

Anna MATEL\*

University in Białystok  
Faculty of Economics and Finance  
e-mail: a.matel@uwb.edu.pl  
ORCID: 0000-0002-4239-914X

Krzysztof OLSZEWSKI

SGH Warsaw School  
of Economics Collegium of  
Business Administration  
e-mail: krzysztof.olszewski.k7@  
gmail.com  
ORCID: 0000-0003-0155-215X

# The model of tenure choice in life cycle of Poles

## Model wyborów mieszkaniowych w cyklu życia Polaków – analiza empiryczna

### Key words:

tenure choice, living  
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rental market

### Słowa kluczowe:

wybór struktury własności,  
struktura mieszkaniowa, stan  
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### JEL:

**Abstract:** Housing tenure decisions depend on individual preferences and the surrounding economic conditions, and change along economic changes and the development of the housing market. Poland is a post-socialist economy that has observed significant improvements in the housing market. The emergence of housing developers that increase the housing stock rather fast, a housing finance system and the still slow emergence of a private rental market allowed many people to make free tenure choices and to become independent. In this part of the paper we present the literature review and the historical background of the housing market in Poland.

**Streszczenie:** Decyzje o wyborze mieszkania zależą od indywidualnych preferencji i warunków ekonomicznych, a zmieniają się wraz ze zmianami gospodarczymi i rozwojem rynku mieszkaniowego. Polska jest gospodarką postsocjalistyczną, w której obserwuje się znaczną poprawę sytuacji na rynku mieszkaniowym. Pojawienie się deweloperów mieszkaniowych, którzy dość szybko zwiększają zasoby mieszkaniowe, system finansowania budownictwa mieszkaniowego oraz wciąż powolne powstawanie rynku prywatnego wynajmu pozwoliły wielu ludziom na swobodny wybór struktury własności i usamodzielnienie się. W tej części artykułu przedstawiamy przegląd literatury oraz rys historyczny rynku mieszkaniowego w Polsce.

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## Introduction

Housing choices are a frequent as well as an important area of research conducted by scientists focusing on the housing market. Analysis of particular housing choices of households allows the identification of sources of inequality in access to ownership among social groups and should be utilized in shaping housing policy. Understanding who within a given country chooses to rent or own also permits the adaptation of offers provided by various housing market entities to suit the needs of customers.

Studies into housing choices have been conducted in many countries. Among those, states with a well-developed rental market are analyzed most often. In our opinion factors determining housing choices change along with those occurring within the market. Poland, therefore, seems, to be an interesting example that permits insight into how factors differentiating owners and tenants altered during the period of market transformation. Within recent decades the country's housing market has undergone significant changes. Housing choices of a considerable portion of Polish people are contingent on history and are the result of the engagement of the state in the fulfillment of citizens' housing needs during socialism (before 1989) and the later processes of privatization. Thus that which has been recognized as housing status in Poland, in reality, does not reflect a choice. Around the year 2000 the situation improved along with the advancement of market-based property development companies (Łaszek *et al.*, 2018) which started to build housing more efficiently. Additionally, after the easing of strict tenant protection regulations in 2015, the unsubstantial rental market finally started to pick up (Łaszek *et al.*, 2021). Polish people were finally given a true choice about housing although we still believe that it is limited especially in relation to access to a professional rental market and geographic inequalities in its development (it is concentrated in only a few of the nation's largest cities). Given the dynamic changes within the housing market whose start can be traced back to the accession of Poland into the European Union (2004), the analysis of differences in factors determining the living arrangement of Poles within this period seems very interesting. Intriguing is also the fact that along with the transformation of the housing market in Poland the withdrawal of the state from the financing of that market has also caused a significant decrease in access to social housing. This may, therefore, provoke the question of which groups have benefited due to these changes and which have been adversely affected. Additionally, we are interested in the altering sources of inequality in access to homeownership as well as in the general need for independent living which may be fulfilled equally well by the rental market.

Our study aims to recognize changes determining housing changes of Poles between the years 2006 and 2018. This period encompasses both significant changes within the Polish housing market as well as one full economic cycle from the housing

boom (2006) through an economic recession (2010), a period of steady growth (2014) to yet another boom (2018).

Through the research, we search not only for sources of inequality in access to homeownership, a dominant issue within these types of analyses, but also discuss steps that are essential for furthering the independence of Polish people. Statistics show that more and more young people in Poland decide to continue living with their parents. These people move out later on in life which can generally be connected with changes within the family life cycle (getting married at a higher age, results in a greater percentage of single people and having children at a later age). This raises the question of whether starting a family later postpones independence or do young Poles put off starting a family when they do not have access to their own housing. From our perspective, this could be a significant problem. Poland is a country with an aging population and a declining birth rate. To counteract this the government has introduced programs encouraging people to have kids such as 500+ (every month each child is given 500 PLN), 300+ (all school-aged children are given an extra 300 PLN before the start of the new school year), or the so-called unconditional income. In our opinion, however, housing issues are also a problem. Being familiar with the problems of the Polish housing market – the relation of rental prices to costs of ownership or strong social norms concerning homeownership, young people may think that the only right setting for raising children is a house or flat that they own. For this reason, our study does not solely focus on differences between those who rent and those who own but also on the stage of co-residing with one's parents. This, in turn, forces us to take a slightly different approach, and in our models, housing status is not assigned to a household but, rather, to each individual allowing us to analyze not only the situation of people who have decided to become independent but also those who, for varying reasons (whether financial or preferential), live with their parents and do not form new households.

The structure of the rest of the article is as follows. The second section presents a detailed literature overview, while the third provides a brief introduction into the housing system in Poland and its history. Subsequently, in section 4 data and methods are discussed and in section 5 the empirical results are presented. Section 6 provides a discussion of our findings in relation to the literature and also our conclusions.

## Factors conditioning housing choices – review of literature

Factors that impact the housing status of households have been the subject of numerous studies and reviews of subject-related literature do exist (such as those done by Blauber, 2010 or Bayrakdar *et al.*, 2018). Table 1 presents variables utilized in modeling housing choices by various authors within the last several years. This classification

is, obviously, by no means complete but in our opinion, it does contain the most important publications within this field. To facilitate analysis the considered factors have been divided into four groups: those illustrating socio-demographic situation, economic situation, family background (mainly concerning parents' characteristics), and regional differences. It should be noted that some factors appear in most of the studies, while others only in few.

