

Reinventing the governance structure at the construction market for owner-occupied dwellings after the crisis

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Abstract

Traditional neo-classical economic theories are failing to explain the current situation in the Dutch housing market. There is a high demand for newly built owner-occupied dwellings, but the production is not increasing as quickly as expected. New Institutional Economics is offering explanations for this situation. The institutions in the development sector changed during the real estate crisis, which caused a disruption of the governance structures. There are still thresholds, even in this favourable time, to form new development alliances. Those thresholds are caused by several reasons, like financing issues, capacity problems and an increased risk awareness of all the involved parties. Relations should be reinvented, and incentives for market parties should be created to invest early in the development process.

Keywords: Dutch Housing Market, Housing Production, Housing Systems, Mismatch, New Institutional Economics, Real Estate Crisis, Williamson's Four-Layer Model

1. Introduction

The production of owner-occupied dwellings is not aligned with the current demand. The production of owner-occupied dwellings decreased during the real estate crisis as a logical consequence of the lack of demand (Statistics Netherlands [CBS], 2017). The real estate crisis has been over for some years and the demand for housing increased significantly, but the production never reached the same level as before the crisis (Statistics Netherlands [CBS], 2017). This has caused shortages of dwellings, which increased the prices of real estate significantly. The desired amount of new constructed dwellings is 35,000 too few on annual basis, considering the actual demand, this situation has already resulted in a shortage of 200,000 dwellings in 2016 (Drissen, 2016). This shortage is likely to increase even further in the coming years, due to the demographic development and the lack of new initiatives for development projects.

It is usual that the construction of real estate follows the economic trends with a delay of two to three years compared to the general economic trends (de Wildt, Keers et al., 2005), but the common and expectable delay has already been exceeded some years ago. The high demand for residential real estate makes the pressure on the real estate market very high in the popular regions of the Netherlands, which results in fast increasing prices of dwellings. This extreme growth in sales prices has already been noticed in almost all the Dutch regions in the middle of 2017 (CALCASA, 2017).

DiPasquale and Wheaton (1992) described that the price will rise in the short term in case of a high demand for dwellings, but will fall back into its equilibrium, since the quantity of the supply will rise in the longer run as well by means of new production. This is a neo-classical economic approach and does not seem to have enough explanatory power to describe the actual situation on the Dutch

housing market. This neo-classical approach considers transactions to be frictionless and assumes that all the required information is freely available to all the players, which is certainly not the case in the real estate development sector (Buitelaar, 2004).

The New Institutional Economics places this approach in a wider framework which enables more insights into the functioning of the market. This theory deals with transaction costs and is focused on the governance structures and the costs that are related to run the system. The production chain of owner-occupied dwellings will be assessed with this theory and compared to the pre-crisis situation.

First of all, an introduction to the Dutch housing market will be given, since this is a very complex system compared to many other markets. After that, there are two sections of theory. First, an introduction is given in section 3 to New Institutional Economics, the theory that is used to analyse the Dutch housing market, and after that, more information is given about intertemporal analysis in section 4.

The important institutional changes in the different institutional layers of Williamson are subsequently given in sections 5, 6, 7 and 8. The general trends which are described for each layer of Williamson's model will be verified with a small case study in the municipality of Lansingerland in section 9. Following that, a description about why a higher number of development alliances fail to emerge is given in section 10. In section 11 is focused on the risk aversion of the involved parties and how this risk allocation has an influence on the governance structure.

In the final section of the article (12), a conclusion of the observations is given and possible solutions to make the governance structures more efficient and increase the number of development alliances and building output.

2. The Dutch housing market

A housing market has many different characteristics compared to a perfect regular market, which is assumed to be the case in neo-classical theories. Examples of the assumptions for a perfect market are: A large number of players on both sides (demanders and suppliers), homogeneous products, no governmental intervention, every actor aiming for profit maximisation and perfect information about the present and future is available to all the parties involved (Koutsoyiannis, 1979). This is certainly not the case in housing markets (Kiel & Zabel, 2008; Priemus, 2000a).

The market forces in the Dutch housing market are disrupted, since there is a lot of government intervention in the entire supply chain of residential real estate development; there are actors who have more power than others and there are also social organisations, which are not aiming for profit maximization, active on the Dutch housing market (Haffner & van Dam, 2011). Those are just two examples of the many disruptions of the housing market.

