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Demographics: Population Aging and Market Opportunities — Remarks and Evidences

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Abstract: The increase in the number of older people is a global phenomenon. It has mainly affected European populations, where the decline in birth and death rates has been more pronounced than in other countries. According to current trends, this phenomenon will become even more pronounced in the near future. In recent decades, population aging has been one of the most discussed demographic issues. For this reason, the EU designated 2012 as the European Year of Active Ageing and the UN proclaimed 2021-2030 as the Decade of Healthy Ageing. The aging of the population is mainly analyzed by demography, given the nature of its indicators (old-age index, old-age dependency ratio, etc.); however, its consequences fall into areas beyond this discipline: in fact, changes in the age structure of the population due to demographic phenomena (birth rate, mortality, migration) are the cause of major transformations in both the economic and social spheres and, consequently, in the directions of socio-political planning. It should be emphasized that the elderly of today are very different from the elderly of the past. Most of them are in better physical condition, have higher incomes, more leisure time and thus can plan a future full of concreteness. Therefore, the elderly society should be understood not only as a society full of old people, but also as a growing strategic asset, a great new economy, the so-called silver economy, in terms of consumption and wealth. In this note, after a brief discussion of population aging and its measures, and after defining the demographic dimensions of the Silver Economy with reference to Italy, the analysis will focus on some of the socio-economic sectors that this demographic transformation is turning into important market opportunities

Key words: demographics, aging, market, silver economy
JEL codes: J11, J14

1. The Ageing of the Italian Population

The social and political events that have affected Italy since its unification, such as the industrial revolution, world wars, economic boom, etc., have brought about extraordinary changes. Italy has gone from a predominantly rural population with a high level of illiteracy to one with distinctly urban characteristics. The age composition of the population, which in the past had a young profile, now has characteristics that place it among the oldest in the world. All of this is the result of a steady decline in mortality, followed by an equally steady decline in fertility and birth rates.

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Let us recall that the decline in mortality in Italy began soon after the Unification: in 1862-70 there were 30.6 deaths per 1,000 inhabitants; this index had fallen to 21.9 per 1,000 in 1901-05 and to 10.3 per 1,000 in 1951. In the following decades, the mortality rate fluctuated around 10 deaths per 1,000 inhabitants, but it has increased again in recent years and will reach 12.1 per 1,000 inhabitants in 2022. The birth rate, on the other hand, did not begin to decline steadily until the late 1800s, reaching a low point in the 1950s, after which there was a recovery that ended around 1964. To get an idea of how sharp the decline in the birth rate was, recall that in 1862-65 there were 38.6 births per 1,000 people; by 1970 it had fallen to 16.8 per 1,000 and by 2022 to 6.7 per 1,000. The paradigm briefly described here is the representation of the evolutionary demographic process experienced by Italy after the *Unità*, called Demographic Transition (G. C. Blangiardo, 2006).

These trends, together with international migration, once outward and now inward, have shaped the structure of the Italian population, which has gradually taken the form of an inverted pyramid with a pronounced aging: the younger generations are shrinking in number, while the generations of the elderly are growing over time[1].

2. Population Aging and Its Measures

The aging of the Italian population described above is a process that all Western countries are experiencing. This is especially true of European countries and Japan. According to the United Nations, this phenomenon, which is unprecedented in human history, will be even more accentuated in the 21st century, which, for this reason, is called the "century of the elderly" (Golini & Rosina, 2011). We recall that the EU has designated 2012 as the European Year of Active Ageing and the UN has proclaimed 2021-2030 as the Decade of Healthy Ageing. Indeed, the aging of the population is one of the most discussed demographic issues of the last decades because of its economic, social and health implications, which give rise to concerns (crisis in the social and health systems, decline in school enrollment, depopulation, especially of small towns), but, as we will see, this phenomenon can be a source of important market opportunities for companies.

We still remember that during this period of remarkable social and economic change, life stages have changed profoundly. Life expectancy has increased significantly; healthy survival has also lengthened (Demeru & Egidi, 2016). As a result, an individual's true age can no longer be represented by chronological age because it includes characteristics that have changed over time, such as health status, cognitive function, and disability rates. For example, it is misleading to compare those who are 40 years old today with those who were 40 years old a century ago. These and other assessments have led demographers to critically examine traditional static measures of aging, which assume that the threshold of old age begins at age 60 or 65, when people cease to be economically active. In order to take into account the extraordinary increase in life expectancy, especially at older ages, dynamic measures of aging have recently been proposed that take into account the remaining years a person has to live. In this way, each individual could be labeled with two ages: the years already lived and the years left to live (Scherbov & Sanderson, 2016).