Socio-demographic variables reflect the life cycle of a household, mainly expressed by age, marital status, having children, divorce or death of a spouse. These changes lead to changes in preferences and the possibility of achieving a specific tenure status. (e.g. Barrios *et al.*, 2013, Gyourno and Linneman 1997, Andersen 2011) and played a crucial role in housing choices (Kim and Jeon, 2012, Barrios *et al.*, 2013, Xhignesse *et al.*, 2014, Špalková and Špalek, 2014, Thomas and Mulder, 2016, Mundra and Uwaifo Oyelere, 2019, Maroto and Severson, 2020), both among men and women (Blaauber, 2010).. Studies conducted by Clark and Mulder, 2000, Bayrakdar *et al.*, 2018 and Fiori *et al.* (2019) indicate that they are of fundamental importance in the transition of young people into homeownership and general independent living.

Age is usually analyzed as a quantitative variable, although Maroto and Severson (2020) for example, utilized age cohorts in his studies. In economies characterized by a decrease in the likelihood of homeownership in older age groups – which may result from lower housing needs, high maintenance costs, and the desire to live closer to children (Disney *et al.*, 1995) – age squared is also considered (Blaauber, 2010, Kim and Jeon, 2012). In this manner, for example, Blaauber (2010) estimated a fall in the probability of homeownership for women over 70 and men over 60. However, declarative research in Poland shows, that this is not a popular solution in Poland, because seniors want to stay in their homes as long as possible, which is consistent with the concept of aging in place (Strączkowski and Boruta, 2018).

Generally, an increase in the probability of homeownership that rises with age can be observed in literature (m. in. Clark and Mulder, 2000, Barrios *et al.*, 2013, Xhignesse *et al.*, 2014, Bayrakdar *et al.*, 2018, Maroto and Severson, 2020, also: Gyourno and Linneman 1997, Arrondel *et al.*, 2010), however, Xhignesse *et al.* (2014) has shown that this effect only occurs up to a certain age and then declines which, in some way, justifies the usage of age cohorts. Mundra and Uwaifo Oyelere (2019) confirmed this for married and divorced people in the US but not for those that had never been married (indeed, they observed a significant though small negative correlation between age and homeownership in this group). In Poland, a positive influence of age on the probability of homeownership in all marital status groups has been observed (both never married, married and divorced people, Matel and Olszewski, 2021). A positive relation has also been confirmed in the research of Bayrakdar *et al.*, (2018) showing that this influence was stronger in the UK than in Germany.

**Table 1** Sets of factors conditioning housing choices in previous research

Author (rok)	Kraj, lata badania, kategorie tenure status, specyfika badanej próby	Factors			Regional differences
		Socio-demographic	Economic	Family background	
W.A.V. Clark and C.H. Mulder (2000)	US, 1969–1992, owning a home, owning a trailer, or renting first housing situation of nest leavers (young adults)	age, household situation (a combination of gender and partnership status), nonwhite	education, income	parents' tenure, parents' house value	city size, region, the median house value at the time of nest leaving
V.E. Barrios <i>et al.</i> (2013)	Spain, 2003, Homeownership (paper also included the model of imputed rent as a proxy for housing demand)	age, gender, family type (single, couple with and without children, other)	education, permanent income, transitory income		town size, the average housing price. in the region
G. Xhignesse <i>et al.</i> (2014)	Belgia, 2010, homeownership	age, partnership status (in couple, single), number of dependent children	monthly after-tax income		urbanization (urban, suburban, rural area)
D. Špalková & I. Špalek (2014)	Czech Republic homeownership (paper also included a model of the share of housing expenditure in total household expenditure)	age, gender, marital status, household size, having any child, having any child under two years	education, employment situation (fully unemployed household -at least one retiree household head works in public sector), number of economically active persons, number of self-employed, household disposable income		living in capital city, region, total floor area per person
M.J. Thomas and C.H. Mulder (2016)	Germany (2010/2011), the Netherlands (2010/2011), the United Kingdom (2011/2012) homeownership	age, gender, a combination of marital status and partnership, having any child	socio-economic status (educational attainment and occupational class) dual-earner		urbanization (urban, rural area)

cont. table 1

Author (rok)	Kraj, lata badania, kategorie tenure status, specyfika badanej próby	Factors			Regional differences
		Socio-demographic	Economic	Family background	
K. Mundra and R. Uwaifo Oyelere (2019)	US, 2000–2013 homeownership all population and separately: married, never married and divorced or widowed ones	age, gender, marital status, number of children, ethnic/racial group, citizenship status,	years of education, employment status real total income, real interest income, relocation in recession period		
S. Bayraktar <i>et al.</i> (2018)	Germany and Great Britain, 1991–2016, first time homeownership, samples restricted to relocating ones	age, gender, having any child, number of years before/after childbirth, foreign born	education level, income	tenure status, single parent, stepparent, number of siblings	urbanization (urban, rural area)
M. Maroto and M. Severson (2020)	Kanada, 2001–2011, owning, renting, or living with parents only young adults: 18- to 35-year-old	age cohorts, gender, marital status, having any children, immigrant status,	education level	lived with both parents until age 15, parent education	region
F. Fiori <i>et al.</i> (2019)	Scotland, 1991, 2001, 2011 transition from co-residence to homeownership young adults stratified by gender and partnership status	age, having any child, health status	educational level, combination of variables: employment status and social class, dual earner (only for couples)	parents' tenure living in a single parent household	mean house prices in the local authority of residence

Source: own elaboration.

In the studies of Maroto and Severson (2020), who looked at not only renting and ownership but also cohabitation with parents, it turned out that with age rose not only the probability of homeownership but also of renting – at the expense of the reduced share of cohabitation. It must be stated, however, that the analysis of differences between ownership and renting is a more popular approach in research.

