ECKERT EMÍLIA VIOLA1

Housing finance in the EU member states

Lakástámogatási rendszerek az EU országaiban

Az Európai Unióban nincs egységes modell és szabályozások a lakáspiacot érintően, és néhány ország nem is rendelkezik feljegyzett adatokkal a témában. Ez a kutatás átfogó képet nyújt az európai uniós tagállamok lakásfinanszírozásának fő alkotóelemeiről. Először bemutatásra kerül a háztartások általános pénzügyi helyzete, azután a dolgozat részletesen bemutatja a lakásvásárlásra adott támogatások különböző fajtáit, a támogatott jelzálogkölcsönöket, a jelzálog kamatadó-mentességet, és más, lakásvásárlásra adható adókedvezményeket. Ezután a dolgozat kitér néhány európai uniós tagállam különböző támogatására, végezetül pedig az EU-n belüli uralkodó modell felállítása következik.

Kulcsszavak: lakástámogatás, EU, támogatások, jelzálog, lakhatási támogatás

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Introduction

Housing finance is one of the most significant sectors in the European Union, as housing loans constitute the largest liability of households and give a large proportion of bank lending. The main cause for the financial crisis in 2007 was the collapse of the mortgage-backed securities on the housing market. These events raised important questions on household indebtedness and strengthened the interest in housing finance aspects.

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This paper tries to give a coherent study on the main components of the house financing sector among the member states of the European Union. Firstly, it introduces the overall financial situation of the households. Then, it looks in the different type of grants, subsidized mortgages, mortgage reliefs, and tax reliefs offered to the home buyers. After that, it presents the different kind of subsidies in certain countries from the European Union. Finally, it gives a comparative study between the EU member states' house financing systems.

There are no standard models and regulations concerning the house financing sector in the EU. There are some statistics about the first EU member states, next to some common regulations, however some of the newly joined countries don't even have recorded datasets about this topic. Due to the lack of information about housing finance provided in these countries, there is a need for comprehensive datasets. This paper is aimed to fill some of these gaps.

During the research process, this thesis proposed to collect and process every statistics, documents, and dissertations, from which it can properly build the prevailing model among the EU countries.

This paper is aimed to deal with the governmental subsidies granted to support the purchase of a house. It is assumed that banks and other lending institutions are possessing the needed financial background to be able to finance these subsidies and issue the loans. The essay is not investigating in how the lending institutions acquire their financial resources.

1. Macroeconomic overview and households' financial situation

Since the beginning of the 2007 financial crisis, central banks have used a variety of tools to restore the economy to its former stable condition. 2016 was the first year after the crisis, when none of the EU-28 member states was in a recession (HYPOSTAT, 2017) and there was a positive 1.9% GDP growth rate (*Figure 1*).

There were also lower unemployment, lower interest rates, and a stable inflation with 1.5%, the latter largely due to energy prices (*Figure 2*).

Figure 1: GDP growth rate in the EU-28 (%)

Source: Self edition based on Eurostat (2017), European Commission

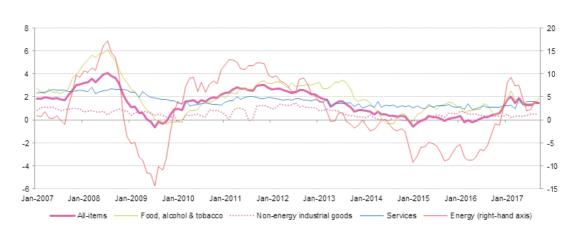


Figure 2: Euro area annual inflation and its main components (%)

Source: Eurostat (2017), European Commission

House prices, the key indicators of housing affordability, also started to recover since the crisis. In 2016, house prices reached their highest annual growth rate since 2009, thus housing has become the single highest expenditure for Europeans. House prices rose by 4.6% in the EU in the fourth quarter of 2016 compared to the same quarter in the previous year (Eurostat, 2017)² (*Figure 3*).

² For detailed information see Annex 8.

