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# Retirees' expenditure on the purchase of consumer goods and services in the background of their incomes

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## Abstract

Most societies in developed countries are ageing and facing new economic as well as social challenges associated with the growing population of elderly individuals. Challenges also arise from the functioning of pension systems and the ability to ensure an adequate standard of living for the retirees. The study aims to determine changes in the level and structure of consumption expenditures in Polish retiree households. The assessment covers the overall level of expenditures and by individual categories in nominal and real terms, as well as changes in the level of these expenditures. Statistical data for 2013–2022 regarding household budgets collected and provided by Statistics Poland were used in the study. Our study found that real monthly per capita incomes in retiree households increased by 24% during the study period and amounted to 2281 zloty in 2022. Expenditures on consumption purposes increased by 6% in real terms to 1560 zloty per person per month. The share of expenditures on consumption purposes relative to incomes decreased by 11 percentage points from 80% to 69%, indicating an increase in the wealth of the surveyed households. In the structure of expenditures on consumption purposes, the share of expenditures on food increased (from 28% to 30%), but the share of expenditures on housing and energy decreased from 25% to 24%. Expenditures on education; clothing and footwear; recreation and culture also had a decreasing share in expenditures. Taking into account the multifaceted changes, it can be observed that from 2013

to 2022, the wealth of retiree households increased due to the growth of real disposable incomes, an increase in consumption expenditures, and a decrease in the share of expenditures on current consumption in relation to income.

## 1. Introduction

As the average life expectancy increases, the population of elderly people, most of whom are no longer professionally active, also grows. Older people—including those covered by pensions—have lower incomes than workers, which are not always sufficient to support them. This situation becomes a significant organizational and economic challenge for societies (van Tongeren, Bruil, 2022). The income of some elderly people that is well below the average makes it necessary to equalize income using dedicated financial plans (Brown, Fraikin, 2022) through additional intergenerational transfers or minimum pensions (Hammer et al., 2023; Ratajczak, Bartkowiak, 2021). It should be noted that a large proportion of older people perform unpaid work for the family, so some intergenerational transfers are not recorded (Mejía-Guevara, Fuentes, 2024).

Retirees and older people with better financial knowledge usually organize their savings better, including those covering part of their expenses during retirement (Xie et al., 2024). Another activity that increases the level of income in retirement is extending the working period and mobility in the labour market (Duszczuk, 2012; Jimenez et al., 2024; Niewiadomska, Sobolewska-Poniedziałek, 2016; Szatur-Jaworska, 2012). This is a required action for maintaining the stability of the pension system (Heijdra, Romp, 2009). However, such activities are not common enough in Poland, despite tax incentives (Dada, 2024), to prevent a decline in income level after going into retirement and, consequently, the need to change consumption behaviour and limit spending.

Examining the structure of household expenditure is very important because it illustrates the attachment to specific consumption patterns that develop over a longer period (Zalega, 2015). It also allows us to recognize consumption behaviour and track changes in this area. It is believed that if the structure of expenses in a given type of household changes significantly, it indicates a significant change in the financial conditions for meeting needs. When analysing the structure of expenses in retiree households, it should also be remembered that their households have fewer persons than average households. This impacts the average expenditure per person mentioned above and the distribution of financial resources spent on individual goods or services.

Households of older people, especially those run by retired people, differ from other groups in the structure of expenditure and consumption. First of all, the level of disposable income per person is often lower here than in the population of working people because the pension is lower than the remuneration from work,

and its level is 30–80% of the previous remuneration, depending on the length of employment and other factors (Jajko-Siwek, 2015).

Households of older people often limit the level of consumption expenditure, which leads to de-consumption. As stated by Zalega (Zalega, 2018a) this is due to lower income, but often also due to a change in lifestyle, with less focus on material goods and more on the consumption of non-material goods instead. Some studies have shown that the interest in purchasing fixed assets for use in retiree households does not always decrease and depends on the type of household and the level of per capita income. However, higher expenses for this purpose are related to the high level of pension benefits (Zalega, 2023, 2024). Nonetheless, the basic human need is food consumption; it is difficult to exclude it. Research shows that with lower incomes, retirees are much less likely to buy fruit and vegetables, as well as meat, low-fat products and other relatively more expensive products. Most often, they pay attention to the price, then the quality of the products (Zalega, 2017a). An important issue for retirees is the health benefits of food (Lesakova, 2020). Although they often maintain a traditional diet, access to appropriate food has not been found to affect retirees' quality of life negatively (Fitzpatrick et al., 2019; Rybowska, 2016). Seniors more frequently tend to make consumer decisions based on broader access to goods that are of various qualities. Depending on their disposable income, they seek goods that would be satisfactory because of their quality, price, and place of origin (Kim et al., 2014; Urbany et al., 1996). This behaviour is called smart shopping (Atkins, Kim, 2012) and is also observed among retirees in Poland (Zalega, 2017b). Even though seniors whose purchasing behaviours largely conform to sustainable consumption buy only necessary things, paying attention to the goods' quality, such as food with extended shelf life and goods that can be reused, it is observed that such behaviours often result from economic rather than environmental motives (Zalega, 2018b).

Taking into account the above considerations, it was assumed that in retiree households, as income increases, spending on health care, superior goods, including more expensive food products, and above all, recreation, culture, and services will increase.

