Opinion on the long-term sustainability of the General Government:
the impact of demographics

1 Introduction

AIReF's mission is to ensure effective compliance with the principle of financial sustainability by the General Government

AIReF's mandate: to ensure the financial sustainability of the General Government, a key determinant of growth and well-being

There is a need for a comprehensive approach and a move away from fragmentation of the problem
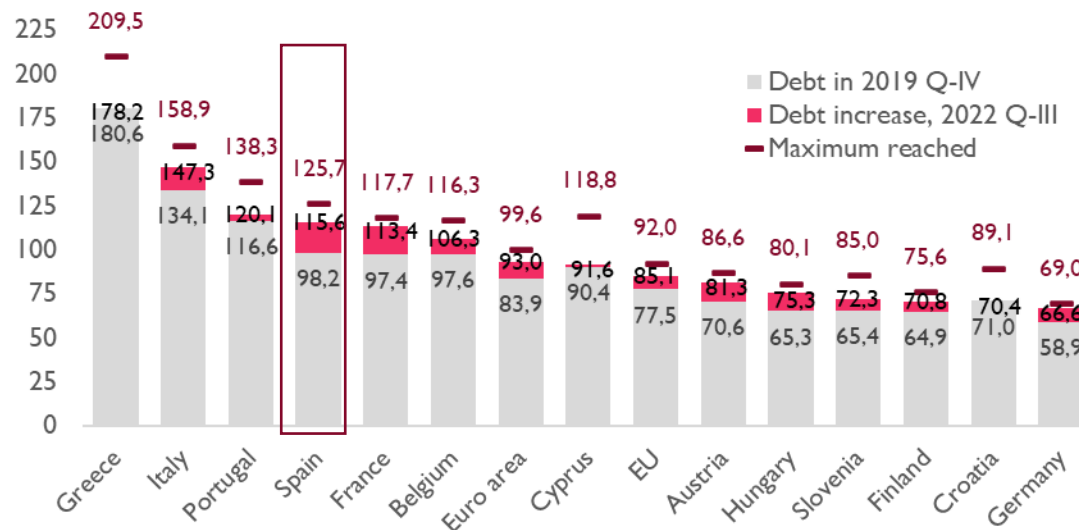
First Opinion on the long-term sustainability of the GG

Long-term horizon: 2050/2070

Completes and updates AIReF's previous statements on the sustainability of the Social Security system

Overview, revenue and expenditure

All GG authorities have contributed to the high levels of debt and they all have challenges to address

DEBT (% GDP) OF EUROPEAN UNION COUNTRIES WITH MORE THAN 60% (2022 QIII)

- Debt in 2019 Q-IV
- Debt increase, 2022 Q-III
- Maximum reached

Source: Eurostat

Focused on demographics, which from 2030 onwards have a strong impact on sustainability: consensus on a prolonged and certain effect

OLD-AGE DEPENDENCY RATIO (POPULATION >64 YEARS OVER POPULATION AGED 20-64 YEARS)

Spain — Germany — France — Italy
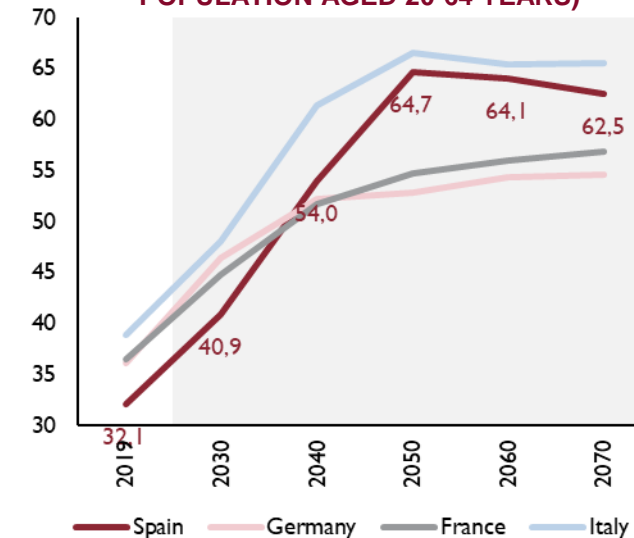
Source: European Commission

The comprehensive and long-term vision of the Opinion on sustainability is particularly important at this time

Why publish the Opinion now?

Ageing begins to have an impact on public accounts: baby boomers, increasing longevity and declining fertility

Vulnerability due to persistence of structural deficit and high debt, after several crises

Future European fiscal governance framework will pivot on sustainability

Despite the uncertainty inherent to such long-term projections, this type of exercise is extremely useful

It opens the debate and reflection on the challenge of sustainability and the need for a comprehensive strategy for the entire GG

It illustrates long-term public sector pressures and challenges due to demographics

It anticipates information requirements for medium- and long-term sustainability analysis in the new framework

It allows sensitivity exercises to be performed for alternative scenarios

The publication of the Opinion has been delayed to integrate the impact of the 2023 pension reform

Baseline scenario

The estimates presented should not be interpreted as forecasts

Baseline scenario

- No fiscal rules
- No economic policy reaction
- It only takes into account demographic impact
- Growth assumptions

Alternative scenarios

- Structural reforms
- New framework of fiscal rules
- Alternative path of revenue and expenditure

Demographic scenario

AIReF's updated demographic projections: new information and methodological improvements

Macro scenario

Medium-term scenario up to 2026 of the report on the 2023 GSB: investment boost from the RTRP and convergence towards potential growth and the ECB's benchmark inflation
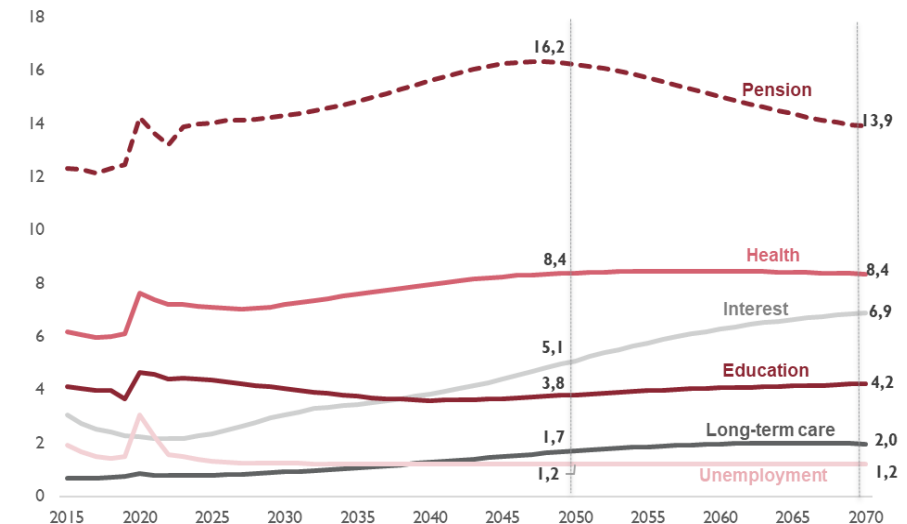
Average annual GDP growth of 1.3% in real terms and 3.3% in nominal terms between 2027 and 2070

Baseline fiscal scenario from 2026 with no fiscal rules in place
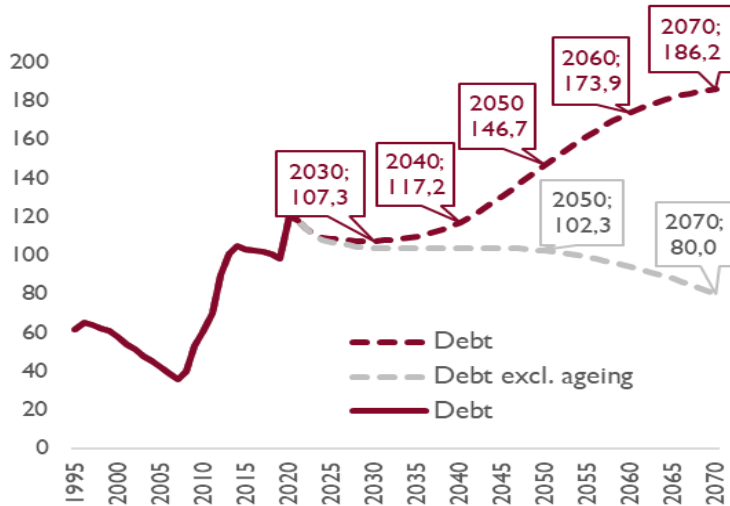### (medium-term scenario up to 2026: Report on 2023 GSB)

Deficit rising from 3.3% in 2026 to a peak of 8.1% of GDP in 2055 due to pressure on expenditure on ageing and interest
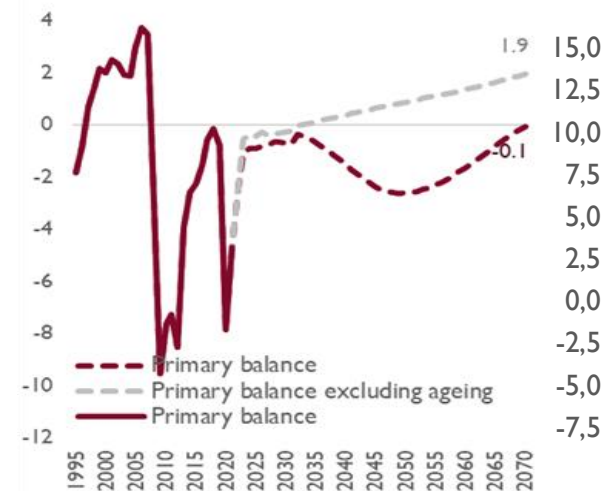
NON-FINANCIAL EXPENDITURE (% GDP)

Pension 16,2 ... 13,9
Health 8,4 ... 8,4
Interest 5,1 ... 6,9
Education 3,8 ... 4,2
Long-term care 1,7 ... 2,0
Unemployment 1,2 ... 1,2

Baseline scenario: pressure of ageing and interest expenditure
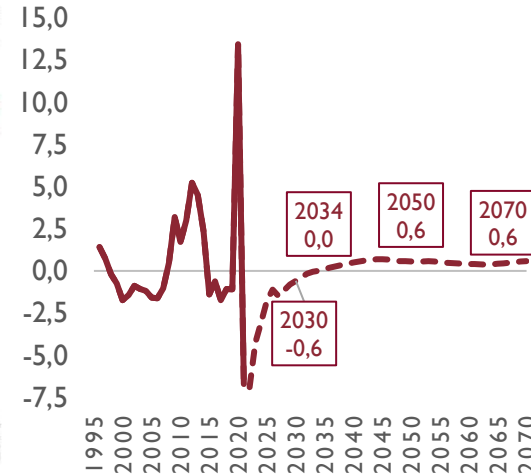
DEBT (% GDP)

