

La valeur du marché constitue-t-elle une mesure équitable et objective pour déterminer l'indemnisation versée dans le cadre d'une acquisition forcée de terre?

La valeur du marché revêt une importance primordiale en tant que base du calcul de l'indemnité versée aux propriétaires fonciers qui sont forcés de céder leurs terres en vue d'un usage public. Cela est particulièrement le cas en Suède où la valeur du marché est déterminée selon la loi relative à l'expropriation. C'est dans ce contexte que cet article examine les questions ci-après. Le propriétaire foncier moyen est-il satisfait de la valeur du marché en tant que base du calcul de l'indemnité? La valeur du marché est-elle équitable lorsqu'elle tient compte des possibilités qu'a le propriétaire foncier d'acquérir une propriété équivalente? La valeur du marché constitue-t-elle une mesure objective de calcul de l'indemnité? Comment les législateurs et les tribunaux devraient-ils prendre en compte l'incertitude de l'estimation?

¿Es el valor de mercado una medida justa y objetiva para determinar la indemnización por la adquisición de tierras por expropiación?

El valor de mercado tiene una importancia central como base para determinar la indemnización que se paga a los propietarios de tierras que son obligados a ceder tierra para uso público. Esto es particularmente cierto en el caso de Suecia, donde el valor de mercado se determina con arreglo a la Ley de Expropiación. Teniendo presente este contexto, en el artículo se examinan las cuestiones que se enumeran a continuación. ¿Para el propietario de tierras medio, es el valor de mercado satisfactorio como medida para determinar la indemnización? ¿Es justo el valor de mercado tomando en consideración las posibilidades del propietario de adquirir una propiedad equivalente? ¿Es el valor de mercado una medida objetiva para determinar la indemnización? ¿Cómo deberían los legisladores y los tribunales enfrentarse a la incertidumbre de la valoración?

Is the market value a fair and objective measure for determining compensation for compulsory acquisition of land?

L. Norell

Leif Norell is an expert on law and economics at the National Land Survey of Sweden

The market value is of central importance as the basis for determining the compensation paid to landowners who are forced to hand over land for public use. This is particularly the case in Sweden, where the market value is determined according to the Expropriation Act. It is against this background that this article discusses the following questions. Is the average type of property owner satisfied with the market value as the measure for determining compensation? Is the market value fair when taking into consideration the landowner's possibilities to acquire an equivalent property? Is the market value an objective measure for determining compensation? How should uncertainty of valuation be handled by legislators and the courts?

INTRODUCTION

The market value plays an important role in determining the compensation paid to landowners who are forced to vacate their properties as a result of expropriation or similar compulsory measures. This can be seen, among other things, from a number of judgments handed down by the European Court of Human Rights (Åhman, 2000; Allen, 2006). In the United States of America, the general standard is to accept a "fair market value" as the basis for determining just compensation (Miceli and Segerson, 2007).

In Swedish compensation legislation, the market value is clearly identified in the text of the Expropriation Act of 1972 (the Act), Chapter 4, Section 1 as the criterion for setting the level of compensation. According to the Act's main rule, the compensation paid for a whole property unit shall be equivalent to the property's market value. When part of a property unit is expropriated, or in the case of similar encroachment,¹

compensation shall reflect the decrease in the property's market value. In addition, the property owner shall be compensated for other economic damages, such as loss of income or increased costs that may affect activities carried out on the property as a result of the expropriation. In the other Nordic countries (Denmark, Finland, Iceland and Norway), the market value principles are not validated in the legislation as clearly as in Sweden. In these countries, compensation for property shall be equivalent to the highest market and yield value (Norell, 2001).² Nonetheless, here too the market value is the principle value and for properties that are not of a type that give yields (such as private houses), the market value is the only value on which compensation is based.

One of the basic reasons for adopting the market value as the main criterion for determining compensation is that the person to whom compensatory damages

¹ In Sweden, in addition to the Expropriation Act, there are a number of special laws that make it possible to acquire land compulsorily for public use, e.g. for building public roads, railways and utilities. In these laws, reference is made to the Expropriation Act concerning the rules to be followed for determining compensation (see Sjödin *et al.*, 2007).

² Prior to 1972, there were also similar rules in Sweden. In application of the Swedish Expropriation Act, the difference between the yield value and the market value should be considered to fall in the category "other damages" for which additional compensation is awarded over and above the property's market value or decrease in that value.

are paid shall be able to procure a new – in principle, exactly equivalent – property as that which has been expropriated. The intention is that the affected person's economic situation will be unchanged in comparison with the situation prior to the expropriation. In many countries, this is a constitutional principle. For example, in accordance with the Danish, Finnish and Norwegian constitutions, *full compensation* shall be paid from property that is lost as a result of expropriation and similar measures. However, in the Swedish constitution, it is stated that *compensation*, not full compensation, shall be paid for losses. Furthermore, it is stated that the compensation shall be determined in accordance with the criteria given in the law, i.e. primarily the Act. However, the market value principle is negated by a number of special provisions in the Act. Whether or not these provisions lead to the intentions of the constitution regarding compensations for losses not being complied with is a frequent subject of discussion in the literature (Bengtsson, 1996; Hager, 1998).

