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Financial institutions have owner-occupancy in a stranglehold: an explanation for the recession in the Dutch housing market

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Abstract

Like many other West-European countries, the Dutch housing market fell into a depression since the fall of Lehman Brothers at the end of 2008 and the credit crunch started. After 2010, many housing markets in Europe recovered from the financial crisis and experienced growing house prices again. This was however not the case in the Netherlands. The housing market did not recover and was hit even more in 2012. This contribution gives an explanation for this remarkable event. It's argued that the operation of several important financial institutions and the housing policy of the Dutch government gives a plausible explanation for the problems on the Dutch housing market and the fall of Dutch prices more specific.

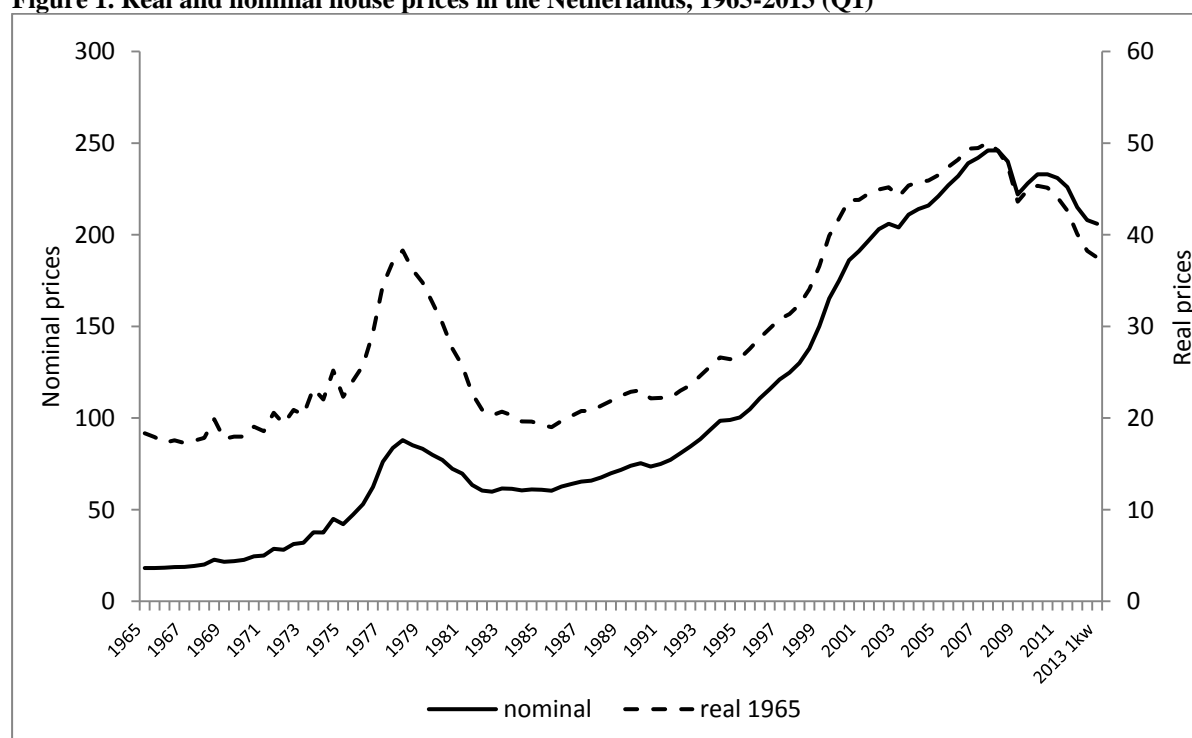
Keywords: Financial institutions, housing ownership, recession, Dutch housing market

1. Introduction

The important role that developments on the housing market play in the general economy became painfully clear during the economic recession of 2008. From 2007 onward, some disturbing messages from the United States spoke of risky mortgage lending. The risk had been largely masked by ever-increasing house prices: homeowners who defaulted merely had to sell their property in order to pay off all their arrears. The real problems surfaced when the ever-decreasing interest rates started to climb. Many American homeowners have borrowed at variable interest rates, so they immediately felt the effect. Repossessions, when combined with declining house prices, have a disastrous effect on housing markets. Such was the experience in several European countries before 2000 (i.e., the Netherlands, Britain, Finland, and Sweden). Ever since the subprime mortgage lending business triggered a global economic crisis, most West European governments have taken crisis measures that affect the general economy. Many of them have also taken action to stabilize housing markets, although the decision to do so depends strongly on whether their national housing markets have indeed suffered from the crisis (Boelhouwer et al., 2011, p.1). In the Netherlands, Belgium, England, Ireland, and Spain, the fear of rising levels of mortgage default and repossessions led to a series of measures to prevent evictions and protect low-income homeowners. The amount of demand-side stimulation to support the housing market was significant in France, England, Ireland, the Netherlands, and Spain, as their governments tried to ease the downward trends of house prices. An important measure taken in France, the Netherlands, England, and Ireland was to clear the market of unsold dwellings by encouraging take-up by social housing providers. Several countries, including Belgium and France, stimulated the additional production of social or public rental housing as an anti-cyclical measure. Austria and Sweden, on the other hand, made no large-scale additional housing interventions, while Germany has not taken any crisis-oriented housing market measures at all (Boelhouwer et al., 2011, p.8).

