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Demographic Determinants as Sources of Development of Private Senior Care Homes in Poland

Abstract: This research concerned the directions of changes in the real estate market in the area of private nursing homes for the elderly. The progressive decline in Poland's population, the decline in the fertility rate, and demographic projections for the population structure have given rise to considerations about areas of the real estate market that will have to meet the expectations of elderly real estate participants. The growing number of privately owned nursing homes represents a commercial real estate sector that can be viewed as a profitable investment venture. The study examined investment performance indicators for several private nursing homes in Poland; the results indicated relatively high levels of EBIDTA margins for each company.

Keywords: private care homes, demographic changes, EBIDTA margin, profitability indicators

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1. Introduction

European countries (including Poland) are facing an intense process of population aging. The demographic changes that are primarily linked to declines in fertility rates [1] and to the lengthening of people's life expectancies are contributing to increases in the shares of older people in the population structures. As Kiełkowska [2] pointed out, such a massive and radical aging of the population's age structure has never been recorded before. The effects of demographic changes have been identified as the most important social problems in the policies of local government units [3] and at the levels of government policies – primarily, in the economic dimension in connection with the rising costs of the pension system, health care, care costs, social assistance, and the requirements to create adequate public infrastructures. The demographic trends that are occurring provide a platform for consideration in social policy as well as in the health care and pension systems, but they are also a factor in the real estate market.

The link between the discussed issue and the real estate market has been the subject of scientific research; this research has considered this subject in connection with various elements that form the situations of the residential and commercial markets. Publications on the impact of demographic changes on the real estate market [4] have pointed to the need to take the factors of population changes into account when determining the values of commercial real estate – especially in view of the migrations of people of working age to larger cities. The studies that have been carried out have focused on the impact of population aging on residential real estate prices. In most of these, we can find statements that the aging of the population reduces housing prices and rents and increases the availability of this type of real estate on the market [5], with the impact to be considered with the availability of credit on the market [6]. Also noteworthy are those publications that have indicated increases in residential home prices in rural areas [7] or the lack of a downward effect on residential real estate prices as a result of population aging [8].

In the context of demographic change, the development of a housing infrastructure that is designed for the elderly (including senior homes and other forms of assisted housing) is becoming particularly important. The needs of this social group are different from those of standard households, and the real estate market often fails to keep up with changes in the age structure of the population; this leads to the formation of the so-called senior gap – a mismatch between the supply of housing and services and the needs of the elderly.

The trend of the increasing participation of the elderly in the population structure [9] is causing the development of a part of the economy that is aimed at meeting housing needs that respond to the special needs of this group of people.

The purpose of this research is to analyze the development of private senior care homes in the face of the demographic crisis in relation to the area of Poland as

well as to examine the profitability of selected non-public providers in the discussed sector of the economy.

The author of this study analyzed the financial measures of the few private sector companies that provide private senior care services; among these are sales revenue, net profit, operating profit (EBIT), operating profit plus depreciation (EBIDTA), EBIDTA margin, return on equity (ROE), and return on sales (ROS). There have been no studies that have analyzed the profitability of those private companies that operate in the discussed sector of the economy in Poland in conjunction with a demographic analysis. The results of the conducted research are important from the perspective of the demographic crisis and the need to meet the housing needs of the elderly; they also provide a basis for further consideration in the aspect of the real estate market.

Hypothesis: there is a gap in the Polish real estate market with regard to the housing needs of society. Under the conditions of the Polish welfare system and the demographic changes that are taking place, facilities of a private and commercial nature can provide an alternative solution to the public sector being seen as investment instruments by entrepreneurs in the sphere of the so-called “silver” economy [10].

2. Legal Conditions

According to Article 67 of the Constitution of the Republic of Poland [11], every citizen has the right to social security in case they are unable to work due to illness or disability or upon reaching retirement age.

In Poland, institutional care for seniors is based on nursing homes (DPS) (supplemented by sheltered housing) that provide permanent long-term care. Alongside these, there are nursing and therapeutic care facilities, which do not constitute permanent residences for the elderly but provide stationary round-the-clock care for specific periods of time. The legal regulation of the operation of DPS is the Act on Social Assistance [12]. Persons who require round-the-clock care due to age, illness, or disability who cannot function independently in daily life and cannot be assisted by care services are entitled to be placed in social welfare homes. The law indicates that the municipality’s own tasks include, among others, running and providing places in social welfare homes and support centers of a communal scope and directing the people who are required to care to them.