A further aspect of the market value is that it is considered an *objective* value that should be possible to determine more exactly than a yield value. This argument was given considerable weight when the pure market value principle was adopted in Swedish expropriation legislation in 1972. However, it should be pointed out that the market value is a *probable* price that can only be estimated and not exactly determined. A court of law must take this built-in uncertainty of the market value into account when determining compensation. This means, in effect, that the court must judge which of the parties is most affected by the uncertainty.

Against the background of the above, brief presentation of the problem, there is reason for a closer study of the market value concept and its function as a fair and just measure for determining compensation for expropriation of land. Such a study can, of course, be done from different angles but I have chosen to focus on the following four main issues that, although

they are to a certain extent typical for Swedish circumstances, may also be of general interest:

1. Is the average property owner satisfied with the market value as the measure for determining compensation?
2. Is the market value fair when taking into consideration the landowner's possibilities to acquire an equivalent property?
3. Is the market value an objective measure for determining compensation?
4. How should uncertainty of valuation be handled by legislators and the courts?

QUESTION 1. IS THE AVERAGE PROPERTY OWNER SATISFIED WITH THE MARKET VALUE AS THE MEASURE FOR DETERMINING COMPENSATION?

The issue here is whether the average property owner is satisfied with payment of an amount equivalent to the market value as compensation for being forced to hand over his/her property. If not, which type of compensation can be considered to be fair from a property owner's perspective? A third question in this context is whether it would be possible to create another "reasonably objective" legal provision that satisfies property owners' demands irrespective.

We can begin a discussion of these issues with the following statement by the philosopher Nozick (1986, 89): "Full compensation is an amount that is adequate, although only just adequate, to make the concerned party say that he feels happy, not unhappy, about what happened."

To satisfy this compensation criterion, the property owner must feel slightly more satisfied after he/she has *voluntarily* sold the land to the person who plans to use it for, for example, building a motorway or other purpose. In other words, the landowner should feel that he/she has made a small profit. It is obvious, according to Nozick's criterion, that it need only be a matter of an individual and subjective amount.

The Swedish debate, initiated by Werin (1978) at the end of the 1970s, has focused

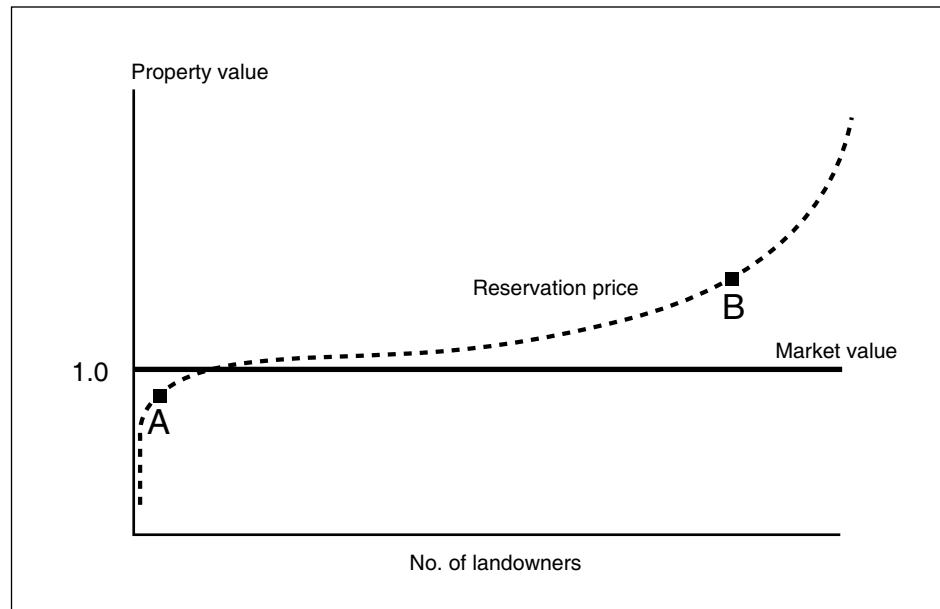


FIGURE 1
Relationship between reservation price and market value

on the reservation price. The reservation price has been discussed in other countries as well (see Munch, 1976; Fischel, 1995; Miceli and Segerson, 2007; Garrett and Rothstein, 2007). The reservation price is defined as the lowest price at which a property owner would agree to sell a property in connection with a voluntary sale, without the threat of expropriation. Werin (1978) mainly cites individualistic fairness aspects as grounds for basing compensation on the reservation price rather than on the market value. There does not appear to be any real difference between Nozick's and Werin's principles for full compensation as, finally, it is the property owner who decides when the compensation can be considered adequate.

Werin (1978) is, of course, aware of the major practical difficulties that could arise if the reservation price demanded by the owner were to be paid. As a conceivable solution to this problem, he proposes that compensation could be determined as the market value plus a percentage increase.³ Other Swedish authors (e.g. Skogh, 1984; Kalbro, 1998 and 2004) have expressed similar ideas.

