An Alternative Approach to Pension Finance:
the Case of Reverse Mortgages

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Abstract -
The credit crisis has once more fuelled the debate about the sustainability of the present pension arrangements all across Europe. However, with pensions based on stock and bond return increasingly under pressure, an alternative option to finance non-housing consumption in retirement lays idle. In this paper, we present the potential of reverse mortgages as an alternative way to finance retirement. We show in a cross-country setting that the potential is relatively high in Eastern and Southern European countries. Finally, in the light of the present crisis we discuss the risks attached to such a scheme and discuss the necessary institutional changes.

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Introduction

Across the globe, the impact of the financial crisis is felt. Firstly, and most deeply, by the financial sector, but increasingly other sectors of the economy are drowning in its consequences; secondly, consumer confidence is in most countries turning to an all-time low, restricting consumption and thus adding an extra impetus toward recession. However, the financial crisis has also pushed to the forefront the viability of the pension system in many countries; both in countries in which the prevailing system is based on private pension plans (*e.g.* the US, and increasingly Germany) or where it is based on heavily government-regulated collective pension arrangements (*e.g.* the Netherlands). Both systems - as well as the intermediate schemes in other countries - were shocked by the fall in stock market prices and the low interest rates on the bond market. Together with the growing concerns by policymakers and scientist alike about the ageing of society and the predicted costs associated with it, this fuelled the debate about the viability of these arrangements (see, for instance Catte *et al.*, 2004; Greenspan and Kennedy, 2008).

Paradoxically as it may seem - since the bust in housing markets was the origin of the crisis - housing and the embedded equity has withstood the fierce wind of the recession relatively well. Indeed, the share of housing equity in households' portfolio has increased over the past 15 years. Moreover, when the future flow of income from the stock of savings - whether private or publicly hold - becomes less secure, more and more households may be inclined to look for alternative forms of investment income. For decades however, the use of housing equity seems to be low in the preference ranking of households across Europe (Chiuri and Jappeli, 2008). One reason for households' reluctance to use housing equity for consumption purposes is that houses are not only the main source of households' wealth: they are also a place to live. There is some evidence that where housing costs are high and following the death of a spouse, the mobility rates of older Europeans increase, marking a general, but not large-scale, tendency to move into rental housing or to remain in homeownership but move to a smaller dwelling (Tatsiramos, 2006). But, in general, older Europeans do not seem to have used their housing to supplement their retirement income.

That said, households do implicitly or explicitly use housing wealth in many ways (Hurst and Stafford, 2004; Elsinga *et al*, 2008). One common, yet implicit, strategy is by using the embedded housing equity to live in the house for free; housing equity offers opportunities for individuals to increase their non-monetary income. Note, however, that this strategy leaves the housing equity intact. Arguably, this is ideal neither for households affected by financial crisis nor for policymakers concerned with the viability

of present pension arrangements; what is needed is more cash flow in the system, created by turning wealth into constant income streams.

While European homeowners may access a fraction of their housing wealth by selling (*i.e.* by moving down the housing ladder)[1], most remain in their present house when they retire. One way for such households to access their housing wealth without selling their dwelling is to take a home equity mortgage. However, this would require regular payments of interest and the households in such positions are "cash poor but asset rich". In contrast, a reverse mortgage enables households to consume some of their housing equity without having to make additional mortgage payments. A reverse mortgage can be thought of as a particular type of home equity loan, in which the individual is borrowing money using the equity in the home as collateral. Instead of making regular monthly mortgage payments, the homeowner actually receives payments (Eschtruth *et al.*, 2006; Zedlewski *et al*, 2008)[2].

While in the US, reverse mortgage products were slowly[3], over the last decade, introduced into the market (Foote, 2007, Greenspan and Kennedy, 2008) - until a sudden stop when the financial crisis hit both consumers and financial institutions - the development/introduction of this instrument remain in its infancy across Europe[4].

The contribution of this paper is two-fold. Firstly, we estimate the potential size of the income from a reverse mortgage for the 'average' homeowner in a pan-European framework; secondly, we discuss the risks and necessary institutional and other preconditions to make such a scheme feasible.

The paper is structured as follows. In the next section, we elaborate on the nature of a reverse mortgage, providing a brief description of the evolution over time. Next, the results of estimation of the potential income flows from reverse mortgage across Europe will be presented and discussed. This paper will end with a more tentative discussion on the institutional and other preconditions for this alternative way to deal with the financial problems facing households in retirement.