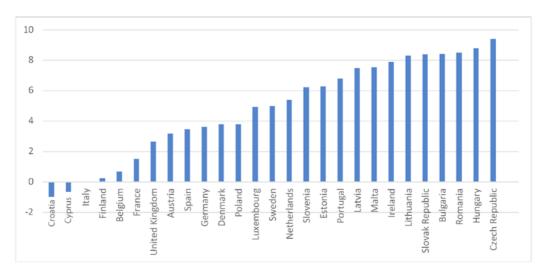


Figure 3: House prices in the EU (annual % change)*, **

Source: Self edition based on Global Housing Watch, IMF (2017)

Although, the main problem is that prices are growing faster than the incomes in the majority of the EU member states (The State of Housing in the EU 2017, Housing Europe). EU residents spend more than 40% of their disposable income on housing, therefore most of them are badly overburdened.³ The most overburdened households can be observed in Romania, Slovakia, Greece, and Bulgaria, where the overburdened households compile more than 23% of the population (*Figure 4*). It is interesting however, that House Price-to-Income ratio is not necessarily congruent with the overburden statistics. The House Price-to-Income ratio shows the ratio between the cost of a typical upscale housing unit of 100 square metres and the countries' GDP per capita.

$$House\ Price-to-Income\ Ratio = \frac{Price\ per\ square\ metre}{GDP\ per\ capita}$$

^{*} Latest quarter available (2016 Q3, 2016 Q4, 2017 Q1); * * No information for Greece

³ Households are considered overburdened, if their housing costs exceed 40% of their disposable income (European Commission).

35,0 30,0 25,0 20,0 15,0 10,0 5,0 0,0 Germany France Croatia Italy (1) Cyprus Latvia reland (1) Luxembourg (1) Poland Greece Lithuania Netherlands Austria Slovakia (1) Czech Republic Estonia Hungary Malta Portugal Romania Slovenia Finland Sweden United Kingdom Denmark

Figure 4: Housing cost overburden rate in 2016*(% of population)

* 2015 (no data available for 2016)

Source: Self edition based on Eurostat, European Commission (2016)

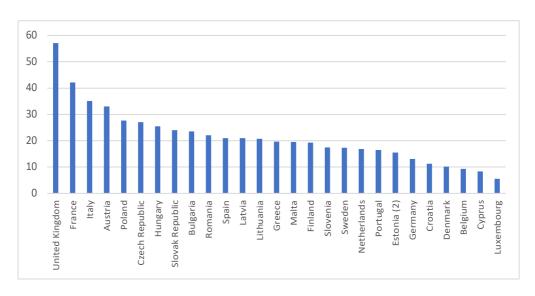


Figure 5: House Price-to-Income ratio (%, 2016 Q4)*, **

Source: Self edition based on Global Property Guide (2017)

^{*} No data available for Ireland; ** Data from the first quarter of 2017

1.1. Overview of mortgage markets

According to a survey conducted by the European Commission, the majority of people agreed, that it's hard to find a house at a reasonable and affordable price. Consequently, households have to find different alternatives to finance their home purchase. In recent years, there are historically low interest rates and mortgage loans in the European Union, and mortgage credit gives one of the main contributors to real economic growth.

2. Characteristics of a loan for house purchase

2.1. Loan characteristics

2.1.1. Interest rate

Mortgage interest rates continued their downward path in 2016 in almost every member state (*Figure 6*). In most countries in the European Union housing loans are granted at either at variable or at fixed interest rates, and in the majority of countries a shorter-term fixation is the usual procedure. EURIBOR⁴ with the corresponding maturity is the prevailing reference rate in most of the euro area countries, but in other member states some of the loans with variable interest rates are adjusted by other reference rates. The factors behind the countries' preferences concerning the types of interest rates are for example culture, risk aversion and consumers' planning horizon.

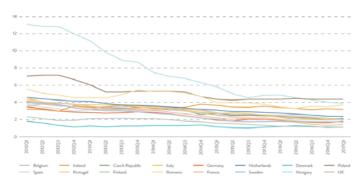


Figure 6: *Mortgage interest rates in the EU (in %)*

Source: HYPOSTAT (2017), European Mortgage Federation

⁴ Euro interbank offered rate.