Another fundamental socio-demographic variable that is considered in studies into tenure status is sex. In our opinion, it is a problematic variable when the subject of study is the household rather than the individual (which is the dominant approach with examples being, among others, Barrios *et al.*, 2013, Xhignesse *et al.*, 2014, or Špalková and Špalek, 2014). In those cases, the sex of the head of the household is considered which may cause the appearance of a false gender homeownership gap. However, when it comes to households of couples, both sexes are usually represented and the definition of the concept of the head of household may vary (as, for example, the person who has higher earnings, the person responsible for the home, and in declarative studies the respondents indicate their head of household themselves). Assuming that married couples who live in a home that belongs to at least one (or both) of them are homeowners makes the introduction of this variable problematic. Blauber (2010) in his study of couples, for example, abandoned the analysis of sex. Barrios *et al.* (2013) and Špalková and Špalek (2014) found it insignificant, while Bayrakdar *et al.* (2018) found it insignificant in Germany but significant (with greater probability of homeownership among women) in UK. Interesting research results in this regard were obtained by Mundra and Uwaifo Oyelere (2019), which for the whole population did not find evidence of a gender homeownership gap, but after breaking down the sample into groups by marital status, they found that women were more likely than men to own a home when were married and less likely when were single. There were no gender gap in homeownership among divorcees. Clark and Mulder (2000) did not see differences in the level of ownership between young American men and women. This confirms that consideration of sex is only significant in the analysis of single people especially when it comes to singles who have never been married (Mundra and Uwaifo Oyelere, 2019, Fiori *et al.*, 2019).

The indicated above methodological problem does not occur when the study considers individuals rather than households. This approach (used by, for example, Matel and Olszewski, 2021, Lennartz *et al.*, 2016, Maroto and Severson, 2020, or Bayrakdar *et al.*, 2018) is utilized much less often and mainly in the context of young people who become independent through homeownership or renting. The identified in this manner gender homeownership gap is connected to various models of becoming independent for women and men within a given country. Research (Chiuri and Boca, 2010; Gillespie, 2020; Maroto and Severson, 2020) showed that women usually leave home earlier than men, and more often relocate for family reasons whereas men later leave



their parents' homes and more often to live on their own. As a result, there is a greater chance of coresidence and rental among young male adults (Maroto and Severson, 2020).

The family life cycle of studies also reflects having a partner or children. There are two basic methods for analyzing partnership: through a person's official status (Blaauber, 2010, Kim and Jeon, 2012, Špalková and Špalek, 2014, Mundra and Uwaifo Oyelere, 2019, Maroto and Severson, 2020) or through, regardless of whether the partnership has been formalized or not, having a partner (Clark and Mulder, 2000, Barrios *et al.*, 2013, Xhignesse *et al.*, 2014). These two variables are highly correlated and the authors of studies must make a decision on which variable they will use. Some studies had utilized a combination of these two factors. For example, Thomas and Mulder (2016) singled out individuals: without partner, with partner but living apart together, unmarried cohabiting with partner and married with partner, indicating that both in Germany, Netherlands and UK married couples are the most likely to own their home followed, less likely were cohabiting couples and the least likely were single ones, what proved that formalized marriage usually strengthens the feeling of security in respect to investing money together (Feijten and Mulder, 2005). Generally, research shows that renting, as a more temporary and flexible arrangement, is an especially interesting option for people with an inconstant occupational and partnership situation (Fiori *et al.*, 2019; Thomas and Mulder, 2016, Bayrakdar *et al.*, 2018), who expect changes in their housing needs related to their place of residence, home size, or preferences related to location (such as proximity to school or work). In effect, renting becomes a more attractive option for singles who put off buying a home until they settle down (Coulson & Fisher, 2009).

Yet another variable within the life cycle is having children. In some economies this factor is highly correlated with marital status. Hence, to avoid the problem of multicollinearity authors often forgo one of them (Clark and Mulder, 2000, Bayrakdar *et al.*, 2018) or introduce a combination of the two (Blaauber, 2010, Barrios *et al.*, 2013). Thanks to that Blaauber (2010) for example, have shown that having children increases the probability of homeownership both among couples (regardless of their marital status) as well as among single parents – seeing a stronger connection among single fathers than single mothers. These relations are seen clearly when the housing choices of people of varying marital status are considered (among others, Fiori *et al.*, 2019; Matel and Olszewski, 2021) and then the correlation is almost desired. Having children can also be analyzed in several ways. The most popular approach is whether there are any children within a given household (Blaauber, 2010, Barrios *et al.*, 2013, Špalková and Špalek, 2014, Thomas and Mulder, 2016, Bayrakdar *et al.*, 2018, Maroto and Severson, 2020, Fiori *et al.*, 2019).. Some authors analyze the influence of the number of children (Mundra and Uwaifo Oyelere, 2019, Xhignesse *et al.*, 2014) or household size (Kim and Jeon, 2012) which is, in reality, strongly connected to the number of kids. Sometimes the age of the children is also considered. Kim and Jeon (2012) looked at



whether the household included school-aged children which in a particular economy (South Korea) was a predictor of the decision to rent despite having accommodations. Špalková and Špalek (2014) studied small children (under two years old) within a household while Bayrakdar *et al.* (2018), who driven by studies conducted by Clark *et al.* (1997) that indicated that the probability of homeownership grows considerably more after the birth of the first child than any subsequent one, modeling within his research transitions into ownership, time (years) before or after having the first child.

In general, children increase the probability of homeownership, however, although research completed by Thomas and Mulder (2016) confirmed this correlation in Germany and the Netherlands, this was not the fact concerning Great Britain. There the effect was reversed which was quite atypical. Mundra and Uwaifo Oyelere (2019), on the other hand, has shown that in the US the probability of homeownership increased along with the rise in the number of children but only among married and divorced people while in the never-married group fell, a fact that is most likely connected to costs of maintaining that home. Maroto and Severson (2020), on the other hand, had noticed that having children in Canada increased the probability of homeownership and that this occurred through a fall in co-residence with one's parents. No influence on renting had been observed. This, in turn, provides strong arguments for studying co-residence together with ownership and renting. In Poland, we also observed a significant difference between the level of homeownership among young people not living with parents who had or did not have kids (Matel, 2021). This may indicate a lack of preferences among young people who did not settle down yet so that they could, for example, maintain professional and life mobility, as well as a lack of social pressure to buy a home and less need for a sense of stability. This relation can be seen in most countries of Europe, both those in the west as well as those classified as CEEs (Augustyniak, *et al.*, 2013). In Poland strong preference to be a homeowner are also enhanced by the belief that homeownership is the only way to provide a safe place for the family and to really 'feel at home' (Rubaszek, 2019). As a result, couples often try to enter homeownership before childbirth and thus potentially delay childbearing when homeownership is relatively less affordable (Mckee *et al.*, 2017).

