

# Actuarial calculation of your life annuity

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## 1 Executive Summary

This report presents an **exhaustive actuarial analysis of the viability and benefits of a life annuity contract**, considering factors such as mortality tables, the interest rate and projected growth of the income, in order to calculate the actuarial value of the flow of income.

This study and valuation are based on **technical, actuarial and financial calculations**, as well as on up-to-date actuarial assumptions to support informed financial decision-making.

## 2 Definition of the Transaction and Objective

The transaction assessed consists of calculating the present actuarial value of a life annuity, defined as a series of regular payments as long as the beneficiary lives. The life annuity can be monthly incoming or outgoing payments, either level or escalating. The objective is to apply generally accepted methodology to actuarial valuations.

**Considering the available capital, the equivalent monthly life annuity will be determined.**

## **3 Definition of Concepts**

### **3.1 Life annuity obtained**

A life annuity is an insurance product designed to provide regular income, generally as monthly payments for the rest of one's life.

### **3.2 Interest rate**

Rate applied to deduct the future payments from the current value. This refers to the interest on the life annuity insurance product; at present, percentages are between 2% and 3%, although this depends on the insurance company. The interest is the return on your savings.

### **3.3 Growth of Income**

Annual percentage of projected growth of the regular payments. This value refers to the percentage of annual adjustment of the pension from the life annuity income aimed at mitigating the effect of inflation.

### **3.4 Capital**

Capital indicated or necessary to receive the life annuity.

### **3.5 Mortality Tables**

Actuarial instruments that estimate the probability of survival depending on age and sex.

### **3.6 Life expectancy**

Average number of years that a person is expected to live, according to mortality tables.

## 4 Data Provided

- **Date of birth:** 01/01/1960
- **Sex:** Female
- **Interest rate:** 3.00%
- **Date of valuation:** 02/02/2025
- **Growth of income:** 2.00%
- **Capital available:** 200.000,00 €

### 4.1 Parameters used

- **Mortality tables:** PER2020

### 4.2 Additional information

- **Life expectancy:** 28.91 anys

## 5 Results of Actuarial Calculations

### 5.1 Monthly income to be received

673,28 €



## 6 Survival Probability Table

For each year after the valuation date indicated, 02/02/2025, the table shows the probability of survival and the expected annual life annuity.

Each row represents an additional year, beginning with the first year and continuing up to 01/01/2080, thereby providing a clear overview of how these variables evolve over time.

## 7 Appendix

**Table of Results**

Years	Survival Probability	Rent Sum
1	99.68%	8,079.32
2	99.36%	16,320.22
3	99.02%	24,725.95
4	98.67%	33,299.78
5	98.29%	42,045.10
6	97.90%	50,965.32
7	97.49%	60,063.94
8	97.04%	69,344.54
9	96.56%	78,810.75
10	96.03%	88,466.28
11	95.45%	98,314.93
12	94.79%	108,360.55
13	94.04%	118,607.08
14	93.20%	129,058.54
15	92.23%	139,719.02
16	91.12%	150,592.72
17	89.85%	161,683.90
18	88.38%	172,996.89
19	86.69%	184,536.15
20	84.75%	196,306.19
21	82.53%	208,311.63
22	80.01%	220,557.18
23	77.20%	233,047.65
24	74.09%	245,787.92
25	70.69%	258,783.00
26	67.03%	272,037.97
27	63.09%	285,558.05
28	58.94%	299,348.53

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Years	Survival Probability	Rent Sum
29	54.61%	313,414.82
30	50.02%	327,762.44
31	45.28%	342,397.00
32	40.45%	357,324.26
33	35.60%	372,550.07
34	30.80%	388,080.39
35	26.18%	403,921.31
36	21.81%	420,079.06
37	17.79%	436,559.96
38	14.17%	453,370.47
39	10.99%	470,517.20
40	8.25%	488,006.86
41	5.97%	505,846.32
42	4.13%	524,042.57
43	2.72%	542,602.73
44	1.68%	561,534.11
45	0.96%	580,844.11
46	0.51%	600,540.31
47	0.25%	620,630.43
48	0.11%	641,122.36
49	0.04%	662,024.13
50	0.01%	683,343.93
51	0.00%	705,090.13
52	0.00%	727,271.25
53	0.00%	749,895.99
54	0.00%	772,973.23