In Belgium and Denmark long-term fixed rate interest rates are the prevailing type, however they are present the most excessively in Belgium, where they construct almost 85% of the issued mortgage loans. In Hungary long-term fixed interest rates started to be more popular at the end of 2014, but still variable rate interest rates are the most common, making almost 50% of the mortgage market. In Portugal, Romania, and Sweden variable rates are the most common, and in Poland this is the only type of interest rate (*Figure 7*).

Long-term (over 10 years) fix rate ■ Medium-term (5-10 years) fix rate ■ Short-term (1-5 years) fix rate ■ Variable rate (up to 1 year fix rate) 12012 112012 12012 12013 10013 | 12012 | 12012 | 12013 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 12014 | 1201

Figure 7: *Mortgage markets breakdown by interest rate type* (%) – *new loans*

Source: HYPOSTAT (2017), European Mortgage Federation

2.1.2. Maturity of the loan

The maturity of housing loans across the member states is typically ranges from 15–30 years (*Figure 8*). The maximum maturities are offered in Sweden and Malta, however in the case of Sweden the actual expected maturities last only for 7.5 years (HYPOSTAT, 2017). Over the period since the establishment of the Economic and Monetary Union (EMU), the mean loan maturities and the maximum maturities has increased in the euro area mainly due to the rising life expectancy and the increase in retirement ages, according to the ECB's report on housing finance in the euro area. This increase caused a lift in house prices, consequently households had to take up larger loans for home purchase, which necessitated an increase in the offered maturities.⁵

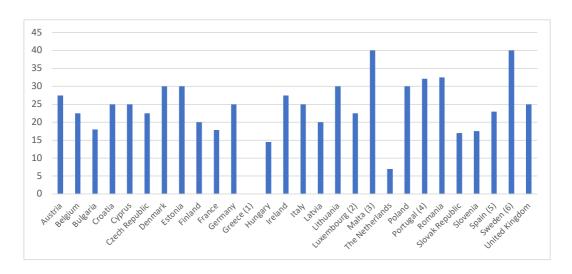


Figure 8: Average mortgage maturity in the EU member states in 2016 (in years)

Notes: 1. There are no data available for Greece; 2. In Luxembourg some banks grant credits up to 40 years; 3. In the case of Malta, it is linked to retirement age; 4. Data from 2015; 5. The real amortization period is 10–15 years; 6. This is the contractual average. The expected average is 7.5 years.

Source: Self edition based on HYPOSTAT (2017), European Mortgage Federation

⁵ For detailed information on maturities see Annex 1.

2.1.3. Loan-to-value ratio

The loan-to-value (LTV) ratio shows the size of a mortgage relative to the value of the property. It is an important risk assessment ratio to determine the repayment terms of a mortgage, both from the lenders' and from the borrowers' side, because LTV ratios can protect borrowers from becoming overburdened. LTV ratio is calculated by dividing the amount of the mortgage with the appraised value of the property, and the result is expressed as a percentage.

$$Loan - to - Value\ Ratio = \frac{Mortgage\ Amount}{Appraised\ Value\ of\ the\ Property}$$

Higher LTV ratios presenting a higher risk for the refinancing of the loan, thus lenders sometimes require a mortgage insurance to be paid by the borrowers, to offset their risks. Usually an LTV ratio higher than 80% is considered a higher-risk transaction. (LTV ratios, Investopedia). In 2016, the typical LTV ratios ranged from 60–80% across the member states (HYPOSTAT, 2017)⁶.

2.1.4. Redemption scheme

Redemption scheme is a kind of plan which allows the borrowers to pay a higher amount of capital repayment instead of a higher initial proportion of interest payments at the beginning of the constant monthly instalments plus interest payments. The interest-only system is a monthly payment of interest, offers full capital reimbursement at the end of the contract (ECB, 2009).

2.1.5. Flexibility in mortgage conditions

Flexibility in mortgage conditions allows borrowers to change the terms and conditions of the mortgage contracts. These includes switching from one loan to another within the same or another bank, early repayment opportunities, and the cost of taking out

⁶ For detailed information on LTV ratios see Annex 1.

a new mortgage. Sometimes borrowers use early repayment to switch from one bank to another one, which offers more preferential loan conditions or lower interest rates.

