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MID-LONG TERM TRENDS FOR THE PENSION, HEALTH AND LONG-TERM CARE SYSTEMS

Update of the Report n. 23

2020
2021
2022
2023

*MINISTRY OF ECONOMY AND FINANCE
STATE GENERAL ACCOUNTING DEPARTMENT
General Inspectorate for Social Expenditure*

**MID/LONG-TERM TRENDS FOR THE PENSION,
HEALTH AND LONG-TERM CARE SYSTEMS**

Projections of the State General Accounting Department
updated as of November 2022

This Report was prepared in collaboration with
Sogei – Forecasting and Statistical Analysis Models

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Mid/long-term projections

Introduction

This report presents the medium/long-term analytical projections for pension, health and long-term care (LTC) expenditures prepared by the State General Accounting Department (RGS). These projections are based on RGS models updated to November 2022 following the release of the macroeconomic framework underlying the revised and integrated version of Update of the Economic and Financial Document (NADEF) 2022, approved by the Council of Ministers on 4 November 2022. The projections include forecast scenarios defined at both national and European level¹.

The outbreak of the Covid-19 pandemic and the measures taken to contain its spread have had a profound social and economic impact. Given the severity of this unprecedented shock, the global economy and, more specifically, the Italian economy entered a deep recession in 2020, with effects more severe than those of the 2009 financial crisis.

In 2021, the Italian economy returned to growth and experienced a strong recovery. However, since the early months of 2022, the economic outlook has gradually become less favourable. Persistent supply-side bottlenecks have led to a sudden increase in commodity prices and inflation has started to rise. In this context, the crisis caused by the conflict in Ukraine has further exacerbated geopolitical tensions and macroeconomic volatility. Against this backdrop of uncertainty about the intensity and duration of this composite crisis framework, forecasting and building medium- to long-term scenarios represents an extremely complex exercise, especially over a multi-decade horizon.

Taking into account these caveats, and in line with the approach taken in previous Reports, the current forecasts are based on two different reference scenarios: the National Scenario, prepared mainly for domestic purposes in line with the demographic projections drawn up by ISTAT with base year 2021 and the EPC-WGA baseline scenario, defined at the European level by the Economic Policy Committee - Working Group on Ageing of the Ecofin Council (EPC WGA).

It should be noted that Eurostat has planned to publish by March 2023 the updated demographic projections (EUROPOP23) for the next Ageing Report of the European Commission and the Working Group on Ageing of the Economic Policy Committee of the European Council (EPC-WGA)². For this new set of projections, Eurostat is expected to take into account the new ISTAT demographic projections with a base year of 2021.

Short-term reference legislation

The projections are made on the basis of the legislation in force in November 2022 and therefore do not take into account the impact of the measures laid down in the Budget

¹ For the original Italian version of this abridged report see: RGS, 2022, Le Tendenze di medio-lungo periodo del sistema pensionistico e socio-sanitario, Rapporto n. 23 – Nota di aggiornamento (https://www.rgs.mef.gov.it/_Documenti/VERSIONE-I/Attivit-i/Spesa-soci/Attivita_di_previdone_RGS/2022/Rapporto-n23-Nota-Aggiornamento_30112022.pdf).

² For the Report published in May 2021 see: European Commission, “The 2021 Ageing Report”, Economic and Financial Affairs, Institutional Papers 148 (https://ec.europa.eu/info/sites/default/files/economy-finance/ip148_en.pdf)

Law 2023-2025, which are included in the summer Report following the presentation of the Economic and Financial Document 2023.

The forecast of pension expenditure as a percentage of GDP is based on unchanged legislation in force in November 2022 and, therefore, includes the measures adopted with the 2022 Budget Law³, as well as the higher burdens resulting from the measures provided for in Decree-Law No. 115/2022 (converted into Law No. 142/2022), with reference to those in favour of pensioners⁴. The projection also takes into account the interventions implemented with previous measures, such as Decree-Law No. 4/2019, converted into Law No. 26/2019. Among other things, this law provided for the experimental introduction of an early retirement channel for those who reach a minimum age of 62 and a minimum contribution period of 38 years during the 2019-2021 three-year period⁵. In addition, Law 26/2019 also established, for the age-independent retirement channel, a freeze for the years 2019-2026 on the adjustment mechanism of the seniority contribution requirement to changes in life expectancy⁶.

Given their temporary nature, these measures are relevant in the short term; however they also have medium- to long-term structural effects.

As regards the pension system, the forecasts take into account the automatic adjustment of both the transformation coefficients to changes in mortality and the pension requirements to changes in life expectancy, which are scheduled to take place every two years starting in 2021⁷, except for the temporary freeze on adjustments to the seniority channel, which ends in 2026. The size of these adjustments is determined in line with the demographic assumptions of the reference scenarios⁸.

With regard to health expenditure, the projections include the updating of baseline values and of the institutional regulatory framework. On the basis of current legislation, the financial effects of the renewal of the economic treatment of staff employed by and under contract to the NHS⁹ for the three-year period 2019-2021 are incorporated, as well as the expenditures related to the implementation of the National Recovery and Resilience Plan (NRRP)¹⁰ and the planned commitments to strengthen the performance of the NHS¹¹,

³ With regard to pensions, the Law No. 234/2021 (Budget Law 2022) provides for the extension of the 'Opzione donna', i.e. the measure allowing early retirement with contribution-based recalculation of pension benefits, to women who, in 2021, will have accrued 35 years of contributions and will be 58 years old if they are employees and 59 years old if they are self-employed. Once the joint requirement has been met, the first pension payment is postponed by 12 months for employees and 18 months for the self-employed. Law No. 234/2021 also provides for the extension of early retirement channel for persons who will reach the age of 64 and 38 years of contributions in 2022 (the so-called Quota 102), with a corresponding starting date regime of 3 months for private sector employees and 6 months for public sector employees.

⁴ In short, these measures consist of a revaluation of pensions by bringing forward the adjustment by 0.2% from 2023 to 2022 (relative to the inflation rate recorded in 2021) and an increase of 2 percentage points for pensions up to EUR 35,000, limited to the monthly instalments of October-December (including the 13th monthly payment).

⁵ Once the joint requirement has been met, the first pension payment is postponed by 3 months for private sector employees and 6 months for public sector employees.

⁶ Between 2019 and 2026, retirement is subject to a contribution period of 42 years and 10 months for men and 41 years and 10 months for women, with a postponement of the first pension payment by 3 months.

⁷ The projections are based on the regulatory framework in force at the time of drafting the revised and integrated version of the NADEF 2022. The adjustments are automatic, as they are regulated by a procedure that falls entirely within the scope of administrative action and guarantees the certainty of the dates set for future revisions. In this respect, it should be noted that the Ministerial Decree of 27 October 2021, published in the Official Gazette on 10 November 2021, approved the adjustment of the pension eligibility conditions with effect from 2023, with a zero increase, as in 2021. In addition, the Directorial Decree of 1 December 2022, published in the Official Gazette no. 294 of 17 December 2022, set the adjustment of the transformation coefficients with effect from 1 January 2023.

⁸ Clearly, the adjustments that will effectively be applied will be determined on the basis of survival probabilities and life expectancy as measured by Istat.

⁹ This refers to personnel providing general medical care and in-house outpatient specialist medical care.

¹⁰ More specifically, almost EUR 3,600 million is included in the years 2022-2026 under "Mission 6: Health".

¹¹ With reference to the 2022 Budget Law, the forecasts take into account the charges for which a specific reason for expenditure is identified drawing from the financial resources for the standard national health requirements to which the State

including in terms of the timeliness of response to health emergencies. The forecast also takes into account the measures introduced by Article 40, paragraph 1 of Decree-Law No. 50/2022 and Law No. 111/2022, which provide for an increase in NHS funding of EUR 1,200 million in 2022, in particular to contribute to the higher expenditure expected as a result of the increase in energy costs and the lingering effects of the pandemic. An additional EUR 400 million is allocated to the NHS by DL n.144/2022, published in the Official Gazette on 23/09/2022. The forecast also includes, as decrease in expenditure, revenues from a pay-back on pharmaceuticals of EUR 850 million and a pay-back on medical devices of EUR 500 million, on the basis of the enforcement of the regulatory changes introduced by Article 18 of Decree-Law No. 115/2022 also aimed at collecting the pay-back.

As for Long-term Care expenditure, the forecast also includes, on the basis of a preliminary technical hypothesis, the costs of financing a number of projects funded by the NextGenerationEU programme, in particular those aimed at promoting a process of deinstitutionalisation of the elderly, strengthening home-based social services and providing additional social services to support people with disabilities and to counter marginalisation (Mission 5 of the NRRP). These costs amount to a total of EUR 915 million by 2026.

Short- and medium/long-term structural assumptions for the RGS National baseline and for the EPC-WGA baseline scenarios

The update of the forecasts concern both the "national base" scenario and the "EPC WGA baseline" scenario, agreed at European level. With regard to the short-term macroeconomic outlook, until 2025 both scenarios are consistent with the short-term forecasts underlying the public finance framework under current legislation contained in the revised and integrated version of the 2022 NADEF for the years 2022-2025. The updated projections point to annual average GDP growth of 1.8% over the four years covered.

Historical data for all macroeconomic variables (i.e. for the years 2021 and earlier), are consistent with National Accounts data released by ISTAT last September. In 2021, GDP rose by 6.7% in real terms, 0.7 points higher than the growth forecast in the DEF Update Note 2021 (6.0%).

As for the national baseline scenario, the demographic component incorporates the assumptions underlying the 2021-based population forecast released by ISTAT in August 2021 (see Box 1 for a synthetic description of the main differences of the new demographic projections vis-à-vis the previous 2020-based ones). The projection is based on a stochastic methodological approach, which results in a wide range of population forecasts, each one with an assigned probability degree. Given the variability of the results, these forecasts, however, are not suitable for use as demographic basis for other kinds of projection exercises. In order to overcome this issue Istat has developed a specific population forecast, in addition to the stochastic simulations, referred to as the "median" population. This forecast, in fact, follows the traditional deterministic approach with demographic parameters defined as a function of the median value of the distributions used for the stochastic simulations.

Overall, the demographic parameters of the national baseline scenario, updated with the new ISTAT population forecast, are specified as follows (see Table 1): (i) the fertility rate increases slightly from 1.25 in 2021 to 1.55 in 2070, with an almost linear progression, (ii) life expectancy in 2070 reaches 86.5 years for men and 89.5 years for women, with an

contributes (Article 1, paragraph 258 et seq. of Law No. 234 of 2021). It is also worth reminding that for the year 2021 a fund has been allocated in favour of the regional health services for the expenses related to the Covid-19 emergency (art. 16, paragraph 8-septies of Decree-Law No. 146 of 2021).

increase of 6.5 and 4.9 years, respectively, compared to 2021; and iii) the net migration flow averages 130,000 per year with a decreasing profile.

Table 1: Demographic assumptions – National baseline scenario

		2010	2020	2030	2040	2050	2060	2070
Istat demographic assumptions (1) Median population	Fertility rates	1.46	1.24	1.37	1.45	1.50	1.54	1.55
	Life expectancy							
	- male	79.3	79.8	82.2	83.6	84.7	85.7	86.5
	- female	84.3	84.5	86.2	87.2	88.1	88.8	89.5
	Annual net immigration (thousands)	380	88	136	131	127	124	118
	Elderly dependency ratio ⁽²⁾	31.1	36.4	44.4	58.8	65.3	63.6	62.8

(1) Istat (2022). "Previsioni della popolazione residente e delle famiglie. Base 1/1/2021".

(2) Population of 65 and over as a percentage of population 15-64. Values in %.

Turning to the National baseline macroeconomic assumptions (see Table 2), supposing that the effects of the ongoing crisis have only a short-term and temporary impact, the structural evolution of labour market variables, apart from the effects induced by demographic dynamics, mainly reflects the updated database which, in turn, feeds the activity rate forecast module. This replicates the interaction between schooling, education levels and participation rates. At the end of the forecast period, the unemployment rate, consistent with previous forecast rounds, converges to 5.5% in 2063 and remains constant afterwards. At the end of the forecast period, in 2070, the activity rate in the 15-64 age group stands at 71.1%, up 6.7 percentage points from the 2021 level. In the 20-69 age group, which in the medium to long term best approximates the working age population, the activity rate reaches 74.8% in 2070, an increase of 10.6 percentage points. In the same age group, the employment rate increases by about 12.5 percentage points to 70.7% in 2070.

In line with previous simulation exercises - and assuming that the effects of the current crisis will be rapidly reabsorbed as early as in 2023-, the growth rate of productivity follows an increasing trend peaking at 1.5% around 2045 and remaining at this level on average until the end of the forecast period. These productivity dynamics stem endogenously from the forecast model's production function which correlates the rates of change in productivity with employment dynamics via the capital deepening component. In contrast, the structural growth rate of Total Factor Productivity (TFP) is assumed to be stable at 1% starting from 2045.

Based on the above assumptions, real GDP growth decelerates from 2025, the last year of the forecast horizon of the the revised and integrated version of the 2022 NADEF, until 2043. After a slight increase between 2044 and 2051, the rate of real GDP growth stabilises in the last two decades of the projection period, reaching an average annual level of 1.1%. In the period 2022-2070, real GDP growth averages just over 1% per year.

As known, the Covid-19 epidemic is still ongoing, albeit with less severe health and economic consequences, and the Italian economy returned to growth in 2021. However, the effects of the Covid-19 epidemic crisis have not yet been fully overcome and the current recovery is characterised by the persistence of supply-side bottlenecks, which have led to a sudden increase in commodity prices and hence a surge in inflation. In this context, the crisis caused by the conflict in Ukraine has added to geopolitical tensions and macroeconomic volatility.

Although there are downside risks in the short term, the macroeconomic projections outlined above are based on the assumption that long-term GDP growth will not be structurally affected.

Table 2: Macroeconomic assumptions – National baseline scenario

		2010	2020	2030	2040	2050	2060	2070
Macroeconomic assumptions - values in %	Participation rates [15-64]							
	- male	72.5	72.9	75.2	78.4	79.1	78.5	78.6
	- female	50.9	54.1	59.0	62.3	63.0	62.8	62.9
	- total	61.6	63.5	67.2	70.6	71.4	71.0	71.1
	Unemployment rates							
	- male	7.7	8.5	6.7	6.1	5.5	4.8	4.7
	- female	9.7	10.4	8.1	7.8	7.3	6.8	6.7
	- total	8.5	9.3	7.3	6.8	6.2	5.7	5.5
	Employment rates [15-64]							
	- male	66.8	66.6	69.9	73.3	74.5	74.4	74.6
	- female	45.9	48.4	53.9	57.0	58.0	58.1	58.1
	- total	56.3	57.5	62.0	65.4	66.6	66.6	66.8
	Employment ⁽¹⁾							
	- male		-0.2	0.4	-0.4	-0.6	-0.3	-0.4
	- female		0.3	0.9	-0.5	-0.8	-0.4	-0.4
	- total		0.0	0.6	-0.4	-0.7	-0.3	-0.4
	Productivity ⁽¹⁾		-0.9	1.3	1.2	1.5	1.4	1.5
	Real GDP ⁽¹⁾		-0.9	1.9	0.8	0.8	1.1	1.1

(1) Average annual percentage change in the preceding decade.

The EPC-WGA baseline scenario incorporates the demographic and macroeconomic assumptions agreed by the Working Group on Ageing and endorsed by the European Council's Economic Policy Committee as the background framework for the 2021 edition of the Ageing Report, published in May 2021.

Regarding the demographic assumptions, EUROPOP2019, the 2019-based population projections, released by Eurostat in April 2020, provides the demographic basis for the age-related expenditure projections. According to these projections for Italy (see Table 3), life expectancy at birth will gradually increase to 87 years for men and 90.9 years for women, an increase of 5.7 and 5.2 years respectively compared to the level in 2019¹². Compared to the 2021-based Istat projections, underlying the national baseline scenario, the final values are 0.5 years higher for males and 1.4 years higher for females. Fertility rate increases linearly from 1.31 in 2019 to 1.52 in 2070. This value is lower than the 1.55 figure in 2070 projected by Istat and included in the national baseline scenario. The net migration flow shows a strongly increasing profile until 2025, when it reaches the level of 228,000 units. For the rest of the forecast period, the figure falls steadily to 207,000 units in 2070.

¹² It is important to highlight that the life expectancy at birth for 2019 resulting from the latest Eurostat projections is overestimated compared to the figures reported by ISTAT for both sexes. In particular, for men, the value reported by Eurostat for 2019 is 81.3 years instead of 81.1 years reported by ISTAT, while for women it is 85.7 years instead of 85.4 years. As for 2021, the figure projected by Eurostat are, respectively, 1.3 and 1.1 year higher than the corresponding 2021 estimates by ISTAT.

In the period 2021-2070, the average annual number is 214,557. Compared with the central Istat scenario for the same period, the net migration flow is higher, with an average annual difference of around 84 thousand units.

However, it is important to note that the population as measured by Istat on 1 January 2022 is about 1,200,000 lower than the one projected by Eurostat for the same date. Taking this into account, the forecast of age-related expenditure as a percentage of GDP was made on the basis of the resident population on 1 January 2022, keeping the same structural parameters of the Eurostat forecast. In addition, it is worth mentioning that in 2070 the non-updated demographic projections of the EPC-WGA scenario, although aligned at the starting value, show a higher population of about 5.3 million compared to the 2021-based Istat projection, which is about 11% higher than the updated Istat estimates. In fact, Istat has worsened the evolution of both the fertility rate and the net number of immigrants in the two recent updates of the population projections within the national scenario (base 2020 and base 2021). This has led to a significant downward revision of the resident population forecast, accentuating the features of the adverse demographic change, with the associated consequences for the sustainability of age-related expenditure, as already presented in the update note of the RGS Report No. 22 (December 2021) and in the RGS Report 2022 No. 23¹³. As Eurostat's next projections, expected in March 2023, are likely to follow Istat's indications, a similar decline in the population with consequent impact on age-related expenditure can be expected.

Table 3: Demographic assumptions – Baseline EPC-WGA scenario

		2010	2020	2030	2040	2050	2060	2070
Eurostat demographic assumptions (1)	Fertility rates	1.46	1.24	1.37	1.41	1.45	1.48	1.52
	Life expectancy							
	- male	79.3	79.8	82.6	83.8	84.9	86.0	87.0
	- female	84.3	84.5	86.9	88.0	89.0	90.0	90.9
	Annual net immigration (thousands)	380	88	224	217	214	210	207
	Elderly dependency ratio ⁽²⁾	31.1	36.4	44.2	57.0	61.8	60.0	59.8

(1) Eurostat (2020), "Methodology of the Eurostat population projections 2019-based (Europop2019)". Eurostat projections incorporate census data and Istat demographic estimates and are therefore updated to 1 January 2022. For the following years and in projection all parameters (mortality, fertility and migration) are those of Europop2019.