## 2. Demographic and economic characteristics of retirees

Retirees constitute an increasingly more numerous social group. In 2013, there were 6.2 million retirees in Poland, and in 2022, over 7.1 million, which means an increase of 911 thousand people, or about 15%. Among the retirees receiving pension in 2022, 60% were women and 40% were men. According to data from the Statistics Poland office (GUS), the share of post-working age population in the total

population is steadily increasing, from 18.4% in 2013 to 22.9% in 2022. According to GUS forecasts, people of retirement age in 2035 will constitute about 26.7% of the total population of Poland, and by 2050, it will be 33% of society (Główny Urząd Statystyczny, 2009, 19; Główny Urząd Statystyczny, 2014). According to Eurostat forecasts, Poland will be the demographically oldest country in the EU by 2060, with the share of post-working age individuals exceeding 36% of the total population (Giannakouris, 2008, 10). Such demographic changes, expressed by the increasing share of post-working-age individuals and the decreasing number of working-age individuals, are referred to as the inverted demographic pyramid and are not only unfavourable to the economy but also pose a significant challenge for societies. Table 1 presents a forecast for Poland's population in post-working age until 2050 prepared by Statistics Poland.

**Table 1.** Forecast of the population of post-working age in Poland in total and by gender until 2050

Year	Forecast of the population of post-working age in Poland (thousands of people)		
	total	male aged 65 and more	female aged 60 and more
2035	8,339.6	3,275.6	5,064.0
2040	8,400.8	3,457.1	4,943.7
2045	9,069.6	3,826.2	5,243.4
2050	9,939.5	4,306.5	5,633.0

Source: own study based on Statistics Poland data.

According to the Statistics Poland forecast, women will dominate among people of post-working age. Their share in this social group will be 60.7% in 2035 and 58.5% in 2050. This means that we will be dealing with the so-called feminization of the old age, which results from the percentual predominance of women in the retired population. This is due to the longer life expectancy of women and also to the fact that women still retire five years earlier than men, i.e. at 60, while men retire at 65.

The average life expectancy is also increasing. In 2022, it was 81.1 years for women and 73.4 years for men (Główny Urząd Statystyczny, 2022b). This means that if a woman retires at 60, she will be retired for over 20 years, and a man who retires at 65 has eight years of retirement ahead of him. According to Statistics Poland forecasts, the number of people aged 85 and over will increase by as much as 83% by 2060 compared to 2022 (Główny Urząd Statystyczny, 2023b, 36). Increasing life expectancy will significantly impact seniors' demand for health-care and health-related services, including the long-term care. This last category of services may become more and more common due to changes in the labour market, i.e. delaying the retirement age, the planned increase in the retirement age and increasing economic activity of the population. All this will lead to fewer opportunities to provide long-term care for older people in a non-institutional

form (Stańko, 2013). A demographic phenomenon that will also be important for developing selected markets, including food products and care services, is the so-called singularization of old age (Monitor Polski, 2020, poz. 1125). The increasing number of single-person households among retiree households evidences the development of this trend. In 2030, as many as 53.3% of households will be run by people aged 65 or over, including 17.3% by people aged 80 and over. In 2030, more than half of single-person households will be retiree households. The most significant increase in the number of households will occur in the case of households run by people aged 80 and over (Błędowski et al., 2012, 6).

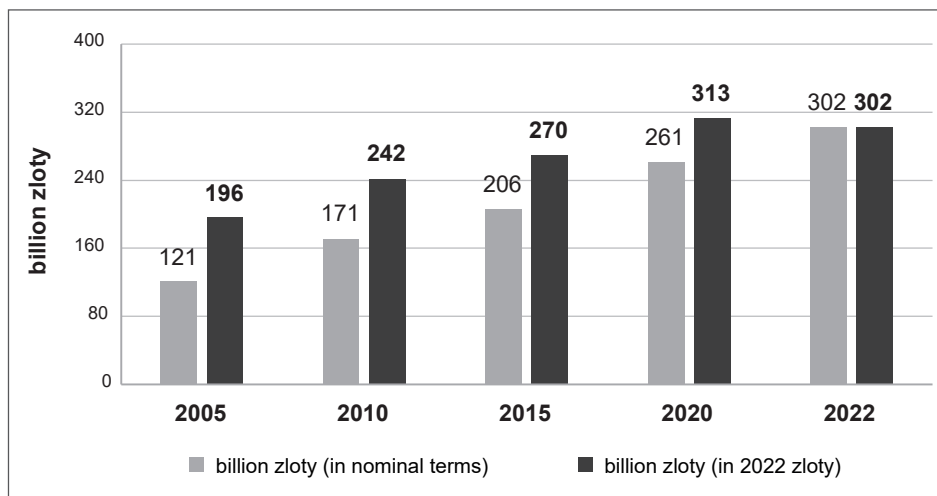
The systematic increase in the number and share of older people in Poland's society means that they are an increasingly important part of the consumer market (Dąbrowska et al., 2019). Apart from the growing attractiveness of this segment resulting from its size, retirees are also a group of consumers with a relatively stable financial situation.

## Incomes

When analyzing the financial situation of households, their current income is most often taken into account (Bywalec, 2007; Hanusik, Łangowska-Szczeńiak, 2013; Zwiech, 2015). Current income is a crucial determinant influencing the size and structure of expenses that determine a household's financial situation.

