Risks in homeownership
a perspective on The Netherlands

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Abstract

Purpose
Risk in home ownership from mortgage providers' perspectives has received tremendous attention than individual home owner's perspectives in existing literature following the financial crisis in 2007/2008 within the euro zone. This paper explored the risks factors in homeowners from the individual household's perspectives within the owner-occupied housing sector in Dutch housing market.

Design/methodology/approach
The paper adopted a broader review of extent literature on the different concepts and views on risk in homeownership. These concepts are unified into a framework that enhances our understanding of the perceived sophisticated risk in owner-occupier with focus on the Netherlands.

Findings
From the perspective of the homeowner, two main types of risks were identified: default payment and property price risk. The paper has unearthed a quantum number of factors which underline the above risks. These factors relate to the initial amount of mortgage loan taken out, the future housing expenses and the income development of the owner-occupier. Family disintegration is identified as one of the main causes of mortgage default and that of property price risk are mainly influenced by income levels, interest rates and conditions in the social and private rental sectors.

Research limitations/implications
Findings of the paper are based on review of the extant literature in the context of the Dutch housing market. Possible rigorous situational analysis using other tools are recommended for further research

Originality/value
This paper contributes to the much needed body of knowledge in the owner-occupied sector and provides a better understanding of risk in home ownership from the individual perspectives.

Keywords: Dutch housing market, Home ownership, Mortgage providers, Owner-occupation, Risk

1.0 Introduction

Subsequent to the subprime mortgage crisis of the United States, risk in the owner-occupied sector has received extensive consideration in housing literature (*cf.* Adair *et. al.,* 2009; Aalbers, 2010; Kramer, 2010; Bardhan *et. al.,* 2012; Cano *et. al.,* 2013; Aalbers, 2015;).While these prior efforts shed light on the spectrum of risks in home ownership, the arguments for homeownership has often been skewed mostly towards the perspectives of the financial institution supplying credits for the home financing. The debates and arguments on the pitfalls from the owners' position are quite limited in extant literature. It is therefore clear nonetheless that the risks for the credit providers could be minimised if steps are taken to understand and manage the exposures at the level of the individual home buyers. Borrowing on "predatory terms" for instance, could be avoided if households are informed on the nature of the associated risks they are likely to encounter.

It is centrally advocated in this paper therefore that attention be given to the risks in the owner-occupier sector within the level and perspectives of the households. The paper provides an overview of risks in home ownership from the viewpoint of the homeowner, especially, those financing their purchase with mortgage loans. Two inherent risks factors are identified: repayment and property price risks. Whiles payment risk pertains to mortgage repayment property price risk consists of loss of investment capital as a result of decline in house prices within the period of concern. Also, mortgage repayment default depends on three factors: the initial debt level, income and cost development after the loan agreement has been contracted. For property price risk, the factors are quite varied and have to do with the multiplicity features which influence the development of house prices.

The approach to this paper is mainly to offer a careful discussion of the various risk types, their effects and causalities by unifying the different concepts as dispersed in both academic and non-academic literature into a concise framework. Also, the paper clarified the nature of risk in the owner-occupied sector from the individual household's perspectives that constitute the larger majority and often are non-professionals. It gives brief background to homeownership in the Netherlands, discusses general views on default and property price risk as well as the factors heightening the probability of their occurrence. The consequence of default and property price decline are also discussed in the light of the Dutch and concludes with suggestions on reducing the risks in homeownership and how to create awareness amongst households in the Netherlands.

2.0 Growth of Homeownership in the Netherlands

Growth of homeownership in the Netherlands has been steady over the decades. Between 1971 and 2012, homeownership rate increased from 35.10% to about 60.00% as shown in figure 1 which was next to the demographic and economic developments. The Dutch government's stimulation of the owner-occupied sector through income tax deductions and later by the National Mortgage Guarantee (NMG) scheme played an important role in the above achievement. Other factors include the investment and social benefit which home owners accrued in the Netherlands. Over the years, the Dutch's perception of homeownership had shifted from just having roof over one's head to having some independence from landlords and additionally offering a way to foster deeper connection to their relations and family life (Toussaint and Elsinga, 2007). Somewhat, there appears to be the idea to "immortalise" marital relationships with joint homeownership that usually drive most people to buy private homes at the time when they are starting up their marital relationships (Horsewood and Neuteboom, 2006; Toussaint and Elsinga, 2007).To others, homeownership gives a wider choice and freedom to adapt it to a more fulfilling and a self-suiting style (Elsinga, 1998; Toussaint and Elsinga, 2007). Such liberty to adjust the external features of the dwelling is generally not available in the rental sector.

From an investment perspective, the Dutch homeowner finds homeownership as an instrument that can be used to build equity and/or earn additional income to augment the regular pay cheque or pension (Boelhouwer, 2002; Haffner, 2008; Toussaint and Elsinga, 2010; Toussaint, 2013).Such practice evolved around buying an extra home to rent out in the private rental market and later disposed it entirely when enough equity has been built. Minority also rent out a room or two in their own apartment. The fiscal treatment where mortgage interest payments are deductible from income tax in addition offers extra savings opportunity on mortgage outlays (Boelhouwer, 2002; Elsinga, 1998). Many have argued that,

"*when you rent, your money just flows away, but when you buy, it comes back to you and you can build up capital"* (Toussaint and Elsinga, 2007:p182). The reference here relates to the tax-deductibility which is discussed in the next section.