Among the indices of aging of the first type, the so-called static indices, the aging index, that is, the percentage of people over 65 in the total population, which looks at aging from the perspective of the number of years already lived, is more often used. However, in order to take into account the increase in survival at advanced ages, it would be more correct to look at the average number of years an individual would have left to live. This idea, first put forward by the demographer Norman Ryder (1975), has recently been used by Sanderson, Scherbov

[1] Available online at: https://www.tuttitalia.it/statistiche/popolazione-eta-sesso-stato-civile-2022/.

& Gerland (2017) in a larger study that includes the construction of dynamic indices that take as the threshold of old age the age corresponding to a residual life expectancy of 15 years.

For Italy, this threshold was found to be 72 years in 2022 and would gradually increase in the future as life expectancy improves[2]. However, even if the threshold of 72 years were to remain fixed over time, the indices measuring the ageing of the population would improve significantly, as can be seen from the absolute and percentage data shown in Tables 1 and 2, which were obtained from Istat (Italian Institute of Statistic) projections 2021-2070 (median assumption), considering both 65 and 72 years as the threshold of old age.

Let us now examine only the structural indices of Table 2. If we consider the threshold of 65 years, the population over 65 to population 0-14 would be 182.6 percent in 2021 and 294.3 in 2070, whereas if we assume that old age begins at age 72, the same index would fall to 119.1 percent in 2021 and 213.5 percent in 2070, that is, Italy would experience a "rejuvenation" of its population by about 30 years.

Table 1 Italian Population Forecast 2021-2070 by Major Age Groups

Years	Population 65 +	Population 72+	Population 0-14	Population 15-64	Population 15-71	Total Population
2021	13,941,828	9,095,700	7,636,545	37,657,840	42,503,968	59,236,213
2025	14,507,330	9,446,845	7,023,667	37,028,912	42,089,397	58,559,909
2030	15,807,540	10,054,923	6,493,347	35,605,503	41,358,120	57,906,390
2035	17,290,388	10,971,946	6,300,622	33,593,957	39,912,399	57,184,967
2040	18,512,782	12,264,789	6,396,220	31,461,206	37,709,199	56,370,208
2045	19,061,041	13,342,211	6,438,242	29,896,118	35,614,948	55,395,401
2050	18,887,761	13,967,288	6,351,870	28,925,088	33,845,561	54,164,719
2055	18,301,780	13,754,578	6,108,991	28,218,834	32,766,036	52,629,605
2060	17,539,011	13,087,616	5,810,121	27,556,583	32,007,978	50,905,715
2065	16,790,323	12,405,118	5,600,088	26,822,643	31,207,848	49,213,054
2070	16,272,217	11,809,052	5,530,013	25,920,062	30,383,227	47,722,292

Source: our elaborations on Istat data

Table 2 Italian Population Forecast 2021-2070 (Ratios %).

Years	Population 65+/Total population	Population 72+/Total population	Population 65+/Population (0-14)	Population 72+/Population (0-14)	Population 65+/Population (15- 64)	Population 72+/Population (15- 64)
2021	23.5	15.4	182.6	119.1	37.0	21.4
2025	24.8	16.1	206.5	134.5	39.2	22.4
2030	27.3	17.4	243.4	154.8	44.4	24.3
2035	30.2	19.2	274.4	174.1	51.5	27.5
2040	32.8	21.8	289.4	191.8	58.8	32.5
2045	34.4	24.1	296.1	207.2	63.8	37.5
2050	34.9	25.8	297.5	219.9	65.3	41.3
2055	34.8	26.1	299.6	225.2	64.9	42.0
2060	34.5	25.7	301.9	225.3	63.6	40.9
2065	34.1	25.2	299.8	221.5	62.6	39.7
2070	34.1	24.7	294.3	213.5	62.8	38.9

[2] Available online at: http://dati.istat.it/Index.aspx?DataSetCode=DCIS_MORTALITA1.

Source: our elaborations on Istat data

To go beyond the use of measures based only on chronological age, Sanderson & Scherbov (2016) have also proposed taking into account individual characteristics, such as educational attainment and health status. The adoption of the dynamic approach to the onset of old age would have important implications for international rankings of aging. For example, Japan, Italy and Portugal, which in 2020 occupy the first places among the ten countries with the greatest aging, — measured by the ratio of the population aged 65 and over to the total population — would disappear from this ranking if the dynamic index defined above were considered instead, while Japan would drop from first to seventh place (Table 3).