Pension benefits are the main source of income in retiree households. Pensions in Poland can be obtained from various institutions. Farmers receive pensions from KRUS (English: Agricultural Social Insurance Fund). Retired employees from the non-agricultural sector receive pensions from ZUS (English: Social Insurance Institution), MS (English: Ministry of Justice), MON (English: Ministry of National Defense), and MSWiA (English: Ministry of Internal Affairs and Administration). In 2022, the total amount of pensions paid in Poland was approximately 300 billion zloty (Główny Urząd Statystyczny, 2022; Sejm Rzeczypospolitej Polskiej, 2022; Zakład Ubezpieczeń Społecznych, 2022). The pensions paid, therefore, constitute a significant, stable purchasing fund independent of country's current economic state. Changes in the amount of pensions paid from the sources mentioned above for selected years are presented in Figure 1.

Between 2005 and 2022, there was a steady increase in the disbursed benefits. This increase amounted to over 181 billion zloty in nominal terms, meaning that in 2022, the benefits were nominally 250% higher than those in 2005. In real terms, disbursed benefits increased by 54%. This growth resulted from an increase in the number of beneficiaries (pensioners) and the real increase in the average pension amount. In 2022, the average monthly pension from the non-agricultural insurance system was 2869.65 zloty, which increased by 1689 zloty in nominal terms compared to the pension in 2005, i.e., by 143%. In real terms, the average



**Figure 1.** Retirements and other pensions' amount in total (billion zloty)

Source: own study based on Statistics Poland data.

increase in pensions was 50%. Pensions paid by the Agricultural Social Insurance Fund (KRUS) have had a much lower value. In 2005, the average benefit was 758.11 zloty; in 2022, it was 1500.52 zloty, 52% of the average pension paid outside of KRUS. In the case of KRUS pensions, a real increase in the average pension value was also observed, and it amounts to 22% between 2005 and 2022.

Retirees assessing the financial situation of their households in 2022 indicated that it was good and rather good—as stated by 38.8% of respondents, average—as assessed by 53.9% of the retirees and bad and rather bad—according to 7.9% of the interviewed (Główny Urząd Statystyczny 2022).

### 3. Research methodology

The article aims to determine qualitative and structural changes in the expenditure on consumer goods and service purchases in retiree households. Examined was the level of expenditure in total and by individual categories in nominal and real terms as its changes were assessed. It was also examined whether the expenditure structure was changing, particularly emphasising the share of expenditure on food. The study used data from household budget surveys for 2013–2022 published by the Statistics Poland office. These studies are conducted using a representative method, which makes it possible to generalise the results to all households in the country.

The cash income of retiree households was assessed based on data from household budgets regarding disposable income. Disposable income is defined, following the methodology used by the Statistics Poland, as: “the sum of current household

income streams from individual sources without the advances on personal income tax paid by the payer [i.e. employer] on behalf of the taxpayer (on income from paid employment and certain social insurance benefits as well as other social benefits), and without the taxes on property income, taxes paid by self-employed individuals, including representatives of free professions and persons operating individual agricultural farms; or social as well as health insurance contributions” (Główny Urząd Statystyczny, 2023a).

The following indicators were used in the data analysis: structure of expenditure on consumer goods and services as well as dynamics on a variable and constant basis. The parameters of the exponential function were used to assess the average annual growth rate. The nominal and real approach was used in relation to income and expenses. The values were converted into constant prices using the average annual price index of consumer goods and services published by the Statistics Poland. The rate of change was also assessed based on the development trend using the linear regression function. Pearson correlation coefficients were used to assess the relationship between disposable income and consumer goods and services expenditure.

## 4. The level and structure of expenditure on consumption goods and services

Household income is the basic determinant of current consumption expenditures; savings and investments are the next one to be considered. Table 2 presents nominal and real incomes in households per person. The total income of households and retiree households is shown. Due to significant aggregate inflation in the analyzed period, income was included in nominal and real values. The Consumer Price Index was used as the deflator.

In all of the analyzed years, the average monthly disposable income per person in retiree households was higher than the average income of non-retiree households (Table 2). Until 2016, it was even 8% more, but in the following years, the difference decreased and amounted to about 3%, while it sank even further to only 1.4% in 2022. The higher level of per-person income in retiree households results from its small size, with one or two people. This means that overall household income is divided between fewer people than in other types of households.

In real terms, income per person in retiree households increased on average over the period under study. However, it is clear that since 2020 there has been a slowdown in growth dynamics, and in 2022 a real decline in income was observed. It is difficult to assess how this will affect the level and structure of consumer spending, as such situation may be temporary and will not change the consumption behaviour of retirees. In the analyzed period, retirees' income increased at a real rate of 3.1% per year. This was a lower rate of change than that of households



**Table 2.** Comparison between disposable monthly incomes per person between non-retiree and retiree households in 2013–2022 (in zloty)