<Insert Figure 1>

2.1 National mortgage guarantee

From the mid-1980s, the ambition of the Dutch government shifted towards homeownership in the quest to shed part of the responsibility for providing housing for the population. Various policies were engineered to fulfil this new vision of the government. One such regulation is the rebranding and reconstruction of the municipal guarantees into what is now known as the Dutch National Mortgage Guarantee (NHG in the Netherlands). The NHG was founded in 1993 and currently administered by the voluntary public foundation called Homeownership Guarantee Fund (WEW). It has the full backing of the municipalities and the central government. Primarily, the Fund thrives on a 1.0% (previously 0.85%) premium on mortgage amount receivable from the borrowers (CPB, 2013; Van Leeuwen and Bokeloh, 2012). Its aim is to stimulate homeownership by lowering the mortgage threshold for young and lower income groups. The guarantee also serves as a safety net for those entering into foreclosure for reasons such as divorce, job redundancy, ill health and other unforeseeable events. If a home owner is able to demonstrate faithfulness, s/he is relieved from the duty to pay back to the guarantee fund.

Despite the above, Dutch mortgage banks are usually hesitant in advancing credits to individuals with weak financial circumstances. However, when a borrower signed up to the NHG, the credit institutions could grant loans with Loan-to-value (LTV) ratios exceeding 100%.Though the maximum LTV is expected to be reduced from 100% by 2018 and subsequently to about 85% later (*cf.* DNB, 2015), the current higher LTV ratio facilitated by the NHG generally enhances the ownership rate particularly among the lower income and younger age groups. These social classes ordinarily would not qualify for mortgage loans. In addition, the banks grant discount on the mortgage interest rate up to about 0.6% for those who signed unto the NHG. This also offers most Dutch people an extra financial relief which motivates them to consider homeownership (Fitzsimons, 2013).

Another way the scheme encourages homeownership is the impetus it gives financial institutions to readily advance credit. Because of the backing of the central government and the municipalities, there is assurance that any credits in default will eventually be recovered. This means that the (credit) risks of the banks reduce to almost zero and they would not need to hold any additional regulatory or solvency capital. The banks, consequently, could issue as many loans as possible so that inaccessibility to mortgage loans is not much of a concern if the borrower opts to sign unto the scheme (CPB, 2013; Fitzsimons, 2013). However, in the opinion of (Elsinga et. al., 2014) from 2013 onward when the maximum LTV ratio was reduced, it became extremely difficult for the younger and lower income groups in the Netherlands to enter into the owner-occupied sector.**2.2 Tax deductibility**

Starting from the 19th century, Dutch homeowners have had the advantage to fully deduct mortgage interest rates from income tax (Haffner, 2002). This began with the private landlords but was later extended to individuals in support of homeownership (Rouwendal, 2007). In its current form, the income tax deductions gives homeowners the opportunity to recover part of their mortgage expenses equal to the product of the marginal tax rate and the

gross interest on the mortgage loan. The marginal tax rate normally ranges from 42 to 52%, depending on the income level (Rouwendal, 2007; van Leeuwen and Bokeloh, 2012). The generosity of the tax regime has a number of influences on the Dutch housing market in many ways. First, lower income tax deductions than the cost of mortgage provides a huge stimulation for homeownership in the Netherlands. It is however debated that the tax rebate partly contributes to house price increases (*cf.* Boelhouwer *et. al.,* 2004; Toussaint and Elsinga, 2007). Secondly, the tax regime has made strong influence on mortgage servicing in the Netherlands. There were several mortgage products which were engineered purposely to optimise the benefits from the tax-deductibility (Boelhouwer, 2002; Rouwendal, 2007). These products are therefore associated with the so-called interest-only and endowment mortgages in the Dutch housing market. Thirdly, the tax regulations regime of the moment has an impact on the borrowing behaviour of Dutch homeowners. For instance, the well-to-do in the Dutch society who could purchase a dwelling out-rightly would rather acquire a mortgage. This is due to the construction of the tax relief system which enables the rich to usually get the largest savings (Van Leeuwen and Bokeloh, 2012).

Following the reforms in 2013 however, the fiscal tax deductibility has been restricted to only amortising (or classical mortgage) loans with at least an annual redemption. Whereas homeowners with origination date before January 2013 still continue to enjoy the benefits of the old tax structure, first time buyers are constrained by the current regulations. The implication therefore is that the cost of mortgage increased significantly for first-time buyers making them quite hesitant to enter into the market. Also, the production of interest-only loans has reduced substantially since they are no longer deductible from income tax and have become less appealing to housing consumers.

2.3 Risk attitude prior to the crisis

Until the crisis, much focus of Dutch homeowners had been on the generous provision from the government fiscal tax-deductibility which practically enabled them to recoup a substantial percentage of their mortgage repayments. There was little perception of the risks associated with homeownership in the Dutch society. This fact was also acknowledged by Van Gent in his chapter in (Doling and Elsinga, 2006) edition. He emphatically noted that owner-occupation was being championed in the Netherlands with the assumption that it will automatically generate asset gains for individuals and greater responsibility within the Dutch society. The revelations in a survey by Toussaint and Elsinga (2007) were even more striking. They argue that as at 2006 (the year of survey), many homeowners were not much aware of any risks nor did they dread of any event which possibly might affect them as homeowners. Generally, respondents of that survey felt they were much secured except concerns they had with regards to ill-health and policy changes that might affect their tax break.

Certainly, the story changed after the 2007/2008 global financial crisis. The inherent risk became more apparent after the crisis as house prices declined by more than 25% and the number of homeowners in arrears has also been on the increase (DNB, 2014; Figure 2 & 5). The impacts of these price declines and growing defaults on financial institutions and on the government purse have been substantially discussed and debated (*cf.* De Vries, 2010; Brounen and Eichholtz, 2012; Van Leeuwen and Bokeloh, 2012; Elsinga *et. al.,* 2014). On the other hand, the implications for the individual homeowner are usually overlooked.