A general percentage increase of the market value would result in more landowners than previously being satisfied,

but if the increase is not large enough, a number of dissatisfied landowners will remain. Figure 1 illustrates the general relationship between reservation price (dotted line) and market value (black line) (Kalbro, 2004). This shows that the reservation price is lower than the market value for some landowners (e.g. Owner A in Figure 1). This is, of course, a basic pre-condition for the creation of a supply side on the property market. However, for most landowners, the reservation price is higher than the market price. As an example, for Owner B in Figure 1, the reservation price is about 50 percent higher than the market value.

The reservation price is thus very much a subjective measure of value.⁴ According to Lindeborg (1986), the reservation price varies between 1 and 22 times the market value (the average is 2.35 times the market value). In addition to it being a matter for different property owners, depending upon, among other things, the degree of sentimental attachment and similar personal values, there are several factors that indicate that the reservation price set by an owner will vary depending on the reason for the expropriation. Some property owners may accept a lower payment if the expropriation is being made to satisfy

³ Werin makes no suggestions regarding the size of the increase, but the increase is intended to cover the average difference between reservation price and market value.

⁴ The terms "subjective value" or "value to the owner" are sometimes used as synonyms for reservation price (Knetsch and Borcherding, 1979; Allen, 2006; Miceli and Segerson, 2007).

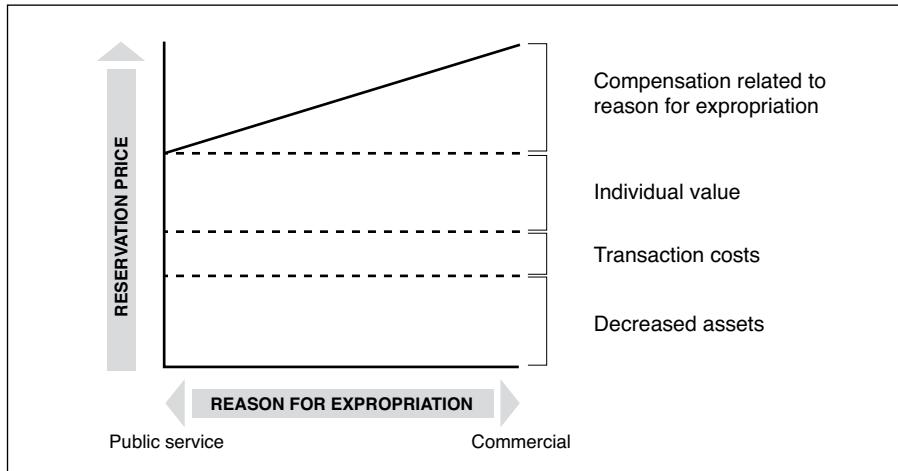


FIGURE 2
Components of reservation price

important public requirements (e.g. building a hospital) as opposed to an expropriation that has significant commercial elements (e.g. structures for mobile telephone networks). Based on an analysis carried out by Kalbro (1998) the reservation price can, in individual cases, be broken down into four components (Figure 2):

1. Decreased property value: In principle, this basic amount comprises compensation for damages for which compensation is paid according to Swedish legislation, e.g. market value and other monetary damages.
2. Transaction costs: The property owner may suffer damages for which no compensation is paid according to current Swedish legislation. Transaction costs can include costs and the time required for contacting the purchaser of the land or costs and loss of income in connection with appearance in courts and similar.⁵
3. Individual value: This item comprises the landowner's estimation of the size of the loss – in addition to those incurred under 1 and 2 above – independently of the reason for the expropriation and of who the purchaser is. This item includes sentimental value as well as other individual-related values such as compensation for violation of ownership rights, social value

(Allen, 2006), mental suffering and so-called frustration damage (where the landowner cannot benefit from investments that he/she has made in the property [Radetzski, 2004]).

4. Compensation that is related to the reason for the expropriation of the land: This item comprises compensation over and above the property owner's estimate of the consequences of the actual loss of land. As stated above, the reason for the expropriation can be of significance for determining the size of the reservation price. There can be a difference between surrendering of land for building a hospital or a motorway – the landowner may consider that the general public will benefit more from a hospital than a motorway. As the reservation price is set by individual landowners based on their own criteria and on how much compensation they would be willing to accept for surrendering the land, it is naturally impossible for an uninitiated person to determine the size of the compensation. A landowner may give different weight to the public interest for utilizing the land, who the purchaser is, reactions expressed through the local media, etc. This attitude is perhaps understandable as property owners, or at least some of them, have a loyal attitude towards society and do not represent "Economic Man" (see Votinius, 2004). A share of the profits can also be included if it can be anticipated that

⁵ Some transaction costs (e.g. moving to new accommodation) are normally covered by the compensation for expropriation. For simplicity, I have included only those transaction costs for which no compensation is received.

the property owner will request a share of the purchaser's profits.⁶

It may happen that the reservation price is very high, which can have unacceptable consequences if there are no rules that permit compulsory acquisition of land for important public purposes. A single property owner could prevent the construction of an important trunk road or housing development.

How then should a legal provision that takes into account the aspects discussed above be formulated? One solution could be to add *different general increases* to the market value, with the size of the increase varying depending on the purpose of the expropriation and where consideration is given to the commercial elements. Another solution could be to apply a *fairness rule*.⁷ Application of this type of rule would make it possible to give consideration to both the "basic level" (the market value plus transaction costs in Figure 2) in addition to the purpose-related part of the reservation price.