Social welfare homes may run after meeting the following conditions that have been set by law:

- local government units;
- the Catholic Church, other churches, religious associations, and social organizations, foundations, and associations;
- other legal entities;
- natural persons.

A permit to operate a social welfare home is issued by the provincial governor for an indefinite period with jurisdiction over the location of the home. Its tasks also include keeping a register of social welfare homes in the area of a given province. DPSs are 24-hour facilities that provide living, caring, supportive, and educational services at the level of the applicable standard. The law allows for the possibility of also providing such services before non-public entities (as long as they obtain permission from the governor). Thus, we are dealing with the regulations of the rules for the operations of homes for seniors in the forms of private activities. These activities can take place in the form of statutory or private activities – one of the main purposes of which is to make profits from the services that are provided. These will primarily depend on the fees that the residents of the nursing home in question are required to pay and are the result of contracts between the owner of the facility and the client. At the same time, private long-term care homes may also apply for a contract with the National Health Fund (NFZ).

The competent municipal authority issues a decision to refer a person to a social welfare home – determining the fee of the resident of the home for their stay in the cases of social welfare homes that are run on behalf of local governmental bodies. With regard to social welfare homes that are run by non-public entities, determinations of the amounts of the necessary expenses to be incurred for care activities may be determined in a different manner than that which is prescribed by the act, with the law is regulating the requirements as to the conditions that the place of stay should meet. The law stipulates that, in the event of a shortage of places in a community or county-wide nursing home, the municipality may refer persons to a nursing home other than a public one. In such a situation, the amount of the fee for a stay in a private nursing home is based on the contract that is concluded by the municipality with the owner of the house in question.

In addition to DPS, the operation of [13] care facilities has been normalized; among these are the following:

- nursing and medical facilities (ZOL);
- nursing and care facilities (ZPO).

These are run by local governments, public hospitals, non-governmental organizations, and private entities. Guaranteed benefits of nursing and care services in long-term care are provided in an in-patient or home setting.

The right to guaranteed benefits for, among other things, nursing and long-term care services is dealt with in the act on publicly funded health care services [14]. The scope of monitoring and presenting the situation about the elderly (i.e., over 60 years of age) has also been legally regulated [15]. It includes, among other things, the demographic situation, the income situation, the housing conditions, the availability and level of social services, and the implementation of senior policies. The implementing provisions to the Act specify the method of determining the fees for stays in nursing and therapeutic care facilities.

3. Literature Review

3.1. Demography and Institutional Care in Selected Countries in EU

Europe's aging process is the most advanced when compared to other continents [16]; in 2019, Europe's median age was 42.5 years – more than double the median age in Africa. Research has pointed out that the demand for products and services will grow by about 5% a year based on the needs of the elderly. This will underpin the development of job opportunities in those industries that respond to the challenges of an aging population.

Among the population of the European Union (EU), more than one-in-five people are over the age of 65 [17, 18] – with the largest share of seniors being recorded in Italy, Portugal, and Finland, and the smallest in Cyprus, Ireland, Sweden, and Luxembourg. Taking the rates of growth of the shares of seniors in the total populations of the individual countries into account, the fastest-aging societies are those of Poland, Slovakia, Finland, and Malta.

In Slovakia, one of the elements of the elderly care policy is the Long-Term Care Strategy that was adopted by the government in 2021. The Strategy includes funding for the introduction of integrated social and health care. The demographic data [19] shows a steady increase in Slovakia's aging rate through 2060. Long-term care in this country takes on three forms: formal care (in the form of in-patient services), formal care (provided at home), and informal care (at home). In Slovakia, there is a growing demand for care services for those seniors with inadequately secured long-term residential care. Research [20] has indicated that there are important differences between public and non-public providers of social services (including those that are non-profit). Positive factors on the private side include fewer residents in assisted living facilities or a wider range of services and better management. Given the scale of Slovakia's aging population [21], the number of residential care beds would have to increase by 54% by 2040. The implemented welfare reform has provided opportunities for the private sector to enter the market of care providers for the elderly, where non-governmental (non-profit and for-profit) entities account for 49% of the total facilities. In 2012 [22], the share of for-profit entities was 2%.

