



Independent Authority
for Fiscal Responsibility

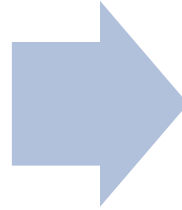
Opinion

2017 Pension Revaluation Index

July 2017

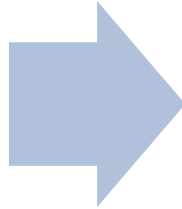
Legal Mandate

Law on PRI (Law 23/2013)



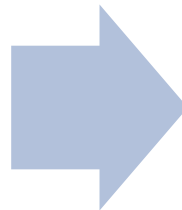
Pensions will be revalued according to the 2014 PRI

Consolidated text of the General Law on Social Security (RDL 8/2015) (art. 58)



AIReF will issue an opinion on the ME&SS values for the determination of the PRI each fiscal year

Resolution 25 of the AIReF (2015)

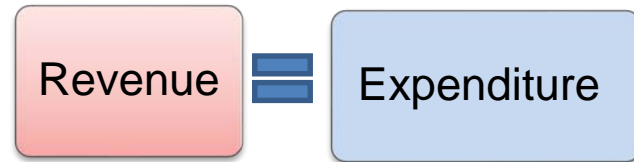


The objective is to determine if the values used to calculate the PRI are realistic and if the formula is applied correctly

PRI Formula

SUSTAINABILITY

Balance component:

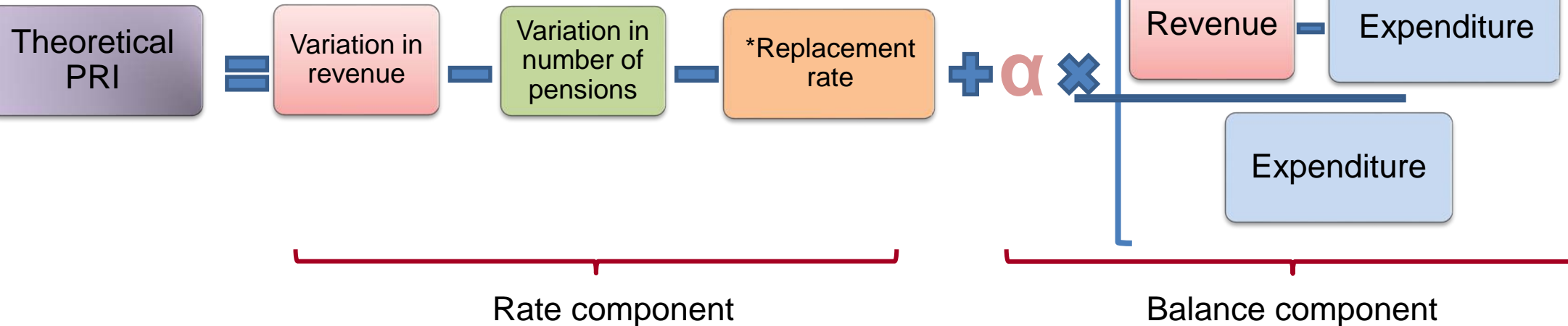
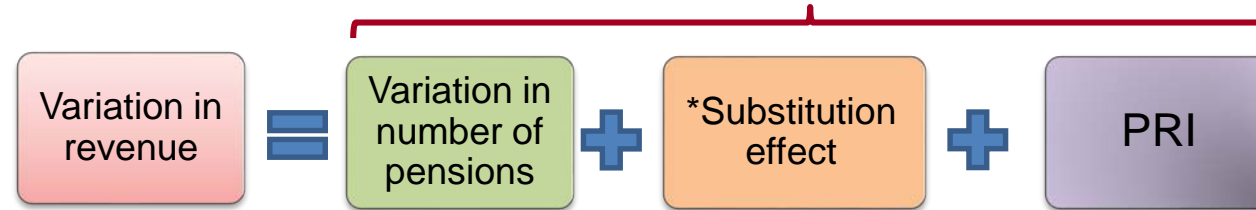


Expenditure variation

SUFFICIENCY



Rate component:



***Substitution effect:** Variation of the average pension in absence of revaluation



Substantial improvement in the information provided by ME&SS

	PUBLISHED IN SGB		SENT TO AIREF			PUBLISHED IN SGB		SENT TO AIREF	
	BEFORE	2017	BEFORE	2017		BEFORE	2017	BEFORE	2017
PRI methodology	✗	✗	✗	partial	Expenditure up to t+5	✗	✓	✓	✓
Restricted PRI t	✓	✓	✓	✓	Pension expenditure	✗	✗	✓	✓
Restricted PRI t+5	✗	✗	✗	✗	Substitution effect t+5	✗	✓	✓	✓
Unrestricted PRI t	✗	✓	✗	✓	# Pensions	✗	✓	✓	✓
Revenue t+5	✗	✓	✓	✓	# Inflows	✗	✗	✗	✓
Revenue methodology	✗	✗	✗	✗	# Outflows	✗	✗	✗	✗
Macro assumptions	✗	✗	✗	✓	Mortality tables	✗	✗	✗	✓
Sensitivity analysis	✗	✗	✗	✓	Series up to 2050	✗	✗	✗	partial

...although there are still limitations to the scope

Main results and differences

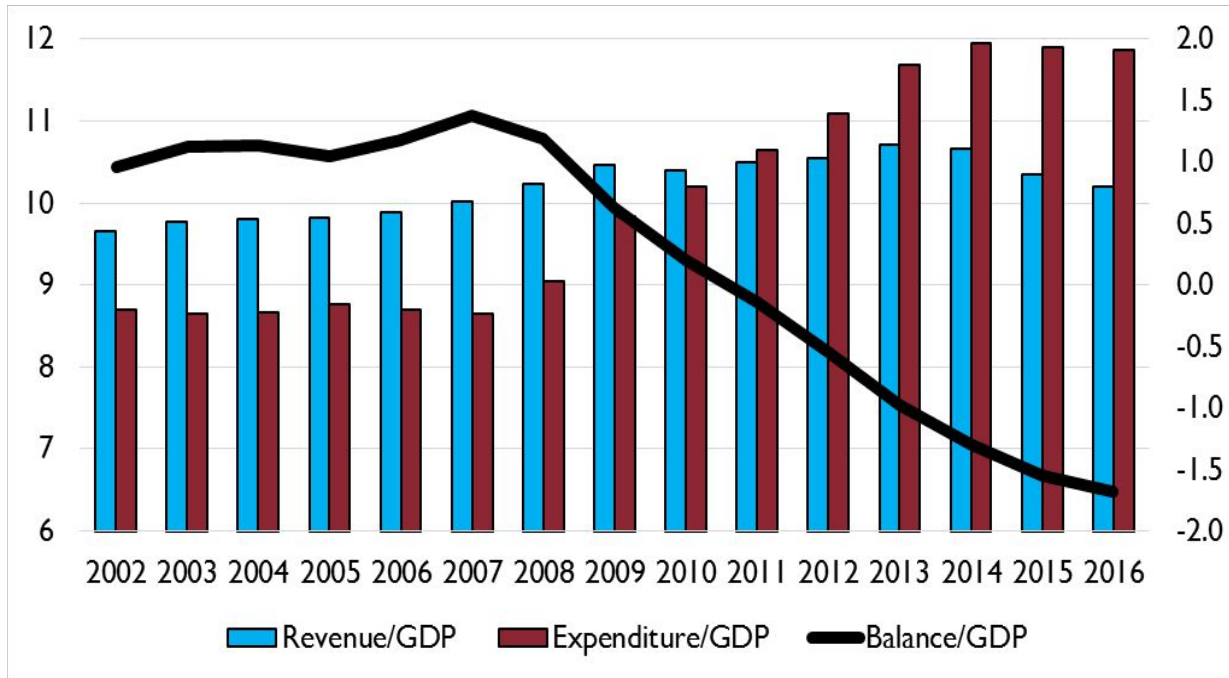
- MEySS revenue forecast is slightly more optimistic (0.3% per year)
- MEySS expenditure forecast is slightly lower (0.2% per year)