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[1] However, if an individual sells off their house, s/he cannot simply pocket the full amount assome part of the proceeds will be needed either to rent or to buy another place to live.

[2] The exact juridical arrangements may differ by country (civil code); however, the basic is that the financial institution receives a prioritized position from the proceeds of the sale of the house (or alternatively from the inheritance). As such the house is really used as a collateral.

[3] One common explanation for the apparent absent demand for long time were the large up-front fees ask for by lenders (Davidoff and Welke, 2004)

[4] Though the US is the founding nation of this type of housing finance, in diverse countries, like Australia (Ong, 2008) and India (Bhattacharjee, 2007), reverse mortgages were introduced as well.

The anatomy of the reverse mortgage

Although the basic idea of this 'product' is already 15 years old, it has not attracted a great deal of attention in the academic world. However, since the increase in popularity of a reverse mortgage - albeit in many different shapes - by consumers, more attention is being paid towards its potential and risks.

In this section, we will compute the *monthly* cash flows that may be derived from reverse mortgages and show the sensitivity of these cash flows in relation to the different design features of this mortgage type. We also focus on the risk attached to this mortgage, especially inflation and house price risks.

Finally, note that in the literature (and certainly in the market) different definitions for reverse mortgages are being used. The buzzword here is *home equity mortgage* (and home equity withdrawal products). Under this heading a diverse range of products/concepts are referred to: (1) a 'lump sum'[5]; (2) a credit line; (3) monthly payments for a fixed period of time[6]; or (4) a life-annuity[7]. The latter two options are normally referred to as reverse mortgages; here in this paper we employ the fixed-period alternative (3).

The basic model

To model the potential amount from a reverse mortgage, we have to calculate the monthly cash flow MCF a household may borrow, based on his/her initial housing equity. The basic model is:

$$MCF = \left[\frac{r}{(1+r)^m - 1} \right] HE_0 \qquad (1)$$

where r equals the (expected) monthly? interest rate, which is assumed to be constant over the life of the product. The duration of the reverse mortgage[8] is given by m, while

[5] i.e. taking out a new mortgage based on the available housing equity (borrowers are repaying the mortgage, during their life time).

[6] Normally, this period is shorter than the remaining life expectancy.

[7] See for instance Dushi and Webb (2004), Visco (2006), and Yang (2008).

[8] The duration is equal to the life expectancy of a household at the time zero (*i.e.* retirement age). Here we focus on a fixed period reverse mortgage; research by, for instance Wei *et al. (2007)* showed that a life-time income plan might be better for many households (Blake *et al.*, 2003).

HE_0 refers to the available housing equity at time zero, when the product is taken out. Note the close similarity to a normal annuity mortgage[9].

For our analysis, we have to extend this basic model by explicitly incorporating house price appreciation, *hp*, and life expectancy.

$$MCF = \left[\frac{r}{(1+r)^{l-a} - 1} \right] \left(HP_0 (1+hp)^{l-a} - M_0 \right) ltv \qquad (2)$$

Here $\left(HP_0 (1+hp)^{l-a} - M_0 \right)$ refers to the expected housing equity at the end of the agreed reverse mortgage period, with HP_0 and M_0 denoting the initial house price and the size of the mortgage respectively at time 0 the length of this period is based on the life expectancy l of the borrower at the age of a (*i.e.* retirement age). The final term, ltv, refers to the approved maximum loan-to-value ratio at time $l+a$, *i.e.* at the end of the agreed duration period of the reverse mortgage. The loan-to-value ratio at that moment is a function of both the amount of housing equity at time a, including the expected house price appreciation. When the approved loan-to-value ratio is high, the money cash flow, which can be extracted from the house, is, *ceteris paribus*, high as well.

In the remainder of this subsection, we will present some examples showing the cash flow that could be derived from housing equity under different conditions. The base-line scenario is computed on the assumptions presented in table 1.

Under these assumptions, one can calculate the *monthly* cash flow that could be derived from the housing equity. A household heavily risk averse (or alternatively, a lender with second thoughts) might approve on a maximum loan to value of 25 percent.

[9] In this analysis, we refrain from alternative amortization schemes, for example savings mortgage; though these alternatives might be more beneficiary in some countries, given the fiscal policy towards homeownership.