Table 3 Ranking of the Ten Oldest Countries in the World: Static and Prospective Indices of Aging (Year 2020).

Rank	Countries	% Population 65+/Total population	Rank	Countries	% Population with a remaining life expectancy of 15 years or less/Total Population
1	Japan	28.4	1	Bulgaria	18.9
2	Italy	23.3	2	Serbia	16.9
3	Portugal	22.8	3	Ukraine	16.5
4	Finland	22.6	4	Croatia	16,2
5	Greece	22.3	5	Latvia	15.8
6	Grmany	21.7	6	Romania	15.3
7	Bulgaria	21.5	7	Japan	15.2
8	Croatia	21.3	8	Hungary	15.0
9	Puerto Rico	20.8	9	Germany	14.6
10	France	20.8	10	Lithuania	14.4

Source: IIASA, Aging Demographic Data Sheet 2020.

3. The Demographic Dimension of the Senior Market

The aging of the population is a phenomenon primarily analyzed by demography, given the nature of its indicators (aging index, old age, old-age dependency ratio, etc.); however, its consequences fall in areas beyond this discipline: in fact, changes in the age structure of the population due to demographic phenomena (birth rates, mortality, migration) are the cause of major transformations in both the economic and social spheres and, consequently, in the directions of socio-political planning. We emphasize that the elderly of today are very different from those of the past. Many of them now have better physical conditions, higher incomes, more free time, and thus can plan a future full of concreteness. The society of the elderly should therefore be understood not only as a society full of old people, but also as a growing strategic asset, a new big economy, the so-called silver economy, in terms of consumption and wealth. After a brief discussion of the aging of the population and the measures taken to deal with it, in the remainder of this study, after defining the demographic dimensions of the Silver Economy with reference to Italy, the analysis will focus on some of the socio-economic sectors that this demographic change is transforming into important market opportunities.

In order to delimit the Silver Economy, we have assumed as the lower limit of aging the age of 65, because in many countries people retire close to it (OCSE, 2021) and because this is the threshold now officially adopted by many institutions, although the European Commission in the Report *The Silver Economy 2018* assumes as an age threshold even 50 years, not taking into account that work activity continues for at least another 10-15 or more. In

2002 the population over 65 in our country was 10,654,649 and represented 18.7% of the Italian population (aging index). In the last twenty years, as a result of the continuous improvement in survival, this segment of the population has been gradually growing and in 2022 will be just over 14 million, representing 23.8% of the Italian population[3].

This is how the European Commission defines the Silver Economy: "is the part of the general economy that are relevant to the needs and demands of older adult. Silver Economy as the sum of all economic activity that serve the needs of people aged 50 and over, including the products and services they purchase directly and the further economic activity this spending generates. Thus Silver Economy encompasses a unique cross-section of economic activities related to production, consumption and trade of goods and services relevant for older people, both public and private, and including direct and indirect effects."

The over-65 population is not homogeneous: it includes segments with very different needs in terms of income, propensity to consume, and physical condition. Some researchers therefore suggest dividing the elderly into *those belonging to the third age* (good health, social integration, availability of resources) and *those belonging to the fourth age* (dependence on others, physical deterioration).

Another classification considers four subgroups, namely *young old* (64-74 years), *old* (75-84 years), *grand old* (85-99 years) and *centenarians* (Istituto Superiore di Sanità, 2021). The latter classification is the one adopted here to subdivide the demographic space of the Silver Economy (Table 4 and Table 5), because we believe it better captures the current reality, with the age of the first class corrected to 65 years to coincide with the "official" threshold of old age.

Table 4 Italian Population Forecast 2021-2070 by Mayor Age Groups of Elders (Absolute values).

