

**REMARKS ON THE OCCASION OF THE BOOK LAUNCH**  
**“THE FUTURE OF PENSIONS PLANS IN THE EU INTERNAL MARKET”**

**edited by**  
**Prof Nazaré Costa Cabral and Associate Professor Nuno Cunha Rodrigues**

Rui Pinto Ferreira  
Lisbon, February 28th 2020



**CIDEEFF**

Centro de Investigação  
de Direito Europeu,  
Económico, Financeiro  
e Fiscal

Faculdade de Direito da Universidade de Lisboa  
Law School of Lisbon



INSTITUTO  
DE DIREITO  
ECONÓMICO  
FINANCEIRO  
E FISCAL FDL



# SeLFIES for Portugal: An Innovative Pan-European Retirement Solution

Robert C. Merton, Arun Muralidhar and Rui Seybert Pinto Ferreira

R. C. Merton

Sloan School of Management, Massachusetts Institute of Technology, Cambridge, MA, USA

e-mail: [merton@mit.edu](mailto:merton@mit.edu)

A. Muralidhar

AlphaEngine Global Investments Solutions LLC, Great Falls, VA, USA

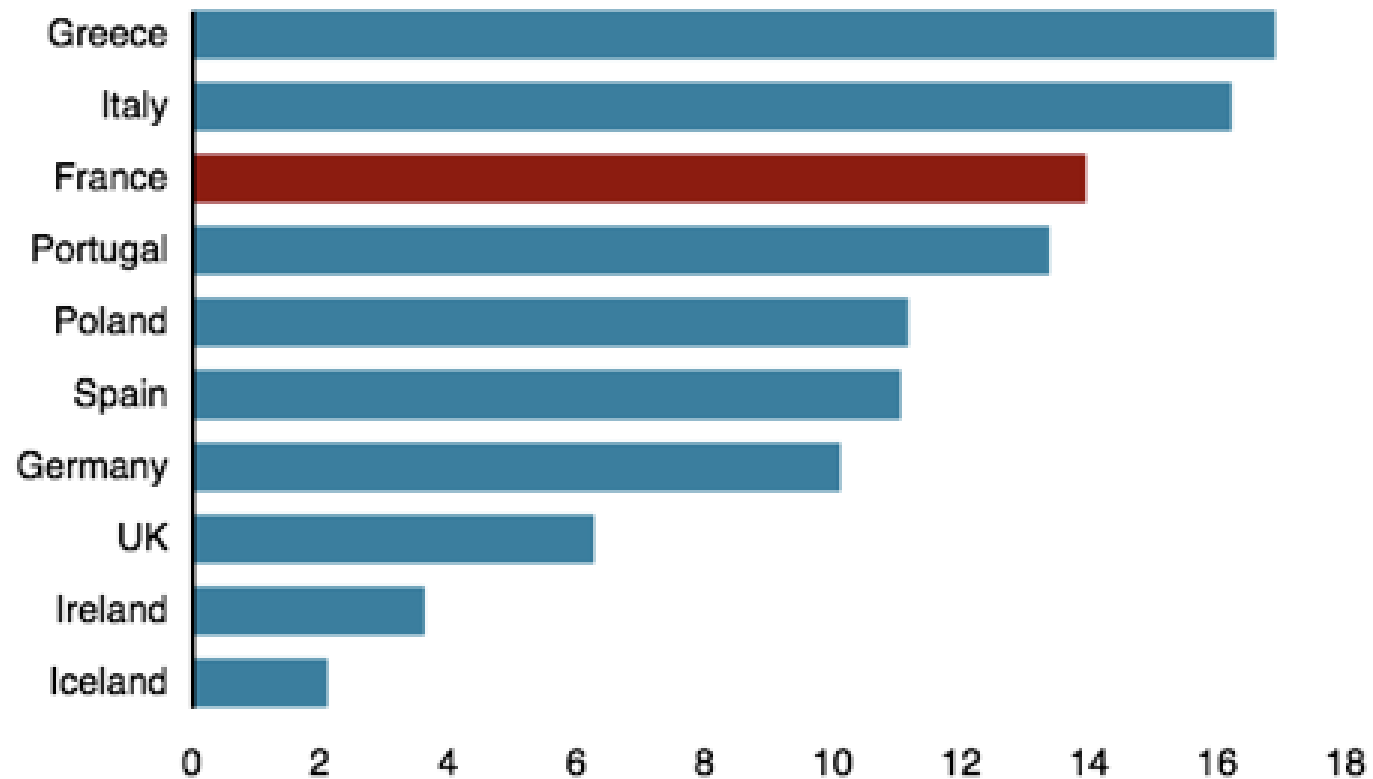
e-mail: [asmuralidhar@mcubeit.com](mailto:asmuralidhar@mcubeit.com)