The Czech Republic, which also has a high rate of population aging, reported senior care home occupancy rates of 100% between 2008 and 2018 [23]. It is projected that the number of nursing home beds will have to increase by up to 59% by 2050. Nongovernmental organizations and commercial entities have a significant share [24] in the increase in the number of places in long-term care facilities for the elderly, while the public sector does not contribute to the development of social services that are aimed at the elderly.

As Jelinek [25] pointed out, more and more German families are choosing to place their elderly relatives in private nursing homes in Central and Eastern European countries. Among these countries is the Czech Republic, which shares a border

with Germany; this country is creating an infrastructure of nursing homes for German seniors. These private nursing homes are responding to the demand for affordable care for German seniors. On the one hand, they offer great business opportunities, and on the other, they are struggling with a shortage of professional staff who have greater financial rewards working in Germany due to their German-language skills.

3.2. Demographic Changes in Poland

One of the most important factors [26] that affects the real estate market is demographics; these shape the demand for certain goods. In analyses or characterizations of the housing market, demographics [27] are treated marginally when considering those factors that shape the market. The most significant [28] causes of population aging in Poland are as follows:

- lengthening of human life span;
- migration processes;
- low fertility rate.

In the system of care for the elderly in Poland [29], there is mainly long-term unpaid care (provided by those closest to them – family) and long-term care under the social security system (covering those who are most in need and meeting the criterion of accessibility). In Poland, the main roles in the long-term care system for the elderly is still being played by their families [30], where more than 80% of households with adults who are in need of care provide services that are based on unpaid family labor. In rural areas, the percentage is even higher – almost 90%. However, this situation is changing due to the shrinking care capacity of families and changes in the proportions of young people in the population structure. There will be an increasing demand for long-term care services for the elderly. Organization in providing care for the oldest group of society as well as the financing of these activities will be one of the biggest challenges for society and government policy.

Population projections for 2023–2060 [31] indicate a significant decline in Poland's population by 2060 – even to 30.4 million people; this is according to the main scenario that was adopted as being the most likely by Statistics Poland (GUS). The aging of Poland's population will deepen and, thus, the share of the people in the post-working age group will increase. According to forecasts, the share of the working-age population will shrink to 25% by 2060. In 2022, there were 70 people of non-working age for every 100 people of working age; it is projected that, in 2060, this will reach 105 people (according to the main scenario that is deemed to be the most likely).

According to Figure 1, the share of the post-working age population in the total population of Poland (65 years for men, and 60 years for women) accounted for 24% in December 2024; of these, 4% were people who were over 80 years old.

According to GUS projections, the population age pyramid will be significantly different in 2060, where the share of post-working age people in the total population is projected to be 33%.

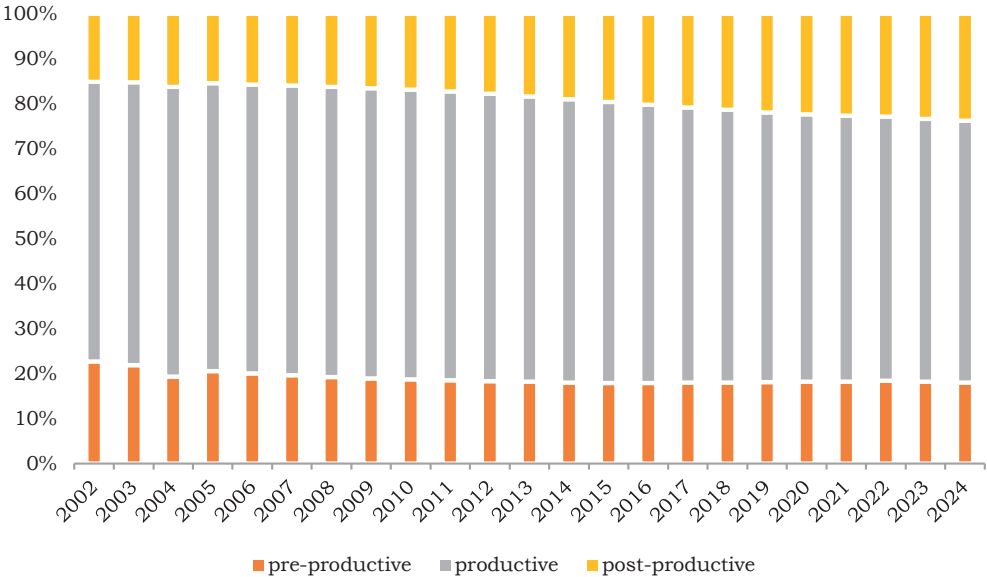


Fig. 1. Population structures in Poland from 2002 through 2024
Source: own work based on GUS statistics

