INSTITUTIONAL HETEROGENEITY, IMPEDIMENT OF THE EUROPEAN MORTGAGE MARKET INTEGRATION ?

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Real assets, represented by residential properties, hold about half of the tangible capital in developed countries. Consequently, mortgage market, which assigns the market for financing real assets, is a key component of the financial market. Because of this importance, the mortgage market's efficiency is considered to be a key factor of the financial market's efficiency. In particulary, a weak functionning of the former is believed „to pollute" other components of financial market. The article is meant to emphasize, for the euro area, those institutional caracteristics that maintain the national mortgage markets' heterogeneity. In this way, we have identified the presence of heterogeneity both in terms of mortgage products features (essential from the viewpoint of mortgage market integration) and of consumers preferences (influenced mainly by demographic factors). Also, we question about the possible implications of mortgage market's expansion to the monetary policy and financial stability.

Key words: mortgage products, mortgage debt, institutional heterogeneity, financial integration

1. Basic caracteristics and institutions of mortgage market

The mortgage market represents a particular type of credit market, specialised in lending activities collateralised with real assets. Although mortgage products cover a great variety of forms, some of them close to the consumer credit, there is an important difference between the two products in terms of maturity, sureties and financing techniques. The caracteristics of this market arise from the utilization of real assets as a guarantee:

- real assets are durable
- their evaluation isn't accurate. Each property and location are unique, therefore it is extremely difficult to compare similar mortgage products.
- in most countries residential mortgage is limited to the property itself, not being accepted other assets.
- mortgage collateral is at the core of mortgage lenders' activity. European Mortgage Federation introduced the term of „collateral's efficiency", which is determined by a series of actions: the constitution and registration of the guarantee, the ranking of the surety, its repossession.

The mortgage market consists in two major segments: the residential market, financing the real estate ownership, and the non-residential market, which finance other types of real assets. The first component has a special importance because dwellings represent the only significat households' real asset. That's why governments adopt special measures having as purpose the good functioning of residential mortgage market.

The non-residential mortgage market gathers, generally, the caracteristics of the residential one, but it distinguishes by three main aspects:

- real non-residential properties have a bigger value than the residential ones, and therefore create needs for substantial mortgage loans.
- non-residential mortgages are much more risky than residential ones because the demand for commercial or business spaces is more volatile than that for dwellings.
- the meeting between borrowers and lenders needs in this special field of mortgage market includes a great variety of special elements.

The most recent statistical study published by European Mortgage Federation (Hypostat 2006) revealed a growth in the volume of residential mortgage loans in the EU 27 of 11.1% in 2006 compared to the precedent year. A detailed evolution for the main european countries is presented in table 1.

TABLE 1: Mortgage market in EU countries (2006)

Country	Value of Mortgage Debt, € million	Growth in Mortgage Debt	Residential Debt to GDP Ratio	Per Capita Mortgage Debt, € thousand
Belgium	114,105	12.9%	36.3%	10.9
Bulgaria	1,745	73.5%	7.0%	0.2
Czech Republic	8,055	33.9%	7.1%	0.8
Denmark	221,970	13.4%	100.8%	40.9
Germany	1,183,834	1.8%	51.3%	14.4
Greece	57,145	25.8%	29.3%	5.1
Spain	571,746	20.2%	58.6%	13.1
France	577,800	14.7%	32.2%	9.2
Italy	276,102	13.3%	18.7%	4.7
Hungary	10,215	11.0%	11.4%	1.0
Netherlands	525,874	7.9%	98.4%	32.2
Austria	60,669	12.7%	23.5%	7.3
Poland	22,514	53.7%	8.3%	0.6
Portugal	91,895	15.7%	59.2%	8.7
Romania	2,276	57.2%	2.3%	0.1
Slovenia	1,956	43.0%	6.6%	1.0
Slovakia	4,209	36.7%	9.6%	0.8
Sweden	173,499	9.1%	56.7%	19.2
UK	1,583,372	11.9%	83.1%	26.2
EU27	**5,713,615**	**11.1%**	**49.0%**	**11.6**

Source: European Mortgage Federation

We have observed that countries in south-eastern Europe have a lower mortgage debt to GDP ratio, and therefore a less developed mortgage market. The main reason consists in the delay of the restructuring their banking systems, in the lateness implementation of economic and institutional reforms. In this context, the lack of an official institution having as purpose the accurate and timely evaluation of non-financial assets' price, the absence of explicit regulations concerning the property right, the securitisations, the possibility of refinancing and the additional costs justify the low level of mortgage loans.