Table 1 Basic assumptions

Variable	*Value*
Expected house price at age 65	€200,000
Outstanding mortgage debt	€0
Net household income	€20,000
Life expectancy	20 years
Expected house price appreciation	4.0%
Interest rate	5.0%
Inflation	2.0%

Note: Annualized numbers

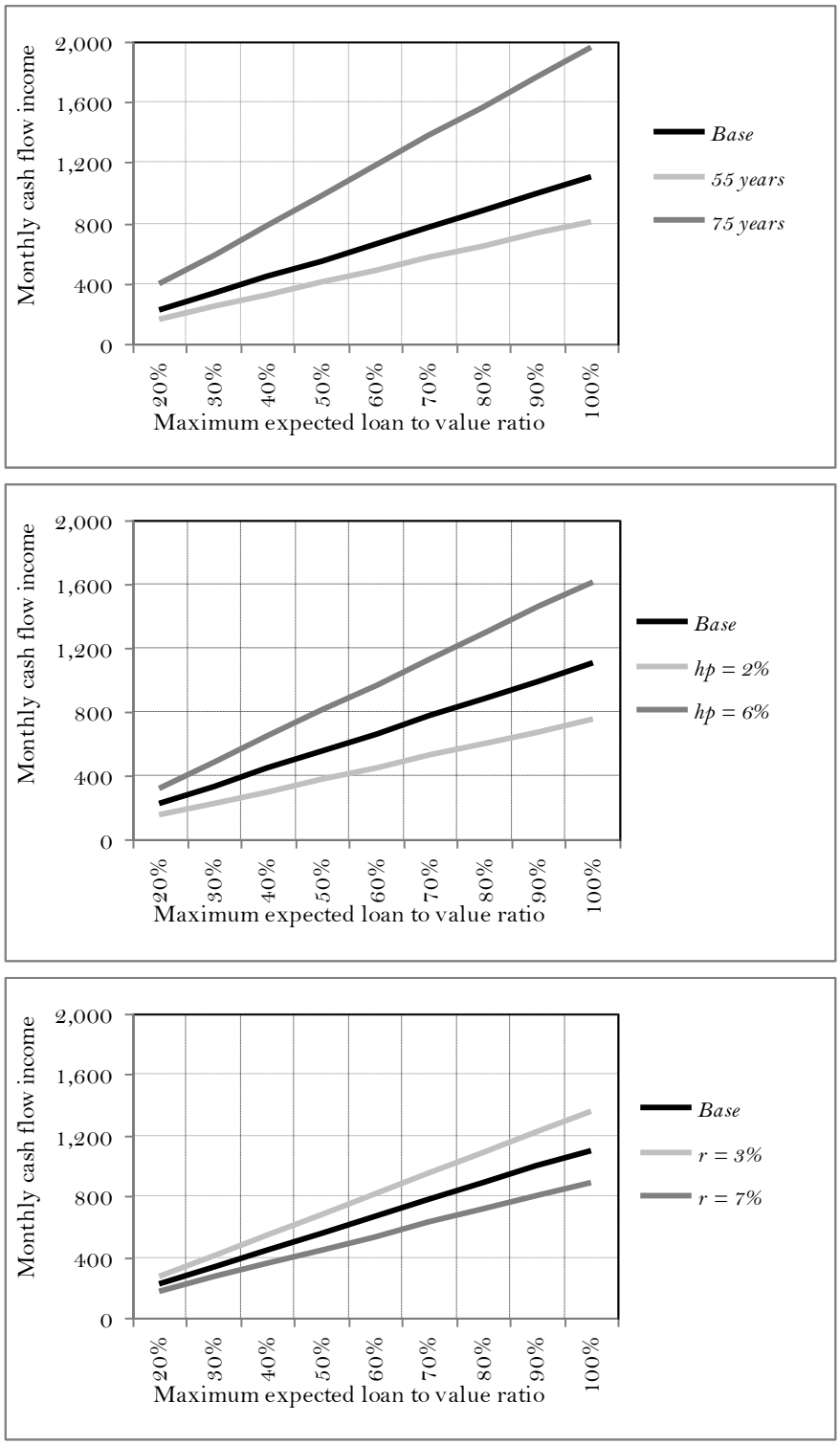
That would imply that the household over a period of 20 years can 'borrow' €74,297, giving a *monthly* cash flow of just over €187. However, if both are less risk averse and the approved maximum loan-to-value ratio is set at 50 percent (75 percent), the *monthly* cash flow will rise to €374 (€561).