In this paper, I will not discuss possible suitable solutions but will, instead – as an answer to the question in the heading to this section – state only that the average property owner has little reason to be satisfied with compensation based only on the market value, and to an even less extent (to again refer to Nozick) is it likely that the property owner would be more satisfied *after* than *before* the expropriation if compensation were equivalent to the market value.

⁶ In Sweden, there seems to be a degree of consensus that landowners should share part of purchasers' profits (Bonde, 2003). Personally, I do not think that landowners normally think in these terms provided they have not been influenced by the discussions on the subject. On the other hand, they can feel wrongly done by because of expropriation, particularly if it is done to satisfy commercial interests, which is a situation that can justify a higher level of compensation.

⁷ The so-called profit sharing rule in the Swedish Real Property Formation Act and the Joint Facilities Act are examples of a fairness rule in the compensation context. In accordance with these acts, *fair* consideration shall be given to the special value the land has for the new property. In cases where land cannot be taken over in accordance with other legislation, profit sharing should be applied so that it is possible to achieve the result that would have been achieved as the result of a normal, voluntary agreement. See also Kalbro and Sjödin (1993).

QUESTION 2. IS THE MARKET VALUE FAIR WHEN TAKING INTO CONSIDERATION THE LANDOWNER'S POSSIBILITY TO ACQUIRE AN EQUIVALENT PROPERTY?

The Swedish Expropriation Act, as well as legislation in the other Nordic countries, is based on the fundamental concept of unchanged assets – the level of compensation should guarantee that the property owner's total assets after an expropriation should be the same size as before the expropriation. Expressed in more pragmatic terms, this principle should imply that the property owner should be able to purchase a similar, equivalent property in the area with the compensation. How well does the market value satisfy this requirement?

Initially, this question can be discussed with reference to the normal distribution curve, which is generally used to illustrate the market value (Mallinson and French, 2000). Let us assume that we have normally distributed data for comparable purchases and that the compensation paid to the property owners, the market value (= the most probable price), is determined to be the amount that lies in the middle of the data (Figure 3). With this starting point it is easy to see that, theoretically, there is a 50-percent chance that the property owner will be able to purchase an *exactly* equivalent property for the price that lies under the compensation level (mean value). Similarly, there is a 50-percent chance or, rather, risk that the property owner will have to pay more than the amount received as compensation – the set market value – when purchasing a new, equivalent property. Thus, theoretically, it is equally probable that the property owner will make a "good" or a "bad" purchase.

Is it acceptable that there is a 50-percent risk that the property owner will suffer a loss when purchasing a replacement property? Does this represent a fair balance between private and public interests?⁸ I will not attempt to define a fair "risk level", but

⁸ Swedish compensation legislation is based on a balance between public and individual interests.

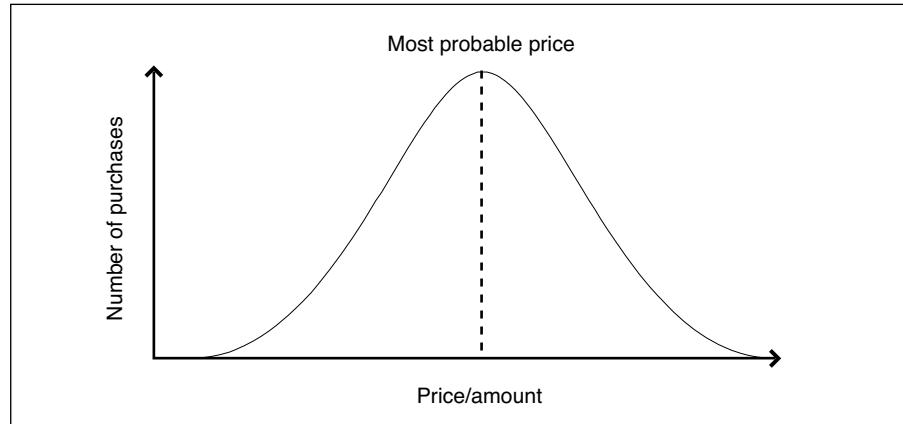


FIGURE 3
Market value set as mean of price data for a number of purchases of equivalent properties in same area

it can in principle be stated that, based on a normal distribution curve, it is possible to compute a percentage increase linked to a given risk level. If, as an example, we assume that the risk for a property owner should be 25 percent – in other words, that the chance that he/she will be able to buy an equivalent property for the compensation is 75 percent – this would perhaps be equivalent to an increase of 20 percent. The percentage increase relative to a given risk level will, naturally, depend on the shape of the curve (“flat” or “high”). In order for a property owner to be 100-percent certain of being able to purchase an equivalent property immediately, the amount of compensation must cover the whole price interval, provided that the price situation is the same at the time of procurement as at the time when the valuation on which the compensation was set.

