

The costs of main types of real estate transactions – Establishing a base for empirical investigations

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Abstract The notion of *transaction cost* is introduced for the non-economist, referring to the different interpretations of O E Williamson and D C North. The components of transactions costs relative to transactions in real property are detailed with a view of providing a methodology for empirical investigations.

1. Introduction

The notion of *transaction costs* developed in economics in the 1960s. It did so in several research traditions, and although these agree on the importance of the concept, there are diverse interpretations of the meaning and implications of the notion. Two main research traditions may be briefly sketched for the non-economist.

The different research traditions both take their ground in the analysis of the costs of alternative social arrangements by Ronald Coase (1960). A key issue is that property rights are not just there to be applied, as a legal approach would suggest. Rather, property rights are malleable, and some assignment of property rights within a society is more efficient than other. Before Coase, the analysis of markets generally assumed zero transaction costs, and government intervention was taken to correct for 'market failures'. Coase contested these ideas, as all feasible forms of organisation are flawed. A body of subsequent economic works included transaction costs in their analysis of diverse arrangements of property rights.

One set of such research has been labelled Common pool problems. They regard the common grazing of land, fisheries, and oil extraction. Others regard the allocation of the electromagnetic spectrum to radio broadcasters, mobile phones, and wireless computer networks. These analyses investigate the diverse ways in which property rights may be created in resources.

Note the term *created*. Property rights are social constructs. This does not imply that institutions like property rights can be constructed like bridges or information systems, although you can attend a workshop on Institutional Analysis and Design (Ostrom, 2002). The notion that property rights can be created does, however, point to an important faculty of social man. The creation of institutions differ from the creation of statute laws or articles of an organisation in the fact that institutions are carried and maintained by human mind. A statute law which is produced according to Parliamentary rules is thus valid and binding, but may be largely disregarded, in fact a piece of written paper. Still the ignored rules constitute a law. An institution must be operated and maintained by people to exist. Exactly of this reason, the institutions are hard to change: You have to change the habit of people.

Important for the following is the different approaches taken. One tradition of research is based on a theory of the firm (i. e. company, corporation), and although addressing a broad array of issues, it seems to be doing so from a company or corporation point of view. Another tradition is addressing property rights and transaction costs from the point of view of *institutions*, and it is

this latter tradition that appears to make sense for the kind of investigations pursued in the context of COST action G9: *Modelling Real Property Transactions*. The former tradition of research is connected to the research of Oliver E Williamson and O Hart, among others, the latter to Douglass C North (Williamson, 2001; North, 1990).

Section 2 develops on the conception of transaction costs as presented by North (1990), and details its implications for transactions in real property. On this base, and drawing on discussions within the context of the COST G9, section 3 presents a model, a direction for empirical investigations, which is detailed enough to render the costs of property transactions of a specific country, and still general enough to allow for comparisons between different (European) countries. Transactions costs have been presented for Finland in (Viitanen, 2003). This presentation is compared with the model to illustrate the use of the model (section 4). A discussion on availability of data and the validity of the outcome of comparison completes the note.

As the present research approach is multidisciplinary, a set of definitions are offered that provide the base for the remainder of the paper:

Transaction: A negotiation about an exchange involving a commodity or service. (The negotiation is assumed to be completed.) Commodities here typically mean ownership rights in real property. Services typically refer to land registration, to the issuing of certificates etc, as well as to related professional services as offered by e.g. notaries, lawyers, and land surveyors.

The transaction relative to professional services regards the exchange of money against the service of the professional. This should not be confused with the main transaction, namely the conveyance. Furthermore, the transaction aspect of subdivision and other cadastral work is the exchange of money against new or reorganised cadastral identification of parcels and units of real property. Transaction is an abstract concept, and it is assumed that it only indirectly can be related to rather routine human activity. Hence, to model human activity, the notion of *procedure* is introduced.

Procedure: A sequenced set of activities with defined outcome. Activities are understood as typical courses of conduct (Weberian ideal types). These make a 'sequenced set' rather than a 'sequence' as the sequence is not assumed to be strictly adhered to, and the mentioned set of activities are intermingled with activities, which have other outcomes (The performing person may task-switch among several cases).

Asset: a sum of money or other item of economic value, including a parcel of land.

Institutions are the humanly devised constraints that shape human interaction (North, 1990: 3). Constraints, or norms, may or may not be explicitated in writing. If the written norms tend to mirror or direct human behavior, the concept of institution includes statutory law, leading cases of court rulings, as well as professional and civil service code of conduct. Further implications of the term are not developed in the present paper. Rather, it is assumed that the above mentioned procedures are the observable impact of the institutions, which in a specific country relate to real property rights.

