

The Issue of Value and Price in Land Market Research

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Key words: Land Value, Land Transaction, Planning Process

SUMMARY

This paper discusses the reciprocal relationship between land value and the negotiated transaction price of land. In a market that is characterized by many inefficiencies we may hold the hypothesis that price does not equal value (Wyman, Seldin & Worzala, 2011). This hypothesis raises the question of how value and price relate to each other. In a still ongoing research we try to build a conceptual framework that understands land transaction outcomes through the lenses of their transaction processes. These processes are shaped by judicial boundaries, laws, regulations and actor behavior. We argue that, together, those institutional aspects determine the interplay between land value and price.

In order to allow for transactional aspects in land market analyses, this conceptual framework challenges conventional methodologies and data sources and calls for the use of a combination of both quantitative and qualitative research approaches towards land market research.

The framework is applied to two Dutch land market segments: the market for rural land and the market for inner city building land. A hedonic price analysis of rural land prices, based on notarial deeds of purchase, shows the institutional richness of notarial deeds as data source for land market research purposes. It shows the greater explanatory power of including transaction characteristics and with that, it sheds a different light on the use of appraised value or transaction price data in hedonic land market analyses (Ma and Swinton, 2012). Next, an in-depth analysis of inner city land transactions reveals that *both* value and price are determined during the land transaction process. This finding is different from the causal relation we expected; namely that transaction processes cause a land price to deviate from its value.

We conclude that the interplay and difference between land value and land price, caused by the institutional transaction context, should be subject to land market analysis, rather than just the focus on price or value.

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1. INTRODUCTION

This FIG conference paper contains some preliminary thoughts on the field of land and real estate valuation from my inquisitive and perhaps somewhat naïve Dutch planning perspective. Grown up with the conventional Ricardian idea of land value being solely dependent on the use to which it is put land value, as such, does not play a very significant role in planning practices. After all, the value of the land can just be regarded as a derivative of urban development and the planning process. At best one might expect that planning processes, in the long run, do not impede or at least deliberately deviate from the assumption that land is put to its highest and best use. Some even go so far as to say that optimizing land values should be a planning objective in itself. Although these examples show a much more institutionalized land market than was the case in the Ricardian idea, the same analytical assumption can be applied; the value of land is a dependent variable.

However, in practice, at least in the Netherlands, planners see themselves confronted with numerous situations in which the causal relationship between land use and land value is not that straightforward as it theoretically might seem. The Dutch case is characterized by the so called ‘active land policy’ in which municipalities play a very important role in the land acquisition and planning process, especially in urban regeneration areas. Land is acquired well ahead of need and during the planning process the transaction price that has been paid for the land serves as a reference point. To put it simple: urban planners and designers are presented with a *fait accompli* and may have to adapt the development scheme in order to make sure that the residual land value after the development is completed will equal its original land acquisition price (of course in case no subsidies were applied to cover potential losses). As opposed to the conventional conceptual assumption on land values, in this latter situation it is clear that the land transaction price serves as an independent variable.

This example sheds light on the very interesting reciprocity between land value and land transaction price in the context of urban (re)development. Due to its determining consequences on urban development outcomes, the question of how land transaction prices are formed and connected with their corresponding land values is of vital importance to understand those urban development outcomes. The argument made in this paper is that the relation and differences between land value and transaction price are often overlooked. The concepts of price and value are closely interrelated and I have tried to unravel some of its fuzziness by looking at the Dutch case of municipal land acquisition for inner city regeneration projects. The paper is structured as follows: first the institutional context of the Dutch ‘active land policy’ is outlined. Second, a brief theoretical review is given on the concepts of value and price. Third, some preliminary results from an ongoing case study research are presented. To conclude, a few suggestions for further research are discussed.

2. DUTCH ACTIVE LAND POLICY

Public land development is at the core of Dutch municipalities' strategies to achieve their planning goals (Van der Krabben & Jacobs, 2013). Municipalities acquire land ahead of need and supply serviced and subdivided building plots to developers, builders and housing corporations. Due to the economic and financial crises, problems with land acquisition have attracted a great deal of attention. Many municipalities encountered financial hardship, some even went bankrupt, and were obliged to devalue the potential building land they had bought in the past. As prospects fell, book values turned out to be too high (Deloitte, 2011).

There is a growing body of opinion among policy makers and scientists that questions the very concept of active land policy, emphasizing its inconclusive utility and the high acquisition prices. The question whether active land policy is a necessary instrument to achieve planning goals is beyond the scope of this article. Instead, this article focusses on the second argument regarding municipal acquisition prices. The focus within the active land policy discussion on the high transaction prices is understandable, due to the urgency of current financial situation within municipalities. However it leads away from the fact that a very important part of the argument is missing. That is to say that a closer look at problems reveals a significant knowledge gap. We actually know very little about price formation under the regime of active municipal land policy.