Rui S. Pinto Ferreira, Retired Capital Markets Professional, Lisbon, Portugal

e-mail: [ruiseybert@icloud.com](mailto:ruiseybert@icloud.com)

## Pension spending

Cost per country as a percentage of GDP



Source: OECD

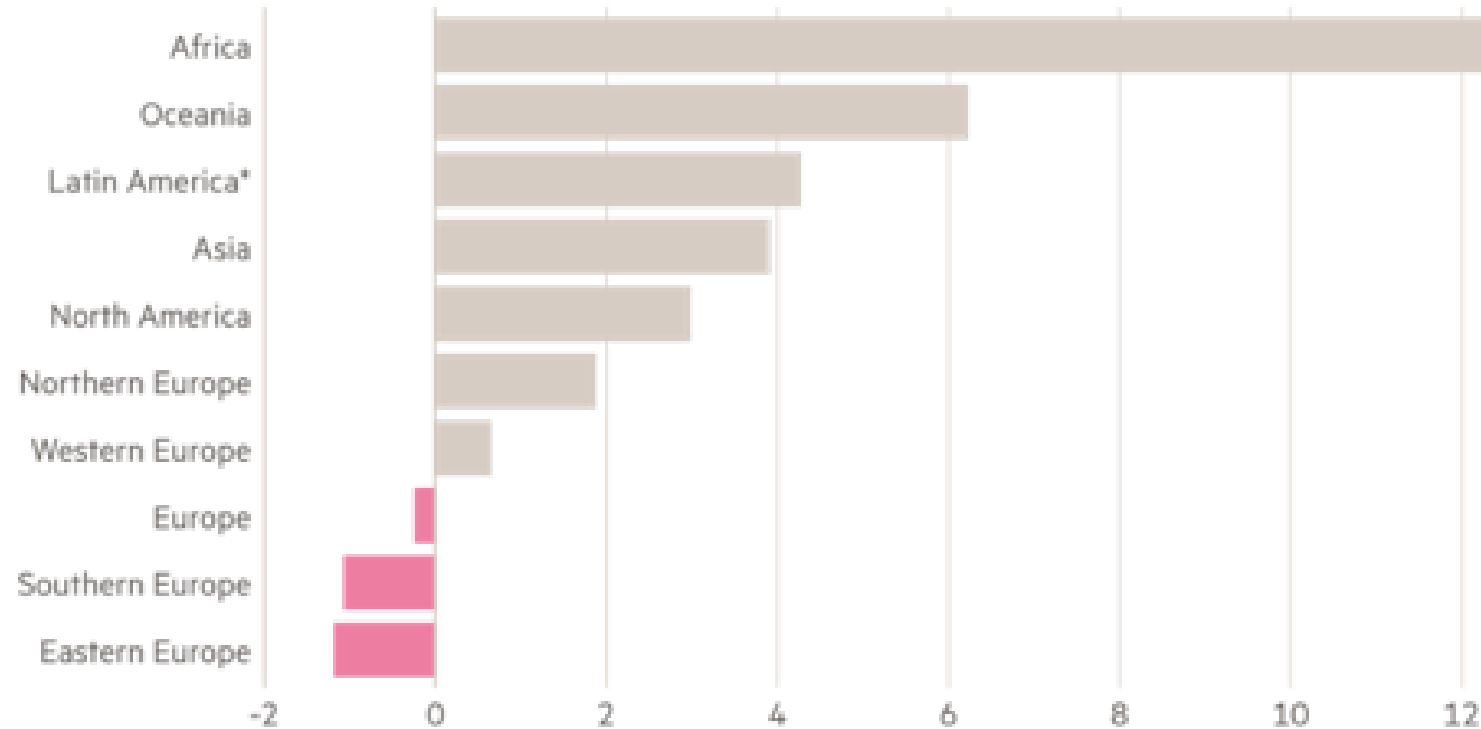


Source <https://www.bbc.com/news/world-europe-51078405>

# Fact: Social Security Is Unsustainable Because of Demographics/Low Growth

## Europe shrinks as rest of the world grows

Projected population change 2020-2025 (%)



- Need for new funding methodologies.
- Uncertain retirement incomes delivered by traditional Defined Contribution plans.
- Need for “finance science” to deliver safe retirement income outcomes.