In some studies, apart from the standard set of socio-demographic variables including age, sex, partnership status, and having children, issues connected to nationality are also considered as ethnical/racial group (Clark and Mulder, 2000, Mundra and Uwaifo Oyelere, 2019) or citizenship (Blaauber, 2010, Bayrakdar *et al.*, 2018, Maroto and Severson, 2020, Mundra and Uwaifo Oyelere, 2019). This is justified in those economies which have experienced a wave of immigration. In situations when migrants constitute an unknown percentage of the population, this variable is not usually taken into account. These differences may also be related to, apart from reduced professional stability and lower average earnings, a lack of motivation to invest associated with the

planned return to their country of origin. As previous research shows, immigrants are less likely to be homeowners (Andrews and Sánchez, 2011; Hilber, 2007) even when controlling of income level and sociodemographic factors (Skaburskis, 1996). Research of Painter carried out in the United States indicated that people classified as national minorities (from Latin America or Asia) were homeowners less frequently which the authors explained as the result of discrimination within the labor market and the process of granting home loans (Painter *et al.*, 2001). Similar results were seen in Canada where Maroto and Severson (2020) noticed that people with immigrant status had a lower probability of homeownership while A. Skaburskis (1996) showed differences in the level of homeownership between the African and Caribbean minorities and whites in Toronto. Blaauber (2010) on the other hand, noted that being foreign-born lowered the probability of homeownership among couples but did not affect singles. It must also be noted that this effect was not seen in some studies. Clark and Mulder (2000) for example, did not detect any impact of being non-white on owning a home. Similarly, Bayrakdar *et al.* (2018) did not observe that foreign-born people had a lower likelihood of being homeowners both in Germany as well as the UK.

Fiori *et al.* (2019) also studied the impact of the state of health on the transitions from co-residence to homeownership. In our opinion, this variable is quite problematic. We cannot see a different mechanism of the impact of an individual's state of health on a person's housing situation other than through their financial, economic, or occupational situation.

### Economic factors

When it comes to economic factors impacting the probability of homeownership they most often concern the level of education, earnings, and employment situation and less frequently the level of a person's assets, debts, or the number of earners within a household.

The level of education is considered in various ways. Some authors divide individuals into those who have and those who do not have a high level of education (Kim and Jeon, 2012, Špalková and Špalek, 2014, or Thomas and Mulder, 2016) while others utilize ordinal variables creating a broader scale of this factor (m.in. Clark and Mulder, 2000, Blaauber, 2010, Barrios *et al.*, 2013, Bayrakdar *et al.*, 2018, Maroto and Severson, 2020, Fiori *et al.*, 2019). In her research, however, Mundra and Uwaifo Oyelere (2019) used the variable of years of education. Usually having a high level of education favors homeownership and lowers both the likelihood of renting as well as co-residence with one's parents (Maroto and Severson, 2020), however, this correlation was not noted for Germany by, among others, Clark and Mulder, 2000 and Bayrakdar *et al.* (2018). First, graduation may result in greater earning opportunities and more stable income (Eich-

holtz and Lindenthal, 2014), what may be a signal to the bank that a person is a less risky client. What is more Bayrakdar *et al.* (2018) indicated some kind of social influence – a person with higher education may become socialized into more prosperous peers group what boost their aspirations to be a homeowner. The research of Blaauber (2010) has shown that the education level of men rather than women is more significant to the housing situation of both couples as well as singles.

The financial situation of a household is analyzed through the prism of current income (Blaauber, 2010, Kim and Jeon, 2012, Xhignesse *et al.*, 2014, Mundra and Uwaifo Oyelere, 2019, Bayrakdar *et al.*, 2018) or disposable income (Špalková and Špalek, 2014). Generally people with higher income and more secure job are more likely to live independently and be homeowners (Bayrakdar *et al.*, 2018). Higher income is usually negatively associated with coresidence (Maroto and Severson, 2020; Christophers and O’Sullivan, 2018; Mulder, 2013) with studies showing a greater impact of the man’s level of income than that of the woman (Blaauber, 2010). A study conducted by Špalková and Špalek (2014) indicates that in the Czech Republic between 2005 and 2011 the significance of this factor grew. In turn, studies of Xhignesse *et al.* (2014) have shown that this influence is linear and is observed only up to a certain income level. Blaauber (2010), thanks to treating the income of men, women, and couples separately, has demonstrated interesting correlations showing that within a relationship the income of the man has a greater impact on the housing status of the couple than that of the woman. Some research also points out differences between current income and permanent income. Barrios *et al.* (2013) in their research counted permanent income as a volume of income respondents can earn in the future on the basis of their human and nonhuman capitals and proved its positive impact on homeownership. Comparing income is difficult for international studies. Bayrakdar *et al.* (2018) treated this variable as relative – dividing households into those with low, middle, and high income, with the cut points set to the 25th and 75th percentiles for that country-year.

Another variable that shapes the housing choices of people, other than income, is the household’s level of wealth. Jones (1990) compared the impact of these two categories of variables and has shown the superiority of the second characteristic. At the same time, it must also be stressed that wealth is made up of various elements including real estate, movable property as well as financial assets. In general, this variable is difficult to assess in survey research. In his study, Kim and Jeon (2012) introduced property tax as a proxy variable for household wealth while Mundra and Uwaifo Oyelere (2019) used real interest income. Interestingly these two proxies analyze completely different elements of property and are, in a way, opposite to one another. Kim and Jeon (2012) analyzed the proxy for property possessed while Mundra and Uwaifo Oyelere (2019) – the proxy for savings. Generally, however, the level of wealth positively affects the probability of homeownership (Kim and Jeon, 2012, Mundra and Uwaifo Oyelere, 2019, Arrondel *et al.*, 2010).

