

Iwona Foryś

University of Szczecin

GROWTH POTENTIAL OF THE POLISH HOUSING MARKET IN THE EUROPEAN UNION CONTEXT

Abstract

The potential of the property market lies in the market supply and its internal energy. The market potential is most often identified with the market size, expressed in value. The rate of growth of the market, as measured by the rate of appreciation in value is then compared with the rate of economic growth, measured by gross domestic product (GDP). The condition and quality of supply determines the potential market. Energy which is necessary to change the real estate market is provided by the economic capital and the social capital. Differences in the potential of local real estate markets are the cause of migrations of capital and people to the markets offering more development opportunities. When the real estate market in the spatial layout is in equilibrium, the developmental processes are less dynamic. Then the growth potential reaches a minimum value, while the entropy of the system and the environment reaches a maximum. Young, emerging property markets incorporate greater growth potential than the stabilized markets. The author of the article evaluated the development potential of the Polish market compared to the European markets. The analysis and diagnosis were carried out on the example of the housing market. It is the most sensitive segment of the real estate market. In the article a research hypothesis was verified of the low level of the Polish housing market development.

Keywords: housing market, growth of the market, development potential.

Introduction

In Poland the dynamic growth of market mechanisms focusing on satisfying the public housing started in the 1989 along with the transformation of the political system, which proves the opinion that the housing market is a function of structural and political factors.¹ Factors related to a political system determine the capacity of different social groups to use the available resources and to benefit from the changes in their quality. Structural factors include the level of economic growth, the population's wealth and aspirations as well as demographic trends. The structural factors are a *burden* to the today's condition of the Polish housing market which has been shaped by long-standing historical processes of socio-economic and demographic nature. These factors have been changing at a varying rate and range.

The globalisation of economic processes and the growing role of the flow of capital, goods and services within the international system make it impossible to separate the processes on the Polish housing market from international influence. Globalisation means people's freedom of movement, hence generating new housing needs on local markets. It also means universalism and standardisation of phenomena and mechanisms that condition business operation on these local markets. Global market augments competition in terms of attracting foreign capital, often of speculative nature, to local housing markets. On the other hand the attractiveness of investments on international markets can also result in capital outflow towards more interesting markets which can bring sudden over-supply of real estate. Finally, globalisation means merging of cultures, lifestyles and moral values, which leads to adopting new patterns and quality standards on the housing markets.

The purpose of this study is to find out which factors determine the growth potential of the Polish housing market in comparison to selected member states of the European Union. The author verifies the research hypothesis of the poor condition of the Polish housing market set against the developed European markets.

¹ A. Andrzejewski, *Sytuacja mieszkaniowa w Polsce w latach 1919–1974*, Państwowe Wydawnictwo Ekonomiczne, Warszawa 1977.

1. Growth versus the housing market potential

The market potential is often identified with the size of the market expressed in terms of value. In the reference literature the size of a housing market is described as the value of all real estate transactions in a fixed period of time on a specific area.² In such terms the size of a housing market should be defined as the value of all real estate transactions in a determined time span divided into a national market or other local one. The growth rate of a given market, measured with the growth rate of its value, is then compared with the growth rate of a given economy measured by means of its GDP growth. The market potential can also be identified with its inner energy which is the driving force of changes.³ It is the amount of energy required to transform the market from one state to the next one. On the housing market this energy is provided by the economic⁴ and human capital. Together they determine the growth potential of the market. The economic capital consists mainly of housing resources and the total of available funds, while human capital is composed of the knowledge, skills, health and vitality of the population.⁵

On the housing market the market potential is a space that is available for the turnover participants who are capable of action (i.e. having individual vitality). It is a sum of elementary potentials of individual components of the market space (i.e. subjects, objects and their environment). The differences in the potential of specific markets are the reason why capital and people shift to markets with broader development perspectives.⁶ The vaster the differences in the spatial potential, the more energy is needed to move between local housing markets. When the housing market reaches an equilibrium in the spatial context, the growth processes are less dynamic and the growth potential falls to minimum, whereas the entropy of the system and the environment reach maximum values. The potential of the housing market consists in the possible transactions and services, while the developed markets are charac-

² *Rynek nieruchomości w Polsce*, ed. L. Kałkowski, Wydawnictwo Twigger, Warszawa 2003.