(2) Population of 65 and over as a percentage of population 15-64. Values in %.

Medium to long-term macroeconomic variables, reflect, starting from 2026, the Commission's assumptions for the 2021 Ageing Report agreed within the EPC which, among other things, mandate (i) for medium-term productivity and unemployment rate estimates, the use of the T+10 methodology defined in the EPC-OGWG (Output Gap Working Group), and (ii) for the projection of activity rates, the use of the cohort simulation model developed by the AWG. As in the national scenario, the productivity growth rate is

¹³See, in Italian, RGS, 2021, Le Tendenze di medio-lungo periodo del sistema pensionistico e socio-sanitario, Rapporto n. 22 – Nota di aggiornamento (https://www.rgs.mef.gov.it/_Documenti/VERSIONE-I/Attivit--i/Spesa-soci/Attivita_di_previsione_RGS/2021/Rapporto-n.-22-Nota-Aggiornamento_28122021.pdf) RGS, 2022, Le Tendenze di medio-lungo periodo del sistema pensionistico e socio-sanitario, Rapporto n. 23 (https://www.rgs.mef.gov.it/_Documenti/VERSIONE-I/Attivit--i/Spesa-soci/Attivita_di_previsione_RGS/2022/Rapporto2022.pdf).

obtained on the basis of the production function defined at European level in the EPC OGWG¹⁴.

Under the assumptions of the EPC-WGA baseline macroeconomic scenario summarised in Table 4, annual GDP growth rate averages around 1.2% over the whole forecast period, thanks to the significant contribution of average annual productivity growth of 1.3%, partially offset by an average annual 0.1% decrease in employment. Compared to the national baseline scenario, this is on average two tenths of a percentage point higher, although the opposite is true in the first part of the forecast period. As a matter of fact, over the period 2025-2035, in the EPC-WGA baseline scenario real GDP growth is on average lower by 0.5 percentage points. About a quarter of this gap in the growth rate is due to weaker employment dynamics and the rest to lower average productivity.

Over the rest of the forecast period, however, there is a significant recovery in the GDP growth rate, due both to less negative employment dynamics and to higher productivity growth, allowing the real GDP gap accumulated over the first decade of the forecast to be made up by about 2046. Due to the higher GDP dynamics in the remaining period of the EPC-WGA scenario, the level of real GDP in 2070 is about nine percentage points higher.

Table 4: Macroeconomic assumptions – Baseline EPC-WGA scenario

		2010	2020	2030	2040	2050	2060	2070
Macroeconomic assumptions - figures in %	Participation rates [15-64]							
	- male	72.5	72.9	74.1	76.2	76.4	75.8	76.4
	- female	50.9	54.1	59.4	62.0	62.4	62.3	62.6
	- total	61.6	63.5	66.8	69.3	69.6	69.3	69.8
	Unemployment rates							
	- male	7.7	8.5	7.4	7.3	6.3	6.2	6.1
	- female	9.7	10.4	8.4	8.3	7.2	7.0	6.9
	- total	8.5	9.3	7.8	7.7	6.7	6.6	6.5
	Employment rates [15-64]							
	- male	66.8	66.6	68.4	70.4	71.3	70.8	71.5
	- female	45.9	48.4	54.2	56.5	57.6	57.5	57.8
	- total	56.3	57.5	61.4	63.6	64.7	64.4	64.9
	Employment ⁽¹⁾							
	- male		-0.2	0.2	-0.4	-0.3	-0.1	-0.2
	- female		0.3	0.9	-0.4	-0.4	-0.2	-0.2
	- total		0.0	0.5	-0.4	-0.3	-0.2	-0.2
	Productivity ⁽¹⁾		-0.9	1.1	1.2	1.7	1.6	1.6
	Real GDP ⁽¹⁾		-0.9	1.6	0.8	1.3	1.5	1.4

(1) Average annual percentage change in the preceding decade.

¹⁴ The methodology concerning the capital deepening component is different in the two scenarios. In the national scenario, the ratio of gross investment to GDP is kept constant ("investment rule"); in the EPC-WGA baseline scenario this rule is only applied in the first part of the forecast period, while from 2034 onwards the "capital rule" is assumed, which implies a constant ratio of capital to GDP regardless of employment dynamics.

Public pension expenditures projections in the RGS National baseline scenario

Figure 1 shows the evolution of the ratio of pension expenditure to GDP over the last 20 years and, in perspective, in the medium/long-term, as projected in the baseline national scenario exercise. After the increase in the period 2008-2010, which is entirely due to the trough of the economic recession, the ratio of pension expenditure to GDP continues to be negatively affected by the subsequent phase of economic contraction. In 2013-2014, the pension expenditure/GDP ratio stabilises at around 2.5 percentage points higher compared to the pre-crisis level of 2007, rising from 13.3% to 15.8%. From 2015 onwards, the ratio gradually declines to reach a relative minimum of 15.2% in the two-year period 2017-2018 benefiting from both a more favourable macroeconomic growth environment and the gradual increase in pension eligibility requirements.

From 2019 to 2022, the ratio of pension expenditure to GDP initially rises abruptly, peaking at 16.9% in 2020, and then declines in the following two years, settling at 15.6% in 2022, almost half a percentage point of GDP higher than in 2018. Pension expenditure as a share of GDP rises significantly due to the sharp fall in output caused by the impact of the initial and most acute phase of the public health emergency. However, this trend is also driven by the implementation of the social security measures contained in Decree-Law No. 4/2019, converted into Law No. 26/2019 (including Quota 100), and, to a much lesser extent, those contained in Law No. 234/2021 (including Quota 102), which, by favouring early retirement, provide for a significant increase in the number of pensions in relation to the number of people in employment in the years 2019-2022.

Taking also into account that the GDP deflator profile in 2023-2024 is significantly lower than the rate of indexation and the high level of indexation itself (due to the surge in the inflation rate starting from the end of 2021 and projected until 2023), the expenditure-to-GDP ratio rises significantly to 16.6 per cent at the end of the two-year period (1.4 percentage points above the 2018 level), a level that is broadly maintained until 2030.

After 2030, the pension expenditure-to-GDP ratio starts to pick up again, reaching 16.9% in 2044. This trend is essentially due to the increase in the ratio of the number of pensioners to the number of working people brought about by the demographic transition, which is only partly offset by the tightening of eligibility requirements for access to retirement. The effect of the increase in the number of pensioners outweighs the restraining impact on pension entitlements of the gradual application of the Notional Defined Contribution (NDC) scheme over the entire working life (and the gradual phasing out of the Defined Benefits system).

From 2045 onwards, the ratio of pension expenditure to GDP falls swiftly to 16.1% in 2050 and 13.8% in 2070. The rapid decline in the latter part of the forecast period is the result of the full implementation of the NDC scheme, which runs in parallel with the stabilisation and the subsequent reversal of the ratio of the number of pensioners to the number of workers. This latter phenomenon reflects both the progressive exit of the baby boom generation and the effects of the automatic adjustment of eligibility requirements to changes in life expectancy.

The results of this simulation, which, as mentioned, incorporates the assumptions underlying the revised and integrated version of the 2022 NADEF, are compared with those of the 2022 RGS Report No. 23¹⁵, which show an annual slippage of around 0.5 percentage points of GDP in 2024-2025, which gradually reabsorbs shortly after 2045. This slippage is

¹⁵ In turn, the projections illustrated in the RGS Report n.23 are based on the assumptions underlying the Economic and Financial Document 2022.

mainly due to higher pension expenditure as a result of higher indexation in 2023-2024, which is not offset by a similar increase in the deflator. The gradual exit from the stock of the generations affected by the indexation of the above biennium contributes to closing the gap between the two curves in the following decades.

The differences in the ratio of expenditure to GDP trends between the two forecast exercises depend on the slightly different levels of the underlying population, on the effects of the routine updating of the database, and on short-term macroeconomic dynamics.

Figure 1: Public pension expenditure – National baseline scenario - % of GDP

Fig. 1.a: pension expenditure to GDP

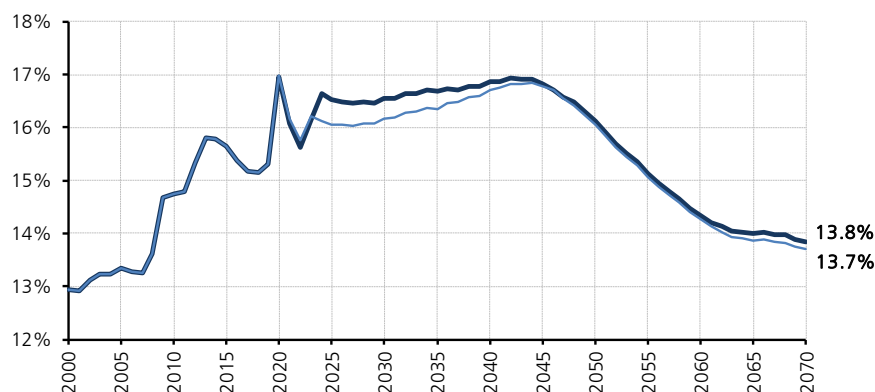


Fig. 1.b: average pension to GDP per worker

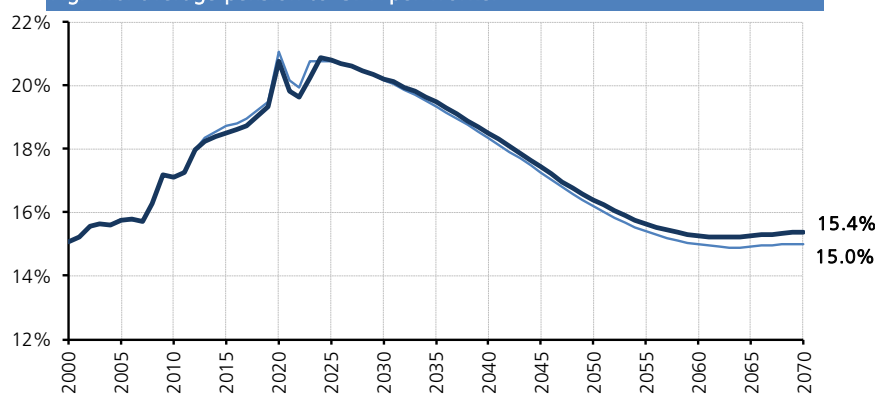
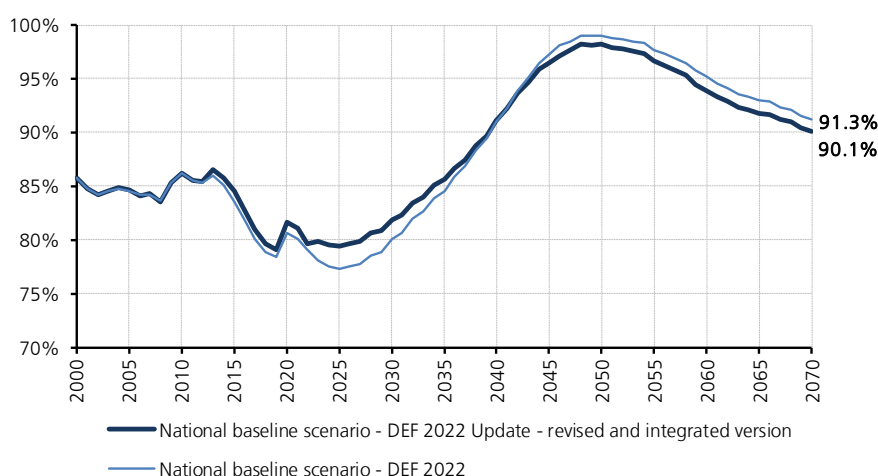


Fig. 1.c: number of pensions per worker



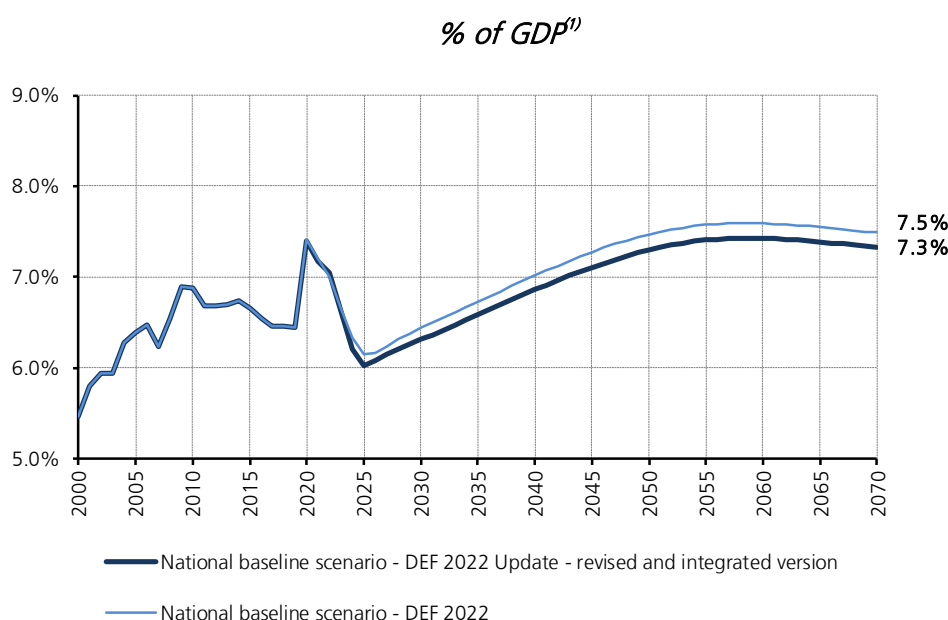
Healthcare and LTC projections in the RGS National baseline scenario

The forecast of public expenditure on healthcare, expressed as a percentage of GDP, for the period 2022-2025, is aligned through a coefficient matrix which relates costs to typologies of provision (*matrice costi-prestazioni*) with the short-term estimate presented in the revised and integrated version of the 2022 NADEF. In turn, this forecast has been carried out separately for each cost function on the basis of the regulatory framework in force and of all the information and data gathered from monitoring activities.

For the year 2025, the current forecast is at a lower level than in the Report No. 23 (6% vs. 6.2%). This difference is due to the fact that health expenditure is 0.1 percentage points lower, while GDP is about 2.2 percentage points higher.

The projection of the ratio between public healthcare expenditure and GDP, based on the “reference scenario” methodology¹⁶, shows a fairly steady growth between 2025 and 2050 (Figure 2, bold line). In the following years, with the exit of the baby boom generation cohorts, growth slows down and turns slightly negative. Overall, the ratio increases by about 0.1 percentage points from 7.2% in 2021¹⁷ to 7.3% in 2070.

Figure 2: Public health care expenditure – National baseline scenario



(1) Projections based on the “reference” scenario assumptions

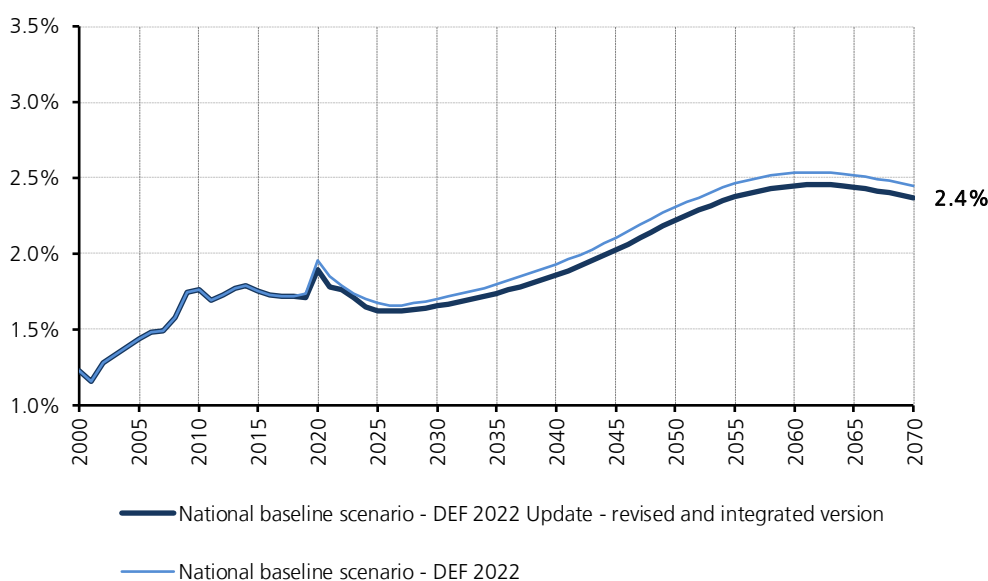
¹⁶ More specifically, the projections of the ratio between public expenditure on healthcare and GDP incorporate the assumptions of the so-called reference scenario, which are basically the same as those defined in the EPC-WGA framework, with the exception of the hypothesis on the dynamics of health consumption relative to expenditure on hospital care. In the latter case, the projections have encompassed, as regards the evolution of healthcare consumption, the “death related costs” methodology for the hospital component and the “dynamic equilibrium” approach (to the extent of 50% of the change in life expectancy) for other healthcare services. Furthermore, the forecasts assume an elasticity of the standardised per capita consumption (SPC) greater than one with respect to both GDP per capita, which applies to the acute component of healthcare expenditure, and to GDP per employee, which, instead, applies to the LTC component of the same aggregate. Appendix 1 also shows the forecasts resulting from the “pure ageing scenario”, which assumes that the age-, gender-, and service type-specific consumption structure remains constant throughout the forecast period, while the dynamics of the SPC, which expresses changes in healthcare consumption assuming an unchanged demographic structure, evolve in line with GDP per capita.

¹⁷ In October, Istat published the update of the Consolidated Healthcare Economic Accounts. Compared to the previous version, used in the preparation of the DEF 2022 (March 2022) and the revised and integrated version of the NADEF 2022 (November 2022), the expenditure values for the years 2019-2021 have been slightly revised upwards by 1, 16 and 22 million respectively.

Public expenditure targeted at non-self-sufficient elderly and disabled people, better known as long-term care (LTC) expenditure, includes, in addition to the health care component, expenditure on disability allowances ("indennità di accompagnamento") and on 'other LTC benefits', which essentially corresponds to social welfare interventions provided at the local level¹⁸. The total amounts to about 1.8% of GDP in 2021. With regard to the expenditure reported in Report No. 23, for the years 2012-2021, health expenditure on long-term care has been derived from the System of Health Accounts published by ISTAT in July of this year¹⁹.