Around 2010, house prices stabilized in most European countries, with the exception of Spain and Ireland, and even started to rise in several countries (see Figure 3). To explain why Spain and Ireland were hit so much harder and why the price decline has lasted longer there, we should consider the speculative nature of housing production and the steep rise in prices in these countries during the period 2000-2007. As many new projects proved unsalable, they distorted the market by putting continual pressure on it. In the Netherlands too, a cautious price recovery set in during 2010 lasting a few months. From 2011 on, however, house prices and sales in the Netherlands, unlike most other West European countries, again fell into a spiral of decline (Figure 1).

Figure 1. Real and nominal house prices in the Netherlands, 1965-2013 (Q1)



Source: NVM, OTB calculations

Since the end of 2008, nominal sales prices have dropped by 18% (in real terms by nearly 30%), the number of sales transactions have fallen from roughly 225,000 to 100,000 dwellings per year, and the number of new dwellings sold per month is only around 1,000 (down from over 4,000 before 2008).

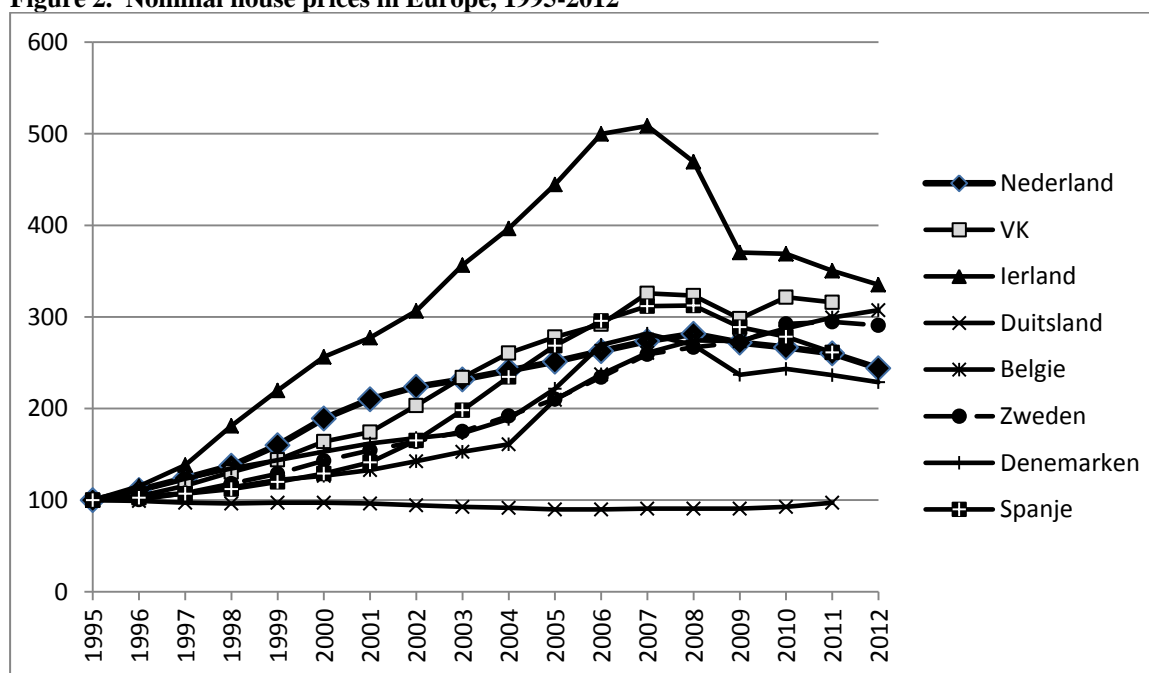
This paper considers several explanations for the Dutch situation, which is unique from a European perspective. Attention is first drawn to the possible effect of the country's generous tax regime for mortgage interest deduction. There is no limit on the amount that can be deducted, and the deduction can be taken from the top of the income, which, for those in the highest tax bracket, implies a tax subsidy of 52%! This sizeable fiscal subsidy partly explains the appeal to Dutch households of maximizing their mortgage debt over a long period, which is one reason why the Netherlands has the highest national mortgage debt in Europe (in 2012 around 665 billion Euro, 125% of GDP). Another explanation investigated here is the presence of a speculative bubble, defined as a price increase that cannot be attributed to underlying fundamentals. In that case, households speculate that prices will rise in the future; on the basis of this assumption, they are willing to spend more on their acquisition. Another explanation in the same vein is that for decades the prices have risen faster in the Netherlands than in surrounding countries, a development that eventually precipitates a price correction. Finally, attention is drawn to the effects of several measures to restrict credit, which various Dutch financial institutions have introduced in the country's mortgage market since 2011.

2. Effects of mortgage interest deductibility and higher prices

As pointed out in the introduction, the treatment of home ownership in the Netherlands is unique from a European perspective (see e.g., Haffner, 2002; Wolswijk, 2010). Wolswijk argues that under a neutral fiscal regime for housing, interest deductibility is justified as a means to deduct expenditures from (taxable) earnings, in line with the principle that if benefits are taxed, costs can be deducted. The Netherlands, however, deviates from this principle; with Europe's least restricted regime for interest deductibility, taking up a mortgage loan coupled with capital insurance is fiscally favored here. "In many other European countries the importance of this instrument has decreased somewhat over time as several EU countries have introduced or strengthened limitations on the deductibility of interest payments. In addition, the marginal tax rate at which interest payments can be deducted has fallen in many countries as a result of the tax reforms introduced around the turn of the century" (Wolswijk, 2010, pp. 162-163) (see Table 1).