Some authors consider not only the level of income but also the number of people within a household who generate income. In this respect, Thomas and Mulder (2016) identified a dual-earner household and Špalková and Špalek (2014) studies the number of economically active persons in a household. Thomas and Mulder (2016) showed that among young adults (aged 25–40) from Germany, the Netherlands and the UK couples with two incomes were more likely to achieve homeownership than other couples and single people (similar: Clark *et al.*, 1997, also Hendershot *et al.*, 2009, Carter, 2011). Špalková and Špalek (2014) had noticed a rise in the likelihood of homeownership along with an increase in the number of economically active people within a household but this impact has diminished considerably between 2005 and 2011.

The occupational status of a household or the individual is usually highly correlated with the level of their current income and is, therefore, a variable that is often omitted or considered to be insignificant (with the level of income as control. Some authors, on the other hand, forego analyses concerning income using occupational status instead (this may be the result of their own decision as well as the inaccessibility of income-related data). For example, Thomas and Mulder (2016) did not use income but uses a combination of education and occupational class. Likewise, Fiori *et al.* (2019) did not use income but a combination of employment status and social class. The occupational situation may be analyzed by categorizing people as professionally active and inactive or by the utilization of broader classification criteria. Mundra and Uwaifo Oyelere (2019), for example, divides people into four categories: employed, not in the labor force because of disability or other reason and unemployed. Špalková and Špalek (2014) made use of several binary variables reflecting the occupational status of a family: fully unemployed household, at least one retiree, household head works in public sector. It is worth noting the proposal of Lersh and Dewilde (2015) who analysed ‘employment security’ expressed by variables: having a permanent work contract, working at least 20 hours a week, being continuously employed during the observation period and working in high-skilled occupations as a manager, professional, or technician.

An interesting variable, at least in our opinion, is the inclusion of the business cycle in the analysis of housing choices. Mundra and Uwaifo Oyelere (2019), on account of the specific character of her assumed research goals, analyzed whether a person made a housing choice during a period of an economic recession identified as the period lasting from 2007 to 2013. It is interesting because generally research (Mundra and Uwaifo Oyelere, 2019, Lennartz *et al.*, 2016, Arundel and Ronald, 2016, Dunne, 2012; Aassve, *et al.* 2013 Lennartz *et al.*, 2016; Maroto and Severson, 2020) showed that the GFC significantly undermined existing residential patterns of younger generations due to rising unemployment, declining income levels, year-to-year house price change, and falling availability of mortgages undermined the transition of younger people into independent living. The direction of these changes has varied from country to country, but for

the most part it has been about impeding access to property (but according to Lennartz *et al.* 2016 Germany, France or Belgium the homeownership rate was relative stable) and generally independent living (rising co-residence rate e.g. in Sweden, Italy, Denmark, Greece, Portugal, The Netherlands).

## Parental background

In some studies, authors also take into account parental background as a predictor of homeownership. These variables were analysed by Clark and Mulder, 2000, Blaauber, 2010, Bayrakdar *et al.*, 2018, Maroto and Severson (2020) i Fiori *et al.* (2019). It is especially important in the analysis of the housing choices of young adults. Several mechanisms of influence become apparent here. The first is direct financial support. Parents can help their children to overcome the financial barriers of entering homeownership (Lux, Sunega, & Kázmér, 2018, Lee *et al.*, 2020). Within research the ability to provide financial support may be reflected by parents' house value (Clark and Mulder, 2000), parents' social class (Blaauber, 2010, as well as Filandri and Bertolini (2016), or parents' education (Maroto and Severson, 2020). In their study, Filandri and Bertolini (2016), for example, confirmed the influence of parents' membership in a particular social class on homeownership in European countries. According to their findings, having middle-class parents increases the odds of acquiring homeownership, while belonging to either the lowest or the highest social classes increases the probability of co-residence (due to different reasons). Usually, the dissolution of a family makes supporting children more difficult and some authors analyze the impact of parents' divorce on this factor (Blaauber, 2010, Bayrakdar *et al.* (2018) solely for the UK, Maroto and Severson, 2020, Fiori *et al.*, 2019) but in the research of Bayrakdar *et al.* (2018) this correlation did not occur, Blaauber's (2010) results, in our opinion, were quite unclear (on the boundary of significance) while Maroto and Severson (2020) saw a decrease in the probability of both homeownership as co-residence and an increase in the likelihood of renting for young people whose parents have gotten divorced. Possibilities of supporting children in gaining access to a home may also depend on how many of them, referring to the number of siblings, need to be thus supported. Bayrakdar *et al.* (2018) however, did not find evidence for such influence in both the UK and Germany while Blaauber (2010) noted that in the Netherlands having siblings decreased the likelihood of homeownership for males and females who were in a relationship but did not affect the housing choices of singles.

Another possible mechanism for parents to influence their children's housing situation is some kind of socialization of tenure preference (Coulter, 2018; Mulder, 2013; Lersch and Luijkx, 2015). People often tend to live near their parents in similar type of housing. This impact is examined by the tenure status of parents (Clark and Mulder, 2000, Blaauber, 2010; Bayrakdar *et al.*, 2018, Fiori *et al.*, 2019), pointing out that

Blaauber (2010) indicated that this effect in Germany did not depend on the form of tenancy, while in the UK it was visible only when parents were social renters, whereas for private renters the relationship was insignificant.