3.0 General overview of risk in homeownership

Generally, extent literature identifies risks in homeownership from two main categories of factors. The first is often referred to as payment or default risk which dealt with the ability of homeowners to pay the monthly mortgage expenses. The second has to do with volatility of house price development and is usually term as property price risk. Depending on the scale of these risks however, there is also systemic risk which could develop to affect the entire housing market. This systemic risk and its consequences typically extend beyond the individual homeowners (Stephens, 2006). However, the discussions would be confined to that of payment and property price risk.

3.1 Payment risk in homeownership

Due to the huge financial consequences involved, mortgage default is one of the most significant risk factors in homeownership. Formally, default or repayment risk is used in reference to the risk arising from homeowner inability to live up to the mortgage repayment obligations. In order to reduce such risk, mortgage lenders normally set the initial LTV and the loan-to-income (LTI) ratios to levels they believed are bearable for the homeowner. Particularly, if the LTV and LTI ratios are very low, the hope is that the default probability will be minimal. However, Neuteboom (2008) argue that these initial lending conditions do not fully reveal occurrence of default in the future. In this author's estimation, the cause of default rests with events occurrences during the tenure of the mortgage which do not necessarily have any bearing with the initial statistics collected.

Causes of default in repayment of mortgage

There are two distinct hypothesis underlying mortgage default which according to many (*cf.*Lambrecht *et. al.,* 1997; Yang *et. al.,* 1998; Neuteboom, 2008) are the equity and ability to pay hypotheses. Homeowners default on the basis of comparison between the costs and returns inherent in the continuation or termination of a mortgage contract (*cf.* Neuteboom, 2008; Kim, 2015; Chan *et. al.,* 2015; Connor and Flavin, 2015; Nield, 2015). In other words, default is an outcome of a thoughtful reflection in the sense that if mortgage repayment were to be continuing, it would be mainly due to the anticipated profit. In the US for example where at the time of foreclosure, homeowners are not held liable for residual debts, the choice to default on mortgage obligations was much appealing when the incidence of negative equity looms or is envisaged. Basically, owner-occupiers motivated by investment reasons fall under this hypothesis as they are mostly inclined to default not because they cannot afford but for reasons that defaulting presents a gain in disguise. That notwithstanding, the recent hike in the use of credit reports and concerns by individuals to maintain a clean credit history should gradually restrain this issue of reneging on purpose.

For countries where there is right of recourse and homeowners can be held liable for residual debts, the equity hypothesis ceases to operate. In such environments, the problem of monthly expenses being too high in relations to the household income arises. These monthly expenses may depend on according to (Boelhouwer *et. al.,* 2005) the mortgage interests and deposits, maintenance cost, insurance premiums, taxes and inflation rate (high inflation eventually depletes the mortgage loan in real terms). They may also be affected by the type of mortgage

loan and the policies on tax deductions (Campbell and Cacco, 2003; Boelhouwer *et. al.,* 2005; Neuteboom, 2005; Ford, 2006). For income development, several factors such as the development in the labour market tend to play very important roles. Employment is an essential source of income and whether households are able to meet the monthly instalments or not, depends on the disposition of the labour front in the market. Redundancy and other job patterns are also determined by the standard and state of the labour market (Boelhouwer *et. al.,* 2005). It is equally worth mentioning here that demographic developments are also a significant element in the formation of household income. The incidence of divorce, death of a partner, single parenthood and high dependency ratio affects the formation of household income (Horsewood and Neuteboom, 2006). In Germany for instance, about twenty percent of mortgage arrears is credited with these family demographic variables (Boelhouwer *et. al.,* 2005; Horsewood and Neuteboom, 2006). Indeed, this is not so surprising and reasonably one would expect an intensifying pressure on household income as the number of dependents increases or during periods of relationship break ups where the bread winner had departed.

Many authors also considered the issue of personal mismanagement and how household financial revenues are managed (Neuteboom, 2008; Kloth, 2005) instead of the inflow of income. In the account of (Andrews and Aida, 2011; Horsewood and Neuteboom, 2006), the phenomenon of income misappropriation is generally found to associate with young people and the less educated in most of the OECD countries studied by the authors. It is argued that such class of people may have problems planning and estimating future expenses or possibly end up trading one debt for another in a manner which could be referred to as "mis-prioritisation" in servicing debts. Generally, it is also observed that homeowners who hold other non-housing debts along with mortgage are much constrained when it comes to repayment (Horsewood and Neuteboom, 2006). As a rule of thumb, it could be postulated that the higher the periodic debt-service ratio, the greater the exposure to payment problems. This as well implies naturally that households with lower income and those with subprime or variable interest rate mortgage loans are much more vulnerable to payment difficulties.

Consequences of default in repayment of mortgage

From the individual homeowner perspective, payment difficulties have three progressive dimensions and stages. It begins with the mortgage costs increasingly becoming burdensome. Subsequently, arrears develop and potentially this often leads to repossession (Neuteboom, 2003). The consequences of repossession or better put as dispossession, on the other hand span beyond the individual homeowner. The owner-occupier usually suffers loss of the investment capital and could also fall into residual debts. Psychological problems could also develop as a result of one losing the property. The effect of psychological problems could even be much adverse. There could equally be reduction in performance at work and family breakdowns particularly where some have resort to the use of homeownership as a means of consolidating marital relationships.