Having noted that the Dutch government applies a generous taxation regime to home ownership, we shall now consider whether this could explain the steep drop in prices since 2010. To that end, let us turn to Figure 2 for an overview of the development of house prices in a number of West European countries. The beginning of 2008, the year the crisis started, is indexed there at 100. As clearly depicted for the period 1995-2012, prices in the Netherlands were running fairly close to those elsewhere, with the exception of Germany, where nominal prices declined by about 10% till 2008. Although house prices rose somewhat faster in the Netherlands till 2001, the development was definitely less steep afterwards. It is striking that since 2008, as noted in the introduction, house prices have been declining slightly (modest decreases of between two and three percent per year) in all selected countries except Germany. In the first half of 2010, prices started to recover in most countries, including the Netherlands. Yet the recovery in the latter did not persist but slid into reverse, with hefty declines in 2011 and 2012 (dropping 18% over the period 2008-2013 Q1). The contrast with Belgium was stark; there, house prices have already risen by nearly 18% since 2008 (meanwhile, in absolute terms, the price differential with the Netherlands has climbed to almost 36%). Besides the Netherlands, Spain and Ireland also deviate from the European trend. House prices have plummeted there due to the above-mentioned speculative developments.

Figure 2. Nominal house prices in Europe, 1995-2012



Source: Various national statistics, calculations Onderzoeksinstituut OTB

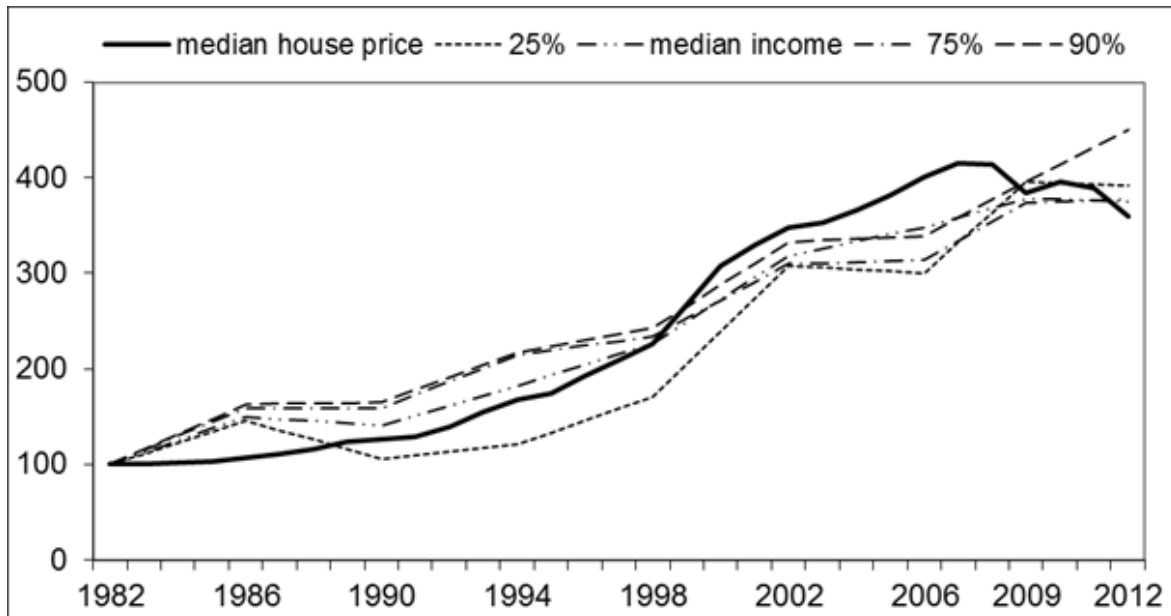
On the basis of this comparison, we may conclude that while the fiscal treatment of home ownership in the Netherlands may have led to higher house prices (although this level is still quite moderate compared to that in metropolises such as London, Paris, and Munich), the trend in the Netherlands has not deviated from that in the rest of Europe. Thus, neither the divergent fiscal treatment nor the price levels over the past decades can explain the fact that, since 2010, the development of house prices in the Netherlands has been considerably more negative than in a number of other European countries.

3. Speculative bubble on the Dutch owner-occupancy market

Another explanation for the negative trend in Dutch house prices since 2010 is frequently offered: the deflation of a speculative bubble in which the price does not reflect fundamental value. This distinction between an explanation on the basis of underlying fundamentals on the one hand and the presence of a speculative bubble on the other is highly relevant to policy. In fact, the deflation of a speculative bubble may be seen as a painful but necessary correction of the market. However, a drop in prices that can be explained by the fundamentals is not always inevitable either. Sometimes, fundamentals can be adjusted, for instance, through monetary policy, which could involve setting standards for mortgage lending or providing subsidies tied to interest rates or wages. As noted earlier, Spain and Ireland are prime examples of countries with a housing-market bubble. There, speculative housing sales took place prior to the credit crisis, and the main reason to buy a house was to take advantage of the anticipated price increase. In both countries, construction projects were started before even a single unit had been sold. It was not unusual for a household to purchase multiple dwellings and then flip them upon completion, selling off a number of units at a profit. In that situation, if an economy falls into recession, a backlog of unsold dwellings builds up precipitating a steep drop in house prices. However, this situation did not occur in the Netherlands. Here, also before 2008, new house-building projects were only started once at least 70% of the dwellings had been sold. Moreover, the price development in the Netherlands is explained quite well by the underlying fundamentals. Figure 3 clearly depicts the relation between the development of house prices and the borrowing capacity for the period 1982-2012. That capacity was calculated for four income groups using data from ten periodic housing-need surveys, mortgage interest rates, the lending standards applied by the municipal mortgage guarantee and later the National Mortgage Guarantee (NHG) for low- and middle-income households, and those of the Rabobank (the biggest Dutch mortgage provider) for higher-income households. The group 25% stands for households in the lowest quartile (the 25% with the lowest incomes, whereby the

graph indicates the borrowing capacity of the highest income in that group) and 90% for the decile (10%) with the highest incomes (taking the lowest income occurring in that group). The graph shows that the development of borrowing capacity explains the change in house prices quite well, though at times with a slight delay.

