

Active Ageing

A Demographic perspective based on Projections & Economic Analysis

Demographic projections

Demographic projections assumptions:

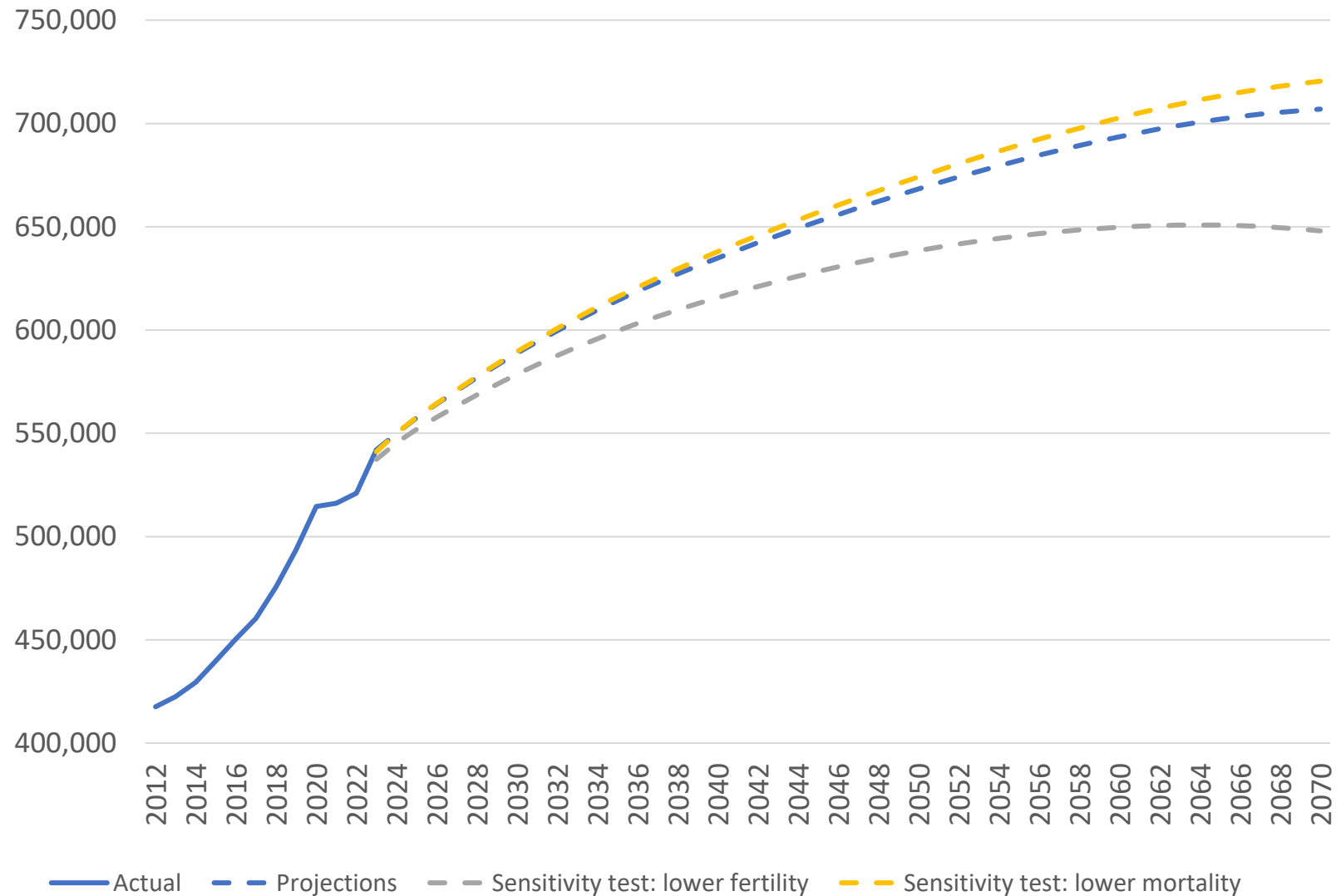
The following slides (4-12) builds on the 2024 Ageing Report published on November 2023 and Eurostat data.

2024 Ageing Report Assumptions:

- The 2022-based population projections were based on Eurostat data released in March 2023.
- The assumptions on fertility, mortality and net migration underlying the projections for the period 2022-2100, where based on the underlying methodologies of the Eurostat.
- The projection methodology assumes that fertility and mortality rates converge to those of the ‘best performing’ Member States.
- Similarly, life expectancy follows an upward convergence trajectory, with longevity increasing relatively faster in countries with currently the lowest levels of life expectancy.

Population

- Eurostat data indicates that as of January 1st, 2022, Malta's overall population stood at 520,971.
- The baseline projections foresee a 36% increase by 2070 compared to the 2022 figures, forecasting a total population of 706,915 for Malta by 2070.
- However, assuming two different scenarios that might occur:
 - If **fertility rates drop** by 20% from the baseline assumptions each year throughout the projection period, the population by 2070 will significantly decrease, reaching a total of 647,978.
 - If **mortality rates decrease**, leading to a two-year increase in life expectancy by 2070 compared to the baseline assumptions, the projected population will reach approximately 720,532 by that year.



Source: Eurostat

Cross-country population comparison

Table I.1.7 presents an overview of the population projections for the period 2022-2070.

- According to the baseline demographic projections, the EU population would reach a peak during this decade.
- For 13 Member States and Norway the total population is projected to increase between 2022 and 2070, while 14 Member States would see the number of inhabitants shrink.
- Among the countries with rising population, the population for Malta is expected to increase the most, by 54%.

Table I.1.7: Projected total population, 2022-2070

	Total population (annual average - millions)			% change		
	2022	2045	2070	2022- 2045	2045- 2070	2022- 2070
BE	11.7	12.5	12.7	7%	2%	9%
BG	6.9	6.0	5.3	-13%	-12%	-23%
CZ	10.7	10.7	10.6	0%	-2%	-2%
DK	5.9	6.1	6.2	4%	1%	5%
DE	83.9	85.0	84.2	1%	-1%	0%
EE	1.4	1.3	1.3	-1%	-2%	-3%
IE	5.1	5.9	6.1	15%	3%	19%
EL	10.4	9.2	7.8	-12%	-16%	-25%
ES	47.7	50.5	47.7	6%	-6%	0%
FR	68.0	70.7	69.7	4%	-1%	2%
HR	3.9	3.4	3.0	-12%	-11%	-22%
IT	59.0	58.1	53.3	-2%	-8%	-10%
CY	0.9	1.0	1.0	7%	2%	9%
LV	1.9	1.5	1.3	-19%	-17%	-33%
LT	2.8	2.4	2.0	-15%	-17%	-29%
LU	0.7	0.9	1.0	33%	12%	49%
HU	9.7	9.3	9.0	-4%	-3%	-7%
MT	0.5	0.7	0.8	37%	13%	54%
NL	17.7	18.8	18.7	6%	0%	6%
AT	9.0	9.5	9.5	5%	1%	6%
PL	38.1	35.2	31.8	-8%	-9%	-16%
PT	10.4	9.8	9.0	-5%	-9%	-14%
RO	19.0	16.8	15.0	-12%	-11%	-21%
SI	2.1	2.1	2.0	0%	-5%	-5%
SK	5.5	5.2	4.8	-4%	-8%	-12%
FI	5.6	5.5	5.2	-1%	-5%	-6%
SE	10.5	11.9	12.9	13%	8%	23%
NO	5.4	6.1	6.5	12%	7%	20%
EA	348.2	354.1	341.1	2%	-4%	-2%
EU	449.1	450.1	431.9	0%	-4%	-4%

Source: European Commission based on EUROPOP2023 (Eurostat).