³ I. Foryś, *Spoleczno-gospodarcze determinanty rozwoju rynku mieszkaniowego w Polsce. Ujęcie ilościowe*, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2011.

⁴ M. Gazińska, *Potencjał demograficzny w regionie. Analiza ilościowa*, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2003.

⁵ S.R. Domański, *Kapitał ludzki i wzrost gospodarczy*, Państwowe Wydawnictwo Naukowe, Warszawa 1993.

⁶ H. De Soto, *The Mystery of Capital*, Basic Books – Perseus Books Group, New York 2000.

terised by high competitiveness of their entities. The potential is also contained in a constant inclination of businesses to invest, that is in the streams of new investment opportunities.

The potential of the housing market lies directly in the real estate resources, mainly in the capability to create new functions and change the ownership structure. Additionally, it can be found in financial resources (the financial surplus of households and businesses) as well as in the real estate businesses and in the state as an organisation playing the role of a market strategy maker and of a guardian of sustainable development. We can describe it as the political capital of the state. The rate and directions of the real estate market growth depend on its potential which consists of the economic, human and political capital.

The development of the housing market should be considered equivalent both to its quantitative growth and to the establishment of a new, more complex structure, i.e. to qualitative changes. In the quantitative approach the growth means expanded range of influence, increased assets and scale of operation or prosperity. Both processes: of quantitative and qualitative changes can take place independently or jointly. Growth understood as a long lasting process of directional changes means the adoption of a change vector so it is connected with reaching subsequent stages set according to a specific pattern. Each of the growth stages is connected with creating a new, more complex structure, typically in a way of gradual and evolutionary transformation of individual elements of this structure. The emergence of the Polish housing market after 1989, especially in the first years of its functioning, differed from the model of evolutionary growth. It was founded on the system transformation of a revolutionary character and not until that system had been established the housing industry started developing steadily. The housing market defined as a system⁷ does not grow evenly with some of its elements or sub-systems tending to quantitative growth, while others combine quantitative changes with the qualitative ones.

The driving force of the growth processes are the market participants' competences seen as their capacity to receive signals coming from the housing market and from its environment. However, the market participants' ability to react quickly to such incentives as fiscal, legal or organisational solutions is not identical and it

⁷ M. Bryx, *Rynek nieruchomości. System i funkcjonowanie*, Wydawnictwo Poltext, Warszawa 2006.

depends on human potential.⁸ The latter is determined by human resources aided by institutional measures. The development is a consequence of the diffusion of knowledge, the mobility of resources (the human, capital and real estate ones) as well as of the high inclination to invest.⁹ It is closely related to the economic and social growth and results in and from numerous social and economic phenomena. Young, emerging housing markets hide more potential than the established ones, but simultaneously they are at risk of stronger and more frequent concentration of market elements than the mature markets. Capital flow to local markets is unevenly distributed with specific locations particularly preferred, especially when property development projects turn out highly profitable there.

A developed housing market is a market with rich resources of tradable flats, efficient mechanisms which regulate the transfer of ownership rights as well as sufficient capital. The determinant of its growth is the mobility of households¹⁰ and the capital flow from other investment markets to the housing one.

2. Demographic potential of the housing market growth in the EU countries

The growth of the housing market is closely related to the demographic growth and the resulting housing needs.¹¹ The demographic potential of population in a given country depends mainly on the dynamics of the population replacement, which secures the positive rate of natural increase (the crude birth rate minus the crude death rate), as well as on the skills and knowledge.¹² Their constant improvement is determined by people's living conditions which give each individual the opportunity to develop, not to mention satisfying their elementary needs.

⁸ I. Foryś, *Wykorzystanie analizy wielowymiarowej do oceny potencjału rozwoju lokalnego rynku nieruchomości mieszkaniowych*, Studia i Materiały Towarzystwa Naukowego Nieruchomości, vol. 17, t. 2, Olsztyn 2009

⁹ I. Foryś, *Using Correspondence Analysis for testing Preferences of the Buyers of Single-Family Housing Building Lots*, "Polish Journal of Environmental Studies" Vol. 18, No. 3B, HR, Olsztyn 2009b.