Year	Average monthly disposable income in non-retiree households		Average monthly disposable income in retiree households in zloty		The ratio of average monthly disposable income in retiree households to non-retiree households
	current value in zloty	in 2022 zloty	current value in zloty	in 2022 zloty	
2013	1299.07	1686.60	1415.72	1838.05	109.0
2014	1340.44	1740.31	1458.63	1893.76	108.8
2015	1386.16	1816.01	1509.50	1977.60	108.9
2016	1474.56	1943.49	1568.96	2067.91	106.4
2017	1598.13	2065.05	1630.12	2106.39	102.0
2018	1693.46	2153.77	1738.59	2211.17	102.7
2019	1819.14	2261.60	1874.81	2330.81	103.1
2020	1919.21	2307.55	1981.60	2382.56	103.3
2021	2019.75	2310.59	2152.95	2462.97	106.6
2022	2249.79	2249.79	2281.26	2281.26	101.4
Dynamics (2022/2013)	173.2%	133.4%	161.1%	124.1%	93.04%
CAGR in %	6.14	3.80	5.44	3.10	-0.70

Source: own study based on Statistics Poland data.

in general, where incomes grew at a real rate of 3.8% per year. As a result of real changes in income, their level in 2022 was 24% higher in real terms than in 2013. This situation means that retiree households became wealthier, and thus, their ability not only to meet their consumption needs but also to save and invest increased.

Household expenses and their structure are related to the disposable income of these households. The estimated correlation coefficient for 2013–2022 in regards to expenditure on consumer goods and services and disposable income in retiree households was 0.94, which means a very strong relationship between these two studied variables.

The level and structure of household expenses have a significant influence on their living situation (Bywalec, 2012; Kieźel, 2004; Piekut, 2008). In 2013–2022, the primary item in the expenditure of retiree households, as well as in the total expenditure of households, was expenditure on consumer goods and services. Their share in expenses was over 60% each year and, in some years, even 80%. This category includes expenditure on consumer goods and services intended to meet household needs, including food, health expenses, healthcare, house maintenance, transport, and other goods and services (Główny Urząd Statystyczny, 2023a). The level of consumption expenditure of retirees against the background of total household expenditure in the analyzed years is presented in Table 3.



**Table 3.** Comparison of average monthly expenditure on consumer goods and services per person between non-retiree and retiree households in 2013–2022 (in zloty)

Year	Average expenditures of non-retiree households		Average expenditures of retiree households		The ratio of average expenditures between retiree and non-retiree households
	current value in zloty	in 2022 zloty	current value in zloty	in 2022 zloty	
2013	1017.52	1321.06	1131.32	1468.81	111.18
2014	1031.62	1339.36	1133.15	1471.18	109.84
2015	1042.91	1366.32	1144.78	1499.78	109.77
2016	1082.83	1427.18	1187.81	1565.55	109.69
2017	1127.18	1456.50	1221.81	1578.78	108.40
2018	1136.54	1445.47	1219.31	1550.74	107.28
2019	1201.23	1493.40	1288.49	1601.88	107.26
2020	1164.61	1400.26	1266.10	1522.29	108.71
2021	1235.95	1413.93	1384.98	1584.42	112.06
2022	1420.04	1420.09	1561.48	1561.48	109.96
Dynamics (2022/2013)	136.9%	107.5%	138.0%	106.3%	98.9%
CAGR in %	3.11	0.78	3.06	0.72	-0.05

Source: own study based on Statistics Poland data.

It is worth noting that total consumption expenditure in households in relation to income constituted an increasingly smaller percentage. This ratio decreased from 78 to approximately 60% during the period under study. The decline rate was 3% per year. During the same period, in retiree households, the consumption expenditure to income decreased much slower—from 80 to 65%. The rate of decline was lower in this group of households and reached 2.4% per year. As a result, the level of consumption expenditure in retiree households remained relatively high compared to all households. It should be emphasized, however, that in both groups of households the ratio of consumption expenditure to income decreased, which is a clear signal that the wealth of households was increasing.

The analysis of average monthly expenditure on consumer goods and services indicates that in the analyzed period, retirees' expenditures increased nominally by 38% and were higher each year than those of non-retiree households. The largest increase in nominal expenditure occurred in 2022. However, it should be mentioned here that growing consumer spending in nominal terms does not indicate a real increase in consumption. Only the real value of expenses allows for a right assessment of this phenomenon. The observed increase in spending in 2022 resulted from the significant increase in food and non-alcoholic beverage prices in the period under review and not an actual increase in consumption. Since 2016, real spending has not increased significantly.

In all analyzed years, retirees spent over 70% of their disposable income on the purchase of consumer goods and services. These expenses, in nominal terms, increased over the period under review. The share of income spent on these goods was decreasing. In 2013, it was 79.9% of income, and in 2022—68.4%. The decline was that of 11.5 percentage points. Therefore, an increasing part of the funds available to retirees could be spent on purposes other than consumption, e.g. savings or investments, which should be assessed as a positive trend.

The level of expenditure on consumer goods and services in nominal terms increased annually by 39.6 zloty per month. However, the assessment of the dynamics of expenditures in real and nominal terms (Table 4) indicates that in 2014–2017 and 2021, real expenditures on consumer goods and services in retiree households increased, while in 2018, 2020 and 2022, they decreased. It should be added that in 2021, a real increase in expenses was recorded in all types of households. Throughout the entire period under review, the cumulative dynamics of consumer spendings in retiree households was higher than the cumulative price increase by approximately six percentage points. This means that, in real terms, expenses were higher in subsequent years, so we can talk about an increase in retirees' standard of living despite periodic fluctuations, e.g., resulting from economic and social disruptions during the SARS-Cov2 pandemic.

