.





INCREASE THE CONTRIBUTIONS

Increase the number of actives:

The 2021 Ageing Report. Economic and Budgetary Projections for the EU Member States (2019-2070) *Avaliação Actuarial do Sistema Previdencial da Segurança Social – GEP/MSESS Junho de 2015

- Fertility rate 1,5 (need several generations)
- Migration of active people (projections of decreasing labor force)
- Increase the taxes:
 - (TSU 34,75%) 20,21% of the salary to old age pensions
 - Projections TSU* 2035 ->42% 2055-> 46%
 - Active population and employers will seek for countries with lower taxes



APFIPP



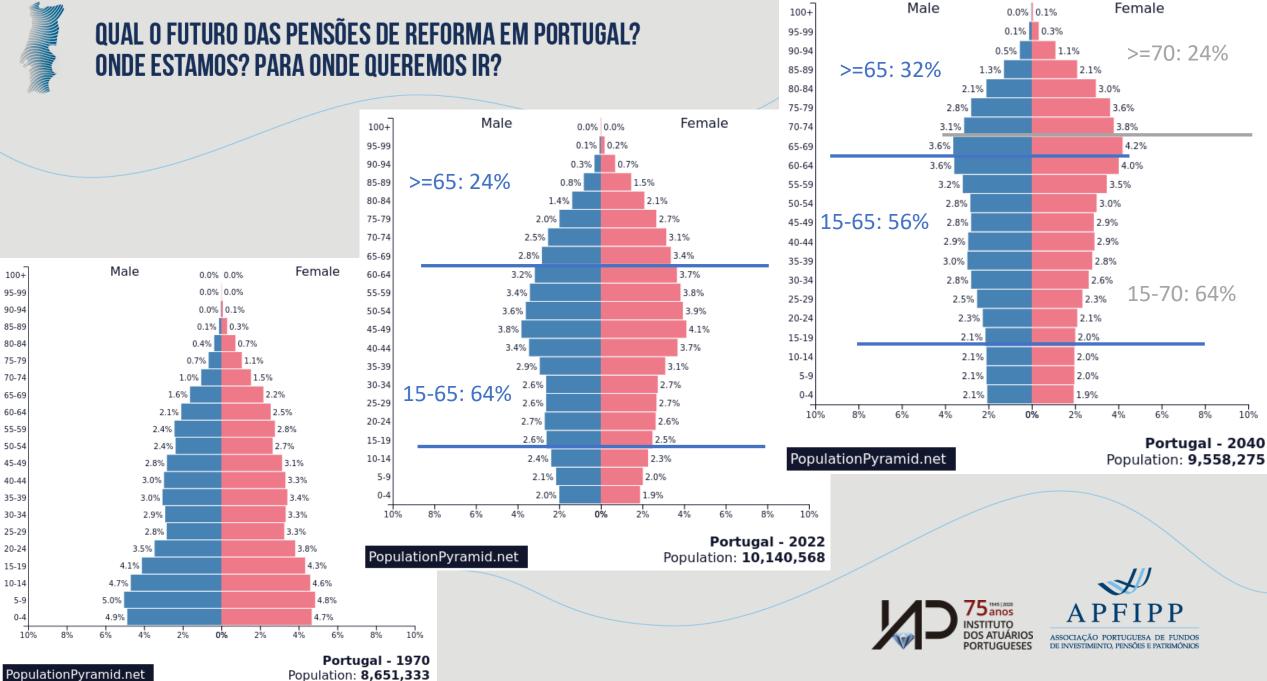
DECREASE THE PAYMENTS

- Already in progress! (DL187/2007; DL 167E2013; Portaria 378 G2013)
 - Increase the normal retirement age
 - function of the life expectancy at 65
 - 66 plus 6 month in 2022
 - 66 plus 4 month in 2023
 - 68 by 2037*
 - 69 by 2052*
 - Decrease the amount of pension paid

CÁLCULO DA PENSÃO Beneficiários inscritos na segurança social a partir de 01-01-2002