Source: AIReF

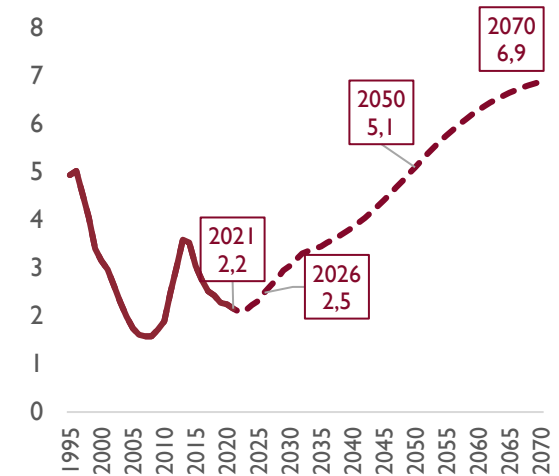**PRIMARY DEFICIT (% GDP)**

Source: AIReF

CONTRIBUTION TO THE CHANGE IN DEBT OF THE INTEREST - GROWTH DIFFERENTIAL (% GDP)
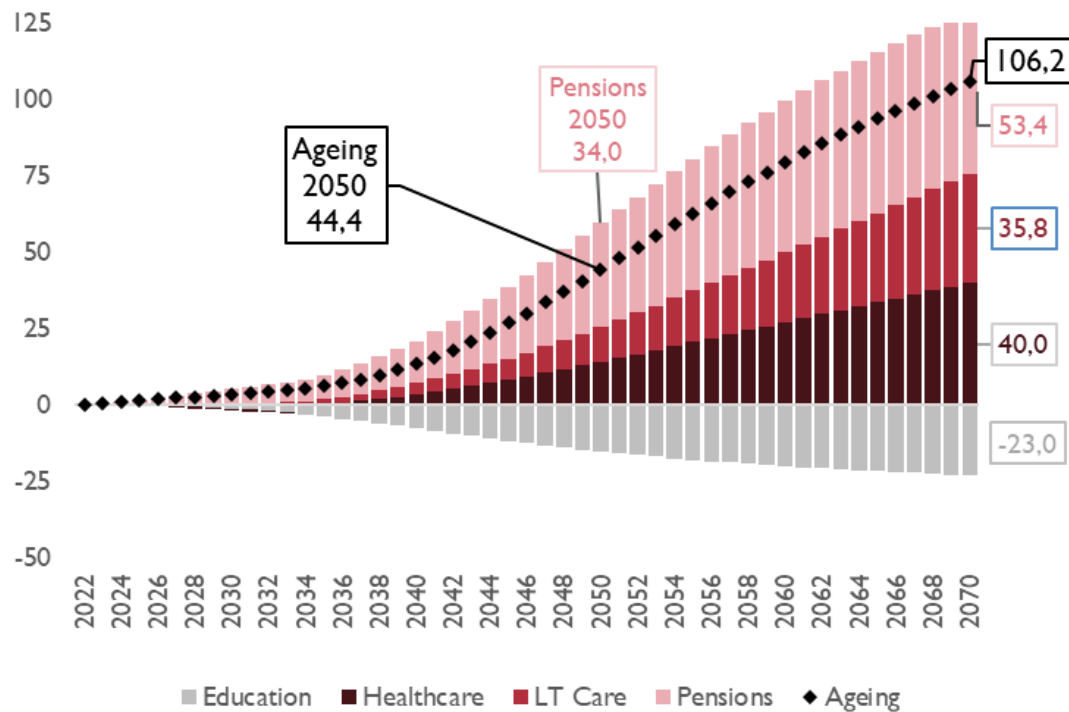

Source: AIReF

INTEREST (% GDP)

Source: AIReF

- The debt ratio would reach 147% of GDP in 2050 (186% in 2070)

- After the present relatively favourable decade, the decade of the 2030s marks a turning point giving way to an accelerating upward path

- From the 2030s, AIReF's projections show a deterioration of the primary balance as a result of the ageing of the population that pushes up debt…

- … exacerbated by the deterioration of the interest rate differential over growth ("snowball effect"): positive from 2034

- The accumulation of debt due to ageing plus the deterioration in financial conditions increases the interest burden: 5.1% of GDP in 2050

- Debt continues to rise in the 2050s despite the improvement in the primary balance

Baseline scenario: components of ageing

CONTRIBUTIONS OF THE COMPONENTS OF AGEING TO THE CHANGE IN DEBT

Ageing 2050 44,4

Pensions 2050 34,0

106,2

53,4

35,8

40,0

-23,0

Education · Healthcare · LT Care · Pensions ◆ Ageing

Source: AIReF

PENSIONS

Growing pension expenditure is the single largest contributor to the increase in debt associated with ageing

The reforms approved between 2021 and 2023 raise the deficit by 1.1 points of GDP in 2050 and 1 point in 2070 with respect to a scenario without these reforms and with the PRI and the sustainability factor:

	2050	2070
Higher expenditure	2.4	2.3
Higher revenue	1.3	1.3

HEALTHCARE AND LONG-TERM CARE

The contribution of spending on healthcare and long-term care follows an upward path, with their contribution gradually increasing

Monitoring and evaluation is necessary: what can AIReF contribute?

|			
PROPOSALS TO THE GOVERNMENT AND MONITORING AND EVALUATION BY AIReF	**PENSIONS**	Expenditure rule	Only assessment of the impact of revenue measures, but it is an expenditure rule defined in "net" terms and this requires an evaluation of revenue and expenditure measures adopted. **PROPOSALS FOR THE APPLICATION OF THIS RULE**

Update of the Opinion on sustainability with a scope greater than the pension expenditure rule of the Second Additional Provision

Different degree of uncertainty about the impact of reforms

> Behavioural effect: delayed retirement, self-employment scheme

Necessary micro approach to the heterogeneity of the impact of the reforms by income brackets

INCREASE IN TAXATION ON WORK AT THE END OF THE PHASED APPLICATION PERIODS BY GROSS WAGE LEVEL (INCREASE IN EFFECTIVE RATES)
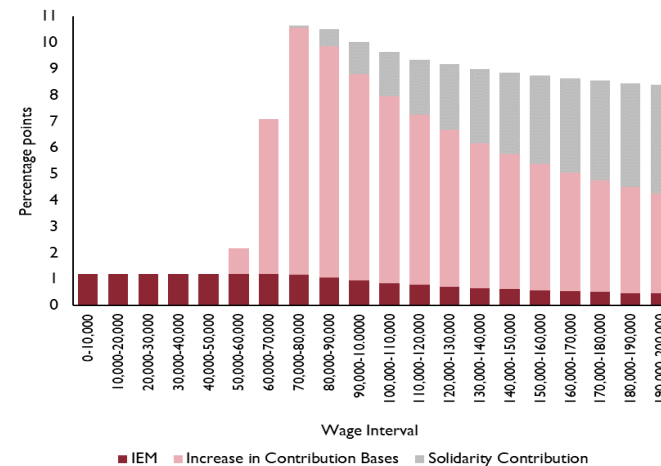
DISTRIBUTION OF THE INCREASE IN TAXATION ON WORK AT THE END OF THE PHASED APPLICATION PERIODS (POINTS OF GDP BY GROSS WAGE LEVEL)
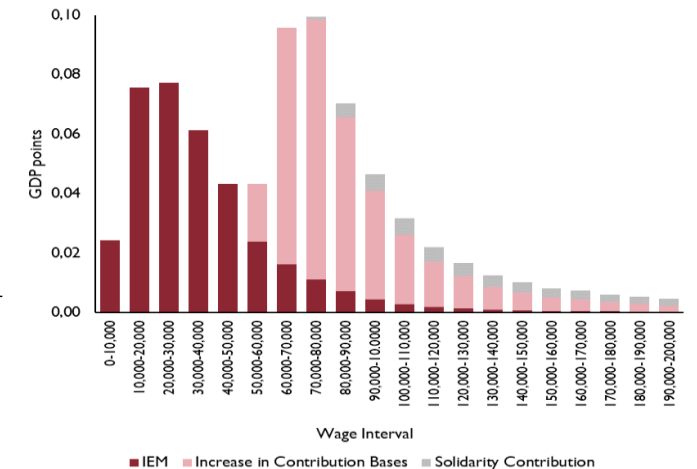
Source: AIReF based on the AIReF PIT-Social Contributions microsimulator and data from the AEAT-INE-IEF household panel
NB: They do not incorporate the increase for brackets above €200,000, which account for 0.07 points of GDP

HEALTHCARE AND LONG-TERM CARE

Identification of areas for improvement with a micro approach making it possible to support decision-making: Spending Review / commissioned by the Council on Fiscal and Financial Policy

> Strengthening its effectiveness, efficiency and sustainability.

Major uncertainty: Alternative Scenarios

Scenario of higher potential growth	Scenario of application of fiscal rules	Discretionary changes in revenue and expenditure
• Impact of the increase in potential growth due to the implementation of migration policies that mitigate the fall in the working-age population or structural reforms • Analysis shows importance of economic growth to ensure the sustainability of the GG	• Quantification of the commitments that would need to be addressed if the EC proposal were to materialise, according to AIReF's interpretation • The adjustment required to meet the debt reduction commitment is estimated	• Evolution of revenue and expenditure subject to discretionary decisions taken by governments • RTRP Commitments fiscal reform, modernisation of GG, SR, etc. • Spending commitments (defence, education, R&D, etc.)

PROPOSAL	PROPOSALS
Evaluation of the impact of the RTRP on growth and sustainability	Definition of a national medium- and long-term fiscal strategy Monitoring and evaluation of pension expenditure (sufficiency, contributory nature and intergenerational equity) as part of this strategy Fiscal risk report

In addition, AIReF presents a sensitivity analysis that shows the impact changes in the fundamental variables

2 Demographics and long-term growth

AIReF's demographic projections incorporate the latest information and a revision of the methodology
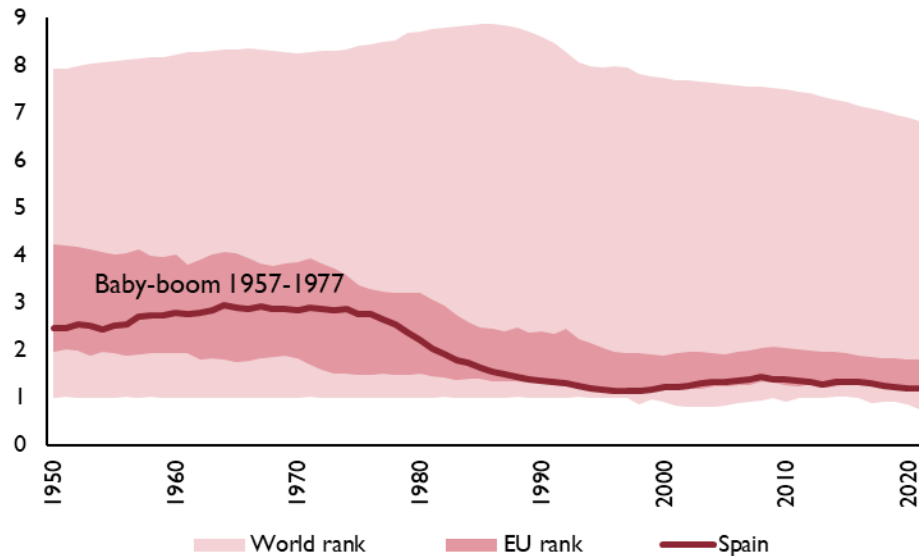
	INE	AIReF
FERTILITY	Interpolation of trends based on a survey of demographers on total fertility rate (TFR) and average age at childbearing, in 15 and 50 years	Extrapolation of fertility rate trends and mean age at childbearing with stochastic models. The long term is anchored to the evolution of other "close" countries
MORTALITY	Projection of life expectancy at birth with a long-term anchor given by demographers (life expectancy at birth in 50 years)	Projection of life expectancy at birth and mortality rates using Lee-Carter models (1992)
MIGRATION	Projection and interpolation on the basis of demographers' answers on migration (inflows and outflows of Spaniards and foreigners) at 15 and 50 years	Gravity model of bilateral migration flows of 232 countries (GDP, demographic structure of each country and network effects)
FREQUENCY	Every two years. Projective horizon of 50 years for the national total and 15 years for the Autonomous Regions (ARs)	At least every two years Projective horizon of 50 years for the national total