3. THE CONCEPTS OF VALUE AND PRICE

A clear definition of and difference between price and value is crucial in land and real estate economics (Özdilek, 2010). Several authors in the field of land and real estate have showed different outcomes of using appraised values and transaction prices (see for example Ma & Swinton, 2012). Others have accentuated the difference between the concepts of price and value by emphasizing their different definition (McParland, McGreal, & Adair, 2000; Özdilek, 2010). In practice the two concepts have usually been confused (Dorchester Jr, 2011). This is partly due to the strong reciprocal relation between price and value which has gained little attention in the literature so far. Theoretically, the market price of land and real estate "reflects all the new-value affecting information" (Lusht (1986) in: Wyman, Seldin, & Worzala, 2011, p. 342). Consequently there should not be any difference between value and price. Different notions of rationality, uncertainty and institutions (Dequech, 2000) help to understand why prices deviate from values and help to analyse their relationship.

The concept of land value (and property value) suffers from both a lag of information on future revenues (Özdilek, 2010) and a fuzzy definition (McParland et al., 2000). "Experiments around the world have repeatedly demonstrated that even the most experienced and reputable valuers come up with significantly different valuations for same properties" (M. M. Mooya, 2009, p. 688). In terms of uncertainty one can say that various notions on uncertainty can be applied on the concept of value. First, real estate markets are often thin and each land parcel and building has, to a large extent, a unique character and is not traded very frequently. The information necessary to compare different transactions is often just missing. Second, as the

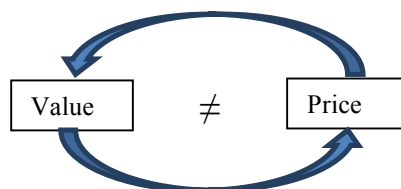
future is yet to be shaped, one has to make assumptions on future revenues in order to report a value.

Although the uncertainty, caused by this missing information, is often implicitly perceived as a weak form of uncertainty, one can wonder whether this is correct. One may argue that due to the innate characteristics of land and real estate and the innate thin character of real estate markets the unique character of each transaction has to deal with a more strong and fundamental kind of uncertainty.

The concept of valuation is also interesting in terms of ‘institutions and economic behaviour’. In a way the concept of value is an institution in itself. It includes both an informational cognitive function and a deeper cognitive function. Some even go so far as to say that “market value should rightly be viewed as a social convention whose function is to facilitate transactions between self-interested individuals participating in complex property markets” (M. Mooya, 2011, p. 2276). Market value is a mechanism to provide for the co-ordination of market participants operating in imperfect real estate markets, markets in which the normal price signals do not provide sufficient information or guidance to market participants” (Ramsey (2004) in M. Mooya, 2011, p. 2277). The fact that various definitions circulate demonstrates, amongst other things, that the informational cognitive functions is not very well performed.

Moreover, this uncertainty and underperformed informational cognitive function do, to a certain extent, explain the very existence of a valuation profession. From a transaction economics point of view, valuers exist to minimize transaction costs. Here again the concept of rationality comes in as well does the concept of uncertainty as we discuss the way valuers perform their institutional informational cognitive function. A cognitive function with a teleological flavour, however. The fact that different valuers will report different values for the same plot of land can be explained by the use of different definitions. But is may also be due to imperfect rationality and the aims valuers pursue. Are valuers in general profit maximizers or are they satisficers? Or are there aims and preferences even situational specific defined?

The existence of different values and the fact that valuer behaviour can differ among situations, makes that buyer and seller negotiate over a transaction price. Moreover, those actors as well can act in different rational ways. Moreover, thin real estate markets and unique transactions create the liberty to define tailored agreements. As a consequence, the transaction may reflect other transacted goods, then the once that were assessed in the first place.



4. PRELIMINARY RESULTS

4.1 Methodology

The phenomena of value end price are often analyzed in a quantitative way. The still ongoing research project of which the preliminary results are being presented in this section adopts a more qualitative approach. The municipal land acquisition activities within fifteen urban regeneration projects in ten Dutch municipalities have been analyzed. Interviews were conducted with the responsible project leaders, appraisers, buyers and judicial professionals within the municipalities. In most cases some of these functions had been taken up by one person. The interviews focused on five main topics: the general land acquisition practice within that particular municipality, the hierarchy between different subjects of negotiation within one or two specific projects and acquisitions per municipalities, different kinds of contracts that have been made, valuation methods and price outcomes, and a typology of the transaction process in general. In several municipalities inspection was given of the specific, mostly confidential, documents and contracts.

In the remainder of this fourth section we will discuss some interesting preliminary results on the land price formation and its reciprocal relationship with the concept of land value.