2.2. Taxation in housing markets

Affordability of housing are supported by many governments in the European Union by subsidized mortgage loans, income tax-deductible interest payments, capital grants and by constructing or supporting the construction of subsidized housing. Tax policies often use fiscal instruments to promote home ownership. Mortgage interest payments are tax-deductible in the majority of the member states, but they are usually restricted to primary residences.⁷

2.3. Bankruptcy and foreclosure procedures

Procedures which declare bad debt situations are of crucial importance regarding the mortgage markets. Such procedures include design and enforcement of rules on bankruptcy and the repossession of property. In the European Union rules regarding personal insolvency procedures have many similar elements, next to some different requirements for the seizure of assets or the disabling of future income.

3. Housing finance subsidies in eu member states

Owner-occupied housing is the prevailing tenure across the EU countries (approximately 70 % of the population), thus public support is a crucial point of governments. The highest owner-occupancy can be observed in Romania, Croatia, Lithuania, and in the Slovak Republic, where outstanding mortgages or housing loans are not so common (*Figure 9*).

There are different types of demand-side subsidies offered by governments for access to homeownership, which can be divided into three main groups, according to OECD.

⁷ For more information see Chapter 4.6, and Annex 6.

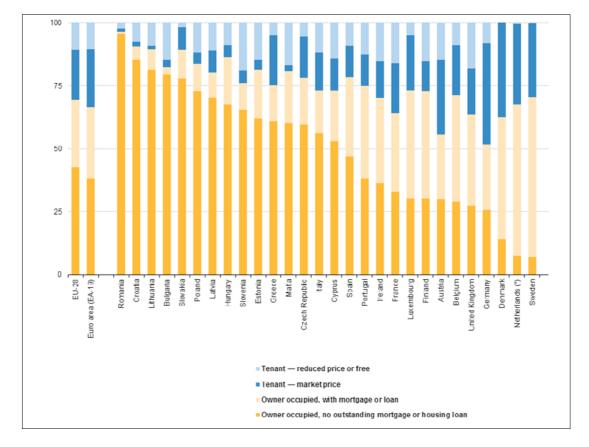


Figure 9: *Distribution of population by tenure status 2015* (% of population)

Note: Provisional data in the Netherlands.

Source: Eurostat (online data code: ilc_lvho02), European Commission 2017

3.1. Subsidies outside the Tax systems

- Grants to home buyers: subsidies given to households for the purchase of a residence, covering some parts or all the associated costs. They are often reserved for first-time buyers and/or lower income level households and offered for dwellings with certain characteristics.
- Subsidized mortgages and mortgage guarantees for home buyers: preferential mortgage loans provided by the government, or other agencies or funds to buy a home. Sometimes they also contain support for down-payments or mortgage guarantees and they are granted at the time of the purchase of a resident.

 Mortgage relief for over-indebted homeowners: subsidies and allowances provided to avoid the foreclosure of homes, given to households with unfortunate financial situations. This category consists of subsidies for mortgage payments and payment for arrears, postponement of payments refinancing mortgages and mortgage-to-rent schemes.

Hungary is the only country where all the three types of subsidies are granted, and mortgage relief for over-indebted home owners construct the biggest part of the given subsidies (*Figure 10*).⁸

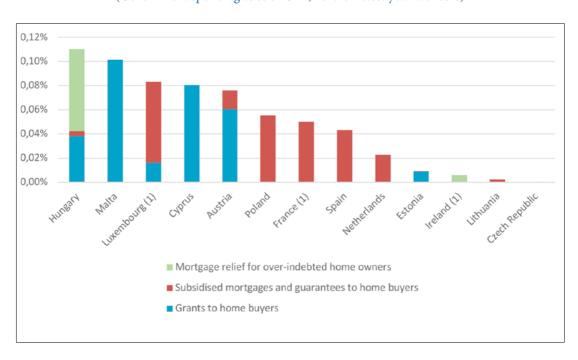


Figure 10: *Public spending on grants and financial support to home buyers* (Government spending as % of GDP, 2015 or latest year available)

Note: Lower-bound estimate, information is missing on one program

Source: Self edition based on OECD Questionnaire on Affordable and Social Housing (2016)

⁸ This section is based on OECD categories therefore not every EU member states is included in the description. For detailed information on financial subsidies outside the tax system see Chapter 4.5., Annex 1, 3, 4, 5.