On the other hand, there are several countries (Denmark, United Kingdom, Netherlands, Sweden, Switzerland) caracterised by a significant ratio of mortgage debt to GDP. This evolution had been determined, firstly, by the predominance of mortgage banks in the banking system. Also, demographic expansion, caused both by the natality growth and by the increasing number of immigrants, maintained the high dinamics of dwellings demand.

The high level of mortgage debt to GDP ratio suggests, however, a large level of loan-to-value ratio, which implies a large degree of borrower's indebtness and, consequently, longer terms for the repayment of debt. To a similar conclusion reached Tsatsaronis, Zhu (2004) too, which have identified two groups of countries in the euro area: one including the countries with weak, undeveloped and strong regulated mortgage markets, caracterised by a low ratio of mortgage debt to GDP, and a second one, of countries having a liberalised, deregulated mortgage market and a high level of the ratio mentioned above.

In our opinion, the main leading factors of the dinamics observed on the credit market, and particularly on the mortgage one, are: the performances concerning the economic growth, a close monitoring of inflation rate, as a premise for financial stability, the predominance of bank based financial systems, the increase of households income and the existence of favourable expectations concerning the maintainance of this trend, the boosting of the building activity on the basis of the excess in dwellings demand. Further, low interest rates and the development of mortgage market by introducing new, innovative products, contributed to a rise in customers interest and access on this market. Nevertheless, on the background of recent evolutions on the international financial market, of the increases in the key interest rate adopted by ECB and other central banks in member states and of a surplus in dwellings supply relative to the demand in some european states, one can foresaw a small shrink of mortgage market activity.

A great variety of institutions acts on the mortgage market, namely deposit taking institutions or mortgage banks and non-deposit taking institutions. Mortgage banks are credit institutions which finance the investments in real assets, having as financing source the issuance of mortgage bonds. Deposit taking institutions include commercial banks, savings banks and represent the main mortgage market institutions in most countries. The major advantage of this institutions results from the access to cheaper financial ressources and the deposit insurance. It is also the source of the main drawback, namely the duration differences between assets and liabilities. Thus, the ressources obtained from households are caracterised by short-term maturities, meanwhile the mortgages with fixed interest rate have long-term maturities, which implies a significant exposure to liquidity and interest rate risk. One solution consists in opening a credit line at international financial institutions or at a parent-institution, or the recourse to alternative financing sources (covered bonds, mortgage baked securities).

Another possible disadvantage of deposit taking institutions is their inability in achieving a high level of geographic diversification. This aspect is of particular importance especially in US, because most banks are of small dimension, with a limited territorial covering, therefore the most mortgage loans proceed from the own market share. On the other hand, banks reach at a significant degree of sectorial diversification, because loans are offered to a great variety of investors and customers.

The main distinction between deposit taking institutions and mortgage banks consists in their access to financing sources, which emphasizes the direct link of mortgage banks with capital market. Countries that frequently appeal to the financing of mortgage loans by issuing bonds are: Denmark, Sweden, Germany and France. Concerning the mortgage collateral holding, there are different practices. The final owner can be the mortgage institution, which issues bonds and uses the ressources obtained for buying the mortgage from the initial owner, or the mortgage bank will issue an instrument of debt and will use these funds for giving loans, the borrower keeping the mortgage collateral in his balance sheet.

Mortgage loans involve a high risk exposure, especially in countries with an unsound, weak mortgage market. Also, vulnerability to macroeconomic shocks is more accentuated on those markets caracterised by an intense banking activity but a small degree of banking products diversification and sophistication, mainly of the credits portfolio, which implies an inadequated risk dispersion on type of borrowers, activity areas and geographic regions.