		Revenue		Expenditure		Main expenditure components	
		(€ M)	(% change)	(€ M)	(% change)	Number of pensions	Substitution effect
						(% change)	(% change)
	Av 12-16	110,957	0.2	123,719	3.5	1.3	1.6
MEySS (1)	Av 17-22	131,532	4.0	145,616	2.7	1.0	1.6
	Av 12-22	121,745	2.3	135,220	3.1	1.2	1.6
AIReF (2)	Av 17-22	128,795	3.7	146,682	2.9	1.2	1.4
	Av 12-22	120,357	2.1	135,759	3.2	1.3	1.5
(1)-(2)	Av 17-22	2,737	0.3	-1,066	-0.2	-0.2	0.2
	Av 12-22	1,389	0.2	-539	-0.1	-0.1	0.1

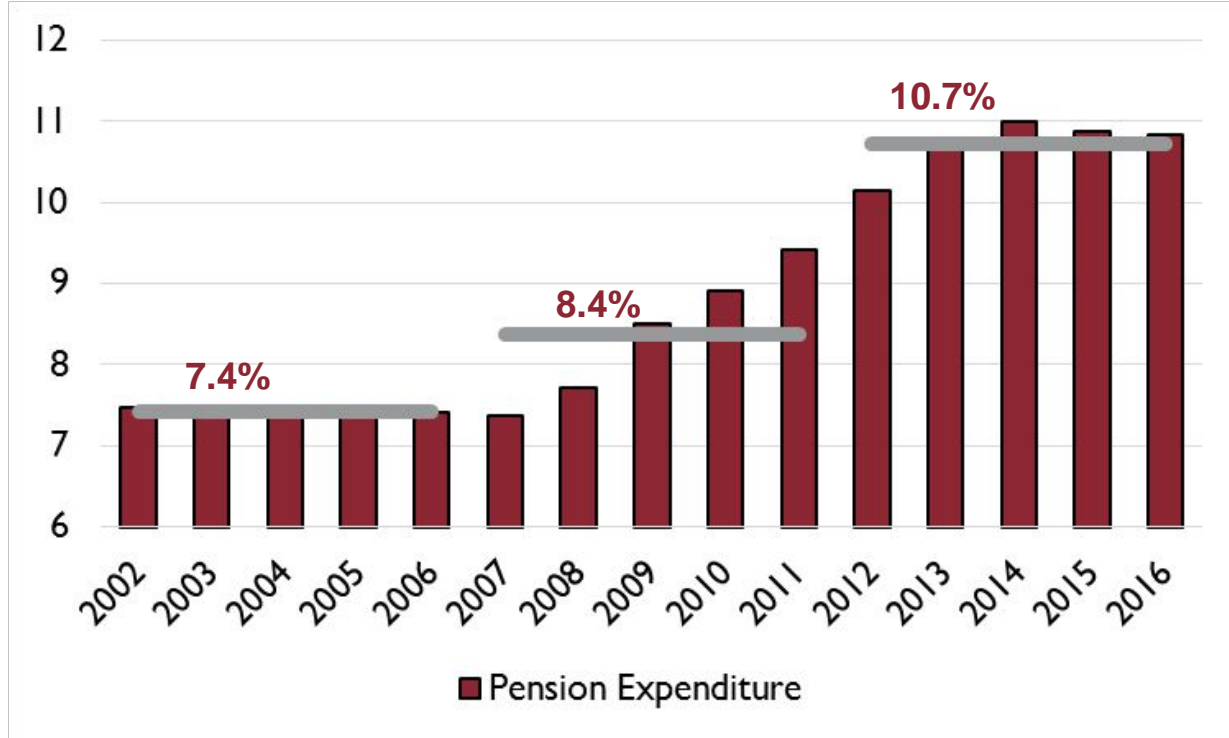
How did we get here?

In terms of GDP, the Social Security system déficit, 1.7% GDP in 2016, has been mainly due to the evolution of **Social Security expenditure**...

Pension expenditure represents approximately 90% of Social security spending



...while contributions remain relatively **stable to GDP**.