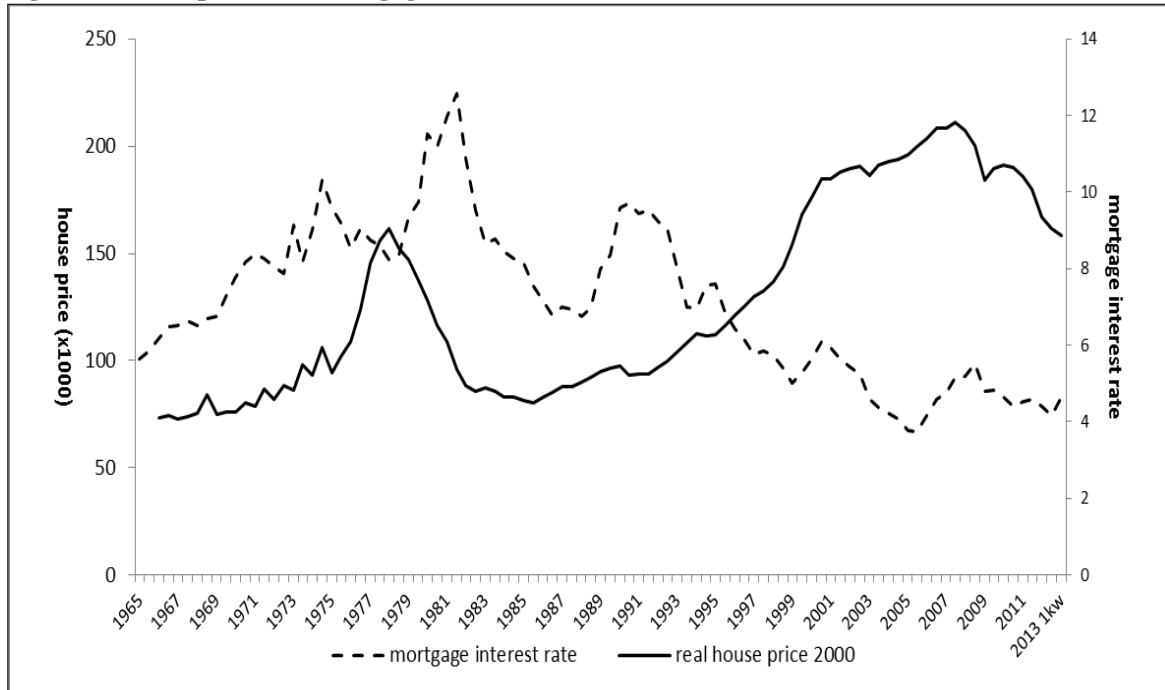
Figure 3. Maximum borrowing capacity and house prices, 1982-2012



Source: Gemeentegaranties, NHG, Normen Rabobank, various housing need surveys, data processed by Onderzoeksinstituut OTB

Among the explanatory factors for the price increases in the period 2005-2013 (Q1), one in particular is highly convincing for many European countries, namely the development of mortgage interest rates (Figure 4). They declined gradually from 10% in 1990 to just over 4% in 2013. Given that the Dutch owner-occupancy market may be characterized as the archetype of an inventory market, any reduction in the costs of financing would be almost completely absorbed by a rising selling price. In the same vein, the elasticity of the supply in the Netherlands is one of the lowest in the world (Sanchez and Johansson, 2011).

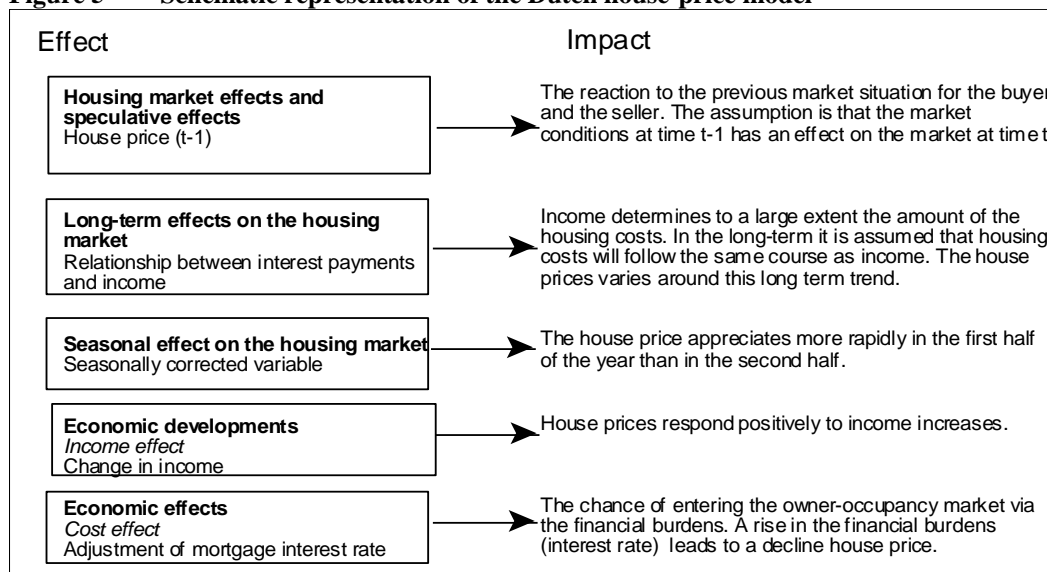
Figure 4. House prices and mortgage interest rates in the Netherlands 1965-2013 (Q1)