It follows from equation (2) that the *monthly* cash flow for individual households depends, obviously, on its initial housing equity and the approved maximum loan-to-value ratio. Equally important are:

- The approved duration period: as for duration, loans to older borrowers are expected to remain outstanding and accrue interest for a shorter period before repayment. With less interest to pay, the borrower can receive a higher *monthly* cash flow.
- The expected house price appreciation: house prices affect the maximum loan amount in rather straightforward way - the higher the expected house price appreciation, the larger the *monthly* cash flow
- Interest rates: since interest are added to the value of the outstanding (reverse) mortgage, the higher the interest rates, the more rapidly the outstanding mortgage will equal the approved maximum loan to value. Hence high interest will lead to low *monthly* cash flow

In Figure 1, the results of a sensitivity analysis are presented, giving more insights in the consequences (impact) of duration, house price and interest.

Figure 1 The sensitivity of the outcome with respect to interest rates, life-expectancy and expected house price appreciation



Source: Authors' calculations

The role of inflation

One problem with the preceding analysis is that it ignores the role of inflation which, as always, will gradually erode the purchasing power of monthly cash flows. Therefore, a mortgage cash flow of €561 (see earlier example) might be reduced in real terms to €385 after just 20 years. Hence, households might be more attracted towards a reverse mortgage that keeps monthly cash flow constant in real terms. A refinement of equation 2 enables us to do just that:

$$MCF = \left[\frac{r^*}{(1+r^*)^{l-a}-1}\right]\left(HP_0(1+hp)^{l-a} - M_0\right)ltv$$
$$r^* = \frac{(1+r)}{(1-i)} - 1 \qquad (3)$$

here i represent the index factor; in the subsequent analysis i is equal to expected long-term inflation (alternatively, one can replace the inflation-index for income changes).

Of course, constant real cash flow, over a sustained period, comes with a price: lower initial cash flow. The effect of inflation on the real value of future cash flow and the cash flow from an inflation index reverse mortgage are shown in table 2.

Table 2 The eroding role of inflation and the costs of repair

Time	*Without inflation-index*			*Inflation indexed*		
	25%	50%	75%	25%	50%	75%
1	16.6%	33.1%	49.7%	14.4%	28.9%	43.3%
5	13.9%	27.7%	41.6%	--	--	--
10	11.4%	22.7%	34.1%	--	--	--
15	9.3%	18.7%	28.0%	--	--	--
20	7.7%	15.3%	23.0%	14.4%	28.9%	43.3%
Cash flow	€276.11	€552.21	€828.32	€240.69	€481.38	€722.07

Source: Authors calculations (based on equations 2 and 3; see assumptions in table 1)

Comparing columns 4 and 7, we notice that an inflation-indexed reverse mortgage leads to lower *monthly* cash flow with 12.8 percent (€828 versus €722). On the other hand, table 2 also clearly shows the eroding effect of inflation: without a form of inflation-correction, the final cash flow will half near the end of the approved period.

And what about the house price risks

Both the borrower and the lender face uncertainties. Uncertainties about future house price development, interest rates and uncertainty about life expectancy. Interest rate risk can effectively be hedged by lenders by borrowing the necessary funds on the capital market with an appropriate fixed interest rate period (or alternatively securitize the reverse mortgage, assuming that this is still allowed). Uncertainty about life expectancy, leaving the borrower with a sudden drop in income, after the approved period can be solved easily by implementing life-income reverse mortgages (reverse mortgages coupled with a life insurance).

House price risks, however, cannot - given the systematic nature of house price development - be solved as easily. One, rather crude, way of dealing with this uncertainty is by approving (demanding) relatively low maximum loan-to-value ratios (say 50 percent or lower). However, this restricts the attractiveness of the product to a potential borrower, since a large part of the housing equity remains redundant (*i.e.* the *monthly* cash flow is sub optimal).

To estimate the extent of house price risks, and to optimize the maximum loan-to-value ratio, we have applied some basic stochastic modelling. Possible movements in house prices are modelled by applying a simple random walk model, with HP_0 equalling €200,000 (see table 1):