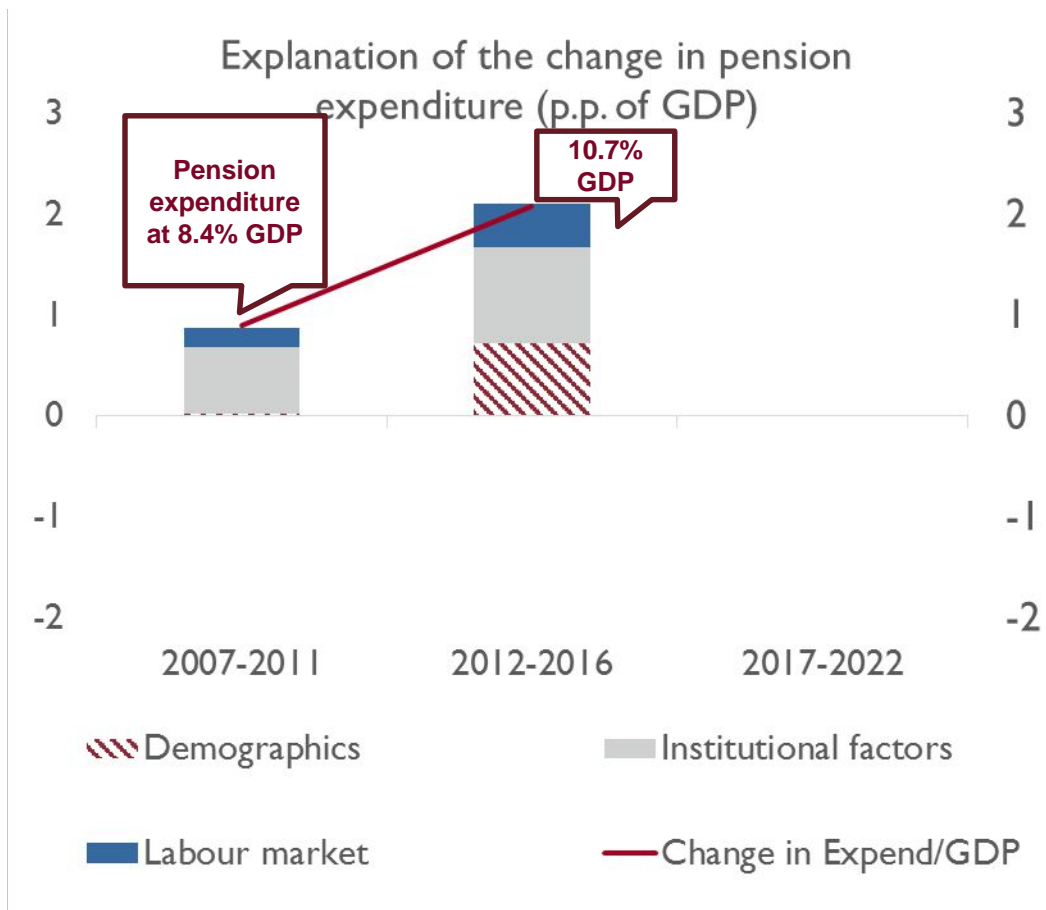


The ratio of **pension expenditure to GDP** has increased 3.3% GDP from 2012-2016 compared to the 2002-2006 level



... How did we get here?

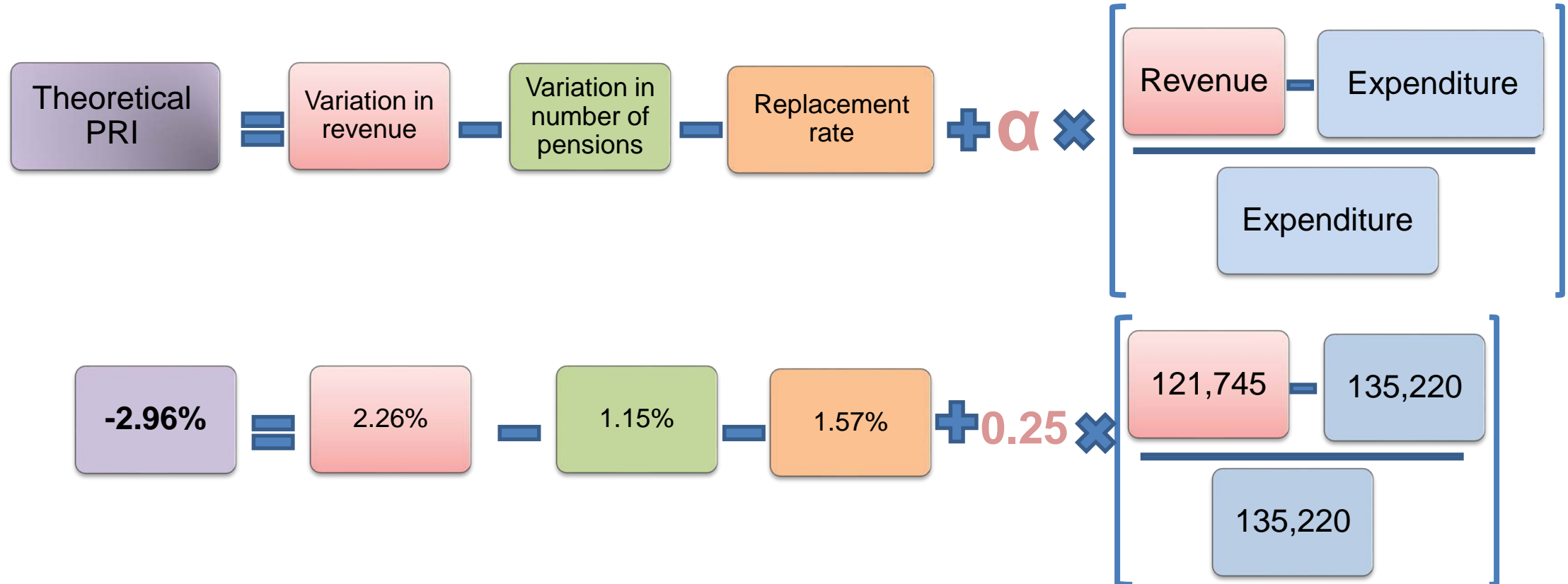
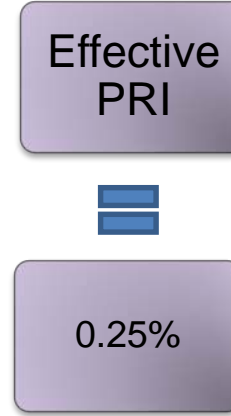
The macroeconomic context has decisively influenced the evolution of pension expenditure in relation to GDP



- ✓ **Demography:** An aging population puts upward pressure on the **dependency ratio** (older population/working-age population), which was mainly compensated by migratory (procyclical) flows between 2000 and 2008.
- ✓ **Institutional factors:** The parameterization of the system continuously increased expenditure, mainly through an **increase in the replacement rate** (average pension/average salary)
- ✓ **Job market:** The deterioration of the employment rate had an upward impact on the weight of pension expenditure on GDP.