Table I.1.5: Average annual net migration flows (including statistical adjustment), 1960-2021

	1960-1979 (%1960 pop)	1980-1999 (%1980 pop)	2000-2021 (%2000 pop)	total 1960-2021 (%1960 pop)	highest value in 2009-2021 (year)
BE	11.857 (0.1)	7.705 (0.1)	46.281 (0.5)	1.409.408 (15.4)	86.413 (2010)
BG	-7.717 (-0.1)	-25.036 (-0.3)	-17.423 (-0.2)	-1.038.362 (-13.2)	30.715 (2020)
CZ	-9.108 (-0.1)	42 (0)	23.476 (0.2)	335.143 (3.5)	49.969 (2021)
DK	2.567 (0.1)	8.433 (0.2)	17.334 (0.3)	601.333 (13.1)	41.886 (2015)
DE	127.417 (0.2)	342.158 (0.4)	276.963 (0.3)	13.526.185 (18.6)	1.165.772 (2015)
EE	7.603 (0.6)	-3.965 (-0.3)	-775 (-0.1)	55.692 (4.6)	7.071 (2018)
IE	-3.821 (-0.1)	-6.238 (-0.2)	23.024 (0.6)	305.328 (10.8)	43.966 (2018)
EL	-11.493 (-0.1)	41.774 (0.4)	-829 (0)	587.392 (7.1)	35.168 (2019)
ES	-30.654 (-0.1)	55.646 (0.1)	283.552 (0.7)	6.737.988 (22.1)	452.909 (2019)
FR	136.844 (0.3)	36.617 (0.1)	94.295 (0.2)	5.543.709 (12.1)	134.420 (2021)
HR	-1.140 (0)	-9.615 (-0.2)	-10.114 (-0.2)	-437.617 (-10.6)	888 (2009)
IT	-45.135 (-0.1)	8.372 (0)	210.997 (0.4)	3.906.680 (7.8)	1.183.877 (2013)
CY	-3.844 (-0.7)	3.794 (0.7)	6.168 (0.9)	134.689 (23.5)	18.142 (2011)
LV	12.376 (0.6)	-4.541 (-0.2)	-13.141 (-0.6)	-132.427 (-6.2)	-286 (2021)
LT	4.847 (0.2)	-5.446 (-0.2)	-19.961 (-0.6)	-451.129 (-16.2)	34.734 (2021)
LU	2.067 (0.7)	2.623 (0.7)	7.568 (1.7)	260.321 (82.9)	11.159 (2015)
HU	-191 (0)	-699 (0)	15.175 (0.1)	316.050 (3.2)	33.562 (2019)
MT	-3.606 (-1.1)	1.014 (0.3)	5.206 (1.3)	62.672 (19.2)	20.343 (2019)
NL	18.990 (0.2)	28.458 (0.2)	39.608 (0.2)	1.820.321 (15.8)	107.627 (2019)
AT	6.745 (0.1)	18.383 (0.2)	43.187 (0.5)	1.452.680 (20.6)	114.237 (2015)
PL	-35.689 (-0.1)	-23.546 (-0.1)	-7.217 (0)	-1.343.487 (-4.5)	22.147 (2018)
PT	-51.042 (-0.6)	1.734 (0)	12.202 (0.1)	-717.711 (-8.1)	44.506 (2019)
RO	-11.167 (-0.1)	-40.519 (-0.2)	-100.880 (-0.4)	-3.253.073 (-17.7)	-13.887 (2013)
SI	3.282 (0.2)	953 (0.1)	5.872 (0.3)	213.892 (13.5)	18.365 (2020)
SK	969 (0)	-3.670 (-0.1)	-232 (0)	-59.123 (-1.5)	4.347 (2020)
FI	-9.030 (-0.2)	4.922 (0.1)	12.804 (0.2)	199.524 (4.5)	22.513 (2021)
SE	14.869 (0.2)	17.848 (0.2)	55.514 (0.6)	1.875.655 (25.1)	117.693 (2016)
NO	1.767 (0)	7.689 (0.2)	26.800 (0.6)	778.714 (21.7)	47.142 (2012)
EA	109.521 (0)	486.462 (0.2)	1.025.591 (0.3)	34.482.673 (12.8)	1.468.940 (2013)
EU	152.556 (0)	390.317 (0.1)	1.008.652 (0.2)	33.047.804 (9.3)	1.518.409 (2013)

CY: 1961-1979 average.

Source: European Commission based on Eurostat data.

Past trends - Net Migration

Net migration flows per country between 1960 and 2021 are shown in Table I.1.5, in absolute terms and relative to the population size.

Over this period, Germany, Spain, France, and Italy recorded the largest total net inflows in absolute terms.

- When relating migration flows to the 1960 population, the largest overall inflows were in Luxembourg (+83%), Sweden (+25%), Cyprus (+25%), Norway (+22%), Spain (+22%), Austria (+21%), Malta (+19%), Germany (+19%), the Netherlands (+16%) and Belgium (+15%).

Table I.1.6: Projection of net migration flows, 2022-2070

Net Migration - projections

Compared to fertility and mortality, migration is the most volatile component of population projections.

Immigration and emigration are generally determined by push and pull factors that are not explicitly modelled in population projections.

Malta is expected to have the highest net migration rate when compared to 2022 with a value of 64.6% over the mentioned year.

	Net migration ('000)				Net migration (% of population)				2022-70 (%2022) ⁽¹⁾
	2022	2030	2050	2070	2022	2030	2050	2070	
BE	116	37	32	29	1.0	0.3	0.3	0.2	15.1
BG	160	-3	13	16	2.3	0.0	0.2	0.3	9.1
CZ	471	-2	26	25	4.4	0.0	0.2	0.2	13.6
DK	55	12	12	13	0.9	0.2	0.2	0.2	11.7
DE	1631	250	266	236	1.9	0.3	0.3	0.3	17.6
EE	45	1	4	4	3.4	0.1	0.3	0.3	15.5
IE	93	17	14	12	1.8	0.3	0.2	0.2	16.0
EL	22	-4	8	20	0.2	0.0	0.1	0.2	3.3
ES	677	221	196	194	1.4	0.4	0.4	0.4	23.6
FR	275	80	83	99	0.4	0.1	0.1	0.1	6.6
HR	14	2	7	10	0.4	0.1	0.2	0.3	7.0
IT	348	270	240	240	0.6	0.5	0.4	0.4	20.9
CY	18	0	2	2	2.0	0.0	0.2	0.2	9.7
LV	33	-7	0	2	1.7	-0.4	0.0	0.1	-3.3
LT	82	-8	3	6	2.9	-0.3	0.1	0.3	4.8
LU	15	8	5	4	2.3	1.0	0.6	0.4	45.2
HU	48	19	25	26	0.5	0.2	0.3	0.3	12.3
MT	11	9	6	4	2.2	1.6	0.8	0.5	64.6
NL	235	45	42	42	1.3	0.2	0.2	0.2	14.3
AT	104	36	37	35	1.1	0.4	0.4	0.4	20.2
PL	1001	-44	62	69	2.6	-0.1	0.2	0.2	7.0
PT	82	16	27	39	0.8	0.2	0.3	0.4	13.3
RO	79	-38	6	28	0.4	-0.2	0.0	0.2	-0.1
SI	15	6	6	6	0.7	0.3	0.3	0.3	14.8
SK	96	-1	9	8	1.8	0.0	0.2	0.2	6.7
FI	77	11	14	13	1.4	0.2	0.2	0.3	13.1
SE	99	50	42	32	0.9	0.5	0.3	0.3	20.7
NO	36	27	27	26	0.7	0.5	0.4	0.4	23.8
EA	3990	990	1001	1002	1.1	0.3	0.3	0.3	15.6
EU	5902	985	1187	1212	1.3	0.2	0.3	0.3	14.0

(1) Cumulative net migration as % of 2022 population.

Source: EUROPOP2023 (Eurostat).

Composition of the population by age group (2022-2070)

In all Member States, the share in the overall population of the age groups above 65 years is projected to rise by 2070. The EU average share of 65+ is expected to rise from 21% in 2022 to 30% in 2070 for the EU.

Malta is expected to

At the end of the projection period, it is expected for one in three persons being at least 65 years old.