To this theoretical and in many ways interesting way of looking at the problem can be added the observation that often it may be difficult, in reality, to acquire an *exactly equivalent* replacement property in the same location relative to place of work, day-care centre, etc. Therefore, the property owner may be faced with additional costs that, normally, are not covered by compensation according to current rules. For this reason, and also to cover costs for repairs, a certain increase in the market value may be motivated.⁹

QUESTION 3. IS THE MARKET VALUE AN OBJECTIVE MEASURE FOR DETERMINING COMPENSATION?

This question is, perhaps, particularly interesting from a Swedish point of view. The main reason for including the market value principle in Swedish expropriation legislation in 1972 was because there was a need for an *objective*, unambiguous and simple measure for determining compensation for real property. It was considered that an objective determination of yield values was difficult.

Another basic principle in Swedish and Nordic expropriation legislation is that compensation is only paid in connection with “economic damage”. The term economic damage in this context normally implies damage that can be estimated as a money value in an *objective way* by an independent body, such as a court (Hager, 1998; Radetzki, 2004). The object of this requirement is, clearly, to make the level of compensation predictable and – more simply – not to allow the property owner’s subjective estimate of the damage to be the basis for the determination of compensation for expropriation. For this reason, no compensation is paid for losses such as those of sentimental value or for personal suffering in connection with expropriation.

Referring to the question of objectivity, the currently used *concept of market value* is not wholly unambiguous (Hager, 1998; Norell, 2005). The previously accepted definition in Sweden was “probable sale price on the open market”. Since the 1980s, the definition used has been “*most probable sale price on the open market*”.

⁹ Such costs are included in the reservation price as are the property owners’ estimates of the “risk level”. The costs should normally be included under “transaction costs” where they have been defined as transaction costs (see Figure 2).

Internationally (this has naturally also influenced valuation in Sweden during the last few years), the definition adopted by, among others, the International Valuation Standards Committee is: "Market value is the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion." Another more detailed definition is the following variant adopted in the United States of America by the Federal National Mortgage Association: "The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby: (1) buyer and seller are typically motivated; (2) both parties are well informed or well advised, and each acting in what he or she considers his or her own best interest; (3) a reasonable time is allowed for exposure in the open market; (4) payment is made in terms of cash in US dollars or in terms of financial arrangements comparable thereto; and (5) the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."

These international definitions include a requirement for "willing[ness]", "knowledge[ably]", "prudence", "without compulsion" and more. In an interesting analysis of the market value concept, Lind (1998) states that it is not necessary to place demands for willingness, knowledge and prudence on the purchaser and seller. According to Lind – and here I agree – such requirements do not make the definition more explicit than "the most probable price" as it is difficult

to ascertain whether the requirements are satisfied, as a result of which their relevance can be questioned.

When discussing whether or not market value is an objective measure, it is important to emphasize that the market value for a given property can only be *assessed* or estimated and not calculated (Lundström, 1991). This can be seen clearly from the first international definition ("estimated amount"). The market value is thus a *fictitious value*, an abstraction, that is linked to a hypothetical sale of a property at a given point in time. The value is not based on facts – for example, a real sale of the property – but, instead, on an *interpretation* made by a valuer or court of what might happen *if* the property were to be sold at a given point in time.¹⁰

As indicated above, the market value concept is often explained using a normal distribution curve (Figure 3). The curve illustrates the *assumed* distribution of prices should the *actual property*, purely theoretically, be sold on the open market an infinite number of times at one and the same point in time.¹¹ From this hypothetical curve, it is easy to understand that the price for a *real* sale of the property, at approximately the same time as the valuation, does not in any way need to agree with the *assessed* most probable price. As the market value is an abstraction and, in the expropriation context, the result of a court's judgment, it is consequently not possible to verify whether or not it is correct. Therefore, one can question whether it is relevant to speak of

¹⁰ With an incisive wording, a yield value can be said to be a more objective measure of the value of a property as such a value is normally *calculated* using a mathematical formula. However, yield valuation entails several assumptions of a more or less subjective type such as selection of interest rate and period for the calculation. The aim of this article is not to decide which value is "best" or "most objective" but rather to emphasize and give recognition to the basic role of interpretation in connection with property valuation (and the law).

¹¹ The curve can also describe the compilation of the prices that have been paid for equivalent properties in the area. However, in reality, it is very seldom possible to construct such an ideal curve based on prices for equivalent properties.

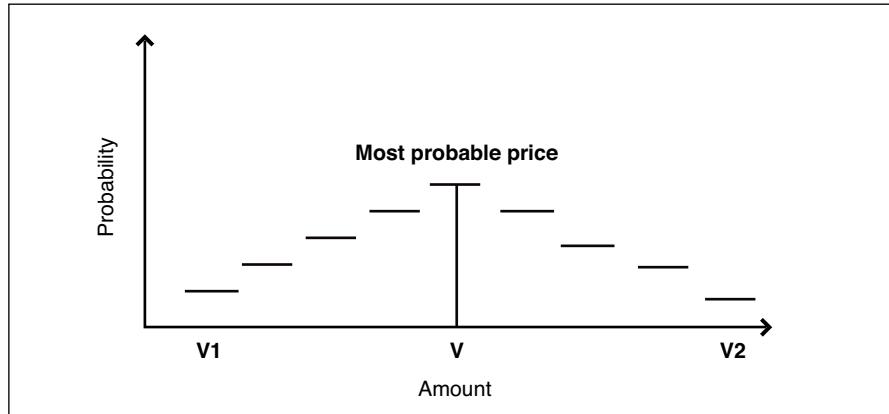


FIGURE 4
Market value (V) estimated using data from valuation made by a number of experts (V1–V2)

objectivity – although the legal process itself is, naturally, both objective and unbiased.