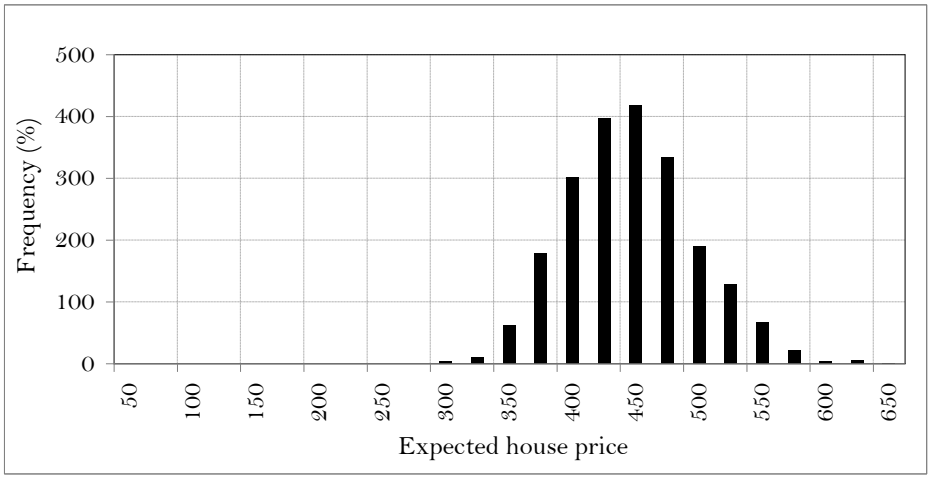
$$\begin{aligned} dhp_t &= \mu dt + \sigma dX \\ t &= 0..\lfloor -a \rceil \end{aligned} \qquad (4)$$

where hp stands for the annual change in house prices, the factor μdt is the so-called drift rate while σdX is a normal random variable. In the short term, house price movements are mainly determined by the volatility factor, in the longer term the drift rate gains in importance and the cumulative drift rate tends towards $\sum \mu dt$.

With the model we estimate[10] a distribution of future house price (here at time l), as shown in Figure 2.

[10] Generally, a simulation approach consists of the following steps: first, it simulates scenarios of the underlying institutional variables (here: house prices changes) over the relevant time horizon, and second, it computes the house price levels at each consecutive year. In the end, house prices are then no longer characterised by one - *i.e.* the most likely - outcome, but by a probability distribution of all possible outcomes.

Figure 2 Estimated house price distribution



	Maximum expected loan to value ratio				
	60%	70%	80%	90%	100%
House price (€)	262,935	306,757	350,580	394,402	438,225
Probability					
$HP < M$	0.0%	0.2%	3.7%	22.7%	56.2%

Source: Authors' calculations
Note: This risks analysis is based on the assumption of $\mu = 4\%$ and $\sigma = 6\%$

Of course, the estimated house price risk - like the cash flow (see Figure 1) - depends heavily on the assumption of house price appreciation (and the volatility measurement). To give an example, if we assume $\mu = 2\%$ (instead of 4 percent), leads to a significantly increase in the risks: ranging from 0.3 percent (by an expected loan to value ratio of 60 percent) to 18.5 percent (at 80 percent) and 68.9 percent (at 100 percent). If, as we have witnessed in Germany over the last decade, house price appreciation is close to zero, the house price risks will increase even further. Note that households and financial institutions will 'combat' these risks by agreeing on a relatively low maximum loan to value ratio.

Next, we are able to estimate the probability that, given the approved maximum loan-to value-ratio and the assumptions about future house price inflation, future house prices *levels* are below the outstanding mortgage debt (*i.e.* the cumulative monthly cash flow plus the accrued interest).

The results of our analysis show that with an agreed maximum loan-to-value ratio of 60 percent, the probability that outstanding debt is higher than the actual house prices is zero. Even when the maximum loan-to-value ratio is raised to 70 percent, the probability is a mere 0.2%. Only when the maximum loan-to-value ratios exceed 80 percent do the risks rise significantly.

The potential of reverse mortgages across Europe

With the model described in the previous section, we can estimate the potential of reverse mortgages for households across Europe. The calculations are presented as the mortgage cash flow retired households may derive from their housing wealth in relation to their current net household monetary income (from any sources). Here we estimate this potential in a cross-country framework[11]; thus we are able to link this alternative way of pension finance to the current income individuals are receiving from their savings and from state-funded pensions.

The assumptions used in our analysis are summarised in table 3. House prices are based on the value of the house of people aged 60 to 65 years. For the vast majority of countries, the remaining mortgage debt is close to zero. Only in the Netherlands and Denmark is the outstanding debt still substantial; the mortgage tax relief systems in these countries certainly contribute to this. Though all countries have formal retirement age around 62 years, the majority of individuals will retire some years earlier (in Belgium, France and Italy the average is actually below 60 years).

House price increases in all countries have been high, *i.e.* more than 5 percent annually, with the exception of Germany. However, these averages are based on the period 1998 - 2008 and in the light of recent turmoil on the housing market this percentage seems relatively high, we have reduced the mean of this series by 25 percent (in fact the numbers indicated in table 3 are the already-adjusted means).