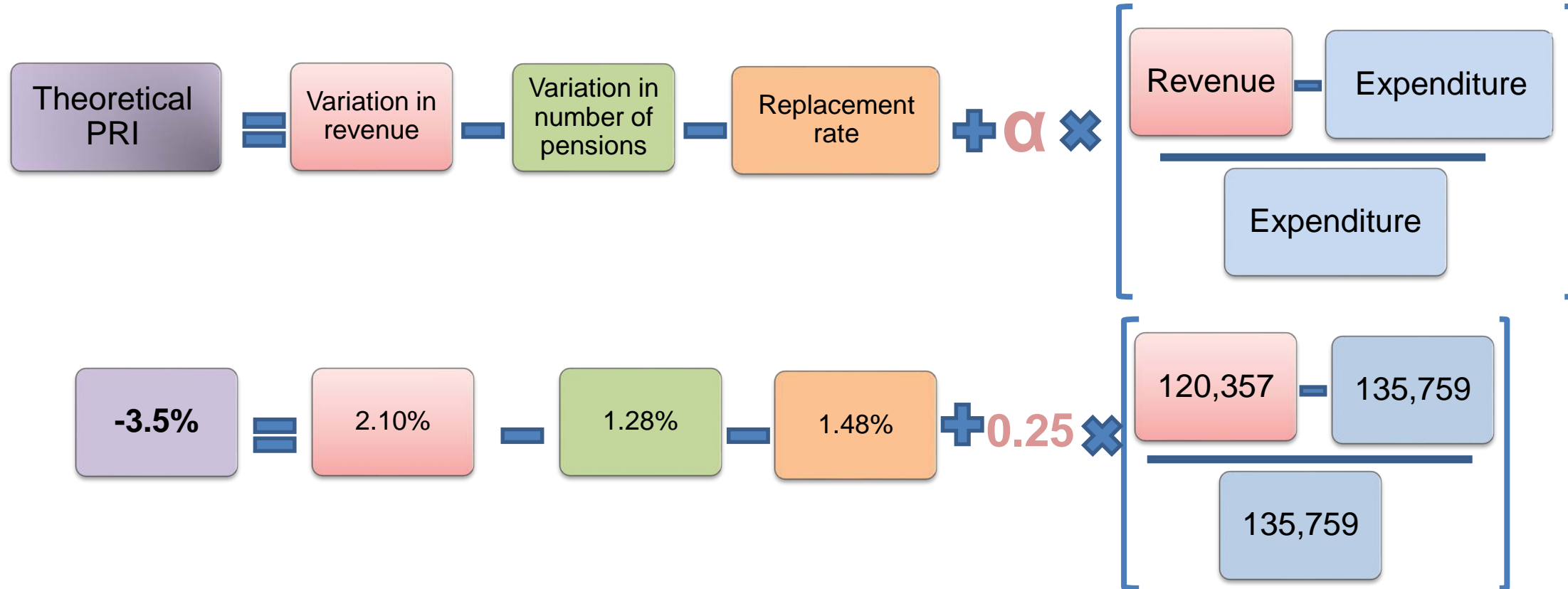
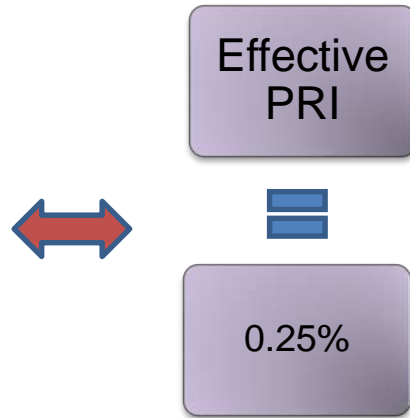
PRI calculation: ME&SS assumptions and methodology

	Revenue		Expenditure		Main expenditure components	
	(€ M)	(% change)	(€ M)	(% change)	Number of pensions	Substitution effect
					(% change)	(% change)
Prom 12-16	110,957	0.2	123,719	3.5	1.3	1.6
Prom 17-22	131,532	4.0	145,616	2.7	1.0	1.6
Prom 12-22	121,745	2.3	135,220	3.1	1.2	1.6



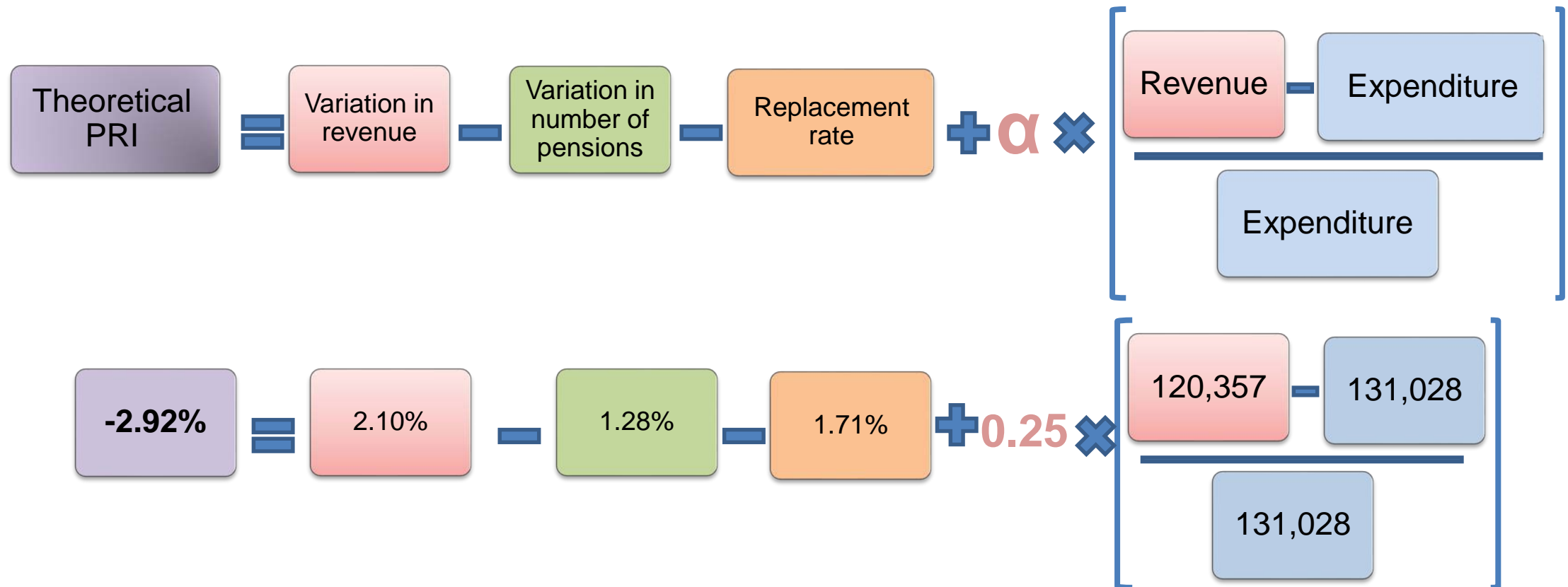
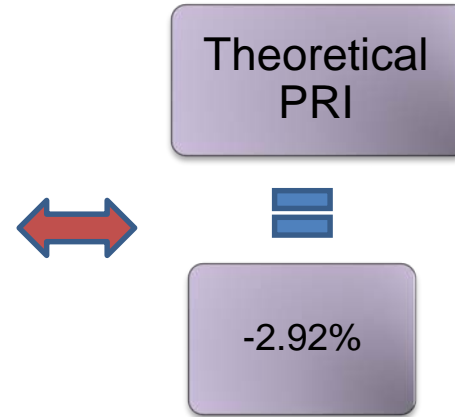
PRI calculation: AReF assumptions and ME&SS methodology