METHOD OF COMPONENTS (FERTILITY, MORTALITY AND MIGRATION) AND COHORTS DISTINGUISHING BY SEX, AGE AND NATIONALITY

Spain has very low fertility rates although progressive convergence towards those of the EU is expected

| HISTORIC EVOLUTION	AIREF PROJECTIONS
The Total Fertility Rate in Spain has stood at a very low level in global terms for almost three decades.	The number of children per woman will remain at 1.19 in 2023 and 2024 and would then rise to the average of European countries (1.5 children per woman)

INTERNATIONAL CONTEXT OF FERTILITY (NUMBER OF CHILDREN PER WOMAN)

PROJECTIONS OF THE TOTAL FERTILITY RATE (NUMBER OF CHILDREN PER WOMAN)
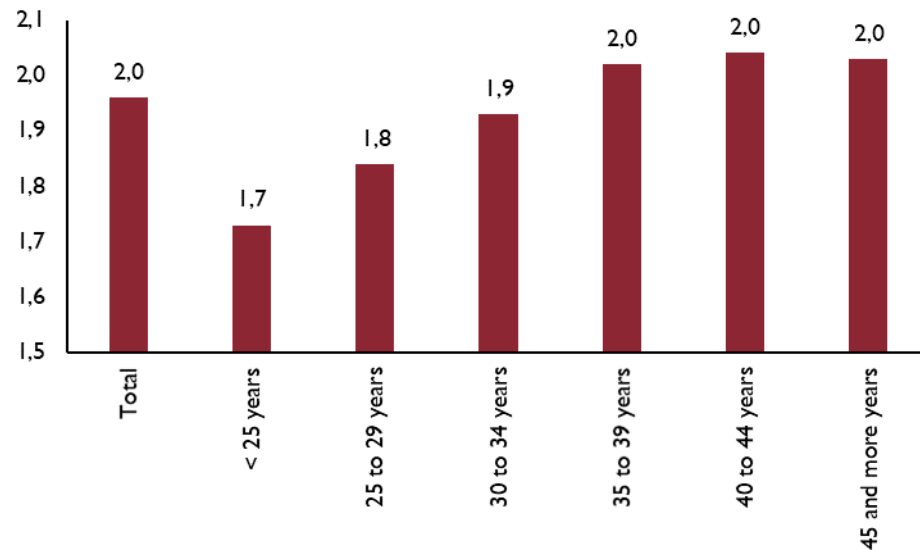

Source: UN and Eurostat
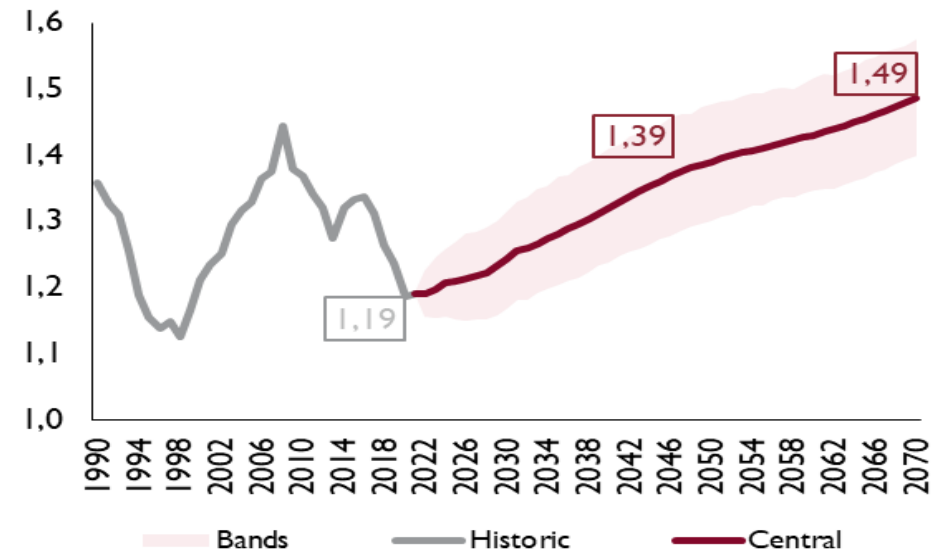
Source: INE and AIReF

Can fertility rise in Spain to the average of European countries?

- Reproductive preferences remain constant at around 2 children
- The effects of the labour reform on the prevalence of temporary employment could alleviate the situation
- In the opposite direction, some regions already have a fertility rate lower than 1 (Asturias)
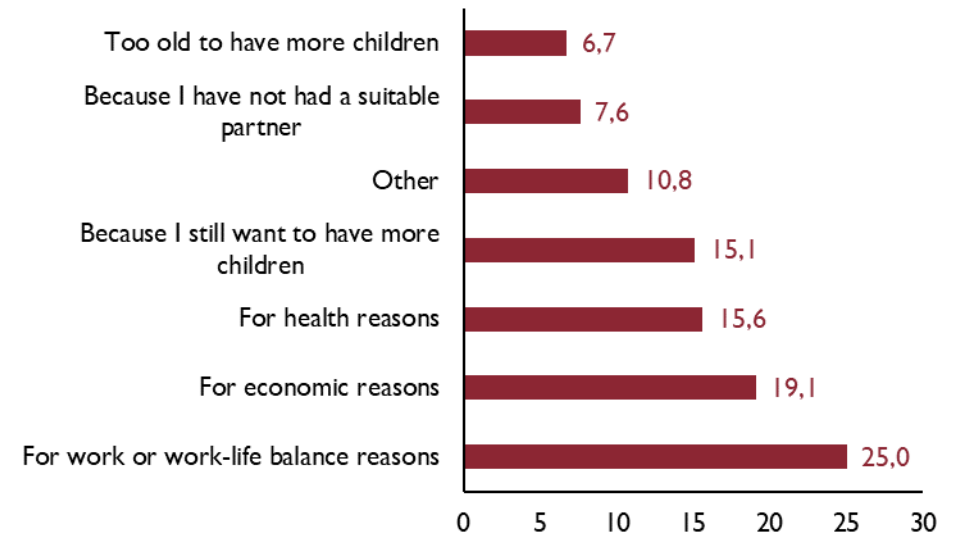
FERTILITY SURVEY 2018

AVERAGE NUMBER OF CHILDREN DESIRED BY WOMEN. ACCORDING TO AGE BRACKET

Age bracket	Value
Total	2,0
< 25 years	1,7
25 to 29 years	1,8
30 to 34 years	1,9
35 to 39 years	2,0
40 to 44 years	2,0
45 and more years	2,0

Source: INE

WOMEN WHO HAVE HAD FEWER CHILDREN THAN DESIRED ACCORDING TO THE MOST IMPORTANT REASON FOR THIS

Reason	Value
Too old to have more children	6,7
Because I have not had a suitable partner	7,6
Other	10,8
Because I still want to have more children	15,1
For health reasons	15,6
For economic reasons	19,1
For work or work-life balance reasons	25,0

Source: INE

Spain has one of the highest life expectancies at birth and it is expected to continue to increase

| RECENT EVOLUTION	AIREF PROJECTIONS	
Spain is one of the countries with the highest life expectancy at birth, especially among women. The increase has slowed in recent decades	AIReF estimates that life expectancy at birth will stand at 89.1 years in 2070	Life expectancy at age 65 will rise to 26 years in 2070, up from 17 in the early 1990s.

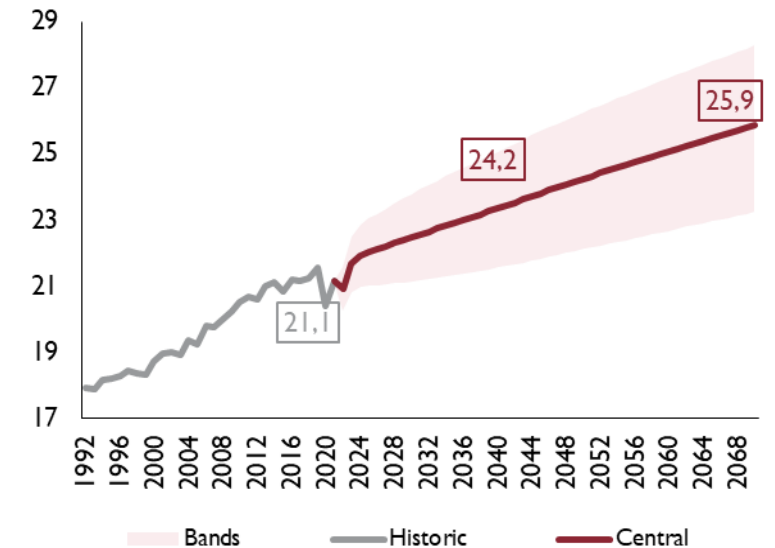**INTERNATIONAL CONTEXT OF LIFE EXPECTANCY AT BIRTH (YEARS)**
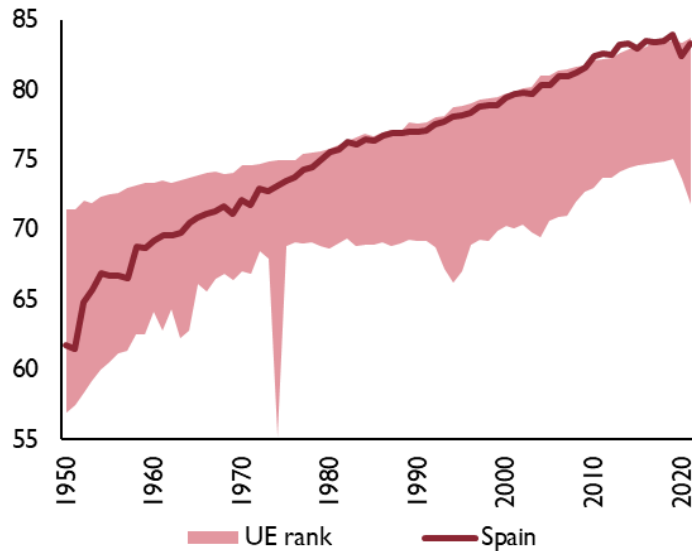
Source: UN and Eurostat

EVOLUTION OF LIFE EXPECTANCY AT BIRTH (YEARS)
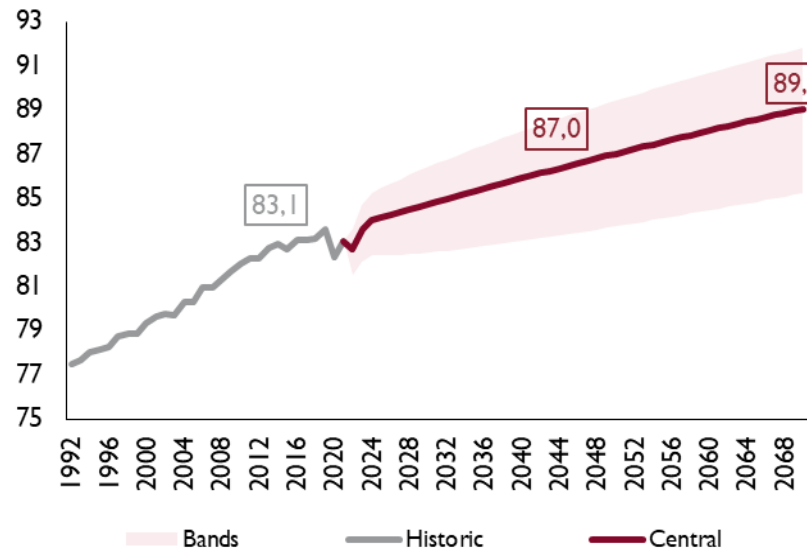
Source: INE and AIReF

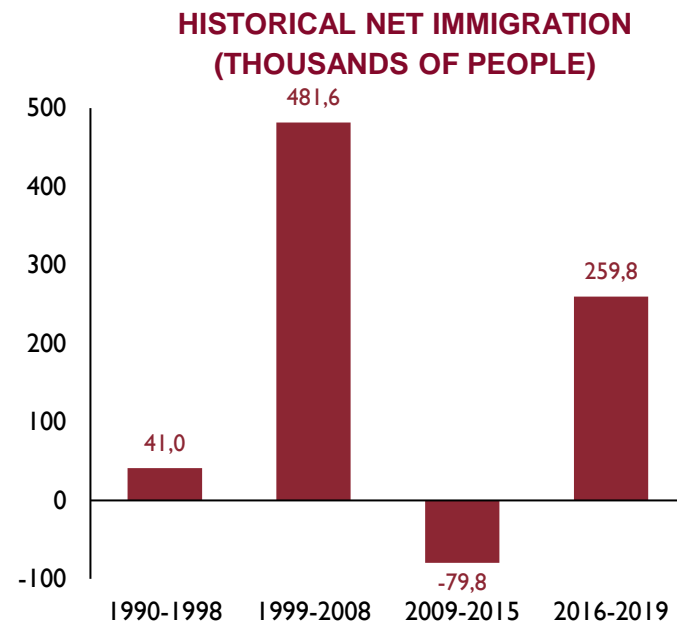**EVOLUTION OF LIFE EXPECTANCY AT 65**

Source: INE and AIReF

Net immigration has been very volatile over recent years. Models suggest a net migration balance of 235,000 people (2022-2050 average)

RECENT EVOLUTION

AIREF PROJECTIONS

Net foreign immigration flows are very dependent on the economic cycle, oscillating significantly.