Table I.1.8: Composition of the population by age group

	2022				2070			
	(0-19)	(20-64)	(65+)	(80+)	(0-19)	(20-64)	(65+)	(80+)
BE	22%	58%	20%	6%	19%	53%	28%	11%
BG	19%	59%	22%	5%	18%	51%	31%	14%
CZ	21%	58%	20%	4%	19%	53%	27%	12%
DK	22%	58%	20%	5%	20%	51%	29%	11%
DE	19%	59%	22%	7%	19%	52%	29%	12%
EE	22%	58%	20%	6%	18%	52%	30%	13%
IE	26%	59%	15%	4%	18%	52%	29%	12%
EL	19%	58%	23%	7%	17%	50%	33%	16%
ES	19%	61%	20%	6%	16%	51%	33%	15%
FR	24%	55%	21%	6%	20%	51%	29%	13%
HR	19%	58%	23%	5%	16%	52%	32%	13%
IT	17%	59%	24%	8%	15%	51%	34%	15%
CY	21%	62%	17%	4%	18%	53%	29%	12%
LV	21%	58%	21%	6%	18%	51%	31%	15%
LT	20%	60%	20%	6%	15%	49%	36%	15%
LU	21%	64%	15%	4%	18%	53%	29%	11%
HU	20%	60%	21%	5%	19%	52%	28%	11%
MT	18%	63%	19%	4%	15%	51%	34%	12%
NL	21%	59%	20%	5%	19%	52%	29%	11%
AT	19%	61%	20%	6%	18%	52%	30%	12%
PL	21%	60%	19%	4%	17%	50%	32%	15%
PT	18%	58%	24%	7%	17%	50%	34%	15%
RO	22%	59%	20%	4%	19%	52%	29%	13%
SI	20%	59%	21%	6%	17%	52%	30%	14%
SK	21%	61%	18%	3%	19%	51%	30%	14%
FI	21%	56%	23%	6%	16%	51%	32%	13%
SE	23%	56%	20%	5%	20%	53%	27%	11%
NO	23%	59%	18%	4%	18%	53%	29%	11%
EA	20%	58%	22%	6%	18%	52%	31%	13%
EU	20%	59%	21%	6%	18%	52%	30%	13%

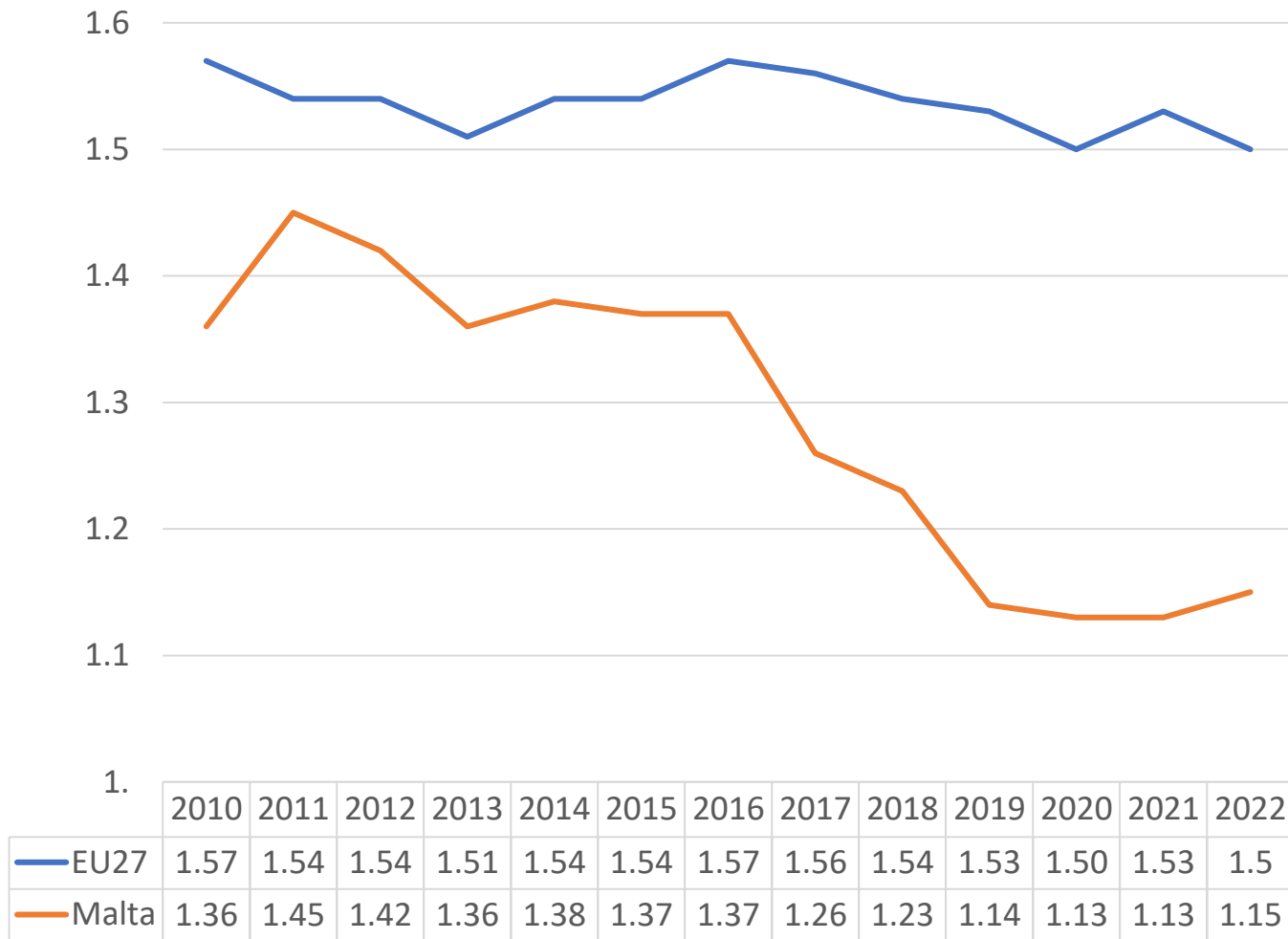
Source: European Commission based on EUROPOP2023 (Eurostat).

Total Fertility Rate (TFR)

Fertility rate (live births/women)	Actual					Projections		
	1960	1980	2000	2021	2022	2030	2050	2070
Malta	3.62	1.99	1.68	1.13	1.15	1.25	1.40	1.49
Euro Area	2.59	1.83	1.47	1.51	1.48	1.50	1.55	1.60
EU27	2.62	1.92	1.46	1.54	1.50	1.53	1.58	1.62

Source: 2024 Ageing Report

- TFR declined sharply in the EU Member States following the post-war ‘baby boom’. From an EU average of 2.59 in 1960, the number of live births per woman declined steadily in nearly all countries, to less than two children on average in 1980, thus below the natural replacement rate of 2.10.
- Since 2000, the largest declines were in Malta, Luxembourg, Finland, and Cyprus, with a decline in the TFR of 0.30-0.60 live births per woman.



Source: Eurostat

Mean age of women at childbirth

Mean age of women at childbirth	2011	2015	2020	2021
EU27	30.2	30.5	31.0	31.1
Malta	29.8	30.3	30.7	30.9

Source: Eurostat

The mean age of women at childbirth shows a steady increase from 2011 to 2021 in both the EU27 and Malta. The mean age of women at childbirth increasing over time in both the EU27 and Malta suggests a trend toward women giving birth at older ages

Crude birth rate

Crude birth rate - per thousand persons	2011	2015	2020	2021
EU27	10.1	9.7	9.1	9.1
Malta	10.0	9.7	8.6	8.5

Source: Eurostat

The crude birth rate is the ratio of the number of live births during the year to the average population in that year. The value is expressed per 1 000 persons.

The table shows a gradual decline from 2011 to 2021 for both EU27 and Malta. A declining crude birth rate indicates that, over this period, there were fewer births per thousand people.

Life expectancy at Birth

Life expectancy has been increasing in most developed countries for very long periods.

	Life expectancy at birth	Actual					Projections				
		1960	1980	2000	2021	2022	2030	2040	2050	2060	2070
Malta	Males	66.5	68.0	76.3	80.8	80.9	81.9	83.4	84.7	85.9	87.0
	Females	70.5	72.8	80.5	84.3	84.6	85.6	87.1	88.5	89.7	90.8
EU27	Males	63.2	69.5	74.7	78.6	78.4	80.0	81.7	83.3	84.8	86.1
	Females	68.3	76.4	81.5	84.2	84.0	85.3	86.7	88.0	89.3	90.4

Source: 2024 Ageing Report

The average life expectancy at birth increased by more than 15 years between 1960 and 2021 in the EU.