Also, as evidenced in the 2007/2008 crisis, repossession could trigger systemic risk with adverse implications for the financial system and economic stability (Stephens, 2006; Colin and Richardson, 2014). In particular, where mortgage defaulters can freely walk away from residual debts at the time of foreclosure such as in the US, it is probable that lenders will suffer significant loses from mortgages in negative equity. Even in situations where borrowers are liable for residual debts on negative equity, it is not always practically possible to retrieve the last penny (Neuteboom, 2008; Van der Heijden *et. al.,* 2011). There are lengthy legal procedures involved which may cause the mortgage debt to deplete in value through high

inflation. Personal bankruptcy laws may equally affect efforts to recover loans in default. The national government would normally also suffer if repossessions are intensified. The government in such situations would have to increase social benefits and accommodate evicted households. Substantial sums would further have to be spent on bank bailouts to prevent bankruptcy and redundancy. In 2009 for instance, the Dutch government expended almost 48 billion Euros on bank bailouts alone (Van der Heijden *et. al.,* 2014).

Furthermore, if foreclosure persists, the number of dwellings available for sale may eventually increase. This could affect house prices as supply grows from the intensifying repossession rates (Dipasquale, 1999; Baker, 2008). In some places also, bad omen are often associated to repossess properties which makes their resale extremely difficult unless they are highly discounted (Dipasquale, 1999; Boelhouwer and Van Weesep, 1988).

3.2 Property price risk in homeownership

Besides the credit or (re)payment risk associated with owner-occupation, the other risk is property price risk which others also referred to as equity price risk or simply asset risk. In the financial literature, asset risk is normally used in relation to the volatility or variation of the asset price over time (Crouhy *et. al.,* 2006; Crouhy, 2010; Jin and Ziobrowski, 2011). In the context of housing research it is mostly restricted to the risk inherent in the decrease of the property price. Essentially, there are at least four reasons why decrease in house price is (or should be) of much concern to the homeowner. The most comprehensible and well-known is negative equity – the situation where the price of the property falls below the outstanding loan. The other reasons are; immobility, loss of investment capital and general insecurities related to the collapse of house prices (Toussaint et. al., 2007; Sock-Yong Phang, 2010). In the next section, discuss the general dynamics of property price developments in the context of the Dutch housing market.

3.3 Dynamics of House Price Development in homeownership

Given the adverse consequences of decreasing house prices, it is important to understand the factors which underpin price development in the market. Generally, extent literature acknowledges the existence of some equilibrium price around which the market constantly adjusts itself (Case and Shiller, 1988; Malpezzi, 1999). Prior researches (Abraham and Hendershott, 1996; Case and Shiller, 1988; Malpezzi, 1999; Ambrose *et. al.,* 2013) have therefore studied long-term effect of price equilibrium in the housing market. In view of these prior findings, house prices are thought to converge to a long-term equilibrium level which periodically gets corrected in reaction to changes in the fundamental price determinants. Highly inspired by microeconomic theory, the equilibrium hypothesis considers that prices are driven by factors fundamental to demand and supply (Malpezzi, 1999; De Vries, 2010; Dipasquale, 1999). Here, demand is mostly driven by factors such as income, rent, demographic features, mortgage interest rates, tax structure, amongst others (Abraham and Hendershott, 1996; Ortalo-Magne and Rady, 1999; Muellbauer and Murphy, 1997). On the supply side, the determinants are construction cost, land regulations and availability of old homes arising from forced sales, conversion of rental dwellings and sales by existing owner-occupiers (Reichert, 1990; Muellbauer and Murphy, 1997; Dipasquale, 1999; Baker, 2008).

Contrary to the equilibrium hypothesis, prices have increasingly demonstrated trends quite unexplainable by the market fundamentals (Case and Shiller 1988). In explaining the phenomenon, it is argued that fluctuations from the equilibrium price level are temporal and

signify influences from external factors, exogenous shocks (Abraham and Hendershott, 1996; Andrews, 2010). Furthermore, it is also believed that depending on the market forces, these shocks may gradually fade away or have a long lasting effect on future prices to possibly create new price equilibrium. Other scholars also focus on explaining the factors behind this shift in price equilibrium. Case and Shiller (1988) for instance argue that psychological effects and consumer expectations largely underpin house price booms. As explained by these authors, expectation of owner-occupiers are usually thought to result in creating excessive demand so that due to rigidity of housing supply, sharp increase in prices become eminent. In general, consumer expectations tend to affect prices in two ways: either there is upward swing in prices because of excess demand or prices decline as a result of consumer withdrawal. As also noted by Boelhouwer *et. al.,* (2004), consumers are usually responsive to the prevailing price settings at hand. In anticipation, that price might continue to rise, there are those who might want to buy to avoid extremely high and unaffordable future prices as well as others who might venture buying to sell and make profit from future price appreciations. The reaction of homebuyers to future prices decline is contrary as there is always a withdrawal in such situations. The implication of these reactions is due to lag in housing supply; and a situation might arise where demand becomes volatile and subsequently induces instability in house prices. These dynamics of demand and supply disparities largely explains the greater percentage of the boom and burst in the housing market (Case and Shiller 1988; Reichert 1990; Levin and Wright 1997; Dröes, 2011).

Others researches such as (Muellbauer and Murphy, 1997; Peterba, 1991; Boelhouwer and Neuteboom, 2003; Aalbers, 2008; Agnello and Schuknecht, 2009; Andrews, 2010; Andrews and Aida, 2011; Galati *et. al.,* 2013), have also recognised the significant contribution of government policy regulations in the homeownership market. Particularly in the case of deregulations and re-regulations of the mortgage market have been attributed to the volatility of house prices by these authors. The case of tax reforms, down payment and income constraints relating to LTV and LTI ratios are particularly noteworthy. As emphasised by (Reichert, 1990), though income and employment may affect prices depending on the regional features, when it comes to mortgage interest rates, the response is uniform across board. Andrews and Aida (2011) on the same issue also found that generally, there is an upward turning of prices when tax treatments are somehow generous.