Source: CBS

The relation between the development of house prices and the underlying fundamentals may be clarified in a more sophisticated manner than merely pointing to the development of borrowing capacity. In that regard, Figure 5 gives the dimensions that can be used in the calibration of a model of the development of house prices over the period 1971-2011. (For a detailed description of the model, see Boelhouwer et al., 2004.) In the model, we tried to include as many of the variables that were pre-selected on the basis of the house price literature. Those that ultimately made it into the model are the following: the dummy variable for seasonal correction; the lagged appreciation of the selling price; the interest rate; the level of income; and the long-term equilibrium (Figure 5). The influence exerted by other variables – i.e., rent, unemployment, building costs, and volume of new completions – on the variation in house prices was either absent or statistically not significant. Therefore, their effect was not incorporated in the ultimate model.

Figure 5 Schematic representation of the Dutch house-price model



Source: Boelhouwer et al., 2004

House price (dependent variable, speculative effect)

Many modeling studies expect the current house prices to depend on the prices of preceding periods because of the slow adjustment process of the construction market and the speculative effects (Abraham and Hendershott, 1996; Malpezzi, 1999). These two factors explain the occasionally substantial house-price fluctuations that occur in the short term (bubble builders). In the model, the change attained one period earlier is included as the explanation for the change at time t . To model the equilibrium between interest payments and house prices in the long term, the house price fluctuates around a trend.

Long-term equilibrium, housing-market effect

A precondition for a good time-series model is the presence of a variable that restores long-term equilibrium. Its inclusion is important because the owner-occupancy market is characterized by short-term price fluctuations. A model estimated on the basis of these fluctuations would miss the price equilibrium in the long term and would tend to model market irregularities. Moreover, a speculative overheating of the market might be extrapolated in future scenarios. These speculative effects are taken into account by including a long-term equilibrium between house prices, income and net interest payments in the model. By using these variables, affordability becomes the key factor in the long-run equilibrium (De Vries and Boelhouwer 2009, p.26)

Seasonal effect (dummy), housing-market effect

An experiment was carried out with a variable that corrects for a seasonal effect. In the first half of the year (spring and summer), the house-price fluctuations are greater than in the second half (autumn and winter). A seasonally corrected variable (+1, -1) follows this pattern; it was expected that the semi-annual effect would have a positive regression coefficient.

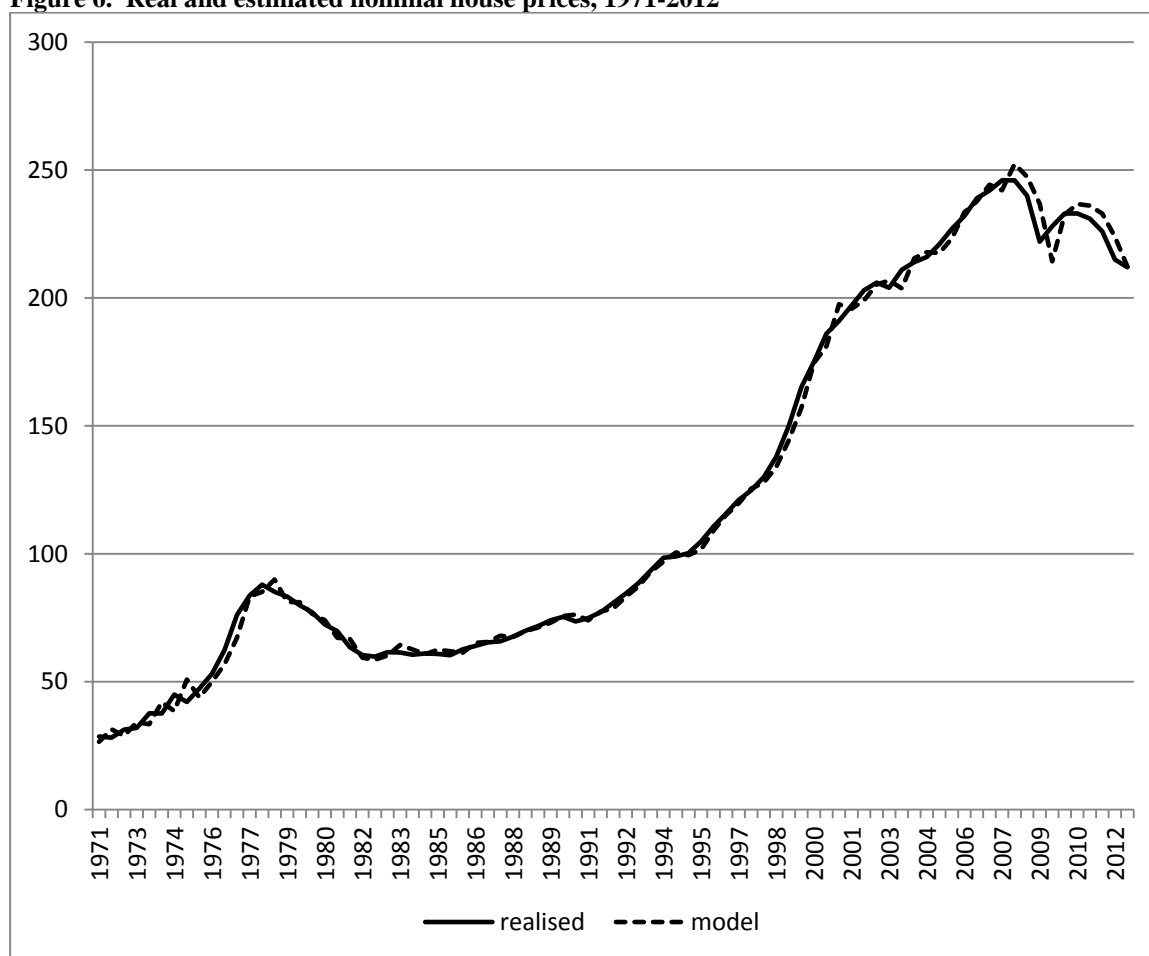
Income effect, economic development

Disposable household income was chosen as the income concept. A positive correlation between the change in income and the change in house prices was expected: if the income rises, a household spends more on housing. Income can have a delayed or a progressive effect on house prices.