One of the important governmental interventions in the market is zoning. Zoning is a widely used tool to control land use and is applied in almost every country (Lai, 1994). The use of zoning or other control mechanisms results in limitations in the availability of building land (Barker, 2004), which is one of the most important resources for real estate development.

The Dutch housing market is characterized by its structure as a stock market. The new construction of dwellings do add not more than 1.5 percent per year to the existing housing stock in times with a good production rate (Priemus, 2000b; Verhoeven, Knops et al., 2013). This makes it impossible to adjust the supply fully to the demand (Sociaal-Economische Raad, 2000). This inflexibility in the adjustment of the construction to the demand is reinforced by constraints in the land

supply due to governmental policy and zoning plans (Barker, 2004). The large scale of the land-development projects and the interconnectedness between the actors created a closely intertwined system, which means that a shock in one part of the system has fundamental influences on the entire system (Buitelaar & Bregman, 2016).

The production of dwellings is not one simple market, but a complex network of many actors, and the development chain is an assembly of different markets, such the land, financial and real estate markets (van der Schaar, 2006).

DiPasquale (1999) recognised the lack of explanatory power of macro-economic, neo-classical theories to explain the development on the housing market (DiPasquale, 1999). She suggests doing research on micro-level and taking the builder, investor or landlord as units of analysis to understand the decision-making process and the outcomes of the housing market. This is done in this article by using the New Institutional Economics theory and taking the four-layer model of Williamson as a framework.

3. New Institutional Economics

Coase (1937) was a pioneer in the New Institutional Economics stream, but it was Williamson who gave more theoretical and methodological foundation to this theory by introducing the four-layer model (see figure 1).

Williamson (1998) describes four different layers of institutions, namely: Embeddedness, Institutional Environment, Governance and Resource Allocation and Employment. The institutions in the different layers have, according to Williamson (1998), different origins, but interact and influence each other. The arrows in Figure 1 show the interactions between the different layers. However, even though Williamson shows only the interaction between the levels directly bordering each other, he admits that in reality

the system is fully interconnected (Williamson, 1998).

The first layer of institutions, the Embeddedness layer, are the informal institutions. This is the research area of economic historians and social scientists (Nee & Ingram, 1998).

New Institutional Economics and Transaction Cost Economics focus on the second and third level of institutions, the Institutional Environment and the governance structures (Niesten, 2009). Transaction costs are: all the costs that are made and time that is invested to develop and enforce the plans, contracts and agreements. This includes communication and research that is done in order to conclude those documents. Those costs are in the development process of owner-occupied dwellings made by market parties as well as by governments. Transaction costs are basically the costs of maintaining the governance structure. The governance structure with the lowest of transaction costs will generally emerge.

Price and output are the most important decision variables in the fourth layer of Williamson's model. The neo-classical economists do research in this area (Williamson, 1998). This layer is adjusting in a continuous way to the actual circumstances.

The institutions in the different layers can be influenced by institutional change in the other layers. Legislation is based on cultural beliefs, but it can also influence the culture and norms of society, so here is an example of a mutual relation between the Embeddedness and the Institutional Environment layer. Legislation determines the position of (public) actors and influences thus, the governance structures. The Governance layer influences the way in which organisations allocate their workforce and other resources. These were just some examples of how the different layers interact from the numerous interactions existing in real life.

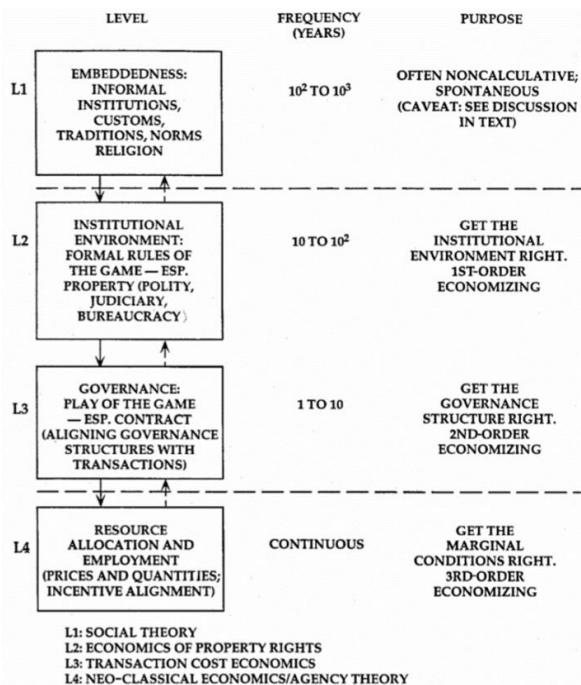


Figure 1: The four-layer model (Williamson, 1998)