	Revenue		Expenditure		Main expenditure components	
	(€ M)	(% change)	(€ M)	(% change)	Number of pensions (% change)	Substitution effect (% change)
Av 12-16	110,957	0.2	123,719	3.5	1.3	1.6
Av 17-22	128,795	3.7	146,682	2.9	1.2	1.4
AV 12-22	120,357	2.1	135,759	3.2	1.3	1.5



PRI calculation: AReF assumptions and methodology

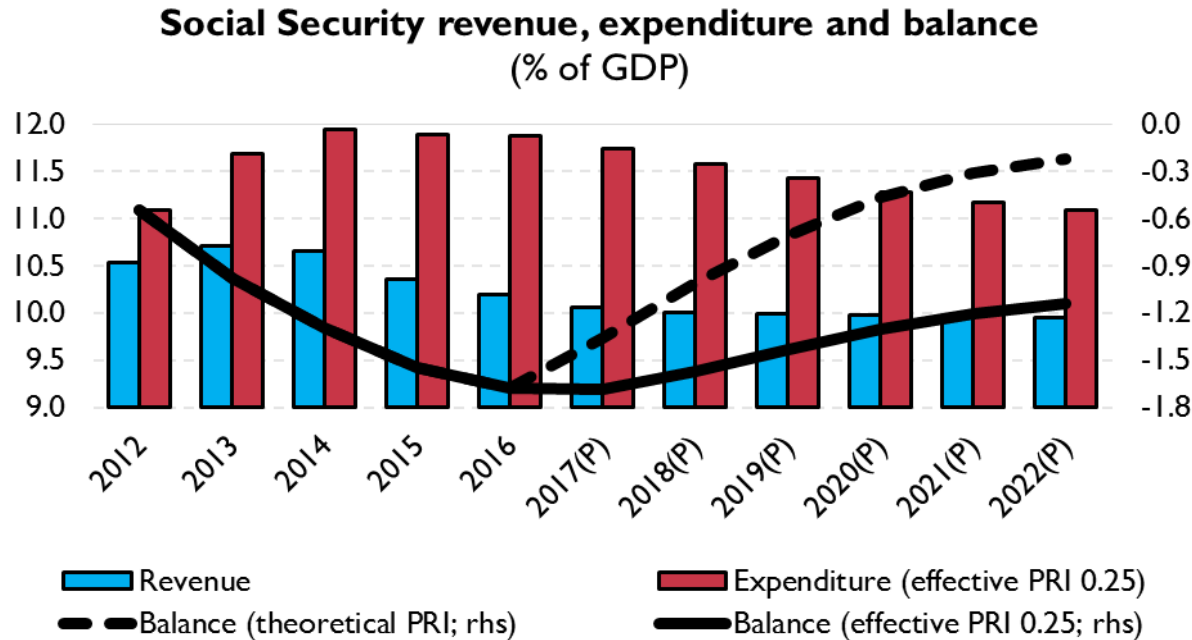
	Revenue		Expenditure		Main Expenditure components	
					Number of pensions	Substitution effect (%)
	(€ M)	(% change)	(€ M)	(% change)	(% change)	(% change)
Av 12-16	110,957	0.2	123,719		1.3	1.6
Av 17-22	128,795	3.7	137,447	1.4	1.2	1.8
Av 12-22	120,357	2.1	131,028	2.4	1.3	1.7



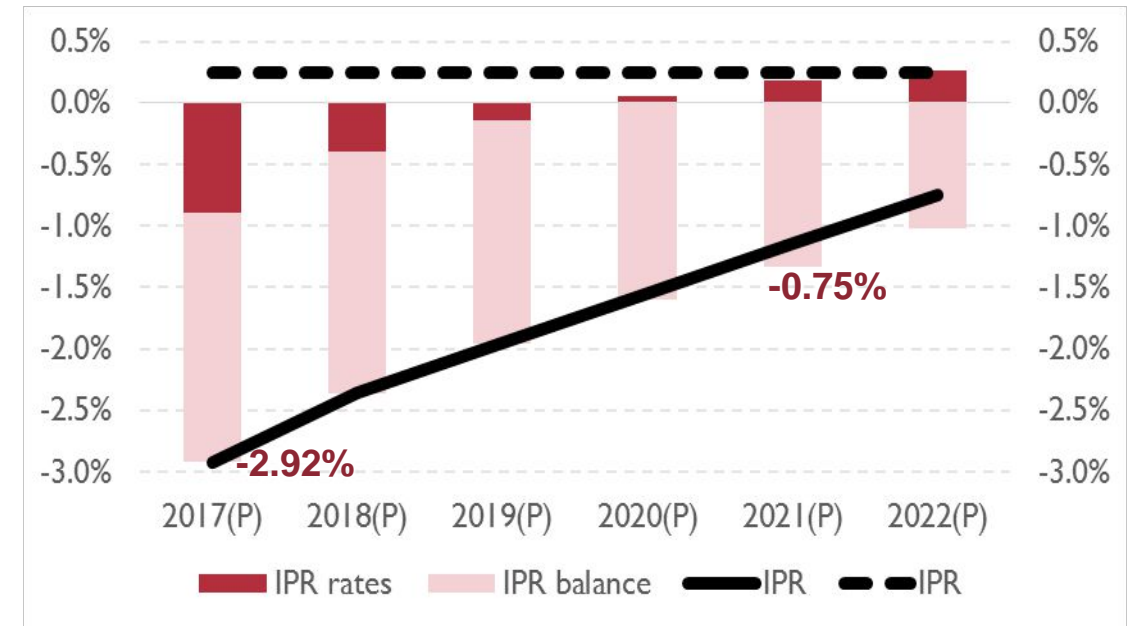
Impact on the SSS and evolution of the PRI

- High impact of the balance component
- PRI restricted at 0.25% at least until 2022
- Divergence of balances (with theoretical and effective PRI)