Because the market value is only an estimate and not a direct measurement, a radical definition could be: the *result* of estimates made by a number of experts. Mallinson and French (2000) have illustrated the concept of market value using the results of a number of unbiased valuations made by valuation experts as reference data. As all of the valuations have a degree of uncertainty, the individual valuations are shown as an interval (a line in Figure 4). In Figure 4, the market value (V), the most probable price, lies in the centre of the interval (V1–V2). Therefore, the individual valuations have been given a higher level of probability the closer they are to the midpoint (V). In Figure 4, it is assumed that the market value V has been estimated based on data from nine separate valuations in the interval V1–V2.

To sum up, it is possible, with a theoretical and philosophical approach, to advance arguments supporting the statement that the market value is not – and cannot be – an objective measure for determining compensation. In the first place, we have seen that the definition is not wholly unambiguous and lacks clarity. Second, the market value can only be estimated as it is an abstract value and one where personal judgements and not paragraphs in an act or a valuation handbook form the basis for the valuation.

Nonetheless, the practical consequences of these conclusions should not be exaggerated. The market value is, perhaps, after all, the least subjective measure

of a property's value. However, in the compensation context, if the focus, as in Sweden, is only on compensation for economic damage (where the definition of such damage is damage that should be possible to be determined with an objective measure), possibilities could be found for a further application of the concept of financial damage (Hager, 1998). This is because, in my opinion, the demand for objectivity is not unambiguous.

QUESTION 4. HOW SHOULD UNCERTAINTY OF VALUATION BE HANDLED BY LEGISLATORS AND THE COURTS?

As stated above, all property valuation, by definition, suffers from varying degrees of *uncertainty* (Mallinson and French, 2000; Crosby, 2000; Crosby, Lavers and Murdoch, 1998, 2002; French and Gabrielle, 2004; Mallinson, 1994). We have seen that it is not possible to verify the correctness of the market value as it is a fictitious value that can only be estimated. In the case of valuation in connection with expropriation, it is the responsibility of the court to determine an *exact* figure for the market value unlike, for example, a sales situation where the value can be given as an interval (Hager, 1998). An interesting question is, therefore, how the uncertainty in a valuation should be handled by legislators and the courts.

We can begin by looking at the way the *courts* handle uncertainty in valuations. The Swedish Expropriation Act is based on the principle that a person who suffers damage must be able to prove and provide evidence of the extent of the damage. The burden

of proof is shared by the parties. In other words, the uncertainty of the valuation is also equally shared by the parties.

Prior to the 1972 Expropriation Act, the principle that applied was that, if the amounts were equally probable, the court should reject the higher amount. Considering the general uncertainty in property valuation, this principle would seem to be fairer than today's sharing of the burden of proof. Thus, there is a need for clarification by making changes in the *procedural* rules. However, in practice, it is not unlikely that, even today, the courts in a number of cases do take decisions in favour of the property owner if two amounts are equally probable, i.e. the expropriator largely has to bear the consequences of the uncertainty of the valuation.

As far as the formulation of the *legislation* regarding *material* rules is concerned, that is, the aim of the valuation, uncertainty in valuation should be a reason for including a higher level of compensation in the law. This would be an additional reason for determining the level of compensation as the market value plus a percentage *increase*. Another solution would be to include a rule on *fair payment* in the legislation. This would give the courts greater freedom to determine compensation with the aim of preventing the property owner from unnecessarily being, or facing the risk of being, unfavourably affected by uncertainty in the valuation.

However, it is worth pointing out that a possible additional paragraph in the law concerning a percentage increase of the market value will not lead to a more reliable determination of the market value. On the other hand, a possible result could be that the courts would not consider that they needed to be so precise in their estimation of values, i.e. that the "margin" that such an increase represents would permit a somewhat freer estimate of compensation than is possible at present.

To sum up, the viability of the Swedish model, with its strong links to market value and a shared burden of proof, can be questioned also regarding the general

uncertainty of property valuation. If the courts do not make a relatively generous application of the current law, there may be a need for changes to it.

When *part of a property* is expropriated, or in cases of similar acquisition, it is even more obvious that the market value is an uncertain measure; it is not unlikely that it will lead to application problems. Compensation for expropriation should, theoretically, be determined as the difference between *two fictitious* values, the property's market value before expropriation and the value after expropriation. In many expropriation situations, such as the construction of roads and power transmission lines, the compensation is, in practice, often determined based on yield calculations adapted to the market value. Estimating the impact of a calculated decrease in the yield value on the market value is associated with a high level of uncertainty (Norell, 2001; Lantmäteriverket, 1999).