Poland does not have a developed concept of housing development [32] for the elderly; however, the unfavorably changing demographic situation requires attention to the issue of the housing that is aimed at this age group. In Poland [33], research is being carried out on the optimal direction of the development of senior housing and the possibility of improving the housing situations of seniors. The issues also include aspects of the housing preferences of the analyzed age group.

Projections [34] have shown that, in 2060, the increase in the percentage of people aged 65 and over in Poland will be more than twice as high as the average increase for the European Union (EU) as compared to 2021 (12.5 vs. 5.7 pp.); in 2070, Poland will see the highest increase in this indicator among all of the EU countries.

Regarding the number of places in care facilities for the elderly in relation to the age structure, Poland ranks among the lowest countries in Europe [35]. The number of long-term care facilities per 1000 residents who are older than 65 is 6-to-7-times lower in Poland as compared to countries such as Luxembourg, the Netherlands, Malta, Belgium, and Germany (four-times lower than the last country). A comparison in the report showed that, in 2022, there were 84,617 places in 902 public social welfare facilities and 26,007 places in 632 facilities that operated as parts of commercial or statutory activities. The differences in the supplies of places in such facilities

in the public and private sectors are significant, with the number of places in public facilities growing slowly – there has been an increase of 4%. Since 2016, the number of private facilities has been growing significantly, with the number of places for seniors increasing by 68% since 2016 (as was indicated in the report). The situation is affected by the decline in multi-generational households, which often take the form of home- and family-based 24-hour care for the elderly.

The aging of the population has given rise to a new sector in the economy [36] – the “silver economy”; this includes products and services that are designed for seniors. Private housing for seniors [36] includes independent housing that is offered by developers and seniors’ homes that are operated by non-public entities; i.e., private seniors’ homes. The private housing sector with adequate infrastructure for seniors is in its experimental phase in Poland [32].

Among the factors that influenced the attractiveness of private nursing homes, the authors of [37] pointed to the locations of the facilities; facilities that were located up to 50 km from the residents’ places of residence ranked first. This was followed by the level of care that was provided, the architectural adaptation of the facilities to the needs of the elderly, and the standards of the facilities. A 2018 study [28] showed that, when a health problem arose and there was a need for assistance, 9% of seniors said that they would like to live in a new apartment in a senior housing development, 6% – in a state-run nursing home, 4% – in a private nursing home, and 2% – renting a room to a stranger in exchange for care, or living with other seniors. The largest group (79%) were seniors who said that they would stay in their own homes and receive help and care from relatives or institutions. For the most part, seniors do not show a willingness to change their places of residence [36]; in the events of possible moves, they would limit them to the nearest neighborhoods in order not to lose contact with their existing friends, places of service, or cultures. Studies [38] have indicated that urban residents were more likely to express a willingness to change their current residences to facilities that were suited to their needs than rural residents were. In contrast, those who were living with a husband or wife were significantly more likely to say that there was no need to create special offerings for seniors than those who were living alone or with other family members or in a nursing home.

4. Research

On the backdrop of these considerations, the question arises as to whether real estate that is developed with facilities that provide round-the-clock care for the elderly can be (or already is) a worthwhile object of interest among private investors.