¹⁰ I. Foryś, *The Cox Proportional Hazards Model in the Analysis of Property Transactions*, "Folia Oeconomica Stetinesia" Vol. 8 (16), Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2010.

¹¹ *Ibidem*.

¹² M. Gazińska, *op.cit.*

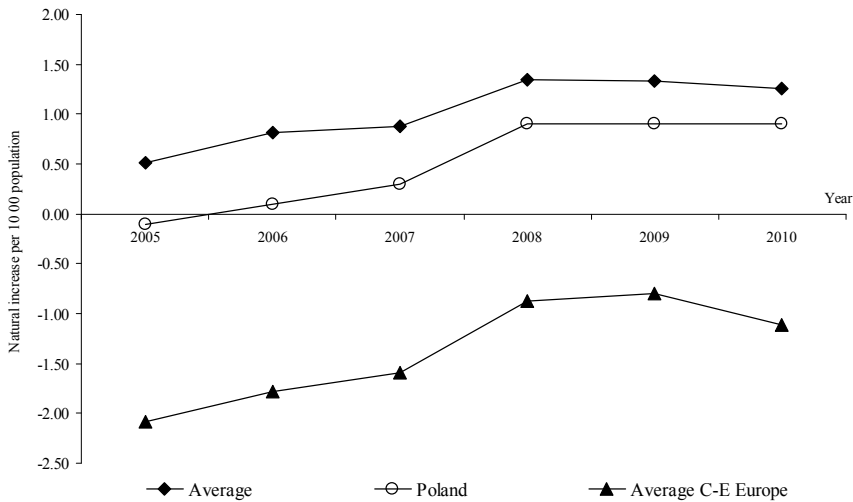
Table 1. The rate of natural increase
in some European Union countries in 2005–2010

Country/Year	Natural increase per 10 000 population					
	2005	2006	2007	2008	2009	2010
Belgium	1.60	2.00	2.20	2.20	2.10	2.10
Bulgaria	-5.50	-5.10	-4.90	-4.30	-3.60	-4.60
Cyprus	3.70	4.70	4.10	5.10	5.50	5.70
Denmark	1.70	1.70	1.60	1.90	1.40	1.60
Estonia	-2.20	-1.80	-1.20	-0.50	-0.20	0.00
Finland	1.90	2.00	1.80	2.00	2.00	1.90
France	4.30	4.80	4.50	4.50	4.30	4.40
Greece	0.20	0.60	0.20	0.90	0.90	0.80
Spain	1.80	2.50	2.40	2.90	2.40	2.20
Ireland	8.20	8.90	9.80	10.30	10.20	10.30
Lithuania	-3.90	-4.00	-3.90	-2.60	-1.60	-2.00
Luxembourg	3.80	3.70	3.40	4.10	4.00	4.20
Latvia	-4.90	-4.70	-4.30	-3.10	-3.60	-4.80
Malta	1.80	1.60	1.90	2.10	2.20	2.40
Netherlands	3.20	3.00	2.90	3.00	3.10	2.90
Germany	-1.80	-1.80	-1.70	-2.00	-2.30	-2.20
Poland	-0.10	0.10	0.30	0.90	0.90	0.90
Portugal	0.20	0.30	-0.10	0.00	-0.50	-0.40
Czech Republic	-0.60	0.10	1.00	1.40	1.00	1.00
Slovakia	0.20	0.10	0.10	0.80	1.50	1.30
Slovenia	-0.30	0.40	0.60	1.70	1.50	1.50
Sweden	1.10	1.60	1.70	1.90	2.30	2.70
Hungary	-3.80	-3.20	-3.50	-3.10	-3.40	-4.00
United Kingdom	2.30	2.90	3.20	3.50	3.70	3.90
Italy	-0.20	0.00	-0.20	0.00	-0.40	-0.40
Average	0.51	0.82	0.88	1.34	1.34	1.26
Average C-E Europe	-2.10	-1.80	-1.60	-0.90	-0.80	-1.10

Source: study based on the Eurostat data.