**Table 4.** Dynamics of average monthly expenditure on consumer goods and services in nominal and real terms of retiree households in 2013–2022

Year	Dynamics of nominal expenditure on consumer goods and services (2013=100)	Dynamics of price of consumer goods and services (CPI) (2013=100)	Dynamics of real expenditures (as the quotient of the dynamics of nominal expenditures and the dynamics of the price index) (2013=100)
2013	100.0	100.0	100.0
2014	100.2	100.0	100.2
2015	101.2	99.1	102.1
2016	105.0	98.5	106.6
2017	108.0	100.5	107.5
2018	107.8	102.1	105.6
2019	113.9	104.4	109.1
2020	111.9	108.0	103.6
2021	122.4	113.5	107.9
2022	138.0	129.8	106.3

Source: own study based on Statistics Poland data.

The results of household budget surveys published by the Statistics Poland allow for the assessment of changes in the structure of retirees' expenses from 2013 to 2022 (Table 5).

**Table 5.** Structure of consumption expenditure of retiree households in 2013–2022 (in percent)

Year	Expenditure categories												
	food and non-alcoholic beverages	alcoholic beverages, tobacco products, and narcotics	clothing and footwear	housing and energy carriers	home furnishings and household maintenance	healthcare	transportation	communication	recreation and culture	education	restaurants and hotels	other goods and services	pocket money
2013	28.71	2.61	3.22	25.29	4.55	9.01	7.16	4.91	5.54	0.21	1.66	6.03	1.09
2014	28.52	2.60	3.62	24.75	4.87	8.81	6.13	4.85	5.70	0.16	2.73	6.17	1.12
2015	28.04	2.51	3.80	24.90	4.90	8.73	6.26	4.88	5.68	0.16	2.89	6.22	1.02
2016	27.97	2.51	3.82	24.28	5.13	8.99	6.07	4.80	5.72	0.15	3.21	6.32	1.06
2017	28.34	2.52	3.46	24.20	5.23	9.19	6.42	4.50	5.69	0.12	3.10	6.29	0.94
2018	29.57	2.73	3.27	22.81	5.33	8.56	7.35	3.99	5.66	0.12	3.57	6.04	1.01
2019	29.85	2.71	3.16	22.39	5.46	8.64	7.11	4.35	5.71	0.15	3.60	5.94	0.95
2020	31.76	3.06	2.46	23.29	5.27	8.97	6.04	4.82	4.76	0.09	2.57	6.04	0.87
2021	30.07	2.94	2.69	24.17	5.31	9.17	6.35	4.86	4.94	0.09	2.77	5.80	0.85
2022	30.54	2.79	2.77	24.37	4.72	8.81	7.11	4.38	4.89	0.11	3.03	5.74	0.74
Average in years 2013-2022	29.34	2.7	3.23	24.04	5.08	8.89	6.6	4.63	5.43	0.14	2.91	6.06	0.96
CAGR (%)	1.1	1.7	-3.8	-0.7	0.9	0.0	0.4	-0.9	-1.8	-7.7	3.3	-0.8	-3.9

Source: own study based on Statistics Poland data.

The data presented in Table 5 shows that the largest share of consumer spending in the analyzed years was spent on food and non-alcoholic beverages. This share in 2013–2022 was 29.34%, on average. Of the expenditure on food and non-alcoholic beverages, funds spent on food were, on average, over 90%. The largest share of food expenditure is spent on bread and cereal products (17%), meats and other preserves (13.9%), vegetables (12.6%), and fruit (7.7%).

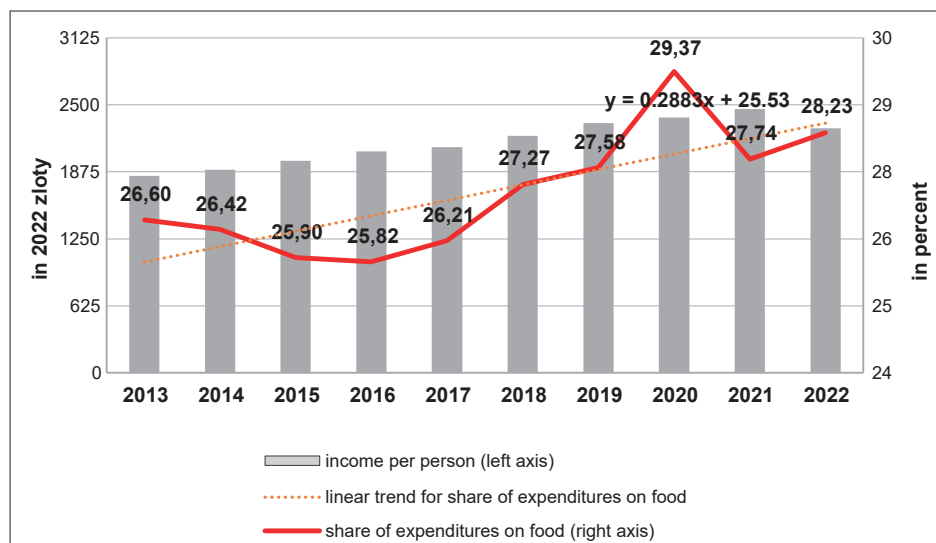
The second most significant expenditure category was related to housing and energy consumption, amounting to 24.04% of the total expenditure. The dominant portion of this category consisted of expenses associated with housing or home usage, including electricity, heating, gas, and fuel expenses. In third place, with an average share of 8.9%, were healthcare expenditures. Within this expenditure category, the most significant position was expenditures on purchasing medical and pharmaceutical articles. In 2013, they constituted over 76% of healthcare expenses, decreasing slightly to 75.2% in 2022.