3.4 Housing/Property Bubbles and homeownership

Property price bubble is an important phenomenon in house price development in the housing market. The term bubble is normally used to describe the dynamics of house price movements where there is a very high percentage increase in prices (boom) over a period, followed by a sharp decline (bubble-burst). Formation of a bubble usually begins with a “normal” price appreciation as a result of “an innovation” in the housing market until prices have reached an unsustainable level by the very innovation that seemed to have ignited the upward price adjustments. For example, it is mostly believed that the recent US house price bubble began as a result of innovations in the mortgage market where incredible number of mortgage products became available to homeowners but were not well managed (Baker, 2008; Mizen, 2008; Aalbers, 2009). In other countries including the Netherlands, it is mostly considered that the boom was initiated by the comparatively high loan-to-value ratio, new mortgage products and generous tax rebates.

Historically, most house price booms had ended in bubble-bursts with equal persistence according to (Agnello and Schuknecht, 2009). The implication is that though the length of the

boom might not be readily known, once it sets in, there is a high probability that prices might sharply decline in the future. Put in another context, house price bubbles are highly fragile. The phenomenon nonetheless has allures. It is normally during those seasons of booms in which homeowners seem to take on the highest risk by taking large loans for expensive homes. Furthermore, issues such as over-valuation, predatory lending and other underhand market practices are mostly prevalent during price booms (Case and Shiller, 1988; Cecchetti, 2006; Aalbers, 2008). Remarkably, until the bursting phase, bubbles are usually not noticed and one of its distinctive features is that bubbling prices are usually driven by factors other than market fundamentals to which some researchers allude to psychological and speculative reasons (Case and Shiller, 1988; Shiller, 1990; Stiglitz, 1990; Flood and Hodrick, 1990; Abraham and Hendershott, 1996). For example, Flood and Hodrick (1990) and Stiglitz (1990), define bubble as a phenomenon which occurs when current price increments are mainly due to expectation of high future selling prices which are unsubstantiated by the market fundamentals. Empirically, bubbles are modelled as the percentage change between the equilibrium and market price levels (Flood and Hodrick 1990, Abraham and Hendershott, 1996) with the boom (burst) phase implied by the instances where market prices persistently exceed (fall below) the equilibrium level.

4.0 Risk profile of Dutch housing market

This section focuses attention on the risks in homeownership in the context of the Netherlands. Here, a consideration is given to the outlook of risk and the causative factors in relation to payment risk, property price and systemic risks.

4.1 Payment risk

The recent mortgage foreclosure rate in the Netherlands as in figure 2 has shown quite an increasing trend. Family breakdown and divorce particularly, has been identified as the main factors behind the current upsurge in the foreclosure rate (Van Leeuwen and Bokeloh, 2012; Van Dalen *et. al.,* 2013). The number of divorces has been very high as can be seen from Figure 3 however, as noted earlier, the general societal trend has been that most Dutch citizens enter into homeownership at the beginning of their marital relationships at which time also their combined income qualifies them to access large mortgage loans. The challenges then arise where in the event of a breakup of these marital relationships; a single income would no longer become adequate to service the monthly housing expenses. However and interestingly, due to the munificent social security and compulsory unemployment insurance for permanent Dutch workers, job redundancy usually does not lead to mortgage foreclosure in the Netherlands (Horsewood and Neuteboom, 2006). Moreover, there have been some concerns about the risks of the interest-only loans and whether they contribute to the repossession rate in the Netherlands (Van Leeuwen and Bokeloh, 2012). A careful study of the nature of these products reveal that, though they motivate people to taking up larger sum of mortgage loans, their impacts on payment problems may not be that pronounced except there is an issue of divorce or redundancy (NVB, 2014). They rather give home owners the benefit of paying lower monthly expenses.

In spite of the tremendous increase in the foreclosure rate, in terms of numbers and actual percentages, it should be argue that the number of forced sales in the Netherlands is quite low. In 2013 for instance, the total forced sales as a percentage of all transactions is only around 2.0% (Van Dalen *et. al.,* 2013). Compared to other EU countries, the Dutch foreclosure rate has generally been one of the lowest and falls only behind that of Sweden and Denmark (*c.f.*

Fitzsimons, 2013). This is somewhat interesting especially when the Netherlands has continuously been scolded for the high level of mortgage debts as shown in Figure 4). A number of factors account for this low foreclosure rates. First, though the financial crisis had hit hard on the Dutch labour market with unemployment rate growing from an average of 4.9% before crisis to an average of about 8.5% after the crisis, the generous unemployment and social benefits in the Netherlands seem to have provided sufficient cover against mortgage default as discussed above. Permanent workers in the Netherlands have unemployment insurance schemes which pay about 70-90% of their last month salary up to 38 months (Horsewood and Neuteboom, 2006; Cano *et. al.,*2013). The social security system is rather generous and guarantees income of unlimited duration. The redundant homeowner could therefore access such social benefit as long as it can be proven that the cost of staying in one's own home is not more than renting a new dwelling (Fitzsimons, 2013). Beside these, Dutch mortgagors commonly tend to show very good repayment behaviour. This could partly be attributed to the fact that the banks do have full right to recourse. At foreclosure, they are able, by law, to confiscate the dwelling and other assets the defaulter may as well have. Personal bankruptcy laws are also very strict at enforcement so that it is not too easy to abdicate responsibility for the debt in any event.