3.2. Subsidies inside the Tax systems

In many EU member states home owners benefit from favorable tax treatment through tax reliefs. The overall tax contribution to support access to homeownership varies significantly across countries (*Figure 11*), and obtainable mainly through mortgage tax deductions and tax exemptions for costs associated with the purchase of a home. It is notable that the Netherlands offer excessively high mortgage interest deductions, compared to the other countries.

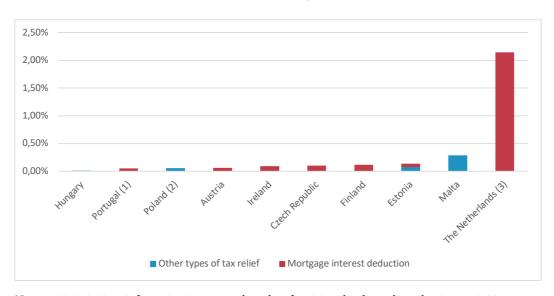


Figure 11: Forgone tax revenue due to tax relief for access to home ownership (% of GDP, 2015 or latest year available)

Notes: 1. 2013; 2. 2014, information is not complete, therefore it is only a lower-bound estimate; 3. 2014.

Source: Self edition based on OECD Questionnaire on Affordable and Social Housing (2016)

During the research process, this study had to face several obstacles, because of available data on tax contribution are dissimilar both in quantity and in quality. Although, the OECD report does not contain information about every EU member state, tax subsidies to support home ownership are a vital part of housing finance, therefore it is crucial to be the part of this study.⁹

⁹ See detailed information about housing tax subsidies in Chapter 4.6 and Annex 6.

Housing taxes can be divided into 5 main groups (Figure 12, ESRB, 2015):

- Transaction-based property taxation
- Recurrent property taxation
- Capital gains taxes on housing
- (Current) tax on imputed rent
- Mortgage interest tax relief

From this point, mortgage interest tax relief is the only housing tax subsidy this paper is going to deal with, because this is the only one, which act as an incentive to home ownership.

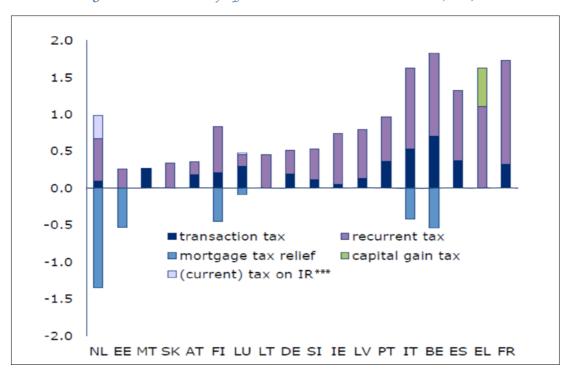


Figure 12: Contribution of different tax instruments in the euro area (2014)*,**

Notes: * Tax contribution expressed in percentage points; ** No data available for Cyprus; *** IR: Imputed Rent.

Source: Quarterly report on the Euro Area, European Commission 2015 Q1

3.3. Housing allowances

They are means- and/or income-tested income transfers to low-income households to help them to meet their housing costs. They are usually granted to support rent payments, however in some countries there is a special type of housing allowance which are granted to home owners to cover different housing costs, like heating costs, insurance and service costs, waste collection fees and other charges, or costs associated with home ownership (e. g. land or property tax and mortgage interest payments).