In the structure of household consumption expenditures among retirees, subsequent positions were occupied by transportation expenditures (average of 6.6%) and expenditures on other goods and services (6.06%). Among transportation expenses, 65% of the funds were allocated for the operation and maintenance of personal vehicles. Within the group of expenditures on other goods and services, the most significant positions were expenses related to personal hygiene, including hairdressing and cosmetic services (39% in 2013, increasing to 48% in 2022), as well as insurance (33% in 2013, decreasing to 26% in 2022). Following these, expenditures on recreation and culture (average share—5.43%), home furnishings and household maintenance (average share—5.08%), clothing and footwear (average share—3.23%), restaurants and hotels (average share—2.91%), alcoholic beverages and tobacco products (average share—2.7%), and education expenditures—only 0.14%, were observed in the expenditure structure.

The structure of consumption expenditures in retiree households did not change significantly over the studied period. However, certain trends are evident. Among the major expenditure groups, those experiencing an increased share primarily include expenditures on food (average annual growth rate of 1.1%) and home furnishings (0.9% annually). Surprisingly, there was a decrease in the share of expenditures related to housing maintenance and energy purchases. The annual rate of decline was 0.7%. There was a significant decrease in the share of expenditures on education (−7.7% annually), recreation and culture (−1.8%), and clothing and footwear (−3.8%). These observed changes may stem from allocating increasingly larger amounts to food, which required cutting back on expenditures for superior goods.

One of the aims of this article is to analyze how the share of food expenditure in consumption expenditure in retiree households changes in the context of changing incomes. It was found that in the years 2013–2022, disposable income per capita in retiree households increased (Figure 2). In 2013, it amounted to 1,838

zloty (constant prices 2022), and in 2022, it amounted to 2,281.2 zloty, which means an increase of 24%.



**Figure 2.** Real disposable income and the share of food expenditures in total expenditures on consumer goods and services in the years 2013–2022

Source: own study based on Statistics Poland data.

In the analyzed period, the increase in income per person was accompanied by a decrease in the share of expenditure on food and non-alcoholic beverages in total spending until 2016. This share decreased by one percentage point to 25.8%. In the following years, an increase in the share of the expenditure on food was observed, and in 2021–2022, it was on average 28%, which means an increase of over two percentage points compared to 2016. The average annual increase in the share of spending on food was 0.3 percentage points (Figure 2). The observed changes indicate that food prices have increased relatively faster than other purchased product groups. This situation may continue due to both the increase in food prices and the announcement of further implementation of the European Green Deal in agriculture, which will lead to higher food prices.

## 5. Conclusions

The results of the analysis conducted on the expenses and incomes of retired households in 2013–2022 allow the following conclusions to be formulated:

1. Real incomes of retirees increased. Between 2013 and 2022, there was a real income growth per person by 24%. The income per person in retiree households

was higher than in non-retiree households, although this difference decreased over time. From 2013 to 2015, it was 9% higher, and after 2017, only about 3% higher. This indicates that disposable incomes of retirees are increasing at a slower pace than those of the average households.

2. Expenditures on purchasing goods and services per person in retiree households were higher than in average households. The difference was about 10% and remained consistent throughout the analysed period. In real terms, consumption expenditures per person in retiree households increased by 6%. The growth rate of these expenditures was significantly lower than that of incomes.

3. Between 2013 and 2022, the share of expenditures on consumer goods in disposable income of retiree households decreased from 80% to about 65%. This indicates that a larger portion of income is being allocated to savings or investments. It also signifies growing wealth in retiree households. Notably, the share of consumption expenditures in income was higher than the average in households, where it decreased from 78% to 61%.

4. In the structure of expenditures on goods and services, retirees' dominant share is allocated to food purchases (average of 29.3%), followed by expenditures on housing maintenance and energy purchases (24%). The next positions are expenditures on healthcare (8.9%) and transportation (6%). Over the studied period, there was an increase in the share of expenditures on food, averaging 0.24 percentage points annually. Among other categories, expenditures on alcoholic beverages, tobacco products, home furnishings and household maintenance, restaurants, and hotels increased, but much more slowly: at a rate of 0.04 percentage points per annum. The share of expenditures on housing and energy decreased by 1 percentage point to 24.3% (a decrease of 0.12 percentage points annually). There was also a decrease in the share of expenditures on recreation and culture, as well as clothing and footwear. Changes in expenditure structure indicate a decrease in living standards, although the assessment is not definitive and may result from temporary increases in food prices or consumption of higher-quality food.

5. Retiree households in Poland experienced significant real income growth of 24% in the last decade, with real consumption expenditure growth reaching 6%. Consequently, the portion of income that can be saved or invested increased by 11 percentage points to 31%. This change signifies an increase in household wealth, and the increase in the share of expenditures on specific main product categories likely stems from the ability to purchase higher-quality goods.

## References

- Atkins, K.G., Kim, Y. (2012). Smart shopping: Conceptualization and measurement. *International Journal of Retail & Distribution Management*, 40(5), 360–375. <https://doi.org/10.1108/09590551211222349>.