Evolution SSS PRI



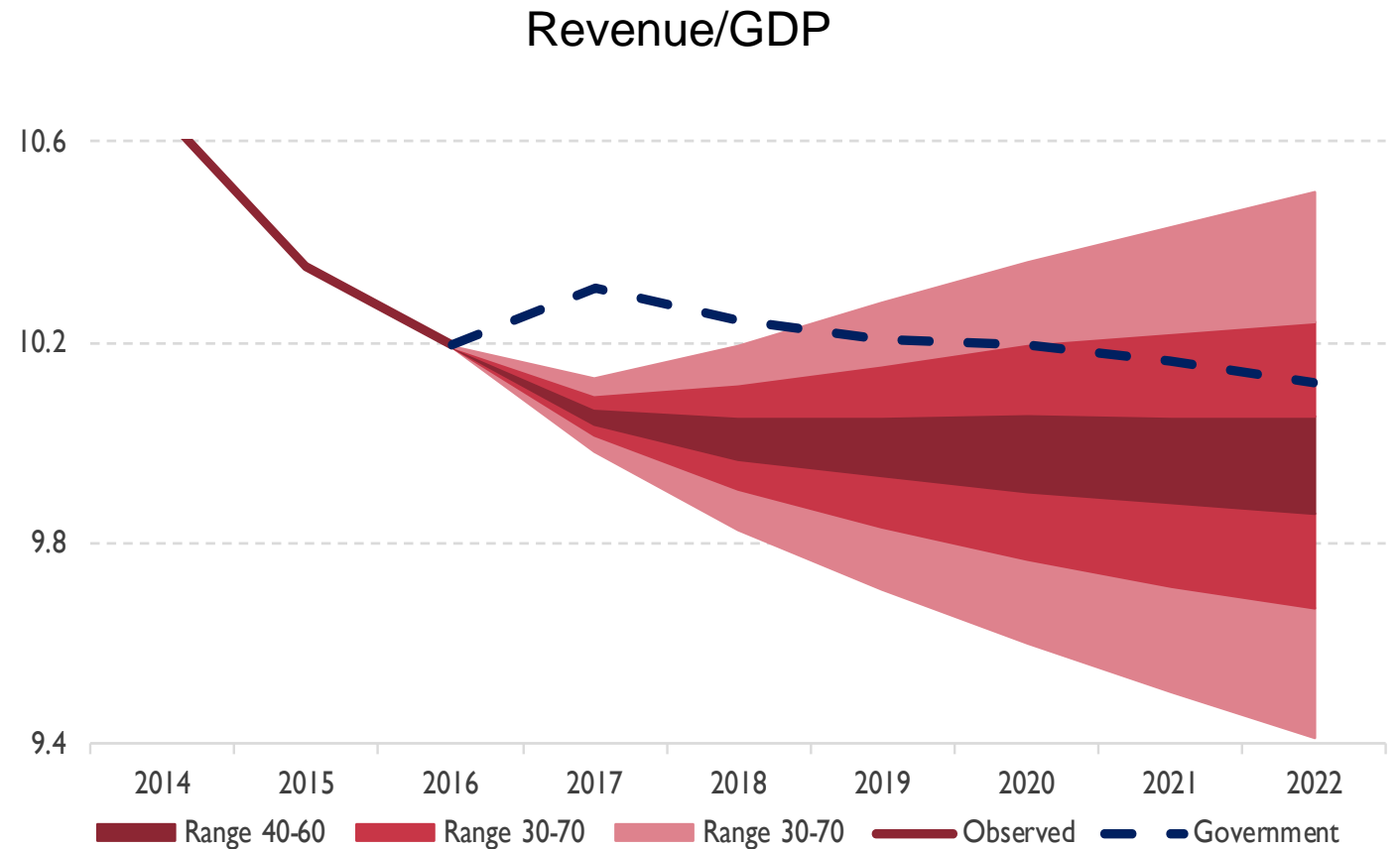
Contributions to PRI



Assessment of revenue forecast

- Revenue **very unlikely** in 2017-20 and **unlikely** in 2021 and 2022

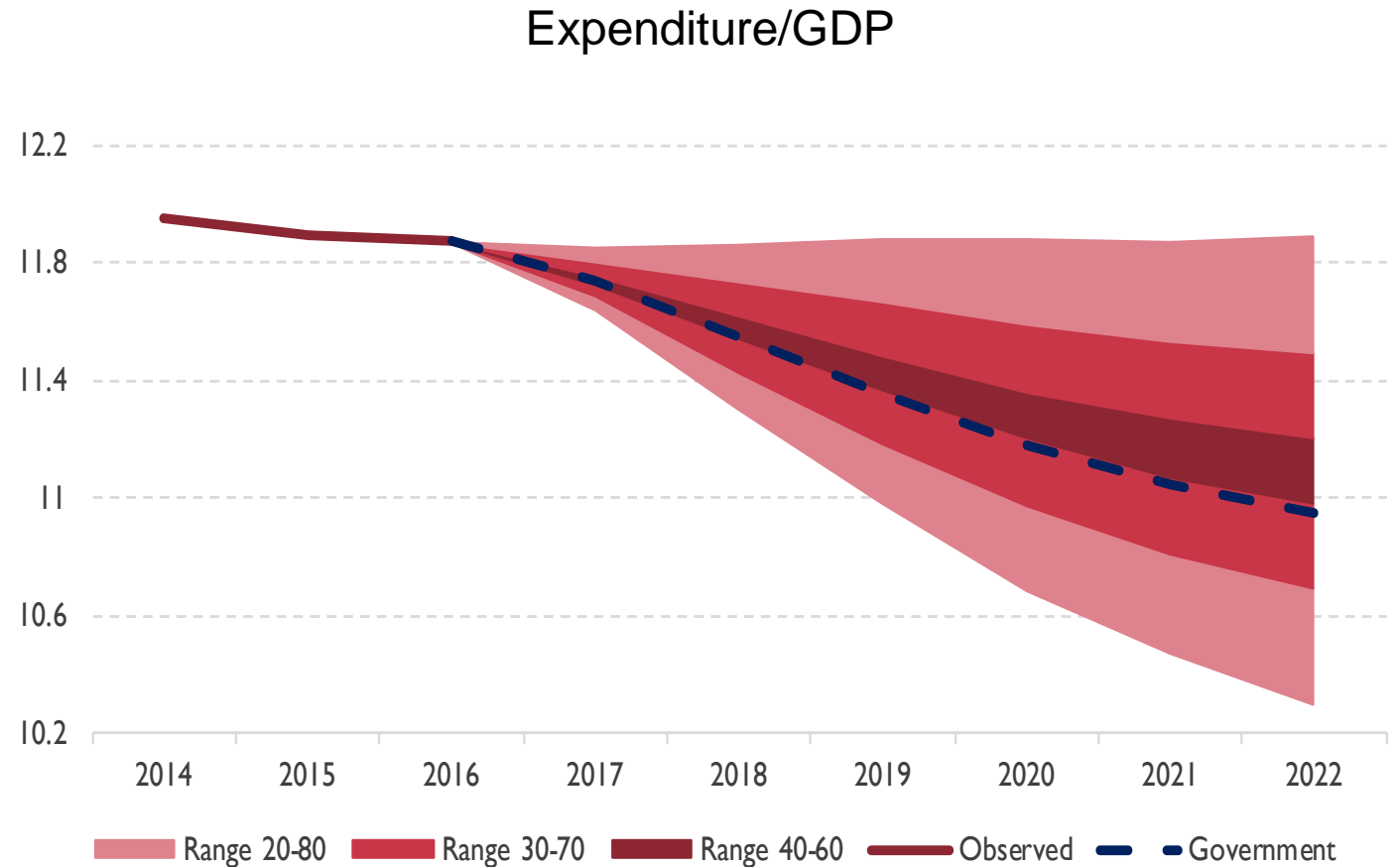
	Revenue 17-22		
	(€ M)	(% PIB)	(% var)
MEySS (1)	131532	10.2	4.0
AIReF (2)	128795	10.0	3.7
(1)-(2)	2737	0.2	0.3