Housing allowances, which can be used by home owners on utilities and on other housing costs are offered only in the majority of the investigated countries (*Figure 13*). However, they are the most generous in France and Finland, where more than 0.8% of the GDP is spent on housing allowances by the government. In Hungary, Cyprus, and Estonia the amount of allowance barely reaches 0.04% of the GDP.¹⁰

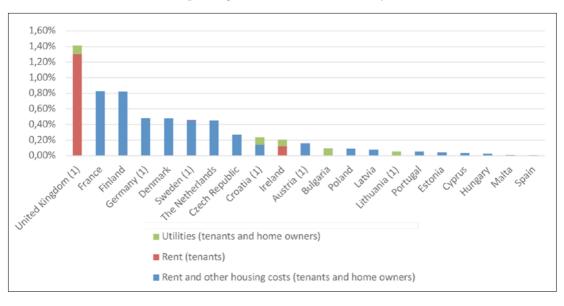


Figure 13: *Spending on housing allowances by type of housing related costs covered* (Government spending as % of GDP, 2015 or latest year available)

Note: (1) Information is missing on one measure.

Source: Self edition based on OECD Questionnaire on Affordable and Social Housing (2014, 2016)

¹⁰ For detailed information about housing allowances for homeowners see Annex 7.

Henceforth, this paper is not going to discuss housing allowances any further, because only a special type of them is concerned with the purchase of a property.¹¹

4. Comparison between housing finance in the EU member states

In this chapter, a comparison between the housing finance of EU member states is going to be drawn, furthermore a prevailing model is going to be built.

4.1. Comparison between the owner occupation rate and the typical maturity of a mortgage

One might assume, that there is a relation between owner occupation rate and the maturity of a mortgage. The higher the owner occupation rate in a country, the higher house prices will be, thus necessitating longer average mortgage maturity. A longer maturity is required, because this is the only way households can afford and repay the loan. This assumption seems to be true only in the case of Croatia, Lithuania, and Romania where the owner occupation rate is around 90-96% and the typical maturities ranging from 20 to 35% (*Table 1*). However, in the case of Hungary and the Slovak Republic a high owner occupation rate is associated with rather low maturities (14.5%, or even as low as 3%). Moreover, in Denmark the typical maturity is quite high (30%), yet the owner occupation rate is one of the lowest among the member states. It must be said however, that conclusions are not easy to draw due to the different nature of the available statistics on maturities.

¹¹ Housing allowances are mentioned in this paper, because OECD categorize them as separate type of housing subsidies.

Table 1: Comparison between the owner occupation rate and the typical maturity of a mortgage

Country	Owner occupation rate (%)	Typical maturity of a mortgage (years)
Austria	55.7	25-30
Belgium	71.4	avg. 22.5
Bulgaria	82.3	avg. 18
Croatia	90.3	20-30
Cyprus	73	avg. 25
Czech Republic	78	20-25
Denmark	62.7	30
Estonia	81.5	max. 30
Finland	72.7	20
France	64.1	17.83
Germany	51.9	25
Greece	75.1	
Hungary	86.3	14.5
Ireland	70	25-30
Italy	72.9	20-30
Latvia	80.2	20
Lithuania	89.4	30
Luxembourg	73.2	20-25 (some banks
		grant credits for up to
		40 years)
Malta	80.8	max. 40 years (linked
		to retirement age)
The Netherlands	67.8	7
Poland	83.7	25-35
Portugal	74.8	avg. 32.1 (2015)
Romania	96.4	max. 30-35
Slovak Republic	89.3	4-30
Slovenia	76.2	15-20
Spain	78.2	23 (real amortisation
		period 10-15 years)
Sweden	66.2	expected avg. 7.5
United Kingdom	63.5	25

Source: Self edition based on HYPOSTAT (2017) European Mortgage Federation

4.2. Comparison between owner occupation and GDP per capita

In this section, the relationship between owner occupation and the GDP per capita is going to be presented. One might think, that in a country with higher GDP per capita the owner occupation rate is going to be higher. However, this research shows different results. It is interesting that the owner-occupation rate is the highest in countries where the GDP per capita is the lowest (*Figure 14*). This is the situation in countries like Bulgaria, Croatia, Hungary, Latvia, Lithuania, Poland, Romania, and the Slovak Republic. It is also noticeable, that Luxembourg shows the highest GDP per capita, however the owner occupation is just a little higher than the average. Also, in Ireland and in Denmark GDP per capita is rather high, whereas the owner occupation is around average. The lowest owner occupation on the housing market is in Germany, followed by Austria, however both countries show a higher-than-average GDP per capita. It looks like, that there is no connection between owner occupation rate and GDP per capita.