Real property (immobile) rights are rights in a parcel of land and its fixtures, e.g. buildings and vegetation. Such property rights may take a variety of forms: Ownership, lease, copyhold, mortgage, and easement are among the familiar types. Property rights are restricted by eminent domain, or the right of government to compulsory purchase, by taxation, and by spatial planning measures like zoning. For more details see (Bruce, 1993).

Ownership consists in the economic sense of the right to a) use an asset, b) to appropriate the returns from an asset, or in other terms: enjoy the future flow of income from the asset, and c) to change its form, substance, or location (Williamson, 2001).

Economic gains are made possible through *trade* in free markets. Especially international trade fosters specialization and economics of scale. Commodities can thus be provided more efficiently, but while the size of markets grows, the number of exchanges grows as well, and they tend to grow more complex. Standard economic theory modelled the performance of markets without taking the cost of exchanges into account. However, the cost of exchanges in the US economy was estimated to amount to 45 percent of national income in 1980s, while it was about 25 percent a century earlier (North, 1990: 28). Consequently, because of the magnitude and tendency of growing, production relationships have to be restated. The total cost of production consists of the resource input of land, labour and capital involved in both the *transforming* of physical attributes of a good (size, weight, location, chemical composition, etc) and in *transacting* – defining, protecting, and enforcing the property rights to goods.

Enforcing property rights to land includes police assistance in case of invasion of privacy, execution procedures in case of mortgage default, and court rulings in case of breach of contract. Protection of property rights implies the provision of the means needed to make the future income stream of the property predictable. If the future income stream is dependent on some other party, both parties will try to capture some part of it (North, 1990: 32). The protection measures include the provision of impartial and skilful third parties to oversee or conduct property transactions, including land registry and cadastral identification of land parcels, as well as provision of effective settling of boundary disputes and assessment of property value in case of mortgaging and of improvements in case of lease termination. Furthermore, protection measures include the education of the various professions and occupations needed to fill the posts as third parties and to run the recording systems.

2. The notion of transaction costs in general, and as applied to real estate transactions

The concept of transaction costs has been set out by North, first in the context of transactions in general (1990: 27ff), then further detailed as regards property transactions (: 61ff). The parties who are engaged in a potential transaction need information to decide, whether the transaction sufficiently matches their preferences. This information is costly, and according to North the costs comprises of *measurement costs* and *enforcement costs*.

Measurement costs are the costs of measuring the valuable attributes of what is being exchanged. A surveyor's measurement of the size of an area might be one example of attributes only, 'measurement' is here taken in its wide sense, and no assumption should be made that the 'measurements' are always quantified. A good or service is characterized by a number of attributes that each contributes to or detracts from the utility of the good for a prospective buyer. The number and value of these attributes tend to vary among potential buyers. Thus, each has to identify and assess (measure) the value of these attributes. Transaction costs are made up of the information costs in ascertaining the level of individual attributes of each unit exchanged.

Now, as these attributes are not necessarily objective facts that are publicly available, the measurement task is further complicated by the fact that parties of the exchange have different access to information on the attributes. The seller of a used car would know much more of the peculiarities of the car, in other words: of the valued attributes of the car, than the buyer. Similarly, a doctor knows more about the quality of his services than the patient. Depending on circumstances, a party might conceal information or even lie, if the payoff of such behaviour exceeds the value of alternative behaviour. This *asymmetry of information* may be partly

compensated for, either through specific investigations on behalf of the buyer, or by institutional arrangements in terms of guaranties, bonding of agents, etc. Again, this adds to measurement costs.

Enforcement costs are the costs needed to make parties fulfil the obligations they agreed upon. Enforcement can come from internally enforced codes of conduct, from second-party retaliation, or from third-party sanctions, be it social exclusion or state coercive measures. Enforcement measures are cost effective only as far as the costs of policing are less than the benefits of such enforcement. The likelihood of defection by the other party has to be included into the estimate of costs as a risk premium. The amount of the risk premium may be high enough as to prevent more complex exchanges, or the exchange may be restricted to take place within the circle of personally known parties, where the risk can be reasonably taken into account.

Compared to the world at large, the European countries have institutions that allow for complex exchanges, e.g. regarding rights in immobile property. The state plays a dominant role in providing stable and skilful third parties that drastically reduces individual enforcement costs and thus allows for impersonal exchanges. Opportunism and cheating are present as everywhere, and the complexity of the modern society increases the return of such behaviour. However, the formal rules of law, public agencies, and eventually coercive power supplements informal constraints of behaviour, thereby reducing the tendency to opportunistic behaviour.