<Insert Figure 2>

<Insert Figure 3>

<Insert Figure 4>

4.2 Property Price Risk

As depicted in Figure 5 below, though average property price developments in the Netherlands have generally shown an increasing trend, there have also been seasons in which prices have fallen rather sharply. Between 1978 and 1985 for instance, there was a substantial price decrease of almost 29%. Following the recent global financial crisis, there have also been persistent decline in house prices between 2008 and 2013 of about 25% (see Figure 5 and 6).

Pertaining to the recent price decline, effects of the crisis and the Dutch government re-regulation of the fiscal tax deductibility have generally been the most significant factors. First, the crisis had not only impacted on unemployment, but also, the credit crunch which had affected most Dutch banks because of their international orientation had led to a tightening up of mortgage provisions in the Netherlands. This has partly restricted access to mortgage and consequently decreased the number of new home purchases according to (Elsinga *et. al.*, 2014). Secondly, following government's review of the tax incentives for homeowners, the cost of homeownership for new buyers significantly has increased. Together, the effect of these factors has been an apparent drop in consumer confidence and demand for new homes which have subsequently affected the price development in the market in the Netherlands. Actual loss on sales during these periods of decline to some extent is only suffered to various degrees by those who made purchases close to the peak in 2008. As demonstrated in the figure 5, purchases before 2003 for example would still accrue substantial profits if sales were made during the meltdown (*cf.* Sommervoll and De Haan, 2014).

<Insert Figure 5>

<Insert Figure 6>

4.3 Systemic Risk

As noted earlier, a general concern for the Dutch economy has been the very high mortgage debt-to-GDP ratio. However, in contrast to the loan repayment, the response has been quite good with forced sales at only around 2%, which some analysts argue that there is really not much cause to despair. To Van Leeuwen and Bokeloh (2012) for instance, there seems to be rather too much focus on the debt side than the equally high assets held by Dutch households. According to these authors, the Dutch have more assets than debts. By these authors estimation as at 2011, for every one euro in debt, Dutch households equally have in reserve 1.76 and 2.41 euros of real estate and financial assets respectively. Mostly however, these assets are tied up in pension and insurance reserves. There is also a large amount of equity stored up in residential real estate which should probably be the centre of concern because property prices are never guaranteed. This is especially for NHG which insures against residual debts, tremendous price decline along with some significant number of foreclosures which could be quite distressful. Of course, there have been concerns recently about the rising foreclosure rates which had eventually led to an increment of the premium from 0.85 to 1.0%.

5.0 Summary and conclusion

From the perspective of the homeowner, two main types of risks are identified: default payment and property price risk. The discussions have unearthed a quantum number of factors which underline these risks. Particular to default, these factors relate to the initial amount of mortgage loan taken out, the future housing expenses and the income development of the owner-occupier. In the Dutch case, family disintegration is identified as one of the main causes of mortgage default. As a recent phenomenon, most people enter into homeownership at the time of entering into marital relationships. However, problems arises when those households are broken apart and the mortgage cost become too high for a single individual. On property price risk, the factors discussed are those which generally determine property price development and mainly thought to command demand and supply of owner-occupier dwellings. These factors include income levels, interest rates and conditions in the social and private rental sectors. In respect to the Netherlands, the recent price decline traces its roots to the financial crisis. The situation was further deteriorated by the introduction of a new code of conduct for lenders and the government's revision of the tax-deductibility which led to an increase in the monthly expenses of home ownership.

The study also discussed the consequences of default and declining property prices in which the ultimate problem is foreclosure in combination with negative equity leading to residual debts. For the Dutch households, this implies a loss of investment capital which may subsequently lead to psychological problems. Property price decline may also trigger negative equity, immobility, loss of investment capital and insecurity. More importantly, when default occurs on extremely large scale at the same time with property prices sharply declining, there is the possibility that the financial system might experience systemic instability. For the Netherlands, this risk is insured by the NHG to some extent. In sum, the central theme advanced in the paper is awareness of the individual about the nature of the risks in home ownership. To enhance the understanding and management of these risks at the household

level, a possible consideration might be a thorough education by lenders on the risks of the mortgage products they offers. Future research could therefore consider assessing the individuals' future complications and counselling on strategies to minimise the risks.