Between 2022 and 2025, the projected ratio of public long-term care expenditure to GDP declines somewhat, mainly due to the stronger dynamics of GDP relative to expenditure. In 2025, the current projection is slightly lower (about half a tenth of a percentage point) than in Report No 23. Both the reduction in expenditure and the increase in GDP contribute equally to this outcome. From 2026 onwards, in line with the assumptions of the *reference scenario*²⁰, the current forecast shows a gradual increase in LTC expenditure as a share of GDP, particularly between 2030 and 2055, driven by the indexation of the average cost of benefits and the ageing population. In 2070, LTC expenditure amounts to 2.4% of GDP. Current estimates overlap substantially with previous ones (Figure 3).

Figure 3: Public expenditure on Long-term Care– National baseline scenario
% of GDP⁽¹⁾



(1) Projections based on the "reference" scenario assumptions

Overall age-related expenditure in the RGS National Baseline Scenario

Figure 4 shows the projections of total public expenditure on pensions, health care and LTC as a ratio to GDP. Note that the total aggregate includes the share of the health

¹⁸ Disability allowances benefits are cash benefits provided to dependent persons regardless of income requirements, while 'other long-term care benefits' comprise a heterogeneous set of mostly in-kind benefits provided mainly at local level by individual or associated municipalities.

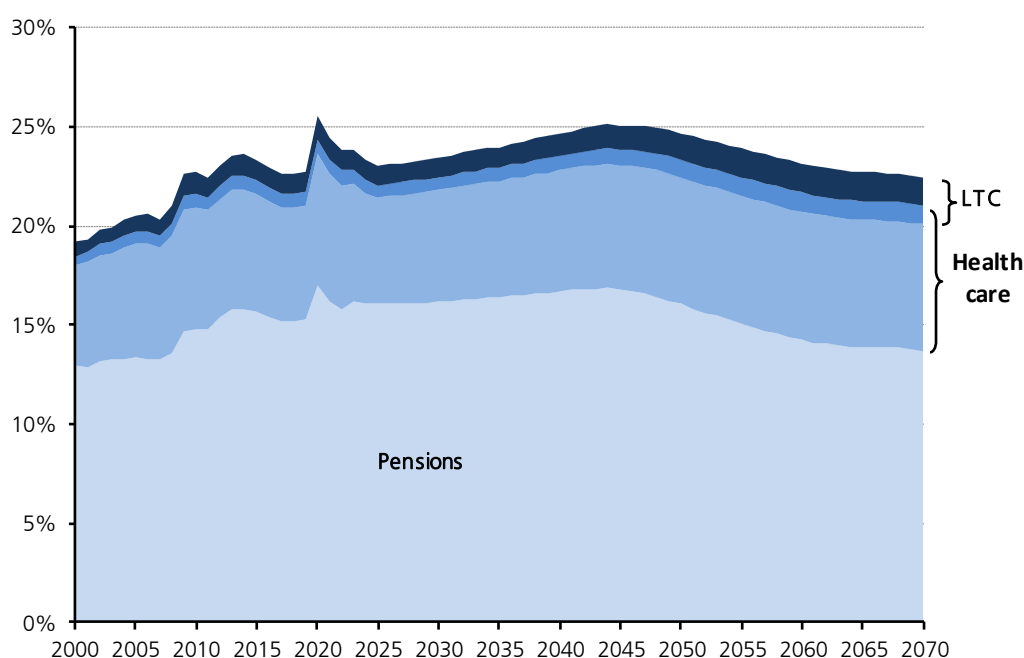
¹⁹ The update of the System of Health Accounts has resulted in a downward revision of the health component for long-term care compared to the previous edition. See box 3.3 for more details.

²⁰ For LTC expenditure projections, the *reference scenario* assumes the 'partial' application of the *dynamic equilibrium* methodology (50% of the change in life expectancy) and a link between SPC to productivity for benefits in kind or to GDP per capita for cash benefits. In addition, the projections assume an elasticity of the SPC greater than one with respect to either GDP per capita, which is applied to disability allowances, and GDP per person employed, which is applied to the social health component of the aggregate.

care component for LTC only once, as this item is included in total health care expenditure and total LTC expenditure.

After the increases in the two three-year periods 2008-2010 and 2012-2014, which are entirely due to the economic recession, the ratio of total expenditure to GDP declines, bottoming out around 2018 at 22.6%. In 2019, it starts to rise again, reaching 22.8% of GDP, and in 2020, mainly as a result of the severe Covid-19 induced GDP downturn, it undergoes a significant increase, hitting a record high of 25.5%. In the following years, as GDP returns to its growth path, also thanks to the impact of the emergency measures, total age-related public expenditure declines and hovers around 23.7%. From 2030 onwards, the ratio starts to rise again, reaching a peak of 25.2% of GDP in 2044, while in the remaining decades of the projection horizon it settles on a downward trend, converging to 22.6% of GDP in 2070, which is broadly in line with the pre-pandemic level of 2019.

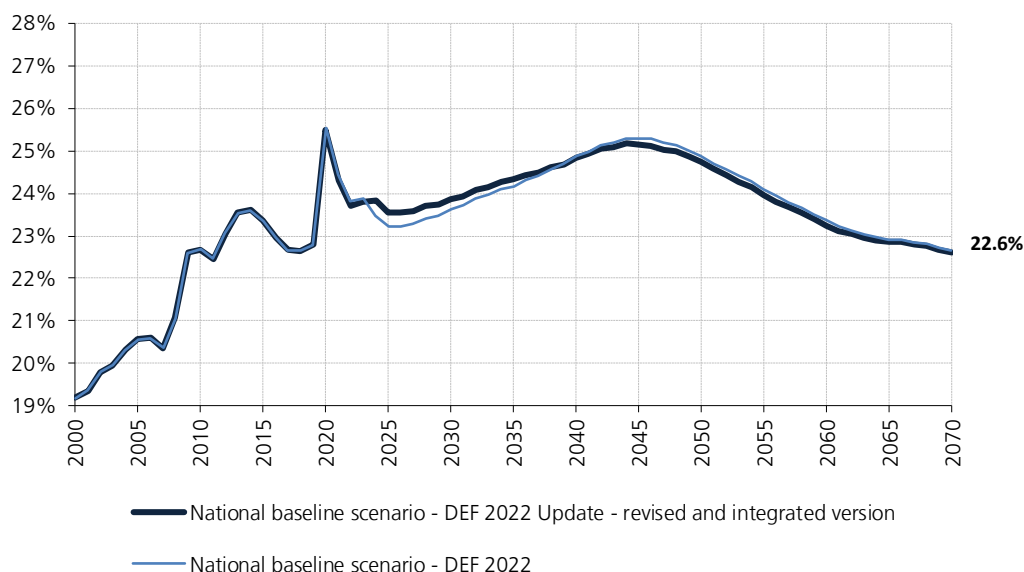
Figure 4: Total public social expenditure on pensions, healthcare, and LTC – National baseline scenario - % of GDP⁽¹⁾



(1) The projections consider the hypotheses of the reference scenario.

The comparison with the forecast presented in the DEF 2022 (Fig. 5) shows a significant deviation only in the initial part of the projection period mainly due to the impact of higher inflation on the level of expenditure.

Figure 5: Total public social expenditure on pensions, healthcare, and LTC – National baseline comparison scenarios - % of GDP⁽¹⁾



(1) The projections consider the hypotheses of the reference scenario.

For completeness, Table 5 summarises the results of the medium/long-term forecasts of the age-related public expenditure components in the national baseline scenario.

Table 5: Public expenditure on pensions, healthcare, LTC, education and unemployment benefits – national baseline scenario (% of GDP)

		2010	2020	2030	2040	2050	2060	2070
Pensions	[a]	14.7	16.9	16.5	16.9	16.1	14.3	13.8
Health care ⁽¹⁾	[b]	6.9	7.4	6.3	6.9	7.3	7.4	7.3
(LTC component)	[c]	0.7	0.7	0.6	0.7	0.9	1.0	0.9
LTC ⁽¹⁾	[d]	1.8	1.9	1.7	1.9	2.2	2.4	2.4
Total	[a]+[b]-[c]+[d]	22.7	25.5	23.9	24.8	24.7	23.2	22.6

(1) The projections consider the hypotheses of the reference scenario. The dynamics of age cost profiles are based on the application of the death-related costs methodology to the hospital component of health care expenditure and the 'partial' application of the dynamic equilibrium methodology to the other health care provisions.

Public expenditure projections for pensions, healthcare and LTC in the ECP-WGA baseline scenario

This section illustrates the results of the expenditure projections made under the ECP-WGA baseline scenario assumptions, also in comparison with those resulting from the national baseline scenario. The update of the short-term macroeconomic framework produces an effect that is broadly equivalent to that shown for the national scenario, while the differences highlighted in RGS Report No. 23 remain virtually unchanged. In particular, pension expenditure as a percentage of GDP, as projected on the basis of the ECP-WGA baseline scenario, is aligned, by hypothesis, with the results of the national scenario up to 2025 (Figure 6.a).

Compared with the national scenario, the increase in the ratio of pension expenditure to GDP resulting from the assumptions of the EPC-WGA scenario is entirely due to the assumption of lower economic growth, especially in the first decade of the projection.

More specifically, the EPC-WGA baseline scenario shows a more pronounced increase in the ratio of pension expenditure to GDP from 2026 onwards. The difference between the two curves increases, reaching a maximum of 1 percentage point of GDP in 2035. Thereafter, the two curves tend to intersect around 2045, and from that year onwards, the EPC-WGA curve falls below that of the national baseline scenario until the end of the projection period, when the divergence is around four-tenths of a percentage point of GDP.

The difference in the ratio of pension expenditure to GDP is mainly explained by the economic growth differentials, which also depend on the more dynamic evolution of the working-age population. As already described in the section on the medium/long-term structural assumptions underlying the two scenarios, in the first decade GDP growth is expected to be lower than in the national baseline scenario, mainly due to lower productivity growth, while in the remaining part of the projection period there is a significant recovery in the GDP growth rate, leading to a GDP level that is 9% higher than in the national baseline scenario by 2070. This is reflected in the lower level of expenditure as a share of GDP shown in Figure 6. However, the robustness of this comparison is constrained by the above-mentioned discrepancy in the timing of the update of the demographic projections between the national baseline and the EPC-WGA scenario (the updated Eurostat demographic projections are expected in March 2023).

Figure 6: Public pension expenditure – Scenarios comparison
% of GDP

Fig. 6.a: pension expenditure to GDP

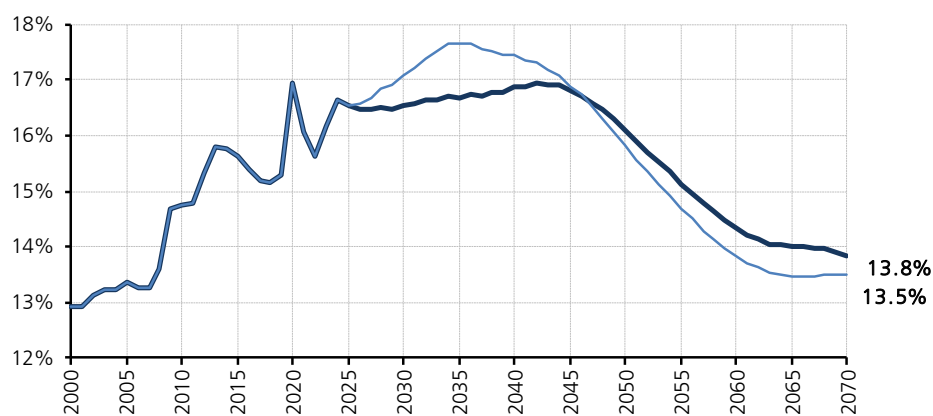


Fig. 6.b: average pension to GDP per worker

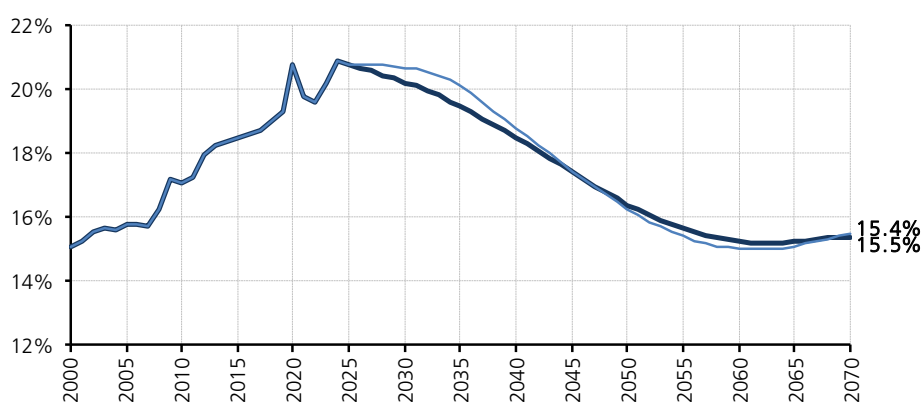
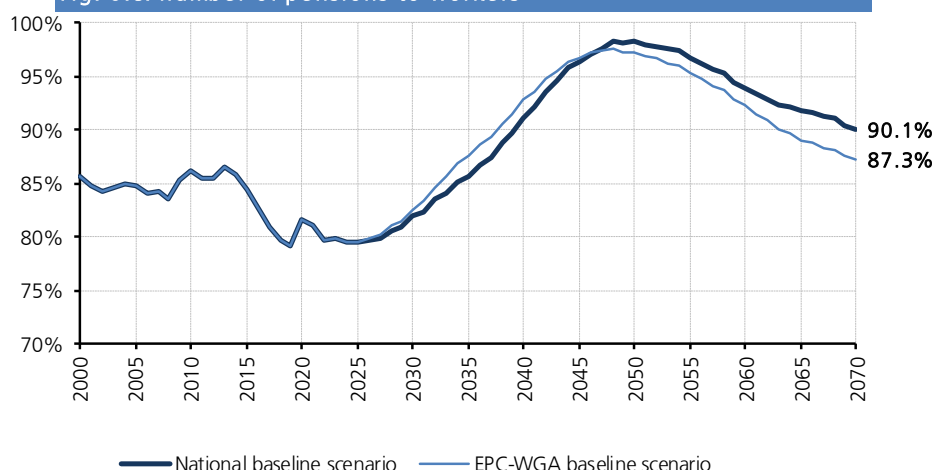


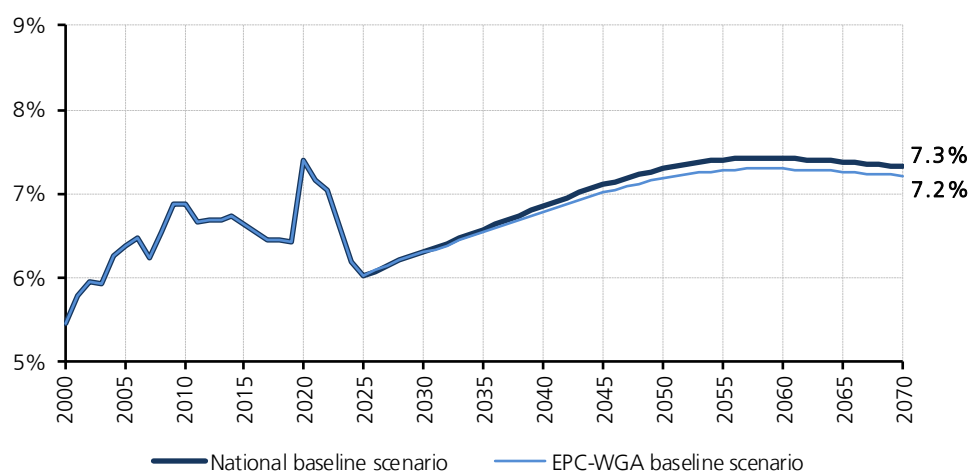
Fig. 6.c: number of pensions to workers



— National baseline scenario — EPC-WGA baseline scenario

The ratio of health expenditure to GDP projected on the basis of the EPC WGA baseline scenario is, instead, substantially in line with that of the national base scenario until 2035, when it starts to diverge slightly. In 2070, the forecast is about 0.1 percentage points lower than the national baseline (Figure 7).

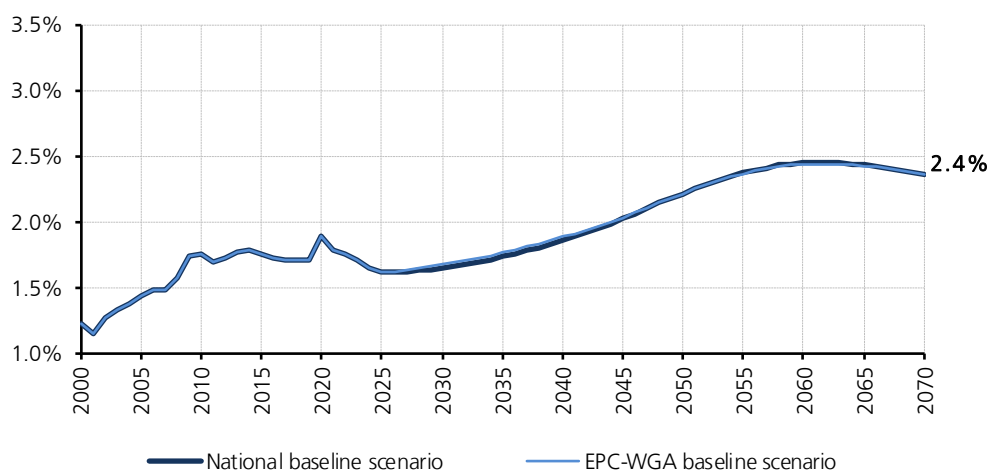
Figure 7: Public health expenditure – Scenarios comparison
% of GDP⁽¹⁾



(1) The projections consider the hypotheses of the reference scenario.

The projection of public expenditure on LTC as a ratio of GDP, as computed under the EPC-WGA baseline scenario assumptions (Figure 8), is aligned to the corresponding projections under the national scenario throughout the forecast period.

Figure 8: Public expenditure on Long-term Care– Scenarios comparison
% of GDP⁽¹⁾



(1) The projections consider the hypotheses of the reference scenario.

As shown in Figure 9 and 10, the projections of total pension and other social expenditure as a percentage of GDP made on the basis of the EPC-WGA scenario show a similar trend to that of the national scenario, although they reach higher levels at the peak (25.49% in 2040) and lower levels at the end of the forecast period (22.2% in 2070). These differences are entirely due to the pension component.