The general trend of rising life expectancy and a smaller gap between the two sexes differs across countries. Between 1960 and 2021, females gained 12 years or more in life expectancy in Ireland, Spain, Italy, Luxembourg, Malta, Portugal, and Finland.

Life expectancy at age 65

	Life expectancy at 65 (years)	Actual		Projections				
		2021	2022	2030	2040	2050	2060	2070
Malta	Males	19.5	19.5	20.3	21.3	22.2	23.1	24.0
	Females	21.8	22.5	23.4	24.4	25.3	26.3	27.1
EU27	Males	17.3	18.2	19.3	20.4	21.5	22.5	23.5
	Females	20.9	21.8	22.8	23.9	24.9	56.9	26.8

Source: 2024 Ageing Report

When looking at the remaining life expectancy at the age of 65, the average is expected to increase by 5.3 and 5.0 years respectively for males and females in the EU over the projection period (2022-2070).

For Malta, the remaining life expectancy at the age of 65 is expected to increase by 4.5 and 4.6 years respectively for males and females in the EU over the projection period (2022-2070).

Dependency ratios

Dependency ratio

Malta Dependency ratios	Change (2022- 2070)	Actual	Projections				
		2022	2030	2040	2050	2060	2070
Share of older population in working-age population	7.5	18.0	16.5	20.7	26.9	26.8	25.5
Old-age dependency ratio	34.9	30.5	31.0	30.5	37.0	52.6	65.4

EU27 Dependency ratios	Change (2022- 2070)	Actual	Projections				
		2022	2030	2040	2050	2060	2070
Share of older population in working-age population	1.0	23.5	24.2	24.0	23.9	23.4	24.5
Old-age dependency ratio	23.0	36.1	42.0	49.7	55.2	58.0	59.1

The ratios of Malta for both the *share of older population* and *old-age dependency* exceeds the EU27 average.

This indicates that Malta relative to the EU27 average has a larger proportion of older persons.

Source: 2024 Ageing Report

Share of older population = Population aged 55 to 64 as a % of the population aged 20-64.

Old-age dependency ratio = Population aged 65 and over as a % of the population aged 20-64.

Dependency ratio

Malta	Change (2022- 2070)	Actual	Projections				
		2022	2030	2040	2050	2060	2070
Dependency ratios							
Total dependency ratio	36.1	58.2	58.0	55.9	62.0	79.6	94.3
Total economic dependency ratio	35.7	90.9	84.9	81.7	89.8	110.0	126.6

EU27	Change (2022- 2070)	Actual	Projections				
		2022	2030	2040	2050	2060	2070
Dependency ratios							
Total dependency ratio	23.1	70.7	75.9	83.4	90.0	93.0	93.8
Total economic dependency ratio	11.7	122.9	125.7	129.3	133.4	134.8	134.5

Source: 2024 Ageing Report

Total dependency ratio = Population under 20 and over 64 (inactive) as a % of the population aged 20-64.

Total economic dependency ratio = Total population less employed as a % of the employed population 20-74.

The main difference between the two ratios is the dependent population considered:

- The total dependency ratio looks at the entire dependent population relative to the working-age population
- The economic dependency ratio specifically focuses on the non-working-age population (both young and old) in relation to the working-age population.

The tables show that:

- Malta has a greater burden on its working-age population due to a higher overall dependency ratio (both young and old)
- While the EU27 faces a comparatively larger proportion of non-working dependents within its working-age group, as indicated by a higher economic dependency ratio.

Economic old-age Dependency ratio

Malta	Change (2022- 2070)	Actual	Projections				
		2022	2030	2040	2050	2060	2070
Dependency ratios							
Economic old-age dependency ratio (20-64y)	40.3	35.2	35.5	34.6	42.1	60.3	75.5
Economic old-age dependency ratio (20-74y)	39.1	34.4	35.1	34.1	41.2	58.6	73.5

EU27	Change (2022- 2070)	Actual	Projections				
		2022	2030	2040	2050	2060	2070
Dependency ratios							
Economic old-age dependency ratio (20-64y)	24.2	45.7	52.3	60.5	66.2	69.0	69.9
Economic old-age dependency ratio (20-74y)	21.8	44.6	50.7	58.1	63.4	65.9	66.4

Source: 2024 Ageing Report

Economic old-age dependency ratio (20-64) = Inactive population aged 65+ as a % of the employed population 20-64.

Economic old-age dependency ratio (20-74) = Inactive population aged 65+ as a % of the employed population 20-74.

This indicator expresses the inactive elderly population (65+) as a share of total employment (aged 20-64 or 20-74).

Across EU Member States, the projected economic old-age dependency ratio for 2070 ranges from a minimum of 53% in Sweden to a maximum of 87% in Lithuania. The 2024 Ageing Report indicates that the largest total rise in the old-age dependency ratio is projected for Lithuania, Luxembourg, Poland, Malta, Latvia, and Slovakia.

Labour force projections

Labour force projections assumptions:

The following slides (19-22) builds on the 2024 Ageing Report published on November 2023 and Eurostat data.

The following points mentions the **pension reforms legislated in Malta that were considered to *have a direct impact on the labour market exit behaviour of the oldest workers and that are thus relevant for the participation rates as projected.***

- The 2006 reform entails a gradual increase in the statutory retirement age to 65 years by 2027 (for people born as of 1962). In addition, the contributory period increases to 41 years by 2030.
- Early retirement is possible as of the age of 61 provided that the retiree will not remain in any gainful employment and has the required contribution history. People eligible for early retirement are awarded a progressive bonus for each year that they continue working up to the age of 65.
- Those who continue working beyond the retirement age can do so without forfeiting their pension while in employment.

Participation rates (%)

Malta	Actual				Projections				
Participation rates (%)	2000	2010	2021	2022	2030	2040	2050	2060	2070
total (20-64y)	60.5	64.0	81.7	83.3	87.7	88.2	87.2	86.6	87.0
young-age (20-24y)	79.5	73.8	74.4	80.0	80.5	80.7	80.4	80.4	80.3
prime-age (25-54y)	64.2	72.9	89.5	90.6	93.1	93.7	93.8	93.8	93.7
older (56-64y)	29.5	33.3	53.9	55.3	66.1	71.8	73.0	70.9	71.8
oldest (65-74y)				11.1	6.6	8.9	9.5	9.4	8.6

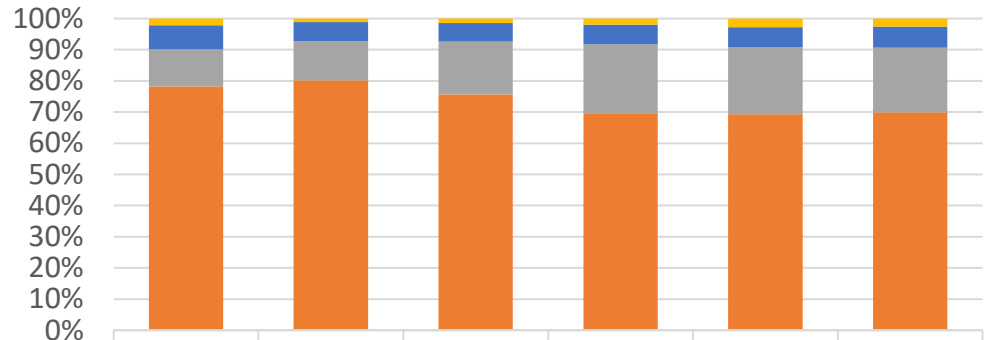
Hence, Malta's overall participation rate, young-age and prime-age exceeds the EU27 average, but for the older and oldest age group, the participation rate for Malta is behind the EU27 average.