### Regional differences

Another group of factors that shapes the housing choices of people concerns the local real estate market. In this respect, two variables seem to be key: the size of the place of residence (village, town, or city) and the level of local market prices. Within research, the size of the place of residence is sometimes considered directly through the size of the city or town (Clark and Mulder, 2000, Barrios *et al.*, 2013) but more often it is examined using the level of its urbanization (Blaauber, 2010, Xhignesse *et al.*, 2014, Thomas and Mulder, 2016, Bayrakdar *et al.*, 2018). In general, in most countries, there is a difference in the level of rental market development in poorly urbanized and highly urbanized areas. This is strikingly visible in Poland (Matel and Olszewski, 2021). Furthermore, in countries that have a high internal migration, young people who relocate to cities lose the option to live with their parents and must choose between homeownership or renting. In turn, for those who live in small towns often the only way to gain independence is to buy a home. In his studies, Blaauber (2010) utilized the percentage of the region's privately-owned homes permitting the introduction of control in situations where renting is not an available form of accommodation. Some studies also take under consideration differences between a country's regions (Clark and Mulder, 2000, Maroto and Severson, 2020). Kim and Jeon (2012) and Špalková and Špalek (2014) also looked at whether a given person lived in the country's capital. Regional variation is also analyzed through the prism of a region's accessibility to housing with the level of local housing market prices becoming a factor (Blaauber, 2010; Barrios *et al.*, 2013, Fiori *et al.*, 2019) or by looking at different ages at which young people become independent (Clark and Mulder, 2000).

### Comparison of variable sets

In the opinion of the authors, the described above sets of variables differ with respect to three key factors: the specific character of local markets, the particular subject of study, and data accessibility.

The scope of utilized variables is primarily impacted by the character of local housing markets. This can be seen in the research of Kim and Jeon (2012) conducted under completely different institutional conditions of market development, well explained within the publication. In effect, his set of variables varies considerably from all others (having school children, level, household's average monthly debt and housing costs). It



is also possible to see that within their studies some authors consider the regional diversity of housing markets and Blaauber (2010) for example, has strongly emphasized the characteristics of the housing market of a municipality.

The second reason, in our opinion, is the particular subject of study which determines requirements with respect to independent variables. It can be seen, for example, that since Bayrakdar *et al.* (2018) modeled the moment of transitioning to homeownership rather than a person's current homeownership status they analyzed numerous parental background factors as well as age before and after having a first child. This seemingly small difference has a significant impact on the study's methodology and formulation of conclusions. Fiori *et al.* (2019) also looked at changes in a person's housing status which impacted the scope of variables used. It may also be noted that sets of variables differ slightly when the subject of research concerns the general population and times when a specific age group, most often young adults, is considered.

Yet another premise in the creation of a set of variables is the accessibility of data. Studies are not dedicated to a particular subject and are carried out on large amounts of, often longitudinal, data. The author, therefore, makes his selection from information that has been gathered through particular surveys. This, however, requires the utilization of a proxy for variables or the omission of some factors. This problem can be well-illustrated on the example of parental background. In reality, there is no doubt that the scale of parents' financial support in the purchase of a home as, for example, a percentage of the value of a property financed as a form of support would be the best variable but this data is just not available causing the use of several different proxies. This also applies to wealth whose level is difficult to estimate compelling authors to utilize replacement variables.

It is also necessary to mention statistical premises. Depending on the applied research methodology, with logit/probit models for binary variables or multinomial logistic regressions being most often used, certain conditions for the inclusion of variables into the model must be fulfilled. Within our experience, the greatest problem is multicollinearity caused by correlations between independent variables forcing authors to decide whether they will omit a particular variable or combine some variables together. For example, the problem of correlations of variables: being in partnership and having children was solved by Barrios *et al.* (2013) by using family type variable (single couple with and without children, other). Similarly, Thomas and Mulder (2016) used a combination of marital and partnership status (no partner, never married no partner, previously married partner, but living apart together unmarried cohabiting with partner).

In the end, we would like to underline that sometimes a set of variables reflects a new idea for analyzing factors determining housing choices. This can be seen in the research of Blaauber (2010) who differentiated between the income of women and men and were thus able to gain interesting results in the context of the housing status of couples.



## Historical background and the current housing situation in Poland

Housing choices require the existence of available options, which have to be both present and affordable. We present the housing system of Poland as compared to housing systems in developed countries, to explain how it determines the choices of households. The housing system in developed countries has evolved over decades, and, in some cases, even over centuries. Those countries have observed many social problems as well as boom-bust cycles and in consequence, each country has developed a triad of housing space supply: owner-occupied housing, privately and sometimes professionally rented housing, and finally social housing. Each country has applied individual housing policies and housing regimes which allow them to relatively smoothly adjust the housing policy to current problems. Furthermore, housing systems are strongly connected to the tax system, the pension system, and so forth with mutual connections between those systems meant to provide a holistic social network for citizens. In contrast, the many housing problems of transition economies had to be solved during the short phase of transition with most never really being solved. The most important moves were the privatization of previously semi-state owned flats, which was an economic shock absorber. The socialist economy was focused on heavy industry, so many flats could be found around the large state owned factories, and the second branch was agriculture, so a lot of people lived in the rural region in houses that were always their own. The transition of the political system required also a transformation of the whole economy, to a services oriented one. New working places were mainly created within the largest of cities causing waves of migration additionally augmented by young people who moved for education purposes. Along with the evolution of the financial system and increased availability of mortgages many more people could afford to buy a home causing housing prices to rise. Interestingly, Ireland, which was during the 1990 s a transition economy among the developed ones, has observed a similar rapid change in the housing market as post-socialist economies. Murphy (2000) states that Ireland was a peasant economy and the integration with the EU allowed for a strong and sustainable economic growth. When Ireland joined the EU people could take mortgages at the relatively low euro interest rates and in consequence, a housing boom was observed (Rae and van den Noord, 2006). Much more information about housing systems and social housing in transition economies can be found in a book edited by Hegedüs *et al.* (2013), while the evolution of the private rental market in those countries is explained in a different book edited by the same publishers (2017).