In Poland, the private nursing home sector is dominated by smaller entities that provide such services in the forms of business or statutory activities. Alongside them are larger companies with more or less experience in this area but that

recognize the potential for long-term investments in senior homes in the context of an aging population and demographic problems. The purpose of this research is to analyze the demographic situation in Poland and the impact of the ongoing changes in the structure of society on the development of private senior care homes. The subject of the study is private providers of long-term 24-hour care for the elderly. In Poland, there were 902 public institutions in the forms of nursing homes in 2024, with 779 private nursing homes (including care facilities) according to data by the National Nursing Homes Registry (KRDO). The number of such facilities is growing year by year, but the pace is not significant in public units; in 2016, there were 856 DPSs, and in 2024, the number had only increased to 903. Figure 2 shows the numbers of people who were under public care in public in-patient social welfare homes from 2016 through 2024. The data shows a 69% increase in the number of residents throughout the analyzed period, where the increase in elderly residents was 43%.

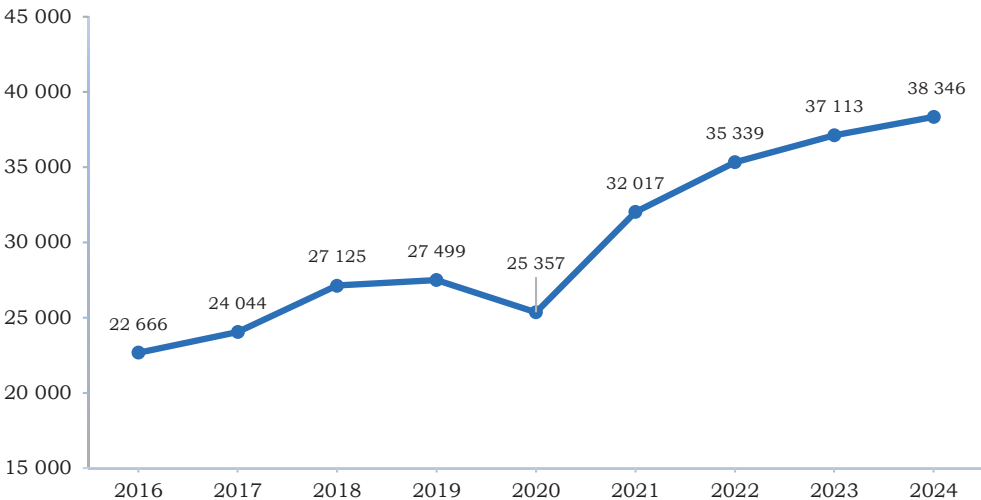


Fig. 2. Numbers of elderly in public nursing homes from 2016 through 2024

Source: own work based on GUS statistics

The graph shows a noticeable decline in the number of elderly people in DPSs in the fourth quarter of 2020, when there were over 60% more deaths as compared to the same period in the previous year [39]. The main reason was the SARS-CoV-2 epidemic, which also most likely translated into the decrease in the number of residents in nursing homes in 2020.

Demand for senior care homes is increasing; this is being driven by demographic changes and changes in the structures of families, where the share of immediate families in caring for the elderly will decline. In Poland, the population is shrinking; the process is so fast that, in 2060, there may be fewer than 31 million Polish citizens

(as compared to the current figure of more than 37 million). To illustrate the steady downward trend in the population (Fig. 3), a graph was made based on statistical data that showed the population decline since 2002.