Across the EU, life expectancy follows GDP and net household incomes; in the poorer countries, life expectancy at retirement is between 12 and 15 years while in richer (west) European countries, life expectancy in around 20 years. Finally, mortgage interest rates are still quite diverse, not withstanding the introduction of the Euro in many countries in our sample. This diversity mirrors the state of development of the national mortgage markets; here the riskiness of mortgage borrowing in many Eastern European countries is leading to high interest rates (as does the institutional context in Denmark).

[11] Belgian, Denmark, France, Germany, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Spain, Sweden and the UK.

Table 3 Assumptions used in the cross-country analysis (selected countries, ~2006)

	Blg	*Dk*	*Fr*	*Ger*	*Hun*	*Ire*	*It*	*Nl*	*Pol*	*Pr*	*Sp*	*Sw*	*UK*
HP_0 (€)	290,510	287,334	258,252	186,970	**n.a**.	215,410	140,627	249,018	**n.a**	144,380	174,115	208,582	159,690
M_0 (€)	3,130	2,717	6,601	10,593	**n.a**	**n.a**	1,566	41,965	**n.a**	**n.a**	4,159	26,973	**n.a**
a (retirement age)	58	61½	58	60½	60½	64½	59½	61	61	62	60½	62	62
hp_t *	5.2%	5.8%	6.0%	0.0%	**n.a.**	7.4%	5.4%	5.9%	**n.a.**	**n.a.**	7.5%	6.2%	6.7%
$l - a$ *(years)*	20.9	16.5	22.6	18.5	12.4	13.4	20.4	18.1	16.2	15.9	19.3	18.6	16.7
r_t **	3.9%	5.9%	3.6%	4.0%	**n.a.**	5.1%	5.2%	4.0%	5.9%	5.7%	5.1%	4.8%	5.8%
Income (€) ***	33,139	41,622	32,865	31,288	8,103	46,156	29,755	38,133	7,186	18,062	23,898	36,385	40,425

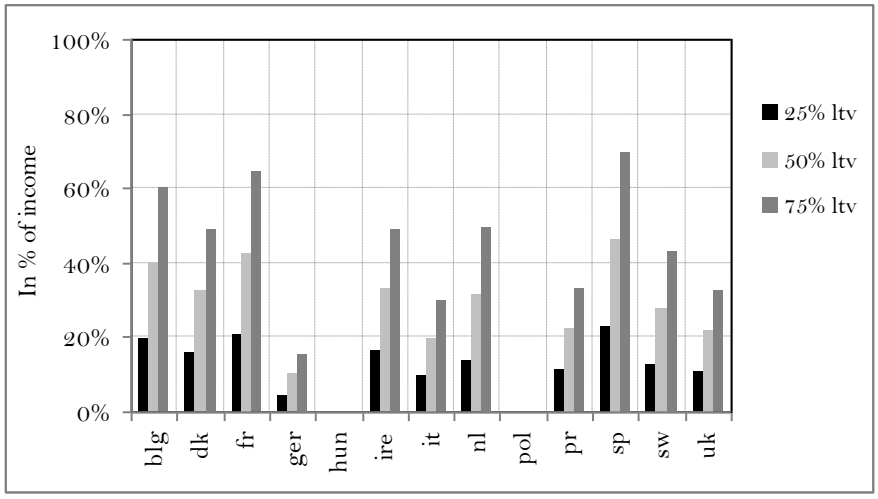
Source: SHARE, European Mortgage Federation, Eurostat, EU-SILC (wave 2006)
Note: Average over the period 1998 - 2008 times 0.75; ** Variable interest rates; *** Annual net household income (age-cohort: 60-65 years)

Results

Under the assumptions set out in table 3 and by applying equation 2 (non inflationary-indexed) we have calculated the monthly cash flows possible when taking out a reverse mortgage. We have calculated the results by varying the approved maximum loan-to-value (25, 50 and 75 percent).

The results are presented in Figure 3; to show the real potential of reverse mortgage for retired people, we related the monthly cash flow to the net household income of retirees.

Figure 3 The potential of reverse mortgages: percentage increase in net household income of retirees (selected countries, ~2006)



Source: Authors' calculations

Note - The data available for Eastern European countries shows a lot of deficits, both in terms of available housing equity, expected house prices appreciation and net income. We are still working on it; nevertheless it seems that households in Eastern Europe may be considered as "income poor, asset rich" (Hegedus and Teller, 2009), one consequences of well documented transition of the former rental dwelling sector into homeownership for free, or at below market prices.