Negative values of the natural increase rate mean undesired changes in the population structure – the increase of post-productive population or the decrease of the population in the pre-productive age. Low rate of natural increase is typical of countries with the shortest market history, such as Bulgaria, Latvia or Hungary. In

Figure 1. Natural increase in Poland in 2005–2010 in comparison to Europe



Source: study based on the Eurostat data.

reference literature this phenomenon is recognised as the effect of the low fertility rate – women delay the decision about having their first child or abandon the concept of their traditional role in a family and choose to make career.¹³

As a result of cultural changes the family model has been changing as well. More children are born to single and unmarried mothers. The pattern is a consequence of growing economic independence of women who are additionally supported by governments with welfare benefits for single mothers, tax exemption or other privileges. The stable tendency of out-of-wedlock births, the decline of a traditional marriage and increasingly low fertility rates translate to a new model of housing needs: two separate households of the child's parents. In many cases the reason why parents choose not to marry are welfare benefits single mothers are entitled to, even if they share the household with their partner.

Poland, with its rate of natural increase of 0.9 (Figure 1), remains on the level which does not secure the generation replacement. Fortunately it is one of those Central-East European countries where the decline is not so drastic. Additionally, high emigration rates and ageing do not stimulate the rise in housing resources,

¹³ *Ibidem*; I. Foryś, *The Cox Proportional...*

not to mention the fact that they create new quality requirements. The process of ageing of the Polish society will lead to changed expectations and preferences related to living accommodation standards. Longer life expectancy rates delay the natural process of vacating flats for younger generations. What is more, in the underdeveloped economies the elderly people are a group that is economically weak. The strong group consists of young, independent single people not burdened with families. In the developed economic, however, the generation of the elderly and retired has a great purchasing power, substantially contributes to open pension funds, has assets in various investment projects as well as financial resources collected in the times of the economic boom. They are also real estate owners.

3. Quality norms of the EU housing resources

One of the globalisation effects is the tendency to reach the standards of the housing markets in the more developed countries. These markets set the quality norm for the Polish housing resources as well. The above mentioned norms can be determined by means of constructing the analytical form of the models of distributions, dependences and dynamics for the standard markets or by estimating the parameter of an independent variable out of a simple linear dependence. The above approach requires determining a norm for this parameter (its theoretical value, e.g. a median or the highest value for the standard markets). Estimation of the empirical value deviation from the theoretical one allows to determine the range of deviation from the adopted norm and to assess the distance between a given market and the standard one. By means of this method we can define the volume of the housing resources necessary for the society to function properly as a norm to which the Polish housing market should tend. The analysis can cover both demographic variables and the variables that describe the existing housing resources since they are directly related to the situation on this market. This fact can be used to build the theory of proper structural proportions on the housing market.

For that purpose simple mean measures such as the mean and the standard deviation (or the average deviation) of the sample can be applied in order to diagnose the range of a given tendency on the housing market. When the values of the obtained coefficient is contained in the interval of the mean reduced at one end and enlarged at the other end by the standard deviation, we can assume that the

Table 2. Average number of rooms per person in house
in some EU countries in 2005–2010

Country/Year	Average number of rooms per person					
	2005	2006	2007	2008	2009	2010
Belgium	2.2	2.2	2.2	2.2	2.3	2.1
Bulgaria	1.0	1.0	1.0	1.0	1.0	1.1
Czech Republic	1.2	1.2	1.2	1.2	1.3	1.4
Denmark	1.9	1.9	1.9	1.9	1.9	1.9
Germany	1.7	1.7	1.7	1.7	1.7	1.8
Estonia	1.1	1.1	1.2	1.2	1.2	1.2
Ireland	2.0	2.0	2.0	2.0	2.1	2.1
Greece	1.2	1.2	1.2	1.2	1.2	1.2
Spain	1.7	1.8	1.9	1.9	1.9	1.9
France	1.7	1.7	1.7	1.7	1.8	1.8
Italy	1.4	1.4	1.4	1.4	1.4	1.4
Cyprus	1.8	1.9	1.9	1.9	1.9	1.9
Latvia	0.9	0.9	0.9	1.0	1.0	1.0
Lithuania	1.0	1.0	1.0	1.0	1.1	1.1
Luxembourg	1.8	1.8	1.8	1.8	1.9	1.9
Hungary	1.0	1.0	1.0	1.0	1.1	1.0
Malta	2.0	2.0	2.0	2.0	2.0	2.0
Netherlands	2.0	2.0	2.0	2.0	2.0	2.0
Austria	1.6	1.6	1.6	1.6	1.7	1.7
Poland	1.0	1.0	1.0	1.0	1.0	1.0
Portugal	1.4	1.4	1.4	1.5	1.5	1.4
Slovenia	1.1	1.1	1.1	1.1	1.1	1.1
Slovakia	1.0	1.0	1.1	1.1	1.1	1.1
Finland	1.8	1.8	1.9	1.9	1.9	1.9
Sweden	1.7	1.8	1.7	1.7	1.8	1.8
United Kingdom	1.9	1.8	1.8	1.8	1.8	1.8
Iceland	1.6	1.6	1.6	1.6	1.6	1.6
Norway	1.9	2.0	2.0	2.0	2.0	2.0
Median	1.7	1.7	1.7	1.7	1.7	1.8
Average	1.5	1.5	1.5	1.6	1.6	1.6
Minimum	0.9	0.9	0.9	1.0	1.0	1.0
Maximum	2.2	2.2	2.2	2.2	2.3	2.1
Standard Deviation	0.40	0.41	0.40	0.40	0.40	0.39