Figure 9: Total public social expenditure on pensions, healthcare, and LTC – EPC-WGA baseline scenario - % of GDP⁽¹⁾

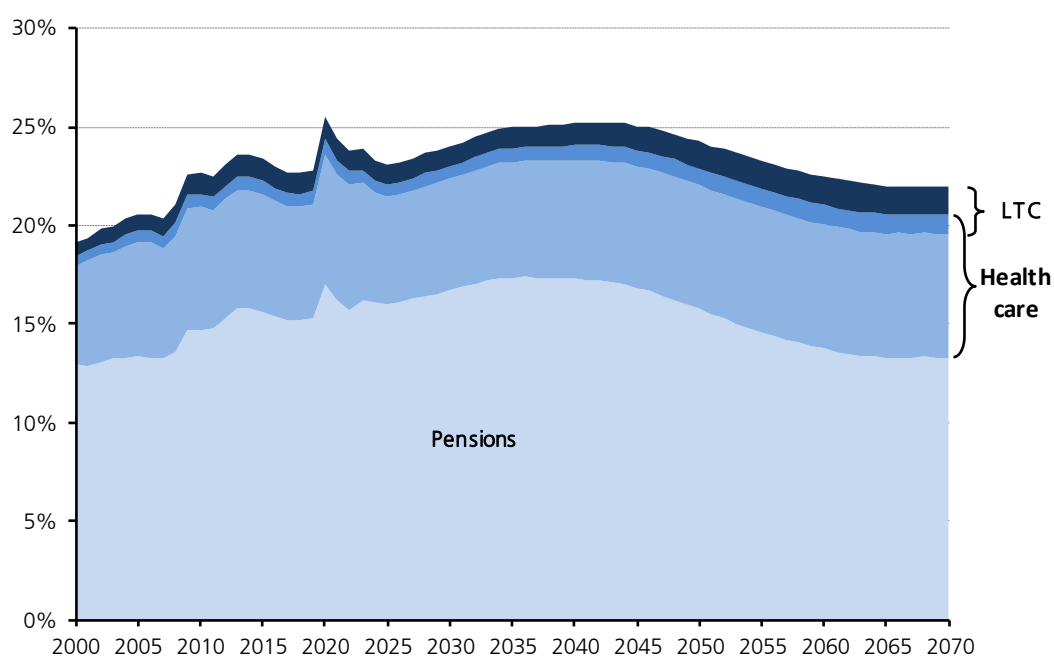
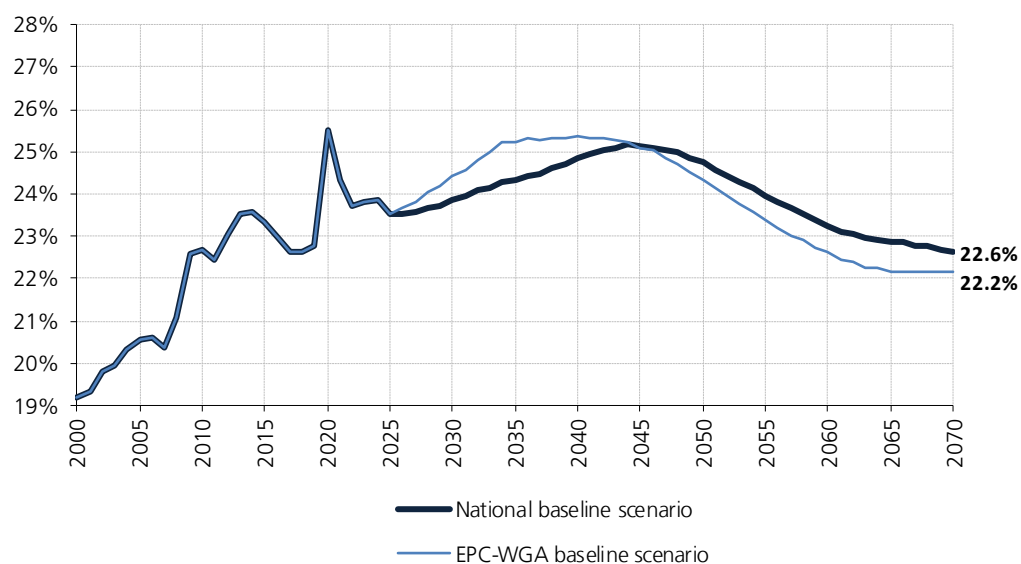


Figure 10: Total public social expenditure on pensions, healthcare, and LTC – EPC-WGA vis-à-vis National baseline scenario - % of GDP⁽¹⁾



For completeness, Table 6 summarises the results of the medium/long-term forecasts of the age-related public expenditure components in the EPC-WGA baseline scenario.

Table 6: Public expenditure on pensions, healthcare, LTC, education and unemployment benefits – EPC-WGA baseline scenario (% of GDP)

		2010	2020	2030	2040	2050	2060	2070
Pensions	[a]	14.7	16.9	17.1	17.4	15.8	13.9	13.5
Health care ⁽¹⁾	[b]	6.9	7.4	6.3	6.8	7.2	7.3	7.2
(LTC component)	[c]	0.7	0.7	0.7	0.8	0.9	1.0	0.9
LTC ⁽¹⁾	[d]	1.8	1.9	1.7	1.9	2.2	2.4	2.4
Total	[a]+[b]-[c]+[d]	22.7	25.5	24.4	25.4	24.3	22.6	22.2

(1) The projections consider the hypotheses of the reference scenario. The dynamics of age cost profiles are based on the application of the death-related costs methodology to the hospital component of health care expenditure and the 'partial' application of the dynamic equilibrium methodology to the other health care provisions.

Replacement rates

Thanks to a set of *ad hoc* indicators, such as the theoretical replacement rates, gross and net of contribution levies and taxes, it is possible to develop an in-depth analysis of the adequacy of benefits in the medium/long term and to assess the distributional effects relating of the Italian pension system at the microeconomic level.

The analysis of the theoretical replacement rates, assuming access to retirement with the minimum age requirements²¹, is briefly presented here. The calculations are made for the entire projection period, in line with the demographic and macroeconomic assumptions of the national baseline scenario²². In line with the assumptions made for the expenditure projections, the calculation of replacement rates takes into account the biennial update of the transformation coefficients effective from 2021 and, in the definition of working careers, the associated adjustment of the minimum requirements for the accrual of pension rights in line with changes in life expectancy.

The analysis of the gross replacement rates (Table 5.1) highlights the key role played by the increase in the average retirement age on pension entitlements and thus on the adequacy of benefits in the contributory pension schemes. This aspect, which is already evident in the basic hypothesis of a constant level of contribution seniority, is even more pronounced under the hypothesis of contribution seniority parameterised to the minimum age requirement for old age retirement²³.

The analysis of the net replacement rates (Table 5.2) allows an assessment of the changes in workers' disposable income during the transition from working life to retirement. In this respect, the results show how the restraining effects on pension benefits resulting from the introduction of the notional defined contribution system are significantly offset by the increase in the minimum requirements for access to retirement and, in the case of the self-employed workers, also by the effect of the increase in the contribution rate. For employees, the constraint on the disposable pension income guaranteed by the mandatory

²¹ On the basis of the legislation introduced by Law 26/2019, individuals who, in the period 2019-2021, have jointly reached a minimum age of 62 years and a contributory seniority of at least 38 years may have access to early retirement. For them, these requirements represent, for the years in question, the minimum requirements to retire.

²² Broadly similar results are obtained under the EPC-WGA baseline assumptions.

²³ The effect on replacement rates of the biennial adjustment of the transformation coefficients, together with the effect of the update of the pension eligibility requirements to reflect changes in life expectancy, is presented in more detail in RGS Report No. 23, Box 6.1.

social security scheme does not generally take place, and if it does, it is adequately compensated by the additional contribution offered by the supplementary pension scheme. In the case of the self-employed workers, the capping effect remains in most cases, because of the lower contribution rate, although it is considerably mitigated thanks to the progressive increase in the minimum requirements.

Table 5: Substitution rates in the mandatory pension system - baseline scenario (values in %)⁽¹⁾

Tab. 5.1: Gross replacement rates

	2010	2020	2030	2040	2050	2060	2070
Base case⁽²⁾⁽³⁾	Contribution period: 38 years						
Private employee (age/contr. period)	73.6 (65+4m/38) ⁽⁴⁾	71.7 (67)	66.3 (67+5m)	58.3 (65+6m)	58.4 (66+4m)	58.6 (67)	58.7 (67+8m)
Self-employed (age/contr. period)	72.1 (65+7m/38) ⁽⁴⁾	54.9 (67)	46.1 (67+5m)	44.6 (68+6m)	46.7 (69+4m)	47.2 (70)	47.4 (70+8m)
Old age retirement⁽⁵⁾	Years of contribution and age requirement increasing through time						
Private employee (age/contr. period)	68.4 (65+4m/35+4m) ⁽⁴⁾	69.8 (67/37)	65.1 (67+5m/37+5m)	65.2 (68+6m/38+6m)	66.7 (69+4m/39+4m)	68.1 (70/40)	69.4 (70+8m/40+8m)
Self-employed (age/contr. period)	67.6 (65+7m/35+7m) ⁽⁴⁾	52.9 (67/37)	44.9 (67+5m/37+5m)	45.1 (68+6m/38+6m)	48.1 (69+4m/39+4m)	49.6 (70/40)	50.6 (70+8m/40+8m)

Tab. 5.2: Net replacement rates⁽⁶⁾

	2010	2020	2030	2040	2050	2060	2070
Base case⁽²⁾⁽³⁾	Contribution period: 38 years						
Private employee (age/contr. period)	82.7 (65+4m/38) ⁽⁴⁾	81.7 (67)	74.3 (67+5m)	66.7 (65+6m)	66.9 (66+4m)	67.1 (67)	67.2 (67+8m)
Self-employed (age/contr. period)	93.0 (65+7m/38) ⁽⁴⁾	77.2 (67)	66.9 (67+5m)	65.2 (68+6m)	67.6 (69+4m)	68.2 (70)	68.4 (70+8m)
Old age retirement⁽⁵⁾	Years of contribution and age requirement increasing through time						
Private employee (age/contr. period)	77.7 (65+4m/35+4m) ⁽⁴⁾	79.7 (67/37)	73.2 (67+5m/37+5m)	73.3 (68+6m/38+6m)	74.8 (69+4m/39+4m)	76.0 (70/40)	77.3 (70+8m/40+8m)
Self-employed (age/contr. period)	88.0 (65+7m/35+7m) ⁽⁴⁾	74.9 (67/37)	65.5 (67+5m/37+5m)	65.8 (68+6m/38+6m)	69.2 (69+4m/39+4m)	70.9 (70/40)	72.0 (70+8m/40+8m)

(1) Individual wages/earnings dynamics are assumed to be equal to the growth rate of average gross wage per dependent worker, for historical data, and to the growth rate of nominal GDP per worker for the forecasting period beginning in 2023. For 2022, GDP, inflation, and average gross wage per dependent worker, used as a reference for earnings, are the same as those in the macroeconomic scenario drawn up for the revised and integrated version of the 2022 NADEF.

(2) As per Law 26/2019, for 2019-2021 early retirement is possible under two requirements: a minimum of 62 years of age and at least 38 years of contribution accrued. In this case the gross substitution rate is 66.1%, for private employees, and 51.5%, for self-employed. The net substitution rates are 76.1% and 73.2%, respectively.

(3) For employees, the retirement age is set equal to the minimum requirement for an old age pension if enrolled before 1/1/1996 (DB and mixed regimes), and to the minimum requirement for early retirement (three years lower than the old age one), if enrolled thereafter (NDC regime). For the self-employed, the retirement age corresponds to the minimum requirement for old age pension in all three regimes (DB, mixed and NDC). The contribution period is 38 years for both classes of worker.

(4) The retirement age for women is 5 years lower.

(5) The retirement age is aligned to the minimum requirement for an old age pension; the contribution period is linked to the retirement age with the beginning of a working career at the age of 30 and no breaks thereafter.

(6) The tax legislation currently in force has been applied.

Box 1 – The update of the Istat population projections with 2021 as a base year

In August 2022, Istat published its new population projections updated to 2021²⁴ and with a time horizon up to 2070, which replaced the projections published in November 2020 with 2020 as the base year.

As in the previous round, the projections are based on a probabilistic extrapolation method²⁵ with an associated nowcasting correction factor. Thanks to this factor, the estimate for the very early years of the forecast horizon is as close as possible to the trend observed in the last survey period (while preserving the potential variability of the expected dynamics).

In addition, with the aim of defining a point estimate that can be taken as the most likely reference for future demographic developments, Istat also defines a "median scenario". The comparisons presented below refer to this scenario.

The new projections on Italy's demographic future largely confirm the picture of potential crisis already outlined in previous forecasts²⁶.

More specifically, in the median scenario the resident population falls from 59.2 million on 1 January 2021 to 57.9 million in 2030, 54.2 million in 2050 and 47.7 million in 2070. Comparing the median scenario with the previous forecast using 2020 as the base year, there is only a marginal difference in the total census population on 1 January 2021 (minus around 13 thousand people). This negative gap closes until 2044, when it becomes positive and grows, albeit slightly, until 2070. As a matter of fact, the difference between the final populations of the two separate rounds of projections is limited (136 thousand more on 1 January 2070 for the median 2021 baseline scenario).

The revision of the assumptions for all the demographic components only affected the first few projection years, while the medium/long-term trend results essentially confirm the previous 2020 based projections. In short, as far as the projected flows are concerned, it is worth noting a slightly more positive trend in the baseline projection for 2021. For example, in the period of common projection about 100 thousand more births, 69 thousand fewer deaths, 65 thousand more immigrants from abroad and 19 thousand fewer emigrants from abroad are expected.

²⁴ The base population for the projections is the one broken down by sex, single age group and region as of January 1st, 2021, as identified by the last Census of Population and Housing.

²⁵ The fundamental characteristic of probabilistic forecasting is that it takes into account the uncertainty associated with the predicted values by sequentially constructing a very large number of scenarios resulting from the sequential combination of assumptions about the underlying population variables. On the basis of these scenarios, it is possible to determine the confidence intervals of the demographic variables, thus allowing the user to independently choose the level of confidence to be attached to the results. For further technical details, see Istat's release of 22 September 2022 <https://www.istat.it/it/files/2022/09/Households-and-population-projections-base2021.pdf>.

²⁶ For a detailed analysis of the ISTAT projections based on 2020, including a comparison with the projections of the previous round based on 2018, see Box 1 in https://www.rgs.mef.gov.it/Documenti/VERSIONE-I/Attivit-i/Spesa-soci/Attivita_di_previsione_RGS/2021/Rapporto-n.-22-Nota-Aggiornamento_28122021.pdf

Table A compares the main results of the demographic dynamics determined by the Istat parameters in base 2020 and base 2021.

Tab. A: Demographic projections for Italy compared

				Istat base 2020 ⁽¹⁾	Istat base 2021 ⁽²⁾
Assumptions	Total fertility rate		2020	1,24	1,24
			2040	1,45	1,45
			2055	1,52	1,52
			2070	1,55	1,55
	Life expectancy at birth	Males	2020	79,3	79,8
			2040	83,6	83,6
			2055	85,2	85,2
			2070	86,5	86,5
		Females	2020	84,1	84,5
			2040	87,2	87,2
			2055	88,4	88,4
			2070	89,5	89,5
	Net migration (MM) Annual average for the period		2020-2021	110	122
			2022-2040	134	137
			2041-2055	128	128
			2056-2070	123	123
Results	Total population at 1/1 (MM)		2020	59,6	59,6
			2040	56,4	56,4
			2055	52,6	52,6
			2070	47,6	47,7
	Population by age group (%)	0-19	2020	17,8	17,8
			2040	15,1	15,1
			2055	15,7	15,8
			2070	15,7	15,7
		20-54	2020	44,9	44,9
			2040	38,4	38,5
			2055	36,9	37,1
			2070	36,7	36,8
		55-64	2020	14,1	14,1
			2040	13,6	13,6
			2055	12,4	12,3
			2070	13,4	13,4
		65+	2020	23,2	23,2
			2040	32,9	32,8
			2055	34,9	34,8
			2070	34,3	34,1
	Total dependency ratio (pop<20 + pop>64) / pop20-64		2020	69,5	69,5
			2040	92,4	92,2
			2055	102,8	102,5
			2070	100,0	99,3
	Old-age dependency index pop>64 / pop20-64		2020	39,4	39,4
			2040	63,4	63,1
			2055	70,9	70,4
			2070	68,6	68,0
	Old-age dependency index pop>64 / pop15-64		2020	36,4	36,4
			2040	59,1	58,8
			2055	65,3	64,9
			2070	63,4	62,8

(1) Istat (2021), "Population and household base forecast 1/1/2020"

(2) Istat (2022), "Population and household projections based on 1/1/2021". Values for 2020 are Istat consolidated data.

The evolution of each of the parameters underlying the population projections is described below.

Regarding the total fertility rate (TFR), the new projections confirm the upward profile throughout the projection period, but are higher than the previous ones in 2021, at 1.25 compared with 1.21 in the previous round. However, the difference between the two simulations decreases rapidly in the first five years and disappears from 2026 onwards (Fig. A).

In terms of net migration (Fig. B), the new projections assume an average annual level of 130.4 thousand over the period 2021-2070, compared with 128.7 thousand in the previous projections. After the sharp drop in 2020 induced by the COVID-19 pandemic, the consolidated figure for 2021 is close to the average level recorded in the five years before the pandemic and higher than the previously estimated level (156.6 thousand compared with 141.3 thousand). From 2022 onwards, the net inflow of migrants declines throughout the projections period to 117.9 thousand in 2070.

Fig. A: Total fertility rate

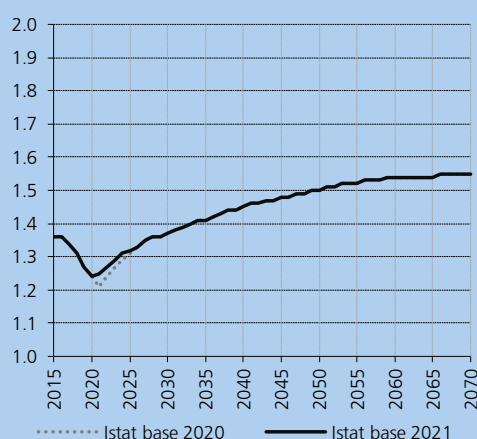
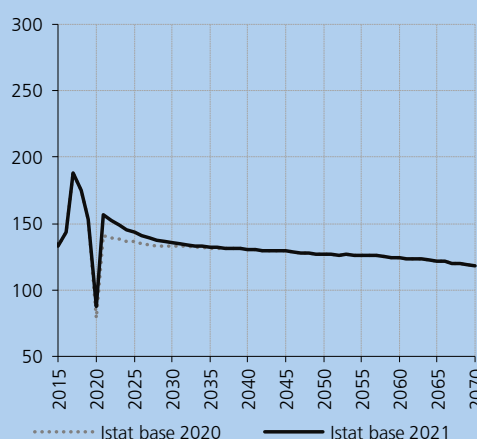


Fig. B: Net migration (thousands)



As for the assumptions for mortality, the current projections are almost identical to the previous ones with the exception of life expectancy assumptions for women between 2021 and 2025, which have been lowered by an average of 0.2 years in each year of the five-year period. In both projections, life expectancy rises to 86.5 years for men and 89.5 years for women in 2070, compared to the consolidated values of 79.8 and 84.5 years in 2020 (Fig. C).