EU27	Actual				Projections				
Participation rates (%)	2000	2010	2021	2022	2030	2040	2050	2060	2070
total (20-64y)	72.4	75.0	78.4	79.4	80.3	81.5	82.2	82.7	82.7
young-age (20-24y)	63.6	60.5	59.6	61.6	62.5	63.4	63.8	63.5	63.7
prime-age (25-54y)	82.6	85.0	85.9	86.7	87.3	87.7	88.1	88.2	88.2
older (56-64y)	37.9	48.1	64.0	65.4	68.3	71.6	72.7	74.9	75.5
oldest (65-74y)				10.2	11.6	13.9	15.1	16.4	18.4

Source: 2024 Ageing Report

Employment rate

Malta

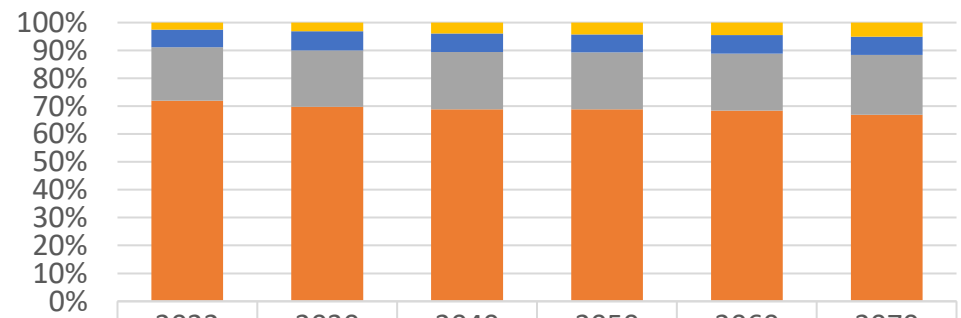


	2022	2030	2040	2050	2060	2070
■ share of oldest (65-74y)	2.2	1.1	1.4	2.0	2.8	2.6
■ share of young (20-24y)	7.7	6.2	6.0	6.2	6.3	6.7
■ share of older (55-64y)	11.8	12.5	16.9	22.4	21.6	20.8
■ share of prime-age (25-54y)	78.2	80.2	75.7	69.4	69.2	69.8

The share of oldest people (65-74y) in employment is expected to marginally increase over the projected period.

However, the share of oldest people in employment for Malta is projected to be lower compared to the EU27 average.

EU27



	2022	2030	2040	2050	2060	2070
■ share of oldest (65-74y)	2.5	3.1	3.9	4.2	4.5	5.0
■ share of young (20-24y)	6.4	6.9	6.7	6.5	6.6	6.6
■ share of older (55-64y)	19.1	20.2	20.5	20.4	20.5	21.4
■ share of prime-age (25-54y)	72.0	69.8	68.8	68.8	68.4	66.9

Source: 2024 Ageing Report



Labour supply projections

- The total labour supply in the EU is expected to decrease by 12% over the projection period.
- The Table highlights that Malta is expected to experience a substantial increase in the labour supply (an increase of 31%), by 2070.
- Furthermore, given the expected increase in the labour supply, it is assumed to reverberate in a potential growth estimate of 0.5%.

Table I.2.10: Labour supply projections - total

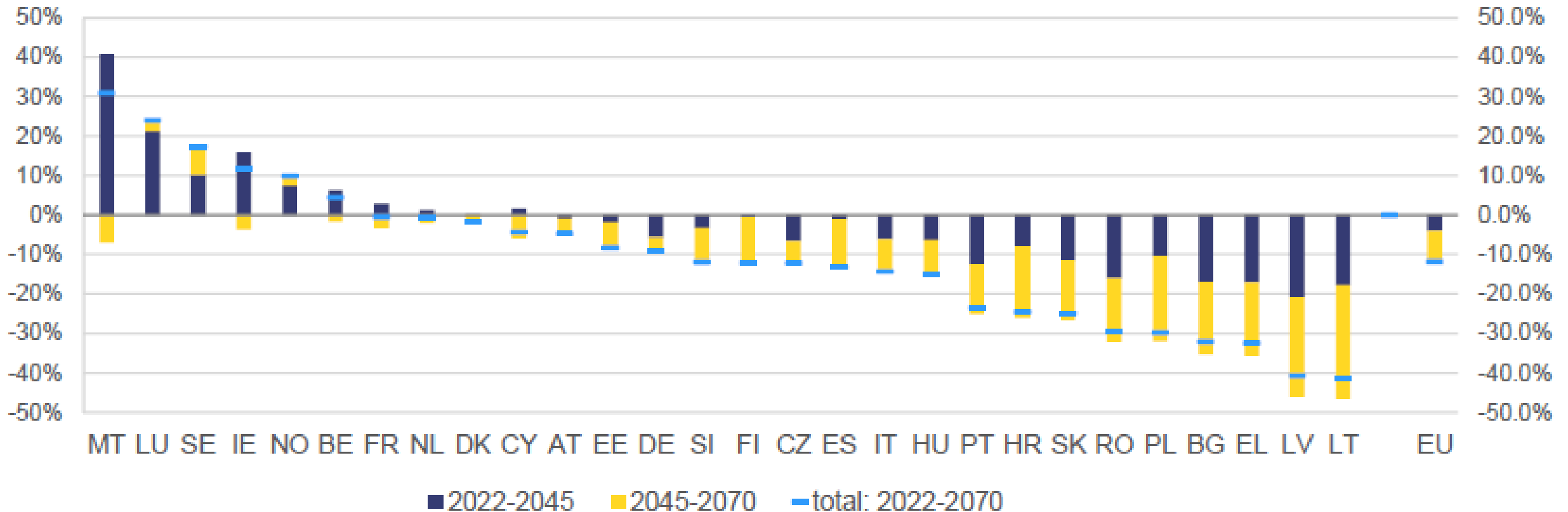
	Total labour force (20-64y, '000 persons)		Change (2070/2022)	Avg annual growth rate (2022-2070)	Impact on potential output growth ⁽¹⁾
	2022	2070			
BE	5.167	5.398	4%	0.1%	0.2%
BG	3.215	2.181	-32%	-0.8%	-0.4%
CZ	5.214	4.579	-12%	-0.3%	0.0%
DK	2.843	2.796	-2%	0.0%	0.1%
DE	41.343	37.601	-9%	-0.2%	0.0%
EE	680	623	-8%	-0.2%	0.1%
IE	2.452	2.737	12%	0.2%	0.3%
EL	4.606	3.111	-32%	-0.8%	-0.4%
ES	23.032	20.005	-13%	-0.3%	0.0%
FR	29.923	29.790	0%	0.0%	0.2%
HR	1.681	1.268	-25%	-0.6%	-0.2%
IT	24.377	20.890	-14%	-0.3%	0.0%
CY	473	452	-4%	-0.1%	0.1%
LV	905	536	-41%	-1.1%	-0.5%
LT	1.442	845	-41%	-1.1%	-0.6%
LU	325	403	24%	0.4%	0.5%
HU	4.817	4.089	-15%	-0.3%	-0.1%
MT	277	363	31%	0.6%	0.5%
NL	8.881	8.812	-1%	0.0%	0.2%
AT	4.463	4.253	-5%	-0.1%	0.1%
PL	18.156	12.755	-30%	-0.7%	-0.3%
PT	4.994	3.822	-23%	-0.6%	-0.2%
RO	8.044	5.670	-30%	-0.7%	-0.3%
SI	1.015	895	-12%	-0.3%	0.0%
SK	2.751	2.066	-25%	-0.6%	-0.2%
FI	2.619	2.304	-12%	-0.3%	0.0%
SE	5.205	6.103	17%	0.3%	0.4%
NO	2.663	2.929	10%	0.2%	0.3%
EA	161.408	146.173	-9%	-0.2%	0.0%
EU	208.903	184.347	-12%	-0.3%	0.0%

(1) Impact of labour force growth differential relative to the EU average.

Source: European Commission, EPC.