The current housing situation in Poland is the result of a housing system that evolved during socialist times, or between 1945 and 1989. During this period social housing was strongly promoted, however, state resources were insufficient to fully respond to de-

mand. Contrary to many other socialist economies not everything was state-owned with detached houses being in most cases private, but the right of ownership was limited. There was a short period following the end of World War II when all flats in large cities were nationalized but from the end of 1945 to 1956, although homeowners were not dispossessed, the state could, at its discretion, assign total strangers to live along with the owners. The situation in Warsaw was even more dramatic. First of all, practically the entire city lying west of the river was destroyed and, based on Bierut's decree (Wozniak, 2018) all land property in Warsaw was confiscated from its owners. Until the transformation, these remained under the ownership of the state and the process of returning them to their prior owners continues still having a very negative effect on urban planning. Since the legal status of many well-situated and well-communicated parcels was uncertain developers built housing on the outskirts of the city since the ownership status of these properties was unambiguous. This, in turn, caused the city to sprawl and, what is worth mentioning, for a long time new housing was cheaper than the old. Although after 2013 prices have evened out this varies greatly with the situation in other provincial capitals where new flats are, on average, more expensive than old housing (NBP, 2020a). According to Muzioł-Węclawowicz (2013), after 1956 the housing situation in Poland evolved first through the formation of housing cooperatives which caused a rise in the number of flats whose tenants gained the right of ownership. The year 1972 saw the beginning of the process of privatizing state-owned multifamily housing where current occupants could buy out the flat and become its owner at very favorable prices. Profits from these sales were, in theory, to be allocated for the construction of new public rental stock but in practice, the public construction of housing units was completely abandoned in 1976. This was caused by strong economic and social tensions that finally lead to mass demonstrations and the proclamation of martial law on December 13<sup>th</sup> of 1981 which lasted for around 2 years and lead to the slow breakdown of the socialist economy. Although small economic improvements were introduced the construction of housing was very slow. After 1989 and system transformation there was an intensification in the privatization of public housing resources at very attractive prices (in some cases purchasers needed to pay only 5% of the property's market value).

Due to the privatization process around 90% of people in Poland are homeowners, but this figure does not take into account the localization and quality of the housing stock. A large proportion of flats is located in smaller towns, while the housing demand is concentrated in the largest cities. Moreover, a significant share of flats that date back to the socialistic times are of poor technical quality and usually are very small. During the transition period Poland had huge obligations to its international debtors, the economy was weak and in consequence the state practically stopped to invest in social housing (see NBP, 2020b). In 1990 attempts to reactivate the construction of public

housing realized as private-social housing cooperatives (TBS) were initiated but these efforts were once more inefficient (see Bogdał, 2001). Rents were below market levels and were intended to cover the mortgage the TBS took to build the flats. Although tenants could live there forever they could never become owners.

The transition led to a shift of the economy from a semi-agricultural to a high-skilled one and required a lot of new housing for skilled employees in the largest cities. Also the number of students increased and those who could not find a place in a student's accommodation searched for cheap rental housing. The economic transition has caused also changes in the legal and financial system. Kucharska-Stasiak and Matysiak (2004) point out that the proper protection of property rights made a significant inflow of capital possible, that was much needed to accelerate the construction of new housing, but also commercial property. The housing developers in Poland operate under pre-sale contracts, which means that they need only capital to buy the construction land and to start the construction process. The remaining 70–80% of the investment are delivered by the construction companies and the buyers. Each time a significant step of the construction process is realized, the developer asks the buyer to pay for it and then he pays the contractor. This system seems to be risky, but bankruptcies have been very rare since around 2004 and such a flexible system allows developers to start many projects without the need to obtain a lot of capital. However, the buyer needs a lot of capital, therefore house purchases are usually financed with a mortgage. Because the domestic capital market was very thin, the interest rates on mortgages in PLN were during 2004–2007 around two times higher than those in foreign currency, such as denominated in CHF and EUR<sup>1</sup>. A dominant share of banks in Poland was owned by foreign banks and those decided to offer seemingly cheaper mortgages that were denominated first in CHF, and after the outbreak of the GFC for a short period in EUR. During 2004–2008 mortgages were taken by house buyers mainly in foreign currency (NBP, 2020a, figure 2.18). Banks made profits not only through the interest payments and the margin on exchanging the currency, but also through the interest rate swaps on the international capital markets. The mortgage takers could obtain seemingly cheaper mortgages, which turned out to be quite costly when the exchange rate vis-a-vis the CHF deteriorated by around 50% in mid-2019. While the monthly payment remained nearly unchanged, because the Swiss National Bank decreases the interest rates to zero, the value of the mortgage expressed in PLN rose sharply and remains despite monthly payments at a higher level (for more information on this issue we refer to Łaszek *et al.*, 2016). Despite later problems, the introduction of such loans allowed many people to buy a new flat and the housing construction sector evolved,

<sup>1</sup> People received the mortgage in PLN, but it was indexed to the CHF, such that at the cost and risk of exchange rate fluctuations people got a lower interest rate than in local currency.

including developer and construction firms and also firms that produce and deliver high quality building materials.

Unlike in mature markets that have a sufficiently large housing stock, in Poland there is much demand for newly constructed housing. According to NBP (2020a) data over the period 2006–2019 around 40% of house transactions in the largest 16 cities were concluded on the primary market, and according to Statistics Poland data that start in 2016, similar proportions hold for the entire country. As explained earlier, those transactions take the form of pre-sale contracts, such that a large part of the tenure changes that we observe in 2010 are the results of pre-sale contract purchases that were conducted before the global financial crisis hit Poland in 2009. The housing developer sells the pre-sale contract at a very early stage of construction and needs around 2 years to deliver the flat. Then the buyers needed to finish the outfit, which means that people wait at least around 2 years until they move in (see Łaszek et al., 2018).

The year 2006 saw the beginning of a housing boom in Poland. This lasted for two years and was cut short by the outbreak of the GFC. Fortunately, the effects of this event were not felt in Poland until the middle of 2019. Unlike most other countries, this boom did not end in a bust but rather a smooth slowdown of demand that, nevertheless, continued at a high rate. House prices fell a little but started to grow again in 2013. The reason for this is the fact that Poland was not hit as hard by the GFC as many other countries. The country's registered unemployment rate<sup>2</sup> (Statistics Poland, 2021a) that in mid-2008 was at 9.4% rose to 13.2% in mid-2013 and from that point on the economic situation improved and the unemployment rate declined to reach an all-time low of 5.8% in 2018. Today it remains around that level. A similar situation can be observed with respect to the consumer confidence indicator (Statistics Poland, 2021b), a balance of positive and negative opinions collected by the Central Statistical Office of Poland, that in 2008 was at -8%, in 2012 it deteriorated to -29.5% after which it started to improve again reaching -17% in 2014 and +5.7% in 2018. We presume that people were even more inclined to buy owner-occupied housing treating it as a haven for their savings since the value of this stock mainly experiences not only steady growth often through their continued improvement with people investing a lot of resources for their efficient modernization.