Average annual net immigration flow of around 235,000 people between 2020 and 2050, rising to almost 339,000 people in the period 2051-2070

With a shift in countries of origin from Morocco, Venezuela, Colombia, Peru and Argentina to some Central African countries, such as Senegal and Nigeria

HISTORICAL NET IMMIGRATION (THOUSANDS OF PEOPLE)

NET IMMIGRATION (THOUSANDS OF PEOPLE)
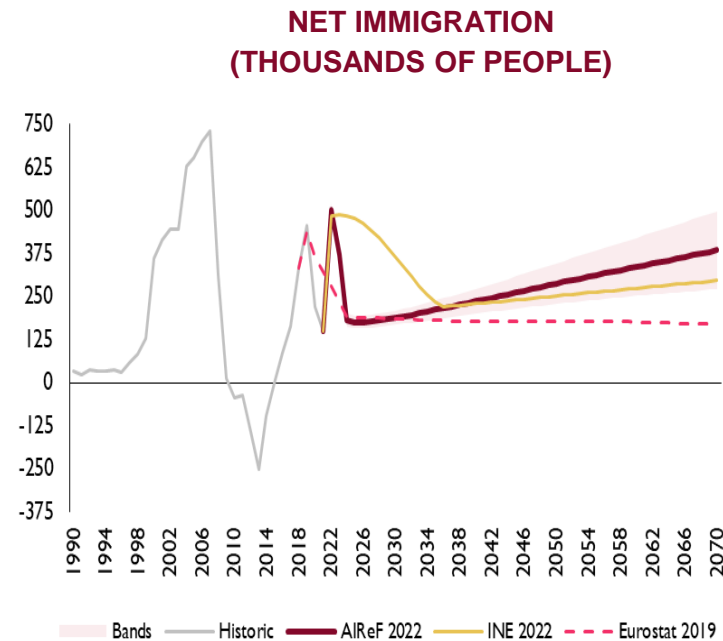
WEIGHT OF POPULATION WITH FOREIGN NATIONALITY

Source: INE, Eurostat and AIReF

Source: INE and AIReF
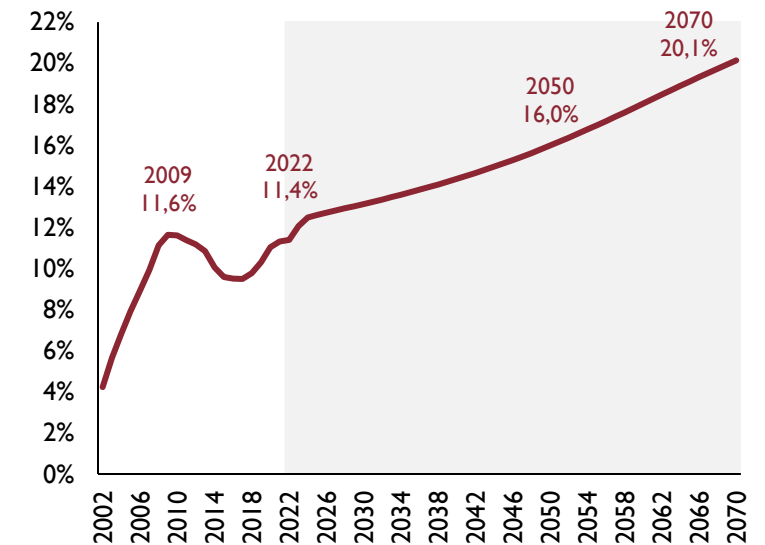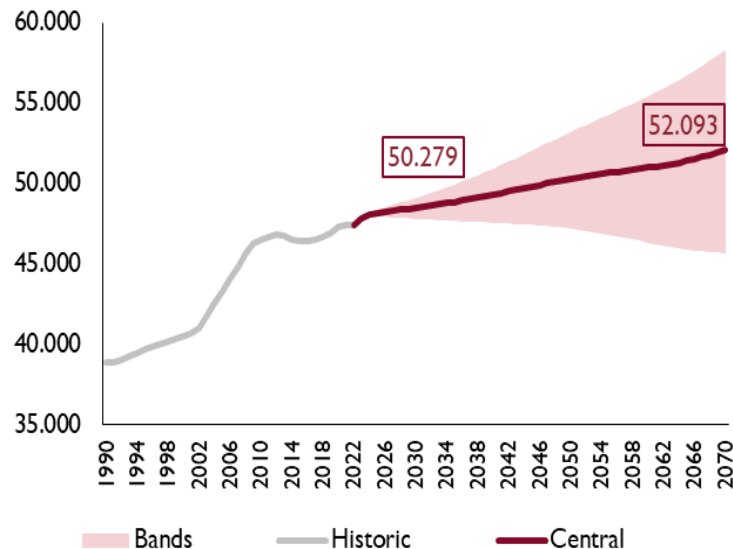
Source: INE and AIReF

The working-age population falls from 2030 and reverses the trend in the 2050s

The resident population will rise from 47.4 million in 2022 to 50.3 million in 2050 and 52.1 million in 2070

The working-age population will remain constant until 2030, to start a progressive decline until 2050, when it would resume a growth trend
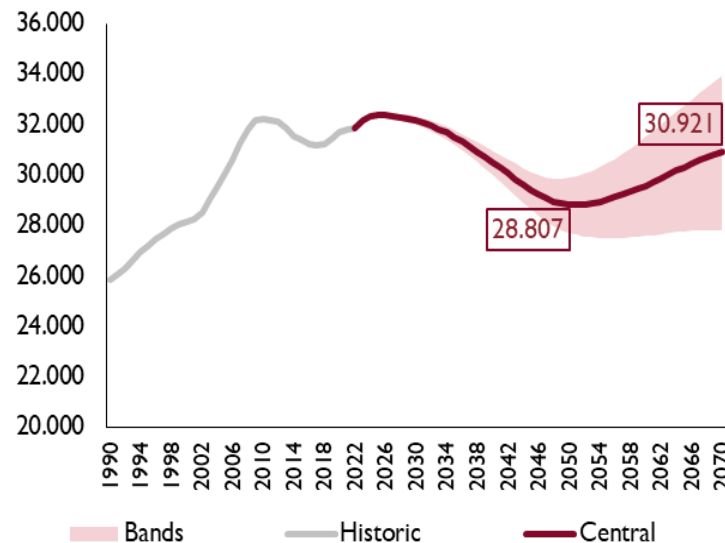
The dependency ratio would peak in 2050 and fall thereafter (baby-boomer death and net immigration)
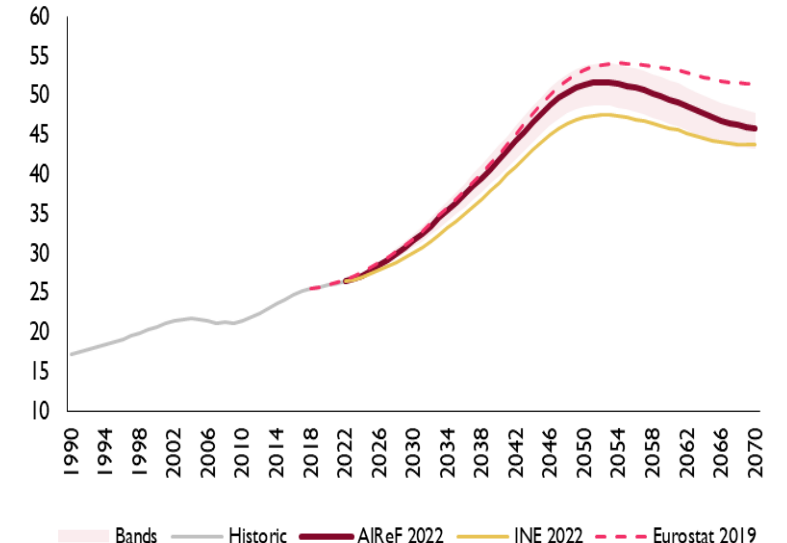
TOTAL POPULATION (THOUSANDS OF PEOPLE)

Source: INE and AIReF

WORKING-AGE POPULATION (THOUSANDS OF PEOPLE)

Source: INE and AIReF

**DEPENDENCY RATIO. OVER 66S (% OF WORKING-AGE POPULATION).**

Source: INE and AIReF

Real GDP growth will remain at around 1.3% on average for 2022-2070

- Real GDP growth has been driven by a strong contribution from the labour factor, while productivity has performed moderately

- Productivity needs to take over to sustain the potential growth of the economy

- The fall in the working-age population will result in a lower contribution of the labour factor to growth despite the expected increase in participation rates (from 65.3% today to 71% in 2070) and the fall in the unemployment rate to 7%

AVERAGE GROWTH IN TOTAL FACTOR PRODUCTIVITY BETWEEN 1999 AND 2019 (%)
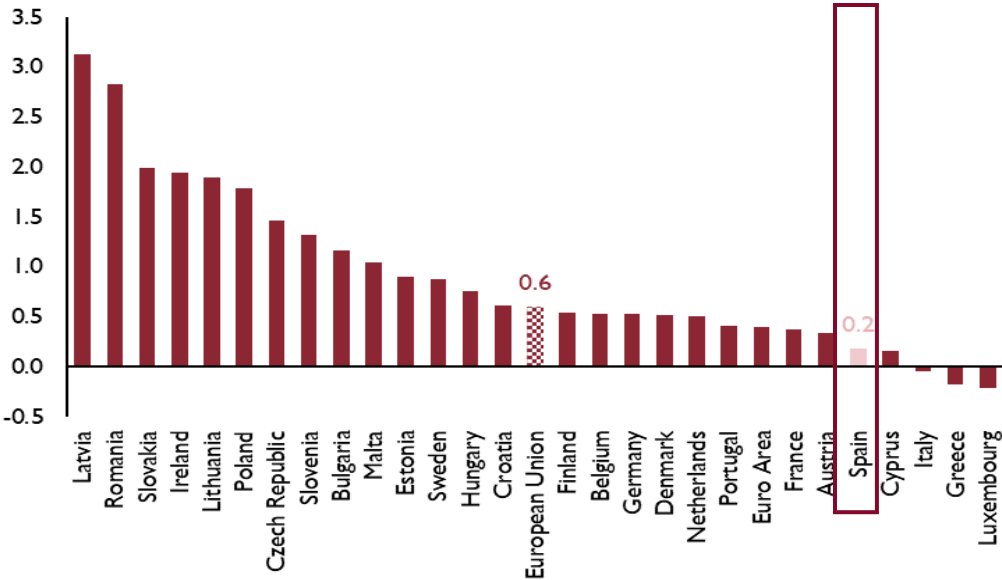
BREAKDOWN OF REAL GROWTH (%)