Número de anos com registo de remunerações			
Com 20 anos ou menos de	Com 21 anos ou mais (Cálculo em função do valor da RR)		
P = RR x 2% x N	Remuneração de Referência (RR)	Fórmula de cálculo	
	Igual ou inferior a 1,1 IAS	P = RR x 2,3% x N	
	Superior a 1,1 IAS e inferior a 2 IAS	P = (1,1 IAS x 2,3% x N) + [(RR-1,1 IAS) x 2,25% x N]	
	Superior a 2 IAS e igual ou inferior a 4 IAS	P = (1,1 IAS x 2,3% x N) + (0,9 IAS x 2,25% x N + [(RR - 2 IAS) x 2,2% x N]	
	Superior a 4 IAS e até 8 IAS	P = (1,1 IAS x 2,3% x N) + (0,9 IAS x 2,25% x N) + (2 IAS x 2,2% x N) + [(RR - 4 IAS) x 2,1% x N]	
	Superior a 8 IAS	P = 1,1 IAS x 2,3% x N) + (0,9 IAS x 2,25% x N) + (2 IAS x 2,2% x N) + (4 IAS x 2,1% x N) + [(RR - 8 IAS) x 2% x N]	

- P Montante da pensão estatutária
- RR Remuneração de referência
- N Número de anos civis relevantes, com o limite de 40
- IAS Indexante dos apoios sociais



PopulationPyramid.net



INCREASING THE NRA

Advantages

- increasing the retirement age and, consequently, the imposition of more years working and paying contributions (increase the contributions).
- decreasing in the number of pension payments (decrease the payments).





INCREASING THE NRA

Health care. a prolonged working life might also have consequences for the health of individuals.

- Data: administrative data covering the years 2009-2018, collected by all public health insurance funds in Germany.
 - focus on women born between 1950–1952.

Mara Barschkett, Johannes Geyer, Peter Haan, Anna Hammerschmid (2021) The Effects of an Increase in the Retirement Age on Health – Evidence from Administrative Data. Institute of Labor Economics. Deutscheland.





INCREASING THE NRA

Health care

 "The empirical findings reflect the multi-dimensionality but allow for deriving two broader conclusions. We provide evidence that the increase in the retirement age negatively affects health outcomes as the prevalence of several diagnoses, e.g., mental health, musculoskeletal diseases, and obesity, increases. In contrast, we do not find support for an improvement in health related to a prolonged working life since there is no significant evidence for a reduction in the prevalence of any health outcome we consider."

Mara Barschkett, Johannes Geyer, Peter Haan, Anna Hammerschmid (2021) The Effects of an Increase in the Retirement Age on Health – Evidence from Administrative Data. Institute of Labor Economics. Deutscheland.





INCREASING THE NRA

Health care

- Increasing the normal retirement age may thus have positive government income effects without seriously affecting short to medium run government health care expenditures.
 - Data: Swedish administrative data on drug prescriptions, hospitalizations, and mortality.
 - Estimating the effect of increasing the RA on individuals' health within the age range 65–69, the results show no evidence that the increase of RA impacted mortality or health care utilization.



Johannes Hagen (2018) The effects of increasing the normal retirement age on health care utilization and mortality. J Popul Econ (2018) 31:193–234 DOI 10.1007/s00148-017-0664-x



INCREASING THE NRA

Health care

- show evidence that delaying exiting employment increases the hazard of dying between the ages of 60 and 69, for almost all individuals. Heterogeneous analysis indicates that the increase in mortality is stronger for those employed in low-skilled, physically and psychosocially demanding jobs.
- show that allowing for flexible retirement schemes, such as partial retirement, mitigates the detrimental effect of delaying retirement on mortality
 - Data: Spanish administrative Social Security data



CRISTINA BELLES, SERGI JIMÉNEZ, HAN YE (2022) The Effect of Removing Early Retirement on Mortality. FEDEA Spain.



INCREASING THE NRA

Health care

- How about Portugal?
 - The active aging is important *
 - Non conclusive study** depends on type of disease and group of data. A good starting point to repeat the study.