- Błędowski, P., Szatur-Jaworska, B., Szweda-Lewandowska, Z., Kubicki, P. (2012). *Raport na temat sytuacji osób starszych w Polsce*. Warszawa: Instytut Prac i Spraw Socjalnych.
- Brown, A.J.G., Fraikin, A.L. (2022). The old-age pension household replacement rate in Belgium. *The Journal of the Economics of Ageing*, 23, 100402. <https://doi.org/10.1016/j.jjeoa.2022.100402>.
- Bywalec, C. (2007). *Konsumpcja w teorii i praktyce gospodarowania*. Warszawa: Wydawnictwo Naukowe PWN.
- Bywalec, C. (ed.). (2012). *Ekonomika i finanse gospodarstw domowych*. Warszawa: Wydawnictwo Naukowe PWN.
- Dąbrowska, A., Janoś-Kresło, M., Lubowiecki-Vikuk, A. (2019). Styl życia wellness a zachowania osób starszych na rynku usług prozdrowotnych. In W. Nowak, K. Szalonka (eds.), *Prace Naukowe Wydziału Prawa, Administracji i Ekonomii Uniwersytetu Wrocławskiego* (Vol. 153, 47–64). Wrocław: Wydział Prawa, Administracji i Ekonomii Uniwersytetu Wrocławskiego. <https://doi.org/10.34616/23.19.111>.
- Dada, A. (2024). Tax relief for working seniors as an incentive to remain professionally active—the case of Poland. *Annales Universitatis Mariae Curie-Skłodowska, Sectio H — Oeconomia*, 58(1), 41–56. <https://doi.org/10.17951/h.2024.58.1.41-56>.
- Duszczyk, M. (2012). Starzenie się i solidarność międzypokoleniowa w polskich strategiach rozwoju społecznego. *Problemy Polityki Społecznej*, 17, 45–59.
- Fitzpatrick, K., Greenhalgh-Stanley, N., Ver Ploeg, M. (2019). Food deserts and diet-related health outcomes of the elderly. *Food Policy*, 87, 101747. <https://doi.org/10.1016/j.foodpol.2019.101747>.
- Giannakouris, K. (2008). Ageing characterises the demographic perspectives of the European societies. In Eurostat, *Statistics in focus — Population and social conditions* 72 (1–12). Luxembourg: Eurostat.
- Główny Urząd Statystyczny. (2009). *Prognoza ludności na lata 2008–2035*. Warszawa: Główny Urząd Statystyczny.
- Główny Urząd Statystyczny. (2014). *Prognoza ludności na lata 2014–2050*. Warszawa: Główny Urząd Statystyczny.
- Główny Urząd Statystyczny. (2022a). *Emerytury i renty w 2022 r. Informacje statystyczne*. Warszawa: Główny Urząd Statystyczny.
- Główny Urząd Statystyczny. (2022b). *Rocznik Demograficzny 2022*. Warszawa: Główny Urząd Statystyczny.
- Główny Urząd Statystyczny. (2023a). *Budżety gospodarstw domowych w 2022 r. Analizy statystyczne*. Warszawa: Główny Urząd Statystyczny.
- Główny Urząd Statystyczny. (2023b). *Prognoza ludności na lata 2023–2060. Analizy statystyczne*. Warszawa: Główny Urząd Statystyczny.
- Hammer, B., Christl, M., De Poli, S. (2023). Public redistribution in Europe: Between generations or income groups? *The Journal of the Economics of Ageing*, 24, 100426. <https://doi.org/10.1016/j.jjeoa.2022.100426>.
- Hanusik, K., Łangowska-Szczeńniak, U. (2013). Uwarunkowania samooceny sytuacji materialnej gospodarstw domowych w Polsce w 2011 r. *Konsumpcja i Rozwój*, 1(4), 83–97.
- Heijdra, B.J., Romp, W.E. (2009). Retirement, pensions, and ageing. *Journal of Public Economics*, 93(3–4), 586–604. <https://doi.org/10.1016/j.jpubeco.2008.10.009>.
- Jajko-Siwek, A. (2015). Równoległe ścieżki emerytalne — koncepcja kalkulacji świadczeń dla osób z różnych typów gospodarstwa domowego. *Problemy Polityki Społecznej*, 29, 35–46.
- Jimenez, D.E., Weinstein, E.R., Carrico, A.W. (2024). Is Behavioral Activation Higher Ground for the Silver Tsunami? *The American Journal of Geriatric Psychiatry*, 32(2), 256–258. <https://doi.org/10.1016/j.jagp.2023.10.012>.
- Kieźel, E. (ed.). (2004). *Racjonalność konsumpcji i zachowań konsumentów*. Warszawa: Polskie Wydawnictwo Ekonomiczne S.A.