6.0 <Insert Acknowledgements:>

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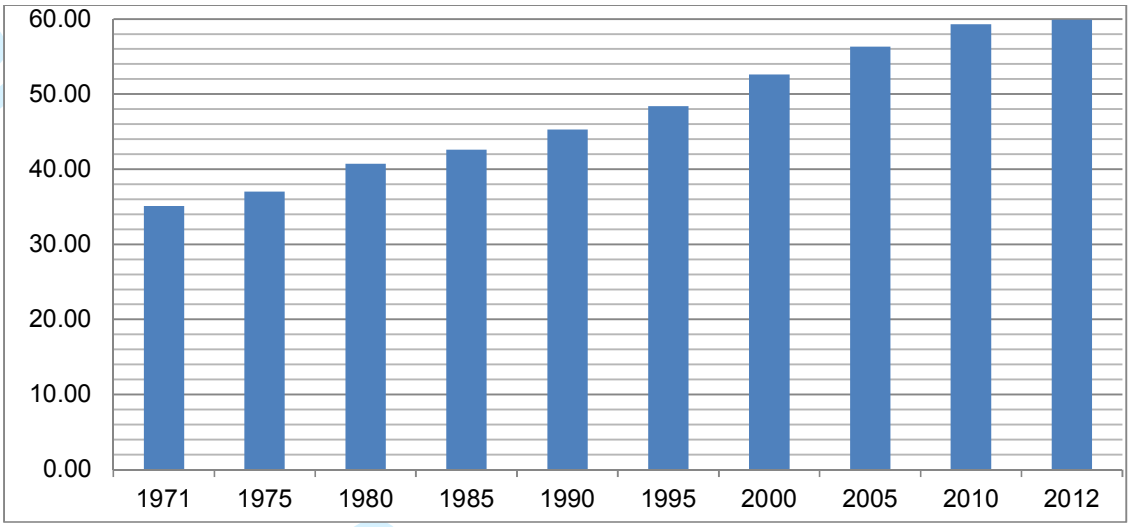
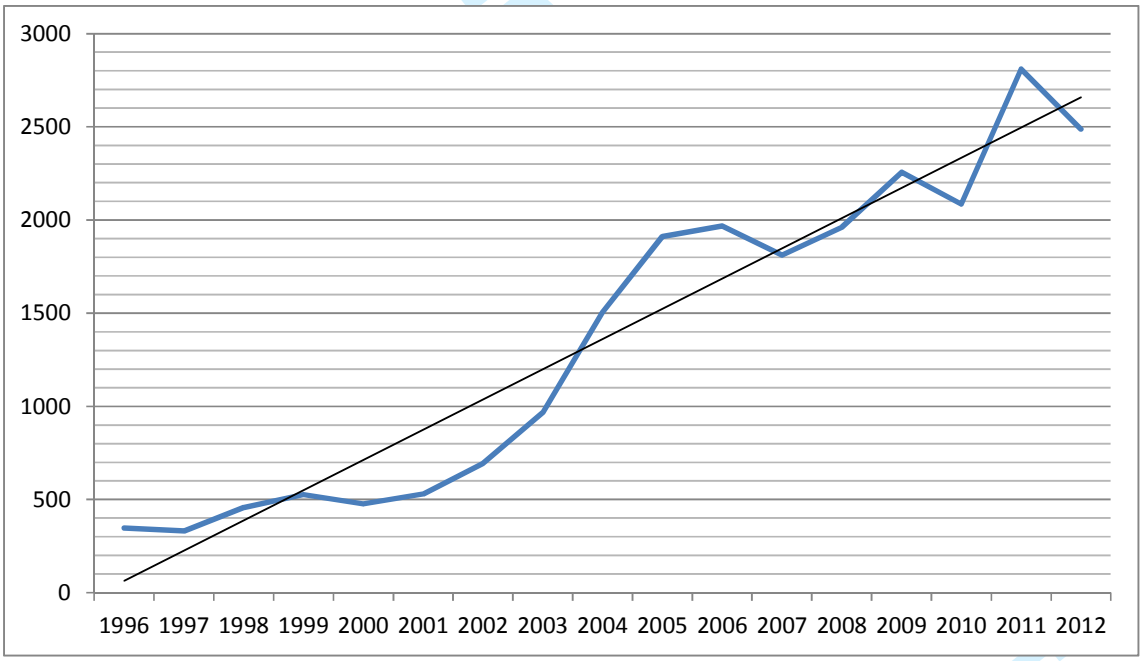
Figure 1: Evolution of Homeownership (% of total housing stock)



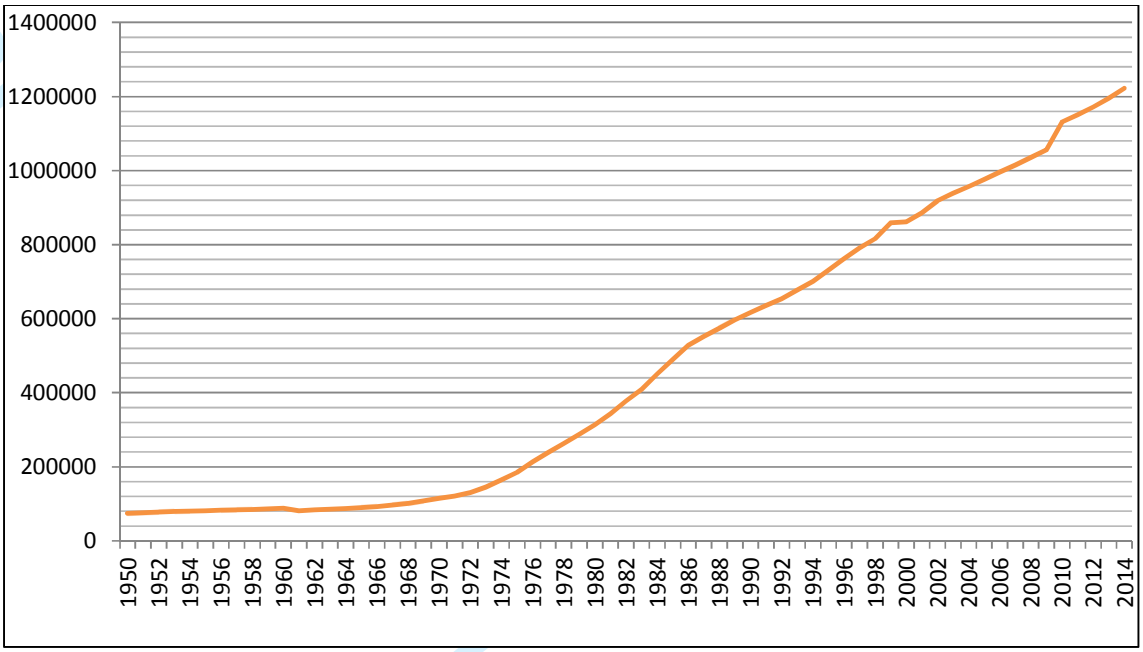
Sources: ABF Research B.V (2010); Eurostat (2012)