Source: European Commission

Source: INE and AIReF

3 Baseline scenario

Revenue

REVENUE (% GDP)
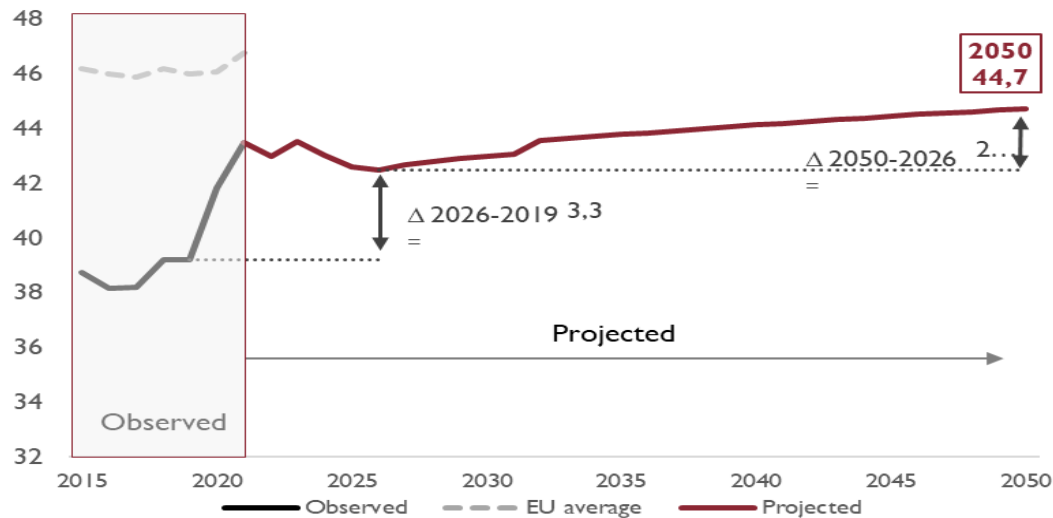
	2021	2026	2035	2050	Δ 2026-2021	Δ 2050-2026	Δ 2050-2021
Non-financial revenue	43,5	42,5	43,8	44,7	-1,0	2,2	1,2
Modelled	36,0	36,0	37,3	38,2	0,0	2,2	2,2
VAT and taxes on products	10,3	10,4	10,4	10,3	0,1	-0,1	0,0
PIT	8,8	9,5	10,1	10,9	0,6	1,4	2,0
Corporate Income Tax	2,7	2,4	2,5	2,8	-0,3	0,4	0,1
Social contributions	14,2	13,7	14,3	14,3	-0,5	0,6	0,1
Not modelled	7,5	6,5	6,5	6,5	-1,0	0,0	-1,0

Source: IGAE and AIReF

- The weight of **VAT and other taxes on products** remains relatively stable
- The weight of **PIT** rises by 2 points of GDP from 2021 to 2050 and an additional 0.5 points up to 2070
- **Corporate Income Tax** increases its weight by 0.1 points of GDP between 2021 and 2050
- **Social contributions** increase their weight over GDP over the projection horizon due to the revenue measures introduced in the baseline scenario, although this is partially reversed up to 2070

Expenditure

- AIReF estimates that **GG expenditure** will rise from **50.4% of GDP in 2021** to **52.4% in 2050 and 52.6% in 2070** in the baseline scenario
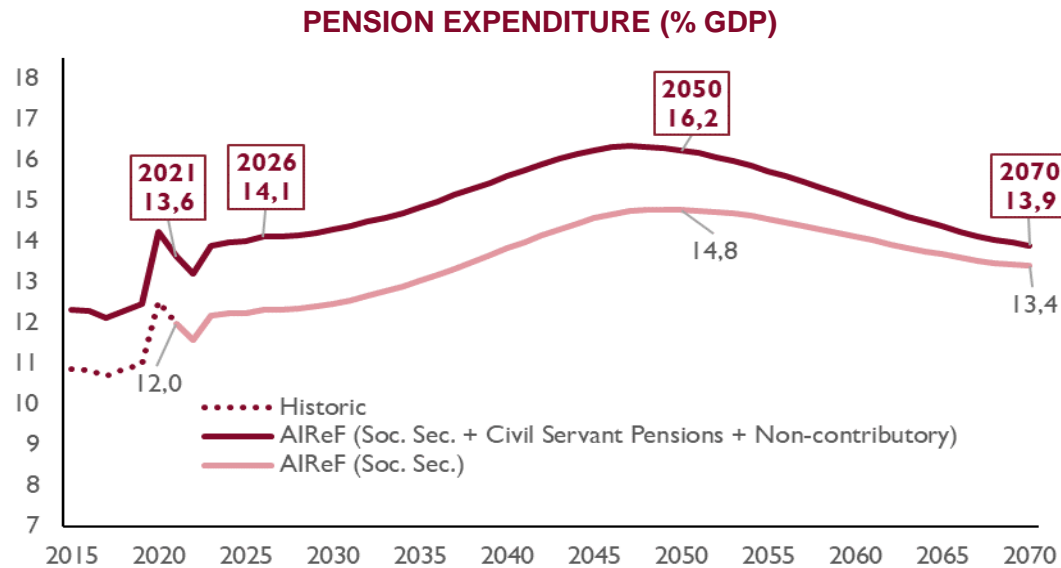- The increase in expenditure is mainly due to the **ageing of the population**, which mainly increases expenditure on pensions, healthcare and long-term care, and the **increase in interest expenditure** resulting from the accumulation of public debt over the projection horizon.

EXPENDITURE (% GDP)

	2021	2026	2035	2050	2070	Δ 2026-2021	Δ 2050-2026	Δ 2070-2050	Δ 2070-2021
Non-financial expenditure	**50,4**	**45,8**	**47,9**	**52,4**	**52,6**	**-4,5**	**6,6**	**0,1**	**2,2**
Modelled	**30,8**	**30,1**	**32,0**	**36,5**	**36,6**	**-0,7**	**6,4**	**0,1**	**5,8**
Pensions	13,6	14,1	14,8	16,2	13,9	0,5	2,1	-2,3	0,3
Interest	2,2	2,5	3,5	5,1	6,9	0,3	2,6	1,8	4,7
Healthcare	7,4	7,1	7,6	8,4	8,4	-0,3	1,3	0,0	1,0
Long-term care	0,8	0,8	1,1	1,7	2,0	0,0	0,9	0,3	1,2
Education	4,6	4,3	3,8	3,8	4,2	-0,3	-0,5	0,4	-0,3
Unemployment	2,2	1,3	1,2	1,2	1,2	-1,0	-0,1	0,0	-1,0
Not modelled	**19,6**	**15,8**	**16,0**	**16,0**	**16,0**	**-3,8**	**0,2**	**0,0**	**-3,6**

Source: IGAE and AIReF

Pension expenditure

PENSION EXPENDITURE (% GDP)

2021 13,6
2026 14,1
2050 16,2
2070 13,9
12,0
14,8
13,4

····· Historic
—— AIReF (Soc. Sec. + Civil Servant Pensions + Non-contributory)
—— AIReF (Soc. Sec.)

Source: Social Security and AIReF

COVERAGE RATE (AVERAGE PENSION / AVERAGE WAGE, %)

2021 62,7%
2026 65,8%
2050 53,9%
2070 50,4%
59,7%
52,0%
50,0%

····· Historic
—— AIReF (Soc. Inc. Tax + Civil Servant Pensions + Non-contributory)
—— AIReF (Soc. Sec.)

Source: Social Security and AIReF

- AIReF estimates that in the baseline scenario, **total pension expenditure** will rise by 2.6 points of GDP between 2021 and 2050 and by 0.3 points of GDP between 2021 and 2070. Social Security spending on pensions would rise by 2.8 points and 1.4 points in the same periods

- The increase in pension expenditure up to 2050 is mainly explained by demographic factors
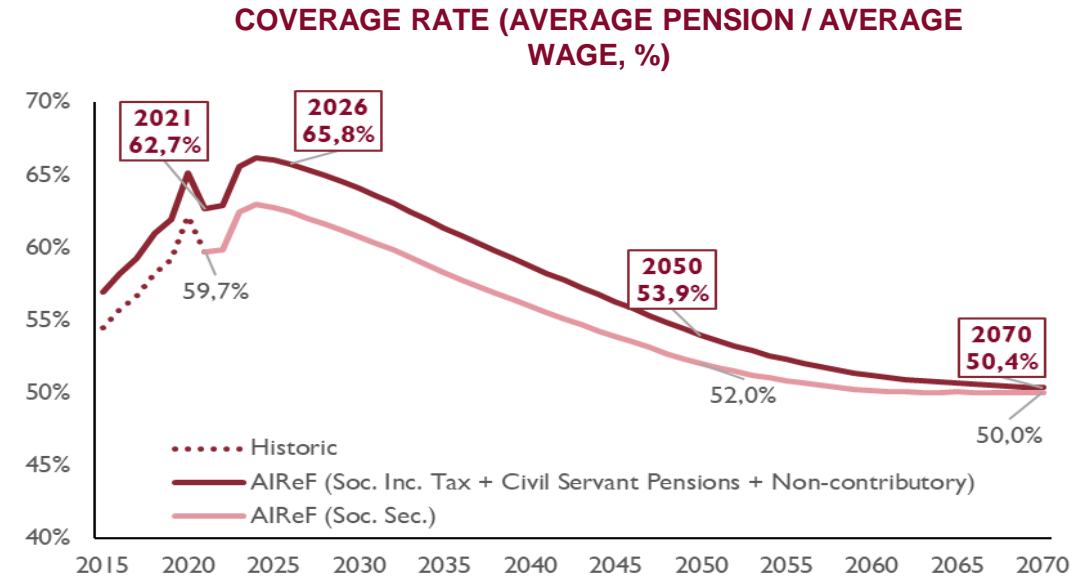
- The **coverage rate of the contributory system** falls over the projection horizon from 62.7% in 2021 to 53.9% in 2050 and 50.4% in 2070

- This fall is explained by wages growing at a higher rate than pensions, which are increased in line with the CPI

Pension reform

The pension reforms approved between 2021 and 2023 result in an **increase in the deficit** of 1.1 points of GDP in 2050 with respect to a scenario without these reforms and with the PRI and the sustainability factor

|	2050	2070
Change in expenditure	2,4	2,3
Increase in pensions with the CPI (elimination of PRI)	2,7	2,5
Elimination of sustainability factor	0,8	1,4
Early retirement	0,0	0,0
Incentives for delayed retirement	-0,8	-1,1
Determination of years for calculating entry pension	0,0	-0,1
Evolution of maximum pension different from Maximum Contribution Bases	-0,4	-0,4
Change in revenue	1,3	1,3
Intergenerational Equity Mechanism	0,4	0,4
Reform of self-employed contributions	0,5	0,5
Evolution of Maximum Contribution Bases	0,4	0,4
Solidarity contribution	0,1	0,1
Impact on deficit	1,1	1,0