The rental market in Poland, however, remains underdeveloped. Similar to other post-transformation countries, state investment into social housing is diminishing and subsidies are directed mainly at owner-purchased housing. Over the last several years

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<sup>2</sup> One possible explanation is the fact that the Polish economy is still a closed economy, that is domestic demand has a lion's share in GDP. The depreciation of the currency allowed Polish exporters sell their products at lower prices in EUR and make bigger profits in PLN than before the GFC. On the other hand imports decreased.

the development of the new construction market and growing profits within this field resulted in a rise in interest in privately-owned properties. Additionally, the outbreak of the GFC has slowed down rental market growth that, for a long time, was within the gray zone of the economy creating risks for tenants who, not having a legal agreement, could not be certain as to what they would be charged in the future. On the other hand, overly-protective rights afforded to tenants<sup>3</sup> making eviction of renters who did not pay difficult discouraged individual investors from buying new properties for rent. Only since 2015, low-interest rates, relaxing of tenant protection laws (Łaszek et al., 2021) as well as filtration processes releasing some assets making them rentable (Brzezicka et al., 2019), slowly stimulated the rental market. Nevertheless, in the long run renting remains a rather costly form of accommodation. Between 2006 and 2014, for example, renting a flat in Warsaw was as expensive as buying one with a mortgage and since 2015, due to a fall in interest rates, its costs may even exceed homeownership (see NBP, 2020a, figure 4.15). In this way, those who rent out such housing pay back their mortgages and become wealthy, while tenants have no financial gains from renting in comparison to owning. Hence, only those people who treat renting as something transitional, those who want to remain mobile, or those who are forced to become independent and cannot overcome barriers preventing them from becoming homeowners decide to rent<sup>4</sup>. This makes renting most common among people who have never been married and divorcees (approximately 9% in both of those groups).

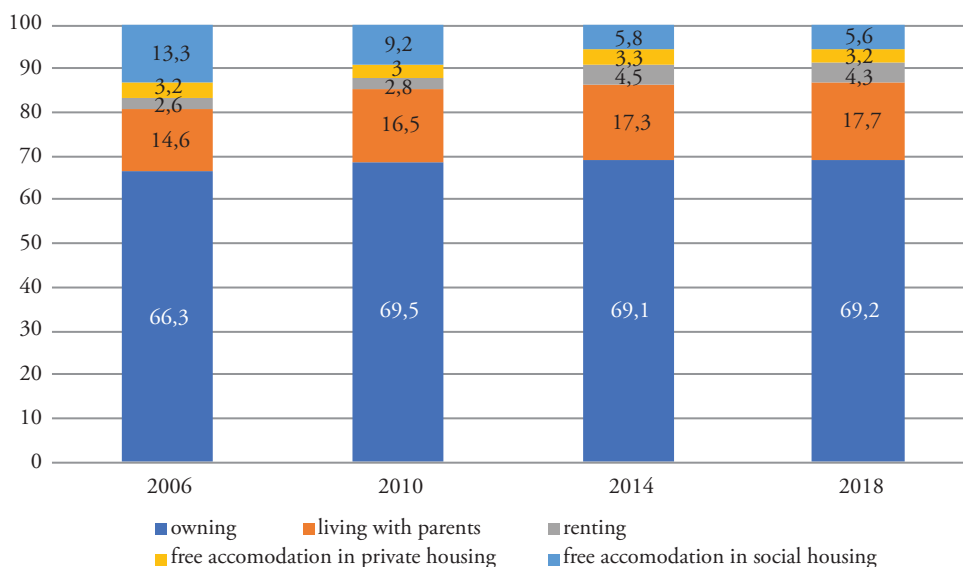
Within the period spanning from 2006 to 2018, the developments described above have led to a change in the tenure status of the entire population. Since people do not often change their place of living and this is not a rapid process, the effects of these changes have been slow. They are, however, economically important and illustrate a trend. Diagram 1 presents the structure of the housing status of Poles (aged over 25), based on studies completed by Matel and Olszewski (2021), during the period specified above. It must be noted that this concerns individuals rather than households (as presented on aggregated Eurostat data), allowing the identification of the stage of co-residing with parents. Between 2006 and 2010 ownership rate has increased and has remained at a high level in the years following. One explanation is that access to state-constructed social housing was reduced and some people were forced to find other forms of accommodation. Another is connected to the significant increase in housing

<sup>3</sup> The strong tenant protection right was introduced in Poland before the II World War to protect the poorer and elder people from a unjust eviction or increase in rents. But after the transition it put only the landlord in an unfavorable position, such that many landlords decided to function on the grey market, without paying taxes and without proper rental agreements which could give the tenant some safety.

<sup>4</sup> Usually the first house is financed with a mortgage, which requires a significant down payment, which amounts to 20 to 30% of the house value. The literature calls it the housing ladder, and the most difficult step is to jump on the ladder. Later on one sells one house, adds more money and buys another one.

stock which occurred, despite the outbreak of the GFC, between 2006 and 2010 and which may have been caused by two factors: Poland was not hit very hard by the GFC, and demand for housing remained at a high level. Additionally, some of that growth in 2010 was the result of pre-sale housing contracts signed during the 2006–2007 housing boom. The recession has, however impacted the housing market in some way, which can be seen in the increased share of people living with their parents. The low share of renters nearly doubled between 2006 and 2014 and remained at the level of around 4.5%. The share of people that live for free in private houses did not change over the analysed period. In the next sections we investigate the determinants of the observed changes in housing tenure.

**Figure 1** Living arrangement of Poles aged over 25 in 2006–2018 (percentage distribution)



Source: Matel and Olszewski (2021) on EU-SILC data.

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