2. Cross-country heterogeneity on mortgage market

In the euro area the mortgage market isn't homogeneous, integrated, but rather is caracterised by distinct features and products from one country to another, term the market's size, reflected by mortgage debt to GDP ratio, legal regulations, institutional caracteristics or tradition.

An important element of the dicrepancy between national mortgage markets is represented by the product's specific features. Consequently, European Mortgage Federation (2008) has grouped mortgage loans into three categories:

- mortgage loans granted for housing purposes, secured on real estate property;
- mortgage loans granted for consumption purposes, named also equity withdrawal;
- housing loans, which consist in loans secured by a personal guarantee or unsecured, granted for housing purposes.

Among the countries members of EU, Great Britain holds the most and diversified mortgage products (flexible rates, high Loan To Value ratio, buy-to-let, lifetime, subprime). Generally, countries with marketbased financial systems, for which the capital market rends long term financing, as an alternative to customers' deposits, and diminishes the mismatch between assets and liabilities maturity, are caracterised by an active role of mortgage market, and, implicitly, are exposed on a greater extend to the process of liberalisation and deregulation.

European Mortgage Federation (2006) revealed the predominance of variable interest rates in countries having as main financing source the customers' deposits, meanwhile the countries with an active mortgage bond market employ frequently a fixed interest rate for the mortgage loans. In table 2 we have synthetised the most relevant institutional caracteristics of mortgage markets, for a representative sample of EU countries, in order to catch their degree of development and flexibility.

TABLE 2: Institutional caracteristics of the mortgage market

Country	Representative interest rate	Type of mortgage loans provided	House prices	Organisations which compute and publish house prices indices
Belgium	fixed	Mortgage and housing loans	n/a	Private consultancy
Denmark	fixed	Mortgage, equity release and housing loans, secured on residential property	Transaction price	Mortgage association
Germany	fixed	Mortgage, equity release and housing loans, secured and not secured on residential property	Values quantified by experts	Central bank of Germany
Greece	variable	Mortgage, equity release and housing loans, secured and not secured on residential property	Transaction price	Central bank of Greece
Spain	variable	Mortgage and housing loans, equity release loans	Official valuations	Ministry of Housing
France	fixed	Mortgage, equity release and housing loans, secured and not secured on residential property	Transaction price	Chambre de Notaires de Paris, National Statistics Office
Romania	variable	Mortgage, equity release and housing loans, secured and not secured on residential property	Transaction price	No house index
Sweden	variable	Mortgage, equity release and housing loans, secured on residential property	n/a	Statistics institute
UK	variable	Mortgage, equity release and housing loans, secured on residential property	Transaction price	Department of communities and local government

**informations were collected from European Mortgage Federation*

Correlating the informations from tables 1 and 2, we can statuate that cross-country heterogeneity is persistent in all the considered indicators. From this point of view, the empirical studies focusing on mortgage market are difficult to realise and interpret, because heterogeneity means the absence of a unitary approach of the concept of mortgage loan, discrepancies in the process of evaluation of house prices, in computing the house price index, in the frequency of its publication (monthly in Great Britain and Holland, quarterly in Sweden, Ireland, France, Spain, Greece, Denmark, Belgium, semi-annually for the euro zone index and annually in Germany), the geographical representativity of the index (reflects house price changes nationally in Belgium, France, Holland, Ireland, Sweden and UK, or only for representative cities in Germany, Denmark, Greece, Spain). Further, some countries don't keep a distinct statistical evidence for mortgage loans, but only for the entire amount of consumers' loans, don't have official institutions to evaluate real assets or don't compute a house price index.

Several studies had analised the influence exerted by institutional caracteristics of national mortgage markets on house prices, on consumption and on the monetary policy. In this context, the empirical research revealed the existence of a correlation between house price and private consumption, which varies significantly between countries. A strong correlation was reported for US, UK, Canada and Holland, meanwhile France, Germany and Italy registered an insignificant statistical value.

According to Egert, Mihaljek (2007), the leading factors of the house price dinamics for countries in centre and eastern Europe are: income, real interest rate, the growth of mortgage debt, demographic factors. Debelle (2004), Terrones and Otrok (2004), Calza, Monacelli, Stracca (2006) tried to underline the leading factors of house prices growth and the potential implications on monetary policy and financial stability.