	Young old		Old		Grand old		Centenarians	
Years	ages 65-74	Indexes 2021 = 100	ages 75-84	Indexes 2021 = 100	ages 85-99	Indexes 2021 = 100	ages 100 and +	Indexes 2021 = 100
2021	6,915,504	100.4	4,825,173	100.0	2,183,677	100.0	17,174	100.0
2025	6,968,592	101.2	5,128,735	106.3	2,386,107	109.3	23,579	137.3
2030	7,795,713	113.2	5,436,920	112.7	2,541,366	116.4	33,199	193.3
2035	8,637,122	125.4	5,721,399	118.6	2,888,076	132.3	43,415	252.8
2040	8,839,668	128.3	6,512,125	135.0	3,104,911	142.2	55,673	324.2
2045	8,269,990	120.0	7,290,609	151.1	3,440,698	157.6	59,315	345.4
2050	7,280,147	105.7	7,525,475	156.0	4,003,735	183.3	77,959	453.9
2055	6,563,858	76.0	7,097,996	124.1	4,554,662	157.7	85,264	196.4
2060	6,309,009	73.0	6,302,365	110.2	4,825,339	167.1	102,298	235.6
2065	6,245,312	72.3	5,747,377	100.5	4,668,437	161.6	129,197	297.6
2070	6,277,750	72.7	5,574,019	97.4	4,274,553	148.0	145,895	336.0

Source: our elaborations on Istat data

[3] Available online at: https://www.tuttitalia.it/statistiche/indici-demografici-struttura-popolazione/.

Table 5 (Cont'd) Italian Population Forecast 2021-2070 by Mayor Age Groups of Elders (% Values)

	Young old	Old	Grand old	Centenarians	
Years	ages 65-74	ages 75-84	ages 85-99	ages 100 and +	Total
2021	49.6	34.6	15.7	0.1	100
2025	48.0	35.4	16.4	0.2	100
2030	49.3	34.4	16.1	0.2	100
2035	50.0	33.1	16.7	0.3	100
2040	47.7	35.2	16.8	0.3	100
2045	43.4	38.2	18.1	0.3	100
2050	38.5	39.8	21.2	0.4	100
2055	35.9	38.8	24.9	0.5	100
2060	36.0	35.9	27.5	0.6	100
2065	37.2	34.2	27.8	0.8	100
2070	38.6	34.3	26.3	0.9	100

Source: our elaborations on Istat data

4. The Economic Value of the Silver Economy and the Sectors Most Affected

As already mentioned, the over-65s represent almost a quarter of the Italian population and, according to Istat forecasts, their number will grow until 2045, when it will reach just over 19 million, and then gradually decline in the following years (Table 1). Although the methods, sources and results differ, the estimates of the economic value of the over-65s show that this age group already has and will increasingly have a significant economic weight. For example, according to the analysis of Assolombarda's Silver Economy Observatory, the economy of this group would be equivalent to 19.4% of GDP, or 321.3 billion euros in terms of income, or 37.2% of national income. If we add not only retirement income but also other income, it would reach 599 billion euros. The value of the consumption of the over 65s would be 176.1 billion euro, or 25 percent of the total consumption of Italian households, estimated at 704.5 billion euro. Nearly half (48.1 percent) of these resources are attributable to the Silvers who live alone. At the level of major Italian territorial breakdowns, this economy would be distributed 18.4 percent of GDP to the North, 19.1 percent to the Center and 21.9 percent to the South, the latter area prevailing in value at the national level (Osservatorio Silver Economy, 2022).

Assessments by the *Centro Studi e Ricerche Itinerari Previdenziali* using pension values provide not only global estimates, but also interesting insights into the over-65 age groups. For example, considering the average household income by age of household heads aged 65 and over, we arrive at a pension income of 246.4 billion euros as of December 31, 2018 (Table 6) and, from there, the estimated pension income of the four broad categories of elderly defined in section 3 above (Table 7). The young old are the richest group, accounting for 45 percent of all pensioners and owning 47.5 percent of total pension income. The old, on the other hand, are less numerous, accounting for 37.4 percent of all pensioners and holding 35.6 percent of total pension income.

For an estimation of the spendable of the Silver, in order to get an idea of the market opportunities offered by this subpopulation, we referred to the estimates reported in the Quaderno 2022 of Centro Studi e Ricerche Itinerari Previdenziali; estimates based on Bank of Italy data on the 2019 Survey on Savings, Financial Choices of Italian Households and the number of over-65s provided by Eurostat for 2020, which indicate the annual net spendable of

the Silver in 2020 at 283.6 billion. Assuming the same percentage distribution of total annual pension income in 2018 among the four over-65 age groups for 2020 (Table 7), we obtain the following estimate of the net spendable in each age group into which we have divided the over-65s (Table 8).

Table 6 Number of Pensioners, Total and Average Pension Income by Age Classes of Over 65s (Italy 31 Dec. 2018).