4. Intertemporal analysis

Williamson received criticism that his four-layer framework does not take the dynamics of real life into account, but Williamson (1991) defends his framework against this criticism by describing that changes in the Institutional Environment make the governance structures dynamic. Shifts in the environment influence the possible governance structures, which has an influence on the transaction costs and thereby increase or reduce the use of certain structures (Williamson, 1991). This approach enables statistical intertemporal comparative analysis with the four-layer model. Changes in the layers can be explained, since they are caused by changes in one of the other institutional layers.

This method is used in this article to make a comparison between the institutional settings before and after the real estate crisis. It is also used to give an explanation as to why development alliances are not coming into being and why the building output is not reaching the expected level. The trends over time will be analysed layer by layer in the coming sections.

5. Embeddedness

Williamson describes this layer as relatively stable (Williamson, 1998) and this is also visible in the production chain of owner-occupied real estate. The market has changed drastically in the last decades, but the institutions in the Embeddedness layer did not change much. The major institution in this Embeddedness layer which slowly shifted in the last decades is the direction of more free market thinking of the government. This resulted in decentralisation, simplification of rules and legislation, and deregulation.

The perception of the importance of direct governmental interventions in real estate development changed over time. In 1990 it was decided that the development should be more market-orientated, but the central government was still very active in setting goals and providing guidelines until 2008. The focus on decentralisation also pushed the task for housing provision to the local, municipality level. Many municipalities were active on the land market in order to have more power to direct the development in the desired direction. The crisis showed the risks of this approach and created awareness and support among many municipalities to leave the land market and make it a private task.

6. Institutional Environment

The responsibilities and tasks of the different government layers are formally institutionalised. Those formal institutions shape the procedures and the flexibility of the available plan capacity. The plan capacity is the number of dwellings that can be constructed on the land that is assigned by the municipalities as building land. The crisis was a window of opportunity for the government to institutionalise the trend in the Embeddedness layer more quickly by putting more distance between it and the market.

The Institutional Environment changed as a reaction to the market circumstances too. The financial requirements for banks became

stricter to prevent bankruptcy. Also, the requirements for mortgages were tightened, which reduced the financial possibilities for potential home buyers. This was a very procyclical reaction from the government and financial institutions which depressed the market even further (Boelhouwer, 2016). This new regulation for the financial markets makes that there are fewer financial means available to invest in the development sector (Franzen, ten Have et al., 2017). This makes it harder to make development alliances to enable the projects.

The process of deregulation, decentralisation, and simplifying, and integrating different as well as shortening the lead times is still ongoing. The new Environmental Act (Omgevingswet) will replace the Spatial Planning Act and 25 others which are important for development. This will simplify and integrate the legislation and make the planning procedures more efficient. The introduction of this new act was planned for 2019, but has been postponed to 2021 since more time is needed for proper drafting and implementation of the law.

7. Governance

The national government has been moving the responsibilities and tasks for housing provision to the local governments over the last few decades. Municipalities approached this responsibility mostly by acting actively on the land market. This resulted in financial setbacks for many municipalities during the crisis. Most of the municipalities rethought their policies and decided that they should steer the development in a less risky manner. They want a greater involvement and more initiatives from market parties in the land development phase.

Market parties experienced the setback during the crisis too and also became more risk aware. Market parties are generally willing to take over the activities of the municipality, but they are facing next to the increased risk awareness, another problem.

There are too few sites indicated by the municipalities that are suitable for development, according to market parties. The municipalities are expecting an active role from the market parties in coming up with suitable ideas for locations to add to the plan capacity. However, market parties are not directed and supported in finding the locations by any of the governmental layers, which makes an investment in research and planning of sites an uncertain project. Market parties are demanding action from the government in simplifying the legislation and helping to indicate suitable sites for development (van Breukelen, 2017).

The unfulfilled expectations of both the market parties and the municipalities, result often in 'Wait-and-see' behaviour. This causes problems in creating alliances that could enable new large-scale development. Those alliances are needed to upscale the building outputs to fulfil the high demand for new dwellings.