Assessment of the expenditure forecast

Expenditure **unlikely** towards the end of the period

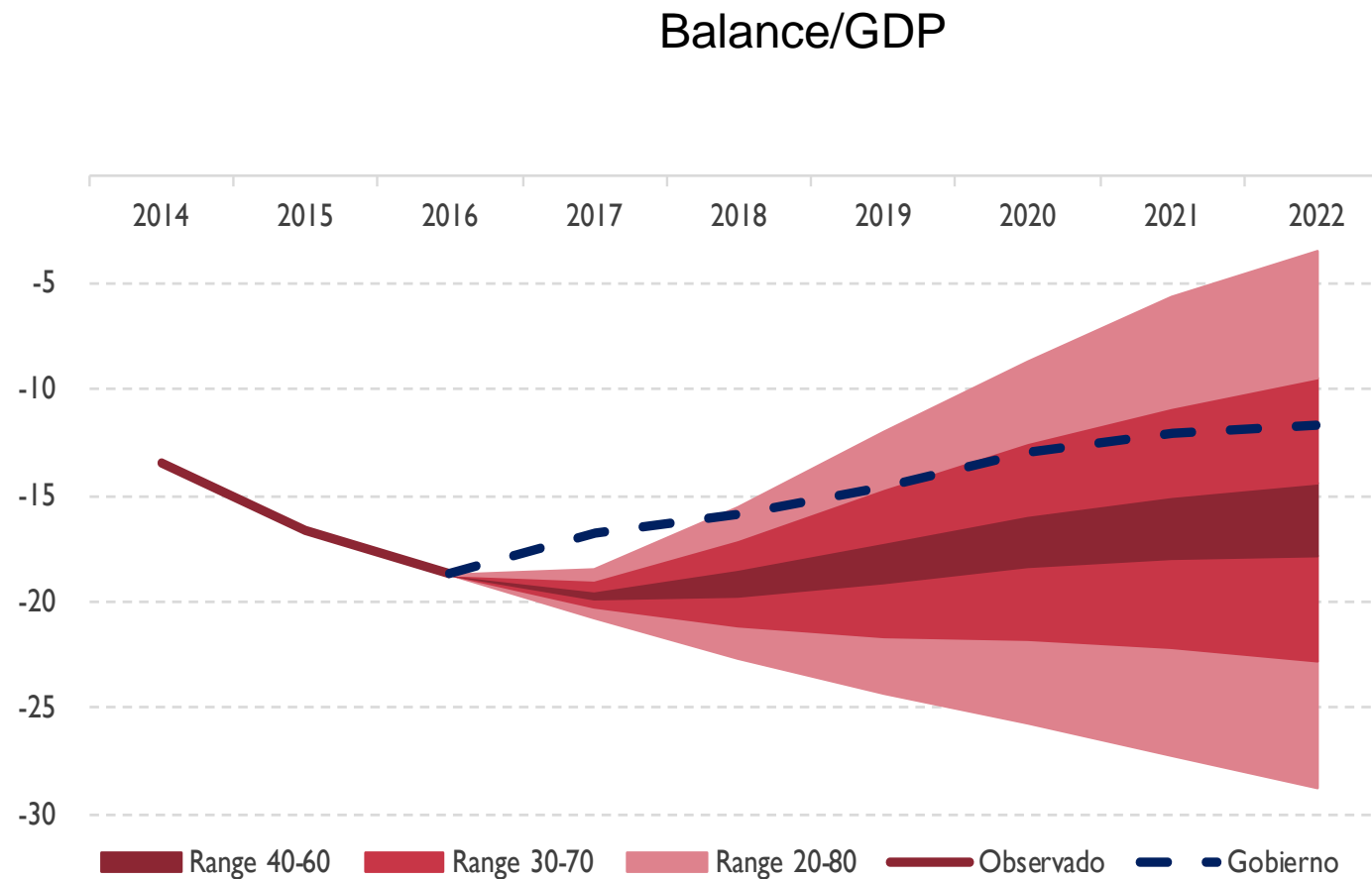
	Expenditure 17-22		
	(€ M)	(% PIB)	(% var)
MEySS (1)	145616	11.3	2.7
AIReF (2)	146682	11.4	2.9
(1)-(2)	-1066	-0.1	-0.2