Costs of conveyance

The object to be exchanged appears for the eye as a piece of the surface of the Earth, with buildings and other fixtures, but essentially what is exchanged is a set or a bundle of rights over such physical object. The *measurement costs* thus include measurement of the physical as well as the legal attributes of the unit. Some of these may be straightforward to establish, e.g. size and general features. Others, like maintenance costs and characteristics of neighbours may be more difficult to ascertain. As regards the legal attributes, measurement costs arise not so much due to the rights explicitly stated in the deed, but rather from uncertainties whether all liabilities are taken into account, whether the seller is fully entitled to dispose of the property, or whether restrictions in terms of expropriation or spatial planning measures will reduce owner rights in the future. Furthermore, the risk due to imperfect measurement has to be taken into account as well. This risk has to be assessed for the specific exchange, e.g. the condition of the house (best known to the seller), the financial condition of the buyer (best known to the buyer), for the local circumstances, e.g. availability of services in terms of quality of schools and effectiveness of crime prevention, and national factors as stability of prices.

At the outset, North discerned between *measurement costs* and *enforcement costs*. However, in detailing the transaction costs of a transfer of residential property, he introduces *market costs* and *search costs* in addition to the cost of time each party devotes to information gathering. Market costs include legal fees, realtor fees, title insurance, and credit rating searches. Search costs include obtaining information about crime rates, police protection, and security systems. In the following, *measurement costs* is taken to include all kinds of obtaining information on the specifying of relevant attributes, ‘measuring’ the values of these attributes, as well as assessing the risk related to imperfect measurements. The cost of the assistance of professionals: Realtors, lawyers, civil engineers, etc in the conveyance process is taken as measurement costs, as this assistance replaces the buyer’s measurement efforts. A well written deed potentially reduces enforcement costs. However, as *enforcement costs* are considered only the legal fees and duties, including costs related to forced sales in case of default.

North points to the fact that the institutional arrangement of conveyance need not be optimal, that is: minimize transaction costs. Rather it should be expected that the mixture of legal rules,

agency objectives and practices, professional codes of conduct and actual behaviour, degree of honesty in information exchange among parties, etc, sometimes reduces and sometimes raises transaction costs. The purpose of the present effort of the COST G9-activity is precisely to identify those components that make the costs differ.

3. Modelling transaction costs of property transactions

The research effort of COST G9 has so far produced comparable and fairly detailed descriptions of the procedures through which main property transactions are performed: Conveyance, subdivision, and mortgaging. The preparation of a fairly complete list of land related procedures of the involved countries has been agreed to as well. The main categories of procedures are the following:

- Cadastral procedures
- Quasi-cadastral procedures (identifying land, buildings)
- Transfer of real property rights
 - Sale of a unit of real property
 - Inheritance
 - Foreclosure auction, Compulsory sale
 - Expropriation, Forced sales
 - Mortgaging
 - Leasing
 - Granting of servitude
- Title and boundary disputes
- Spatial planning inducing restrictions
- Assment of property value for mortgaging and for taxation
- Taxation of real property

Main categories of procedures related to real property

The cost of performing these transactions can be assessed in several ways: An obvious approach (a) is to assess the costs for the parties concerned, typically seller and buyer: The fees and duties to public services, as well as the charges and honoraries to private companies. The fees, etc seem to be fairly easy to reoord. The costs of honoraries is much more difficult to establish, among others because of the different complexity and hence costs of cases. An approach could be to ask a number (5-10?) of companies in different parts of the country to assess the relative number of cases in different price groups, e.g. as follows:

| | | | | | |
|----------------------------------|---------------------------------|---------|---------|---------|---------|
| Relative number of cases in 2002 | * | * | * | * | * |
| | * | * | * | * | * |
| | 0 - 19 | 20 - 29 | 30 - 39 | 40 - 69 | 70- 100 |
| | % of highest honorarium in 2002 | | | | |

Model for reporting honorarium for professional assistance in real property cases The median cost is taken as honorarium for a 'standard' case

The cost of the parties' own efforts may be accounted for in verbal form, including references to

search facilities available and their charges. These costs may then, for comparable procedures, be converted from national currencies to euro, and compared.