Change in Labour force (%)

Graph I.2.6: Change in the labour force (20-64y; %)



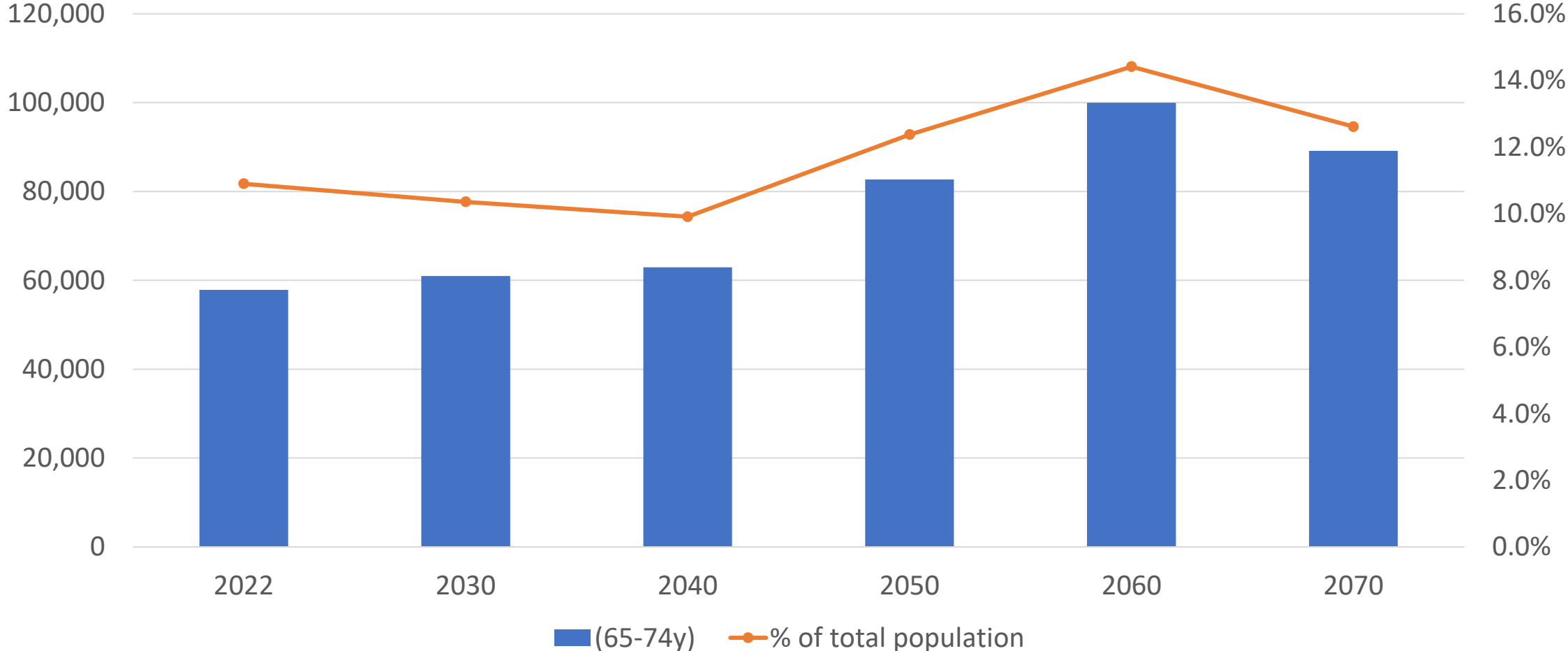
Source: European Commission, EPC.

Economic Analysis

Introduction

- In this analysis we have considered 4 scenarios:
 - The current forecasted with the current economic model
 - And increase in participation of 65 to 74 year-olds by 40% over the current economic model
 - We move towards the EU average with respect the participation of 65 to 74 year-olds
 - We surpass the EU average with respect the participation of 65 to 74 year-olds by 20%

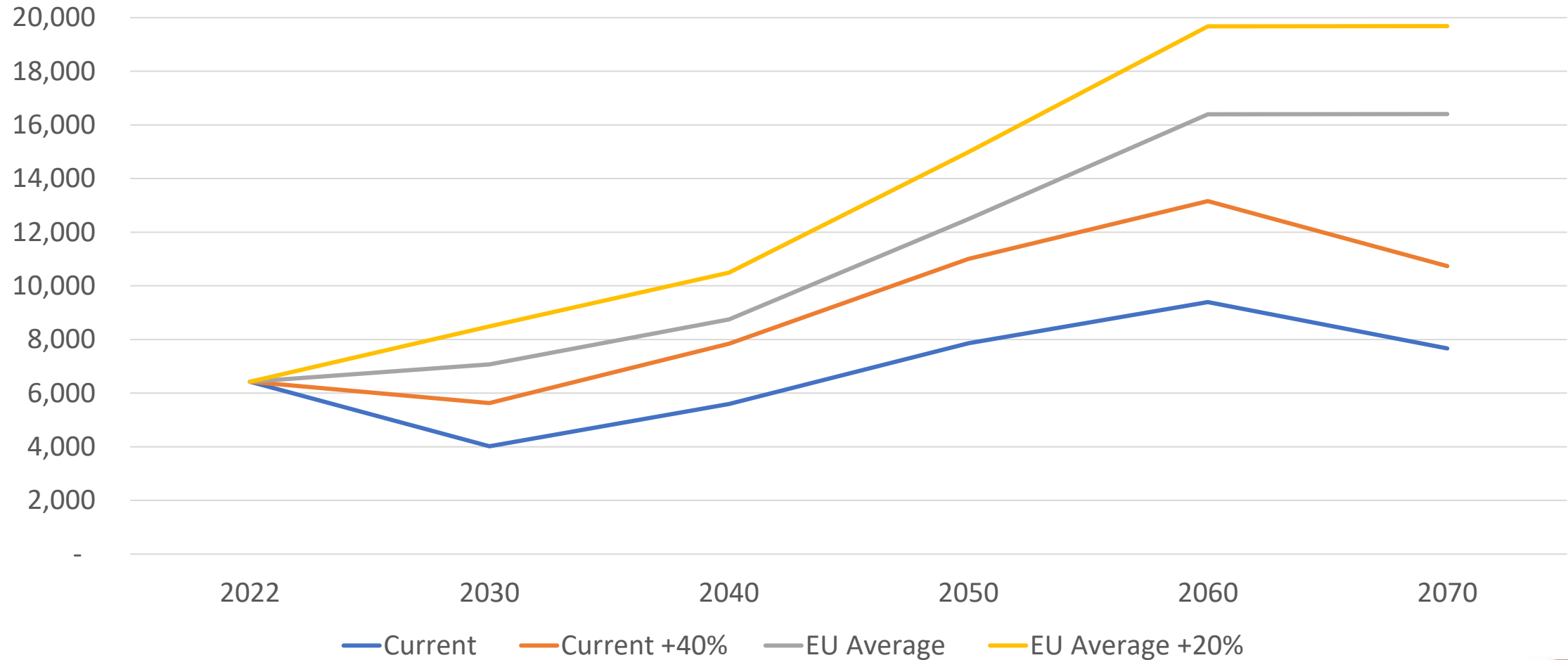
65 – 74 year olds as a percentage of the total population