Cost effect, economic effect

The most dominant explanatory variable is the mortgage interest rate. Its importance is self-evident: most owner-occupiers who have moved recently took out a mortgage to finance their new dwelling. It is assumed that the interest rates (nominal or real) will only influence the fluctuations in house prices if the rate itself also changes. If interest rates and price levels remain the same, housing costs do not change. The research material only includes a shift in interest rates when such an adjustment might explain a change in house prices. It is conceivable that a change in interest rates will gradually work its way into price changes. If so, the effect may be delayed or progressive.

Figure 6. Real and estimated nominal house prices, 1971-2012



Source: Boelhouwer and Lamain, 2012

As Figure 6 clearly shows, the estimated and real prices follow a similar course, and the turning points are fairly well explained. Even when the house-price model is only fitted for the period 1978-1995 and the parameters from the comparison for the period 1995-2012 are included, the results are still reliable (Boelhouwer and Lamain, 2012). Alongside the simple comparison of house prices with borrowing capacity, a more sophisticated calibration of a model also reveals that house prices in the Netherlands were not based on speculative developments but can instead be explained by the underlying fundamentals.

The question remains, of course, how these fundamentals have contributed to making the house price development in the Netherlands over the past two years so different from that in the rest of Europe. In the following section, we argue that this divergence can be explained largely by the rationing of the mortgage provision and the choices made by a number of financial institutions: e.g., the Netherlands Authority for the Financial Markets (AMF, an independent supervisor of conduct on the savings, investments, loans, pensions, and insurance markets), the Dutch Central Bank, the Ministry of Finance, and the major banks. The first three institutions jointly constitute the newly instated Netherlands Financial Stability Committee (2012); their representatives discuss the stability of the Dutch financial system and advise the government. In its first meeting on 17 December 2012, the committee emphasized that, to protect the banking sector and the consumers of its services, it is of utmost importance to address the vulnerabilities of Dutch mortgage lending practices. Let us now turn to what are in my view these *presumed* vulnerabilities. The next section will shed light on the harm done to the housing market by taking such *supposedly* corrective action.

4. Financial institutions put brakes on mortgage lending

As noted in the introduction, mortgage lending has undergone some rigorous adjustment in the Netherlands since 2011. One of the main changes is the introduction of the Code of Conduct for Mortgage Loans (GHF); another is the imposition of stricter criteria for maximum housing costs. Both result in borrowing limits for households. These limits are calculated by the National Institute for Family Finance Information (NIBUD), an organization that sets normative household budgets. The direct effects are manifest in the rules for obtaining mortgage insurance (the NHG) and the regulations that make up the code of conduct (the GHF). The introduction of the GHF in August 2011 ushered in a range of austerity measures in mortgage lending practices. For instance, the tightened norms in the housing-cost tables constructed by the NIBUD are now applied not only by the NHG when reviewing applications but also by almost all mortgage lenders. Further, the maximum loan-to-value ratio has declined to 106%, and restrictions have been imposed on the co-financing of expenditures for upkeep and renovation. In addition, it is now far more difficult for banks to provide tailor-made solutions, which they had commonly done by means of 'explain mortgages' (loans that deviate from the official terms that ignore an applicant's income perspectives). The implication is that, in practice, the future earning capacity of the households is barely taken into account (the volume of explain mortgages plunged from roughly 25 - 30 percent to less than 5 percent in 2012 en 2013). Finally, for households without someone in permanent employment and for independent contractors, it is likewise harder to get a mortgage -- a striking turn of events, given that only 2,000 employees in the entire country were offered a permanent labor contract in 2011.

The NIBUD has also revised its budget norms for housing costs downward since 2011 in response to the drop in purchasing power. In part the adjustment was due to the method of calculation whereby for every Euro less in disposable income, fifty cents is deducted from the housing budget. Thus, a decrease in income has a disproportionately strong effect on the maximum allowable housing costs. The Ministry of Finance, watching from the sidelines, ensures that this onslaught is actually carried out and that proposals by the NIBUD to allow some leeway are rejected. For example, at the end of 2011, the NIBUD proposed a slight increase in the borrowing capacity of dual-income households but the idea found no favor with the Ministry. As a consequence of the new rules, the amount that could be borrowed by dual-income households in particular has declined sharply since 2011. Dual-earners with a modal income saw their maximum borrowing capacity shrink by nearly a third. Many of them are starters with little savings who, despite the fact that house prices in the existing stock have declined, still have less choice on the owner-occupancy market. As shown above in Figure 3, the shrunken borrowing capacity has direct consequences for the development of house prices. When starters give up, filtering households also run into trouble. It is hard for them to sell their house; and if they have to sell, they need to make hefty cuts in the price. This is part of the reason why, in the meantime, roughly 700,000 mostly young households have a mortgage debt that is higher than the value of the dwelling (the condition of negative equity).