The results of our analysis show that even for a risk-averse borrower or lender, the potential increase of net household income would exceed 10 percent[12], and for Belgian, French and Spanish homeowners it came close to 20 percent. And, of course, when the maximum loan to value ratio increases so does the potential, thus doubling the maximum loan to value ratio lead to a doubling of the potential in terms of net income.

[12] With the noticeable exception of Germany, which is caused by low or even negative expected house price appreciation.

When we link the results of our analysis with the prevailing institutional setting in the different countries, we may conclude that in countries with relatively ungenerous pension systems (Eastern and Southern European countries) the potential relative to their current income is large. This may be related to the traditional strategy of households in these countries of using homeownership (without any type of mortgages) as a basis to live cost free (besides the ongoing local taxes); and, secondly, the pension arrangements in these countries which provide only low (income streams from the government and private savings is relatively low). On the other hand, countries in Scandinavia and West Europe offer (still) better pension arrangements for their inhabitant, leading to lower demand for reverse mortgages. However, things can change rapidly since households in these richer countries are becoming more preoccupied with current insecurity of their pension savings. With more developed mortgage markets in these countries, reverse mortgage may be more easily introduced here than in other parts of Europe (though the need maybe higher in Eastern and Southern Europe).

Discussion: the route forward

Given the potential impact on household incomes, why are reverse mortgages not more widely available in more countries and why, even where they are available, are they not taken up in larger numbers? In some ways, more important than the past, are questions about what might affect their availability and usage in the future. While we are not in a position to provide complete answers, it is possible to suggest some of the considerations that may constitute important influences on the behaviour of the main actors: governments and financial institutions and households. Basically, if the reverse mortgage is to become widespread it will require: governments, if not to encourage their usage, at least to allow their usage; financial institutions to respond by offering reverse mortgage products; and households to be willing to take them.

Governments

There is evidence that European governments are also taking an increasing interest, particularly as contributing to a solution to easing the fiscal pressures inherent in existing pension systems under circumstances of population ageing and the financial problems caused by supporting the banks.

> *This same* [expected] *ageing will result in an increase in pension and healthcare spending by 2050, varying between 4 and 8 % of GDP. Already from 2020, pro-*

> *jected spending on pension and healthcare will increase by some 2 % of GDP in many Member States and in 2030, the increase will amount to 4-5 % of GDP.* (European Commission, 2004:13)

One response by many member state governments has been to re-balance responsibility away from the State towards the individual, emphasising the positive role of diversification between public and private schemes. In this, the European policy developments are consistent with The World Bank's proposal in its "Averting the Old-Age Crisis" which was seminal in its promotion of an alternative to the widely prevalent pay-as-you-go, public pension systems in the form of its three-pillar approach, with the first pillar based on government funding, a second on employment-based funding and a third on private saving (World Bank, 1994).

The acceptance of both the need to do something and the three-pillar principle, however, has not, in itself, been sufficient. In the field of pensions, most member states are facing a severe version of the transition problem: as bad as the present arrangements might be, they do not appear nearly as bad as the costs of change. In the case of Belgium, for example, the strong orientation toward the traditional, generous state pension and the underdeveloped occupational pillar cannot be easily shifted. Part of the problem of change is precisely that, because the occupational pillar is underdeveloped, it is financed with low levels of contributions and these can be built up only with transfers of a scale that imposes a large political risk (Van den Oever 2006). Moreover, even in countries, such as the UK and the Netherlands, where the occupational pillar has been built up with considerable assets over the last half century, the overall problem of funding state pensions and meeting health and care costs still continue to engage policy makers. In France, the attempts by successive governments over many years to draw back some of the pension privileges of groups within the public sector, which even by European standards are generous, are only just beginning to show signs of success.

The present credit crisis - especially the performance of the stock market - has effectively eroded the 'second pillar'. Many pension funds have lost assets and cannot be as generous as they once were. From the perspective of households and policymakers this couldn't happed at a worse time, since Society was not even able to challenge the pension crisis stemming from the Ageing of the population in financial more beneficiary times. Therefore, the underperformance of pensions system leads to a wide-ranging distrust of the general public; while the proposed measurements, *i.e.* reducing payments

systems, demanding more premiums and/or increasing retirement age, will not help either. This might well lead to structural shift away from employment-based funding towards more reliance on private savings (third pillar).