Figure 2: Auction foreclosure sales in the Netherlands



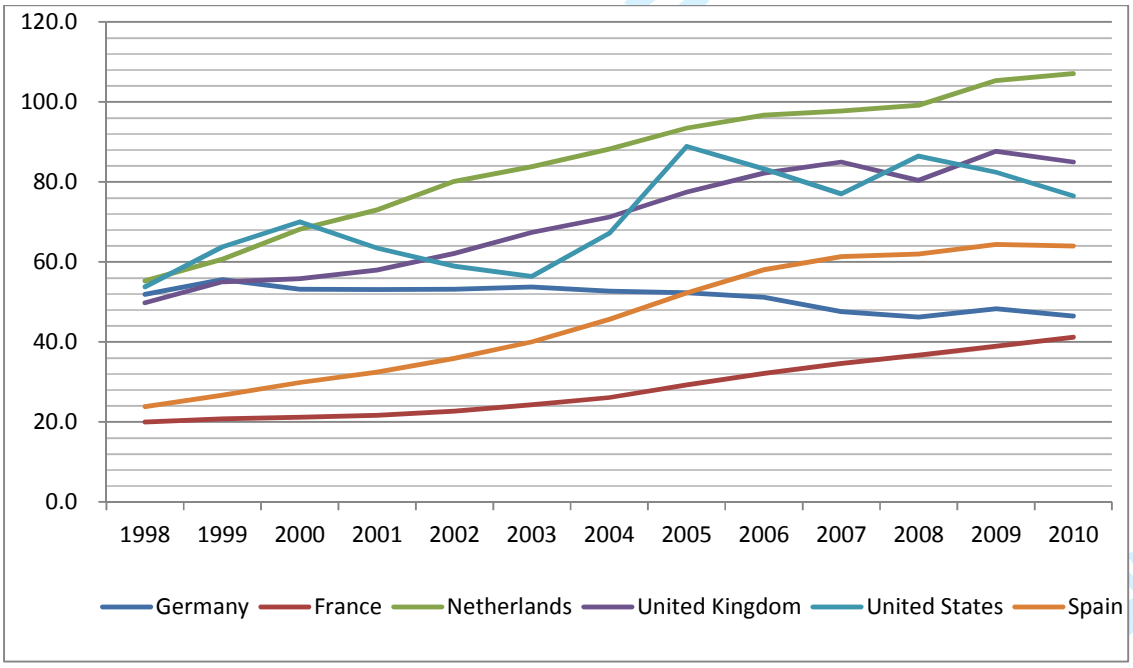
Source: Kadaster, 2014

Figure 3: Yearly Number of Divorce in the Netherlands



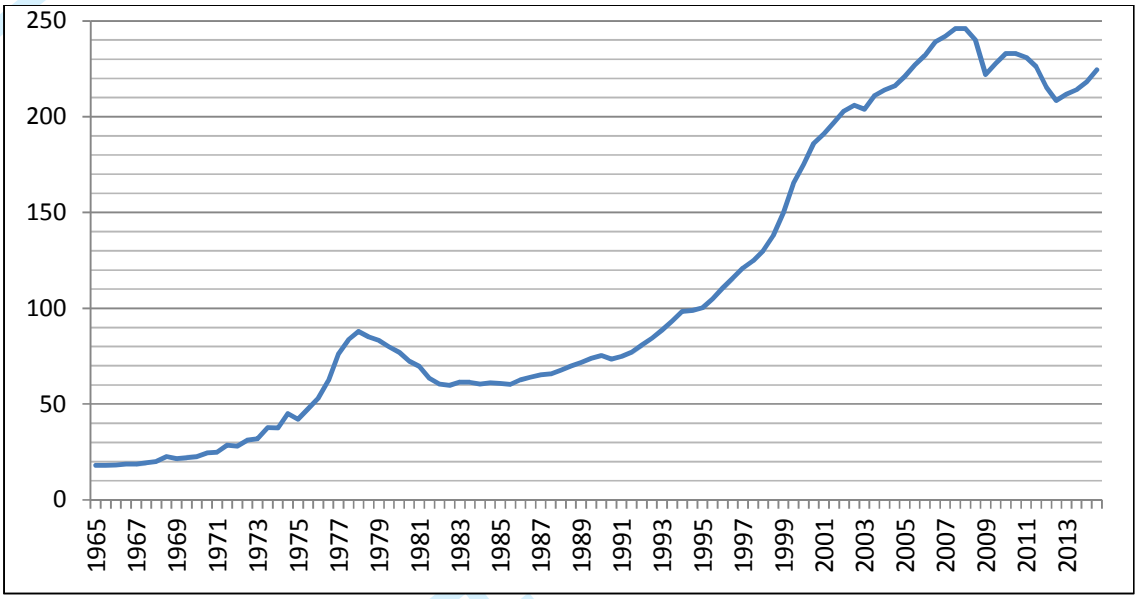
Source: Statistics Netherlands (CBS), 2014

Figure 4: Dutch Mortgage Debt as a percentage of GDP (1998-2010)



Source: Database for Institutional comparisons in Europe (CESifo DICE), 2010

Figure 5: Development of Dutch average house prices from 1965 to 2014 (in 1000s)



Source: Dutch organisation for real estate agents (NVM), 2012; Statistics Netherlands CBS), 2014

Figure 6: Change in Average House Purchase Prices (%)

Source: Statistics Netherlands (CBS), 2014