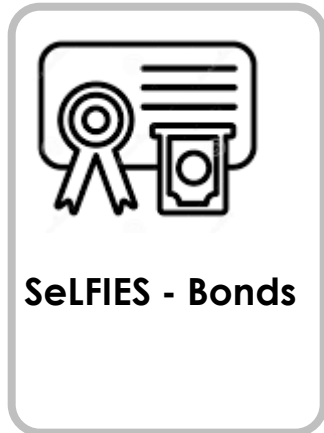
\*Includes the Caribbean

Source: FT calculations on UN population projections

© FT

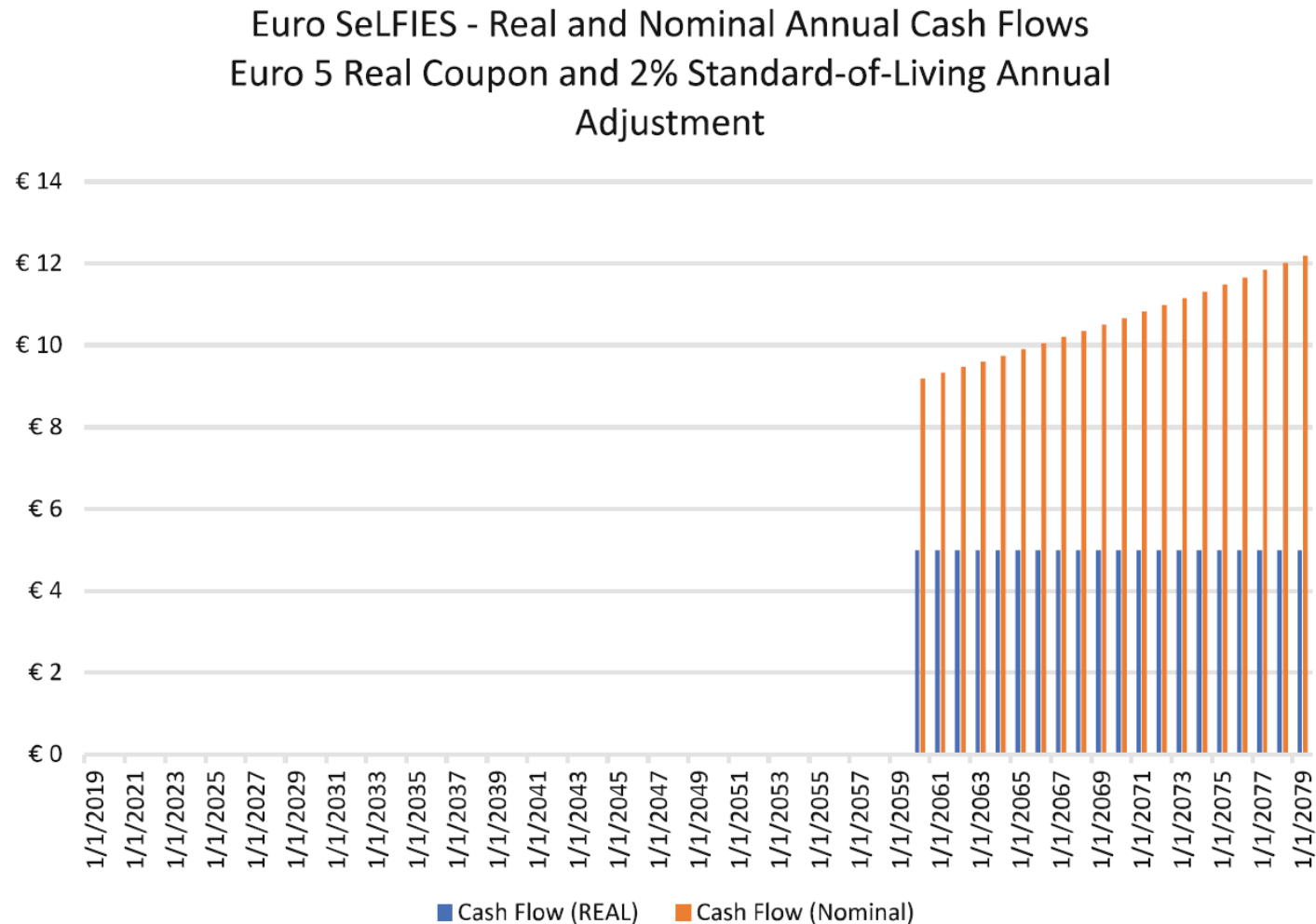
Source <https://www.ft.com/content/49e1e106-0231-11ea-b7bc-f3fa4e77dd47>