In the light of what might often seem intractable difficulties, to some the politically-easier route has been indicated by the amount of the capital tied up in homeownership. Thus, the socialist party in Flanders has quite explicitly argued that further growth of homeownership should be encouraged because it provides the best way to live and to save for a pension (Sp.a, 2007). Indeed, already some years ago - in 1999 - the home owning solution was flagged up in a communiqué issued at the end of a meeting of the housing ministers of all the then EU member states. Their position was that older homeowners should make use of their housing assets to pay for their old age:

> *In most EU Member States, older people live in owner-occupied housing. This means that many older people possess capital in the ownership of their homes. The Ministers were aware of the need to explore new ways of helping older people to safely utilize their capital, for example, to obtain the housing and support services they need, to repair or adapt their existing homes or to release income to cover the costs of support services or to purchase new accommodation with support services available.* (Finland 1999; para 9)

This is consistent, in turn, with some more general developments in the systems of social protection in some member states through the promotion of the idea, imported from the USA, of asset-based welfare (Sherraden, 1991). The point here is that homeownership can be seen as a means whereby individuals may build up a sort of personal provident fund, which can be called upon when needed. Thus, one response to the perceived, European-wide problems of ageing populations and the sustainability of state pension schemes is to encourage more people to become homeowners and to see their homes as a form of personal pension provision. In that way, forced, personal saving in the housing market may be viewed as substituting for tax and public spending.

Financial Institutions

Critical to consideration of the possibility of households realising housing equity is the extent to which national financial systems facilitate equity withdrawal. The evidence from a limited range of countries is that housing transactions, typically at the point of selling one house and buying another, have until now been the dominant channel for

equity withdrawal so that, broadly, the total amount of withdrawal rises and falls with turnover in the housing market (Committee on the Global Financial System 2006). Increasingly, however, financial institutions in each member state have been expanding the number and range of financial products available to households, some of which are aimed to allow equity release without the necessity of a housing transaction (European Mortgage Federation 2006).

It might reasonably be expected that financial institutions in Europe were eager to promote homeownership as a source of wealth that could be drawn upon when households needed to do so. In that way they have the possibility of earning interest, not only during the period of purchasing the home with the help of a mortgage, but also during any periods that other financial products were being used in order to enable the household to access their equity.
Reverse mortgages and other equity release products have not been uniformly available across European countries (ECB, 2003) and although financial institutions are expanding the number and range of financial products, (European Mortgage Federation, 2006), at the present they are not an option for all Europeans.

In the light of the current credit crisis, financial institutions might resort to selling more conventional products, which are more easily understood and might escape more stringent regulations. This raises a dilemma, as households are in greater need of reverse mortgages, due to the loss of savings for retirement on the stock market, at the time that financial intermediaries are at their most vulnerable.

Households
Available empirical evidence, as indicated in the Introduction to this paper, shows that older European households have not, in large numbers, used equity release products. If one reason for this is the desire to hold on to the home, financially, in order to leave a bequest, the question arises as to whether this desire will continue into the future.

In this connection, Australian research, which has not so far been widely replicated across European countries, indicates an interesting cross cohort shift in attitudes (SEQUAL 2008). This discerns different attitudes as between those who were born during or before the Second World War - "Builders" - and those born in the two decades immediately after - "Baby Boomers". Builders "*have been frugal with their retirement savings, probably as a result of their asset rich, cash poor situation .... they also tend to have a firm belief that they should leave their family property as an inheritance for their children*" (SEQUAL,

2008: 23). Indeed, there seemed to be a correlation such that the greater the age of the respondent the more likely they were to consider that the home should be left as a bequest to children. In contrast, Baby Boomers "*have a very different outlook to previous generations. Whereas previous generations were frugal and conservative and expectant of a quiet retirement, Baby Boomers are goal driven and aspirational. They expect their retirement to provide a quality of life matching that which they enjoyed during their working lives*" (SEQUAL, 2008: 21).

The extent to which the generational shift in Australia is also apparent in European countries is not known. Yet, at least in some countries in recent years the practice of SKIING (Spending the Kids' Inheritance) has gained some popular recognition, arguably reflecting a new reality in which the bequest motive has become less dominant. Moreover, it is possible that, as more people reach old age without having had children, questions of the home as a bequest and the significance of intergenerational transfers and solidarity take on a different hue: some might want to leave a bequest to do good things for fellow man, or even the stray dogs of the neighbourhood, but evidence from the UK indicates that increasing numbers of people want to spend it on themselves (Rowlingson and McKay, 2007). In that way, SKIING simply becomes SING (Spending). Important research questions concern the extent to which this is a European-wide development; more generally how do Europeans see the links between housing and other sources of wealth, to what extent do they trade off one for others, and how in practice do they seek to use different sources of wealth in old age?

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