- Ana Veloso (2015) Envelhecimento, Saúde e Satisfação Efeitos do Envelhecimento Ativo na Qualidade de Vida. Msc Thesis Universidade de Coimbra
- ** Mafalda Uva, (2015) Contributo para o estudo dos efeitos da passagem à situação (e idade) de reforma na frequência das principais doenças crónicas em Portugal. PhD Thesis Universidade Nova de Lisboa





QUAL O FUTURO DAS PENSÕES DE REFORMA EM PORTUGAL? ONDE ESTAMOS? PARA ONDE QUEREMOS IR?

INCREASING THE NRA

Longevity expectations

• Are not uniform across the population,

Table 3

Income Level (Quintile)	Male	Female		
Lowest	1.53	1.28		
Next lowest	1.17	1.06		
Middle	0.94	0.97		
Next highest	0.77	0.91		
Highest	0.58	0.78		

Source: Mortality by Career-Average Earnings Level (April 2018) Office of the Chief Actuary of the Social Security Administration

- Possible variation across the socioeconomic spectrum,
- Physically demanding jobs need to keep an earlier RA.





INCREASING THE NRA

- How are the long-term trends in life expectancy?
 - Is there a natural biological limit to longevity*?
 - What is the impact of future medical breakthroughs, and the long-term effect on public health programs and societal behavior?
 - "The focus shouldn't be on living longer but on living healthier longer"**

* Pyrkov, T.V., Avchaciov, K., Tarkhov, A.E. *et al.* Longitudinal analysis of blood markers reveals progressive loss of resilience and predicts human lifespan limit. *Nat Commun* **12**, 2765 (2021). https://doi.org/10.1038/s41467-021-23014-1 ** S. Jay Olshansky: professor of epidemiology and biostatistics at the University of Illinois at Chicago





INCREASING THE NRA

- How do the employers deal with having, in some cases, non productive employees?
 - 96% business < 10 employees

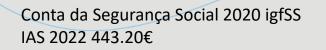
• Risk of increasing the expenditure with unemployment, health care and other social assistance because some people stop being able to work before they reach the higher NRA.

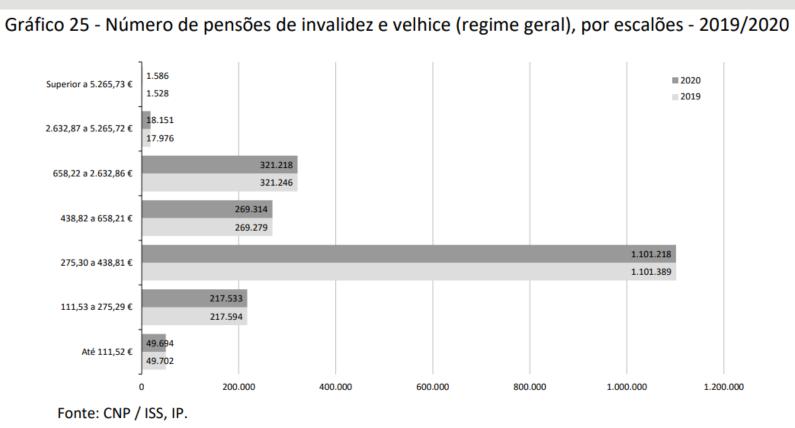




DECREASE OF THE AMOUNT OF PENSION PAID

- We already have low pensions!
- Avg old age pension 487.50€
- 69% pensions are lower IAS.







DECREASE OF THE AMOUNT OF PENSION PAID

- Risk of the Sistema Previdencial being useless and overloading the Subsistema de Solidariedade with subsidy payments.
- Sistema de Proteção Social e Cidadania, Subsistema de Solidariedade funded by the state budget (taxes).