Fig. C: Life expectancy at birth

Fig. C.1: Males

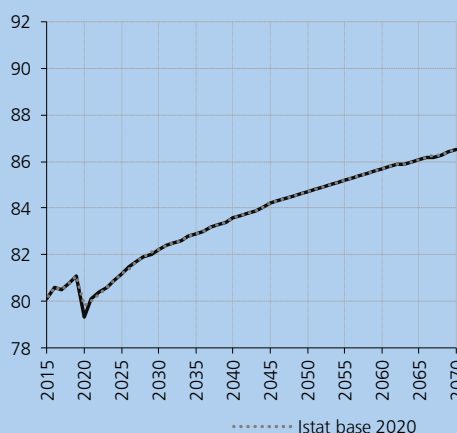
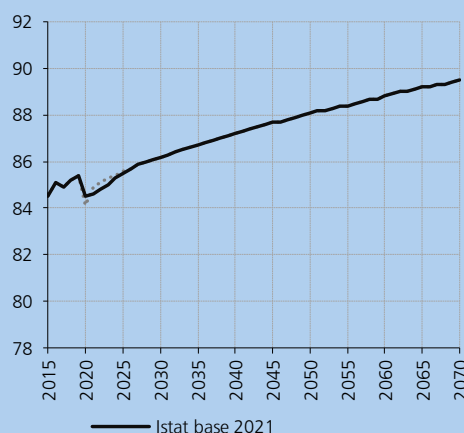


Fig. C.2: Females



As a result of the combination of parameters described above, the Italian population is expected to shrink by about 11.5 million. This is a slightly smaller decrease than previously forecast.

Figure D shows the values of the median scenario and the lower and upper limits of the 90%, 80% and 50% confidence intervals of the male, female and total population resulting from the Istat projections with base year in 2021. For the sake of completeness, the median Istat population for 2020 is also shown.

Fig. D: Population projections (MM)

Fig. D.1: Males

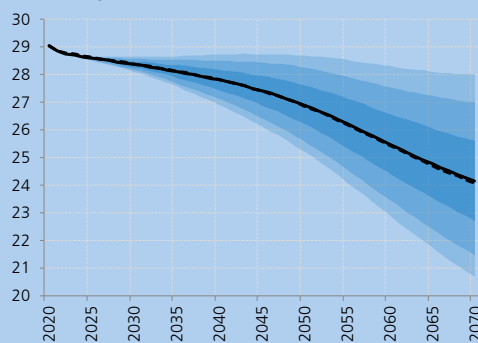


Fig. D.2: Females

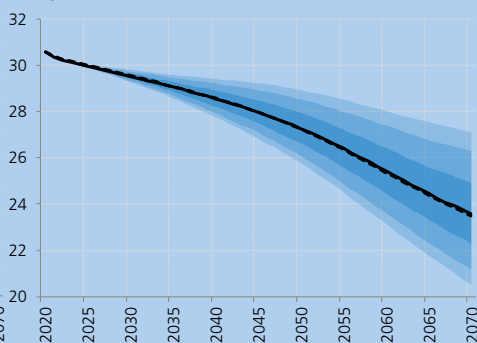
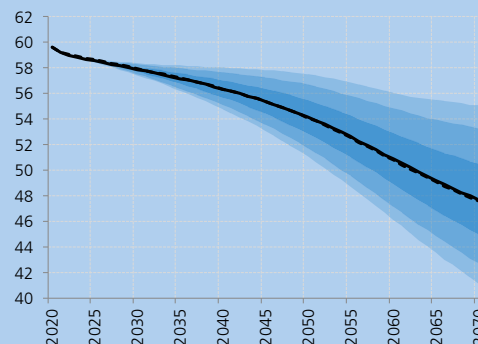


Fig. D.3: Total



Confidence interval 90%
 Confidence interval 80%
 Confidence interval 50%
 Istat median scenario 2021
 Istat median scenario 2020

In terms of dependency ratios, the two projections are similar (Fig. E). However, the projection based on 2021 is slightly more favourable as it takes into account a slight upward revision of the TFR until 2025 and slightly higher net migration flows until 2037 compared to the one based on 2020. This results in slightly lower dependency ratios at the end of the projections period. More specifically, the total dependency ratio (Figure E1), which approximates the total share of young and old people in the labour force, is slightly higher in the early years of the exercise than in the previous projections. From 2032 onwards, this trend tends to reverse, and the index tends to settle at a slightly lower level in the following projection period, with the gap increasing to 0.6 percentage points by 2070.

Finally, with regard to the old-age index, which is a proxy for the degree of ageing of the population, the revision carried out with the new Istat projections with base year 2021 forecasts a number of elderly people of 294 per 100 young people in 2070, with a slight decrease compared to the previous forecast, which estimated this ratio at 296 (Fig. E.2).

Fig. E: Istat demographic indicators

Fig. E.1: Dependency ratios

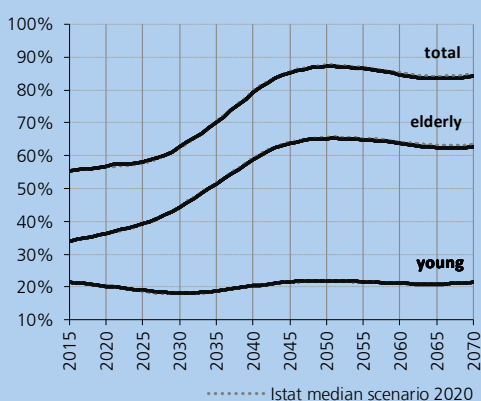
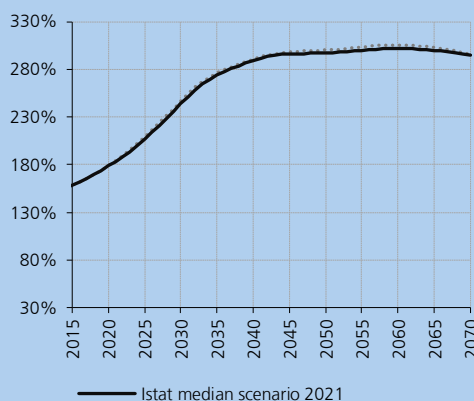


Fig. E.2: Old-age dependency index



Box 2 - Financial impact of the full reform cycle since 2004

The reform process of the Italian pension system in recent decades has contributed and continues to contribute significantly to sterilising the current and expected future impact of the demographic transition on public spending.

The figures below show the projected pension expenditure as a percentage of GDP under current legislation for the national scenario and for the EPC-WGA scenario. In order to quantify the impact of the whole reform cycle on pension expenditure as a percentage of GDP, under the same demographic and macroeconomic assumptions, counterfactual scenarios are constructed which differ from the baseline projections of this report only in that they include the impact of the pension legislation from 2004 onwards.

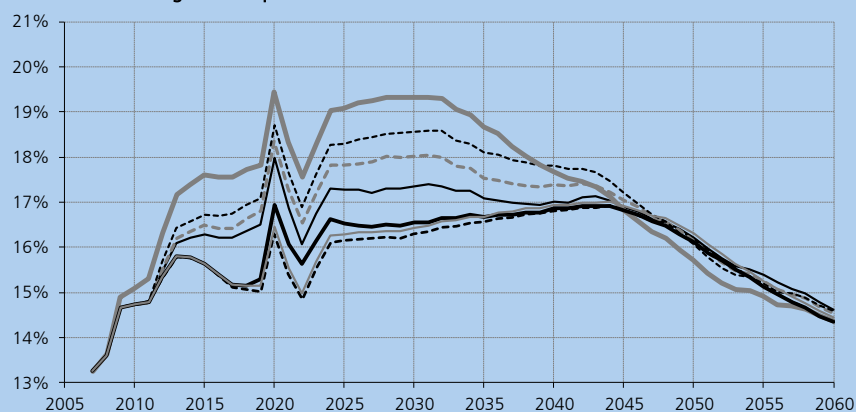
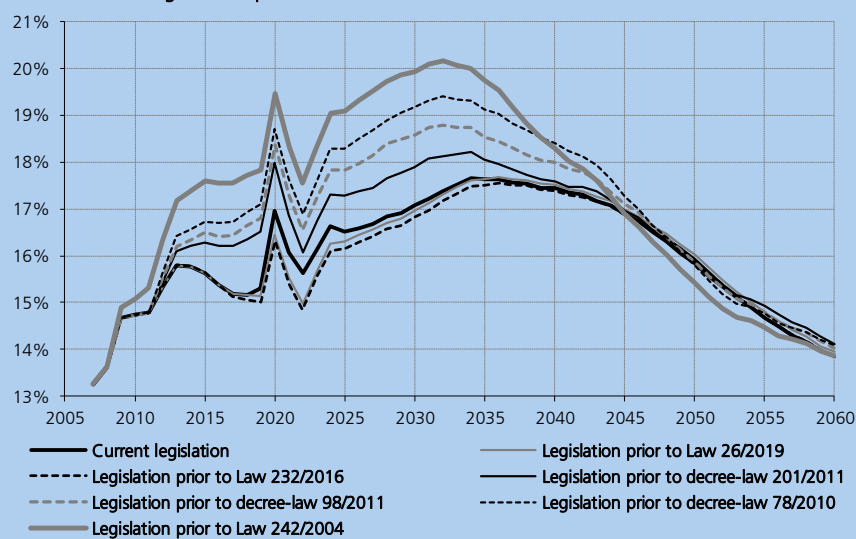
In the case of the national scenario (Fig. A.1), the projections based on current legislation include the effects of: the DL 4/2019, converted by L. 26/2019, the 2019 Budget Law (L. 145/2018), the 2020 Budget Law (L. 160/2019), the 2022 Budget Law (L. 234/2021), and the DL 115/2022. Compared with the projections based on the previous legislation, the aforementioned legislative interventions have led, for the first time since 2004, to an increase in expenditure and a partial reversal of the path of raising the requirements for access to retirement, resulting in an additional higher burden amounting to an average of 0.24 GDP points per year over the period 2019-2034.

The deviation from the level of pension expenditure as a percentage of GDP that would have been expected on the basis of previous legislation is particularly pronounced in the early years of the projection, especially in the period 2020-2023, in line with larger access to early retirement by individuals who accrue the new joint pension requirements, i.e. being at least 62 (64 in 2022) years old and having accrued at least 38 years of contributions. The higher expenditure ratio amounts to 0.5 percentage points of GDP on average. In subsequent years, the profile of new pension expenditure relative to GDP shows a declining trend. The deviation vis-à-vis the level that would have been obtained on the basis of previous prevailing legislation reaches zero in 2035.

From 2036 onwards and until the end of the projection period, the ratio of pension expenditure to GDP in the current legislation scenario is on average slightly lower by about 0.1 points than the level projected on the basis of the immediately preceding legislation. This is mainly due to the lower average level of pension benefits resulting from earlier access to retirement than under previous legislation.

Taking into account all the reform measures adopted since 2004 (Law 243/2004), it can be seen that they have cumulatively led to a reduction in the ratio of pension expenditure to GDP of more than 60 percentage points of GDP by 2060. About two-thirds of this reduction are due to the measures adopted before Decree-Law No. 201/2011 (converted into Law No. 214/2011) and about one third to the subsequent measures, in particular the package of measures envisaged in the 2011 reform (Article 24 of Law No. 214/2011).

Fig. A: Public expenditure on pensions as a percentage of GDP under different regulatory assumptions

Fig. A.1: Expenditure as % of GDP - National *baseline* scenarioFig. A.2: Expenditure as % of GDP - EPC-WGA *baseline* scenario

Box 3 - Defining the health component of long-term care expenditure

Health expenditure can be broken down into two macro-aggregates: the acute component and the long-term care (LTC) component. The two components are complementary, so that the acute component is automatically determined once the perimeter of health expenditure on long-term care is defined.

The definition of LTC health expenditure used in this report is consistent with the OECD System of Health Accounts (SHA) expenditure function HC.3 - Long-term care (health).

Following OECD guidelines, Member States are required to compile total current health expenditure²⁷ and its breakdown by function as defined in the SHA Manual. HC.3 represents the function of health expenditure attributable to the long-term care aggregate.

For Italy, this task has been performed by the inter-institutional Working Group SHA²⁸, coordinated by Istat and the Ministry of Health. In July this year, Istat published the updated series of the Health Accounts for the years 2012-2021: the revision of the years 2018-2019 was necessary to take into account the update of the results of the accounts. Compared to the previous update, which provided the distribution of expenditure for the years 2012-2019, in the new series the figure for 2019 has been revised as a result of improved methods for measuring specific components and variables. These improvements, which are mainly due to the use of more recent or, in some cases, entirely new sources of information, naturally also cover the years 2020 and 2021.

The health expenditure aggregate according to the SHA definition has been obtained by adding the final consumption expenditure of the local health authorities (LHAs) to the final consumption expenditure of the other public administration bodies. This definition differs slightly from the National Accounts definition. However, the difference between the two aggregates cannot be attributed to specific health services. Therefore, in order to reconcile health care expenditure by function according to the SHA definition with the national accounts aggregate used for the projections reported in the public finance documents and in the RGS reports, the aforementioned difference has been attributed entirely to the acute component of health care expenditure, which is by far the largest component. Among other things, this ensures that the LTC component of health care expenditure is consistent with the HC.3 function used in the EPC-WGA to produce the projections presented in the Ageing Report 2021²⁹.

In order to construct the HC.3 aggregate for 2019 and 2020, the Working Group used the breakdown of health expenditure derived from the new cost recognition model by level of care ("livello di Assistenza", LA) for the years 2019 and 2020. Starting from the above-mentioned database, the Working Group

²⁷ This aggregate differs slightly from the National Accounts aggregate. For more details, see Section 3.2 of RGS Report 2023.

²⁸ The inter-institutional Working Group (Istat, Ragioneria Generale dello Stato, Agenas, AIFA), coordinated by Istat and the Ministry of Health, aims at analysing the sources and methodology for estimating health care expenditure according to the rules established by the System of Health Accounts (SHA) Manual and Commission Regulation (EU) 2015/359 of 4 March 2015 implementing Regulation (EC) No 1338/2008 of the European Parliament and of the Council as regards statistics on health care expenditure and its financing.

²⁹ Economic Policy Committee – European Commission (2021).

first identified the items attributable to the HC.3 aggregate, in line with the HC functional classification reported in the SHA manual, and estimated the percentage allocation for the items that were not fully attributable.

The update described above only concerned the revision of data for the years 2018 and 2019. Table A shows the expenditure data published by Istat as part of the Health Accounts for the years 2012-2021. Compared with the data published by Istat last year, the update resulted in a reduction of expenditure in expenditure for component HC.3 of about 3% for the year 2019. This reduction at the overall level reflects a reduction of 7.5% in expenditure on long-term hospital care, a reduction of about 17% in expenditure on day hospital long-term care and a reduction in expenditure on outpatient long-term care. This reduction in spending is offset by a 23% increase in spending on home-based long-term care.

Table A: Health expenditure for long-term care - years 2012-2021

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Absolute values									
Inpatient long term care (health)	5.685	5.786	5.815	5.781	6.014	6.147	6.306	5.893	5.987	6.168
Day long-term care (health)	979	966	897	923	922	959	952	800	755	778
Outpatient long-term care (health)	2.535	2.554	2.592	2.567	2.585	2.634	2.683	2.446	2.490	2.596
Home-based long-term care (health)	2.046	2.069	2.229	2.126	2.107	2.312	2.274	2.826	2.988	3.078
Total long term-care (health)	11.245	11.375	11.533	11.397	11.628	12.052	12.215	11.965	12.220	12.620
	Ratio compared to 2021 edition									
Inpatient long term care (health)	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	92,5%		
Day long-term care (health)	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	83,1%		
Outpatient long-term care (health)	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	90,2%		
Home-based long-term care (health)	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	123,0%		
Total long term-care (health)	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	96,9%		

Annex: assumptions and projection results – Tables

- A1 - National baseline scenario: demographic assumptions
- A2 - National baseline scenario: macroeconomic assumptions
- A3 - National baseline scenario: pension expenditure
- A4 - National baseline scenario: healthcare expenditure
- A5 - National baseline scenario: LTC expenditure
- B1 - EPC-WGA baseline scenario: demographic assumptions
- B2 - EPC-WGA baseline scenario: macroeconomic assumptions
- B3 - EPC-WGA baseline scenario: pension expenditure
- B4 - EPC-WGA baseline scenario: healthcare expenditure
- B5 - EPC-WGA baseline scenario: LTC expenditure

A1 - National baseline scenario: demographic assumptions based on Istat median scenario, base year 2021^(a)**A1.1 - Demographic parameters**

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Migratory flow (thousands)	380.2	133.1	87.6	143.4	135.9	132.1	130.6	129.2	127.0	125.8	124.0	121.6	117.9
Fertility rate (children per woman)	1.44	1.36	1.24	1.32	1.37	1.41	1.45	1.48	1.50	1.52	1.54	1.54	1.55
Life expectancy													
male	79.3	80.1	79.8	81.2	82.2	82.9	83.6	84.2	84.7	85.2	85.7	86.1	86.5
female	84.3	84.5	84.5	85.6	86.2	86.7	87.2	87.7	88.1	88.5	88.8	89.2	89.5