Source: study based on the Eurostat data.

examined value is contained in the housing market norm. Assuming that if there are market economies with a longer history and with established proper economic proportions, then they are an appropriate reference point to which any developing economy should tend in the near future. For it is not recommended for the evolutionary growth to pass certain elementary stages, even if the economy in a given country is developing dynamically.¹⁴

Considering a flat to be the good which satisfies peoples' elementary livelihood and other needs (such as leisure or entertainment), we distinguish two categories of norms: the quantitative, referring to the number of households per one flat, and the qualitative one describing the number of households living in substandard flats. The former rate informs us about the statistical housing deficit, while the latter – about the qualitative deficit. It is typical of housing markets in the countries with short economic history to tend to address the quantitative deficit first, attaching less importance to the qualitative one.

In order to measure the above mentioned deficits we can use both the usable floor area per one resident (the resource quality assessment), the relation between the number of flats and the number of households (the quantitative deficit assessment) and many others.¹⁵ We can also assume that the minimum level of satisfying the housing needs, which signals both the quantitative and qualitative flat deficits, can be determined at one room per person. Such proportion ensures privacy in a flat shared with several other people. In the analysed countries this proportion was obtained in 2008 (Table 2).

In the recent years the largest number of rooms per person have been reported in Belgium and Ireland, which was a consequence of the growth in population (in Belgium 2.1 ad in Ireland 10.1 births per 10 thousand people) as well as the rise of the housing construction market in the times of economic boom. The results presented above confirm the general negative assessment of the situation on the Polish housing market (as well as in other countries in Central and Eastern Europe) as compared to the EU countries.

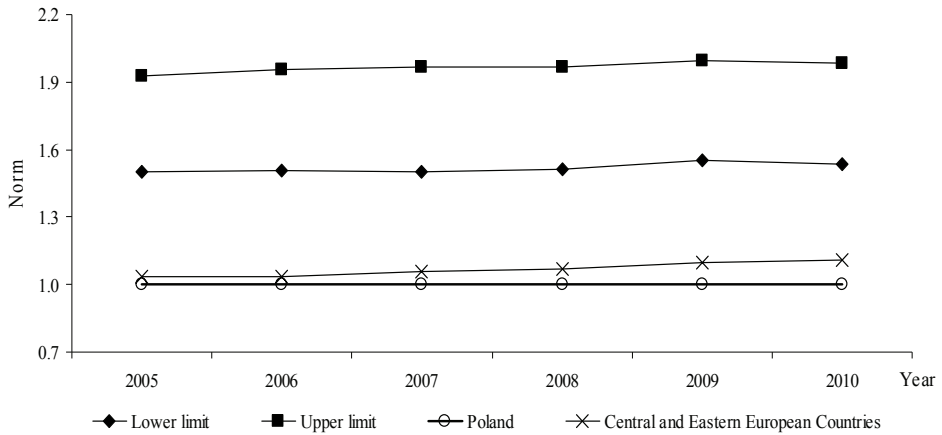
In such situation the mean and the standard deviation were additionally determined for the countries listed in Table 1, except the Central and East European

¹⁴ J. Hozer, *Matematyczno-ekonomiczne modele funkcjonowania gospodarki*, Wydawnictwo Uniwersytetu Szczecińskiego, Szczecin 2004.