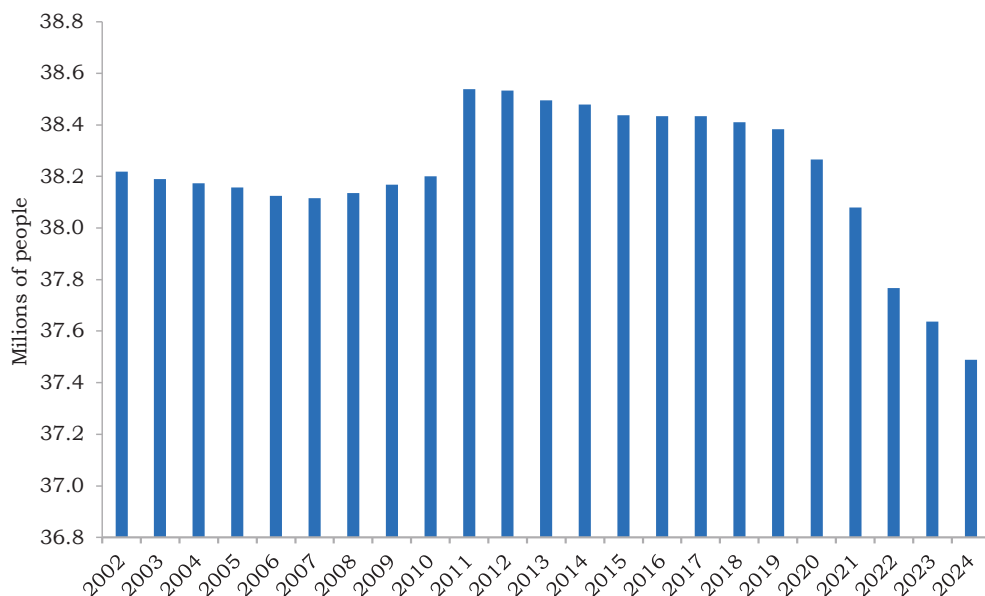


Fig. 3. Poland's population levels over period of 2002–2024

Source: own work based on GUS statistics

As mentioned earlier, there are currently 779 private entities that are operating non-public care and treatment activities for the elderly; the majority of these are nursing homes, with a smaller proportion of care or nursing and treatment facilities. Most of these are smaller operators, which provide from a dozen to a few dozen places in the case of long-term care. A smaller share is represented by facilities that offer more than 100 places.

Businesses that offer private senior care are enterprises whose primary goal [40] is to increase the wealth of its owners over the long term. The owners of such enterprises expect to increase their value [41], thus seeking to maximize their market values. The activities that are carried out by these enterprises are guided by efficiency criteria, which determine the levels of the market values of the companies. One of the areas of evaluating the effectiveness of investment ventures [42] includes such elements as the following:

- net benefit as basic criterion in evaluating effectiveness of investment venture, which can be expressed through profit (operating and net) and net cash flow;
- period over which net benefit is achieved;
- risk that is associated with achieving given net benefit.

The metrics [41] for measuring a company's efficiency are accounting, financial, and market measures. Accounting metrics were used in the study. Among these [41, 43] two measures can be distinguished: relative measures (value measures), and absolute measures (return measures). The study analyzed such absolute measures as the following:

- operating profit (EBIT) (company's operating profit excluding [44] company's financing costs) – company's profit from its operating activities and indicator for assessing efficiency of use of assets that are held by company;
- operating profit plus depreciation or EBIDTA – most important measure [44] (considered to be similar to cash flow).

In addition, relative measures like the following were analyzed:

- return on equity (ROE) [45] – simple return on equity as ratio of net profit (E) to equity;
- return of sales (ROS) – return on sales ratio [46] calculated as ratio of net profit (E) to sales revenue (S);
- EBIDTA margin – ratio of EBIDTA/sales revenue (S).

The study included selected companies with more than 100 places for the elderly in their nursing homes, were registered in the National Court Register (KRS), and for which existing financial data made it possible to calculate their measures of business efficiency. The Polish market has a small number of larger private entities that professionally provide services in the forms of senior care homes. One of the significant ones (and the one with the largest share among private entities) is the listed French company Emeis (formerly operating under the brand name Orpea) [47]; this company offers nearly 1500 places in seniors' homes (including apartments for seniors). The company owns real estate and owned social infrastructure facilities and is expanding its operations by committing funds to fixed assets. According to the company's financial data, it recorded a net profit of around 8.1 million PLN in 2023, with losses as high as nearly 75 million PLN during the period of 2020–2022; this was mainly due to the large share of fixed assets that were under construction on the company's balance sheet.

Investments are an excellent way to increase a company's market value [40], while they are possible with large expenditures on fixed assets such as real estate, which are linked to the company's long-term operating strategy.

The study covered a total of five companies that operated in Poland in the private senior care sector.

Studying the profitability of the entities, the performance measures that were shaped during the period of 2018–2023 were calculated and analyzed (Table 1). All five of the analyzed companies recorded net profits in 2023; in the previous years, some of the companies also recorded net losses.

The average ROS (12%) and ROE (25%) ratios indicated that, in the surveyed group of companies, net profits accounted for 1/4 of the equity and 1/10 of the sales revenues in 2023.