SOME CONCLUDING THOUGHTS

The aim of this article has been to make a critical analysis of the concept of market value, or, more precisely, to study whether this value can be considered to be a fair and objective measure for determining the level of compensation for expropriation of land. The answers to the four questions posed above can be summarized thus:

1. The market value is normally too low for a property owner to feel fully compensated when his/her property is expropriated. The property owner's reservation price, which can vary from person to person and from one situation to another, will, in most cases, probably be higher than the market value.
2. The market value cannot be seen as a guarantee that it will be possible to purchase an equivalent property as replacement for an expropriated unit. Theoretically, there is only a 50-percent probability that compensation based on the market value will be adequate for purchasing a new property if the

value is based on the statistical mean of prices for identical properties.

3. The market value concept is not unambiguous. There are several definitions. The market value can be estimated only and not calculated, which means that it cannot be considered to be more objective than any other value such as, for example, the yield value.
4. Uncertainty in a valuation can warrant determination of the compensation with a “safety” margin. This can be done, for example, by an increase of the market value that is regulated through the relevant legislation. An alternative could be that the courts do not demand the same level of proof as for normal damages.

Together, the four answers indicate that the market value, in almost all cases and seen from the property owner’s point of view, does *not* represent adequate and fair compensation for land that is compulsorily taken over.

Particularly from a Swedish perspective, where the market value has a central function in expropriation legislation, there may be reasons to reduce the strong linkage to the market value either through changes to the legislation or a more generous application of current laws. A change in the legislation could, for example, be made by including a paragraph stating that compensation shall be equivalent to the market value plus an additional amount, which can either be precisely defined or based on fairness. The addition could also be linked to the reason for the expropriation, such that a higher level of compensation should be paid in cases where the expropriation is for purposes with commercial components.

These critical objections to the market value as a benchmark are biased in the sense that they represent the property owner’s perspective. On the other hand, it must be remembered that the purpose of the rules that regulate the level of compensation is that their application should result in a fair balance between

public and private interests. In Sweden, for example, before the construction of the national railway network began in earnest in the mid-1800s, the addition, according to the expropriation law then in force, was 50 percent of the value of the property. In 1866, the compensation rules were changed and payment of this addition was stopped as it was deemed that the cost to the state of expropriating land was too high.

In this article, I have not attempted to discuss what could currently be considered a fair balance between private and public interests. This is basically a political issue. Nonetheless, in Sweden, it can be stated that the possibility to acquire land compulsorily for different purposes has, over the years, successively increased, as there is special legislation that makes it possible to expropriate land for, for example, public roads, railways and power transmission lines. Furthermore, the element of commercial interest has increased in recent years as a consequence of privatization of activities that were formerly the state’s responsibility. This could be taken as an argument for introducing a different compensation system (Bonde, 2003; Epstein, 1985).

Finally, it is important to emphasize that, in Sweden, in most cases, it is possible to resolve compensation issues on a voluntary basis through *agreements*. With regard to acquisition of land based on implementation of current legislation – for public roads, railways and power transmission lines – agreement is reached in about 95 percent of all cases. For the remaining 5 percent, the level of compensation is determined in court or by another government authority. The level of compensation as a result of voluntary agreements is generally somewhat higher than the level indicated in the legislation, i.e. the market value. In a few cases, the compensation is probably significantly higher than the market value in order to avoid legal proceedings that would be expensive and, above all, time-consuming and lead to delays in the process of acquisition of the land. Time is money even in this context.

Against the background of the situation as it is today, the problems that I have discussed here should not be overstated. When voluntary agreements are reached, the full reservation price is, perhaps, not paid as the valuation methods that are used are often based on the rules in the Expropriation Act. However, on the whole, it can be stated that the voluntarily agreed level of compensation in Sweden lies above that required by legislation.

ACKNOWLEDGEMENTS

I would like to thank Professor Thomas Kalbro for many valuable discussions and comments. I would also like to express my thanks to Ian Brook for his valuable assistance with the translation.

REFERENCES

Ahman, K. 2000. *Egendomsskyddet. Åganderätten enligt artikel 1 första tilläggsprotokollet till den europeiska konventionen om de mänskliga fri- och rättigheterna* (The protection of ownership – the right of property according to Article 1 of the First Protocol to the European Convention on Human Rights). Uppsala, Sweden, Iustus Förlag.

Allen, T. 2006. *Compensation for property under the European Convention on Human Rights*. University of Durham, UK, The Berkeley Electronic Press.

Bengtsson, B. 1996. *Grundlagen och fastighetsrätten* (The Constitution and the Land Law). Stockholm, Nerenius & Santerus Förlag.

Bonde, F. 2003. Expropriation med kommersiella förtecken – några ersättningsfrågor (Expropriation for commercial interest – some compensation issues). *Svensk Juristtidning*, 88(9): 970–980.

Crosby, N. 2000. Valuation accuracy, variation and bias in the context of standards and expectations. *Journal of Property Investment and Finance*, 18(2): 130–161.

Crosby, N., Lavers, A. & Murdoch, J. 1998. Property valuation variation and the margin of error in the UK. *Journal of Property Research*, 15(4): 305–330.

Crosby, N., Lavers, A. & Murdoch, J. 2002. Expert valuation witnesses in the UK – problems and solutions. *Journal of Property Investment and Finance*, 20(4): 316–353.