Other expenditure related to aging

EXPENDITURE ON HEALTHCARE (% GDP)
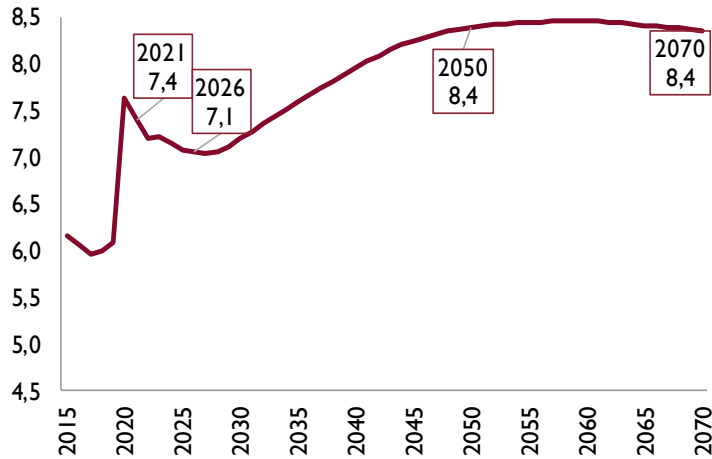
2021
7,4

2026
7,1

2050
8,4

2070
8,4

Source: IGAE and AIReF

EXPENDITURE ON LONG-TERM CARE (% GDP)

2021
0,8

2026
0,8
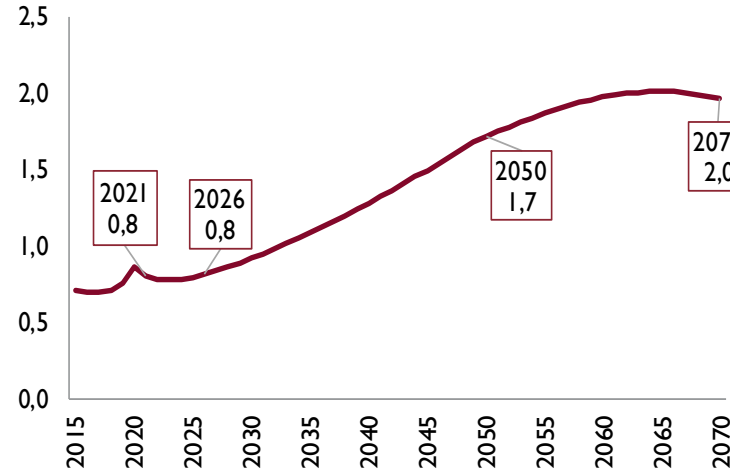
2050
1,7

2070
2,0

Source: IGAE and AIReF

EXPENDITURE ON EDUCATION (% GDP)

2021
4,6

2026
4,3
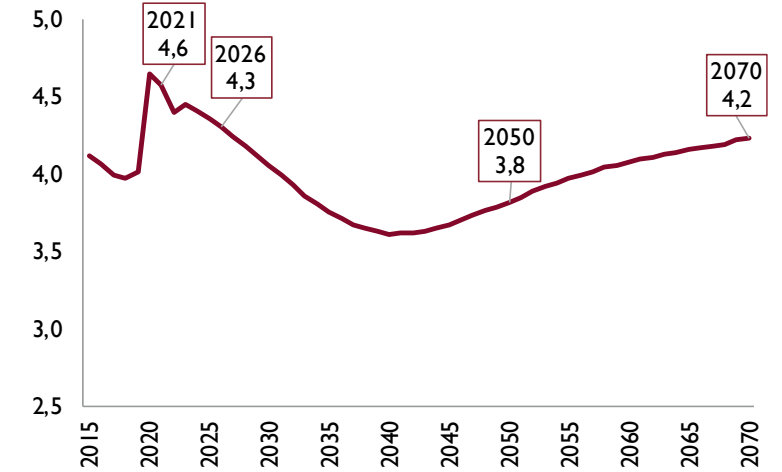
2050
3,8

2070
4,2

Source: IGAE and AIReF

- AIReF projects that **healthcare expenditure will rise** by one point of GDP between 2021 and 2050 and will remain stable until 2070

- Healthcare expenditure will be subject to **additional tensions on top of the demographic ones,** which are being identified in the Healthcare Spending Reviews carried out by AIReF

- **Expenditure on long-term care rises** by 0.9 points from 2021 to 2050 and an additional 0.3 points from 2050 to 2070

- On top of the demographic effect, the projection incorporates an increase in the likelihood of being a beneficiary and growth in expenditure greater than that of income (income elasticity: 1.1)

- **Spending on education falls** by 0.8 points from 2021 to 2050 and then rises by 0.4 points from 2050 to 2070

- The model incorporates assumptions about the **school enrolment rate for each age**, which in the case of older ages is consistent with the evolution of the labour market participation rate

Interest expenditure

In its baseline scenario, AIReF projects that interest expenditure in relation to GDP will gradually and steadily rise from 2.2% to 6.9% in the long term. This means an increase of 2.6 points from 2026 to 2050 and a further 1.8 points up to 2070

INTEREST EXPENDITURE (% GDP)

Source: AIReF
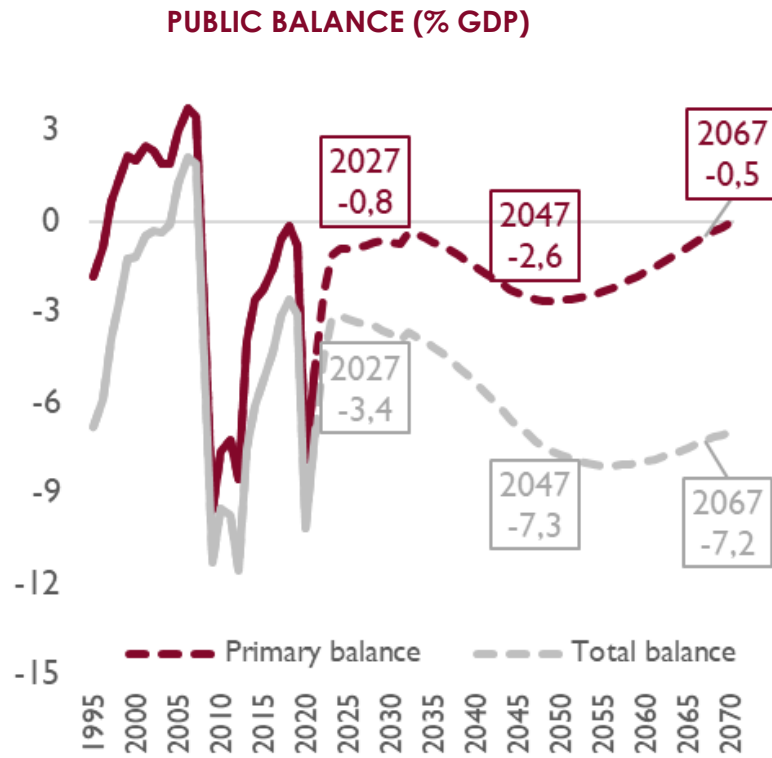
INTEREST RATES (%)
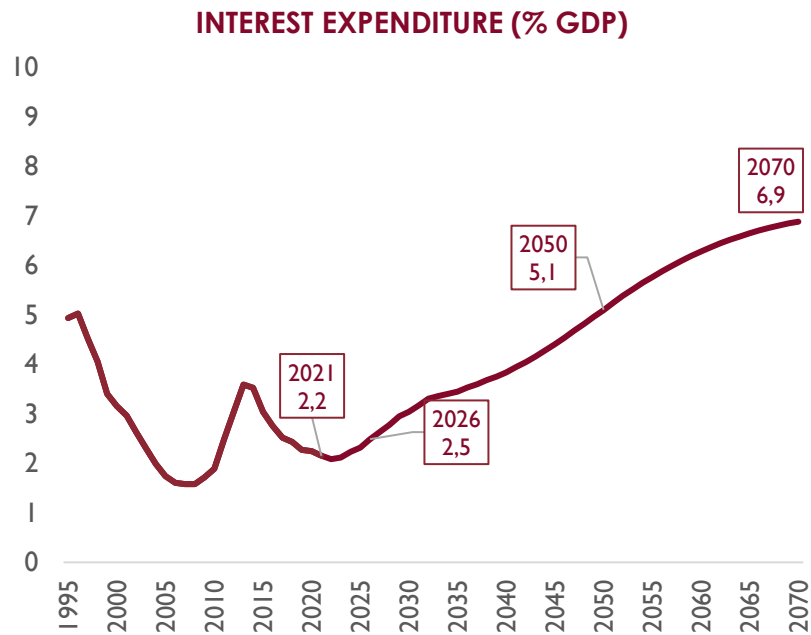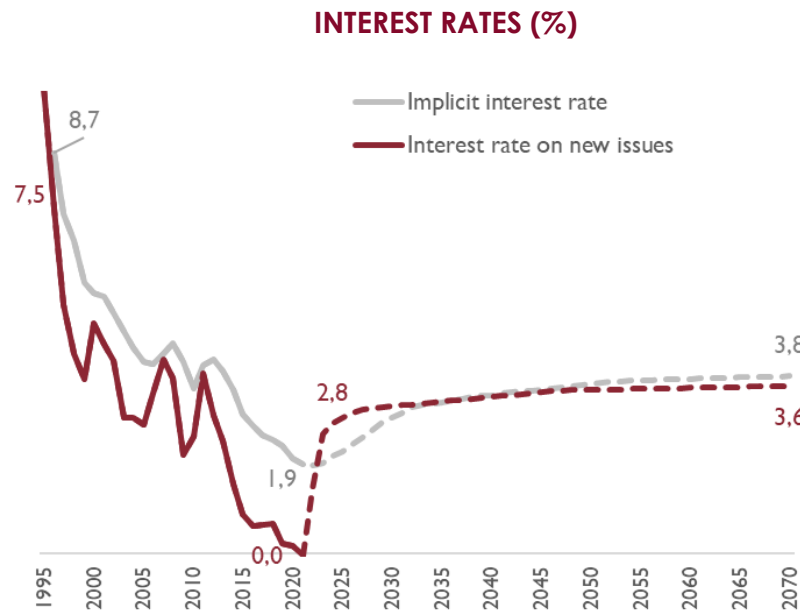
Source: AIReF

- In the short term, the average cost of issuance will quickly rise to around 3% (from a low of 0% in 2021)
- In the medium and long term, the average cost of new issues is projected to increase slightly to around 3.6% in 2070
- This evolution in interest rates will generate a turning point in the implicit debt rate, which will begin an upward path from its minimum value of 1.9% to place it at around 3.8% in the long term
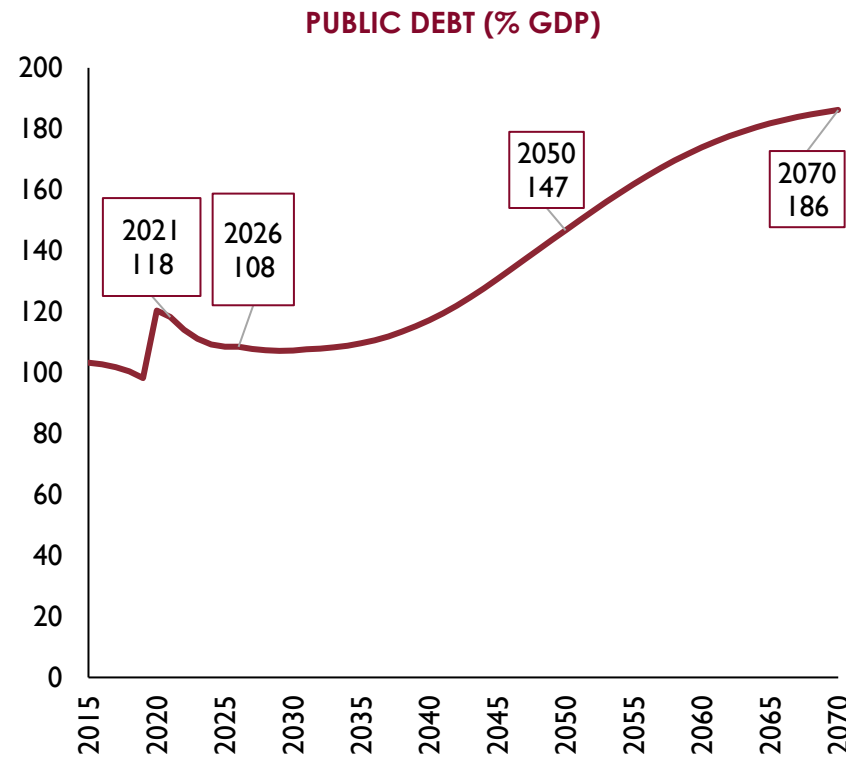
The **high initial level of debt** added to **unbalanced public accounts** will generate an **unfavourable trend in the financial burden** even in a scenario of containment of the cost of debt