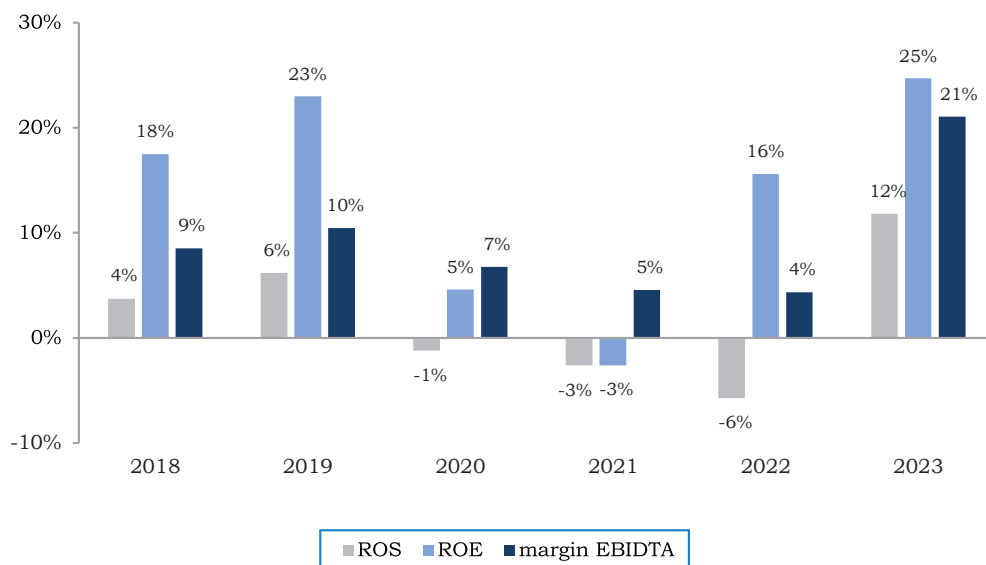
Table 1. Financial metrics of selected companies according to financial data from December 2023

Company	Net income (E) [mln PLN]	Operating income (EBIT) [mln PLN]	Operating income plus depreciation (EBIDTA) [mln PLN]	Return of sales (ROS) [%]	Return of equity (ROE) [%]
A	8.10	4.20	18.90	5	2
B	0.99	0.97	0.97	20	42
C	0.61	1.18	1.41	8	26
D	0.27	0.34	0.44	8	18
E	2.52	3.73	3.90	18	35

Source: own compilation based on audited organizations' financial statements as of December 2023

The EBIDTA margin for the individual entities in 2023 was positive; its average value was 21%.

During the period of 2018–2023 (Fig. 4), the average EBIDTA margin had a positive value among the five surveyed companies.

**Fig. 4.** Formations of average ROS, ROE, and EBIDTA margins during period of 2018–2023 in five studied companies

Source: own work based on financial performances of companies

The year 2023 was characterized by the best ROE and ROS, with a high EBIDTA margin. The low EBIDTA margin in 2022 was due to the low operating profit that was earned by Company A, which had committed capital to the construction of new facilities. The average ratios (Fig. 5) that were calculated based on the other four companies that were similar in terms of their size and assets held led to the results having positive values throughout the analyzed period.