Epstein, R.A. 1985. *Takings: private property and the power of eminent domain*. Cambridge, USA, Harvard University Press.

Garrett, T.A. & Rothstein, P. 2007. The taking of prosperity. *Kelo vs New London* and the economics of Eminent Domain. *The Regional Economist*, 5–9 January.

Fischel, W. 1995. The offer/ask disparity and just compensation for takings: a constitutional choice approach. *International Review of Law and Economics*, 15(2): 187–203.

French, N. & Gabrielli, L. 2004. The uncertainty of valuation. *Journal of Property Investment and Finance*, 22(6): 484–500.

Hager, R. 1998. *Värderingsrätt. Särskilt om ersättning och värdering vid expropriation* (Law and economics – especially about compensation and valuation for expropriation). Stockholm, Stockholm University Law Faculty.

Kalbro, T. 1998. *Ersättning vid expropriation. Några principiella utgångspunkter* (Compensation for expropriation – some fundamental points). Stockholm, Federation of Swedish Farmers (LRF).

Kalbro, T. 2004. *Legitimitetsfrågor vid tvångsförvärv av mark och rättigheter* (Legitimacy for compulsory acquisition of land). Appendix 5 to SOU 2004:7, Ledningsrätt. Stockholm, Fritzes Förlag.

Kalbro, T. & Sjödin, E. 1993. *Ersättning vid fastighetsreglering* (Compensation for reallocation). Stockholm, Juristförlaget.

Knetsch, J. & Borcherling, T. 1979. Expropriation of private property and the basis for compensation. *University of Toronto Law Journal*, 29: 237–252.

Lantmäteriverket. 1999. *Värdering av tomtanläggningar vid intrång. Handledning med kostnadsuppgifter* (Valuation by expropriation of a part of a building site). LMV-rapport 1999:7. Gävle, Sweden.

Lind, H. 1998. The definition of market value. Criteria for judging proposed definitions and an analysis of three controversial components. *Journal of Property Valuation and Investment*, 16(2): 159–174.

Lindeborg, T. 1986. *Icke-monetära nyttors betydelse för värdet av skogsfastigheter. Ett bidrag till förståelsen av prisbildningsprocessen för skog och skogsmark* (The impact of non-monetary factors on the values of forest properties). Stockholm, Section of Building

and Real Estate Economics, Royal Institute of Technology.

Lundström, S. 1991. *Avkastningsvärdering av hyresfastigheter*. Värde- och värderingsteori (Real estate investment valuation). Fastighetsvärdering. Uppsatser 1991: Samfundet för fastighetsvärdering, Stockholm.

Mallinson, M. 1994. *Commercial property valuations*. Report of the RICS President's Committee. London, Royal Institution of Chartered Surveyors.

Mallinson, M. & French, N. 2000. Uncertainty in property valuation. The nature and relevance of uncertainty and how it might be measured and reported. *Journal of Property Investment and Finance*, 18(1): 13–32.

Miceli, T. & Segerson, K. 2007. *Private property, public use, and just compensation: The Economist of Eminent Domain*. Working Paper 2007-12. USA, University of Connecticut.

Munch, P. 1976. An economic analysis of eminent domain. *Journal of Political Economy*, 84(3): 473–497.

Norell, L. 2001. *Ersättning för vägintrång på jordbruksfastigheter. Principer för en rättsenlig värderingsmetodik – speciellt med sikte på markåtkomst för vägar och järnvägar* (Compensation for encroachment on agricultural properties – principles of a fair valuation methodology, especially with a view to acquisition of land for roads and railways). Meddelande 4:89. Stockholm, Department of Building and Real Estate Economics, Royal Institute of Technology.

Norell, L. 2005. *Värderingsrätt ur ett postmodernistiskt perspektiv. Mångfald, osäkerhet och förändringar – eller myten om objektiv ersättning* (Law and economics from a postmodern perspective). Meddelande 4:95. Stockholm, Department of Building and Real Estate Economics, Royal Institute of Technology.

Nozick, R. 1986. *Anarki, stat och utopi* (Anarchy, state and Utopia). Stockholm, Ratio.

Radetzski, M. 2004. *Skadeståndsberäkning vid sakskada* (Determining of damages). Stockholm, Svenska Försäkringsföreningen.

Sjödin, E., Ekbäck, P., Kalbro, T. & Norell, L. 2007. *Markåtkomst och ersättning – för bebyggelse och infrastruktur* (Compulsory purchase and compensation – for buildings and infrastructure). Stockholm, Norstedts Juridik.

Skogh, G. 1984. Äganderätten och lagstiftningen om markresurserna (The ownership and the legislation of land). *Svensk Juristtidning*, 7: 89–109.

Votinius, S. 2004. *Varandra som vänner och fiender. En idékritisk undersökning om kontraktet och dess grund* (Friends or foes – a philosophical study of the role and importance of human relationships in the sphere of contract law). Stockholm/Stehag, Sweden, Brutus Östlings Bokförlag Symposion.

Werin, L. 1978. Expropriation – en studie i lagstiftningsmotiv och ersättningsrättsliga grundprinciper (Expropriation – principles for compensation). *Svensk Juristtidning*, 6: 81–120.