5. Rationale for limited mortgage lending by banks

In view of the above description, one wonders why financial institutions such as the Dutch Central Bank (a proponent of further reducing the LTV), the AFM (the initiator of the restrictive GHF), and the Ministry of Finance (the force behind stricter NIBUD norms) tend to intervene so rigorously in the Dutch mortgage market. There are three reasons, all related to the total mortgage debt: size, risk, and funding.

The size of the debt is perhaps the most important one. Comparatively large from an international perspective, the Dutch national mortgage debt has more than doubled since 1999, from 298 billion Euro to 665 billion in 2012. This makes the Netherlands the front-runner in Europe. The total size of the Dutch mortgage debt as a percentage of GDP is half again as large as Great Britain's and even twice as big as Germany's (Van der Ploeg and Alink, 2012, p. 10). The exceptional international position occupied by the Netherlands has not escaped the notice of international financial institutions such as the IMF, the OESO, and the credit rating agencies. They see the Dutch mortgage debt as a financial risk and recommend reducing it. The Ministry of Finance in particular is afraid that the high debt level would prompt the rating agencies to lower the country's credit rating. The consequence would be that it would cost the Netherlands somewhat more to finance its sovereign debt. An initial lowering of the credit rating by one class would lead to an estimated increase in annual financing costs of between

four and five billion Euro. This amount, incidentally, pales in light of the more than 300 billion Euro that households have already watched going up in smoke with the declining value of their dwellings.

A second reason for the strong intervention by the financial institutions is that they believe the high national mortgage debt puts both individual households and the government (through revenues foregone because of the mortgage interest deductibility) at too much risk. Given the sharply increased outlays for the mortgage interest deduction and the fact that this regulation is open-ended, the decision to intervene is understandable with respect to government spending. With regard to the risk for individual households, though, it is remarkable in view of their record of mortgage arrears. In fact, for quite a while the Netherlands has had the lowest level of mortgage payment arrears and the fewest execution sales in Europe (Van Hoek and Koning, 2012; Neuteboom, 2008). Furthermore, as Neuteboom (2008) has demonstrated, when corrected for the national context, the Dutch are certainly no more risk-prone on the mortgage market than other Europeans. The British are the exception to this general attitude; it is presumably their neo-liberal spirit that has imbued them with a higher propensity to take risk.

The third reason to reduce the level of mortgage indebtedness is the rule that has been imposed on banks since Basel III. They are now required to increase the amount of their own financial reserves (i.e., to recapitalize). Obviously, this is not conducive to an generous attitude to mortgage provision in the future. The problems faced by Dutch banks are compounded by the fact that, unlike many foreign banks, they are under-capitalized, even though the savings quote of Dutch households is very high from an international perspective. However, those savings are held by the pension funds and are thus unavailable to the banks as collateral for their mortgage portfolios. Nonetheless, until the credit crisis, this was not an insurmountable problem. The Dutch banks could borrow on favorable terms on the international capital market and could sell their bundled mortgages onward on the same international capital market by means of securitizations. Due to the financial crisis brought about by the subprime mortgages, the latter option had recently almost entirely disappeared, while the interest on the equity investment needed for their recapitalization had increased sharply. Since mid-2012, incidentally, Dutch banks have again been trading mortgages through securitization programs. The consequence of this specifically Dutch funding or deposit problem is that since 2008 the mortgage interest rates have been roughly 1.5% higher here than in neighboring countries. Prior to 2008, the interest levels were virtually identical. And this relatively high level of Dutch mortgage interest rates also has a negative influence on the borrowing capacity of households.

It is not entirely clear whether it was the stricter criteria or the reluctance of the banks to extend mortgages that caused the volume of mortgage originations to decline so steeply in recent years. Presumably the two developments reinforce each other.

6. Conclusion and future developments

This paper has described how the behavior of various major financial organizations has contributed to the deep crisis that envelops the owner-occupancy housing market in the Netherlands. Certain interests of these organizations -- notably a fear of losing their triple-A credit status and the recommendation / requirement to increase their own capital buffers -- carry more weight in their decisions than the problems on the market for owner-occupancy housing. In view of the steep decrease in value that has already occurred and that is yet forthcoming, as well as the collapse of the building production, from the perspective of the housing market and the consequences for households and the overall economy, however, it is doubtful that the impact of their stance has been, and above all will be, good for the country as a whole. Unemployment is rising rapidly in the construction industry (where over 50,000 were out of work at the end of 2012); the number of bankruptcies in that sector is extremely high; and around 700,000 owner-occupiers have a mortgage that exceeds the value of their dwelling. Since 2013, the policy course set by the government that came into power in September 2012 has not only continued rationing credit but has made it tougher to get a loan. Certain measures in particular -- requiring new mortgages to be paid off fully as annuities; imposing harsher housing-cost standards in the NIBUD tables to calculate the affordability of mortgage loans as of January 2012; tapering off the maximum loan-to-value ratio to bring it from 106% in 2012 down to 100% in 2017; and lowering the ceiling for an NHG mortgage insurance from 350,000 Euro in 2012 to 265,000 Euro in 2014 -- have a negative impact. Hardest hit are the starters, who have a key role to play in the recovery of the housing market. Yet a very different range of policy recommendations came out of a par-