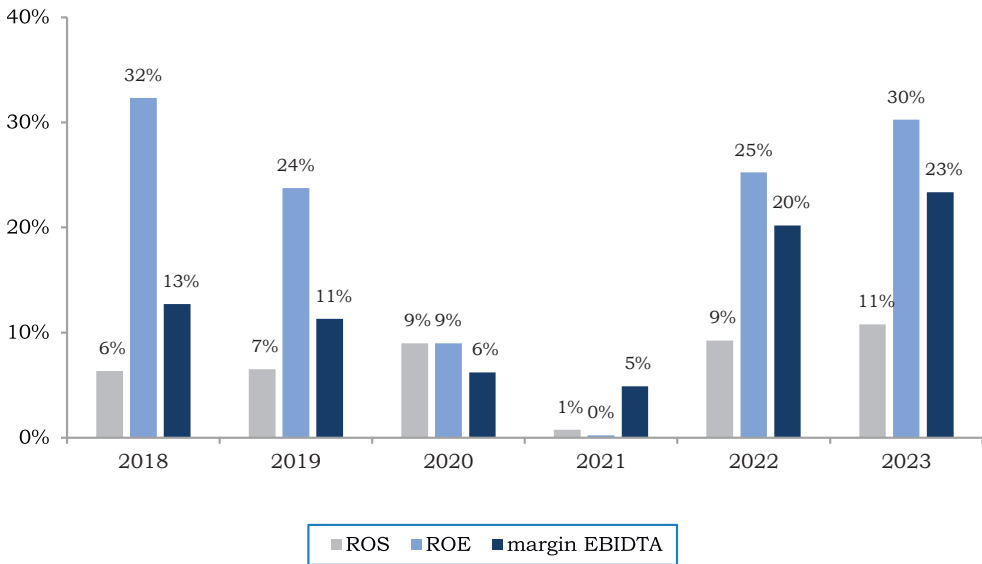


Fig. 5. Formation of average ROS, ROE, and EBIDTA margins during period of 2018–2023 in four remaining companies

Source: own work based on financial performances of companies

The highest EBIDTA margin was recorded in 2023. The apparent declines in the values of the indicators in 2020 and 2021 may have been primarily due to the Covid-19 pandemic. At that time, the companies in the sector under analysis incurred higher costs of doing business with lower revenues. The situation began to improve in 2022. In all of the analyzed years (including 2020 and 2021), the companies in question recorded net profits; this indicated the good profitability of the companies. The sales profitability index in the research sample of the four profitable businesses also reached positive values.

The results indicated the profitability of the companies that operated in the area of private senior care homes. By increasing the demand for services in this sector, the demographic crisis will affect the development of the sector of the economy that provides long-term care services to the elderly.

5. Conclusions

The situation in the real estate market is the result of a number of factors, with one of the most important elements with regard to the housing market being the demographic situation – not only in the present, but especially in the future years. Poland is experiencing a steady decline in population, an increase in the post-working age population, and increasing demand for long-term care in the form of nursing homes for the elderly. The conducted research led to the following conclusions:

1. From 2016 through 2024, the number of residents in nursing homes increased by nearly 63%; of these, 43% were elderly.
2. As of December 2024, the share of the post-working age population in the total population of Poland accounted for 24%; of these, 4% were over 80 years of age. With the projections of the Statistics Poland (GUS), the share of the post-working age population in the total population could be 33% by 2060.
3. The sector of private care homes for the elderly is under development.
4. The existing services in the private care sector for seniors are mainly provided by sole proprietorships, with a very small share of larger companies.
5. The calculated measures of the profitability of the analyzed companies indicated high levels of EBIDTA margins; the average value of this was 21% for the five studied companies in 2023.

Studies have indicated that demographic changes in Poland are leading to an increasing proportion of elderly people in the structure of society. The result of this phenomenon is the need to pay attention to the needs of this social group in the conducted senior policy. There has been a negligible increase in the number of public nursing homes. Given the pace of the demographic change and the transformation in the family structure that involves the loosening of traditional family ties and the typical lack of involvement of the younger generation in caring for elderly relatives, private nursing homes can be seen as a form of commercial profit-driven investment. The law allows for the establishment of a private nursing home after obtaining a decision from the governor that has jurisdiction over the location of the home. It is specified which documents are required to be submitted by an entity that applies for a permit to operate a senior citizen home. Unlike in public nursing homes, the owners of privately run nursing homes may independently determine the levels of the fees for the services that are provided. In the absence of the ability of public institutions to provide long-term care in a given area, private homes can provide support for the public system; through an agreement between a given municipality and the owner of a private nursing home, elderly people can be referred to it by the municipality under terms that are agreed upon between the municipality and the private nursing home entity. The profitability of this type of project (as with any other investment) is determined by many factors, such as economic, social, and legal concerns. In the initial phases of a project, investors should take significant investment costs into

account; these include not only construction costs but the adaptations of functional solutions to current regulations or the costs of specialized equipment. Decisions to be made include analyses of the financial capabilities of potential customers of senior homes and their families in the local markets as well as possible competition.

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Declaration of Competing Interests

The author declares that she has no known competing financial interests or personal relationships that could have appeared to influence the work that was reported in this paper.

Data Availability

Public Data: Statistics Poland (GUS), Court Register Portal (KRS), the National Nursing Homes Registry (KRDO).

Use of Generative AI and AI-Assisted Technologies

No generative AI or AI-assisted technologies were employed in the preparation of this manuscript.

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