## Fact Sheet SeLFIES – A Simple Innovation To Improve Retirement Security



- SeLFIES = Standard-of-Living indexed, Forward-starting, Income-only Securities.
- Government issued bond – similar procedures to traditional debt (**liquid, low-cost, low-risk**).
- **Income-only** – pays only coupons. Coupon in real € and not in %. Example: Coupon of € real 5 per year.
- Coupon **Indexation** to **Standard-of-Living**, not inflation.
- Starts paying from retirement date. Example: Coupon of € 5 per year from age 65 = **Forward-starting**.
- Maturity of say 20-25 years (based on Life Expectancy).

# SeLFIES Visualised: Simple Design = Simplicity in Stating Retirement Goal



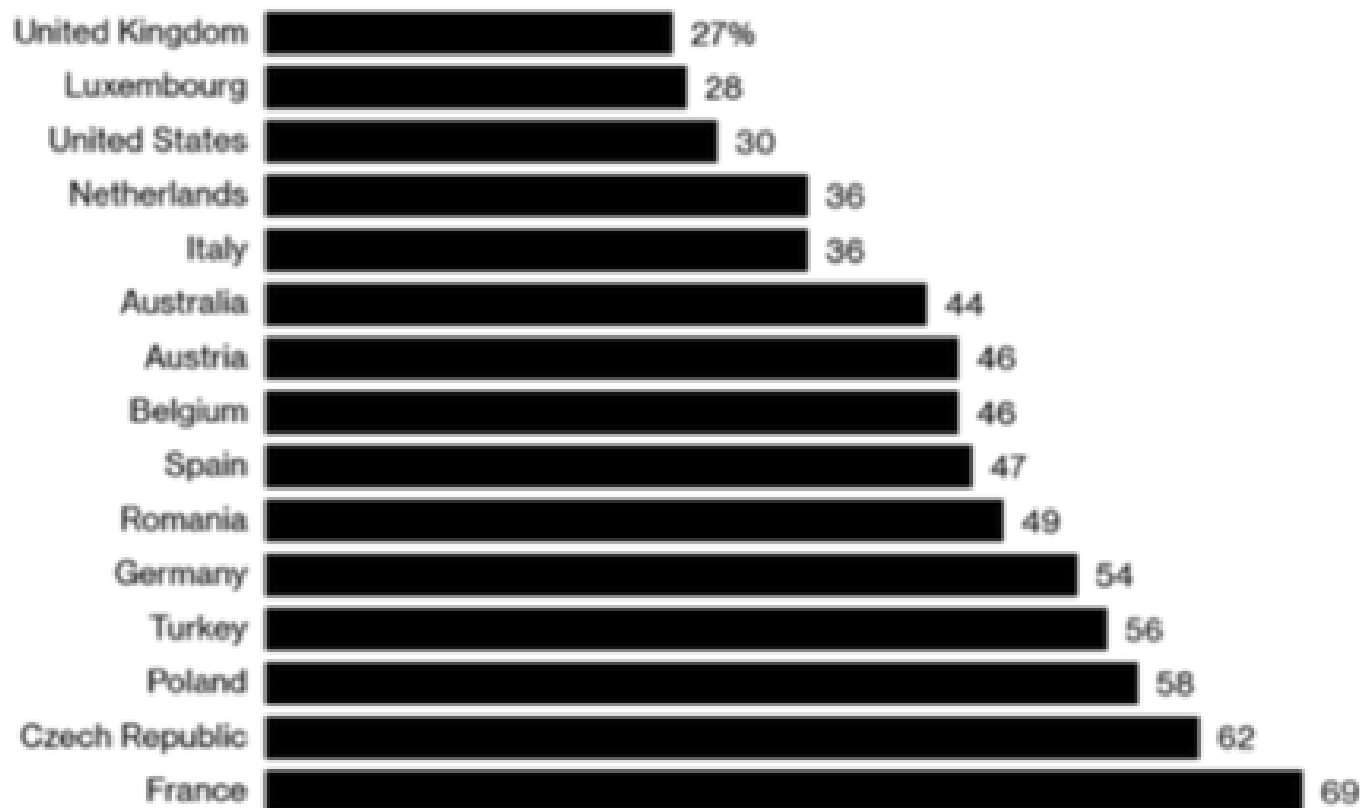
- **Goal = annual pension of € 50,000 per year (in today's lifestyle).**
- **Purchase of 10,000 SeLFIES over working life.**
- **10.000 X € Real 5 = € Real 50.000 per year.**
- **Indexation to *Per-Capita Consumption* maintains pre-retirement lifestyle.**