Public balance and debt

AIReF projects an **unfavourable evolution of the debt-to-GDP ratio in the medium and long term**.
Based on growth projections, fiscal variables and interest rates,
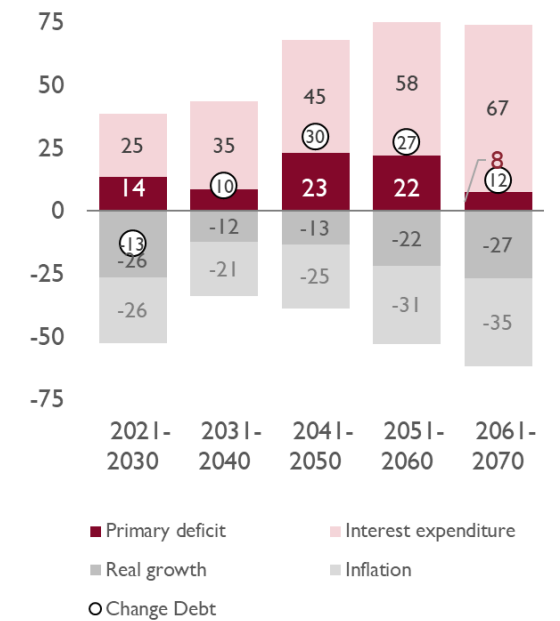the debt ratio is estimated to reach 186% in the long term

PUBLIC BALANCE (% GDP)

2027
-0,8

2047
-2,6

2067
-0,5

2027
-3,4

2047
-7,3

2067
-7,2

— — Primary balance   — — Total balance

Source: AIReF

PUBLIC DEBT (% GDP)

2021
118

2026
108

2050
147

2070
186

Source: AIReF

CONTRIBUTION TO ITS CHANGE BY DECADE (GDP POINTS)

	2021-2030	2031-2040	2041-2050	2051-2060	2061-2070
	25	35	45	58	67
	14	10	23	22	8
Change Debt	13	10	30	27	12
	-26	-12	-13	-22	-27
	-26	-21	-25	-31	-35

■ Primary deficit   ■ Interest expenditure
■ Real growth   ■ Inflation
○ Change Debt

Source: AIReF

# 3 Alternative scenarios

Increased potential growth

- If structural reforms are implemented to increase the potential growth of the Spanish economy over the projection horizon by 0.3 points a year, **Social Security expenditure on pensions would moderate** to 13.5% in 2050 and 12% in 2070.

- The **public deficit** would fall from the 7.7% of the baseline scenario to 5.2% in 2050 and from 7% to 2.7% in 2070 due to the moderation of pension expenditure and interest expenditure associated with a lower level of debt

- **Debt** would fall to **117% in 2070**, down from 186% in the baseline scenario

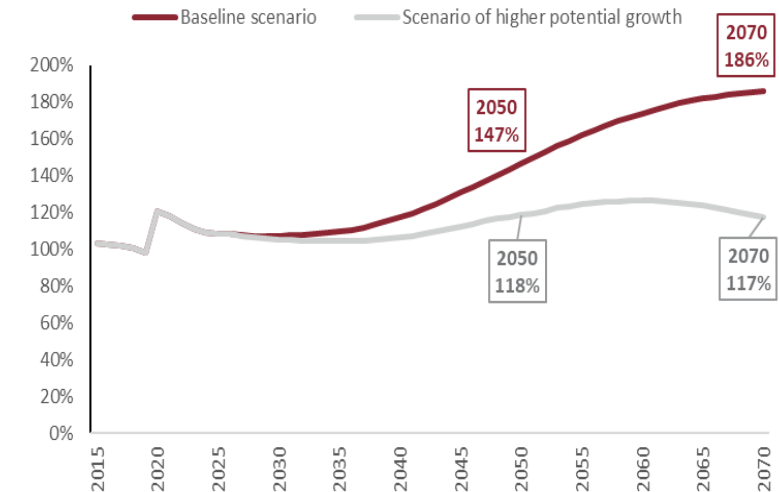**SOCIAL SECURITY EXPENDITURE ON PENSIONS (% GDP)**
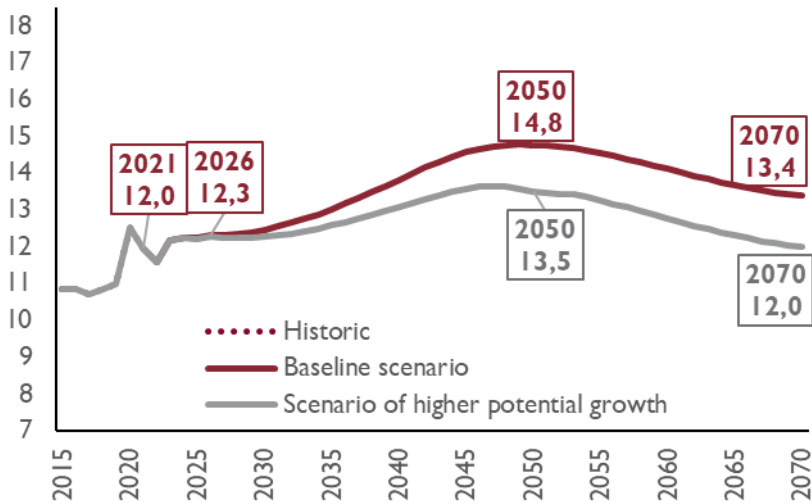
Source: Social Security and AIReF

DEFICIT (% GDP)
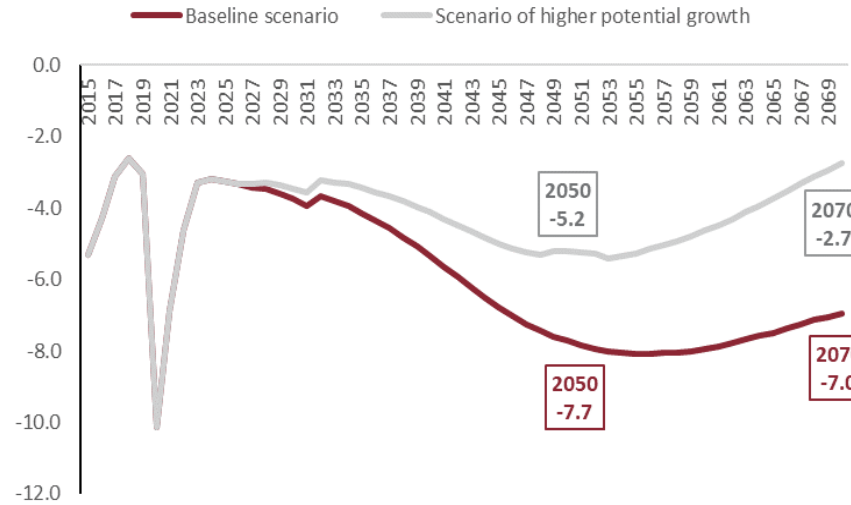
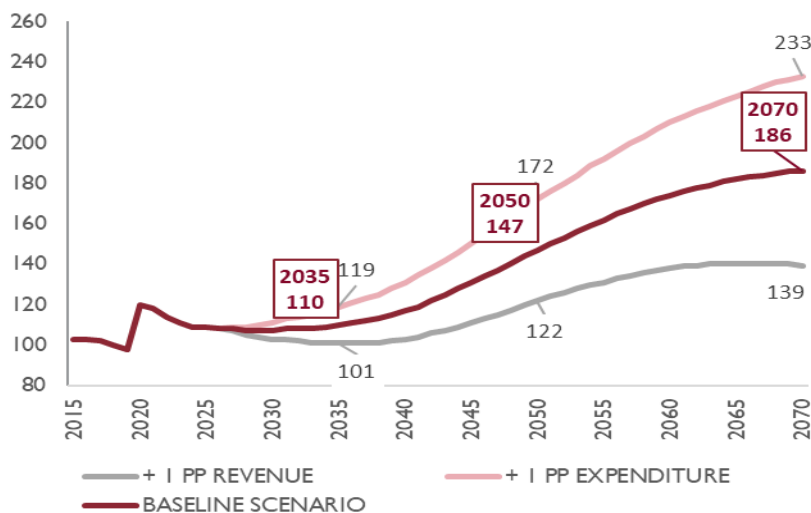**Source:** IGAE and AIReF

DEBT (% GDP)

Source: IGAE and AIReF

Discretionary revenue and expenditure

- A reduction in the primary deficit of one point from 2027 would result in **a decrease in the debt of 25 points of GDP in 2050 and 47 points in 2070.** This reduction in the primary deficit would be increased by a reduction in interest expenditure, which would lead in 2070 to a **reduction in the nominal deficit of 2.7% of GDP**

- In the opposite direction, **a structural increase in the deficit, via revenue or expenditure, of one additional point from 2027 would result in an increase of 25 GDP points of debt in 2050 and 47 points in 2070**
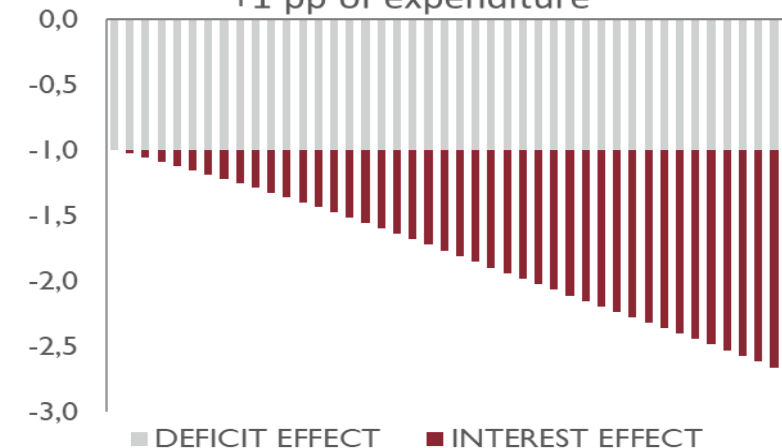

DEBT (% GDP)

Source: IGAE and AIReF

ANNUAL DEFICIT INCREASE (% GDP)