Another bottleneck in creating alliances is the fact that has become harder to find investors due to the tighter regulations on the financial market. This financial partner is a precondition to enable the project.

The governance structure in the real estate development sector changed too. Many companies became bankrupt during the crisis or decreased their capacity. This happened over the entire supply chain, resulting in a decreased production capacity. But it also had an impact in other governance structures, since a large share of the workforce is self-employed, and the average company size decreased. Hiring self-employed workforce and working with subcontractors has become more common since the crisis.

The self-employed persons, often do not want to work for an employer anymore in the short-term, and are planning to stay self-employed (EIB, 2016). They can earn more this way, and they can select the best projects for themselves, since there is enough work.

This means that more parties get involved to reach the same production capacity. This increases the complexity of the governance structure, with higher transaction costs and decreases the efficiency of the structure as a result.

8. Resource Allocation and Employment

Bottlenecks in the availability of some building supplies and a lack of available labour force were experienced in the period prior to the crisis, due to the high building output, caused by the great demand for newly constructed dwellings. The crisis resulted in a drop in the demand for real estate, which also affected the building output of dwellings. The market for labour and building supplies changed from a tight market into a market of overcapacity. The lack of customers and the dropping prices resulted in a decreased production capacity over the entire supply chain. This reduction in capacity was caused by several measures taken by the actors involved in the residential building sector, like a decrease in the number of employees, some construction firms stopping their activities and some factory lines or entire factories closed due to the lack of demand.

Now, the crisis is over, and the demand has reached a high level again. Several development projects that were planned prior to the crisis have been taken into consideration again and new projects have started. Construction firms are experiencing bottlenecks in production again, even though the building output is not at the level of before the crisis. It is expected that it will take some time to increase the production capacity after it was scaled down during the crisis, but it takes longer than expected, according to the existing literature (de Wildt, Keers et al., 2005).

There is a tight market for construction workers and some of the building materials are also hard to obtain. This gives much power to the supply industry and the construction workers. There is enough work, but the workforce is too small. Companies over the

entire supply chain are trying to increase their number of employees. Opportunistic behaviour has them asking high prices and picking the best projects and companies to collaborate with. The power balances in negotiations have changed drastically during and since the crisis.

The competition shifted from the construction market in the past, to the land market. There might arise a situation in the future where the competition moves to the labour and building supply market. The developers and construction firms which can make alliances with subcontractors and suppliers are the ones which are still able to produce new dwellings.

9. Empirical validation

Many trends of the institutional changes which are described in the previous sections are also present in the municipality of Lansingerland. The demand for housing increased significant and the municipality also changed to a more facilitative role instead of an active one in the land market (Zevenbergen & den Heeten, 2017).

Significant changes in the land development phase are not experienced for the analysed projects, the development of *Gouden Podium* and *Meerpolder*, since the contracts were already drafted before or during the real estate crisis. It is slightly renegotiated about financial conditions.

The general trends of the institutional change in the construction process of the real estate is experienced in the cases. So are the tight labour and building material market experienced in both of the cases. It is a challenge to find enough workers for the construction site, which results in subcontracting a large share of the tasks (Weerd, 2017). The contracting parties are not willing to make long term agreements, since the availability of workforce is uncertain and the prices are rising quickly (Paalvast, 2017). This results in more complex and dynamic governance structures.

Also, the availability of building materials are causing challenges in the development projects within Lansingerland. The delivery times for some building materials like concrete foundation pillars have increased significantly (Paalvast, 2017). This has an effect on the planning process. Decisions for orders have to be made earlier in the process, which results in less flexibility later (Weerd, 2017).

10. Non-emerging governance structures

There are more difficulties experienced in forming alliances to make the land development possible. This is partly caused by withdrawal of municipalities. They incurred and paid in the past many transaction costs in the initial phase of a project. They were bore a large share of the risks during the land development phase. This task has not been taken over enough by the market parties yet, since the guidelines given by the municipality are insufficiently, which makes investments in the planning phase risky. This results in wait-and-see behaviour from the market parties. Market parties are demanding action from the government in simplifying the legislation and helping to indicate suitable sites for development (van Breukelen, 2017).

Another important partner required in an alliance is an investor to introduce financial means. The investors are more risk aware in the post-crisis situation and they are also bound to stricter financial requirements.