Participation rates used

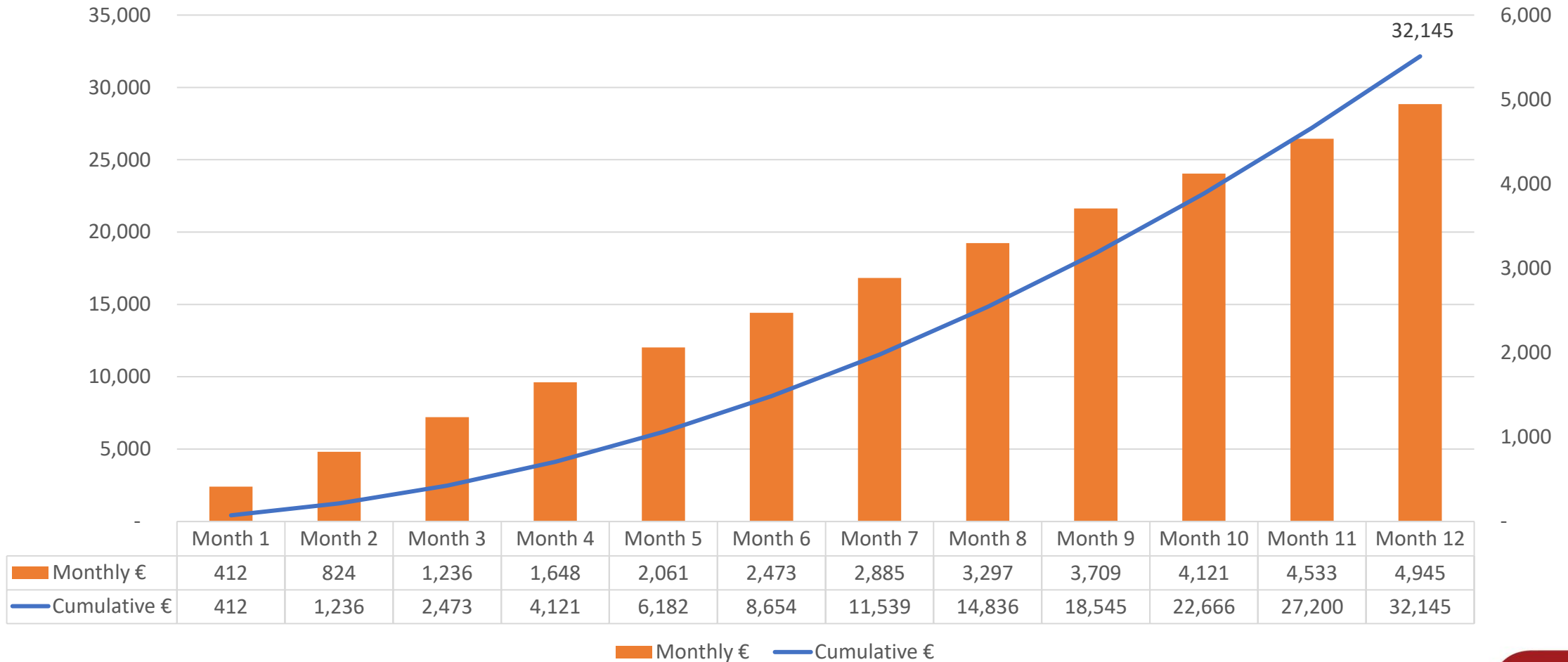
Participation rates (%)	2022	2030	2040	2050	2060	2070
Current	11.1%	6.6%	8.9%	9.5%	9.4%	8.6%
Current +40%	11.1%	9.2%	12.5%	13.3%	13.2%	12.0%
EU Average	11.1%	11.6%	13.9%	15.1%	16.4%	18.4%
EU Average +20%	11.1%	13.9%	16.7%	18.1%	19.7%	22.1%

Participation results in absolute terms

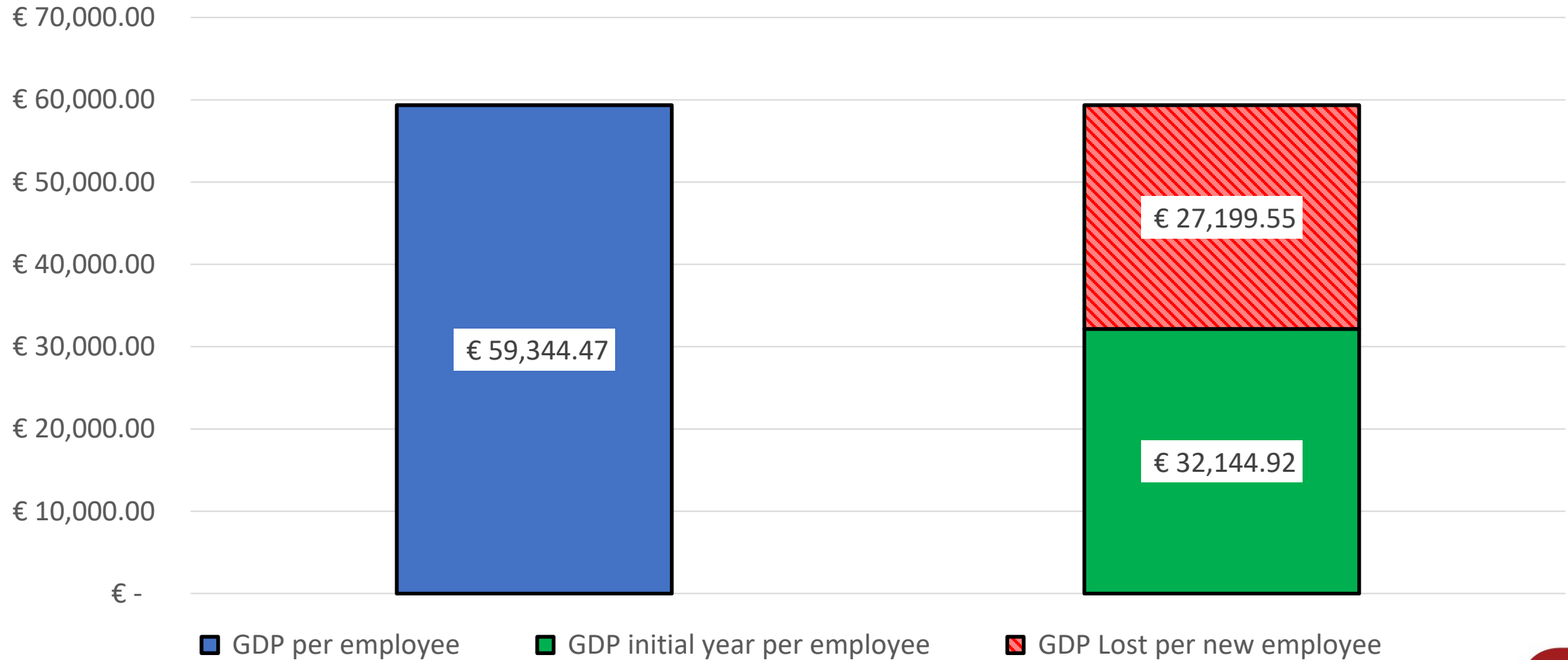


Productivity of a new employee

Assuming that they take 12 months to reach the economy's average

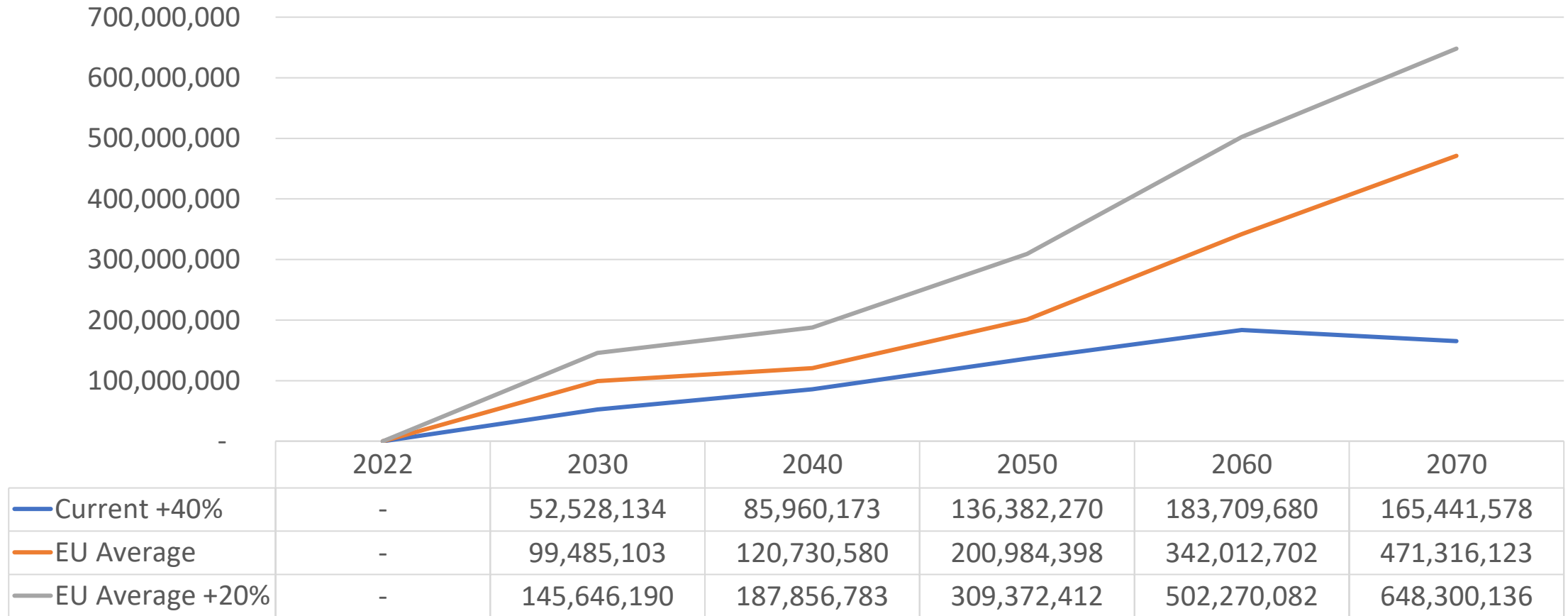


Loss in productivity (GVA per employee)