**Fig. 3** Example of real and nominal cash flow from SeLFIES (Source: Authors 2019)

# Major Issue: Unacceptable Decline in Standard-of-Living Post Retirement

## Reality Check

Share of current retirees who say they do not "enjoy the same standard of living I had when working."



ING International Survey

Bloomberg

- First raised by Prof. Robert Merton in his 1983 paper "**On Consumption Indexed Public Plans**".
- Goal for Retirement Income: A guaranteed (target) real retirement income to maintain pre-retirement lifestyle.
- Today – extremely hard to achieve with current instruments.

## Why Index Cash Payouts to Consumption Per Capita Instead of Just to Inflation (CPI) ?

Goal for retirement is referenced to sustaining the standard of living experienced in the *latter* part of work life just before retirement –

### Average Compound Growth Rates: Korea

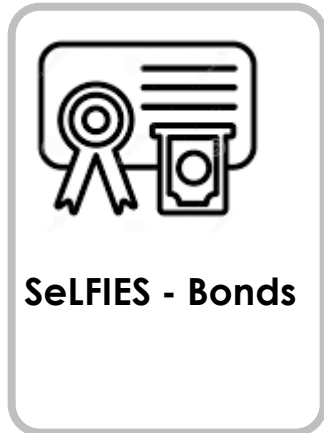
Time Period	<u>Consumption per Capita*</u>	<u>Inflation (CPI)**</u>	<u>Standard of Living (SoL)</u>	<u>Goal Short-Fall CPI Only / (CPI &amp; SoL)</u>
2007-2017	3.7%	2.3%	1.4%	0.87 10 Years
1997-2017	5.0%	2.2%	2.7%	0.64 20 years
1987-2017	8.4%	3.9%	4.3%	0.28 30 years
1965-2017	13.6%	7.4%	5.8%	0.04 53 years

\*Covers both inflation (CPI) and standard of living (SoL)

\*\*Covers inflation (CPI) only

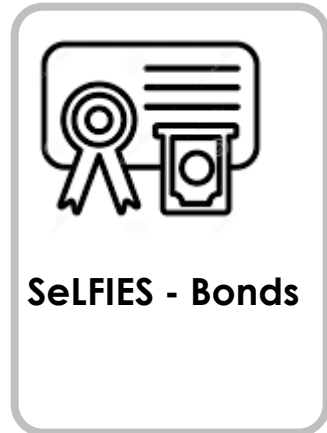


# SeLFIES – A Good Deal for Governments as Well



- **SeLFIES** provide **budgetary certainty**, no hidden liabilities.
- **SeLFIES extend** maturity of government debt.
- With **SeLFIES** payments linked to per-capita consumption and VAT receipts offer governments a natural **hedge**.
- **SeLFIES** are ideal to fund infrastructure – **synergistic** cash-flows.
- **SeLFIES** can lead to **broader** domestic and EU-wide demand for government debt.
- **SeLFIES stabilise** government funding markets and could lower cost of outstanding debt.

# Conclusions – SeLFIES Can Improve Retirement Security and Benefit Governments



- Supplementary systems need to be **Sustainable, Universal, Portable, Efficient** and (low) **Risk** (or “**SUPER**”).
- **SeLFIES** – a simple **low-cost, low-risk, liquid** instrument to improve retirement security.
- Greatly **simplifies** retirement planning.
- **Benefits governments** at many levels.
- A viable **Pan European** solution to the looming retirement crisis.
- Without **innovation**, EU nations will repeat mistakes of other countries.

Q & A

# Standard of Living Growth in Korea 1965-2017

## Annual Inflation-adjusted per Capita Consumption