+1 pp of revenue
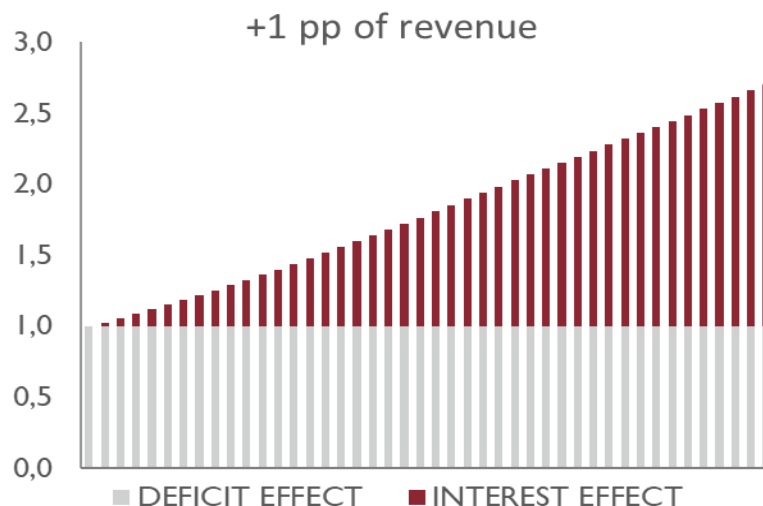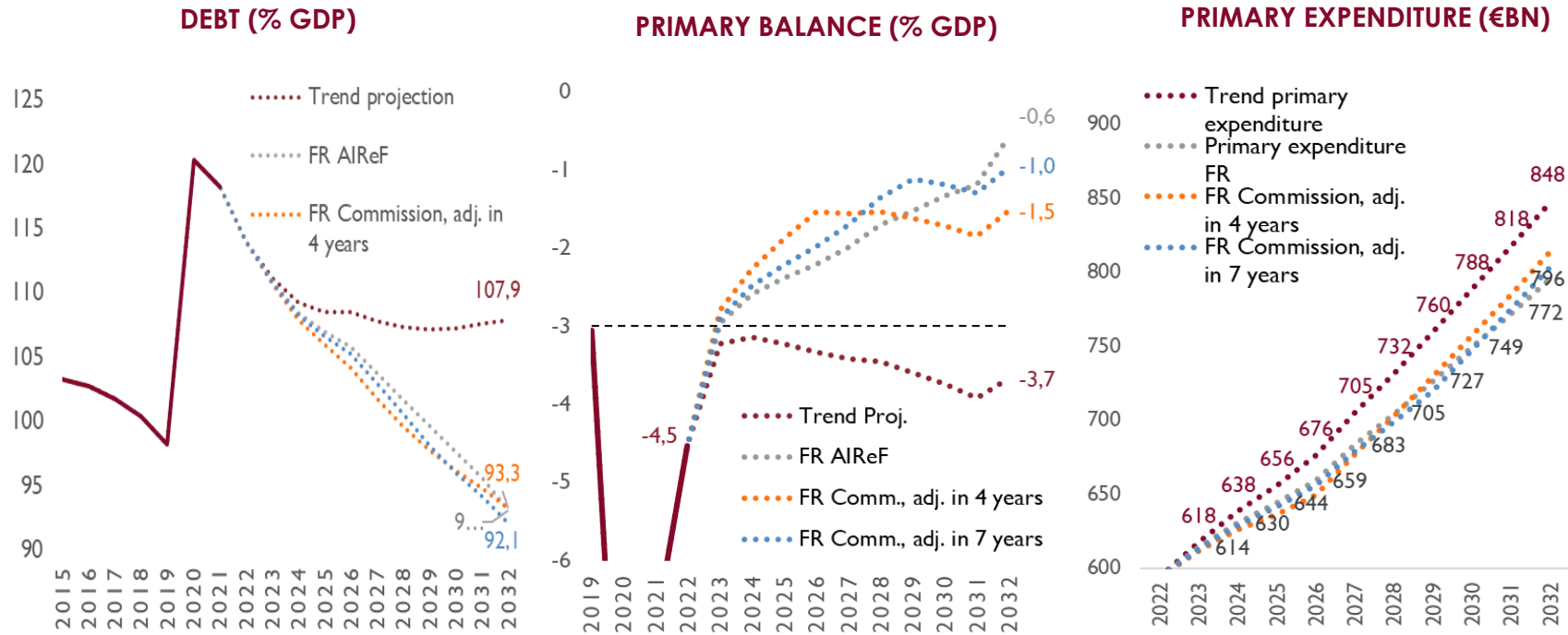
Source: AIReF

+1 pp of expenditure

Source: AIReF

Scenario of compliance with fiscal rules

- On November 9th, the European Commission published a Communication setting out orientations for a reformed EU economic governance framework
- This Communication is the starting point for the debate which will culminate in a reform proposal expected in 2023.

▪ The proposal shares important elements with AIReF's Technical paper

▪ In both cases, a greater medium-term orientation of fiscal policy is proposed on the basis of primary expenditure net of revenue measures as an operational variable

▪ Many of the elements contained in the Commission proposal are yet to be defined. However, the Opinion presents preliminary results of what the Commission proposal could entail, according to AIReF's interpretation

▪ According to AIReF's current projections, the **adjustment that would be necessary** over the next four years to guarantee with an 80% probability that debt remains on a decreasing path over the next decade would amount to **0.43 pp per year**

▪ Simulations show that an early fiscal strategy to contain debt dynamics and an increase in the interest burden will avoid the need for further medium- and long-term adjustments

DEBT (% GDP)

PRIMARY BALANCE (% GDP)

PRIMARY EXPENDITURE (€BN)

Source: AIReF

Pension expenditure rule

The Second Additional Provision sets a limit of **pension expenditure at 15% of GDP**, as long as the **revenue measures** approved since 2020 have an impact of at least **1.7% of GDP** (Average 2022 – 2050)

Supervision

- Every three years shared asymmetrically by AIReF, EC and Government
    - ✓ AIReF does not evaluate expenditure forecasts
    - ✓ Restrictions on the valuation of revenue measures (Government and EC assumptions)

Correction mechanism

- Approval of pension expenditure or revenue measures to offset the deviation detected
    - ✓ AIReF estimates the impact of the measures
- In the event that the Government's proposal is not approved, an increase in contributions

|	Pension expenditure 2022 – 2050	Impact of revenue measures 2022 – 2050	Does it comply with the expenditure rule?	Deviation from the expenditure rule limit
AR2021 + AIReF estimate of expenditure measures	14,4	1	No	0,1
Government	?	1	Yes	
AIReF – Baseline Scenario	15,1	1	No	0,8
AIReF – Higher potential growth	14,5	1	No	0,2

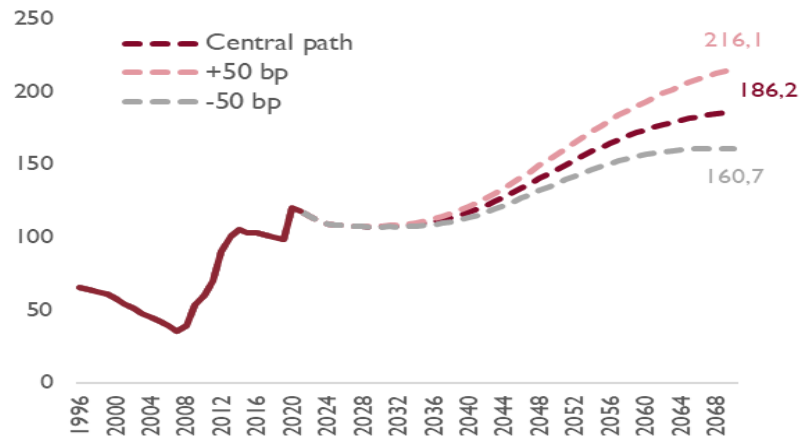**The result of the expenditure rule is highly sensitive to the assumptions and methodology used for its calculation**

4 Sensitivity analysis

Sensitivity analysis

INTEREST (% GDP)
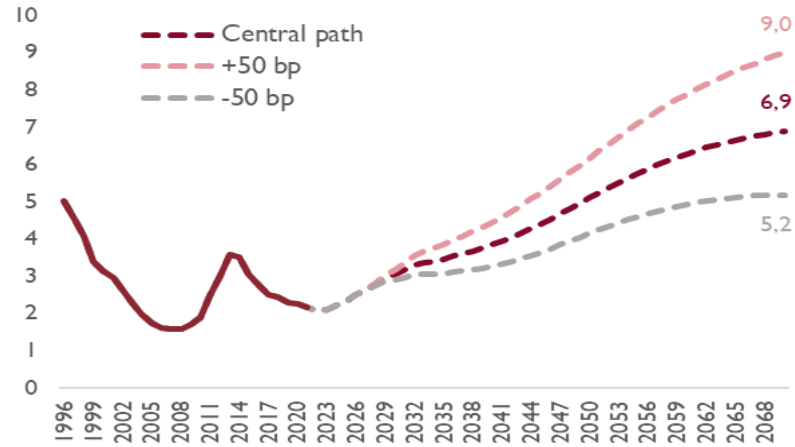
DEBT (% GDP)

Source: AIReF

DIFFERENCES WITH RESPECT TO THE CENTRAL SCENARIO. PENSION EXPENDITURE

	Scenario Description	2035	2050	2070
High fertility	*Higher convergence value*	0,0	-0,1	-0,3
Low fertility	*No convergence value*	0,0	0,0	0,2
High life expectancy	*No convergence value (+1.2 years)*	0,1	0,3	0,5
Low life expectancy	*INE estimate*	-0,1	-0,3	-0,4
High migration	*80th percentile distribution (15% higher)*	-0,1	-0,4	-0,6
Low migration	*20th percentile distribution (15% lower)*	0,1	0,3	0,6
High productivity	*Convergence to 1.3*	-0,1	-0,4	-0,4
High participation rate	*+2 points in 2050*	-0,3	-0,6	-0,7
High unemployment	*Convergence at 10%*	0,2	0,4	0,3
Historic unemployment	*Convergence at 16.2%*	0,6	1,6	1,2

DIFFERENCES WITH RESPECT TO THE CENTRAL SCENARIO. ACCUMULATED DEBT

	Scenario Description	2035	2050	2070
High fertility	*Higher convergence value*	0,5%	0,0%	-8,3%
Low fertility	*No convergence value*	0,5%	0,4%	5,6%
High life expectancy	*No convergence value (+1.2 years)*	0,7%	2,9%	8,2%
Low life expectancy	*INE estimate*	0,3%	-1,8%	-8,7%
High migration	*80th percentile distribution (15% higher)*	-0,5%	-6,4%	-26,8%
Low migration	*20th percentile distribution (15% lower)*	1,7%	12,1%	27,9%
High productivity	*Convergence to 1.3*	-1,2%	-11,0%	-32,9%
High participation rate	*+2 points in 2050*	-2,6%	-11,7%	-25,6%
High unemployment	*Convergence at 10%*	3,2%	12,9%	24,0%
Historic unemployment	*Convergence at 16.2%*	8,9%	42,1%	82,5%

5 Proposals

Proposals

- **Structure a national medium- and long-term fiscal strategy with the participation of all tiers of government that includes a comprehensive reform of the national fiscal framework to ensure the sustainability of the GG**

- **Monitor and evaluate the impact of pension reforms and the future evolution of pension expenditure in terms of expenditure and sufficiency, contributory nature and, particularly, intergenerational equity as part of the design of the medium- and long-term fiscal strategy**

- **Ensure consistency and coherence among all fiscal rules**

- **Attendance of AIReF representatives at meetings of the Working Group on Ageing as observers**

- **Agreement to regulate the necessary exchanges of information and relations between AIReF and the Government**

- **Publish the forecasts, assumptions and methodology used to determine the levels of expenditure and impact of measures**

- **Evaluate public personnel spending and human resources policy in the National Health System**

- **Design a governance model for evaluating the RTRP over the coming years**

- **Draw up a report on specific fiscal risks**

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