¹⁵ I. Foryś, *The Cox Proportional...*

ones. In this way the interval containing the mean reduced and enlarged by the standard deviation was determined as a reference for Poland and other excluded countries. The results are presented in Figure 2.

Figure 2. Living conditions in Poland in 2005–2010
in comparison to the European market



Source: study based on the Eurostat data.

In both cases the assessed values of the index remain below the lower limit of the interval regarded as the norm and significantly lower than the upper limit values. The Central-East European countries saw slow increase of the index in question which was particularly noticeable in 2010.

The housing deficit can also result from poor infrastructure supplying electricity, gas or water. In the so called EU-15 the percentage of substandard flats is lower than 3% with no water supply, 5% with no toilet and 10% with no bathroom. In Poland these rates are three times higher, which means that 10% of the Polish flats are substandard.¹⁶

¹⁶ *Ibidem*.

Conclusions

For the housing market globalisation means open materials and technology markets as well as the inflow of new solutions and models of market structure. What is more, this process leads to adopting world priorities of land use management and creating decent living conditions for people and their families. Beside the convergence tendencies observed in the process of economic globalisation it seems necessary to become aware of reverse tendencies being the consequence of powerful influence of national cultures. The Polish housing market has not been indifferent to the globalisation processes, but strong impact of divergence tendencies can be observed there as well. These tendencies are founded in the Polish history, while the local value system plays a regulatory role restricting interests of individuals. In effect people take into consideration their environment. In the times of the Internet communication this impact will be getting weaker, cultural differences will fade away and culture will influence economies and housing markets increasingly less. Polish market is going to be more and more similar to the European markets. In addition, its growth dynamics will slow down, since the growth dynamics of weaker markets with more development potential is stronger. The growth gap is one of the strongest sources of pro-growth impulses.

The development of the Polish housing market is also stimulated by its high Global Competitiveness Index (GCI = 4.46), evaluating the quality of the macroeconomic environment, the condition of public institutions and the technological level of a given country, and the Index of Economic Freedom (IEF = 60) which measures the level of the property rights protection (see: Heritage Foundation and the Wall Street Journal).

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POTENCJAŁ RYNKU NIERUCHOMOŚCI W POLSCE W PORÓWNANIU DO RYNKU NIERUCHOMOŚCI W UNII EUROPEJSKIEJ

Streszczenie

Potencjał rynku nieruchomości tkwi w zasobach rynku oraz jego wewnętrznej energii. Potencjał rynku najczęściej jest utożsamiany z wielkością rynku wyrażoną wartościowo. Tempo wzrostu danego rynku, mierzone tempem wzrostu jego wartości, jest porównywane wówczas z tempem wzrostu gospodarki, mierzonym wzrostem produktu krajowego brutto (PKB). O potencjale rynku decyduje stan i jakość zasobów. Konieczną do zmian energię dostarcza na rynek nieruchomości kapitał ekonomiczny i kapitał społeczny. Różnice potencjałów lokalnych rynków nieruchomości są przyczyną przesuwania kapitałów i ludzi na rynki o większych możliwościach rozwojowych. Gdy rynek nieruchomości w układzie przestrzennym osiąga stan równowagi, procesy rozwojowe wykazują mniejszą dynamikę. Wtedy też potencjał rozwojowy osiąga wartości minimalne, podczas gdy entropia układu i otoczenia osiąga maksimum. Młode, wschodzące rynki nieruchomości, kryją w sobie większy potencjał rozwojowy niż rynki ustabilizowane.

W artykule dokonano oceny potencjału rozwojowego rynku polskiego na tle rynków europejskich. Analizę i diagnozę przeprowadzono na przykładzie rynku mieszkaniowego. Jest to najwrażliwszy segment rynku nieruchomości. Zweryfikowano również hipotezę badawczą dotyczącą niskiego poziomu rozwoju polskiego rynku mieszkaniowego.

Słowa kluczowe: rynek nieruchomości, rozwój rynku, potencjał rozwojowy.