A1.2 - Population by sex and age bracket (1st of January - thousands)^(b)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Male													
[0-14]	4,339	4,286	3,976	3,613	3,344	3,250	3,300	3,321	3,276	3,151	2,996	2,888	2,851
[15-19]	1,515	1,472	1,485	1,493	1,397	1,237	1,107	1,124	1,140	1,155	1,144	1,093	1,028
[20-54]	14,354	14,133	13,456	12,631	12,028	11,593	11,273	10,930	10,608	10,274	9,937	9,574	9,253
[55-64]	3,581	3,676	4,088	4,480	4,582	4,279	3,764	3,400	3,299	3,327	3,375	3,409	3,329
[65-79]	3,953	4,254	4,389	4,624	5,015	5,576	5,955	5,857	5,393	4,893	4,617	4,591	4,665
[65+]	5,125	5,663	6,044	6,381	7,025	7,760	8,362	8,639	8,572	8,324	8,032	7,800	7,681
[80+]	1,172	1,408	1,655	1,757	2,011	2,184	2,408	2,781	3,179	3,431	3,415	3,209	3,017
total	28,916	29,228	29,050	28,598	28,376	28,117	27,806	27,415	26,895	26,231	25,484	24,764	24,143
Female													
[0-14]	4,086	4,039	3,752	3,410	3,149	3,051	3,097	3,117	3,076	2,958	2,814	2,712	2,679
[15-19]	1,426	1,376	1,386	1,394	1,303	1,154	1,025	1,040	1,055	1,070	1,060	1,014	952
[20-54]	14,454	14,204	13,297	12,311	11,505	10,881	10,410	9,945	9,559	9,244	8,925	8,588	8,294
[55-64]	3,799	3,929	4,343	4,720	4,792	4,451	3,882	3,456	3,264	3,149	3,115	3,145	3,064
[65-79]	4,772	4,971	5,050	5,322	5,728	6,288	6,633	6,459	5,884	5,255	4,825	4,611	4,537
[65+]	7,027	7,519	7,815	8,126	8,782	9,530	10,150	10,422	10,315	9,978	9,507	8,990	8,591
[80+]	2,255	2,548	2,765	2,804	3,053	3,242	3,517	3,963	4,431	4,723	4,682	4,379	4,054
total	30,792	31,067	30,591	29,962	29,531	29,068	28,564	27,980	27,269	26,399	25,421	24,449	23,580
Male and female													
[0-14]	8,425	8,325	7,728	7,024	6,493	6,301	6,396	6,438	6,352	6,109	5,810	5,600	5,530
[15-19]	2,941	2,847	2,871	2,887	2,699	2,391	2,132	2,164	2,195	2,225	2,204	2,107	1,980
[20-54]	28,809	28,337	26,753	24,942	23,533	22,474	21,683	20,876	20,167	19,518	18,862	18,161	17,547
[55-64]	7,380	7,604	8,431	9,200	9,373	8,730	7,647	6,857	6,563	6,476	6,491	6,554	6,393
[65-79]	8,725	9,226	9,439	9,945	10,743	11,864	12,588	12,316	11,277	10,148	9,442	9,202	9,201
[65+]	12,153	13,182	13,859	14,507	15,807	17,290	18,512	19,061	18,887	18,302	17,539	16,790	16,272
[80+]	3,427	3,956	4,420	4,562	5,064	5,426	5,924	6,744	7,610	8,154	8,097	7,589	7,071
total	59,707	60,295	59,641	58,560	57,906	57,185	56,370	55,395	54,165	52,630	50,906	49,213	47,722

A1.3 - Demographic indicators^(c)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Elderly dependency ratio	33.6%	36.7%	39.4%	42.5%	48.0%	55.4%	63.1%	68.7%	70.7%	70.4%	69.2%	67.9%	68.0%
Youth dependency ratio	31.4%	31.1%	30.1%	29.0%	27.9%	27.9%	29.1%	31.0%	32.0%	32.1%	31.6%	31.2%	31.4%
Total dependency ratio	65.0%	67.8%	69.5%	71.5%	76.0%	83.3%	92.2%	99.7%	102.6%	102.5%	100.8%	99.1%	99.3%
Ageing index	106.9%	118.0%	130.8%	146.4%	172.0%	198.9%	217.1%	221.6%	221.0%	219.6%	218.9%	217.9%	216.7%

(a) Istat (2022), "Previsione della popolazione residente e delle famiglie - Base" 1/1/2021".

(b) Data up to 2020 are from Istat sources (<http://demo.istat.it>).

(c) The dependence indices are constructed considering, as population in work age, the population between 20 and 64 years.

A2 - National baseline scenario: macroeconomic assumptions

A2.1 - Employment, labour productivity and GDP

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Participation rate ^(a)	40.9%	41.7%	41.4%	43.4%	44.3%	44.2%	43.4%	42.4%	42.0%	42.3%	42.9%	43.5%	43.9%
Employment rate ^(b)	37.4%	36.7%	37.5%	40.2%	41.1%	41.1%	40.5%	39.6%	39.4%	39.8%	40.5%	41.1%	41.5%
Labour force (thousands)	24,411	25,130	24,686	25,436	25,649	25,291	24,485	23,477	22,740	22,252	21,860	21,415	20,959
Employment (thousands)	22,333	22,121	22,385	23,520	23,774	23,498	22,814	21,943	21,319	20,927	20,621	20,227	19,796
Unemployment rate	8.5%	12.0%	9.3%	7.5%	7.3%	7.1%	6.8%	6.5%	6.2%	6.0%	5.7%	5.5%	5.5%
GDP in real terms (billions € 2015)	1,713	1,655	1,573	1,805	1,903	1,986	2,061	2,135	2,234	2,355	2,493	2,632	2,777
GDP in nominal terms (billions €)	1,611	1,655	1,661	2,151	2,502	2,884	3,304	3,779	4,366	5,082	5,939	6,924	8,065
GDP per capita (€ 2015) ^(c)	28,686	27,454	26,367	30,817	32,856	34,731	36,559	38,534	41,240	44,751	48,967	53,488	58,190
GDP per worker (€ 2015) ^(d)	76,691	74,831	70,249	76,726	80,026	84,523	90,334	97,282	104,776	112,547	120,879	130,141	140,276
GDP per capita (€) ^(c)	26,986	27,454	27,843	36,732	43,213	50,435	58,615	68,211	80,599	96,563	116,657	140,691	168,990
GDP per worker (€) ^(d)	72,147	74,831	74,184	91,454	105,254	122,738	144,830	172,203	204,773	242,853	287,979	342,315	407,377
GDP deflator	94.1	100.0	105.6	119.2	131.5	145.2	160.3	177.0	195.4	215.8	238.2	263.0	290.4
CPI deflator ^(e)	93.4	100.0	102.3	123.1	135.9	150.1	165.7	183.0	202.0	223.0	246.2	271.9	300.2

A2.2 - Participation rates by sex and age bracket^(f)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Male													
[15-24]	32.7%	30.3%	28.2%	29.8%	32.1%	32.9%	32.4%	31.1%	31.1%	31.1%	31.4%	31.9%	32.0%
[25-64]	79.9%	81.8%	81.4%	82.6%	83.6%	84.9%	86.5%	87.6%	87.9%	87.8%	87.7%	87.4%	87.5%
[15-64]	72.5%	73.7%	72.9%	74.0%	75.2%	76.7%	78.4%	79.2%	79.1%	78.8%	78.5%	78.4%	78.6%
Female													
[15-24]	23.1%	21.7%	18.8%	21.5%	22.6%	23.2%	22.9%	21.8%	21.8%	21.8%	22.0%	22.4%	22.5%
[25-64]	55.7%	59.6%	60.2%	63.6%	65.7%	67.4%	68.9%	70.1%	70.5%	70.8%	70.8%	70.6%	70.6%
[15-64]	50.9%	54.0%	54.1%	57.2%	59.0%	60.8%	62.3%	63.0%	63.0%	62.9%	62.8%	62.7%	62.9%
Male and female													
[15-24]	28.0%	26.1%	23.7%	25.8%	27.5%	28.2%	27.8%	26.6%	26.6%	26.7%	26.9%	27.3%	27.5%
[25-64]	67.7%	70.5%	70.7%	73.1%	74.7%	76.3%	77.9%	79.1%	79.6%	79.7%	79.7%	79.4%	79.5%
[15-64]	61.6%	63.8%	63.5%	65.6%	67.2%	68.9%	70.6%	71.4%	71.4%	71.2%	71.0%	70.9%	71.1%

A2.3 - Employment rates by age bracket^(f)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
[15-24]	20.2%	15.6%	16.6%	19.0%	20.5%	21.1%	21.0%	20.2%	20.5%	20.7%	21.2%	21.7%	21.8%
[25-64]	62.8%	63.3%	64.8%	68.3%	69.9%	71.3%	72.9%	74.3%	75.0%	75.4%	75.5%	75.4%	75.4%
[15-64]	56.3%	56.0%	57.5%	60.5%	62.0%	63.7%	65.4%	66.4%	66.6%	66.6%	66.6%	66.6%	66.8%

(a) Labour force divided by the population on the 1st January.(b) Employment divided by the population on the 1st January.(c) GDP divided by the population on the 1st January.

(d) GDP divided by the number of workers consistent with the labour force definition.

(e) Consumer Price Index for the family of the employed (white and blue collar) without tobacco.

(f) For the years 2010 - 2020, source: Istat, 'Rilevazione Continua delle Forze di Lavoro'.

A3 - National baseline scenario: pension expenditure

A3.1 - Total pension expenditure/GDP and its decomposition

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Total pension expenditure/GDP	14.7%	15.6%	16.9%	16.5%	16.5%	16.7%	16.9%	16.8%	16.1%	15.1%	14.3%	14.0%	13.8%
Average pension/GDP per worker	17.1%	18.5%	20.8%	20.8%	20.2%	19.5%	18.5%	17.4%	16.4%	15.6%	15.3%	15.2%	15.4%
Number of pensions/workers	86.2%	84.5%	81.6%	79.4%	81.9%	85.6%	91.2%	96.4%	98.2%	96.7%	93.9%	91.8%	90.1%

A3.2 - Pension expenditure (2015 prices - millions €)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Total pension expenditure	254,193	258,884	275,082	284,101	304,636	320,559	336,249	347,335	348,216	344,721	345,863	356,399	372,028
Public pensions	249,954	254,144	270,352	279,192	299,233	314,457	329,311	339,474	339,615	335,579	336,491	347,088	362,943
Direct pensions	209,219	212,638	227,842	237,659	255,886	268,824	281,779	291,224	291,168	287,274	288,984	301,102	318,656
for private sector employees	124,868	121,974	128,115	131,136	140,453	154,612	173,491	191,323	201,878	208,921	218,273	230,963	240,865
for public sector employees	53,286	57,539	65,309	71,504	77,122	75,600	70,346	63,037	54,412	46,336	41,304	41,681	47,268
for self-employed	31,065	33,125	34,418	35,019	38,311	38,612	37,941	36,863	34,878	32,017	29,406	28,459	30,523
Survivors and child pensions	40,735	41,506	42,510	41,533	43,347	45,633	47,531	48,250	48,447	48,305	47,507	45,985	44,287
for private sector employees	25,116	27,011	27,218	25,543	25,762	26,821	28,360	29,609	30,900	32,338	33,587	34,184	34,110
for public sector employees	9,167	8,948	9,562	9,147	9,486	10,352	10,965	10,766	9,889	8,587	7,164	5,940	5,119
for self-employed	6,453	5,547	5,730	6,842	8,100	8,460	8,207	7,875	7,658	7,380	6,757	5,862	5,057
Old age means-tested transfers ^(a)	4,239	4,740	4,730	4,909	5,404	6,103	6,938	7,861	8,601	9,142	9,372	9,311	9,085

A3.3 - Number of pensions (thousands)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Number of pensions	19,250	18,690	18,268	18,668	19,473	20,117	20,796	21,161	20,943	20,228	19,366	18,566	17,832
Public pensions	18,412	17,815	17,466	17,788	18,549	19,125	19,722	20,008	19,771	19,086	18,300	17,597	16,963
Direct pensions	13,697	13,183	12,992	13,309	13,998	14,544	15,169	15,508	15,309	14,692	14,078	13,647	13,318
for private sector employees	7,598	7,120	6,793	6,766	7,213	8,044	9,095	9,967	10,404	10,453	10,370	10,197	9,803
for public sector employees	2,113	2,228	2,427	2,671	2,877	2,850	2,706	2,457	2,137	1,809	1,568	1,482	1,531
for self-employed	3,986	3,835	3,772	3,872	3,908	3,650	3,368	3,084	2,768	2,430	2,140	1,968	1,983
Survivors and child pensions	4,715	4,632	4,473	4,479	4,551	4,581	4,553	4,500	4,462	4,394	4,222	3,950	3,646
for private sector employees	2,940	2,788	2,592	2,476	2,443	2,495	2,579	2,661	2,754	2,838	2,866	2,808	2,678
for public sector employees	641	654	643	660	683	715	716	682	623	546	459	380	319
for self-employed	1,134	1,190	1,238	1,343	1,425	1,372	1,258	1,157	1,085	1,010	897	763	649
Old age means-tested transfers ^(a)	838	876	802	879	924	992	1,074	1,153	1,172	1,142	1,066	969	869

A3.4 - Average pension (2015 prices)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Average pension (€)	13,205	13,851	15,058	15,219	15,644	15,935	16,169	16,414	16,627	17,041	17,859	19,196	20,863
Public pensions	13,575	14,266	15,479	15,695	16,132	16,442	16,698	16,967	17,177	17,582	18,388	19,724	21,396
Direct pensions	15,275	16,130	17,536	17,856	18,280	18,484	18,576	18,779	19,019	19,553	20,528	22,063	23,928
for private sector employees	16,435	17,131	18,859	19,382	19,471	19,222	19,076	19,197	19,404	19,987	21,049	22,650	24,570
for public sector employees	25,213	25,824	26,906	26,768	26,805	26,527	25,992	25,654	25,460	25,613	26,344	28,115	30,872
for self-employed	7,794	8,638	9,125	9,044	9,804	10,578	11,266	11,952	12,601	13,175	13,742	14,463	15,390
Survivors and child pensions	8,639	8,961	9,503	9,273	9,525	9,961	10,440	10,722	10,857	10,993	11,252	11,642	12,147
for private sector employees	8,541	9,689	10,501	10,316	10,546	10,751	10,996	11,126	11,218	11,394	11,719	12,176	12,739
for public sector employees	14,294	13,679	14,863	13,869	13,887	14,486	15,317	15,780	15,864	15,737	15,611	15,650	16,037
for self-employed	5,692	4,662	4,628	5,094	5,684	6,168	6,524	6,808	7,060	7,304	7,529	7,684	7,792
Old age means-tested transfers ^(a)	5,059	5,413	5,897	5,583	5,848	6,150	6,458	6,818	7,339	8,003	8,789	9,606	10,459

A3.5 - Number of pensioners ^(b) (thousands)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Total number of pensioners	15,720	15,200	14,761	15,141	15,771	16,357	17,023	17,334	17,144	16,514	15,754	15,059	14,405
- of which with 65+	11,952	12,500	12,633	13,092	14,135	15,068	16,032	16,496	16,384	15,780	15,049	14,389	13,782
Male	7,261	7,066	7,072	7,387	7,695	7,913	8,196	8,342	8,234	7,918	7,557	7,326	7,127
- of which with 65+	5,318	5,665	5,918	6,252	6,855	7,251	7,687	7,894	7,819	7,506	7,154	6,936	6,758
Female	8,459	8,134	7,689	7,754	8,075	8,444	8,826	8,991	8,910	8,595	8,197	7,734	7,278
- of which with 65+	6,635	6,835	6,714	6,840	7,280	7,817	8,346	8,602	8,565	8,274	7,895	7,453	7,025

(a) Social pensions and old age allowances starting from 1996.

(b) Includes non-resident people.

A4 - National baseline scenario: health care expenditure

A4.1 - Health care expenditure/GDP by age bracket - Pure ageing scenario^(a)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
<i>Acute e Long Term Care</i>													
[0-64]	3.5%	3.3%	3.6%	2.8%	2.8%	2.7%	2.5%	2.4%	2.4%	2.4%	2.5%	2.5%	2.5%
[65-79]	2.1%	2.0%	2.2%	1.9%	2.0%	2.3%	2.5%	2.5%	2.4%	2.2%	2.1%	2.1%	2.2%
[80+]	1.3%	1.4%	1.6%	1.3%	1.5%	1.7%	1.8%	2.1%	2.5%	2.7%	2.8%	2.8%	2.7%
total	6.9%	6.6%	7.4%	6.0%	6.3%	6.6%	6.9%	7.1%	7.3%	7.4%	7.4%	7.4%	7.3%
<i>Acute Care</i>													
[0-64]	3.3%	3.0%	3.3%	2.6%	2.6%	2.5%	2.4%	2.3%	2.2%	2.3%	2.3%	2.3%	2.3%
[65-79]	1.9%	1.9%	2.1%	1.7%	1.9%	2.1%	2.3%	2.4%	2.2%	2.1%	2.0%	2.0%	2.0%
[80+]	1.0%	1.1%	1.3%	1.0%	1.2%	1.3%	1.4%	1.7%	1.9%	2.1%	2.2%	2.1%	2.0%
total	6.2%	6.0%	6.7%	5.4%	5.7%	5.9%	6.1%	6.3%	6.4%	6.4%	6.4%	6.4%	6.4%
<i>Long Term Care</i>													
[0-64]	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
[65-79]	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%
[80+]	0.3%	0.3%	0.4%	0.3%	0.3%	0.4%	0.5%	0.5%	0.6%	0.6%	0.7%	0.7%	0.7%
total	0.7%	0.7%	0.7%	0.6%	0.7%	0.7%	0.7%	0.8%	0.9%	0.9%	1.0%	1.0%	1.0%

A4.2 - Health care expenditure/GDP by age bracket - Reference scenario^(b)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
<i>Acute e Long Term Care</i>													
[0-64]	3.5%	3.3%	3.6%	2.8%	2.8%	2.6%	2.5%	2.4%	2.4%	2.4%	2.4%	2.5%	2.5%
[65-79]	2.1%	2.0%	2.2%	1.9%	2.0%	2.3%	2.5%	2.5%	2.4%	2.2%	2.1%	2.1%	2.2%
[80+]	1.3%	1.4%	1.6%	1.3%	1.5%	1.7%	1.9%	2.1%	2.5%	2.8%	2.9%	2.8%	2.7%
total	6.9%	6.6%	7.4%	6.0%	6.3%	6.6%	6.9%	7.1%	7.3%	7.4%	7.4%	7.4%	7.3%
<i>Acute Care</i>													
[0-64]	3.3%	3.0%	3.3%	2.6%	2.6%	2.5%	2.3%	2.3%	2.2%	2.2%	2.3%	2.3%	2.3%
[65-79]	1.9%	1.9%	2.1%	1.7%	1.9%	2.1%	2.3%	2.4%	2.2%	2.1%	2.0%	2.0%	2.0%
[80+]	1.0%	1.1%	1.3%	1.0%	1.2%	1.3%	1.4%	1.7%	2.0%	2.2%	2.2%	2.2%	2.1%
total	6.2%	6.0%	6.7%	5.4%	5.7%	5.9%	6.1%	6.3%	6.4%	6.5%	6.5%	6.4%	6.4%
<i>Long Term Care</i>													
[0-64]	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
[65-79]	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%
[80+]	0.3%	0.3%	0.4%	0.3%	0.3%	0.4%	0.4%	0.5%	0.6%	0.6%	0.7%	0.7%	0.6%
total	0.7%	0.7%	0.7%	0.6%	0.6%	0.7%	0.7%	0.8%	0.9%	0.9%	1.0%	1.0%	0.9%

A4.3 - Health care expenditure/GDP - Different hypotheses

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
<i>Pure ageing scenario + unit cost linked to GDP per worker</i>	6.9%	6.6%	7.4%	6.0%	6.2%	6.5%	6.8%	7.2%	7.4%	7.4%	7.3%	7.2%	7.1%
- of which acute care	6.2%	6.0%	6.7%	5.4%	5.6%	5.8%	6.1%	6.4%	6.5%	6.5%	6.4%	6.2%	6.2%
<i>Pure ageing scenario + dynamic health care consumption profiles^(c)</i>	6.9%	6.6%	7.4%	6.0%	6.3%	6.5%	6.7%	6.9%	7.0%	7.1%	7.1%	7.1%	7.0%
- of which acute care	6.2%	6.0%	6.7%	5.4%	5.6%	5.8%	6.0%	6.1%	6.2%	6.3%	6.2%	6.2%	6.1%
<i>Pure ageing scenario + elasticity of unit cost to GDP per capita above 1</i>	6.9%	6.6%	7.4%	6.0%	6.4%	6.7%	7.0%	7.2%	7.4%	7.5%	7.6%	7.6%	7.5%
- of which acute care	6.2%	6.0%	6.7%	5.4%	5.7%	6.0%	6.2%	6.4%	6.5%	6.6%	6.6%	6.6%	6.5%

A4.4 - Health care expenditure/GDP - Hypotheses adopted by EPC-WGA^(d)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
<i>Reference scenario + partial dynamic equilibrium for every health care provision (including hospital care)</i>	6.9%	6.6%	7.4%	6.0%	6.3%	6.6%	6.8%	7.1%	7.3%	7.4%	7.4%	7.3%	7.3%
- of which acute care	6.2%	6.0%	6.7%	5.4%	5.7%	5.9%	6.1%	6.3%	6.4%	6.4%	6.4%	6.4%	6.3%

(a) Unit cost (CPS) linked to GDP per capita and constant age-related expenditure profiles.