- Kim, Y.K., Lee, M.Y., Park, S.H. (2014). Shopping value orientation: Conceptualization and measurement. *Journal of Business Research*, 67(1), 2884–2890. <https://doi.org/10.1016/j.jbusres.2012.06.006>.
- Lesakova, D. (2020). The impact of health perception and health-related determinants on healthy food consumption in older people in Slovakia. *Acta Scientiarum Polonorum. Oeconomia*, 19(1), 33–40. <https://doi.org/10.22630/ASPE.2020.19.1.4>.
- Mejía-Guevara, I., Fuentes, M.E.R. (2024). Intergenerational paid and unpaid labor production and consumption inequality by gender in Mexico. *The Journal of the Economics of Ageing*, 27, 100496. <https://doi.org/10.1016/j.jjeoa.2023.100496>.
- Rada Ministrów. (2020). Program wieloletni na rzecz osób starszych AKTYWNI+ na lata 2021–2025, załącznik do Uchwały Nr 167 Rady Ministrów z dnia 16 listopada 2020 r. w sprawie ustanowienia programu wieloletniego na rzecz Osób Starszych „Aktywni+” na lata 2021–2025. *Monitor Polski, Dziennik Urzędowy Rzeczypospolitej Polskiej*, poz. 1125, 1–34.
- Niewiadomska, A., Sobolewska-Poniedziałek, E. (2016). Educational activity as the growth factor of professional activity of elderly people. *Acta Scientiarum Polonorum. Oeconomia*, 15(3), 79–90.
- Piekut, M. (2008). *Polskie gospodarstwa domowe — dochody, wydatki i wyposażenie w dobra trwałego użytkowania*. Warszawa: Wydawnictwo SGGW.
- Ratajczak, J., Bartkowiak, M. (2021). Minimum pension as the instrument for protection of old people against poverty in Poland. *Problemy Polityki Społecznej*, 53, 54–73. <https://doi.org/10.31971/pps/137911>.
- Rybowska, A. (2016). Powszechne przekonania dotyczące wybranych zachowań żywieniowych w opinii konsumentów 65+. *Zeszyty Naukowe SGGW — Ekonomika i Organizacja Gospodarki Żywnościowej*, 114, 45–55. <https://doi.org/10.22630/EIOGZ.2016.114.19>.
- Stańko, D. (2013). Seniorzy w Polsce — perspektywa ekonomiczna. *Biuletyn Rzecznika Praw Obywatelskich. Źródła*, 4, 8–17.
- Szatur-Jaworska, B. (2012). Aktywne starzenie się i solidarność międzypokoleniowa w debacie międzynarodowej. *Problemy Polityki Społecznej*, 17, 15–28.
- Urbany, J.E., Dickson, P.R., Kalapurakal, R. (1996). Price search in the retail grocery market. *Journal of Marketing*, 60(2), 91. <https://doi.org/10.2307/1251933>.
- Ustawa budżetowa na rok 2022 z dnia 17 grudnia 2021 roku (Dz.U. z 2022 r. poz. 270).
- van Tongeren, J.W., Bruil, A. (2022). Projections to 2025 of the household sector within the Dutch economy. *The Journal of the Economics of Ageing*, 23, 100422. <https://doi.org/10.1016/j.jjeoa.2022.100422>.
- Xie, Q., Ke, H., Peng, J. (2024). Impacts of financial literacy on elderly households’ consumption. *Finance Research Letters*, 62, 105146. <https://doi.org/10.1016/j.frl.2024.105146>.
- Zalega, T. (2015). Konsumpcja osób starszych w Polsce. *Nierówności Społeczne a Wzrost Gospodarczy*, 42(2), 152–173.
- Zalega, T. (2017a). Determinants underlying the selection of certain food products in urban households of seniors in Poland. *Zeszyty Naukowe SGGW — Ekonomika i Organizacja Gospodarki Żywnościowej*, 119, 165–179. <https://doi.org/10.22630/EIOGZ.2017.119.32>.
- Zalega, T. (2017b). Smart shopping in consumer behaviour of Polish seniors (Report from own research). *Acta Scientiarum Polonorum. Oeconomia*, 16(3), 101–110. <https://doi.org/10.22630/ASPE.2017.16.3.38>.
- Zalega, T. (2018a). Deconsumption in consumer behaviour of Polish seniors. *Zeszyty Naukowe SGGW — Ekonomika i Organizacja Gospodarki Żywnościowej*, 124, 29–49. <https://doi.org/10.22630/EIOGZ.2018.124.28>.
- Zalega, T. (2018b). Sustainable consumption in consumer behaviour of Polish seniors (Report from own research). *Acta Scientiarum Polonorum. Oeconomia*, 17(1), 131–139. <https://doi.org/10.22630/ASPE.2018.17.1.15>.

- Zalega, T. (2023). Durable goods in urban households of silver singles in Poland. *Acta Scientiarum Polonorum. Oeconomia*, 22(4), 93–106. <https://doi.org/10.22630/ASPE.2023.22.4.28>.
- Zalega, T. (2024). *Miejscy srebrni single w Polsce*. Warszawa: Oficyna Wydawnicza Wydziału Zarządzania Uniwersytetu Warszawskiego.
- Zakład Ubezpieczeń Społecznych. (2022). *Struktura wysokości świadczeń wypłacanych przez ZUS po waloryzacji w marcu 2022 roku*. Warszawa: Zakład Ubezpieczeń Społecznych
- Zwiech, P. (2015). Nadwyżka dochodów rozporządzalnych nad wydatkami a subiektywna ocena sytuacji materialnej gospodarstw domowych w Polsce. *Nierówności Społeczne a Wzrost Gospodarczy*, 43(3), 114–126. <https://doi.org/10.15584/nsawg.2015.3.9>.