This approach only very indirectly accounts for the national investments in the public infrastructure that supports the above mentioned transactions. The amount of fees may reflect a governmental cost-recovery scheme, but can also include a substantial fiscal element as well as a more or less intended subsidy. This fact could be addressed by (b) establishing the yearly governmental (state, and where applicable: municipal) gross expenditure for land registry, cadastre and taxation, and verbally assess the implication of long term investments, e.g. in terms of computerization of land registry, etc, as well as the amount and costs of court cases related to boundary dispute and compulsory sale due to default of mortgage. Possible subsidies and discounts, e.g. for specific user groups, should be taken into account as well.

To put the above in schematic form, and selecting the year 2002 as the common reference, we need to establish year 2002 expenditure for

| Organisation/Task | Personel costs | Technology costs | Other costs | Incomes (fees, etc) | Net sum |
|-------------------------------|----------------|------------------|-------------|---------------------|---------|
| Land registry | | | | | |
| Cadastre | | | | | |
| Property assessment/ taxation | | | | | |
| Boundary disputes | | | | | |
| Compulsory sales | | | | | |

The national transaction costs includes the amount that is paid to the private sector. Assuming that professional honoraries and charges of private companies, etc covers the actual costs, including profit, the national property transaction costs could be assessed as the sum of gross national expenditure on the real property infrastructure, mentioned above, plus the accumulated amount paid to the private sector. The latter amount could be assessed by multiplying the cost of a standard transaction, as described above under a), with the corresponding number of transactions during the year concerned. The national transaction costs have to be normalised through some measure of the number of transactions performed, and again converted to euro to allow for cross-national comparison.

The cost of property transactions are mainly labour costs. Differences in salary level in different countries could thus blur the analysis, e.g. in the way that a cost-efficient procedure is discredited because of a salary level that is high because of national circumstances, and not because of the complexity of the procedure. Also, differences in pension schemes may distort the picture. To compensate for such differences, it would be useful (c.1) to record a measure of hours consumed for the diverse transactions, perhaps at technician and graduate level, respectively. This might be an option in countries where governmental cost figures exist on transaction level. Alternatively, (c.2) the outcome of (b) could be further normalised, taking into account the variation of salary level across countries.

Summarising, what we need are measures of the costs of the main transactions, cf. (a), the number of these transactions a specific year (2002), and - where figures exist - an estimate of the hours used (c.1). Furthermore, the yearly state expenditure on property infrastructure (b), as well

as an estimate of the amount and cost of the not detailed transactions. Finally, comparable figures on salaries for technicians and graduates in the countries concerned, as well as currency rates along with critical judgement of the conversion exercise. On this base - it is assumed - accounts can be made, which are detailed enough to render the costs of main types of property transactions of a specific country, and still general enough to allow for comparisons between the concerned European countries.

4. Accounts of transaction costs so far

The COFOG classification

The UN Statistics Division provides the frame for the establishment of classifications that support cross national comparisons. The context is the System of National Accounts (SNA), describing the essential phenomena which constitute economic life: production, income, consumption, accumulation and wealth. The scope may be further illustrated by the following sentence:

"Who does what by what means for what purpose with whom in exchange for what with what changes in stocks?"

(SNA, Section 2.12

<http://unstats.un.org/unsd/sna1993/toclev8.asp?L1=2&L2=1>)

The System of National Accounts includes "functional classifications" (section 18). These classifications are proposed classifying certain transactions of producers and of three institutional sectors - namely households, general government and non-profit institutions serving households. They are described as "functional" classifications because they identify the "functions" - in the sense of "purposes" or "objectives" - for which these groups of transactors engage in certain transactions. The classifications concerned are:

- Classification of individual consumption by purpose (COICOP)
- Classification of the functions of government (COFOG)
- Classification of the purposes of non-profit institutions serving households (COPNI)
- Classification of outlays of producers by purpose (COPP).

For the COFOG classification, it is stated that (section 18.10):

"For most other outlays it may not be possible to classify transactions and, as an approximation, the units of classification may have to be agencies, offices, bureaux or project units within government departments. All outlays by the selected classification unit will be assigned a single COFOG code. It may happen of course that the smallest units that can be identified still perform two or more government functions; in such cases it will usually be best to make an approximate division of the unit's outlays among the different functions performed rather than to allocate them all to that which is judged the largest."

The COFOG classification will be investigated as a possible frame for cross-national comparisons. The classification appears to be coarse for the task at hand, but working with it might nevertheless provide useful directions for the task.

Account of transaction costs in Finland

Transactions costs have been presented for Finland in (Viitanen, 2003). This presentation is

compared with the model to illustrate the use of the model.

5. Discussion

A discussion on availability of data and the validity of the outcome of comparison completes the note.

Acknowledgements

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