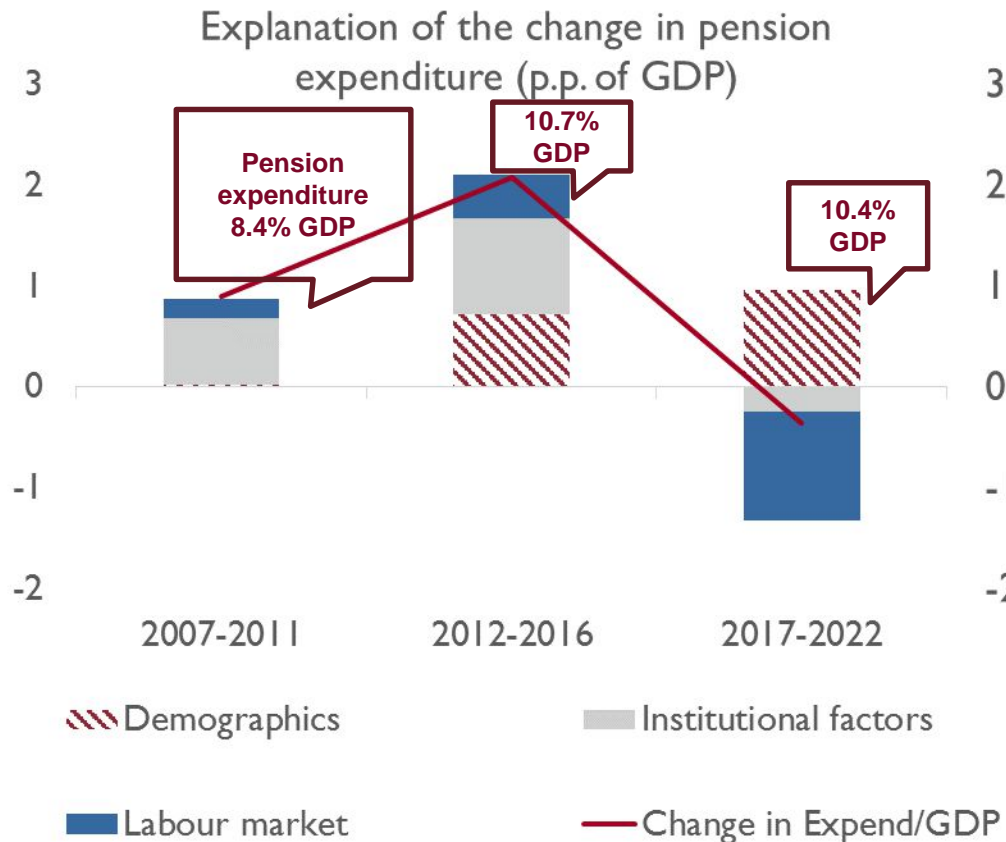
Balance of the Social Security System

Balance **very unlikely** in 2017-20 and **unlikely** in 2021-22

	Balance 17-22	
	(€ M)	(% PIB)
MEySS (1)	-14084	-1.1
AIReF (2)	-17887	-1.4
(1)-(2)	3803	0.3



Implications for the future

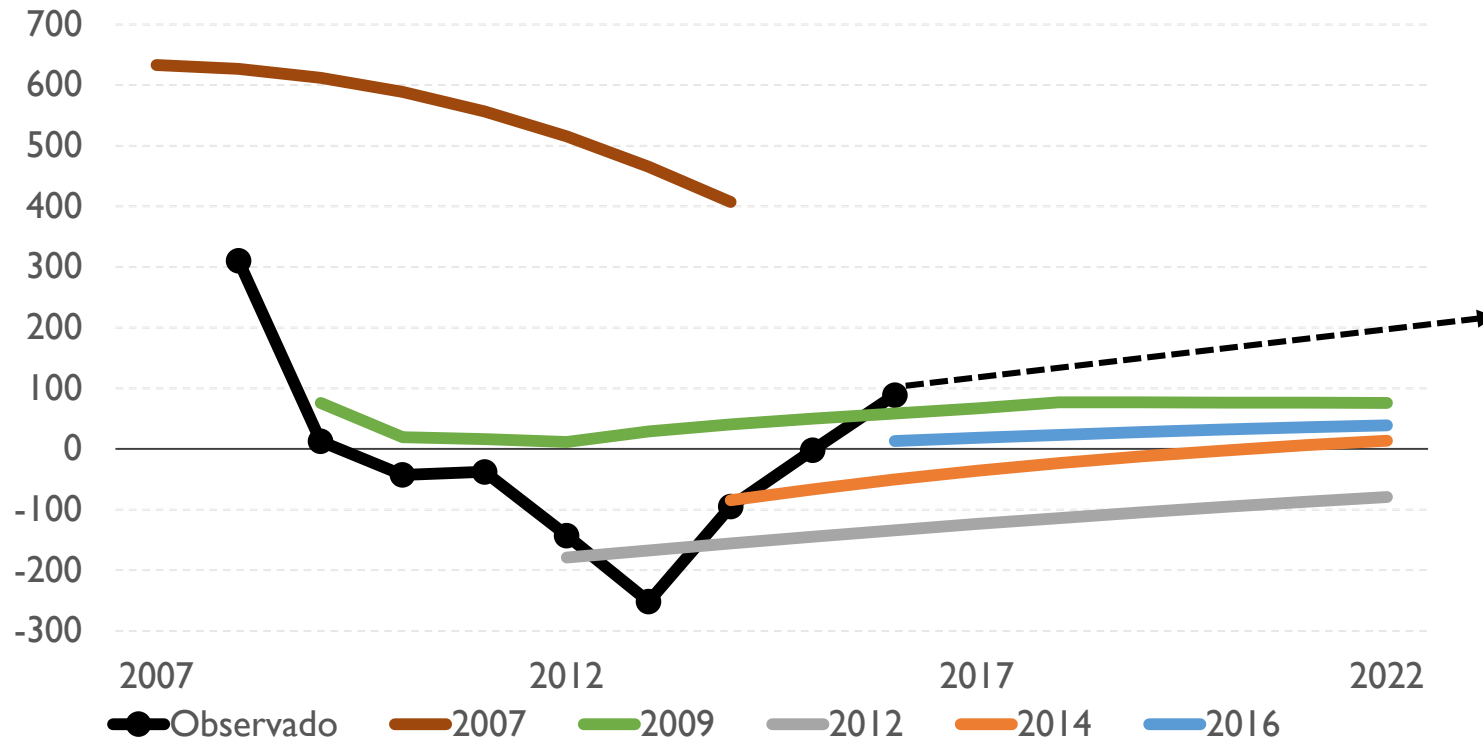


- ✓ In **2012-2016**, the increase in the dependency ratio and the replacement rate has explained most of the increase in pension expenditure...
- ✓ ...It is expected that in **2017-2022**, the impact of recent reforms and the labour market recovery will more than offset the demographic pressures...
- ✓ ...At the same time, there is **great uncertainty** about the factors that may affect the dependent and contributing population in the future.

Uncertainty of migratory flows

- Revisions are very conditioned by the historical data
- Need to consider population structure, macroeconomic variables, social networks...

Projected migratory balance (in thousands)



Source: INE.

Large projection errors

Towards the end of 2016, the INE forecast for this year a net immigration of approximately 13 thousand people... while the observed figure was **89 thousand**

AIReF Opinion

- **Substantial improvement** in transparency

In absence of new measures:

- It is appropriate to apply the **2017 minimum increase of 0.25%** to the contributory pensions, as reflected in the Law on the State General Budget.
- For each year of the 2018-22 period, a PRI of 0.25% is obtained.
- The **theoretical PRI (without limits)** for 2017 has a value of about **-3%**.

Proposals

1. Complete the information provided:

- Provide the **macroeconomic series** used, in order to replicate the central scenario of revenue evaluation, as well as alternate scenarios.
- Detail the computation of the historical **substitution effect** and the estimation model of the future substitution effect.
- Explain the method of projecting the **number of pensions**, identifying the number of inflows and outflows each year, preferably by pension class.
- Publish the **mortality tables** on the pensioner population and its future projections.

Proposals

2. Publicly explain the method used to resolve the circularity of the mathematical formula for calculating the PRI, which requires presenting:

- The iterative procedure used.*
- Long-term forecasts (if possible, to 2050) of the variables that define the PRI, including the expected evolution for the PRI.*
- Results for the variables that determine the PRI in an alternative revaluation scenario without limits.*

Proposals

3. *Evaluate a reformulation of the PRI that eliminates the circularity.*

4. *Evaluate the modification of the current legislation so that the formula uses the **consolidated revenue and expenditure values** from the Social Security System.*



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