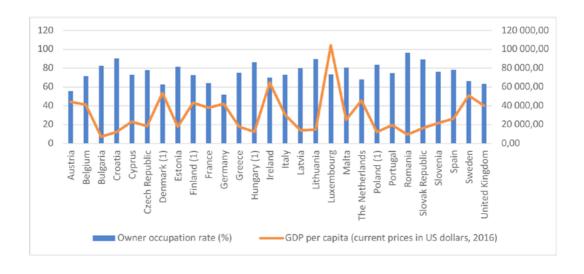


Figure 14: Comparison between owner occupation and GDP per capita (2016)

Notes: 1. IMF staff estimates; 2. The left axis indicates the owner occupation rate expressed as a percentage; 3. The right axis indicates the GDP per capita (current prices) expressed in US dollars.

Source: Self edition based on IMF's data on GDP per capita, and HYPOSTAT (2017), European Mortgage Federation

4.3. Comparison between the typical mortgage interest rates and LTV ratios

This paper assumes a coherency between mortgage interest rates and Loan-to-Value ratios, because usually lending institutions issue loans with higher interest rates in the case of higher LTV ratios. The highest typical mortgage interest rates are present in Bulgaria, followed by Hungary, Croatia and Poland (*Table 2*).

Table 2: Comparison between the typical mortgage interest rates and LTV ratios

Country	Typical mortgage rate, annual average (%)	
Austria	1.9	60
Belgium	2.1	90
Bulgaria	6.2	60-75
Croatia	4.8	70-80
Cyprus	3	80
Czech Republic	2.2	aggregated 55.8
Denmark	1.17	60-80
Estonia	2.3	limit of 85
Finland ¹	1.2	
France	1.6	79-83
Germany	1.8	weighted avg. 76
Greece ¹	2.7	
Hungary	5.3	avg. 55
Ireland	3.3	55.8-72.1
Italy	2	69.3 (2015)
Latvia	3.2	max. 95
Lithuania	2	max. 80
Luxembourg	1.7	max. 85
Malta	2.8	75
The Netherlands	2.6	max. 104 (2014)
Poland	4.4	30-80 (2015)
Portugal	1.9	appr. 80 (25% 90-100% LTV)
Romania	3.5	avg. 80-85
Slovak Republic	2	70 (max 85)
Slovenia	2.3	60
Spain	2	avg. 64 (most common 80%)
Sweden	1.8	64
United Kingdom	2.3	77

Note: 1 There is no information on LTV ratios in Finland and Greece.

Source: Self edition based on HYPOSTAT (2017), European Mortgage Federation

In these countries the typical LTV ratio is quite high, ranging from approximately 60–80%. It is interesting however, that countries like Belgium, France, Portugal, and Spain, where LTV ratios are higher than the average, offer lower interest rate (around 2%). The lowest interest rates are in Finland and in Denmark, in the latter accompanied with a higher LTV ratio ranging from 60 to 80%. A lot of member states set a limitation concerning LTV ratios to avoid borrowers becoming overburdened.

4.4. Typical mortgage loan issuing entities

Across the European Union a lot of financial institutions are allowed to issue mortgage loans. The most common ones are banks followed by credit institutions, commercial banks, and housing savings banks. The most diverse issuing entities are present in the United Kingdom consisting of Monetary Financial Institutions¹³ and other specialist lenders, whereas in Estonia and Sweden¹⁴ there are no limitation on issuers. Some countries have unique issuing entities, like Bausparkassen in Austria, and 'Caisse Nationale d'Assurance Pension' in Luxembourg. In Malta only the 'Core domestic banks' have the right to issue mortgage loans, whereas in the Netherlands private persons are also allowed to issue loans, however they must be licensed by the Netherlands Authority for the Financial Markets. In Hungary savings cooperatives ('takarékszövetkezet') and mortgage houses ('jelzálogház') are also issuing mortgages, besides banks, specialized mortgage banks and home savings banks.