CONFLICTS BETWEEN GENERATIONS

we are moving from 1.5 to 3 people > 65 for each young person <15,

labor force expected to decrease,

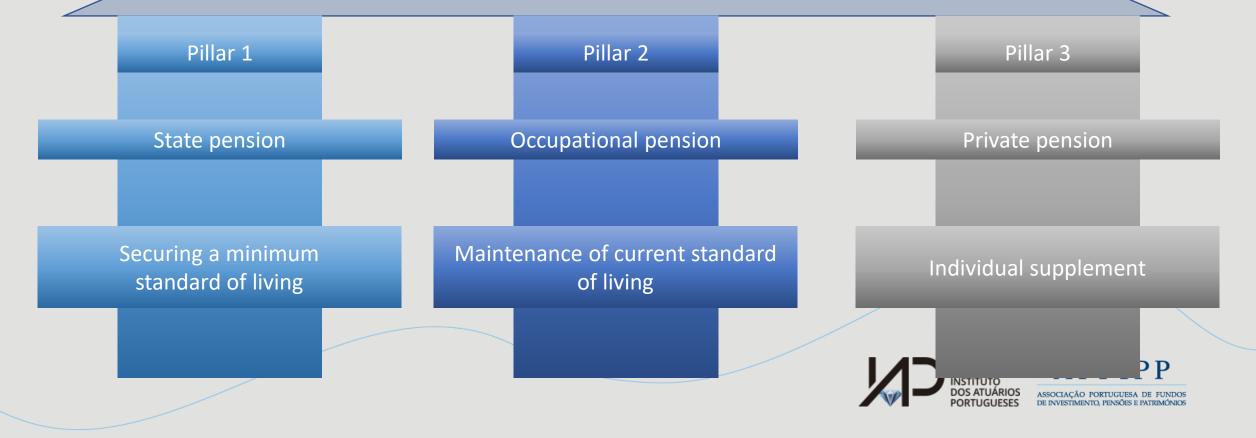
justice between generations in a context of demographic ageing, and increases in longevity, is an issue that puts a lot of pressure on the development of public policies.





ASSOCIAÇÃO PORTUGUESA DE FUNDOS DE INVESTIMENTO, PENSÕES E PATRIMÓNIOS

Social Protection





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OTHER SOLUTIONS

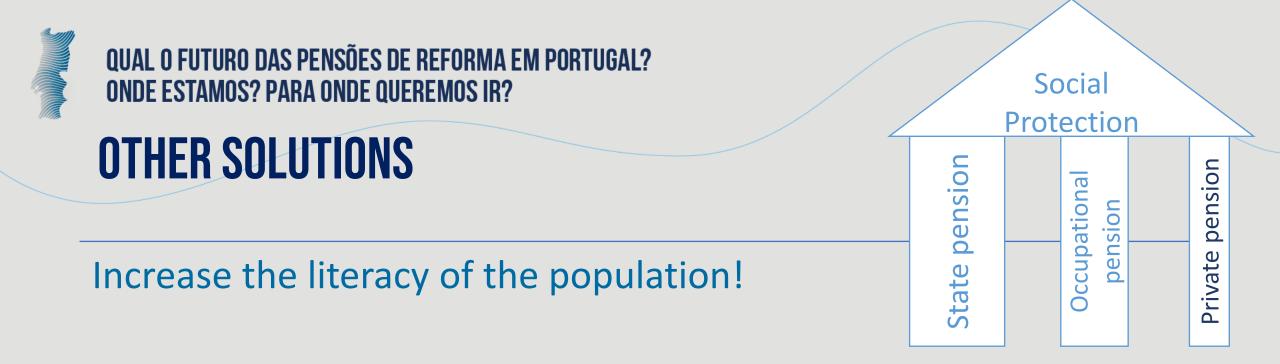
Political courage to evaluate the social security sustainability with a disclousure model, data and assumptions.

Define a reasonable replacement rate at NRA and answer the question "are the expected future contributions enough to guarantee this expected payments?"

Implement the Notional Defined Contribution scheme*?



*Serrano, F (2015), Gestão de sistemas de pensões em contas nocionais: arquitetura e gestão de riscos. PhD Thesis, Universidade de Évora



Increase the produtivity to allow the increase of the **3rd pillar**. At the moment, with low salaries, this pillar has a marginal weight.

Implement the saving by consumption?





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OTHER SOLUTIONS

Artigo 15.º

Princípio da complementaridade

O princípio da complementaridade consiste na articulação das várias formas de protecção social públicas, sociais, cooperativas, mutualistas e privadas com o objectivo de melhorar a cobertura das situações abrangidas e promover a partilha das responsabilidades nos diferentes patamares da protecção social.

- Promote the **2nd pillar** to complement the state pension and allow the employers to use early retirement agreements to renew the talent and skills of the working force.
- Government tax incentives to all companies especially to micro, small and medium-sized companies.