4.2 The interaction between land acquisition and the planning process

Transaction processes differ from each other in the extent to which the actors feel some sense of urgency. Both buyer and seller may, or may not, feel such a sense of urgency for several reasons. We found various aspect that may nourish the urgent character of a land transaction. In one municipality we found a very structured typology of land acquisitions. In this municipality they distinguish between three types of acquisitions, according to specific moments in the planning and development process. If land is offered for sale and no development activities are projected on this area it is called a 'strategic acquisition'. If a new development is projected on a specific plot that is offered for sale one speaks of an 'anticipatory acquisition'. Finally if the municipality actively approaches the owner of the land the is readily needed for a spatial development for which a new land use plan has already been issued, this is called an 'active transaction'.

In another case, the acquisition of (the land under) a sewage treatment plant, we found a very complex momentum that was shaped by various aspects. The district water board was about to invest in a renovation of its treatment plant. The necessary environmental permits, issued by the municipality were about to expire. The plant was located on one of the few locations on which the municipality could eventually extent their city. Moreover the land was heavily contaminated. A subsidy was provided by the province in order to decontaminate the land. This significant financial support was said to be essential. The very subsidy program was linked to a specific time schedule. These three aspects came together and a plan was developed in which a completely new and high tech sewage treatment plant was planned on another site. The original site became available for housing development. If either the old sewage plant was not due for replacement, the province did not have a decontamination program or the place was not contaminated no land would have been transacted in the first place.

In yet another case we found a post office at the city's central square that was offered for sale. The Alderman called this a 'once in a lifetime opportunity' and bought the building and the land together with a housing corporation in order to develop a plan for social use.

In these three cases we found different valuation methods and different reasons why municipalities deviated from those values during the transaction process. It cannot be concluded that the further the process of urban redevelopment progressed the higher the sales prices or the greater its deviation from the original value. Municipalities may feel a sense of urgency even though the urban development process does not give cause.

4.3 “Creating your own market”

An important aspect in determining specific land acquisition processes is the amount of plots that needs to be acquired and the relation between those acquisitions. Almost all interviewees indicated that municipal land acquisition holds the risk of 'creating your own market (price)'. This argument consist of two parts. First, if two or more plots with more or less the same characteristics need to be acquired, transaction prices are compared with each other. According to the comparable sales method a specific transaction price sets the margin for subsequent sales. One interviewee even said that for each transaction price that deviates from the assessed value, they estimate the chance that those 'high paid price' will establish a precedent by providing a so called leading case.

Second, there are several reasons why the actual transaction price deviates from the assessed market value. One is that the transaction price represents not only the land and real estate but also several kinds of rights and duties and various forms of financial compensation. If the transacted good is inaccurately defined in the deed of purchase, then the relation between the transaction price and what it represents is hard to retrieve from Land Register databases. Comparing seemingly similar transactions in fact turns out to be comparing apples and oranges. If those price, at first sight, do not seem very strange, they are usually not defined as outliers in the analysis. Consequently, a wrong reference price is taken for the assessed value.

5. CONCLUDING REMARKS AND FUTURE RESEARCH AVENUES

In general land value and land price research have long been relying on mainstream economic assumptions. However, the rich and extensive theoretical discussions within economics on how particular economic movements differ in their ontological and epistemological positions (see for example Dequech, 2000) may provide useful insights to enhance land value and price analyses. Watkins and McMaster (2011) have tried to start this more philosophical discussion on the conceptual and methodological implications on housing (and land) market research of other views of the world and ask themselves: “can we really combine insights from different traditions [...] in a meaningful manner?”

This is a very interesting question but, to my idea, one step ahead of the future challenge for land market research. Future research agendas should first shift focus from market outcomes towards market processes or as Dorchester says: “The last thing you want to know about a transaction is its price. Until then it is meaningless and, worse, can be misleading. [...] Go behind the numbers to get the details of the transaction, and then analyze and fully understand it.” (Dorchester Jr., 2011, p.437).

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BIOGRAPHICAL NOTES

Alexander Woestenburg MSc graduated *cum laude* in 2010 his Masters in Spatial Planning. He wrote his thesis on the relationship between the concept of ‘strategic planning’ and specific types of government funding of spatial developments. Since his graduation he has combined a PhD research at the Radboud University Nijmegen and a job as scientific staff member at the Dutch Council for the Environment and Infrastructure, the independent advisory board of the Dutch government and parliament on strategic spatial and environmental issues. He encourages to work on topics that require to explore views from different professions and emphasizes the importance of the practical applicability of scientific research. In his job at the Council for the Environment and Infrastructure he tries to search for a practical translation of scientific research. Lately, together with his colleagues at the council, he wrote a report on the active role of Dutch municipalities on the land market.

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