Age classes	Number of retirees	Total annual pension income (mln €)	Average annual pension income (mln €)
65-69	2,726,963	58,200	21,342
70-74	2,971,942	58,958	19,838
75-79	2,592,340	48,930	18,875
80-84	2,145,231	38,769	18,072
85-89	1,414,746	25,624	18,112
90-94	637,860	12,276	19,246
95 e +	180,394	3,648	20,222
Total	12,669,476	246,405	19,449

Source: Centro Studi e Ricerche Itinerari Previdenziali on data from the Central Retirement Records Database.

Table 7 Total Annual Pension Income by Categories of Elderly and Large Age Groups 65 and Plus (Italy 31 Dec. 2018).

Categories	Age classes	Total annual pension income (mln €)	%	Number of retirees	%
Young old	65-74	117,158	47.5	5,698,905	45.0
Old	75-84	87,699	35.6	4,737,571	37.4
Grand old	85-99	39,724	16,1	2,142,803	16.9
Centenarians	100+	1,824	0.7	90,197	0.7
Total		246,405	100.0	12,669,476	100.0

Source: Centro Studi e Ricerche Itinerari Previdenziali on data from the Central Retirement Records Database.

Table 8 Estimated Annual Net Spendable Income in 2020 in the Various Categories of the Elderly (Italy 31 Dec. 2018).

Categories	Age classes	Annual total spendable income (mln €)	%
Young old	65-74	134,843	47.5
Old	75-84	100,937	35.6
Grand old	85-99	45,720	16.1
Centenarians	100+	2,099	0.7
Total		283,600	100.0

Source: Elaborations on the percentage data in Table 7.

For a comparison of the size of the Silver Economy at European level, we are helped by the data of the spendable income projected in 2030 in the EU countries, based on the demographic forecasts of Eurostat, assuming a net income per capita equal to that of 2018. The results of this forecast place Germany in first place with a spendable of 424.43 billion euros, followed by France with 376.85 billion euros, the United Kingdom with 289.32 billion euros and in fifth place Italy with 275.55 billion euros (Osservatorio sulla Spesa pubblica e sulle Entrate, 2020)

The sectors most affected by the Silver Economy are those that correspond to the emerging needs of the “new” elderly, needs related both to greater availability of time and spending, and to a greater number of healthy years than in the past, even though in 2022 in Italy ten are the years that a person aged 65 can still count to live

independently from a total of 20.4 years of life expectancy (Istat, BES/2022, 2023). Many of them own a house, they prefer to live in the city, they have the possibility to travel; some are still working, some choose to do voluntary work, some still devote themselves to their grandchildren and a good number try to keep fit. Not to be forgotten, however, are those who need help both at home and in the performance of certain functions. In a short essay entitled "The Age of Leisure", Bobbio avoids the rhetoric of old age, which, through a "youthful representation of the old", tries to stimulate new needs in a society that sees the old man as a potential consumer. The old man, with the end of his active life, according to Bobbio, enters a new dimension, the age of free time, and it is the task of society and the market to ensure that this free time is not an empty time (Urbani, Bobbio, Capuani et al., 2011). As a final summary of this part of our reflection, we list below the emerging sectors of the Silver Economy, as reported in the Observatory on Public Expenditure and Revenue 2020: Food industry, Healthcare and pharmaceuticals, Electronics, Mobility, Housing services and home automation, Health and social care (residential and non-residential), Tourism, Cultural and recreational services, Fashion, Banking and insurance services. Among these, the areas with the greatest growth would be health, food and beverages, furniture and recreational activities, with increases of more than 40 percent (Osservatorio sulla Spesa pubblica e sulle Entrate, 2020).

5. Conclusions

The increase in the number of older people is a global phenomenon. It has mainly affected European populations, where the decline in birth and death rates has been more pronounced than in other countries. According to current trends, this phenomenon will become even more pronounced in the near future. In recent decades, population aging has been one of the most discussed demographic issues. Population aging is mainly analyzed by demography, but its consequences fall in both economic and social spheres. The elderly of today are very different from those of the past. Most of them are in better physical condition, have higher incomes, more free time and can therefore plan a future full of concreteness. Therefore, the society of the elderly should be understood not only as a society full of old people, but also as a growing strategic asset, a new great economy, the so-called silver economy, in terms of consumption and wealth. In this note, after a brief discussion of population aging and its measures, and the delimitation of the demographic dimensions of the Silver Economy, with reference to Italy, the analysis focused on the economic dimension of the Silver Economy, indicating some of the sectors (health, food, furniture and recreation) that the demographic is turning into important market opportunities.

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