Calza, Monacelli, Stracca (2006) had identified the presence of a significant correlation between private consumption and house price in countries having a developed and diversified mortgage market. After conducting a VAR analysis on the effects of monetary policy shocks on consumption and house prices, the authors revealed the presence of heterogeneity both in the duration and severity of effects. Moreover, the shock' s amplitude is positively correlated with the development indicators specific to mortgage markets, such as: mortgage loan to GDP ratio, loan-to-value ratio, the existence of equity release products.

OECD (2004) ascertained that the monetary policy's impact on mortgage interest rates varies significantly from one country to another. One explication is given by institutional factors, namely: the preponderence of a certain interest rate regime, refinancing costs, the senzitivity of mortgage market to the changes in house demand.

3. Perspectives of the european mortgage market. The emergency of new mortgage products.

An important step towards the harmonization of the european mortgage market took place at the end of 2007, when European Commission adopted the White Paper on the integration of EU mortgage credit markets. The act statuates the necessity of eliminating the legal and administrative barriers which bound the supply of mortgage loans in the euro area, consecrating the term "supply driven integration". Further, a special attention is paid to the consumer's protection, to the standardization of precontractual clauses and to promoting new products. Analysing the regulatory changes in member states' legislation, we have synthetized several types of innovative mortgage products:

- Securitisation, a mortgage operation whose aim is to improve the structure and performance of mortgage market. This technique consists in gathering in a mortgage pool a great number of individual mortgages, and in issuing an instrument of debt. Each investor in mortgage titles receives a share of the net cash flow with which has contributed to the pool. Contrary to the success registered in US, securitisation is a negligible factor in most european countries.
- Rechargeable mortgage allows the reuse of a mortgage loan's collateral as a guarantee for a new loan. It is extremely important to include in the mortgage contract the recharging clause.
- Reverse (lifetime) mortgage aims to provide a complementary funding source to elder or retired people, which own a dwelling. The originator rends a mortgage loan to elder customers, lagged in time, according to their specific needs, taking over the property as a collateral. The particularity of this mortgage product consists in the fact that the borrower doesn't pay-back the loan. The contract ends after one year from the borrower's decease. There are two possibilities: borrower's heirs repay the loan and receive the property right on the dwelling, or the originator will execute the guarantee. This type of contract was introduced in UK, Spain, Hungary and is very popular in US.
- Life annuity is a product conceived to increase the income of retired people, which consists in the payment, by the originator, of a monthly annuity for the customer's lifelong, in exchange of the property right on customer's dwelling. The contract ends at the customer's decease, when the originator becomes the new owner of the dwelling. This mortgage product registered a particular success in Hungary, and was introduced too in Belgium, Spain, Italy, Ireland and UK.

- Equity withdrawal (equity release loan), as a particular type of the clasic mortgage loan, is more intensely emploied in US, UK, Australia, Denmark and Netherlands, countries caracterised by the amplitude and flexibility of the mortgage market. It represents an alternative to consumer credit, because it provides liquidities without a pre-established destination, the guarantee being represented by the borrower's house. Therefore, the bigger the increase in house prices, the bigger the value of collateral, and implicitly, the amount that can be obtained as a loan.

The non-uniform implementation of mortgage products in the euro area, followed by distinct contractual clauses (financing at a variable or fixed rate, the possibility of refinancing, the method for computing the annual effective global rate) accentuate the degree of the european mortgage market segmentation, and, implicitly, the response to a change in monetary policy.

Conclusions

Although the harmonization of the regulatory framework is a difficult, long lasting process, we believe that the european mortgage market integration will bring three main benefits. The authorities will benefit from a more efficient transmission of the monetary policy signals into the entire euro area, favouring the increase in the degree of resistance to financial shocks and the financial stability of the integrated markets. Households will have access to diversified mortgage products, to a more transparent legal framework, in which the consumers protection has a key role. Last, but not least, the lenders will take advantage in terms of management and portfolio diversification, risk dispersion, the possibility of achieving scale economies, and therefore, an improvement in the activity's efficiency.

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