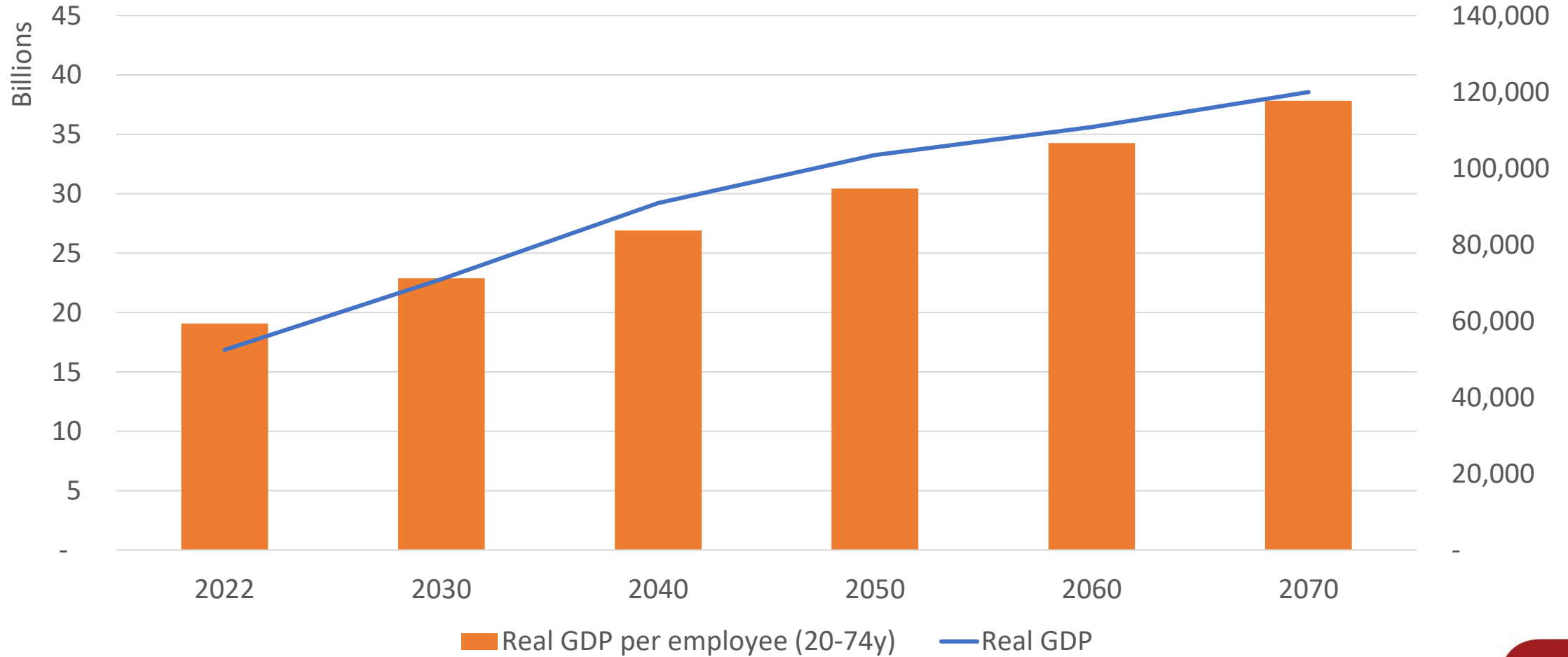
Total Increase in GDP with higher participation of 65 – 74yo

Change for the current economic model



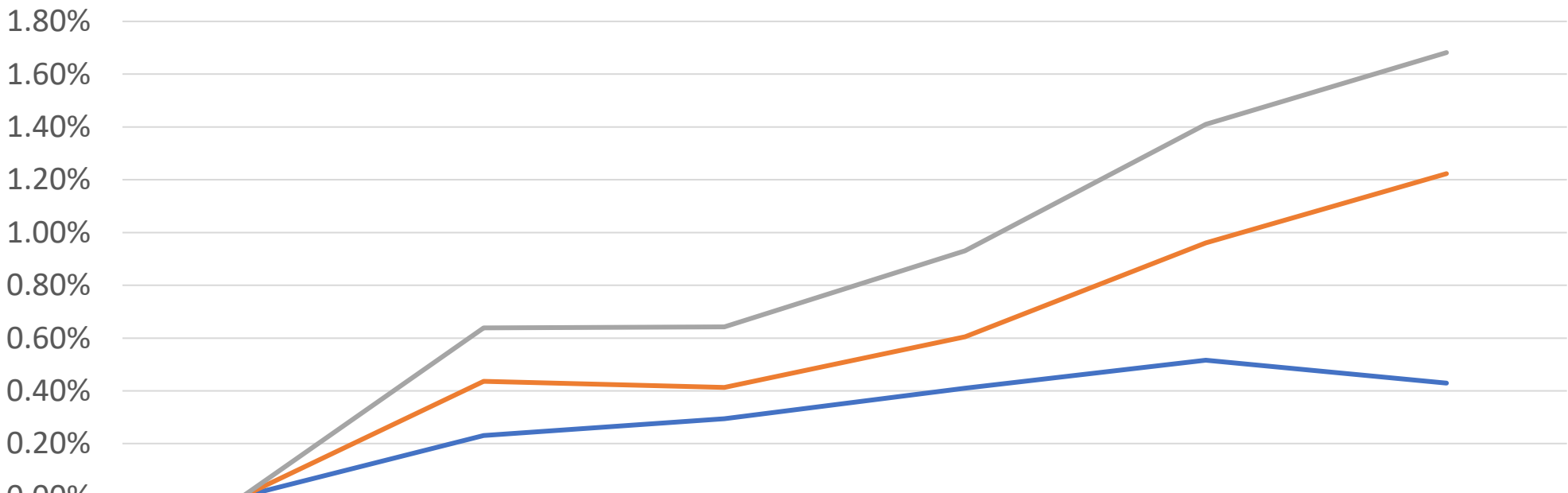
— Current +40% — EU Average — EU Average +20%

Real GDP forecast and GDP per employee



Total Increase in GDP with higher participation of 65 – 74yo

Change for the current economic model as a % of real GDP



	2022	2030	2040	2050	2060	2070
Current +40%	0.00%	0.23%	0.29%	0.41%	0.52%	0.43%
EU Average	0.00%	0.44%	0.41%	0.60%	0.96%	1.22%
EU Average +20%	0.00%	0.64%	0.64%	0.93%	1.41%	1.68%

— Current +40% — EU Average — EU Average +20%



Conclusions

- If nothing is done, by 2030, the 65 to 74 year old participation rate is expected to go down from 11.1% in 2022 to 6.6%. This is in contrast to the EU average which is expected to increase from 10.2% to 11.6% during the same 8 year timeframe.
- If by 2030, if we manage to increase the 65 to 74 year old participation rate by 40% (from 6.6% or 9.2%), the economic benefit would amount to €53million. By 2060 (participation up from 9.4% to 13.2%) the economic benefit would amount to €184million
- If we strive to have a participation rate close to the EU average, the economic benefit, in 2070, would amount to €471million (1.22% of GDP during the corresponding period).
- Notwithstanding the above, further economic analysis needs to be under take (next slide).

Further economic analysis needed

- We need to identify which are the sectors that are more likely to keep 65 to 74 year olds in employment. In our analysis we looked at the economy as a whole.
- We need to comprehensively calculate the value added these (65 to 74 year olds) generate per sector. In our analysis we took the average GDP per employee as the average for 65 to 74 year olds
- We need to accurately calculate the learning curve of a new employee that replaces a retiring employee. In our analysis we took an assumption across the entire economy that a person would consistently improve their performance over the course of 1 year until they reach 100% of the output (productivity).