(b) Unit cost (CPS) linked to GDP per capita for acute care, and to GDP per worker, for long term care; elasticity of CPS to GDP per capita or per worker above one (from initial 1.1 to 1 in 2070); application of death-related costs to the hospital care expenditure profile and partial dynamic equilibrium (50% of changes in life expectancy) to the other health care provisions.

(c) Age-related expenditure profiles change according to the methodology of death-related costs, for the hospital care expenditure profile, and the methodology of partial dynamic equilibrium, for the other health care provisions.

(d) Differs from the reference scenario insofar as the age-related expenditure profile evolves accordingly to the partial dynamic equilibrium methodology for each health care provision.

A5 - National baseline scenario: LTC expenditure

A5.1 - LTC expenditure/GDP by age bracket - Pure ageing scenario^(a)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
LTC expenditure/GDP	1.8%	1.8%	1.9%	1.6%	1.7%	1.8%	1.9%	2.1%	2.2%	2.4%	2.5%	2.5%	2.5%
Health care component	0.7%	0.7%	0.7%	0.6%	0.7%	0.7%	0.7%	0.8%	0.9%	0.9%	1.0%	1.0%	1.0%
Attendance allowances	0.8%	0.8%	0.8%	0.7%	0.7%	0.7%	0.8%	0.8%	0.9%	1.0%	1.0%	1.0%	1.0%
Other LTC provisions	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%
Distribution by age bracket													
Total expenditure													
[0-64]	25.8%	25.4%	25.9%	26.2%	24.5%	22.1%	19.7%	17.6%	15.9%	14.9%	14.4%	14.4%	14.7%
[65-79]	23.4%	21.9%	20.4%	20.6%	20.4%	21.2%	21.7%	20.6%	18.1%	15.5%	14.0%	13.9%	14.6%
[80+]	50.8%	52.7%	53.7%	53.2%	55.1%	56.8%	58.7%	61.9%	66.0%	69.6%	71.6%	71.6%	70.7%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Health care component													
[0-64]	35.7%	33.7%	33.0%	33.1%	30.6%	27.6%	24.6%	22.2%	20.2%	18.8%	18.1%	18.1%	18.3%
[65-79]	21.2%	20.0%	19.0%	19.1%	19.1%	20.1%	20.8%	19.9%	17.6%	15.1%	13.6%	13.4%	14.0%
[80+]	43.0%	46.3%	47.9%	47.8%	50.2%	52.2%	54.6%	57.9%	62.2%	66.0%	68.3%	68.5%	67.6%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Attendance allowances													
[0-64]	22.5%	22.5%	23.7%	25.4%	24.3%	22.1%	19.9%	17.8%	16.2%	15.2%	14.8%	14.9%	15.2%
[65-79]	24.1%	22.7%	20.9%	21.2%	20.9%	21.5%	22.0%	20.7%	18.2%	15.7%	14.3%	14.3%	15.0%
[80+]	53.4%	54.8%	55.3%	53.5%	54.8%	56.4%	58.2%	61.5%	65.6%	69.1%	70.9%	70.7%	69.7%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Other LTC provisions													
[0-64]	10.7%	12.0%	14.8%	14.0%	12.6%	11.1%	9.6%	8.4%	7.5%	6.9%	6.7%	6.7%	6.9%
[65-79]	27.0%	24.5%	22.1%	22.4%	21.9%	22.5%	22.9%	21.6%	18.9%	16.0%	14.3%	14.2%	14.9%
[80+]	62.3%	63.5%	63.1%	63.6%	65.4%	66.4%	67.5%	70.0%	73.6%	77.0%	79.0%	79.1%	78.2%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

A5.2 - LTC expenditure/GDP by age bracket - Reference scenario^(b)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
LTC expenditure/GDP	1.8%	1.8%	1.9%	1.6%	1.7%	1.7%	1.9%	2.0%	2.2%	2.4%	2.4%	2.4%	2.4%
Health care component	0.7%	0.7%	0.7%	0.6%	0.6%	0.7%	0.7%	0.8%	0.9%	0.9%	1.0%	1.0%	0.9%
Attendance allowances	0.8%	0.8%	0.8%	0.7%	0.7%	0.7%	0.7%	0.8%	0.9%	0.9%	1.0%	1.0%	0.9%
Other LTC provisions	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%
Distribution by age bracket													
Total expenditure													
[0-64]	25.8%	25.4%	25.9%	26.2%	24.6%	22.1%	19.7%	17.6%	16.0%	14.8%	14.3%	14.3%	14.6%
[65-79]	23.4%	21.9%	20.4%	20.6%	20.1%	20.8%	21.2%	20.1%	17.6%	15.0%	13.4%	13.3%	13.8%
[80+]	50.8%	52.7%	53.7%	53.2%	55.3%	57.1%	59.1%	62.3%	66.5%	70.2%	72.3%	72.4%	71.6%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Health care component													
[0-64]	35.7%	33.7%	33.0%	33.1%	30.6%	27.5%	24.5%	22.0%	20.0%	18.6%	17.8%	17.7%	18.0%
[65-79]	21.2%	20.0%	19.0%	19.1%	19.1%	20.0%	20.6%	19.8%	17.4%	15.0%	13.4%	13.2%	13.7%
[80+]	43.0%	46.3%	47.9%	47.8%	50.3%	52.4%	54.9%	58.2%	62.5%	66.5%	68.8%	69.1%	68.3%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Attendance allowances													
[0-64]	22.5%	22.5%	23.7%	25.4%	24.5%	22.3%	20.2%	18.1%	16.5%	15.5%	15.0%	15.2%	15.5%
[65-79]	24.1%	22.7%	20.9%	21.2%	20.3%	20.7%	20.9%	19.7%	17.1%	14.5%	13.1%	13.0%	13.5%
[80+]	53.4%	54.8%	55.3%	53.5%	55.2%	57.0%	58.9%	62.2%	66.4%	70.0%	71.9%	71.8%	71.0%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Other LTC provisions													
[0-64]	10.7%	12.0%	14.8%	14.0%	12.7%	11.1%	9.6%	8.3%	7.3%	6.8%	6.6%	6.6%	6.8%
[65-79]	27.0%	24.5%	22.1%	22.4%	21.9%	22.4%	22.7%	21.5%	18.7%	15.9%	14.1%	13.9%	14.5%
[80+]	62.3%	63.5%	63.1%	63.6%	65.4%	66.5%	67.7%	70.3%	74.0%	77.3%	79.3%	79.5%	78.7%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

(a) Unit cost (CPS) linked to GDP per capita and constant age-related expenditure profiles.

(b) Unit cost (CPS) linked to GDP per capita for attendance allowances, and to GDP per worker, for health care component and 'other LTC provisions'; the elasticity of CPS to GDP per capita or to productivity greater than 1 and, application of partial dynamic equilibrium (50% of changes in life expectancy) to all LTC provisions.

B1 - EPC-WGA baseline scenario: Eurostat demographic assumptions^(a)**B1.1 - Demographic parameters^(b)**

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Migratory flow (thousands)	380.2	133.1	87.6	228.4	224.0	219.9	217.2	215.7	214.3	212.6	210.5	208.4	206.6
Fertility rate (children per woman)	1.44	1.36	1.24	1.35	1.37	1.39	1.41	1.43	1.45	1.47	1.48	1.50	1.52
Life expectancy													
Male	79.3	80.1	79.8	81.9	82.6	83.2	83.8	84.3	84.9	85.4	86.0	86.5	87.0
Female	84.3	84.5	84.5	86.3	86.9	87.4	88.0	88.5	89.0	89.5	90.0	90.5	90.9

B1.2 - Population by sex and age bracket (1st of January - thousands)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Male													
[0-14]	4,339	4,286	3,976	3,633	3,401	3,344	3,413	3,442	3,406	3,307	3,207	3,162	3,179
[15-19]	1,515	1,472	1,485	1,505	1,415	1,264	1,156	1,184	1,206	1,225	1,214	1,172	1,129
[20-54]	14,354	14,133	13,456	12,714	12,293	12,030	11,869	11,679	11,488	11,256	10,999	10,692	10,427
[55-64]	3,581	3,676	4,088	4,482	4,579	4,279	3,787	3,462	3,411	3,496	3,596	3,673	3,624
[65-79]	3,953	4,254	4,389	4,653	5,050	5,599	5,960	5,855	5,407	4,950	4,735	4,781	4,924
[65+]	5,125	5,663	6,044	6,436	7,092	7,815	8,403	8,673	8,623	8,423	8,210	8,086	8,090
[80+]	1,172	1,408	1,655	1,783	2,043	2,216	2,443	2,818	3,216	3,473	3,475	3,305	3,165
total	28,916	29,228	29,050	28,770	28,781	28,733	28,628	28,440	28,133	27,707	27,226	26,784	26,449
Female													
[0-14]	4,086	4,039	3,752	3,435	3,222	3,167	3,233	3,262	3,229	3,137	3,044	3,003	3,020
[15-19]	1,426	1,376	1,386	1,400	1,321	1,187	1,083	1,111	1,133	1,151	1,142	1,103	1,064
[20-54]	14,454	14,204	13,297	12,383	11,755	11,311	11,013	10,722	10,496	10,306	10,090	9,839	9,623
[55-64]	3,799	3,929	4,343	4,727	4,812	4,492	3,958	3,576	3,431	3,381	3,410	3,479	3,431
[65-79]	4,772	4,971	5,050	5,342	5,762	6,336	6,699	6,553	6,020	5,449	5,084	4,953	4,963
[65+]	7,027	7,519	7,815	8,191	8,880	9,663	10,325	10,657	10,632	10,404	10,059	9,686	9,434
[80+]	2,255	2,548	2,765	2,849	3,118	3,327	3,626	4,104	4,612	4,956	4,975	4,733	4,471
total	30,792	31,067	30,591	30,136	29,990	29,820	29,613	29,328	28,921	28,380	27,745	27,110	26,572
Male and female													
[0-14]	8,425	8,325	7,728	7,068	6,623	6,511	6,647	6,704	6,634	6,445	6,251	6,165	6,199
[15-19]	2,941	2,847	2,871	2,905	2,736	2,451	2,239	2,295	2,339	2,376	2,356	2,276	2,193
[20-54]	28,809	28,337	26,753	25,097	24,048	23,342	22,882	22,400	21,984	21,562	21,090	20,530	20,050
[55-64]	7,380	7,604	8,431	9,209	9,391	8,771	7,745	7,038	6,842	6,877	7,006	7,152	7,055
[65-79]	8,725	9,226	9,439	9,995	10,812	11,935	12,659	12,408	11,427	10,399	9,818	9,734	9,888
[65+]	12,153	13,182	13,859	14,627	15,972	17,478	18,728	19,330	19,255	18,828	18,269	17,772	17,524
[80+]	3,427	3,956	4,420	4,632	5,160	5,543	6,069	6,922	7,828	8,429	8,451	8,038	7,636
total	59,707	60,295	59,641	58,906	58,771	58,552	58,241	57,767	57,054	56,087	54,971	53,894	53,021

B1.3 - Demographic indicators^(c)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Elderly dependency ratio	33.6%	36.7%	39.4%	42.6%	47.8%	54.4%	61.1%	65.7%	66.8%	66.2%	65.0%	64.2%	64.7%
Youth dependency ratio	31.4%	31.1%	30.1%	29.1%	28.0%	27.9%	29.0%	30.6%	31.1%	31.0%	30.6%	30.5%	31.0%
Total dependency ratio	65.0%	67.8%	69.5%	71.7%	75.8%	82.3%	90.2%	96.2%	97.9%	97.2%	95.7%	94.7%	95.6%
Ageing index	106.9%	118.0%	130.8%	146.7%	170.7%	195.0%	210.8%	214.8%	214.6%	213.4%	212.3%	210.6%	208.8%

(a) Eurostat (2020). The projection starts from 1/1/2022 using the same demographic parameters as the 2019 baseline Eurostat projection. For 2022, the consolidated population is around 1.2 million less than the original 2019 baseline Eurostat projection. Up to that date, the values reported are from Istat sources.

(b) Data up to 2020 are from Istat sources (<http://demo.istat.it>).

(c) The dependence indices are constructed considering, as population in work age, the population between 20 and 64 years.

B2 - EPC-WGA baseline scenario: macroeconomic assumptions**B2.1 - Employment, labour productivity and GDP**

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Participation rate ^(a)	40.9%	41.7%	41.4%	43.2%	43.5%	43.0%	42.1%	41.4%	41.1%	41.3%	41.9%	42.4%	42.7%
Employment rate ^(b)	37.4%	36.7%	37.5%	39.9%	40.1%	39.6%	38.9%	38.4%	38.3%	38.6%	39.1%	39.6%	39.9%
Labour force (thousands)	24,411	25,130	24,686	25,436	25,549	25,165	24,530	23,926	23,435	23,167	23,012	22,853	22,625
Employment (thousands)	22,333	22,121	22,385	23,520	23,553	23,208	22,636	22,208	21,866	21,640	21,503	21,362	21,160
Unemployment rate	8.5%	12.0%	9.3%	7.5%	7.8%	7.8%	7.7%	7.2%	6.7%	6.6%	6.6%	6.5%	6.5%
GDP in real terms (billions € 2015)	1,713	1,655	1,573	1,805	1,840	1,888	1,991	2,122	2,273	2,442	2,629	2,824	3,019
GDP in nominal terms (billions €)	1,611	1,655	1,661	2,151	2,420	2,741	3,191	3,757	4,442	5,269	6,262	7,428	8,767
GDP per capita (€ 2015) ^(c)	28,686	27,454	26,367	30,636	31,304	32,237	34,178	36,738	39,838	43,537	47,819	52,395	56,936
GDP per worker (€ 2015) ^(d)	76,691	74,831	70,249	76,726	78,111	81,331	87,938	95,564	103,947	112,837	122,246	132,186	142,670
GDP per capita (€) ^(e)	26,986	27,454	27,843	36,516	41,172	46,812	54,797	65,031	77,858	93,943	113,923	137,817	165,348
GDP per worker (€) ^(d)	72,147	74,831	74,184	91,454	102,735	118,104	140,988	169,162	203,152	243,480	291,236	347,695	414,328
GDP deflator	94.1	100.0	105.6	119.2	131.5	145.2	160.3	177.0	195.4	215.8	238.2	263.0	290.4
CPI deflator ^(e)	93.4	100.0	102.3	123.1	135.9	150.1	165.7	183.0	202.0	223.0	246.2	271.9	300.2

B2.2 - Participation rates by sex and age bracket^(f)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Male													
[15-24]	32.7%	30.3%	28.2%	29.8%	31.0%	31.9%	31.5%	30.6%	30.6%	30.5%	30.8%	31.1%	31.2%
[25-64]	79.9%	81.8%	81.4%	82.6%	82.6%	83.2%	84.1%	85.1%	84.8%	84.4%	84.4%	84.6%	84.9%
[15-64]	72.5%	73.7%	72.9%	74.0%	74.1%	75.2%	76.2%	76.9%	76.4%	75.8%	75.8%	76.1%	76.4%
Female													
[15-24]	23.1%	21.7%	18.8%	21.5%	23.0%	23.7%	23.4%	22.6%	22.6%	22.6%	22.9%	23.1%	23.1%
[25-64]	55.7%	59.6%	60.2%	63.6%	66.1%	67.4%	68.6%	69.6%	69.7%	69.7%	69.8%	69.9%	70.0%
[15-64]	50.9%	54.0%	54.1%	57.2%	59.4%	60.9%	62.0%	62.7%	62.4%	62.3%	62.3%	62.4%	62.6%
Male and female													
[15-24]	28.0%	26.1%	23.7%	25.8%	27.2%	28.0%	27.6%	26.8%	26.8%	26.7%	27.0%	27.3%	27.3%
[25-64]	67.7%	70.5%	70.7%	73.1%	74.4%	75.4%	76.5%	77.5%	77.5%	77.3%	77.4%	77.5%	77.7%
[15-64]	61.6%	63.8%	63.5%	65.6%	66.8%	68.1%	69.3%	70.0%	69.6%	69.3%	69.3%	69.5%	69.8%

B2.3 - Employment rates by age bracket^(f)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
[15-24]	20.2%	15.6%	16.6%	19.0%	20.8%	21.4%	21.2%	20.9%	21.2%	21.3%	21.5%	21.8%	21.8%
[25-64]	62.8%	63.3%	64.8%	68.3%	69.1%	70.0%	71.0%	72.3%	72.6%	72.6%	72.6%	72.8%	73.0%
[15-64]	56.3%	56.0%	57.5%	60.5%	61.4%	62.6%	63.6%	64.7%	64.7%	64.5%	64.4%	64.6%	64.9%

(a) Labour force divided by the population on the 1st January.(b) Employment divided by the population on the 1st January.(c) GDP divided by the population on the 1st January.

(d) GDP divided by the number of workers consistent with the labour force definition.

(e) Consumer Price Index for the family of the employed (white and blue collar) without tobacco.

(f) For the years 2010 - 2020, source: Istat, 'Rilevazione Continua delle Forze di Lavoro'.