There is a detailed list about the typical loan issuing entities in each member states enclosed to the study (see: *Annex 1*), however it is not included in the main part of this paper, because of its huge extent.

4.5. Most common mortgage products

Variable rate housing loans construct the largest part of mortgage products in the European Union. Fixed rate housing loans are also very common, whereas floating rate mortgage loans are typical only in Greece and Estonia, the latter is accompanied with

¹² No information on the LTV ratio in Finland.

¹³ Banks and building societies.

¹⁴ However, in Sweden 99% is issued by banks and credit market institutions.

a 30-year maturity. It is interesting that foreign currency loans prevalent only in Austria, however variable rate loans are dominating here as well. Euro-denominated loans are prevailing in Cyprus, with bank base rates and spreads. In Hungary home equity loans are typical, next to the other housing loans granted by commercial and mortgage banks. EURIBOR mortgages with 30 years and 6 months maturities dominate the mortgage market in Lithuania, while annuity and interest-only loans are the standard in the Netherlands. In Malta fixed-rate and variable-rate mortgages with capital and interest payable over the term of the loan are the most common, but a moratorium on the capital repayments can normally be agreed for the first few years with the lending institutions, and during these years interest is only repaid.¹⁵

4.6. Most common tax subsidies

The research faced some difficulties concerning the prevailing tax subsidies, due to the limited number of datasets. Unfortunately, there are no available datasets which are covering the tax subsidy systems of the whole European Union, only data about the OECD member states is disclosed. However, as tax subsidies are a vital part of incentives for home purchase, therefore the data provided by OECD is going to be used.

The prevailing tax subsidies among these countries are tax reliefs for mortgage payments. Usually this type of aid requires no other eligibility criteria, however in Austria the conditions are related to the size or value of the dwelling, moreover in Luxembourg tax reliefs can be used only for permanent residences. One-off tax relief for home buyers are also dominant, however the usual eligibility criteria is to be first-time buyers, or slightly stricter in some countries. For example, in Hungary only first-time buyers aged under 35 are eligible, and the appraised value of the dwelling must be below 15 million HUF. Estonia offers an exemption from land taxes, which is unique among the examined countries. Luxembourg offers a preferential taxation of savings, which is a deductibility of yearly contributions to a property savings plan. Poland has the most divergent taxation to promote access to home ownership. Its offered aids are housing relief, exemption from taxation of interest rate subsidies, and exemption from taxation of public financial support for homebuyers and reimbursement of expenses on acquisi-

¹⁵ See a detailed list about the most common mortgage products in the Annex 1.

tion of building materials. Usually Poland set different criteria on eligibility on these aids, with the exemption of the first one, which is available to everyone.¹⁶

Conclusion

This study introduced the housing finance in the European Union, which is an extensive and a very diverse sector. It presented the different macroeconomic factors, which affect house prices and households' financial situation as well. Since the 2007 financial crisis, the economy started to recover and for the first time no country was in recession in 2016. House prices reached or even exceeded their pre-crises level, and the Czech Republic and Hungary suffered the highest house price increase in the last year.

To meet the high house prices, people need help to finance their home-purchase. The countries with the highest housing cost overburden rate are Romania and the Slovak Republic. This paper disclosed a wide range of subsidies offered by governments and lending institutions to help to access homeownership.

Moreover, the several factors, which need consideration in the case of taking out a mortgage, were also presented. The most important characteristics of these loans are interest rates, maturity, loan-to-value ratio, redemption scheme, and flexibility.

The home ownership rate is above 50% in every country in the EU, the lowest is in Germany with 51.9%, while the highest is in Romania with 96.4%. The study revealed some interesting conclusions, for example that there seems to be no relationship between owner occupation rate and the wealth of a country, or that higher loan-to-value ratios stimulate higher mortgage interest rates. Moreover, the most common loan issuing entities, mortgage products, and tax subsidies were also compared among the member states.

I believe, that with my research I was able to give a more comprehensive picture about the housing finance in the European Union, and I hope that the reader found my study interesting and useful.

¹⁶ See a detailed list about the most common tax subsidies in the Annex 6.

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