liamentary inquiry published in the spring of 2013 that reconstructed the history of twenty years of rising house prices in the Netherlands, but also out of earlier studies by the OECD. As André and Girouard state on the basis of their OECD study, entitled *Housing markets, business cycles and economic policies*, “easy monetary conditions and financial innovations have contributed to excessive lending (especially in the USA) and housing booms, which are at the root of the current financial and economic crisis. In some countries (like the Netherlands), tax provisions (especially mortgage interest deductibility) have also encouraged excessive borrowing. But many excesses in credit expansion would have been prevented by adequate regulation and supervision of the financial system. It is therefore crucial that regulators keep pace with financial innovation, control the level of leverage of financial institutions, avoid pro-cyclical provisioning and capital standards, and improve risk management and transparency. In the short term, the resolution of the crisis requires stopping house prices from overshooting on the downside (in particular by ensuring that mortgages remain accessible to creditworthy borrowers and containing the number of foreclosures) and restoring the normal functioning of financial markets (through the provision of State guarantees, the separation of good from bad assets, and the recapitalization of Banks).” Finally, they argue that, “given the devastating impact of the financial crisis on economic activity worldwide and the limited effectiveness of monetary policy in the current environment, it is essential to support overall demand through targeted fiscal stimulus” (André and Girouard, 2010, pp.126-127). These comments fit in seamlessly with the recommendations made by the ad hoc committee on house prices instated by the Netherlands parliament. The findings of the committee may be paraphrased as follows. For years, and even decades, house prices had deviated from the long-term equilibrium, with major implications for the house-building market and household debt. Because house prices in an inventory market are largely determined by demand in the short to mid term, the government should monitor demand and, if necessary, take stabilizing measures. Promoting the availability of mortgage loans would be a likely instrument. One option in times of falling prices would be a calculated easing, though without making the same old mistakes (Tweede Kamer der Staten Generaal, 2013, p.12). The last of these recommendations contravenes decades of housing market policy in the Netherlands, but also that of the recently installed government. On the basis of the committee's recommendations as summarized above, several alternatives could be considered. Concretely, in the short term, it might be better: *not* to tighten the criteria for extending a mortgage; to support starters on the housing market; and to invest in making the existing housing stock more sustainable. Meanwhile, preparations could be made to implement the structural adjustments to the housing policy proposed previously by various committees (for an overview of these proposals, see Boelhouwer and Priemus, 2012). One such change is a new tenure-neutral subsidy system. Ultimately, the implementation of these proposals would lead to a far more fundamental revision of housing policy than the present government envisions for the remainder of its four-year term. However, a lengthy period of transition, lasting thirty years, is projected, during which time the deductibility of mortgage interest payments can be phased out completely and the rents can gradually be increased to market levels without producing negative side-effects in the short term.

References

- Abraham, J.M. & P.H. Hendershott, 1996, Bubbles in Metropolitan Housing Markets, *Journal of Housing Research* 7(2), 191-207.
- André, C. and N. Girouard, 2010, Housing markets, Business cycles and economic policies. In: P. Arestis, P. Mooslechner and K. Wagner, *Housing market challenges in Europe and the United States*, pp.15-39, London, Palgrave Macmillan.
- Boelhouwer, P. M. Haffner, P. Neuteboom and P. de Vries, 2004, House prices and income tax in the Netherlands: An international perspective, *Housing Studies* 19 (3), 415-432.
- Boelhouwer, P.J., G. Marien, C. Lamain en P. De Vries, 2011, Consequenties van de voorgenomen aanscherping van de hypotheekverstrekking voor het functioneren van de woningmarkt. Onderzoeksinstituut OTB, Delft.

Boelhouwer, P.J., K. Dol, J. Hoekstra and M. Oxley, 2011, Crisis measures for Western European housing markets: safety nets for citizens or stimulation of the building sector? Paper presented at the Cambridge conference Housing: the next 20 years. Learning from the evidence.

Boelhouwer, P.J. en C. Lamain, 2012, De woningmarkteffecten van het plan voor een integrale hervorming van de woningmarkt: Wonen 4.0, Onderzoeksinstituut OTB, Delft.

Boelhouwer, P.J. and H. Priemus, 2012, Housing system reform: the opinion of advisory boards versus political reality in the Netherlands, *Journal of Housing and the Built Environment* 27(4), pp.527-542.

Financieel stabiliteitscomité, 2012, Verslag eerste vergadering. Den Haag.

Haffner, M., 2002, Dutch personal income tax reform: an exceptional position for owner-occupied housing. *Housing Studies* 17(3), pp. 521-534.

Hoek, T. en M. Koning, 2012, Situatie op de Nederlandse hypotheekmarkt, EIB, Amsterdam.

Malpezzi, S. 1999, A simple error correction model of house prices. *Journal of Housing Economics* 8, pp. 27-62.

Neuteboom, P., 2008, On the rationality of borrower's behaviour. Comparing risk attitudes of homeowners. DUP Science, Sustainable Urban Areas 21, (IOS Press).

Ploeg, S., van der en E. Alink, 2012, Waarde daalt, restschuld stijgt. *Eigen huis magazine*, oktober 2012.

Sanchez, A. and A. Johansson, 2011, The price responsiveness of housing supply in OECD countries, OECD Economics Department Working Papers, no. 837, OECD Publishing.

Tweede Kamer der Staten Generaal, 2013, Eindrapport, een reconstructie van 20 jaar stijgende huizenprijzen. Den Haag. Tweede kamer.

Vries, P. and P. Boelhouwer, Equilibrium between interest payments and income in the housing market. *Journal of Housing and the Built Environment* 24, pp.19-29.

Wolswijk, G., 2010, Fiscal aspects of housing in Europe. In: P. Arestis, P. Mooslechner and K. Wagner, *Housing market challenges in Europe and the United States*, pp. 158-175. London, Palgrave Macmillan.

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