Furthermore, construction firms do not have enough capacity to run all the projects. The project cannot continue in cases where one of the required partners is not found or when the parties cannot reach an agreement as to who bears the costs and risks in the project. All the transaction costs that are incurred by a discontinued project will not be earned back and are spilled. This is very inefficient.

11. Risk aversion and allocation in governance structures

It is harder to form alliances in the Governance layer, due to the reduced number of parties

active on the market and the increased risk awareness of all the involved parties. Municipalities were often taking the risks and accumulating the costs at the beginning of a project. They mostly changed their policy and tried to allocate the initiatives and the risk associated with the development to the market parties. Market parties are also more risk aware, due to the recent crisis and are not willing to take unnecessary risks by investing in very uncertain projects.

There are smaller and thus more parties involved in the development process, since more work is subcontracted, and the construction firms are often working with self-employed construction workers. This increased the flexibility for the construction firms on one hand, but increases the uncertainty about the available labour force on the other hand. The transaction costs are increasing to maintain the governance structure, because the increased complexity of the arrangements and the uncertainty in the current situation.

12. Conclusion and solutions

The neo-classical economic theories just take the institutions of the Resource Allocation and Employment layer into account. This framework is not wide enough to explain all the dynamics in the development chain of owner-occupied dwellings. The four-layer model of Williamson offers a good framework to analyse the institutions in the development chain of owner-occupied dwellings. Many observations that are given by Williamson are also present in the complex building sector, like the fact that the Embeddedness layer is relatively stable and the lower the layer is, the less resistant to change it is. The interconnectivity between the layers is also clearly present in the construction sector.

The analyses give insights into how the governance structures in the land development phase are changed, driven by a slow shift in the Embeddedness layer and the

very pro-cyclical policy adaptation that was implemented, due to the risks that became clear during the crisis. The governance structure in the real estate development phase changed as well. More small companies and self-employed people became active in the sector, due to the outflow of employees during the crisis. This gives more flexibility to the construction workers and increased the number of contracts needed to enable the development.

This change in the governance structure resulted in more difficulties in finding the right alliances needed for the development. All the transaction costs which are incurred are lost in cases where no alliance is shaped and ultimately, the project has to be cancelled. This makes investments at the beginning of a project risky. There are not many parties willing to take on the risk of accumulating transaction costs for an uncertain project. This reduces the number of initiatives taken and because of the decreases the potential building output.

Change is needed on the level of Governance to reach the desired goals. Several parties are still discovering their position in the new circumstances after the crisis. Municipalities are expecting more initiative from market parties, but the market parties are seeing the risks, which are increased even further due to new legislation, in the initial phase too. An incentive to incur transaction costs in the beginning by finding the right alliance and checking if the plans are accepted by the municipality should be put into place.

This incentive could be more active support from the municipalities in earlier phases, so that the market parties know that they will get permission for their plans. Municipalities can do this by offering consultations to market parties early in the process. Municipalities can also provide clear public visions regarding to the districts in which densification or expansion of the housing stock is desired and in which districts initiatives are not desired. This helps the

market parties to put their focus and resources into promising projects, rather than spilling their resources on projects which will not be permitted.

It seems that financing projects in the initial phase is problematic, due to stricter regulations for financial institutions. Those incomplete alliances can be fixed by decreasing the amount of costs in the beginning of the project by more organic-like development. This might increase the total amount which must ultimately be invested, since scale benefits will be missed. But it also decreases the risks and offers the possibility to bring a large share of the costs to a later phase. More organic-like development can be undertaken in projects with professional developers, but it might also offer interesting opportunities for self-commissioning by the owner-occupiers. Municipalities can support this by giving developers better opportunities to phase the project. Municipalities have, for example, the possibility to sell the land in different phases to the developers in cases where development takes place on locations initially owned by the municipality.

Another measure that can be taken is offering loans with favourable conditions for investment in land development. This can be done by organising a revolving fund. Market parties should be able to withdrawal financial means from the fund to finance the initial phase of a development project. Only projects in areas that are designated by the municipality should qualify for loans out of the fund, to ensure that development takes place in the desired areas. Market parties will pay back the borrowed finances once the developed dwellings will be sold at the market. A mortgage on the land itself can be taken as security to reduce the risk of not recuperating the money which is loaned.

Governance structures should change to become more efficient and avoid the incompleteness of the alliances. This can be done by municipalities by supporting market

parties in focusing on chanceful projects in places where (re)development is desired and by offering better financing possibilities in the initial phase of the project.

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