B3 - EPC-WGA baseline scenario: pension expenditure**B3.1 - Total pension expenditure/GDP and its decomposition**

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Total pension expenditure/GDP	14.7%	15.6%	16.9%	16.5%	17.1%	17.6%	17.4%	16.9%	15.8%	14.7%	13.9%	13.5%	13.5%
Average pension/GDP per worker	17.1%	18.5%	20.8%	20.8%	20.7%	20.2%	18.8%	17.5%	16.3%	15.4%	15.0%	15.1%	15.5%
Number of pensions/workers	86.2%	84.5%	81.6%	79.4%	82.6%	87.5%	92.9%	96.7%	97.3%	95.3%	92.3%	89.0%	87.3%

B3.2 - Pension expenditure (2015 prices - millions €)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Total pension expenditure	254,193	258,884	275,082	284,101	303,953	322,084	335,990	346,544	348,104	346,888	352,270	367,520	394,674
Public pensions	249,954	254,144	270,352	279,192	298,665	316,301	329,333	338,837	339,456	337,493	342,357	357,259	384,303
Direct pensions	209,219	212,638	227,842	237,659	255,430	270,778	281,761	290,356	290,654	288,804	294,383	310,677	339,177
for private sector employees	124,868	121,974	128,115	131,136	140,060	155,684	173,088	189,968	200,892	209,402	221,897	237,398	254,849
for public sector employees	53,286	57,539	65,309	71,504	77,135	76,364	70,846	63,581	54,898	47,106	42,416	43,834	51,940
for self-employed	31,065	33,125	34,418	35,019	38,234	38,729	37,827	36,808	34,864	32,295	30,070	29,445	32,388
Survivors and child pensions	40,735	41,506	42,510	41,533	43,235	45,523	47,572	48,480	48,803	48,689	47,975	46,582	45,126
for private sector employees	25,116	27,011	27,218	25,543	25,698	26,725	28,352	29,709	31,061	32,453	33,709	34,422	34,566
for public sector employees	9,167	8,948	9,562	9,147	9,493	10,361	10,983	10,818	9,976	8,690	7,279	6,062	5,274
for self-employed	6,453	5,547	5,730	6,842	8,043	8,437	8,238	7,953	7,767	7,546	6,986	6,098	5,286
Old age means-tested transfers ^(a)	4,239	4,740	4,730	4,909	5,288	5,783	6,657	7,707	8,647	9,395	9,913	10,261	10,371

B3.3 - Number of pensions (thousands)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Number of pensions	19,250	18,690	18,268	18,668	19,446	20,309	21,019	21,469	21,269	20,625	19,840	19,022	18,468
Public pensions	18,412	17,815	17,466	17,788	18,519	19,318	19,941	20,313	20,076	19,443	18,707	17,953	17,470
Direct pensions	13,697	13,183	12,992	13,309	13,966	14,725	15,366	15,778	15,561	14,979	14,397	13,913	13,740
for private sector employees	7,598	7,120	6,793	6,766	7,191	8,162	9,223	10,139	10,564	10,639	10,591	10,374	10,093
for public sector employees	2,113	2,228	2,427	2,671	2,871	2,879	2,741	2,505	2,181	1,854	1,609	1,526	1,602
for self-employed	3,986	3,835	3,772	3,872	3,904	3,684	3,402	3,133	2,817	2,486	2,197	2,013	2,045
Survivors and child pensions	4,715	4,632	4,473	4,479	4,553	4,593	4,574	4,535	4,515	4,465	4,310	4,040	3,730
for private sector employees	2,940	2,788	2,592	2,476	2,443	2,500	2,590	2,681	2,784	2,874	2,908	2,853	2,723
for public sector employees	641	654	643	660	683	715	716	685	629	554	469	390	330
for self-employed	1,134	1,190	1,238	1,343	1,427	1,378	1,268	1,169	1,102	1,037	933	797	678
Old age means-tested transfers ^(a)	838	876	802	879	927	991	1,078	1,156	1,194	1,182	1,134	1,069	998

B3.4 - Average pension (2015 prices)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Average pension (€)	13,205	13,851	15,058	15,219	15,631	15,859	15,985	16,142	16,366	16,819	17,755	19,321	21,371
Public pensions	13,575	14,266	15,479	15,695	16,128	16,373	16,515	16,681	16,909	17,358	18,301	19,900	21,998
Direct pensions	15,275	16,130	17,536	17,856	18,290	18,389	18,336	18,403	18,678	19,281	20,448	22,330	24,686
for private sector employees	16,435	17,131	18,859	19,382	19,476	19,073	18,766	18,736	19,017	19,683	20,952	22,883	25,250
for public sector employees	25,213	25,824	26,906	26,768	26,869	26,526	25,848	25,379	25,176	25,409	26,360	28,720	32,426
for self-employed	7,794	8,638	9,125	9,044	9,795	10,513	11,118	11,748	12,378	12,992	13,688	14,629	15,840
Survivors and child pensions	8,639	8,961	9,503	9,273	9,496	9,911	10,400	10,690	10,810	10,906	11,131	11,532	12,097
for private sector employees	8,541	9,689	10,501	10,316	10,518	10,690	10,945	11,081	11,156	11,294	11,591	12,066	12,694
for public sector employees	14,294	13,679	14,863	13,869	13,900	14,497	15,329	15,794	15,863	15,692	15,514	15,545	16,005
for self-employed	5,692	4,662	4,628	5,094	5,637	6,122	6,499	6,805	7,051	7,276	7,491	7,655	7,796
Old age means-tested transfers ^(a)	5,059	5,413	5,897	5,583	5,705	5,835	6,174	6,666	7,244	7,948	8,745	9,595	10,397

B3.5 - Number of pensioners ^(b) (thousands)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
Total number of pensioners	15,720	15,200	14,761	15,141	15,747	16,504	17,177	17,575	17,412	16,860	16,216	15,572	15,127
- of which with 65+	11,952	12,500	12,633	13,092	14,133	15,199	16,167	16,710	16,629	16,103	15,475	14,863	14,469
Male	7,261	7,066	7,072	7,387	7,661	7,952	8,224	8,399	8,272	7,959	7,634	7,409	7,308
- of which with 65+	5,318	5,665	5,918	6,252	6,831	7,285	7,707	7,939	7,851	7,544	7,223	7,010	6,934
Female	8,459	8,134	7,689	7,754	8,086	8,552	8,952	9,176	9,140	8,901	8,582	8,163	7,819
- of which with 65+	6,635	6,835	6,714	6,840	7,302	7,914	8,461	8,771	8,778	8,559	8,252	7,853	7,534

(a) Social pensions and old age allowances starting from 1996.

(b) Includes non-resident people.

B4 - EPC-WGA baseline scenario: health care expenditure**B4.1 - Health care expenditure/GDP by age bracket - Pure ageing scenario ^(a)**

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
<i>Acute e Long Term Care</i>													
[0-64]	3.5%	3.3%	3.6%	2.8%	2.8%	2.7%	2.5%	2.5%	2.4%	2.5%	2.5%	2.5%	2.5%
[65-79]	2.1%	2.0%	2.2%	1.9%	2.0%	2.2%	2.4%	2.4%	2.3%	2.1%	2.0%	2.0%	2.1%
[80+]	1.3%	1.4%	1.6%	1.4%	1.5%	1.6%	1.8%	2.1%	2.4%	2.6%	2.7%	2.7%	2.6%
total	6.9%	6.6%	7.4%	6.0%	6.3%	6.5%	6.8%	7.0%	7.1%	7.2%	7.2%	7.2%	7.2%
<i>Acute Care</i>													
[0-64]	3.3%	3.0%	3.3%	2.6%	2.6%	2.5%	2.4%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
[65-79]	1.9%	1.9%	2.1%	1.7%	1.9%	2.1%	2.3%	2.3%	2.1%	2.0%	1.9%	1.9%	2.0%
[80+]	1.0%	1.1%	1.3%	1.1%	1.2%	1.3%	1.4%	1.6%	1.9%	2.0%	2.1%	2.0%	2.0%
total	6.2%	6.0%	6.7%	5.4%	5.7%	5.9%	6.0%	6.2%	6.3%	6.3%	6.3%	6.3%	6.3%
<i>Long Term Care</i>													
[0-64]	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
[65-79]	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
[80+]	0.3%	0.3%	0.4%	0.3%	0.3%	0.4%	0.5%	0.5%	0.6%	0.6%	0.6%	0.7%	0.6%
total	0.7%	0.7%	0.7%	0.6%	0.7%	0.7%	0.7%	0.8%	0.9%	0.9%	1.0%	1.0%	1.0%

B4.2 - Health care expenditure/GDP by age bracket - Reference scenario ^(b)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
<i>Acute e Long Term Care</i>													
[0-64]	3.5%	3.3%	3.6%	2.8%	2.8%	2.7%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
[65-79]	2.1%	2.0%	2.2%	1.9%	2.0%	2.2%	2.4%	2.4%	2.3%	2.1%	2.0%	2.0%	2.1%
[80+]	1.3%	1.4%	1.6%	1.4%	1.5%	1.7%	1.8%	2.1%	2.4%	2.7%	2.8%	2.7%	2.6%
total	6.9%	6.6%	7.4%	6.0%	6.3%	6.5%	6.8%	7.0%	7.2%	7.3%	7.3%	7.3%	7.2%
<i>Acute Care</i>													
[0-64]	3.3%	3.0%	3.3%	2.6%	2.6%	2.5%	2.4%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
[65-79]	1.9%	1.9%	2.1%	1.7%	1.9%	2.1%	2.3%	2.3%	2.1%	2.0%	1.9%	1.9%	1.9%
[80+]	1.0%	1.1%	1.3%	1.1%	1.2%	1.3%	1.4%	1.6%	1.9%	2.1%	2.1%	2.1%	2.0%
total	6.2%	6.0%	6.7%	5.4%	5.7%	5.8%	6.0%	6.2%	6.3%	6.3%	6.3%	6.3%	6.3%
<i>Long Term Care</i>													
[0-64]	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
[65-79]	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%
[80+]	0.3%	0.3%	0.4%	0.3%	0.3%	0.4%	0.4%	0.5%	0.6%	0.6%	0.7%	0.7%	0.6%
total	0.7%	0.7%	0.7%	0.6%	0.7%	0.7%	0.8%	0.8%	0.9%	0.9%	1.0%	1.0%	0.9%

B4.3 - Health care expenditure/GDP - Different hypotheses

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
<i>Pure ageing scenario + unit cost linked to GDP per worker</i>	6.9%	6.6%	7.4%	6.0%	6.3%	6.7%	7.0%	7.3%	7.5%	7.5%	7.5%	7.4%	7.3%
- of which acute care	6.2%	6.0%	6.7%	5.4%	5.7%	6.0%	6.3%	6.5%	6.6%	6.6%	6.5%	6.4%	6.3%
<i>Pure ageing scenario + dynamic health care consumption profiles ^(c)</i>	6.9%	6.6%	7.4%	6.0%	6.3%	6.5%	6.7%	6.8%	6.9%	7.0%	7.0%	6.9%	6.9%
- of which acute care	6.2%	6.0%	6.7%	5.4%	5.6%	5.8%	5.9%	6.1%	6.1%	6.1%	6.1%	6.1%	6.0%
<i>Pure ageing scenario + elasticity of unit cost to GDP per capita above 1</i>	6.9%	6.6%	7.4%	6.0%	6.3%	6.6%	6.8%	7.1%	7.2%	7.4%	7.4%	7.4%	7.4%
- of which acute care	6.2%	6.0%	6.7%	5.4%	5.7%	5.9%	6.1%	6.3%	6.4%	6.4%	6.4%	6.4%	6.4%

B4.4 - Health care expenditure/GDP - Hypotheses adopted by EPC-WGA ^(d)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
<i>Reference scenario + partial dynamic equilibrium for every health care provision (including hospital care)</i>	6.9%	6.6%	7.4%	6.0%	6.3%	6.5%	6.8%	7.0%	7.1%	7.2%	7.2%	7.2%	7.1%
- of which acute care	6.2%	6.0%	6.7%	5.4%	5.6%	5.8%	6.0%	6.2%	6.2%	6.3%	6.3%	6.2%	6.2%

(a) Unit cost (CPS) linked to GDP per capita and constant age-related expenditure profiles.

(b) Unit cost (CPS) linked to GDP per capita for acute care, and to GDP per worker, for long term care; elasticity of CPS to GDP per capita or per worker above one (from initial 1.1 to 1 in 2070); application of death-related costs to the hospital care expenditure profile and partial dynamic equilibrium (50% of changes in life expectancy) to the other health care provisions.

(c) Age-related expenditure profiles change according to the methodology of death-related costs, for the hospital care expenditure profile, and the methodology of partial dynamic equilibrium, for the other health care provisions.

(d) Differs from the reference scenario insofar as the age-related expenditure profile evolves accordingly to the partial dynamic equilibrium methodology for each health care provision.

B5 - EPC-WGA baseline scenario: LTC expenditure

B5.1 - LTC expenditure/GDP by age bracket - Pure ageing scenario ^(a)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
LTC expenditure/GDP	1.8%	1.8%	1.9%	1.6%	1.7%	1.8%	1.9%	2.0%	2.2%	2.3%	2.4%	2.4%	2.4%
Health care component	0.7%	0.7%	0.7%	0.6%	0.7%	0.7%	0.7%	0.8%	0.9%	0.9%	1.0%	1.0%	1.0%
Attendance allowances	0.8%	0.8%	0.8%	0.7%	0.7%	0.8%	0.8%	0.8%	0.9%	0.9%	0.9%	0.9%	0.9%
Other LTC provisions	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%
Distribution by age bracket													
Total expenditure													
[0-64]	25.8%	25.4%	25.9%	26.2%	24.6%	22.2%	19.9%	17.9%	16.3%	15.3%	14.8%	14.8%	15.0%
[65-79]	23.4%	21.9%	20.4%	20.5%	20.3%	21.0%	21.5%	20.3%	17.8%	15.3%	13.9%	13.8%	14.4%
[80+]	50.8%	52.7%	53.7%	53.3%	55.1%	56.7%	58.6%	61.8%	65.8%	69.4%	71.4%	71.4%	70.6%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Health care component													
[0-64]	35.7%	33.7%	33.0%	33.1%	30.8%	28.0%	25.2%	22.9%	21.0%	19.7%	19.0%	18.8%	19.0%
[65-79]	21.2%	20.0%	19.0%	19.0%	19.0%	19.9%	20.4%	19.4%	17.1%	14.7%	13.3%	13.2%	13.7%
[80+]	43.0%	46.3%	47.9%	47.9%	50.2%	52.1%	54.4%	57.7%	61.8%	65.6%	67.7%	68.0%	67.3%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Attendance allowances													
[0-64]	22.5%	22.5%	23.7%	25.4%	24.3%	22.1%	19.9%	17.8%	16.2%	15.2%	14.8%	14.9%	15.2%
[65-79]	24.1%	22.7%	20.9%	21.2%	20.9%	21.5%	22.0%	20.7%	18.2%	15.7%	14.3%	14.3%	15.0%
[80+]	53.4%	54.8%	55.3%	53.5%	54.8%	56.4%	58.2%	61.5%	65.6%	69.1%	70.9%	70.7%	69.7%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Other LTC provisions													
[0-64]	10.7%	12.0%	14.8%	13.9%	12.6%	11.2%	9.8%	8.6%	7.7%	7.2%	7.0%	7.0%	7.1%
[65-79]	27.0%	24.5%	22.1%	22.3%	21.8%	22.3%	22.6%	21.2%	18.5%	15.8%	14.1%	14.0%	14.6%
[80+]	62.3%	63.5%	63.1%	63.8%	65.6%	66.5%	67.6%	70.2%	73.7%	77.0%	79.0%	79.0%	78.3%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

B5.2 - LTC expenditure/GDP by age bracket - Reference scenario ^(b)

	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
LTC expenditure/GDP	1.8%	1.8%	1.9%	1.6%	1.7%	1.8%	1.9%	2.0%	2.2%	2.4%	2.4%	2.4%	2.4%
Health care component	0.7%	0.7%	0.7%	0.6%	0.7%	0.7%	0.8%	0.8%	0.9%	0.9%	1.0%	1.0%	0.9%
Attendance allowances	0.8%	0.8%	0.8%	0.7%	0.7%	0.7%	0.8%	0.8%	0.9%	0.9%	0.9%	0.9%	0.9%
Other LTC provisions	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%
Distribution by age bracket													
Total expenditure													
[0-64]	25.8%	25.4%	25.9%	26.1%	24.6%	22.4%	20.1%	18.2%	16.6%	15.5%	15.0%	15.0%	15.2%
[65-79]	23.4%	21.9%	20.4%	20.5%	20.1%	20.6%	20.9%	19.7%	17.2%	14.7%	13.1%	13.0%	13.5%
[80+]	50.8%	52.7%	53.7%	53.4%	55.2%	57.0%	59.0%	62.2%	66.2%	69.8%	71.9%	72.0%	71.4%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Health care component													
[0-64]	35.7%	33.7%	33.0%	33.1%	30.7%	27.9%	25.1%	22.8%	20.9%	19.5%	18.7%	18.5%	18.6%
[65-79]	21.2%	20.0%	19.0%	19.0%	19.0%	19.8%	20.3%	19.3%	17.0%	14.6%	13.1%	12.9%	13.4%
[80+]	43.0%	46.3%	47.9%	47.9%	50.3%	52.3%	54.6%	57.9%	62.1%	65.9%	68.2%	68.6%	68.0%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Attendance allowances													
[0-64]	22.5%	22.5%	23.7%	25.3%	24.5%	22.4%	20.5%	18.6%	17.0%	16.0%	15.6%	15.8%	16.1%
[65-79]	24.1%	22.7%	20.9%	21.1%	20.4%	20.7%	20.8%	19.3%	16.9%	14.4%	12.8%	12.8%	13.2%
[80+]	53.4%	54.8%	55.3%	53.6%	55.1%	56.8%	58.7%	62.1%	66.1%	69.6%	71.5%	71.4%	70.7%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Other LTC provisions													
[0-64]	10.7%	12.0%	14.8%	13.9%	12.6%	11.1%	9.6%	8.4%	7.5%	7.0%	6.8%	6.8%	6.9%
[65-79]	27.0%	24.5%	22.1%	22.3%	21.8%	22.2%	22.5%	21.1%	18.4%	15.6%	13.9%	13.7%	14.2%
[80+]	62.3%	63.5%	63.1%	63.8%	65.6%	66.7%	67.9%	70.5%	74.1%	77.4%	79.4%	79.5%	78.9%
total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

(a) Unit cost (CPS) linked to GDP per capita and constant age-related expenditure profiles.

(b) Unit cost (CPS) linked to GDP per capita for attendance allowances, and to GDP per worker, for health care component and 'other LTC provisions'; the elasticity of CPS to GDP per capita or to productivity greater than 1 and, application of partial dynamic equilibrium (50% of changes in life expectancy) to all LTC provisions.

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